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Issues: *MPS Units 4 & 5, Hedging Plan*
Witness: *Charles R. Hyneman*
Sponsoring Party: *MoPSC Staff*
Type of Exhibit: *Surrebuttal Testimony*
Case No.: *ER-2007-0004*
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MISSOURI PUBLIC SERVICE COMMISSION

UTILITY SERVICES DIVISION

SURREBUTTAL TESTIMONY

OF

CHARLES R. HYNEMAN

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

CASE NO. ER-2007-0004

Jefferson City, Missouri
March 2007

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

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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 area.	)))))	Case No. ER-2007-0004

AFFIDAVIT OF CHARLES R. HYNEMAN

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

Charles R. Hyneman, of lawful age, on his oath states: that he has participated in the preparation of the foregoing Surrebuttal Testimony in question and answer form, consisting of 45 pages to be presented in the above case; that the answers in the foregoing 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.

Charles R. Hyneman

Subscribed and sworn to before me this 19th day of March, 2007.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
County of Cole
My Commission Exp. 07/01/2008

Notary Public

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CASE NO. ER-2007-0004

Q. Please state your name and business address.

A. Charles R. Hyneman, 615 East 13th Street, Kansas City, MO 64106.

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

A. I am employed by the Missouri Public Service Commission (Commission) as a Utility Regulatory Auditor.

Q. Are you the same Charles R. Hyneman who filed direct and rebuttal testimony in this case?

A. Yes, I am.

EXECUTIVE SUMMARY

Q. Please provide a summary of your testimony.

A. My testimony will address statements made in the rebuttal testimony of Aquila witness H. Davis Rooney concerning the level of construction and operating costs of the two combustion turbines ("CTs") the Staff included in this rate case and in Case No. ER-2005-0436, Aquila's last rate case ("2005 rate case"). These two CTs are referred to as MPS units 4 and 5 and the Staff included the costs of these units in the 2005 rate case instead of including the costs of Aquila's capacity contracts. This testimony shows that the costs of MPS units 4 and 5 were included in the 2005 rate case at a very conservative cost estimate.

I will also address the issue of Aquila's hedging plan. In response to statements made in Mr. Rooney's rebuttal testimony. I will explain why the Staff considers Aquila's hedging plan to be imprudent. Because of the results of Aquila's hedging plan were caused by imprudent decisions that were made in following the hedging plan, the Staff recommends to the Missouri Public Service Commission ("Commission") that it reject any proposal made by Aquila to include the costs of implementing this plan in rates in this case.

MPS UNITS 4 AND 5

Q. Would you please summarize the combustion turbine construction and operating cost issue?

A. In its direct filing and supplemental direct filing in this pending rate case, the Staff included in its revenue requirement recommendation for Aquila, (as reflected in the Staff Accounting Schedules dated January 18, 2007 for its direct filing and Staff Accounting Schedules dated February 27, 2007 for its Supplemental Direct filing), the costs of five 105 megawatt (MW) natural gas-fired CTs stationed at a MPS generation facility. These CTs are referred to as MPS units 1 through 5, or MPS CTs 1 through 5.

The costs that the Staff included in its revenue requirement recommendation in this case include capital costs by inclusion in rate base and operating costs, such as maintenance expense, pipeline reservation charges and property taxes of the five CTs.

The Staff's position in this case of including the costs of five MPS CTs in its revenue requirement recommendation for Aquila instead of the three South Harper CTs as proposed by Aquila, is a continuation of the position taken by the Staff in Aquila's 2005 rate case.

The rationale and support for the Staff's position is included in my direct testimony in this case as well as in the direct testimony of Staff witness Lena M. Mantle. It is also

included in the surrebuttal testimonies of Staff witnesses Cary G. Featherstone and Lena Mantle. While there is no disagreement between Aquila and Staff concerning the level of costs to include in this case related to MPS Units 1, 2 and 3 (Aquila's South Harper CTs 1, 2 and 3), there is disagreement about the level of costs to include for MPS Units 4 and 5.

Because MPS units 4 and 5 are not actual operating CTs, but generation units that the Staff maintains Aquila should have built to meet its 2005 summer peak demand, these costs are based on reasonable estimates made by the Staff of the actual costs Aquila would have incurred to build and operate these additional two CTs.

This testimony will also address some of the statements made by Aquila witness H. Davis Rooney concerning the cost of MPS units 4 and 5. My testimony in this case will describe how the Staff calculated the level of costs the Staff included in Aquila's 2005 rate case, and the level that the Staff included in this case. My explanation of how the individual plant capital and operating costs that were calculated is intended to show the Commission that the Staff was reasonable, if not conservative, in its approach to developing the cost estimates for MPS units 4 and 5.

Q. Why is Staff referring to MPS units 1, 2 and 3 separately from MPS units 4 and 5?

A. The Staff used Aquila's costs of constructing the three South Harper CTs as the basis for the costs of MPS units 1, 2 and 3 as well as the cost of the MPS site. Because of the uncertainty whether Aquila will be required to dismantle the South Harper facility, the Staff is unable to include the facility in rate base. However, since Aquila needs the capacity supplied by these units to meet MPS' system load requirements, the Staff has used the costs for these units as a proxy and refers to them as MPS Units 1, 2 and 3.

Q. At page 7 of his rebuttal testimony, Mr. Rooney states that the Staff does not accept that the three existing and operating turbines at South Harper should be considered in rate base. Is he correct?

A. Yes. The Staff has not included the costs for these units in rate base in this case and the Commission did not accept that the three CTs located at South Harper should be included in rate base in Aquila's 2005 rate case.

In its February 23, 2006 Order Approving Stipulation and Agreement (Nonunanimous Stipulation) in Aquila's 2005 rate case, the Commission determined that the South Harper Generating Station would not be included in Aquila's rate base in that proceeding. The Commission's Order states at page 4:

> Aquila has built a new generation facility known as the South Harper Generating Station. The legal status of that facility has been called into question and Aquila may be required to dismantle that facility in the near future. The stipulation and agreement establishes an amount that Aquila will be allowed to carry on its books as an expense for the construction of that plant. However, it does not authorize Aquila to recover those costs in this case, and does not place the South Harper Generating Station into the company's rate base.

Q. If the Staff did not include the costs of the three South Harper CTs in rate base in the 2005 rate case, what costs did the Staff include in that case for this capacity?

A. In lieu of including the costs of the three South Harper CTs, the Staff included Aquila's prudent costs to construct, operate and maintain the three South Harper CTs as a proxy for the costs of MPS Units 1, 2 and 3. These costs were used to determine the revenue requirement in that case.

Q. What amount of plant in service did the Staff include for MPS Units 1, 2 and 3 in Aquila's 2005 rate case?

A. In its direct filing in the 2005 rate case, the Staff included a plant value of $138,171,497 for MPS Units 1, 2 and 3. This plant amount was based on the construction costs of the three South Harper CTs. These costs were reflected in the Staff Accounting Schedules dated October 14, 2005. This cost is reflected on Total Plant in Service Schedule 3-2, adjustments P-9 through P-15 to account Nos. 340 through 346 of $112,011,903, and Total Plant in Service Schedule 3-3, adjustment P-28 to account 353 of $26,159,594. These schedules are attached as Schedule 1 to this testimony.

Q. Was there an agreement on the dollar amount of plant for the three South Harper CTs that the Staff refers to as MPS Units 1, 2 and 3?

A. Yes. In the Nonunanimous Stipulation to Aquila's 2005 rate case, the parties agreed on a constructed cost through October 31, 2005 of approximately $140 million for a 315 MW generating facility (MPS Generating Facility, not the South Harper Generating Station).

Q. Did the Staff include a plant amount for MPS units 4 and 5 in the 2005 rate case?

A. Yes. In its direct filing, the Staff included the revenue requirement effect of a plant value of $56.4 million for the two CTs referred to as MPS units 4 and 5. In the Staff's surrebuttal filing, it increased this plant amount to $63.9 million.

Q. What was the revenue requirement impact of including MPS CTs 4 and 5 plant amount of $56.4 million in the Staff's direct filing in Aquila's 2005 rate case?

A. The revenue requirement impact of including this plant amount in rate base was $7.4 million.

Q. Was the revenue requirement increase of $7.4 million based on a cost for MPS CTs 4 and 5 of $56.4 million included in the Staff revenue requirement recommendation to the Commission that it filed on October 14, 2005?

A. Yes. On October 14, 2005, the Staff filed with the Commission a revenue requirement recommendation for Aquila in the amount of ($973,137) at the Staff's midpoint rate of return. The $7.4 million revenue requirement impact of including a plant cost of $56.3 million for MPS units 4 and 5 is included in the Staff's revenue requirement recommendation of ($973,137). This $7.4 million is reflected in account 548, Other Power Generation Expense, adjustment P-23.9 on Accounting Schedule 9-1, Income Statement. Adjustment P-23.9 is described on Accounting Schedule 10-13, Adjustments to Income Statement. The impact of the adjustment is ultimately reflected in Accounting Schedule 1, Revenue Requirement. These accounting schedules are attached as a part of Schedule 1 to this testimony.

Q. Did the Staff add an estimated allowance for known and measurable changes?

A. Yes. The Staff added $35 million to the revenue requirement recommendation of ($973,137) for known and measurable changes that it expected to occur through the October 31, 2005 Staff true-up audit of Aquila to arrive at a total amount of $34 million. This amount is reflected on Accounting Schedule 1, Revenue Requirement.

Q. How did including the plant amount of $56.4 million in Aquila's rate base translate into a revenue requirement of $7.4 million?

A. The $7.4 million revenue requirement for MPS units 4 and 5 included a financial return calculated at the Staff's midpoint rate of return and depreciation expense. The calculation is as follows:

Capacity Cost/Kw	$275
Capacity needed-Kw	205,000
Plant Cost MPS CTs 4 and 5	$56,375,000
Rate of Return	9.86%
Return on Rate Base (A)	$5,555,886
Depreciation Rate (30 years)	3.33%
Depreciation on Plant Cost (B)	$1,879,167
Total Revenue Requirement (A + B)	$7,435,052

The 9.86% rate of return includes a weighted cost of debt rate of 7.28% on 63.84% of Aquila's capital structure and a cost of equity of 9% on 36.16% of the capital structure. These amounts were supported by Staff witness David Murray in his direct testimony in the 2005 rate case and are reflected on Accounting Schedule 1-2 included as a part of Schedule 1 to this testimony. The after-tax rate of return of 7.9% was grossed up for taxes for a pre-tax return of 9.86%. The 3.33% depreciation rate was based on a 30-year service life. The above calculation reflects a cost based on 205,000 kilowatts. This number should have been 210,000 (two 105 MW turbines) and was revised and updated during the course of the case.

Q. Was the Staff's initial $275/kW cost estimate of the combustion turbines a reasonable estimate of the plant costs for MPS units 4 and 5?

A. Yes. As addressed in Mr. Featherstone's surrebuttal testimony in this case, Aquila offered to sell ten installed combustion turbines to Ameren Corporation, in August 2005 for a cost of ** _____ **. The Staff's cost estimate of $275/kW was considered conservative based on this comparison with the value assigned to combustion turbines put up for sale by Aquila in 2005.

Q. Did the Staff's plant cost for MPS Units 4 and 5 grow increasingly more conservative?

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A. Yes. At the time of its direct testimony in the 2005 case the Staff only knew of Aquila's offer to sell the combustion turbines to Ameren Corp. The Staff also realized that its position to substitute built capacity in the form of MPS units 4 and 5 in lieu of Aquila's short-term capacity contracts would be highly contentious. Recognizing this, the Staff made its cost estimate higher than Aquila's offer to sell the CTs to Ameren Corp.

At the time the Staff filed direct testimony in the 2005 rate case, it did not know, however, the final price that Ameren and Aquila agreed to for the turbines. This amount, $208/kW, was substantially less than the Staff's original $275/kW cost estimate for MPS Units 4 and 5. However, while the price that Aquila agreed to sell its CTs to Ameren decreased significantly, the Staff increased significantly its costs estimate for MPS units 4 and 5 in its surrebuttal filing in the 2005 case. The Staff's proposal went from $275/kW to $304/kW, based on a revised plant balance of $63.8 million for MPS units 4 and 5.

Q. In the 2005 rate case, did the Staff include the operating costs of the plant and maintenance that Aquila believes were omitted?

A. In the 2005 rate case the Staff's approach to developing the construction cost of MPS units 4 and 5 was different from how the costs were determined in this current case. In the 2005 rate case the Staff presented the cost of MPS units 4 and 5 similar to a purchased power agreement. It did not have the benefit of the Commission's Order approving the Nonunanimous Stipulation, which excluded the existing South Harper CTs from Aquila's rate base. Based on this distinction, in this rate case, the Staff decided to present all five turbines at the Missouri Turbine Facility as plant in service and specifically identify the specific cost components as operating costs adjustments.

Q. In the last case were the costs of operating MPS units 4 and 5 considered individually?

A. No. Based on the overall conservative nature and approach the Staff took to develop the costs of the plant in the 2005 case, no additional operating cost adjustments were added to the income statement. This approach was not challenged by Aquila either formally through testimony or informally through discussions with the Staff. Aquila made no argument that these costs should be included as an additional cost of the CTs.

Q. Did Aquila and Ameren Corporation complete the transaction in which Ameren purchased CTs from Aquila?

A. Yes. Ameren Corporation purchased a 510 MW facility for $106 million, or $208/kW and a 340 MW facility for $71 million or $209/kW from Aquila. The transaction closed in March 2006. This purchase transaction was described in the 2006 Form 10-K of Central Illinois Public Service Company, a subsidiary of Ameren Corporation, filed with the Securities and Exchange Commission on March 1, 2007.

> Also in March 2006, following the receipt of all required regulatory approvals, UE completed the purchase from subsidiaries of Aquila, Inc., of the 510-megawatt Goose Creek CT facility in Piatt County, Illinois, at a price of $106 million, and the 340-megawatt Raccoon Creek CT facility located in Clay County, Illinois, at a price of $71 million.
>
> These CT facility purchases were designed to help meet UE's increased generating capacity needs as well as to provide UE with additional flexibility in determining the timing of future baseload generating capacity additions. These purchases were accounted for as asset purchases.

Q. Earlier you stated that in the Staff's surrebuttal filing in Aquila's 2005 rate case, the Staff increased the plant amount of MPS units 4 and 5 to $63.8 million. How was this amount calculated?

A. The chart below shows all of the plant components included in the total gross plant amount for MPS Units 3 and 4 included in the Staff's surrebuttal testimony in Aquila's 2005 rate case.

	MPS # 4	MPS # 5	Transmission	Common	Total
Plant	$18,700,000	$18,700,000	$2,100,000	$6,436,658	$45,936,658
AFUDC	$1,308,353	$1,308,353	$111,353		$2,728,059
Construction Costs	$7,600,000	$7,600,000	$0		$15,200,000
Total Plant in Service	$27,608,353	$27,608,353	$2,211,353	$6,436,658	$63,864,717

Q. How did the Staff calculate the above plant components?

A. The $18.7 million estimated cost of the turbines and the $2.1 estimated cost of the transmission upgrades are addressed by Staff witness Featherstone in his surrebuttal testimony in this case.

Added to the estimated cost of the turbines is an allowance for funds used during construction (AFUDC). AFUDC represents the cost of both debt and equity funds used to finance utility plant additions during the construction period. AFUDC is capitalized as a part of the cost of utility plant.

As the basis for its AFUDC estimate, the Staff used a workpaper provided by Aquila that reflects the actual costs of construction of the South Harper CTs. The cost sheet, titled "South Harper Peaking Facility Weekly Cash Flow Updated September 21st" (South Harper Construction Cost workpaper) reflects the construction costs of South Harper Units 1, 2 and 3 through September 21, 2005.

The actual AFUDC costs charged to South Harper Unit #1 was $1.6 million. This amount applied to capitalized direct charges of $23 million, results in an AFUDC rate of approximately 7%. The Staff's $18.7 million cost per turbine multiplied by 7% results in the capitalized AFUDC cost of $1.3 million per turbine.

The same method was used to determine the AFUDC rate for transmission plant. The South Harper Construction Cost workpaper for the Belton South to Peculiar transmission project shows AFUDC loadings of $187,751 based on direct charges of $3.5 million, for an AFUDC rate of 5.3%. Applying this rate to the transmission plant cost of $2.1, results in a capitalized AFUDC cost of $111,353.

The Staff added $7.6 million of construction costs for each turbine. The turbine construction costs are based on Aquila's actual costs to build the three combustion turbines at South Harper. The highest cost Aquila incurred to construct any of the three South Harper CTs was $7.5 million. This was the cost of construction for South Harper Unit 3.

The South Harper Construction Cost workpaper shows total costs to construct common plant at South Harper for three CTs, or 315 MW, to be $19.3 million. The Staff used a ratio of 210 MW/ 315 MW and multiplied this 67% times the $19.3 million to arrive at a value of $12.9 million. The Staff then applied a fifty percentage (50%) downward adjustment factor to this result. The downward adjustment was made to recognize the likelihood that building two additional CTs will increase the need for additional common plant, but the additional common plant needed by adding two CTs will be significantly less than in initial common plant built for the three CTs at the South Harper facility. For an additional description of how this plant cost was calculated, see the Surrebuttal Testimony of Robert E. Schallenberg in Case No. ER-2005-0436 and his workpapers attached as Schedule 2 to this testimony.

Q. What was the revenue requirement impact of the Staff's revised plant amount for MPS Units 4 and 5 in the 2005 rate case?

A. The revenue requirement impact of the Staff's revised plant number for MPS Units 4 and 5 in its surrebuttal filing in Aquila's 2005 rate case was $9.1 million. This amount, which reflects a cost of $304/kW plant cost, is calculated as follows:

Revised Plant Cost for MPS Units 4 and 5	$63,864,717
Depreciation Reserve - 4 months @ $217,736/mo	($870,944)
Net Plant	$62,993,773
Tax Grossed Up Rate of Return	10.40%
Rate Base Return on Plant (A)	$6,548,837
Weighted Average Depreciation Rate	4.09%
Depreciation Expense (B)	$2,577,172
Total Revenue Requirement (A + B)	$9,126,009

The 10.40% rate of return includes a weighted cost of debt rate of 7.45% on 57.57% of Aquila's capital structure and a cost of equity of 9% on 42.43% of the capital structure. The after-tax rate of return of 8.1% was grossed up for taxes for a pre-tax return of 10.40%. The 4.09% depreciation rate was based on the weighted average depreciation rates for plant accounts 340-346.

Q. What amount of plant in service for MPS Units 1 through 5 did the Staff include in this case?

A. In this case, a gross plant cost for the three CTs referred to as MPS Units 1, 2 and 3 as of December 31, 2006 is $142.5 million. This cost is reflected in the Staff Accounting Schedules for Supplemental Direct Testimony dated February 27, 2007. Specifically, Total Plant in Service Schedule 3-2, adjustments P-16 through P-22 to account Nos. 340 through 346 total of $178.1 million includes $116.4 million for MPS CTs 1, 2, and 3 and $61.6 million for MPS CTs 4 and 5. Total Plant in Service Schedule 3-3, account 353

Station Equipment balance of $95.5 million includes $26 million for MPS CTs 1, 2 and 3 and adjustment P-35 to account 353 includes $2.2 million for MPS CTs 4 and 5. These Staff Accounting Schedules are attached as Schedule 3 to this testimony.

Q. What is the impact on the Staff's revenue requirement recommendation for Aquila of including MPS Units 4 and 5 in its case in lieu accepting the costs Aquila incurred to purchase this capacity for 2006?

A. By including MPS Units 4 and 5 in its case, the Staff's revenue requirement recommendation increased by $11.9 million. This amount, reduced by the cost of MPS' capacity contracts, results in a net revenue requirement increase of $4.6 million. This net amount is calculated in the schedule below:

Staff Plant Cost for MPS Units 4 and 5	$63,864,718
Depreciation Reserve – (July 2005-Dec 2006)	($3,756,098)
Net Plant	$60,087,070
Tax Grossed Up Rate of Return (9.62% ROE)	10.98%
Rate Base Return on Plant (A)	$6,596,552
Weighted Average Depreciation Rate	3.71%
Depreciation Expense (B)	$2,367,736
Pipeline Reservation Charges (C)	$2,439,116
Property Taxes (D)	$162,000
Maintenance Expense (E)	$400,000
Gross Increase in Revenue Requirement (A+ B+C+D+E)	$11,965,404
Less Aquila's Purchase Power Capacity Contracts	($7,326,000)
Net increase in Revenue Requirement	$4,639,404

Q. Please explain how the Staff calculated the amounts of maintenance expense, property taxes and pipeline reservation charges related to the inclusion of MPS Units 4 and 5 that are shown in the schedule above.

A. The annualized level of actual maintenance expense at South Harper for three CTs as of September 30, 2006 was $581,362. The Staff divided this amount by the three South Harper CTs to get the approximately $200,000 per unit average. The Staff then added $400,000 ($200,000 X 2 CTs) of additional maintenance expense to account 553 through adjustment S-28.5.

The annualized level of property taxes (Pilot payments) for South Harper was $241,832. This amount was divided by three to get the amount per CT of $81,000. The $81,000 was multiplied by two to arrive at the $162,000 adjustment S-94.8 to account 408.

The same approach was used to annualize the estimated pipeline reservation charges for MPS Units 4 and 5. Aquila's annual pipeline reservation charges for South Harper Units 1, 2 and 3 of $3.6 million was divided by three to get a per unit cost of $1.2 million. This amount multiplied by two, or $2.4 million, was added to account 547 through adjustment S-22.4.

Q. Did Aquila have any operating history of maintenance costs for the South Harper units in the last case?

A. No. Since the units just went into service, there was no operating history to determine an appropriately level of first year maintenance costs. The amount of maintenance costs for South Harper that was included in the last case was not a significant amount because of this lack of data. The units were new and did not require a significant amount of maintenance in the first year.

In this current rare case, the Staff had approximately 18 months of maintenance costs to review for the South Harper units to determine an appropriate annualized level of maintenance expense for these units.

Q. Did Aquila take issue with any of the operating costs of South Harper Units 1, 2 and 3 that were used as the basis for the Staff's proposed operating costs for MPS Units 4 and 5?

A. No, not as of the date of this surrebuttal testimony.

Q. At pages 11 and 12 of his rebuttal testimony, Mr. Rooney attempts to make the point that by not addressing the costs of MPS Units 4 and 5 in the Nonunanimous Stipulation in Aquila's 2005 rate case, that this means that the cost of these units were not included in MPS' $38.5 million rate increase that resulted from this case. What is your understanding of the Nonunanimous Stipulation language reflected on page 12 of Mr. Rooney's rebuttal testimony?

A. It simply means that the parties to the Nonunanimous Stipulation agreed to a dollar amount for MPS CTs 1, 2 and 3 and the commercial operation dates for each unit. It means nothing more.

Q. Was there specific language in the Nonunanimous Stipulation that addressed the costs of MPS Units 4 and 5?

A. No. There was no agreement as to the dollar amount of MPS Units 4 and 5 to include in rates in the 2005 case. There was an issue between Aquila and the Staff on this issue in the 2005 rate case and no agreement on the method or dollar amount of how Aquila was to meet its 2005 capacity needs was reached.

Q. How is this lack of agreement on a contested issue addressed in the Nonunanimous Stipulation in that case?

A. Under the section titled General Provisions, Paragraph 19 of the Nonunanimous Stipulation states that the Nonunanimous Stipulation and Agreement does not

reflect an agreement by any party to the case of any ratemaking principle unless it was expressly specified in the Stipulation.

Q. At any time during the time period of Aquila's 2005 rate case, including settlement discussions, did the Staff indicate in any manner that it was abandoning its position on MPS Units 4 and 5 and removing what it considered was the reasonable and prudent costs of constructing these units from its revenue requirement proposal to the Commission.

A. No.

Q. At page 12 of his rebuttal testimony Mr. Rooney quotes from the Nonunanimous Stipulation in the 2005 rate case and asks the following question: "Why is it important whether rates in the last case included or did not include the other two phantom turbines?" Please comment.

A. By asking this question, Mr. Rooney appears to be implying that the Staff did not include the value of the MPS CTs 4 and 5 in the 2005 case. This is incorrect. As described in detail previously in this testimony, there is overwhelming evidence that the units were included in Aquila's revenue requirement settlement in the 2005 rate case.

Q. At page 14 of his rebuttal testimony Mr. Rooney asks "In the last rate case, did Aquila receive full payment for the costs of owning the five phantom turbines, including the two additional non-existent turbines at the generating facility?" Mr. Rooney's response to this question is that the Nonunanimous Stipulation only mentions three turbines. Do you have a response?

A. Yes. Mr. Rooney's answer to this question implies that because the Nonunanimous Stipulation only includes specific language on the cost of three turbines, then the increase in rates resulting from the Nonunanimous Stipulation and Agreement only

included the costs for three turbines. The rationale underlying Mr. Rooney's implication is illogical.

Examining Mr. Rooney's reasoning more closely, since the Nonunanimous Stipulation did not address all the contested issues between the Company and the Staff in the case, then his argument would lead one to conclude that revenue requirement settlement amount of $38.5 million for MPS did not include any of the costs of the contested issues in the case. He argues that since the issue was not addressed with specific language in a stipulation, he can argue in testimony that no cost was in the case. This argument is clearly wrong.

Q. What does the Staff believe is the basis for Mr. Rooney's confusion?

A. Mr. Rooney does not recognize that the valuation of MPS Units 1, 2 and 3 and the inclusion in rate base and valuation of MPS Units 4 and 5 were two completely different issues in the 2005 rate case. The Nonunanimous Stipulation addressed the issue of the valuation of MPS Units 1, 2 and 3. It did not address the issues of rate base inclusion or valuation of MPS Units 4 and 5, since no agreement could be reached on the appropriate treatment of this issue.

Aquila and Staff agreed to disagree on the MPS units 4 and 5 issue and this issue was not resolved in the 2005 rate case. It should be noted, however, that in every revenue requirement proposal made by the Staff to the Commission in the 2005 rate case included not only the costs of MPS units 1, 2 and 3, but also the costs of MPS units 4 and 5.

Q. At page 14 of his rebuttal testimony, Mr. Rooney states that he could not find any reference in the last case where the Staff included the operating costs of MPS units 4 and 5. Do you have a response?

A. Yes. As described above, in the Staff's direct filing in Aquila's 2005 rate case, the Staff calculated the costs of MPS Units 4 and 5 using a dollar per kW amount as the basis of its cost estimate. Staff revised this calculation, as reflected in the surrebuttal testimony of Mr. Schallenberg. This revision took a different approach in determining the costs MPS Units 4 and 5 by adding an even greater amount to Staff's case.

Staff believed it was conservative with its initial calculation made in its direct testimony but the revised calculation was intended to be even more conservative. While Mr. Rooney is correct that the Staff's testimony did not specifically address a description of additional operating costs, in the final analysis there is no way to tell if the overall revenue increase of $38.5 million authorized by the Commission included such costs.

The overall revenue increase was a result of settlement discussions between the parties of all the contested issues in the case. The costs of MPS Units 4 and 5 certainly was one of the contested issues. The $38.5 million over all revenue increase resulted from negotiated settlement between the signatory parties to that agreement.

Q. Was the $38.5 million revenue increase granted to MPS higher than the last revenue requirement proposal made by the Staff?

A. Yes. The Staff's direct case was filed on October 14, 2005, and Staff filed a revenue requirement recommendation of a negative $973,137 for MPS at its midpoint return on equity recommendation. To this amount the Staff added $35 million for an estimate for known and measurable changes throughout the case. This resulted in an adjusted revenue requirement proposal of $34,026,863. On January 31, 2006, the Nonunanimous Stipulation was filed with the Commission for a revenue increase of $38.5 million. It is impossible to say

whether or not the amount of operating costs for MPS Units 4 and 5 were explicitly considered when the parties agreed to the $38.5 million settlement amount.

Q. Would the lack testimony or specific adjustments for these operating costs for MPS CTs 4 and 5 in the Staff's direct filing in the 2005 rate case indicate that the costs were not included in the Staff's revenue requirement proposal?

A. No. Aquila and Staff had numerous discussions regarding the hundreds of calculations made in the direct filing. These discussions took place after the filing and throughout the pre-hearing conference and continued right up through the settlement discussions and the completion of the case. As changes are agreed to throughout this process, the adjustments are made to the Staff's accounting schedules to reflect the changes. The Staff's direct filing included $35 million of anticipated changes to the revenue requirement recommendation it filed in its direct testimony. Since the last case resulted in a negotiated settlement agreement, it is impossible to determine if any allowance for the MPS Units 4 and 5 operating costs was reflected in this $35 million or in the final agreed to settlement amount of $38.5 million.

Q. Did the Staff make a revenue requirement filing subsequent to its direct filing on October 14, 2005?

A. No, it did not. All changes to the revenue requirement subsequent to the direct filing would have been made to the Staff Accounting Schedules, but they were never filed with the Commission. In Aquila's 2005 rate case, the Staff was performing a true-up audit at the time the settlement was finalized. However, the true-up audit was never completed and it is not possible to determine if the costs Mr. Rooney is referring to in his rebuttal testimony were included in the settlement amount.

Q. Did Aquila file responsive testimony in its 2005 rate case regarding a concern for the lack of operating costs for MPS Units 4 and 5?

A. No. In my review of the Aquila's rebuttal and surrebuttal testimonies in the last case on this issue, no mention of the failure of Staff to include costs for maintenance, property taxes and natural gas reservation payments is made. I can find no reference in any way where Aquila believed Staff had failed to include any of these costs.

Aquila witness Andrew Korte, Vice President Resource Planning Group, did not agree with the costs that Staff included in the last case for Turbine 4 and 5. But his criticism went to the construction costs to build the units, the price of the turbines themselves, and his view of what an appropriate level of common costs that should be included in the over all costs. Mr. Korte made no mention in his testimony in the case of the costs that Mr. Rooney claims were not included in his rebuttal testimony in this case. In fact, Aquila never expressed any concern about the natural gas reservation cost for MPS Units 4 and 5 in any testimony or in any discussion with the Staff at any time during the case.

Q. At page 14 of his rebuttal testimony Mr. Rooney implies that Aquila is being penalized because it did not receive full payment in the 2005 rate case for the costs of MPS Units 4 and 5. Do you have a response?

A. Aquila incurred no such penalty. Mr. Rooney uses as the basis for this statement his belief that since the Nonunanimous Stipulation to the 2005 rate case did not address the cost of MPS Units 4 and 5 these costs were not reflected in Aquila's revenue requirement. As explained earlier in this testimony, this argument is meritless and is refuted with substantial evidence described earlier in this testimony.

As additional support for his "penalty argument" Mr. Rooney argues that since he did not find in the Staff's revenue requirement filing with the Commission in the 2005 rate case a specific reference confirming the Staff's inclusion of additional operating expenses for MPS Units 4 and 5, then these costs were also not reflected in the Staff's revenue requirement recommendation or the $38.5 million overall settlement agreement. I also explained above why this argument cannot be made with any credibility. In fact, because Aquila accepted the $38.5 million revenue increase for MPS, a stronger argument can be made that Aquila was satisfied that it did recover all of its costs.

Q. At page 14 of his rebuttal testimony Mr. Rooney implies that because, in his opinion, the Staff did not include an additional $2.4 million in natural gas reservation costs for MPS Units 4 and 5 in the last case, this omission, at the end of the 30-year life of the CTs, will result in Aquila losing a total of $31 million at a 9% interest rate. Please comment.

A. As I explained in detail above, no argument can be made that the Staff did not include the operating costs of MPS Units 4 and 5 in the $38.5 million revenue increase this Commission granted MPS in the 2005 rate case. Therefore, Mr. Rooney's statement should be rejected as being without merit on this basis alone. It is the Staff's position that, while the specific additional operating costs were not specifically listed in the Staff's testimony in the 2005 case, the settlement agreement in this case was a resolution of the revenue requirement impact of the contested issues in the case to the satisfaction of all the signatory parties to the Stipulation, including Aquila.

Q. If Mr. Rooney was sincere in his argument that Aquila under collected $2.4 million in gas reservation costs, to be consistent, would he have to look at all of the

disputed issues in the case to determine if Aquila over collected or under collected on these issues?

A. Yes. While still a faulty argument, Mr. Rooney would have to include all of the disputed issues in the case in his analysis.

Q. Do you have an example where using Mr. Rooney's logic, Aquila significantly over collected on a particular disputed issue?

A. Yes. I would like to emphasize that the Staff does not support Mr. Rooney's belief that one can go back to a rate case stipulation and pick and choose individual issues that one party may or may not have under collected. The Staff is completely rejects such an argument and is only providing the example below to illustrate the weakness of Mr. Rooney's argument.

Q. Please continue.

A. In Aquila's 2005 rate case, Aquila proposed a natural gas price of $8.02/MMBtu (Data Request No. 495 dated November 30, 2005). In my direct testimony in the 2005 case I recommended an average natural gas price of ** _____ **. According to data request No. 113 in this case, Aquila's actual commodity cost of gas from March 2006 when rates went into effect through December 2006 was ** _____ ** on volumes of ** _____ **. The calculation below shows that depending on if you use the Staff's recommended natural gas price, Aquila's recommended gas price, or an average of the two, since March 2006, Aquila has over-recovered its gas costs anywhere from $2.5 million to $6.8 million. This calculation is shown below:

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** THIS TABLE IS HC IN ITS ENTIRETY

**

The Staff would reiterate its position that it does not believe it to be appropriate to go back to a previous rate case settlement agreement and pick and choose which specific cost was included in the settlement or how much of each cost was included in the settlement.

However, if Mr. Rooney believes that the $2.4 million natural gas reservation payment was not included in the stipulation and this amount compounded at an interest rate of 9% over 30 years results in a $31 million penalty to Aquila, he must look at the flip side of the coin. Would Mr. Rooney argue that using a midpoint price of natural gas between the Staff and Aquila of ** _____ **, which would be a reasonable assumption to make in a stipulation, Aquila's ratepayers overpaid $4.7 million in gas costs in the first ten month rates from the 2005 case were in effect and this $4.7 million grows over 30 years at 9 percent to be a $62 million penalty to Aquila's ratepayers? Consistency requires that he should.

AQUILA'S HEDGING PLAN

Q. Please summarize the Staff's issue with Aquila's hedging plan.

A. Aquila believes that its hedging plan is prudent and that its revenue requirement should be increased by ** ___ ** million by including this amount of hedging losses in rates in this case. The Staff believes that Aquila's hedging plan is imprudent. As a

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result, the Staff is recommending no rate recovery of the results of Aquila's hedging plan in this case.

Q. When did Aquila implement its current natural gas hedging plan for Missouri electric operations?

A. While Aquila did engage in hedging transactions prior to 2005, it was in January 2005 that Aquila implemented its "post-2004 Hedging Strategy." This post-2004 Hedging Strategy is described in an internal Aquila memo dated February 25, 2005. This memo is attached as Schedule 4 to this testimony.

Q. Did Aquila ever seek rate recovery of the results of its hedging plan in its 2005 rate case?

A. No.

Q. Did the Staff ever propose rate recovery of the results of Aquila's hedging plan in Aquila's 2005 rate case?

A. No. The Staff had problems with Aquila's hedging plan even at that time and expressed its concerns in its direct testimony in the 2005 rate case.

Q. Did the Staff and Aquila reach an agreement in the Stipulation in the 2005 rate case that Aquila should be allowed to record the results of its hedging plan above-the-line similar to other fuel and fuel-related costs?

A. Yes. The Staff and Aquila did agree in the Stipulation in the 2005 rate case that Aquila should be allowed to record its hedging gains and losses above-the-line similar to other fuel-related expenses. Mr. Rooney addresses this agreement in his rebuttal testimony and uses the Stipulation language as the basis of Aquila's position that Aquila's pro forma

2007 hedging losses of ** ___ ** million should be included in rates. The language in the Stipulation as it relates to Aquila's hedging plan will be discussed later in this testimony.

Q. Would you characterize the Staff's proposal for the rate treatment of Aquila's hedging plan results in this rate case as consistent with the rate treatment proposed by both the Staff and Aquila in their respective revenue requirement recommendations to the Commission in Aquila's 2005 rate case?

A. Yes, with the clarification that the Staff did not make a determination that Aquila's hedging plan was imprudent in the 2005 rate case as it has done in this case.

Q. Has the amount of hedging gains and losses that Aquila has sought to recover in this case changed drastically since it filed its direct case on July 3, 2006?

A. Yes. In its direct case, Aquila proposed to reduce fuel costs by ** _____ **. This is a hedging gain calculated by Mr. Rooney using Aquila's proposed natural gas prices against the cost of its hedged natural gas position in calendar year 2007. The calculation was done based on Aquila's 2007 natural gas position as it existed on December 31, 2005. Using this same methodology and Aquila's updated 2007 hedged natural gas position as of September 30, 2006, this earlier ** _____ ** gain turned into a ** _____ ** loss. Aquila's last update of its 2007 hedged natural gas position at December 29, 2006 shows a hedging loss of ** _____ **. Thus, in a period of only one year, Aquila's 2007 hedging position, using Mr. Rooney's proposed natural gas prices, has resulted in a ** _____ **. Aquila's workpapers showing the calculation of these gains and losses are attached as Schedule 5 to this testimony.

Q. In his rebuttal testimony, what support does Mr. Rooney provide to justify rate recovery of Aquila's hedging losses?

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A. Mr. Rooney uses as a major support for its position to recover hedging costs in rates in this case the language that was included in the Nonunanimous Stipulation in its 2005 rate case. That language authorized Aquila to record hedging gains and losses above the line on its books and records and for ratemaking purposes similar to other fuel and fuel-related costs. That language did not guarantee Aquila automatic rate recovery of the results of its hedging plan. No costs incurred by a utility are guaranteed automatic rate recovery. To receive rate recovery, a regulated utility has to be able to show that the costs it incurs are reasonable, prudent and necessary in the provision of utility service. This is the essence of rate regulation and Aquila chose to be in a business that is rate regulated.

Q. Why is the Staff recommending that the results of Aquila's hedging plan not be included in rates in this case?

A. The Staff believes that Aquila's hedging plan is imprudent and has led to excessive hedging losses. Imprudent costs incurred by a regulated utility should not be included in rates.

The Staff addressed a major flaw in Aquila's hedging plan in its direct testimony in Aquila's 2005 rate case. The concern was that Aquila was too rigid in its scheduled purchases of hedges and paid little or no attention to the cost of the hedged natural gas it was purchasing. Aquila failed to address this concern and the result has been that Aquila's is incurring hedging losses that appear to be out of control. According to Aquila's response to data request No. 187, in the first two months of 2007 Aquila recorded over ** _____ ** in hedging losses for its MPS operations. This is in addition to the ** _____ ** hedging loss it recorded in 2006. Aquila's response to data request No. 187 is attached as Schedule 6 to this testimony.

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This rigidity and lack of room for judgment in the purchase of hedged natural gas by Aquila personnel has very likely led to significant additional hedging losses actually incurred by Aquila in 2006 and will likely result in continued excessive losses in 2007 and beyond. The Staff does not believe that costs imprudently incurred should be charged to Aquila's Missouri ratepayers. Aquila's natural gas hedging plan has never produced any customer benefit and will likely never produce a benefit until Aquila makes major changes in its approach to purchasing natural gas hedges.

While the Commission should allow Aquila to continue to record the results of its hedging plan in its regulated accounts, like any other cost, hedging costs are subject to the same degree of review before any decision on rate recovery is made. The results of Aquila's hedging plan should not be allowed to be recovered in rates until significant changes to the plan are made.

Q. What improvements does the Staff believe should be made to Aquila's hedging plan?

A. Aquila should seek assistance in developing a new hedging plan by personnel who have experience in the field of natural gas hedging. The plan would need to be designed or modified by personnel who are experts in the in type of business that the hedging plan would be used. For Aquila, the type of business would not just be a utility, but an electric utility engaged in the generation, transmission and distribution of electricity. Finally, the hedging plan would have to be employed with reasonable amount flexibility to allow a degree of sound business judgment in the purchase of hedges.

The Staff would not support a hedging plan that was primarily designed to "beat the market" and produce only hedging gains any more than its supports Aquila's hedging plan

which is primarily designed to "ignore the market price." As I will describe later in this testimony, other Missouri electric utilities incorporate price sensitivity or price flexibility in the determination of when and if to purchase hedges, and these hedging plans have been successful. Aquila should follow the example set by these companies.

In addition to mitigating price volatility, a hedging plan that is prudent would include in its design a requirement to continually focus on prices in the natural gas market and take advantages of pricing opportunities as they develop and if they develop. Hedges have to be made and if natural gas prices decrease below the hedged price, hedging losses will occur. That is a fact. But when hedging losses are passed on to the ratepayer, the ratepayer should at least be assured that the Company has tried to minimize the hedging losses to the greatest extent possible. At this point, Aquila's ratepayers do not have this assurance.

Q. Does the Staff define a prudent hedging plan as one that only produces gains?

A. No, absolutely not. The incurrence of hedging losses can very likely occur in a prudent and well-designed hedging plan. As long as the hedging plan was well designed and modified for the type of business in which it will be employed and the personnel responsible for purchasing the hedged natural gas are allowed to take advantage of pricing opportunities as they arise, customer benefit exists regardless of whether the hedging plan results in a net gain or a net loss for any given year. The customers will be protected from sudden extreme increases in natural gas prices and will only be charged a reasonable price for this protection.

Q. Mr. Hyneman, do you believe that a utility's hedging plan should be a part of a utility's overall fuel procurement plan?

A. Yes, I do.

Q. Do you also believe that any review of individual hedge purchase transactions should be made on the basis of the information available at the time the decision is made?

A. Yes, I do.

Q. Is it the Staff's position that Aquila's hedging plan is imprudent or that Aquila has entered into imprudent hedging transactions?

A. Both. The Staff believes that Aquila's hedging plan is imprudent and that following this imprudent hedging plan has resulted in Aquila's entering into imprudent hedging transactions.

Q. Please describe Aquila's hedging plan.

A. Aquila uses a multi-year "modified" dollar-cost averaging hedging plan that uses Nymex futures contracts and options. Its stated purpose is to mitigate the price risk associated with its natural gas purchases for generation of electricity and its on-peak spot market purchased power requirements.

Aquila's hedging program is described in detail in a three page internal Aquila memo dated February 25, 2005. It is also described in the direct testimony of Aquila witness Gary L. Gottsch in this case. In his direct testimony Mr. Gottsch provides the following description of Aquila's hedging plan:

> Aquila's approach for hedging natural gas and on-peak purchased power is to procure one-third of the monthly forecast quantity through fixed price NYMEX swaps, one-third in option contracts (straight calls or collars), and the remaining one-third at the then prevailing daily or monthly market indexes. These positions are acquired over a 28-month process that allows the Company to capture a greater averaging effect. [page2]
>
> After receiving volumes from the Resource Planning Group, Energy Resources will then purchase a proportional quantity of fixed-price and options during each month of the subsequent three years that is sufficient to fully procured the one-third volume of fixed and options

> by October 31st of the calendar year immediately proceeding the calendar year of need (e.g. purchase of calendar 2009 monthly fixed needs in equal quantities during the 28 months from July 2006 through October 2008). [page 5]
>
> Purchases occur on the day the spot contract expires to reduce volatility risk within the month. For clarification, June 2006 futures roll off on May 26th, which is the day Aquila will also make purchases for 2007 and 2008, potentially avoiding liquidation of positions on down days and making new purchases on higher days previous to expiration. [page 5]

In its February 25, 2005 internal memo, Aquila explains that it designed its hedging plan to be ** _____ _____ _____ ** This process is to methodically purchase financial contracts on the same scheduled day every month regardless of whether or not the market price for futures contacts or call options are higher on that date compared to the price of the hedges over that recent time period. It is this process that Aquila has developed to implement its goal of ** _____ ** that the Staff believes causes Aquila's hedging plan to be imprudent.

Q. Is it your view based on these documents and discussions with Aquila personnel that this goal of ** _____** prevents Aquila personnel from seeking price opportunities in the purchase of natural gas hedges?

A. Yes. Aquila personnel have indicated to the Staff that any attempt to deviate from their hedging plan and take advantage of pricing opportunities would be considered market speculation.

Q. Does Aquila use a true dollar cost averaging method to purchase hedges?

A. No. A true dollar cost averaging method pays a lot more attention to the price of the security purchased than Aquila's modified approach. Aquila's modified dollar cost

averaging approach ignores market prices. Aquila's hedging plan calls for the purchase of a budgeted amount of natural gas each month regardless of the price. Under a true dollar cost averaging plan, the current market price of the hedge determines the number of hedges purchased, not the budget.

True dollar cost averaging is a method by which you invest a specified amount of money at specific intervals in an attempt to hedge against short-term market fluctuations. This strategy allows you to buy more units when the price is down, and fewer units when the price is up, potentially lowering the average cost of the security purchased. Aquila does not use this approach. Aquila purchases a number of futures contracts each month to meet its budget. The price Aquila pays to purchase a Nymex futures contract does not determine the number of futures contracts Aquila will purchase. Aquila purchases a predetermined number of Nymex futures contracts and options each month regardless of the price of the hedge. This is a significant inherent weakness in Aquila's hedging policy and it is this weakness, in addition to the almost total lack of business judgment involved in the purchases of hedges, that form the basis of the Staff's position that Aquila's hedging plan is imprudent.

Q. Please provide an example of how Aquila's modified dollar-cost averaging approach to hedge purchasing is a weakness of its hedging plan.

A. Assume that Aquila uses a true dollar-cost averaging method and it's hedging plan calls for it to spend $175,000 every month on natural gas futures contracts (one futures contract equals 10,000 MMBtu of natural gas). In the first month when the futures contract is at $8/MMBtu, it will purchase 21,875MMBtu of natural gas. If the market drops and the futures price goes down to $5/MMBtu, Aquila will purchase 35,000 MMBtus for its

$175,000. If the market rises and the futures price increases to $10/MMBtu per, Aquila will purchase 17,500 MMBtu for its $175,000.

Under a true dollar cost averaging approach to purchasing hedges, Aquila's average cost per MMBtu of natural gas would be $7.06 ($525,000/74,375 MMBtu). Under Aquila's modified dollar cost averaging method where the amount of natural gas purchased is not determined by the price of the natural gas, but the predetermined budget amount, its cost of hedged natural gas would be $7.67/MMBtu ($8 + $5 +10 = 23 / 3 = $7.67).

Q. Please explain the problems the Staff found with Aquila's hedging plan in the 2005 rate case.

A. Staff's view of Aquila's hedging plan, as expressed in my direct testimony in that case, was that it was flawed. In my direct testimony in Aquila's 2005 rate case I described the Staff's concern about Aquila's hedging plan as follows:

** _____
_____
_____

_____
_____
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_____
_____

_____
_____
_____
_____ **

Q. In the above answer you provided an example of how Aquila bought futures contracts during the period of the devastating hurricanes in the Gulf region when natural gas futures prices were at historic levels. Can you elaborate?

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A. Yes. In response to Data Request No. 269.1 in Aquila's 2005 rate case, Aquila listed all of the futures market transactions it entered into up to the date of the response. This data request response was updated in Aquila's response to Data Request No. 132 in this case. These data request responses show that in August 2005 Aquila delayed its recurring monthly scheduled purchase date of futures contracts that was to occur on Monday August 29, 2005, the expiration date of the September 2005 natural gas futures contract. Aquila delayed the purchase by only one week and resumed its purchase of futures contracts for 2006, 2007 and 2008 on September 6, 2005, just 10 days after Hurricane Katrina made landfall.

Q. Did the prices of Nymex futures contracts for natural gas increased significantly as a result of the damage caused by the hurricanes?

A. Yes. For example, the price of the November 2005 futures contract on August 25, 2005, two days before Hurricane Katrina made landfall was $10.24/MMBtu. On August 30, 2005, the price increased to $11.87/MMBtu. On September 6, 2005, the day Aquila decided to buy futures contracts, the price of the November 2005 contract was $11.96/MMBtu. The significant price increases for these futures contracts over this short time period indicate the significant price impact of the hurricane and the storm damage caused by the hurricane.

Q. Did Aquila buy the November futures contract on September 6, 2005?

A. No. The closest futures contract that Aquila purchased on September 6, 2005 was the ** _____

_____

_____ **

Q. What is the Staff's concern with these purchases?

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A. It is very hard to understand Aquila's decision to purchase these natural gas futures contracts for delivery so far into the future. Why wouldn't Aquila realize that the natural gas futures market is likely overpriced during this time period and use sound business judgment to delay the purchase of natural gas contracts for a few months until the market stabilized? The Staff believes that this would have been the prudent action to take.

Q. Did Aquila continue to purchase natural gas futures contracts during the period of the hurricane activity in the Gulf?

A. Yes. Aquila purchased natural gas futures contracts for ** _____ _____ **on September 29, 2005. From data provided by Aquila in response to Data Request No. 132, the Staff calculated the average price of the contracts purchased by Aquila on that date to be ** _____ ** Particularly troublesome to the Staff is the fact that on September 29, 2005, Aquila paid ** _____ _____ _____ _____ ** Aquila's monthly natural gas prices by month from the period January 2003 through December 2006 are shown on Schedule 7 attached to this testimony.

Also on September 29, 2005 in the midst of the extremely high prices caused by the hurricanes, Aquila purchased ** _____ ** and one ** _____ ** The prices of these hedges are reflected in the ** _____ ** hedging loss Aquila is proposing to recover from its ratepayers.

Q. Would it be reasonable to conclude that the natural gas futures contracts purchased by Aquila on September 29, 2005 were significantly affected by hurricanes Katrina and Rita?

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A. Yes.

Q. Would it have been prudent for Aquila to suspend the purchases of its Nymex futures contracts until the natural gas market returned to normal following the hurricane activity?

A. Yes.

Q. In Aquila's 2005 rate case, did the Staff express an overall opinion about Aquila's hedging plan?

A. No. In the 2005 rate case, while the Staff did not express an overall view of whether or not it considered Aquila's hedging plan to be imprudent. The Staff did indicate, however, its concerns and dissatisfaction with Aquila's policy of making systematic purchases or hedges without regard to the cost of the hedges. The Staff felt that Aquila would recognize the problems in its hedging plan that the Staff identified in testimony and address these deficiencies. In my direct testimony in the 2005 rate case I stated:

> Q. Is the Staff prepared at this time to provide the Commission with an overall opinion of Aquila's hedging operations?
>
> A. No. This is the first rate case in which Aquila has a hedging program. The program is still relatively young and hopefully Aquila is and will be adjusting its hedging program to make it more effective. (emphasis added)

Q. Did Aquila modify its hedging plan as a result of the Staff's concerns?

A. No.

Q. Do you have a more recent example of how Aquila's systematic approach to purchasing futures contracts may have caused an increase in hedging losses?

A. Yes. In the Thursday August 3, 2006 issue of the Energy Information Administration's Natural Gas Weekly Update, it states at page 2 that for the week July 27 through August 2, 2006:

> Prices of futures contracts moved up this week in response to the current high temperatures, speculation over the path of Tropical Storm Chris, and higher prices of crude oil and petroleum products that compete with natural gas. Tropical Storm Chris now appears to be weakening as it moves closer to the Florida Keys, however there has been considerable uncertainty about the possibility of Chris gaining strength as it enters the Gulf of Mexico.

On July 27, 2007, following its hedging plan, Aquila purchased ** _____

____** While the Staff does not have an analysis that shows the actual hedges that Aquila purchased on this date were affected by Tropical Storm Chris, this is an example where Aquila should have been monitoring the natural gas market and delaying its purchases until the effects of short-term events such as storms and hurricanes that put upward pressure on prices subsided.

Q. Earlier you stated that other Missouri electric utilities use some judgment in the decision to purchase hedges. Which electric utilities were you referring to?

A. The Staff is aware that both Kansas City Power and Light Company (KCPL) and The Empire District Electric Company (Empire) both use judgment when purchasing hedges.

Q. Please describe KCPL's hedging plan and how it uses judgment is the purchase of hedges.

A. On February 1, 2007, KCPL filed for a rate case with this Commission, docketed as ER-2007-0291. KCPL's hedging plan is addressed in the direct testimony of KCPL witness Wm. Edward Blunk. At page 10 of his direct testimony, Mr. Blunk explains how KCPL implemented a Natural Gas Price Risk Hedging Policy in 2001. KCPL developed this plan with the assistance of Kase and Company, Inc., (Kase) a risk management and trading technology firm. As described by Mr. Blunk, KCPL's plan is oriented toward finding

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a balance between the need to protect against high prices while not unreasonably limiting opportunities to purchase gas at low prices. In its hedging plan, KCPL looks for hedging price opportunities and uses judgment in the purchasing of hedging instruments. Attached as Schedule 8 to this testimony are descriptions of the types of hedging plans offered by Kase.

According to this document, the purpose of Kase's hedging services is to assist its clients in establishing and achieving specific hedge goals in a non-speculative manner with optimal cost to benefit ratio using sound and proven methods. This is the type of hedging plan that Aquila should adopt.

Q. Is the Staff recommending that Aquila contract with Kase to design a new hedging plan?

A. The Staff is recommending that Aquila significantly modify or terminate its current hedging plan and work with the appropriate professionals to design and implement a new hedging plan as soon as possible. While Kase is a much respected expert in this field, the Staff is not recommending Aquila contract with any specific company. This is a decision that should be made by Aquila's management.

Q. Have you read Empire's hedging plan?

A. Yes.

Q. Does Empire search for price opportunities in the purchase of natural gas hedge instruments on a daily basis?

A. Yes. Empire has a natural gas hedging plan that has been in place since 2001. Schedule 9 to this testimony is document titled Appendix 5. This document was attached as Schedule BPB-1 to Brad Beecher's direct testimony in Case No. ER-2004-0570. Appendix 5 describes certain actions that are required to be performed by Empire's hedging experts on a

daily basis. The first required action is to monitor market prices and identify a need for a hedge in line with hedging strategy. The second action requires Empire's hedging experts to determine the best strategy within limits to achieve hedging objectives.

Q. Has both KCPL and Empire stated in written testimony that their respective hedging plans have been successful?

A. Yes.

Q. To your knowledge, has Aquila ever stated in written testimony that it believes that its hedging plan has been successful?

A. No.

Q. Beginning at page 21 of his rebuttal testimony, Mr. Rooney states that Aquila had a $20.7 million "positive value" as reported in Aquila's 2005 annual report. He later states that he believes the higher gas prices during 2005 and this positive hedge value contributed to the Staff's desire for Aquila to book its hedges above the line. Is he correct?

A. No. It is hard to rebut the support for this belief by Mr. Rooney because he does not provide any. However, I was the Staff's witness on natural gas prices in Aquila's 2005 rate case and I was involved in the decision not to include Aquila's hedging plan results in the rate case. This decision was made even though Aquila was experiencing hedging gains in the last few months of 2005 that the Staff could have proposed be included in the rate case. If the Staff believed that the results of Aquila's hedging plan should have been included in rates in the last case, it would have recommend inclusion to the Commission. It did not.

In addition, Mr. Rooney found the reference to the $20.7 million positive hedge value in Aquila's 2005 annual report, which was not published until March 2006. The Staff filed its direct testimony in the 2005 rate case in October 2005, five months before the annual report

was published. The Nonunanimous Stipulation was filed in January 2006, two months before the annual report was published. The Staff was not aware of any hedging gain anywhere near the $20.7 million amount referenced by Mr. Rooney.

Q. Did the Staff have any major concern over how Aquila booked the results of its hedging plan in 2005?

A. No. The Staff believes it is very important for a utility to keep its books and records in accordance with required directives. However, the way Aquila records an expense on its books does not affect how the Staff will treat the expense for the purpose of its rate audit recommendation. While the Staff did believe that Aquila should record the results of its hedging plan above the line in the last case, it really was not that big of a concern.

Q. What is the Staff's recollection of the reason for the 2005 rate case Nonunanimous Stipulation language addressing the booking of Aquila's hedging gains and losses?

A. The Staff recalls that during settlement discussions, both the Staff and Aquila agreed to include language in the Nonunanimous Stipulation authorizing Aquila to record the gains and losses from its hedging plan to above-the-line fuel accounts. It was Staff's understanding that Aquila needed specific language in the form of an Accounting Authority Order (AAO) to satisfy its external accountants. The Commission's Order Approving Stipulation and Agreement in Case No. ER-2005-0436, Ordered paragraph 6 states that:

> Aquila, Inc., is authorized, for accounting and ratemaking purposes, to record in FERC Account 547 or Account 555, as part of fuel and purchased power cost, hedge settlements, both positive and negative, and related costs (e.g. option premiums, interest on margin accounts, and carrying cost on option premiums) directly related to natural gas generation and on-peak purchase power transactions made under a formal Aquila Networks-MPS hedging plan when the hedge arrangement is settled. (emphasis added.)

> Aquila shall maintain separate accounting in FERC Accounts 547 and 555 to track the hedge settlements and related costs. As required by Financial Accounting Standard No. 133, Aquila shall continue to record these hedge settlements and related costs on a Mark-to-Market basis and make an offsetting regulatory asset or regulatory liability entry in FERC Account 182.3 (asset) or FERC Account 254 (liability) that recognizes the change in the timing of value recognition under Financial Accounting Standards No. 71. There shall be no rate base treatment afforded to the hedging settlements and related costs recorded on the Mark-to-Market basis.

Q. At page 22 of his rebuttal testimony Mr. Rooney states that the Staff's exclusion of Aquila's hedging losses in the Staff's revenue requirement recommendation in this case is contrary to the Nonunanimous Stipulation. Is this correct?

A. No. The language in the Nonunanimous Stipulation only authorized Aquila to record the results of its hedging plan to regulated fuel accounts. The rest of the language was provided to satisfy Aquila's external accountants that the Commission would authorize a deviation from the hedge accounting treatment required by generally accepted accounting principles, which it is authorized to do under Financial Accounting Standard No. 71.

If Mr. Rooney believes that the language authorizing the accounting of a specific cost in an AAO somehow requires that the Staff accept the cost for ratemaking purposes, especially when the Staff determines that the cost has been imprudently incurred, he is incorrect.

Q. At page 22 of his rebuttal testimony Mr. Rooney states that the Staff is treating Aquila's 2006 hedge costs below the line, contrary to the Nonunanimous Stipulation. Is he correct?

A. No. The Staff is proposing a prudence disallowance of these results based on the imprudent nature of Aquila's hedging plan. The Staff is not recommending below the line treatment of Aquila's hedging losses.

Q. At page 23 of his rebuttal testimony Mr. Rooney states that a hedging plan is analogous to an insurance policy. Please comment.

A. I agree that a hedging plan provides a type of insurance. It is insurance that protects both shareholders and ratepayers from sudden significant increases in natural gas prices and also provides for a way to avoid significant volatility in the cost of natural gas. I also believe that if Aquila purchased its property insurance the same way that it purchases its hedges, the Staff would recommend a total disallowance of Aquila's property insurance premiums.

I don't believe that Aquila would pay property insurance premiums without first trying to find the best price from a responsible property insurance provider. I cannot understand why it pays natural gas price volatility insurance without first trying to find the best price.

Q. Earlier you stated that Aquila did not reflect the results of any of its hedging operations in its 2005 rate case, is that correct?

A. Yes. No impact of Aquila's hedging was reflected in this rate case filing by the Company. In fact, the Staff has found no reference to Aquila's hedging operations in any direct testimony filed by Aquila in that case.

Q. In his rebuttal testimony did Mr. Rooney explain his interpretation of why Aquila did not include the results of Aquila's hedging plan in the 2005 rate case?

A. Yes. At page 24 of his rebuttal testimony Mr. Rooney explains that from his perspective, Aquila has viewed hedging as a plan with high regulatory risk. The primary risk has been the expectation that hedge benefits (gains) would be flowed back to the customer and hedge costs (losses) would be disallowed. This is the reason, according to Mr. Rooney,

that Aquila has decided to record hedging gains and losses below the line and remove the gains and losses from consideration in rate cases.

Q. Did Mr. Rooney provide any examples of where the Staff recommended disallowance or the Commission ordered disallowance of hedging losses but accepted hedging gains?

A. No. Mr. Rooney provides no example, no evidence and no other support for his perceptions of the reason why, previous to the current case, Aquila's policy has been to exclude the results of hedging gains and losses from rates.

Q. Did the Staff's testimony in Aquila's 2005 rate case indicate in any way that it would only recommend recovery of gains and not losses from a hedging plan?

A. No. To the contrary, the Staff's testimony in that case clearly indicated that the effectiveness of a hedging plan should not be judged solely on the basis of gains and losses.

Q. At page 25 of his rebuttal testimony Mr. Rooney again refers to the $20.7 million mark-to-market beneficial gains in Aquila's hedging plan in 2005. Are these actual realized gains from closed hedging transactions?

A. No. This gain was calculated using mark-to-market accounting. This amount does not reflect Aquila's actual hedging results in 2005.

Q. At page 25 of his rebuttal testimony Mr. Rooney states that the stipulation in Case No. ER-2005-0436 was submitted to the Commission on February 3, 2006. Is he correct?

A. No. According to the Commission's Order Approving Stipulation and Agreement, the Stipulation was filed with the Commission on January 31, 2006.

Q. From reading page 25 of Mr. Rooney's rebuttal testimony, do you get the impression that he was implying that the Staff knew about the $20.7 million mark-to-market hedging gain and that is why the Staff wanted the language in the Nonunanimous Stipulation?

A. Yes.

Q. When did you learn about the $20.7 million mark-to-market hedging gain?

A. I learned about this gain when I read Mr. Rooney's rebuttal testimony in this case.

Q. Would it have been likely that you or any member of the Staff would know about this $20.7 million gain prior to the release of Aquila's 2005 annual report in March 2006?

A. No. The Staff would not have been interested in what Aquila reported as a mark-to-market gain for financial reporting purposes. The Staff would only be concerned with realized gains and losses.

Q. Did Mr. Rooney provide the Staff with a response to a data request in the 2005 rate case on October 7, 2005 related to hedging gains and losses?

A. Yes. Mr. Rooney provided the response to Staff Data Request No. 448 in the 2005 rate case. This data request asked for a several documents related to Aquila's hedging plan including all recorded gains and losses. Mr. Rooney's response to this data request reflected a 9-month actual and a 3-month projected hedging gain of approximately $5 million for 2005. Nowhere in the response to this data is request there any reference to any hedging gain in excess of this amount.

Q. At page 26 of his rebuttal testimony Mr. Rooney describes a meeting between Aquila and Staff concerning Aquila's hedging plan. Are you aware of this meeting?

A. Yes. I requested the meeting. The meeting was held on Wednesday January 3, 2007.

Q. What was the purpose of the meeting?

A. I asked for the meeting to determine if Aquila had made any changes to its hedging plan in light of Staff's concern about the plan in the 2005 rate case. From the meeting I learned that Aquila made no change to its hedging plan.

Q. Did the Staff make any statement at that meeting to the effect that it believes only hedging gains are prudent?

A. No. The Staff restated its concerns that Aquila's hedging plan was to rigid and inflexible and the Staff also expressed concern with the significant losses that Aquila had been incurring in 2006.

Q. Did the Staff state that it would not be recommending rate recovery of Aquila's hedging plan at that meeting?

A. No. The Staff did not make its decision to recommend disallowance of the results of Aquila's hedging plan until shortly before it filed direct testimony in this case.

Q. What was the Staff's impression of the meeting?

A. It was clear to the Staff that Aquila had no intention of modifying its rigid and systematic hedging plan no matter how significant the losses it was accumulating. Anytime during the meeting when the Staff expressed a concern about the lack of judgment in buying hedges, Aquila would respond that anything short of its systematic approach would be an attempt at market speculation.

Q. At page 29 of his rebuttal testimony Mr. Rooney recommends to the Commission that if it accepts the Staff's energy costs in this case it should include Aquila's 2006 hedging losses of ** _____ ** losses. Do you agree?

A. No. First of all, the Staff has determined that Aquila's hedging plan is imprudent and none of its costs should be included in Aquila's rates. The loss that Mr. Rooney is recommending the Commission allow is based, in part, on the specific imprudent hedge purchase decisions that I described earlier in this testimony.

Q. Has the Staff learned of a modification to Aquila's position regarding the level of hedging costs the Commission should allow if it accepts the Staff's natural gas prices?

A. Yes. Through discussions with Aquila the Staff has learned that Aquila's position is that if the Commission adopts the Staff's natural gas prices, then Aquila believes the Commission should allow a two-year average of actual hedge costs incurred, consistent with the Staff's two-year average of natural gas prices it is proposing in the case.. This two-year average that Aquila proposes would be approximately ** _____ **.

Q. Does this conclude your surrebuttal testimony?

A. Yes, it does.

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Exhibit No.:	
Issue:	**Accounting Schedules**
Witness:	**MoPSC Auditors**
Sponsoring Party:	**MoPSC Staff**
Case No.:	**ER-2005-0436**
Date Prepared:	**October 14, 2005**

MISSOURI PUBLIC SERVICE COMMISSION

UTILITY SERVICES DIVISION

STAFF ACCOUNTING SCHEDULES

AQUILA, INC.

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

CASE NO. ER-2005-0436

Jefferson City, Missouri
October 2005

Accounting Schedule: 1
Williams
11:38 10/13/2005

Aquila, Inc. Dba \ Aquila Networks MPS
Case: ER-05-436A
MPS - Updated For Known & Measurable Through Jun. 30, 2005

Revenue Requirement

Line		7.72% Return	7.90% Return	8.08% Return
	(A)	(B)	(C)	(D)
1	Net Orig Cost Rate Base (Sch 2)	$ 811,021,117	$ 811,021,117	$ 811,021,117
2	Rate of Return	7.72%	7.90%	8.08%
3	Net Operating Income Requirement	$ 62,610,830	$ 64,070,668	$ 65,530,506
4	Net Income Available (Sch 9)	$ 64,670,231	$ 64,670,231	$ 64,670,231
5	Additional NOIBT Needed	$ (2,059,401)	$ (599,563)	$ 860,275
6	Income Tax Requirement (Sch 11)			
7	Required Current Income Tax	$ 14,287,597	$ 15,197,188	$ 16,106,779
8	Test Year Current Income Tax	$ 15,570,762	$ 15,570,762	$ 15,570,762
9	Additional Current Tax Required	$ (1,283,165)	$ (373,574)	$ 536,017
10	Required Deferred ITC	$ 0	$ 0	$ 0
11	Test Year Deferred ITC	$ 0	$ 0	$ 0
12	Additional Deferred ITC Required	$ 0	$ 0	$ 0
13	Total Additional Tax Required	$ (1,283,165)	$ (373,574)	$ 536,017
14	Gross Revenue Requirement	$ (3,342,566)	$ (973,137)	$ 1,396,292
	Allowance for Known and Measurable Changes	35,000,000	35,000,000	35,000,000
	TOTAL	$31,657,434	$34,026,863	$36,396,292

Schedule 1-2

Aquila, Inc.
Case No. ER-2005-0436

Weighted Cost of Capital as of June 30, 2005
For Aquila Inc. d/b/a
Aquila Networks - MPS
Aquila Networks - L&P

Capital Component	Percentage Of Capital	Embedded Cost	Weighted Cost of Capital Using Common Equity Return of: 8.50%	9.00%	9.50%
Common Stock Equity	36.16%	----	3.07%	3.25%	3.43%
Long Term Debt	63.84%	7.281%	4.65%	4.65%	4.65%
Shot Term Debt	0.00%	0.00%	0.00%	0.00%	0.00%
	100.00%		7.72%	7.90%	8.08%

Accounting Schedule: 1 - 2

Schedule 1-3

Aquila, Inc. Dba \ Aquila Networks MPS
Case: ER-05-436A
MPS - Updated For Known & Measurable Through Jun. 30, 2005

Total Plant in Service

Line No	Acct	Description	Total Company	Total Co Adjustment	Alloc Factor	Jurisdictional Adjustment		Adjusted Jurisdictional
		(A)	(B)	(C)	(D)	(E)		(F)
		Other Production Plant						
19	340.000	Land & Land Rights	$ 71,281	$ 0	99.5100	$ 0		$ 70,932
20	341.000	Struct & Improvements	1,458,378	(80,847)	99.5100	0	P-8	1,370,781
21	342.000	Fuel Holders Prod & Acc	468,703	0	99.5100	0		466,406
22	343.000	Prime Movers	6,866,738	0	99.5100	0		6,833,091
23	343.001	Wind Turbines	0	0	99.5100	0		0
24	344.000	Generators	8,682,169	0	99.5100	0		8,639,626
25	345.000	Accessory Elect Equip	1,996,503	0	99.5100	0		1,986,720
26	346.000	Misc1 Power Plt Equip	20,000	0	99.5100	0		19,902
27		Total	$ 19,563,772	$ (80,847)		$ 0		$ 19,387,458
		Greenwood Energy Center Plant						
28	340.000	Land and Land Rights	$ 233,662	$ 0	99.5100	$ 0		$ 232,517
29	341.000	Structures & Improvements	1,742,104	0	99.5100	0		1,733,568
30	342.000	Fuel Holders and Accessories	1,949,277	0	99.5100	0		1,939,726
31	343.000	Prime Movers	28,901,427	0	99.5100	0		28,759,810
32	344.000	Generators	6,710,810	0	99.5100	0		6,677,927
33	345.000	Accessory Electric Equip	5,139,881	0	99.5100	0		5,114,696
34	346.000	Miscellaneous Power Plant Equip	65,574	0	99.5100	0		65,253
35		Total	$ 44,742,735	$ 0		$ 0		$ 44,523,497
		South Harper Generating Plant						
36	340.000	Land and Land Rights - SH	$ 0	$ 1,023,475	99.5100	$ 0	P-9	$ 1,018,460
37	341.000	Structures & Improvements - SH	0	5,550,141	99.5100	0	P-10	5,522,945
38	342.000	Fuel Holders & Accessories-SH	0	4,193,144	99.5100	0	P-11	4,172,598
39	343.000	Prime Movers - SH	0	62,027,417	99.5100	0	P-12	61,723,483
40	344.000	Generators - SH	0	26,693,797	99.5100	0	P-13	26,562,958
41	345.000	Accessory Elect Equip - SH	0	12,375,571	99.5100	0	P-14	12,314,931
42	346.000	Miscl. Power Plant Equip - SH	0	148,398	99.5100	0	P-15	147,671
43		Total	$ 0	$ 112,011,903		$ 0		$ 111,463,046

Schedule 1-4

Accounting Schedule: 3
Williams
11:38 10/13/2005

Aquila, Inc. Dba \ Aquila Networks MPS
Case: ER-05-436A
MPS - Updated For Known & Measurable Through Jun. 30, 2005

Total Plant in Service

Line No	Acct	Description	Total Company	Total Co Adjustment	Alloc Factor	Jurisdictional Adjustment		Adjusted Jurisdictional
		(A)	(B)	(C)	(D)	(E)		(F)
		Transmission Plant						
44	350.000	Land & Land Rights	$ 11,781,761	$ 0	99.5100	$ 0		$ 11,724,032
45	352.000	Structures & Improvements	3,825,407	0	99.5100	0		3,806,663
46	353.000	Station Equipment	88,378,123	26,159,594	99.5100	0	P-28	113,976,487
47	354.000	Towers & Fixtures	323,639	0	99.5100	0		322,053
48	355.000	Poles & Fixtures	57,095,023	0	99.5100	0		56,815,257
49	356.000	Overhead Conductors & Devices	47,737,163	0	99.5100	0		47,503,251
50	358.000	Underground Conductors & Devices	57,959	0	99.5100	0		57,675
51		Total	$ 209,199,081	$ 26,159,594		$ 0		$ 234,205,418
		Distribution Plant						
52	360.000	Land & Land Rights	$ 3,848,987	$ 0	99.4320	$ 0		$ 3,827,125
53	361.000	Structures & Improvements	5,877,505	0	99.4320	0		5,844,121
54	362.000	Station Equipment	73,370,441	0	99.4320	0		72,953,697
55	364.000	Poles, Towers & Fixtures	115,668,760	0	99.4320	0		115,011,761
56	365.000	Overhead Conductors & Devices	73,425,638	0	99.4320	0		73,008,580
57	366.000	Underground Conduit	32,280,125	0	99.4320	0		32,096,774
58	367.000	Underground Conductors & Devices	81,207,371	0	99.4320	0		80,746,113
59	368.000	Line Transformers	119,341,191	0	99.4320	0		118,663,331
60	369.001	Services - Overhead	12,530,083	0	99.4320	0		12,458,912
61	369.002	Services - Underground	44,143,788	0	99.4320	0		43,893,043
62	370.001	Meters	23,467,351	0	99.4320	0		23,334,056
63	370.002	Meters-PURPA Load Research	2,045,596	0	99.4320	0		2,033,977
64	371.000	Installation On Customers' Premises	12,884,173	0	99.4320	0		12,810,991
65	373.000	Street Lighting & Signal Systems	22,540,755	0	99.4320	0		22,412,724
66		Total	$ 622,631,756	$ 0		$ 0		$ 619,095,207

Accounting Schedule: 3-3

Schedule 1-5

Aquila, Inc. DBa \ Aquila Networks MPS
Case: ER-05-436A
MPS - Updated For Known & Measurable Through Jun. 30, 2005

Adjustments to Total Plant

Adj No	Description		Total Co Adjustment	Mo Juris Adjustment
	Miscl. Power Plant Equip - SH	P-15	$ 148,398	
1.	To include in plant-in-service the estimated cost of the South Harper plant at June 30, 2005 using an estimated unitization. (Williams)		$ 150,048	
2.	To disallow legal costs associted with South Harper for EA-2005-248, EO-2005-0156 and court cases with the construction. (Williams)		$ (1,103)	
3.	To disallow outside consulting fees associted with South Harper for EA-2005-248, EO-2005-0156 and court cases with the construction. (Williams)		$ (261)	
4.	To disallow other outside services costs associted with South Harper for EA-2005-248, EO-2005-0156 and court cases with the construction. (Williams)		$ (89)	
5.	To disallow storage costs associted with equipment used at South Harper. (Williams)		$ (197)	
	Station Equipment	P-28	$ 26,159,594	
1.	To include in transmission plant-in-service tranmission upgrades associated with South Harper construccion. (Williams)		$ 26,159,594	

Exhibit No.:
Issue: *Unit Ownership Costs*
Witness: *Robert E. Schallenberg*
Sponsoring Party: *MoPSC Staff*
Type of Exhibit: *Surrebuttal Testimony*
Case No.: *ER-2005-0436*
Date Testimony Prepared: *December 13, 2005*

MISSOURI PUBLIC SERVICE COMMISSION

UTILITY SERVICES DIVISION

SURREBUTTAL TESTIMONY

OF

ROBERT E. SCHALLENBERG

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

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

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

AFFIDAVIT OF ROBERT E. SCHALLENBERG

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

Robert E. Schallenberg, 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 7 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.

Robert E. Schallenberg

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

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
County of Cole
My Commission Exp. 07/01/2008

Notary

SURREBUTTAL TESTIMONY

OF

ROBERT E. SCHALLENBERG

AQUILA, INC.

d/b/a AQUILA NETWORKS-MPS– ELECTRIC

AND AQUILA NETWORKS – L&P – ELECTRIC

CASE NO. ER-2005-0436

Q. Please state your name and business address.

A. Robert E. Schallenberg, 200 Madison Street, Jefferson City, Missouri, 65102.

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

A. I am the Director of the Utility Services Division of the Missouri Public Service Commission (MoPSC).

Q. Are you the same Robert E. Schallenberg that previously filed direct testimony in this case?

A. Yes.

Executive Summary

Q. What is the purpose of your surrebuttal testimony?

A. The purpose of my surrebuttal testimony is to respond to the rebuttal testimony of Andrew Korte regarding the issue of "Additional Peaking Capacity". I address Mr. Korte's rebuttal testimony beginning at page 2, line 15 through page 5, line 18, where he specifically responds to my direct testimony in this case.

I specifically address Mr. Korte's assertions that: 1) the Staff's ** _____ ** estimate is well below cost to install a combustion turbine facility; 2) at a minimum a

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Schedule 2-3 NP

** _____ ** estimate should be used if any such approach is adopted by the Commission; 3) the purchase of ** _____ ** will accomplish the lowest overall revenue requirement; and 4) the purchase of capacity in the short-term is a very reasonable response to the present uncertain environment for building generation in Missouri.

My surrebuttal testimony, in conjunction with Staff witness Cary G. Featherstone's surrebuttal testimony, shows that 1) the ** _____ ** used in my direct testimony is very comparable to prices at which Aquila is offering, to sell combustion turbine facilities to non-affiliated entities; 2) Aquila's ** _____ ** estimate is overstated and is premised on an imprudent course of action; 3) the purchase of ** _____ _____ ** will not accomplish the lowest overall revenue requirement for Aquila consumers; and 4) the purchase of capacity in the short-term is not justified by the current environment for building generation in Missouri.

It should be noted that this issue is related to the Missouri Public Service (MPS) division's capacity needs beginning in the 2005 summer. The building of Iatan 2 will not eliminate this issue in 2010. The matter of the amount of Iatan 2 capacity, if any, that will be assigned to the MPS division will not be addressed until the Aquila Iatan 2 rate case or an L&P division sale case.

Q. What is the basis for your assertion that the ** _____ ** used in your direct testimony is very comparable to the price at which Aquila is offering to sell combustion turbine facilities to non-affiliated entities?

A. Mr. Korte notes on page 4, line 22 of his surrebuttal testimony that Aquila has publicly announced its intention to sell peaking facilities located in Illinois which are within

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Schedule 2-4 NP

the MISO footprint. Mr. Featherstone, in his surrebuttal testimony details the price and status of the sale activities. His testimony shows that the ** _____ ** price I sponsor is greater than the value Aquila is likely to receive from the sale of its existing peaking facilities to non-affiliated entities at a time when its regulated operations in Missouri are deficit in regards to long-term capacity dedicated to meet their load requirements.

Q. Do you agree with Mr. Korte's rebuttal testimony beginning on page 4, line 15 through page 5, line 18 regarding the comparison of the ** _____ ** to Aquila's offer price for existing peaking facilities?

A. No. Since 1983, Aquila's non-regulated operations have been the only source of regulated generation capacity that Aquila has made available to its MPS division. The current generation units were not considered as regulated options to serve its MPS division load requirements until Aquila's non-regulated operations could not obtain a price at which it would sell the equipment to non-affiliated entities. The three South Harper turbines were initially purchased by Aquila through a non-regulated affiliate to be placed at the Aries site to serve the MPS division capacity needs through a purchased power agreement from non regulated capacity at market rates. After Aquila decided to abandon implementing this plan, the Company offered these units to unaffiliated non-regulated entities. Mr. Featherstone provides the details that further support these statements. Aquila, through unregulated affiliates, has acquired and built significant generation capacity far in excess of its MPS capacity needs. Most of this capacity has or will be sold to non-affiliated entities.

In Missouri regulated utilities have acquired generation capacity from both affiliated and non-affiliated non-regulated generation operations. AmerenUE has acquired generation capacity from its affiliated non-regulated generating company. Mr. Korte notes transmission

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Schedule 2-5 NP

issues as an excuse for Aquila not evaluating the transfer of any of its non-regulated capacity to serve its MPS division. These transmission issues are concerns not raised until after the Staff highlighted that Aquila had decided buy capacity from the market without analyzing the economics of using its non-regulated capacity to serve its MPS division needs. The fact that Aquila made no serious evaluation of this option does not make the comparison initially presented in my direct testimony invalid.

Q. Has Aquila demonstrated the ability to overcome transmission issues to bring energy from any of its affiliated non-regulated generation facilities to serve its MPS division load?

A. Yes. Aquila has arranged to bring energy and capacity from its Crossroads facility to meet some of the MPS division load this summer. This facility is located in Mississippi. Aquila was able to acquire the transmission capability necessary to complete this transaction.

Q. Is there another approach that could use the affiliated non-regulated generation to serve the MPS division load even though the transmission capability is not available?

A. Yes. Generating equipment can be moved to a site that can be used to serve the MPS load. ** _____ _____ ** The same option could be applied to Aquila's non-regulated generating capacity.

Q. What is the basis for your assertion that the ** _____ ** estimate that Mr. Korte suggests should be used in lieu of the ** _____ ** is overstated and is premised on an imprudent course of action?

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A. Mr. Korte's estimate is based on the costs to build a new South Harper type facility scaled proportionately down from the 315 MW capacity at the South Harper site to a 210 MW generating capacity. A new generating site is usually sized and built to accommodate future additional capacity. The South Harper facility was built to accommodate three additional combustion turbines comparable in size to the three it installed. Mr. Korte's scenario would ignore the cost advantages that exist from utilization of an existing site and result in a higher cost approach. Such a decision would be imprudent. Mr. Korte's use of the South Harper costs also includes costs that Aquila has already removed from its South Harper costs estimate. Mr. Featherstone's surrebuttal testimony addresses in greater detail the Staff's issues with the ** _____ ** estimate.

Q. Do you attempt to estimate the cost of placement of 210 MW of capacity at an existing South Harper type site?

A. Yes. This estimate amounted to approximately ** _____ ** each. This estimate is approximately ** _____ ** higher than the estimate determined by using the ** _____ ** estimate. Mr. Korte's ** _____ ** estimate results in approximately ** _____ **. Staff will reflect the ** _____ ** estimate in its true-up case.

Q. How did you construct the ** _____ ** estimate?

A. I added two turbines at a cost of ** _____ ** each. This number was provided to me by Mr. Featherstone. The turbine costs were increased to reflect AFDC based upon actual costs at South Harper. I added ** _____ ** of construction costs for each turbine. The turbine construction costs are based on Aquila's actual costs to build the three combustion turbines at South Harper. I included ** _____ ** for transmission upgrades. This number was developed by Mr. Featherstone and provided to me. The

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Schedule 2-7 NP

transmission upgrade costs were increased to reflect AFDC based upon actual costs at South Harper. I developed a ** _____ ** allowance for common plant modifications. I developed this number by applying the ratio of the 210MW to 315MW to the actual common plant costs at South Harper. I applied a fifty percentage (50%) downward adjustment factor to this result to recognize that incremental common costs would be greater than zero and less than the result of applying a ratio of the 210MW to 315MW to the actual common plant costs at South Harper.

Q. Does this estimate ignore certain options that could be more economic?

A. This estimate ignores the opportunities that would be brought to the Company's attention if it were to seriously pursue a self-build option. Vendors with existing equipment could offer alternatives that are more economic than the designed 210 MW approach. Aquila is aware that Empire experienced this situation. Mr. Featherstone provides details regarding this matter in his surrebuttal testimony.

Q. What is the basis for your assertion that the purchase of ** _____ _____ ** will not accomplish the lowest overall revenue requirement for Aquila consumers?

A. Mr. Korte was unable to provide any documented analysis to support his assertion. The purchase of ** _____ ___ ** is only for one year. The capacity from the building of peaking capacity will last 25 years or longer. It is true that the capacity costs in the first year are less than the related costs from the building or acquiring regulated capacity. Mr. Korte does not indicate that Aquila will acquire this 210 MW of capacity at these cost levels for each of the next 25 years. It is probable that Aquila will need to pay more for these capacity costs in the

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Schedule 2-8 NP

future. The related capacity costs from a self build or acquire capacity approach will result in declining costs over the life of the asset and result in zero costs if the unit operates beyond its depreciable life.

Mr. Korte also fails to evaluate the change in the options that will be available to Aquila if it ever decides to build or acquire generating assets to meet its MPS division needs in the future. Staff's approach would reward the Company if it could actually pay capacity costs less than the self-build option.

Q. What is the basis for your assertion that the purchase of capacity in the short-term is not justified by the current environment for building generation in Missouri?

A. There is no indication that any other Missouri investor -owned utility cannot build or acquire regulated generation capacity in Missouri. AmerenUE has recently announced its intention to consider building a nuclear unit in Missouri. Empire is building a new peaking unit to add to its regulated mix. The problem of building capacity in Missouri is more of an Aquila specific issue related to the manner in which the Company deals with community issues when constructing a major facility.

Q. Does this conclude your surrebuttal testimony?

A. Yes.

Line	Ownership Costs for 205 MW @ June 1, 2005 Description	Original	Revised	
1	Cost per KW. See Schallenberg Testimony	$275		
2	Needed KW Capacity-W/S 1	205000		
3	Total Dollars	$56,375,000	$63,864,717	See Sheet 2
4	Less: Depreciation Reserve		$870,944	
5	Less: Deferred Income Taxes			
6	Rate Base Impact lines Line 3- line 4-line 5		$62,993,773	
7	Capital Cost & Structure per David Murray Testimony			304117.7 299970.3
8	Debt	63.84%		
9	Equity	36.16%		
10	Cost of Debt	7.28%		
11	Cost of Equity (Mid-Point)	9.00%		
12	Weighted Cost of Debt	4.65%	4.29%	
13	Weighted Cost of Equity (Mid-Point)	3.25%	3.82%	
14	Cost of Equity increased for Taxes (line 14 * 1.6)	5.21%	6.11%	
15	Depreciation Rate	3.33%	4.0912%	
16	Depreciation and Return % (line 12 + line 14 + Line 15)	13.19%	14.49%	
17	Total Costs (line 16 * line 6)	**$7,435,053**	**$9,129,813**	

Schedule 2-10

Additional Costs for Two Turbines

Two turbines (501D 105 MW)	37400000	
AFDC Markup	1.069965	
		$40,016,706.45
Construction of Turbines		$15,200,000.00
Common Plant		$6,436,658.00
Transmission Per Cary Featherstone	2,100,000	
	1.053025	$2,211,352.80
		$63,864,717.25
Annual Depreciation Accrual		$2,612,833
4.0912%*line 21		
Monthly Depreciation Accrual		$217,736
Line 24 / 12		
July through October		Four Months
Depreciation Reserve		$870,944

Exhibit No.:	
Issue:	Accounting Schedules
Witness:	MoPSC Auditors
Sponsoring Party:	MoPSC Staff
Case No.:	ER-2007-0004
Date Prepared:	February 27, 2007

MISSOURI PUBLIC SERVICE COMMISSION

UTILITY SERVICES DIVISION

STAFF ACCOUNTING SCHEDULES
FOR
SUPPLEMENTAL DIRECT TESTIMONY

AQUILA, INC.
D/B/A AQUILA NETWORKS – L&P ELECTRIC
AQUILA NETWORK – MPS ELECTRIC

CASE NO. ER-2007-0004

Jefferson City, Missouri
February 2007

Accounting Schedule: 3
Williams
15:37 02/26/2007

Aquila, Inc. DbA \ Aquila Networks MPS
Case: ER-07-004U
MPS 12-mo ended 12/31/06 thru X&M 12/31/06

Total Plant in Service

Line No	Acct	Description	Total Company	Total Co Adjustment	Alloc Factor	Jurisdictional Adjustment		Adjusted Jurisdictional
		(A)	(B)	(C)	(D)	(E)		(F)
		MPS - Turbines 1 thru 5						
52	340.000	Land & Land Rights	$ 0	$ 1,029,668	99.4600	$ 0	P-16	$ 1,024,108
53	341.000	Structures & Imprvmnts	0	13,768,918	99.4600	0	P-17	13,694,566
54	342.000	Fuel Holders & Access Equip	0	6,044,878	99.4600	0	P-18	6,012,236
55	343.000	Prime Movers	0	101,992,999	99.4600	0	P-19	101,442,237
56	344.000	Generators	0	27,001,576	99.4600	0	P-20	26,855,767
57	345.000	Accessory Elect Equip	0	28,073,558	99.4600	0	P-21	27,921,961
58	346.000	Miscl Pwr Plt Equip	0	190,806	99.4600	0	P-22	189,776
59		Total	$ 0	$ 178,102,403		$ 0		$ 177,140,651
		Transmission Plant						
60	350.000	Land & Land Rights	$ 12,036,324	$ 0	99.4600	$ 0		$ 11,971,328
61	352.000	Structures & Improvements	6,365,096	0	99.4600	0		6,330,724
62	353.000	Station Equipment	95,544,426	2,211,353	99.4600	0	P-35	97,227,898
63	354.000	Towers & Fixtures	323,639	0	99.4600	0		321,891
64	355.000	Poles & Fixtures	67,797,518	0	99.4600	0		67,431,411
65	356.000	Overhead Conductors & Devices	48,974,222	0	99.4600	0		48,709,761
66	358.000	Underground Conductors & Devices	65,299	0	99.4600	0		64,946
67		Total	$ 231,106,524	$ 2,211,353		$ 0		$ 232,057,959
		Distribution Plant						
68	360.000	Land & Land Rights	$ 4,632,037	$ 0	99.4330	$ 0		$ 4,605,773
69	361.000	Structures & Improvements	6,030,037	0	99.4330	0		5,995,847
70	362.000	Station Equipment	79,632,728	0	99.4330	0		79,181,210
71	364.000	Poles, Towers & Fixtures	122,962,859	0	99.4330	0		122,265,660
72	365.000	Overhead Conductors & Devices	82,029,570	0	99.4330	0		81,564,462
73	366.000	Underground Conduit	36,659,511	0	99.4330	0		36,451,652
74	367.000	Underground Conductors & Devices	87,981,252	0	99.4330	0		87,482,398
75	368.000	Line Transformers	131,375,662	0	99.4330	0		130,630,762
76	369.001	Services - Overhead	12,921,970	0	99.4330	0		12,848,702
77	369.002	Services - Underground	46,838,557	0	99.4330	0		46,572,982
78	370.001	Meters	24,461,640	0	99.4330	0		24,322,943
79	370.002	Meters-PURPA Load Research	2,045,596	0	99.4330	0		2,033,997
80	371.000	Installation On Customers' Premises	13,734,699	0	99.4330	0		13,656,823
81	373.000	Street Lighting & Signal Systems	24,903,249	0	99.4330	0		24,762,048
82		Total	$ 676,209,367	$ 0		$ 0		$ 672,379,459

Accounting Schedule: 3-3

Schedule 3-2

Aquila, Inc. Dba \ Aquila Networks MPS
Case: ER-07-004U
MPS 12-mo ended 12/31/05 thru E&M 12/31/06

Adjustments to Total Plant

Adj No	Description		Total Co Adjustment	Mo Juris Adjustment
	Accessory Elect Equip	P-21	$ 28,073,558	
1.	To include the cost for MPS units 1 thru 5. (Williams)		$ 28,073,558	
	Miscl Pwr Plt Equip	P-22	$ 190,806	
1.	To include the cost for MPS units 1 thru 5. (Williams)		$ 190,806	
	Station Equipment	P-35	$ 2,211,353	
1.	To add the additional transmission plant for added plant at MPS turbines 1 thru 5. (Williams)		$ 2,211,353	

Accounting Schedule: 3
Williams
15:37 02/26/2007

Aquila, Inc. Dba \ Aquila Networks MPS
Case: ER-07-004U
MPS 12-mo ended 12/31/05 thru K&M 12/31/06

Total Plant in Service

Line No	Acct	Description	Total Company	Total Co Adjustment	Alloc Factor	Jurisdictional Adjustment		Adjusted Jurisdictional
		(A)	(B)	(C)	(D)	(E)		(F)
		Ralph Green Plant						
28	340.000	Land & Land Rights	$ 11,376	$ 0	99.4600	$ 0		$ 11,315
29	341.000	Structures & Improvements	1,288,827	0	99.4600	0		1,281,867
30	342.000	Fuel Holders Prod & Acc	62,614	0	99.4600	0		62,276
31	343.000	Prime Movers	5,237,481	0	99.4600	0		5,209,201
32	344.000	Generators	6,395,295	0	99.4600	0		6,360,760
33	345.000	Accessory Elect Equip	1,130,021	0	99.4600	0		1,123,919
34	346.000	Miscl Power Plt Equip	20,000	0	99.4600	0		19,892
35		Total	$ 14,145,616	$ 0		$ 0		$ 14,069,230
		Greenwood Energy Center Plant						
36	340.000	Land and Land Rights	$ 233,662	$ 0	99.4600	$ 0		$ 232,400
37	341.000	Structures & Improvements	1,986,907	0	99.4600	0		1,976,178
38	342.000	Fuel Holders and Accessories	2,966,400	0	99.4600	0		2,950,381
39	343.000	Prime Movers	29,395,560	0	99.4600	0		29,236,824
40	344.000	Generators	8,164,872	0	99.4600	0		8,120,732
41	345.000	Accessory Electric Equip	5,236,206	0	99.4600	0		5,207,930
42	346.000	Miscellaneous Power Plant Equip	1,354	0	99.4600	0		1,347
43		Total	$ 47,984,911	$ 0		$ 0		$ 47,725,792
		South Harper Generating Plant						
44	340.000	Land and Land Rights - SH	$ 1,034,874	$ (1,034,874)	99.4600	$ 0	P-9	$ 0
45	341.000	Structures & Improvements - SH	9,020,119	(9,020,119)	99.4600	0	P-10	0
46	342.000	Fuel Holders & Accessories-SH	3,960,038	(3,960,038)	99.4600	0	P-11	0
47	343.000	Prime Movers - SH	66,813,160	(66,813,160)	99.4600	0	P-12	0
48	344.000	Generators - SH	17,686,921	(17,686,921)	99.4600	0	P-13	0
49	345.000	Accessory Elect Equip - SH	18,388,320	(18,388,320)	99.4600	0	P-14	0
50	346.000	Miscl. Power Plant Equip - SH	125,000	(125,000)	99.4600	0	P-15	0
51		Total	$ 117,028,432	$ (117,028,432)		$ 0		$ 0

Schedule 3-4

SCHEDULES 4 through 7

HAVE BEEN DEEMED

HIGHLY CONFIDENTIAL

IN ITS ENTIRETY

Hedging Software, Systems, and Strategies
Specializing in Energy Risk Management Solutions

Kase Hedging Services

Natural Gas, Propane, Crude Oil, Refined Products and Spreads

The purpose of Kase's Hedging Services is to assist our clients in establishing and achieving specific hedge goals in a non-speculative manner with an optimal cost to benefit ratio using sound and proven methods.

Successful long term hedging requires logical decision-making. Any rational program must consider underlying market structure and longer-term behavior to find points that minimize risk and maximize the results of a hedge plan. It is also important to find the *best balance* for your company between budget oriented goals and achieving better than market prices. Kase and Company, Inc. offers two proven models delivered via the Kase website in a "chart format'. Both models use statistical analysis to generate critical hedge triggers. HedgeModel, for either producers or consumers, identifies statistically high and low points at which to fix prices or buy options and allows for some discretion. It is most suitable for users of moderate to large size (4 BCF per year and up). EzHedge for consumers is a "volume averaging" program that is suitable for very small (0.50 BCF per year) to large size users who want a fully automated computerized approach, with no discretion necessary. Historical results are available upon request.

Rule Based System Based on Probability Theory
Most commodities, including energy, exhibit mean reverting characteristics over the long run, and prices tend to conform to log normal distributions. Weather, politics, and other external factors can trend the market in a given year or season, but eventually these balance out and prices move back to normal levels. The mean reverting market characteristics allow us to make certain useful assumptions about current prices in relation to the central tendency of the market as a whole.

The HedgeModel and Hedge Report
The Kase Hedge Service consists of two elements. The first is the HedgeModel with displays computer generated hedging points, and the second is the Hedge Report. The Kase **HedgeModel** automatically searches for the optimal points at which to capture attractive prices by evaluating the "highest" of a set of probabilities to determine optimal points for producers and the "lowest" for consumers. Additionally, when price probabilities are unfavorable, as when they are on the wrong side of the mean, the Kase HedgeModel automatically identifies optimal points at which protective strategies are recommended. The model functions on natural gas, propane, crude oil, refined products, and spreads.

The **Hedge Report** includes a forecasts for "strips", recommendations on how to set hedging strategies for the forthcoming quarter, including interaction with the model, and changes to the settings used by the model, low-risk hedge targets, recommendations on what instruments to use, a track record and mark to market of recommended strategies, and research results. The Report is available for natural gas and crude oil.

Kase performs ongoing research into market behavior and structure. Our research is oriented toward improving the results of our Clients' hedging strategies. In addition to a thorough evaluation of basis and correlation analysis (gas), standard research included in our quarterly Hedge Reports includes Monte Carlo simulations for estimating price distributions and objectives, statistical analysis of price and volatility, and cyclical behavior.

Customized For Risk Appetite and Goals

Hedging is like politics or religion - your definition of hedging is determined by you. Our role is to help you to implement a strategy to reach your goals. Some of our clients wish to hedge in order to meet budget in the most cost effective way possible, while others believe that hedging means only capturing attractive prices when the odds are that the hedge will add financial benefit over and above transacting business at market. The Kase HedgeModel has already been customized to fit a wide range of risk appetites, from an aggressive, purely budget driven agenda to a more conservative market driven plan.

Kase ezHedge

Kase ezHedge is a model that generates hedging signals based on a volume averaging approach, similar to dollar cost averaging. The model divides a price range into five zones based on an evaluation of percentile levels over a range of lookback periods. It selects the lookback length based on market behavior relative to the highest and lowest zones. Dots are color coded to tell the user when and when not to hedge. This approach is easy to follow and results in hedges being placed under all but the most favorable conditions, in which case it leaves volumes unhedged. Users do not have to judge whether a particular price environment will perpetuate or whether prices will rise or fall. ezHedge may be customized to fit each consumer's volume requirements and risk appetite and is for both small end-users such as restaurant chains and hospitals as well as large industrial consumers and utilities.

Differences Between HedgeModel and ezHedge

While both of Kase's models are effective and easy to use, there are differences between the two. HedgeModel is used to place hedges on a three, six or twelve month strip using both fixed price instruments and options at optimal pricing points based upon standard deviations above and below the chosen mean. Longer exposures may also be hedged on a custom basis as well. This model also offers optimal exit points that can be used to remove and restructure hedges. This model is most suitable for both producers and consumers (which have inverse model rules) above 4 BCF per year who are wish to exercise some discretion in the hedge placement and who use options and collars in addition to swaps and futures. ezHedge is a non-discretionary system, that generates buy signals that can be embedded in physical purchases or executed via swaps or futures, and uses only one hedge length - a twelve or eighteen month strip, depending on the users comfort level with those maturities. (A new model with ezHedge is under development for producers, but has yet to be released.) With ezHedge, positions are held to expiration and are never removed or changed. ezHedge is suitable for consumers of sizes from 0.5 BCF per year to 30 BCF per month

Consulting, Risk Management Plans

Based on a conservative philosophy, a rigorous technical background, and solid hedging experience, Kase provides comprehensive, precise, and proven price risk management plans that evolve from a unique statistical approach. A high level of attention to detail distinguishes Kase plans with a view toward bottom line results. For those newly developing risk management plans, Kase offers complete program support: exposure analysis, setting goals, and strategy development and implementation. For others solely interested in execution, Kase provides custom strategies. For firms with existing plans, Kase offers comprehensive review.

No Charge Trial

For a six-week, no charge trial of the Kase Hedge services, contact us at 505-237-1600 or email kase@kaseco.com. For more information about the Hedge services and other services offered by Kase and Company, Inc. please visit us at www.kaseco.com.

APPENDIX 5

FOR ANY HEDGE TRANSACTION

(Physical, Exchange-Traded or OTC)

**Please reference Appendix 7 for a graphical representation of this process*

DAILY

1. **Monitor Market Prices/Identify Need for a Hedge in line with Hedging Strategy Objectives**

✓ Wholesale Energy Group will monitor prices for opportunities to meet RMP hedge goals and objectives.

2. **Determine Best Strategy within Limits to Achieve Hedging Objective**

✓ Within the RMOC approved limits, Wholesale Energy Group will determine the best hedge strategies to implement in line with objectives.

✓ For any chosen strategies that exceed a specified time period or dollar limit, the Vice President – Energy Supply must verify that the chosen hedge transaction meets objectives.

3. **Confirm Counterparty Meets Credit Requirements**

✓ For an OTC transaction, the prospective counterparty must be crosschecked with the Approved Counterparty Credit List for credit verification.

4. **Implement Transaction**

✓ Wholesale Energy Group prepares internal documentation for current order.

5. **Communicate Order**

✓ Wholesale Energy Group executes a hedge with broker and/or counterpart by picking up the phone and calling in information that is simultaneously recorded via a trading ticket (*reference example in Appendix 7 in next section*) which is date/time stamped and entered into a position tracking report and FUTRAK software.

6. **Broker Documents and Executes Transaction**

✓ In addition, the broker and the NYMEX floor representatives keep their own trading tickets to document the transaction.

7. **Verify Transaction (Verbal and Written)**

✓ Broker and/or counterpart verifies hedge fill via phone initially to Wholesale Energy Group.

✓ Written confirmations will be sent to Wholesale Energy Group and Finance the following business day via e-mail or fax. The confirmation/contract is examined by the WEG Energy Trader for accuracy by crosschecking to the input on the trading