Exhibit No.:	
Issues:	*Combustion Turbines Valuation; Interim Energy Charge (IEC)*
Witness:	*Cary G. Featherstone*
Sponsoring Party:	*MoPSC Staff*
Type of Exhibit:	*Rebuttal Testimony*
Case Nos.:	*ER-2005-0436*
Date Testimony Prepared:	*November 18, 2005*

MISSOURI PUBLIC SERVICE COMMISSION

UTILITY SERVICES DIVISION

REBUTTAL TESTIMONY

OF

CARY G. FEATHERSTONE

AQUILA, INC. d/b/a AQUILA NETWORKS-MPS (Electric)
AQUILA NETWORKS-L&P (Electric)
CASE NO. ER-2005-0436

Jefferson City, Missouri
November 2005

NP

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

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REBUTTAL TESTIMONY OF

CARY G. FEATHERSTONE

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 CARY G. FEATHERSTONE

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

Cary G. Featherstone, being of lawful age, on his oath states: that he has participated in the preparation of the following Rebuttal Testimony in question and answer form, consisting of 14 pages to be presented in the above case; that the answers in the following Rebuttal 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.

Cary G. Featherstone

Subscribed and sworn to before me this 17th day of November 2005.

Notary

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

TONI M. CHARLTON NOTARY SEAL NOTARY PUBLIC STATE OF MISSOURI

REBUTTAL TESTIMONY

OF

CARY G. FEATHERSTONE

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. Cary G. Featherstone, Fletcher Daniels State Office Building, 615 East 13th Street, Kansas City, Missouri.

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

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

Q. Are you the same Cary G. Featherstone who filed direct testimony in this proceeding?

A. Yes, I am. I filed direct testimony in this case on October 14, 2005 on the areas of fuel- Interim Energy Charge (IEC) and South Harper Generating Unit (South Harper).

Q. What is the purpose of your rebuttal testimony?

A. The purpose of this rebuttal testimony is to address the direct testimony filed by Aquila, Inc. (Aquila or Company; formerly known as UtiliCorp United, Inc.) witness Jon R. Empson, Senior Vice President of Regulated Operations, relating to the Company's proposal for a fuel clause. Specifically, Mr. Empson states at page 11, line 6 "….that Aquila is proposing in this case [the] utilization of some form of a fuel adjustment mechanism." I address that

Aquila's request for the statutory fuel cost recovery mechanism is premature since the Commission is still in the process of developing and implementing the rules required to make such a mechanism available.

I address the direct testimony of Aquila witness Jerry G. Boehm, Manager, Resource Planning, relating to natural gas prices used for the IEC in Aquila's last general electric rate case. Specifically, Mr. Boehm states at page 10, line 19, that "…in case ER-2004-0034 the natural gas curve proposed by the company averaged $5.64/Mcf over the 12-month test period." My rebuttal will identify what amount for natural gas prices actually went into the current IEC that the Commission approved in Case No. ER-2004-0034 and what the $5.64 per mcf represents.

I address the direct testimony of Aquila witness Mike Apprill on the issue of Project X. Specifically, at page 3, line 5, Mr. Apprill identifies Project X as "a new purchase power contract for 200 MWs beginning September 2005…" I address aspects of Project X.

Finally, I address the direct testimony of Calpine Corporation (Calpine) witness Michael C. Blaha on the issue of the transfer price of Aquila's South Harper turbines and Calpine's belief that Aquila failed to consider "multiple market alternatives prior to constructing South Harper (page 2, lines 12 through 16). Specifically, I testify about Calpine's failure to consider the importance of regulated utility ownership of a fleet of generating assets to meet its firm system load requirements and the valuation of the turbines at South Harper.

Q. Would you please describe how you are referring to Aquila, its divisions and affiliates in this rebuttal testimony?

A. When referring to the current Aquila corporate structure, I will use the name Aquila Inc., the parent company, including its operations regulated by this Commission—

Aquila Networks-MPS and Aquila Networks Light & Power. Aquila, Inc. was formerly named UtiliCorp United, Inc. I refer to the operating division Aquila Networks-MPS as MPS and I refer to the operating division Aquila Networks-L&P as Light & Power or L&P.

FUEL COST RECOVERY MECHANISM

Q. Is Aquila proposing the use of a fuel clause in this case?

A. Yes. Mr. Empson proposes the use of a fuel cost recovery mechanism (fuel clause) starting at page 10 of his direct testimony. Aquila's proposal is identified in Mr. Empson's direct testimony at page 11, line 15 wherein he states:

> In the most recent legislative session which concluded on May 13, 2005, the Missouri General Assembly passed a statute which authorizes the Commission to permit periodic rate adjustments outside of general rate proceedings to reflect increases and decreases in prudently incurred fuel and purchased power costs.
>
> ….
>
> Assuming that this legislation becomes law, Aquila is requesting, in this case, that it be allowed to implement periodic rate adjustments (a fuel adjustment mechanism) outside of general rate proceedings and that this rate case serve as the required general rate proceeding in which all relevant factors which may affect the costs or overall rates and charges of the Company are considered.

Q. Did this fuel recovery mechanism become law?

A. Yes. Senate Bill 179 was signed on July 14, 2005 and the law will become effective January 1, 2006. It is designated as Section 386.266.

Q. Is Staff in agreement that a fuel clause type recovery mechanism should be used in this case?

A. No. As stated at page 44, line 25 in my direct testimony, currently there are no Commission rules in place to establish and implement the provisions of Senate Bill 179. The law requires Commission promulgated procedural rules before the fuel clause is available to utilities. As indicated in my direct testimony, the Roundtable discussions continue concerning the development of draft rules which, upon completion, will be presented to the Commission for its consideration. Draft rules will be submitted to the Commission by the Staff and likely by other entities. The Commission will issue Proposed Rules for publication, and the public will be permitted to file comments with the Commission. Thereafter, it is expected that hearings will take place for all concerned parties to be able to present their points of view. The Commission will then have to determine what rules should be put in place to implement the provisions of SB 179 and issue an Order Of Rulemaking. Subsequent to the Commission's adoption of rules concerning the fuel recovery mechanism, the Commission's Order Of Rulemaking can be challenged in the Missouri Courts.

Q. What is Staff proposing in place of Aquila's proposal for a fuel cost recovery mechanism?

A. Staff proposes the use of an interim energy charge (IEC). This proposal is described in extensive detail in my direct testimony. Staff believes, in light of the current energy market, that an IEC is preferable over developing a single point price for natural gas and purchased power. Staff will continue to pursue developing an IEC with other interested parties.

EXISTING INTERIM ENERGY CHARGE MECHANISM

Q. How has Aquila fared under its existing IEC?

A. Currently, Aquila has recovered less revenue than its actual fuel costs for its MPS Division. It is uncertain how the IEC will perform for the SJLP Division.

Q. Did any Aquila witness address the IEC in their direct testimony?

A. Yes. Aquila witness Empson states at page 12, line 12 of his direct testimony that the IEC was established using a forecast level of $5.14 per mmbtu natural gas price. Aquila witness Boehm states at page 10, line 19 of his direct testimony that Aquila proposed a natural gas price of $5.64 per mmbtu in Aquila's last rate case, Case ER-2004-0034. The statements are contradictory to the IEC Stipulation and Agreement in the last case. The Stipulation specifically stated the following with regard to future use information resulting from the negotiations in Case No. ER-2004-0034:

> This Stipulation and Agreement is being entered into solely for the purpose of settling all issues in these cases. None of the signatories to this Stipulation and Agreement shall be deemed to have approved or acquiesced in any ratemaking or procedural principle, including, without limitation, any method of cost determination or cost allocation or revenue related methodology, and none of the signatories shall be prejudiced or bound in any manner by the terms of this Stipulation and Agreement in this or any other proceeding, whether this Stipulation and Agreement is approved or not, except as otherwise expressly specified herein.
>
> [Ref: page 15 of the Stipulation and Agreement filed in Case No. ER-2004-0034]

Nowhere in the Stipulation approved by the Commission in Case No. ER-2004-0034 does the amount of $5.64 per mmbtu for natural gas prices appear for the IEC or fuel related issues.

Q. Aquila witness Boehm states in his direct testimony at page 10 that Aquila proposed an average price for natural gas of $5.64 per Mcf (or mmbtu) in Case No. ER-2004-0034. Is that number the result of the methodology Aquila is proposing to use in this case to develop the natural gas prices to establish the Company's rates?

A. No. Aquila witness John Browning sponsored Aquila's natural gas prices in the last rate case. Mr. Browning relied upon several forecasts that Aquila averaged to develop a $5.14 per mmbtu natural gas price level, not the $5.64 per mmbtu price that Mr. Boehm cites in his testimony.

Q. Did Aquila use a $5.64 per mmbtu price in its last case?

A. Yes.

Q. How was the $5.64 per mmbtu amount determined in Aquila's last rate case?

A. Using Mr. Browning's amount that he developed of $5.14, the same amount referenced in Mr. Empson's direct testimony in this case, an additional 50 cents was added to arrive at the $5.64 level. In the last rate case, Aquila witness Keith Stamm, its Chief Operating Officer, proposed an interim amount for natural gas that was to be subject to true-up review and refund in addition to the $5.14 amount of 50 cents. Together, the amount that initially was discussed for IEC ceiling equaled the $5.64 amount. This amount was an arbitrary gas price, not developed from any established or formal methodology.

Q. What have been the factors that have caused MPS not to recover its actual fuel costs?

A. The coal dispute with C W Mining has contributed at least $6 million to under-recovery of the IEC. The extended Sibley outage had a significant impact since the Sibley unit is the least cost generation on the Aquila System. The exact impact has not been quantified at this time.

PROJECT X

Q. Aquila witness Mike Apprill references Project X on page 3, line 5 of his direct testimony. How does Aquila describe Project X?

A. Project X is defined by Aquila as a "new purchase power contract for 200 MWs beginning September 2005." Project X was considered as a placeholder for capacity needed to meet Aquila's system load requirements in future summer peak seasons beginning in capacity year 2006. Mr. Apprill states at page 5 of his direct, that Project X was "an initial placeholder…"

Q. Why does Aquila need Project X?

A. Aquila has less firm long-term capacity than it needs to serve its MPS Division load. Since 2001 Aquila has been seeking to replace a purchase power agreement (PPA) relating to the Aries Combined Cycle Unit that MPS entered into with an Aquila affiliate, Aquila Merchant that expired on May 31, 2005.

Q. What capacity did Aquila obtain under the Aries PPA?

A. The power agreement provided MPS with 200 megawatts of capacity for 12 months of the year (January 1 through December 31) and an additional 300 megawatts of capacity for six months (April through September) of each year starting April 1, 2002 through May 31, 2005, the date the PPA terminated. In addition, the power agreement provided 320 megawatts of summer peaking capacity during the summer of 2001. The Aries PPA started to supply combined cycle capacity in January 2002.

Q. Has Aquila identified how it intends on meeting its system load requirements in the future?

A. Aquila constructed three peaking turbines at its South Harper facility which total 315 megawatts of capacity. In early 2005, Aquila-MPS entered into a long-term unit participation purchased power agreement with Nebraska Public Power District (NPPD) for 75 megawatts of capacity from Cooper Nuclear Station. The NPPD agreement extends through January 2014. Aquila also secured a purchased power agreement for wind generation from Gray County Wind Energy in Gray County, Kansas. A small portion of the capacity can be accredited and is specifically assigned to MPS, L&P, and an affiliate, West Plains Energy Kansas. Aquila also entered into a 100 megawatt unit participation purchased power agreement from two coal-fired units (50 megawatts each) with NPPD Gerald Gentlemen Station through May 2011 for L & P.

To make up a shortfall in its capacity requirements, Aquila recently secured additional capacity for the summer of 2006, but nothing beyond. Aquila recently entered into a ** ____ _______ ** to MPS next summer.

Q. Does Project X address all of Aquila's future capacity needs?

A. No. The agreement that Aquila has signed is only for ** _______ **. Aquila has the same capacity need in ** ____ ** and beyond. In fact, Aquila needs even more capacity to not only replace the Aries agreement that expired on May 31, 2005 but to meet the growth of the MPS system. At this time Aquila has no plans in place to meet the ** ____ ** peak capacity season. Aquila has exposed itself and ultimately its customers to the energy market place without adequate consideration of the option to build or acquire generating capacity. In fact, it is becoming more evident that Aquila has no intention of building, or even seriously examining this option in a meaningful way.

Q. Did Aquila examine building generating capacity to meet the summer of 2006?

A. No. Aquila received responses from the request for proposals issued in July 2005 from several different sources. None of these responses included a self-build option.

Q. When was the last time Aquila considered a self-build option to meet its capacity requirements?

A. Aquila's Generation Group submitted a response to Aquila's request for proposal on November 22, 2004 for capacity year 2007. Aquila MPS has made no attempt to consider meeting its capacity needs by the purchase of any turbines. Aquila has not examined meeting its system load requirements by any means other than purchasing the capacity from other sources. Aquila has not considered several options that other utilities have pursued, such as: 1) seeking offers of new turbines from turbine manufactures; 2) requesting offers of new equipment that has been released before delivery that turbine manufacturers discount; 3) pursuing the gray market for turbines from non-turbine manufactures; and 4) examining access to existing facilities Aquila owns and that it is attempting to sell to third party non-affiliates.

SOUTH HARPER GENERATING FACILITY

Q. Has Calpine witness Blaha assumed certain values for peaking turbines in his direct testimony?

A. Yes. At page 3, line 19 of his direct testimony, Mr. Blaha values three Siemens 501D5A turbines, the type installed at South Harper, at $77.4 million in 2001-2002 ($25.8 million each). Mr. Blaha indicates that by 2004-2005, the three turbines have a value of $56.1 million ($18.7 million each). Calpine witness Blaha used a publication called *Gas Turbine World* as his source for valuing the turbines.

Q. Are you familiar with the publication *Gas Turbine World*?

A. Yes. In Case No. EO-2005-0156, Staff reviewed this publication as part of its evaluation of Aquila's request in that application.

Q. Does Staff agree with Calpine witness Michael C. Blaha's valuation of the existing South Harper turbines?

A. No. The Staff still supports the valuation of the three turbines, including related equipment installed at South Harper, that it agreed to with Aquila and Office of

Public Counsel in Case No. EO-2005-0156. Staff has used the value agreed to in that case in developing its revenue requirement in this case.

Q. What value did the Parties in Case No. EO-2005-0156 agree to for the turbines and related equipment?

A. They agreed to a value of $66,760,000 for three Siemens Westinghouse turbines and related equipment [page 3 of the September 1, 2005 Stipulation].

Q. Has the Commission approved that valuation in Case No. EO-2005-0156?

A. No. The Commission has ordered a hearing scheduled for December 5, 2005 regarding the Stipulation, and to answer questions concerning several topics including questions on the Chapter 100 financing that was used by Aquila to reduce property taxes relating to the South Harper facility.

Q. Does Staff believe that the turbine values relied on by Calpine witness Blaha are realistic?

A. Yes. As indicated earlier, Staff did examined the publication *Gas Turbine World* and noted the decline in the gas-fired turbine market. In fact, the 2004-2005 price for the Siemens model installed at South Harper of $18.7 million each is in line with prices seen at another company. Aquila could have acquired two additional Siemens turbines for less than the value agreed to for the South Harper turbines to meet MPS' system capacity needs instead of exposing itself to the risk of purchasing power from unknown sources in the current energy market. The installed costs would have been less than the amount Aquila incurred for constructing the three Siemens turbines at South Harper.

Q. Would the acquisition of two additional turbines satisfy the shortfall in capacity identified by Aquila in its Project X?

A. Yes. Each of these Siemens turbines has a capacity of 105 megawatts. Combined, the two turbines would provide Aquila 210 megawatts of capacity, more than enough to meet the 2006 shortfall. These units, with an expected life of over 40 years, would be serving the energy needs of MPS customers well into this century. Instead, Aquila has secured capacity only to meet the summer of 2006 and must go back to the market place seeking capacity for its future needs. This approach subjects Aquila, and its customers to an energy market that carries with it to unknown risks related ed to costs as well as availability.

Q. When did Staff receive Calpine's work papers respecting its direct testimony in this case?

A Although Calpine's witness filed direct testimony October 14, 2005, Calpine did not provide its work papers to Staff until Thursday, November 10, 2005. The Commission's Order of July 21, 2005 required that copies of work papers of each witness must be served on every party within three working days of the filing of the direct testimony. As the result of the delay in receiving Calpine's work papers, despite multiple requests for them, Staff has not had sufficient time to adequately review the work papers in their entirety. However, Staff does have some preliminary observations regarding some of the assumptions Calpine used in its analysis that appear to be questionable.

Q. What are some of the assumptions that Calpine used in its analysis that Staff questions with regard to the cost savings using Aries instead of South Harper turbines?

A. It appears that Calpine overstated some of the cost savings of Aries relative to the South Harper facility. Calpine assumed that the capacity factor for Aries would be about 50%. That is not realistic. South Harper simple cycle turbines have not been reflected in Staff's case at any where near this capacity factor. The capacity factor in Staff's case for the five turbines supported by Staff in its direct filing is at the 1% to 3% level. In the last rate case, the Aries unit had a capacity factor between 32% and 38% level. Even if Aquila operated Aries, it would not be expected that the combined cycle output would approximate any level close to the 50% amount assumed by Calpine in its analysis. The actual operation of South Harper peaking units is not expected to result in a capacity factor anywhere near the 50% level.

Q. What amount of capacity did MPS receive from the Aries facility during the term of the purchased power agreement?

A. Schedule 1 identifies the amount of energy purchased under the Aries purchased agreement by MPS. Even though MPS started taking energy under the Aries agreement in January 2002, that power came from sources other than Aries as permitted by the agreement. Aries was not commercially operational until sometime in March 2002. I used June 2002 to start the analysis for ease of developing the information. Schedule 1 identifies actual energy sold to MPS for the period of June 2002 through May 2005, the month the agreement terminated.

The capacity factor this time frame is:

June through December 2002	37.6%
2003	23.7%
2004	25.6%
January through May 2005	15.3%

All these levels are well below the amounts used in Calpine's analysis which attempts to show that Aries is a lower cost alternative to MPS operating its own generation.

Q. What is the capacity factor?

A. The amount of actual electricity produced in megawatt hours generated by a unit compared to the total megawatt hours that a unit could produce if operated all hours of the year at maximum capacity.

Q. Has Calpine assumed that the costs to ratepayer to operate the South Harper peaking turbines will increase over time?

A. Yes. Calpine has assumed that the revenue requirements for ownership of generating facilities by Aquila, such as for South Harper turbines, will not decline over its years of operation. In Calpine's schedule attached to Mr. Blaha's direct testimony, identified as Appendix A – entitled "Costs to Rate Payers of a Simple Cycle Peaking Plant Compared to Aries – Annualized," the line representing the cost of the South Harper peaking facility reflects increasing costs. In reality, ownership of plant assets will result in declining costs over time as the plant is depreciated resulting in declining rate base and thus, declining revenue requirements.

Generally capital additions, such as power plants, are more expensive in the up-front or first several years. However, one of the key advantages of ownership is that costs decline as the rate base declines, resulting in increasingly lower returns on investment that need to be recovered from customers in rates. Calpine's assumption of increasing ownership costs is not practical or based on current rate making practices.

Q. What level of revenue requirement has Staff included in its case for South Harper?

A. The total revenue requirement for South Harper included is approximately $15.7 million without transmission facilities and $18.5 million with transmission facilities. South Harper's total installed costs included in rate base are $102.7 million and $23.2 million for the related transmission facilities which equals $125.9 million. This is for 315 megawatts of generating capacity. The installed capacity of South Harper is $326.02 per kW ($102.7 million divided by 315,000 kWs) without transmission and $399.53 per kW ($125.9 million divided by 315,000 kWs) with transmission.

Q. Does this conclude your rebuttal testimony?

A. Yes.

Aquila Networks - MPS and LP
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Actual mWh Purchased from Aries
Compared to Total Capacity
Available per Purchased Power Agreement

Year/ Month		Megawatts	mWh Available	Actual mWh
2002				
June		200	144,000	
		300	216,000	
	Totals for June		360,000	149,235
July		200	148,800	
		300	223,200	
	Totals for July		372,000	230,935
August		200	148,800	
		300	223,200	
	Totals for August		372,000	186,236
September		200	144,000	
		300	216,000	
	Totals for September		360,000	122,019
October		200	148,800	
	Totals for October		148,800	14,232
November		200	144,000	
	Totals For November		144,000	6,811
December		200	148,800	
	Totals for December		148,800	7,954
Total for 2002 Jun. - Dec.			1,905,600	717,422
	Percent of Capacity Available			37.65%

Year/ Month		Megawatts	mWh Available	Actual mWh
2003				
Jan.		200	148,800	
	Total for January		148,800	38,752
Feb		200	134,400	
	Totals for February		134,400	15,993
March		200	148,800	
	Totals for March		148,800	12,229
April		200	144,000	
		300	216,000	
	Totals for April		360,000	104,798
May		200	148,800	
		300	223,200	
	Totals for May		372,000	51,412
June		200	144,000	
		300	216,000	
	Totals for June		360,000	53,055
July		200	148,800	
		300	223,200	
	Totals for July		372,000	186,575
August		200	148,800	
		300	223,200	
	Totals for August		372,000	185,969
September		200	144,000	
		300	216,000	
	Totals for September		360,000	54,386
October		200	148,800	
	Totals for October		148,800	-
November		200	144,000	
	Totals For November		144,000	19,155
December		200	148,800	
	Totals for December		148,800	6,760
Total for 2003 Jan. - Dec.			3,069,600	729,084
				23.75%

Aquila Networks - MPS and LP
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Actual mWh Purchased from Aries
Compared to Total Capacity
Available per Purchased Power Agreement

Year/ Month	Megawatts	mWh Available	Actual mWh
2004			
Jan.	200	148,800	
Total for January		148,800	26,141
Feb	200	139,200	
Totals for February		139,200	49,389
March	200	148,800	
Totals for March		148,800	22,927
April: Aries was sold	200	144,000	
to Calpine	300	216,000	
Totals for April		360,000	68,173
May	200	148,800	
	300	223,200	
Totals for May		372,000	171,494
June	200	144,000	
	300	216,000	
Totals for June		360,000	81,186
July	200	148,800	
	300	223,200	
Totals for July		372,000	123,803
August	200	148,800	
	300	223,200	
Totals for August		372,000	84,441
September	200	144,000	
	300	216,000	
Totals for September		360,000	107,172
October	200	148,800	
Totals for October		148,800	26,199
November	200	144,000	
Totals For November		144,000	23,476
December	200	148,800	
Totals for December		148,800	3,254
Total for 2004 Jan. - Dec.		3,074,400	787,655
			25.62%

Year/ Month	Megawatts	mWh Available	Actual mWh
2005			
Jan.	200	148,800	
Total for January		148,800	-
Feb	200	134,400	
Totals for February		134,400	-
March	200	148,800	
Totals for March		148,800	-
April	200	144,000	
	300	216,000	
Totals for April		360,000	76,189
May	200	148,800	
	300	223,200	
Totals for May		372,000	101,828
Total for 2004 Jan. - May		1,164,000	178,017
			15.29%

Schedule: 1-2