

*Exhibit No.:*

*Issue: Combustion Turbines  
Valuation; Construction  
Costs; Interim Energy  
Charge (IEC)*

*Witness: Cary G. Featherstone*

*Sponsoring Party: MoPSC Staff*

*Type of Exhibit: Direct Testimony*

*Case No.: ER-2005-0436*

*Date Testimony Prepared: October 14, 2005*

**MISSOURI PUBLIC SERVICE COMMISSION**

**UTILITY SERVICES DIVISION**

**DIRECT 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**

**Jefferson City, Missouri  
October 2005**

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

**NP**

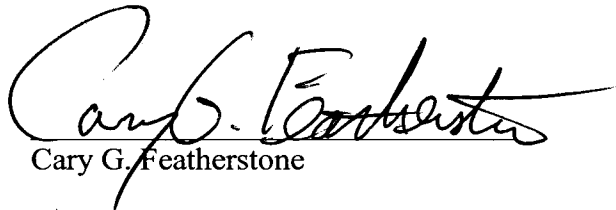
**BEFORE THE PUBLIC SERVICE COMMISSION**  
**OF THE STATE OF MISSOURI**

In the Matter of the Tariff Filing of Aquila, Inc.,	)	
to Implement a General Rate Increase for	)	Case No. ER-2005-0436
Retail Electric Service Provided to Customers	)	Tariff No. YE-2005-1045
in Its MPS and L&P Missouri Service Areas.	)	

AFFIDAVIT OF CARY G. FEATHERSTONE

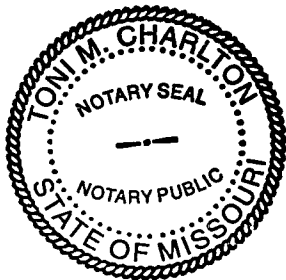
STATE OF MISSOURI     )  
  )     ss.  
COUNTY OF COLE     )

Cary G. Featherstone, being of lawful age, on his oath states: that he has participated in the preparation of the following Direct Testimony in question and answer form, consisting of 60 pages to be presented in the above case; that the answers in the following Direct 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 13th day of October 2005.

  
Notary



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

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

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**DIRECT 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 13<sup>th</sup> 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).

**CREDENTIALS**

Q. Please describe your educational background.

A. I graduated from the University of Missouri at Kansas City in December 1978 with a Bachelor of Arts degree in Economics. My course work also included study in the field of Accounting.

Q. What has been the nature of your duties while in the employ of this Commission?

A. I have assisted, conducted and supervised audits and examinations of the books and records of public utility companies operating within the state of Missouri. I have participated in examinations of electric, industrial steam, natural gas, water, sewer and

1 telecommunication companies. I have been involved in cases concerning proposed rate  
2 increases, earnings investigations and complaint cases as well as cases relating to mergers  
3 and acquisitions and certification cases.

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

5 A. Yes. Schedule 1 to this testimony is a summary of rate cases in which I have  
6 submitted testimony. In addition, Schedule 1 also identifies other cases where I directly  
7 supervised and assisted in audits of several public utilities, but where I did not file testimony.

8 Q. With reference to Case No. ER-2005-0436, have you examined and studied  
9 the books and records of Aquila, Inc. regarding the electric operations of its Aquila  
10 Networks—MPS division (MPS) and Aquila Networks – Light & Power division (Light  
11 Power or L&P)?

12 A. Yes, with the assistance other members of the Commission Staff (Staff).

13 Q. What knowledge, skill, experience, training and education do you have with  
14 regard to Aquila's application in Case No. ER-2005-0436?

15 A. I have acquired knowledge of the ratemaking and regulatory process through  
16 my employment with the Commission and through my experience and analyses in prior rate  
17 cases, complaint cases, merger cases and certificate cases before the Commission. I have  
18 participated in several Aquila rate cases, complaint cases, merger cases and certificate cases,  
19 and filed testimony on a variety of topics. I have also acquired knowledge of these topics  
20 through review of Staff work papers from prior rate cases brought before this Commission  
21 relating to Aquila. Specifically, as it relates to topics surrounding this case, I have previously  
22 examined generation and generation-related topics; conducted and participated in several  
23 construction audits, specifically the costs of construction projects relating to power plants. I

1 have also been involved in the fuel and fuel-related areas for power plant production on  
2 numerous occasions. I have been involved in many rate cases including the last several rate  
3 cases filed by Aquila, both under its current name Aquila, Inc. and its former name,  
4 UtiliCorp United, Inc. (UtiliCorp). I have reviewed the Company's testimony, work papers  
5 and responses to data requests addressing MPS in this application.

6 I participated in the review and examination of Aquila's prior ownership of a natural  
7 gas-fired combined cycle generating unit called Aries. I conducted and participated in  
8 interviews of Company personnel and consultants relating to the Aries issue and performed  
9 extensive discovery concerning aspects of the construction and operation of this generating  
10 facility and the purchased power contract between the owners of Aries and the regulated  
11 operations of MPS.

12 I have also been involved in construction audits of several generating units installed  
13 by Missouri utilities:

14 Kansas City Power & Light Company – Wolf Creek Nuclear Generating Station

15 AmerenUE – Callaway Nuclear Generating Station

16 Empire District Electric – State Line 1, 2 and Combined Cycle Unit

17 In addition, my college coursework primarily included accounting, auditing and  
18 economics classes.

19 **OVERVIEW OF AQUILA FILING**

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

21 A. I will provide testimony on the recommendation concerning the use of an  
22 Interim Energy Charge (IEC) mechanism for fuel and purchased power expenses. I will  
23 provide testimony on the Company's new combustion turbine generating facility called

1 South Harper. In particular, I am addressing the valuation of the South Harper turbines as it  
2 was determined as part of the Stipulation and Agreement reached in Case No.  
3 EO-2005-0156. Staff witnesses Leon Bender and Philip K. Williams will also testify on  
4 various aspects on the South Harper facility.

5 Q. Why did Staff audit Aquila in this case?

6 A. On May 24, 2005 Aquila filed a general rate increase case for its Missouri  
7 electric operations, i.e., its MPS and L&P divisions. The Commission assigned Case No.  
8 ER-2005-0436. Aquila filed tariffs that were designed to implement an increase in its  
9 Missouri electric retail rates for its MPS division customers, exclusive of franchise and  
10 occupational taxes, corresponding to a revenue increase to Aquila of \$69.2 million. This  
11 represents an overall 20.3% increase to existing MPS rates. Aquila also filed tariffs designed  
12 to implement an increase in electric rates for its L&P division customers corresponding to an  
13 increase in revenues of \$9.4 million. This proposed increase represents a 9.6% overall  
14 increase to existing L&P rates. Subsequently, on May 27, 2005, Aquila filed a general rate  
15 increase case, for its Missouri steam operations, i.e., its Light & Power division. The  
16 Commission assigned Case No. HR-2005-0450. Aquila filed tariffs designed to implement  
17 an increase in steam rates to L&P steam customers that corresponds to a \$5 million increase  
18 in revenues to Aquila. This proposed rate request represents a 44.3% increase in steam rates  
19 for Light & Power's six commercial steam customers.

20 Q Does Aquila have any other cases pending before the Commission that the  
21 Staff believes implicate any of the same issues that this case raises?

22 A. Yes. On December 3, 2004 Aquila filed an application seeking authorization  
23 to enter into a Chapter 100 financing arrangement with the City of Peculiar, Missouri, and a

1 determination of the value of the three Siemens Westinghouse combustion turbines it later  
2 installed near Peculiar, Missouri, at Aquila's new South Harper facility. The Commission  
3 established Case No. EO-2005-0156 for that application. As to the combustion turbines,  
4 Aquila requested the Commission value them for purposes of compliance with the  
5 Commission's rule on how assets acquired from an affiliate of a regulated utility are to be  
6 valued. The three combustion turbines were originally acquired by Aquila Merchant, a  
7 wholly owned non-regulated subsidiary of Aquila and ultimately were transferred to MPS.  
8 Aquila originally recorded their value on MPS books for regulatory purposes based on a  
9 written down value from Aquila Merchant's original purchase price. MPS took a write-down  
10 to the valuation it obtained from its consultant R.W. Beck. Without Commission  
11 authorization, Aquila attempted to transfer ownership of the combustion turbines to the City  
12 of Peculiar in December of 2004. Based on advice from counsel Staff doubts the legality of  
13 that transfer since this Commission did not authorize it. A Commission decision on the  
14 Stipulation and Agreement is still pending.

15 Q. Has Aquila recently announced the sale of some of its utility property?

16 A. Yes. In the spring of 2005, Aquila put several of its utility properties,  
17 including the Light & Power division, up for sale through a bidding process on the advice of  
18 its consultant, The Blackstone Group, and with the approval of the Board of Directors. After  
19 receipt of the final bids in August, Aquila decided it would retain the Light & Power electric  
20 and steam operations. In September 2005, Aquila announced the sale of several of its utility  
21 properties. The only Missouri property it announced it was selling are the natural gas  
22 operations of Aquila Networks MPS (the North and South systems) and the natural gas  
23 operations of the former St. Joseph Light & Power Company, acquired by Aquila December



1 31, 2000, and now referred to as Aquila Networks L& P. The Empire District Electric  
2 Company (Empire) was the successful bidder of all of Aquila's Missouri natural gas  
3 operations. No application has been filed with this Commission for authority to transfer  
4 these natural gas operations and the sale has not closed.

5 Q. How did Staff perform its audit of Aquila?

6 A. Staff conducted interviews of Aquila personnel. Staff reviewed Aquila's  
7 responses to data requests it issued in connection with this case. Staff reviewed Aquila's  
8 Board of Directors minutes, Annual Reports to Shareholders and filed SEC Forms 10-K and  
9 10-Qs. Staff toured plant facilities including the South Harper facility site where new  
10 combustion turbines were installed. Staff has participated in the Integrated Resource  
11 Planning (IRP) meetings held twice a year and reviewed documents relating to Aquila's  
12 capacity planning process. In particular, Staff attended several IRP meetings where the  
13 South Harper facility and these three combustion turbines were topics of discussion.

#### 14 **EXECUTIVE SUMMARY**

15 Q. Please summarize your testimony.

16 A. Staff is recommending that that a fuel mechanism be used for the recovery of  
17 fuel and purchased power expense. This mechanism is known as an Interim Energy Charge  
18 (IEC) and has been used, in one form or another, in prior cases involving coal, natural gas  
19 expenses or, as it is currently being used by Aquila as determined in its last rate case, a total  
20 fuel and purchased power cost approach.

21 The Staff is taking the position that Aquila should have built sufficient combustion  
22 turbine generating units to replace 500 MW of power it was obtaining from the Aries unit  
23 through a five-year purchased power agreement. The Staff is using costs Aquila incurred in

1 building the South Harper facility as the basis for the costs of three combustion turbines that  
2 replace about 315 MW of that capacity and two other combustion turbine generating units for  
3 the remainder.

4 I am recommending that the valuation agreed to in Aquila's application to transfer  
5 assets designated as Case No. EO-2005-0156 for three combustion turbines purchased from  
6 an Aquila non-regulated affiliate and installed at Aquila's South Harper generating facility be  
7 used for costs in this case. The Parties to that case entered into a Stipulation and Agreement  
8 (Stipulation) agreeing to an amount for the turbines and related equipment. As of the date of  
9 the preparation of this testimony, the Commission has not approved the Stipulation and  
10 Agreement in Case No. EO-2005-0156.

11 Staff has reviewed costs, in addition to the turbine costs, and related equipment for  
12 the installation and construction of the South Harper facility and is proposing several  
13 adjustments to reduce the costs of the construction for ratemaking purposes. These  
14 adjustments concern costs that Aquila incurred as result of the transfer of the turbine assets  
15 from a non-regulated affiliate of MPS, Aquila Merchant Services. These costs were for  
16 storage of the turbines and related equipment for over two-and-one-half years; litigation  
17 regarding the legality of the South Harper facility; for filing and prosecuting two cases before  
18 the Commission relating to the construction certificate and the valuation of the turbines and  
19 related equipment; and consultant fees for a valuation appraisal by R.W.Beck of the turbines  
20 and related equipment.

## 21 **ALLOWANCE TO THE REVENUE REQUIREMENT**

22 Q. What is the allowance for known and measurable changes as it appears on the  
23 Revenue Requirement, Schedule 1?

1           A.     In each of the three revenue requirement runs for the MPS –electric, Light &  
2 Power –electric and Light & Power –steam, an allowance has been roughly estimated to  
3 cover expected or anticipated increase to the overall revenue requirements being  
4 recommended in Aquila’s cases. The allowance is commonly used when true-ups are  
5 authorized for the rate case. If higher costs are expected beyond the update period, in this  
6 case June 30, 2005, then an allowance can approximate the impact on the case for those  
7 higher costs.

8           Q.     What higher costs does Staff believe may exist when the true-up is  
9 completed?

10          A.     For MPS case, Staff anticipates that higher costs will be reflected in the true-  
11 up for final construction costs for South Harper generating facility. For both the MPS and  
12 Light & Power revenue requirement calculations, fuel and purchased power costs are  
13 expected to be higher as result of an Interim Energy Charge proposal that Staff is  
14 recommending in this case.

15                 For the steam case, the allowance is a broad estimated for impacts of the recent  
16 explosion that occurred at one of the steam customer’s plant operations. This just occurred  
17 and Staff is unable to fully assess the impacts on the steam case at this time. It is anticipated  
18 that there may be additional cost impacts for expected fuel increases.

19     **BRIEF HISTORY OF AQUILA**

20          Q.     Please give a brief history of Aquila’s utility operations in Missouri.

21          A.     What is now Aquila, began as a Missouri corporation that provided utility  
22 service within what is now the service area of Aquila Networks—MPS in 1917. By the mid-  
23 1980’s that entity became UtiliCorp United, Inc. (UtiliCorp) and reorganized itself as a

1 Delaware corporation. In March 2002, UtiliCorp was renamed Aquila, Inc. The  
2 Commission approved this name change early in 2002. Previous to UtiliCorp, the Company  
3 was called Missouri Public Service Company.

4 Q. Please identify Aquila's current operations including its utility services  
5 provided within the state of Missouri.

6 A. Aquila is an investor-owned electric and natural gas utility that is engaged in  
7 the generation, purchase, transmission, distribution and sale of electricity on a regulated basis  
8 to approximately 452,646 customers in three states, Missouri, Kansas and Colorado (page 6  
9 of Aquila 2004 Annual Report). The Company also serves 910,116 natural gas customers on  
10 a regulated basis in seven states: Kansas, Colorado, Michigan, Minnesota, Iowa, Nebraska  
11 and Missouri. Aquila's Missouri operations represent approximately 46% of the Company's  
12 total utility operations. The Company continues to provide trading and marketing of  
13 wholesale services on a limited basis as it winds down its non-regulated operations for  
14 natural gas and electricity.

15 Aquila provides retail electric utility service to electric customers in the western and  
16 central part of the state of Missouri through its operating divisions, Aquila Networks-MPS  
17 and Aquila Networks-L&P, from its electric generation, transmission and distribution  
18 facilities. MPS provides electricity on a wholesale basis through tariffs approved by the  
19 Federal Energy Regulatory Commission (FERC). MPS and L&P also provide natural gas  
20 utility service to customers in Missouri. In addition, L&P provides industrial steam to six  
21 customers in St. Joseph, Missouri, from its Lake Road generating facility. Between MPS and  
22 L&P, Aquila serves 338,000 electric and natural gas customers in Missouri. Aquila serves a  
23 total of over 1.3 million customers through its regulated domestic electric and natural gas

1 utility operations in the states of Kansas, Colorado, Michigan, Minnesota, Iowa, Nebraska  
2 and Missouri.

3 As of the end of 2004, Aquila had non-regulated power generation operations,  
4 owning or controlling approximately 2,080 megawatts compared to 3,626 megawatts of non-  
5 regulated capacity at the end of 2002.

6 Finally, Aquila has a controlling interest in Everest Connections. Everest provides  
7 local and long-distance telephone, cable television, high-speed internet and data services to  
8 areas of Greater Kansas City. Everest started operating in 2001.

9 Q. When did Aquila acquire the assets operated by its Light & Power division?

10 A. On December 31, 2000 when Aquila merged with the St. Joseph Light &  
11 Power Company. Essentially the operations of St. Joseph Light & Power Company became  
12 Aquila's Light & Power division. The Commission approved this merger in Case No.  
13 EM-2000-292.

14 Q. In general terms, what areas of Missouri are served by MPS and by Light &  
15 Power?

16 A. MPS serves customers in and about Kansas City, Missouri. Light & Power  
17 serves customers in and about St. Joseph, Missouri.

18 **INTERIM ENERGY CHARGE**

19 Q. What is the purpose of this section of your testimony?

20 A. The purpose of this section is to provide the Commission with Staff's proposal  
21 for recovery of fuel and purchased power costs in this case for the electric operations of MPS  
22 and Light & Power operations.

1 Q. What is Staff proposing for recovery of fuel and purchased power costs in this  
2 case?

3 A. Staff is proposing a mechanism to allow Aquila to recover prudently incurred  
4 fuel and purchased power costs. This fuel and purchased power mechanism (fuel  
5 mechanism) would be used to determine the base and forecast levels for fuel and purchased  
6 power expense that Aquila would be permitted to charge its customers during a specified  
7 period of time, typically two or three years. This proposal includes a refund provision for  
8 any over-collection of costs from customers and provides Aquila the opportunity to keep  
9 revenues equal to prudently incurred costs over a predetermined base amount up to a ceiling,  
10 or forecasted amount. If actual costs come in under the base amount, Aquila would retain the  
11 difference between the actual and the base amount, and costs above the forecast level would  
12 be absorbed by Aquila.

13 Q. Can you more succinctly describe the fuel mechanism the Staff is proposing?

14 A. The fuel mechanism is an approach that allows higher fuel and purchased  
15 power prices to be used in determining interim rates in this case that will be subject to refund  
16 with interest. The amount of the fuel and purchased power costs that are in interim rates and  
17 subject to the true-up process is called the Interim Energy Charge (IEC). Specifically, the  
18 IEC envisions that a base amount of fuel and purchased power costs is established in  
19 permanent rates, with an additional amount of fuel and purchased power costs set in interim  
20 rates.

21 Q. Has this fuel mechanism been used before in other cases?

22 A. Yes. This approach was used in Aquila's last rate case, Case No. ER-2004-0034  
23 for both the MPS and the Light & Power divisions. In a Unanimous Stipulation and Agreement

1 (Stipulation) approved by the Commission in that case, the IEC was used during a time of high  
2 natural gas and purchased power costs. The volatility of energy costs in 2004 was high but not  
3 like those that are being experienced in today's energy markets. High natural gas and purchased  
4 power prices have inflicted tremendous cost increases during much of 2003, 2004 and all of  
5 2005.

6 Q. What was the term of the IEC agreement reached as part of the settlement of  
7 Case No. ER-2004-0034?

8 A. The IEC currently in existence with Aquila is for a two-year period from  
9 April 22, 2004 through April 21, 2006. A true-up audit will determine if any portion of the  
10 revenues collected exceeds Aquila's actual and prudently incurred cost for fuel and purchased  
11 power during the interim period.

12 Q. Did the parties in that case agree to this true-up process?

13 A. Yes. The true-up process is critical to a well-defined fuel mechanism because  
14 that feature is what makes the IEC work. The difference between the base amount and the  
15 forecast amount is the level of the IEC that is subject to refund. The fuel and purchased power  
16 component to utility cost structure is difficult to determine, with a host of variables to consider.  
17 Such variables include plant outages, heat rates, fuel and purchased power prices, the  
18 complexities of operating power plants, the dynamic of the market place for selling and  
19 purchasing power, and many other items. A true-up of the IEC amount is essential to determine  
20 what amount, if any, should be refunded back to customers and what level the utility should  
21 retain.

22 Paragraph 4 of Appendix A, attached to the Stipulation and Agreement in Case No.  
23 ER-2004-0034, identified the true up process.

1 Subsequent to the expiration of the Interim Energy Charge, an IEC Audit  
2 will commence in which the Parties will have opportunity to audit  
3 Aquila's actual variable fuel and purchased power costs of serving native  
4 load, which will exclude fixed costs and the costs of fuel and purchased  
5 power from interchange (off-system) sales. The IEC Audit will be  
6 conducted under the same terms and conditions that apply to audits in  
7 general rate cases before the Commission. If the IEC Audit determines  
8 that all or a portion of the revenue collected by Aquila pursuant to the  
9 IEC mechanism exceeds Aquila's actual and prudently incurred variable  
10 costs for fuel and purchased power (as recorded in the FERC accounts  
11 501, 547 and 555) for each operation on a Missouri retail basis during  
12 the period the IEC was in effect, Aquila will refund any excess up to the  
13 IEC Amount.

14 For the true-up, Aquila's true-up variable fuel and purchased power  
15 costs will be based on actual delivered coal costs, oil costs and natural  
16 gas costs, excluding fixed natural gas reservation charges, and actual  
17 purchased power costs, excluding demand charges relation to capacity  
18 purchases. The true-up will further exclude fixed costs charged to  
19 Accounts 501, 547 and 555 relating to fixed fuel components included in  
20 the permanent rates and to fuel and purchased power for interchange  
21 (off-system) sales.

22 Q. How will disputes concerning the IEC Audit be resolved?

23 A. The IEC Audit the Staff proposes would have disputes be presented to the  
24 Commission for resolution. Paragraph 5 of the Stipulation identifies the dispute process the  
25 Staff is proposing here.

26 Q. Does the IEC procedure include refunds?

27 A. Yes. Another essential element of the IEC is that it contain a refund mechanism  
28 to handle over-collections by the Company for prudently incurred actual costs between the base  
29 amount and the forecast, or ceiling amount. The true-up of the IEC will determine actual fuel  
30 and purchased power costs. Any amount collected in excess of those actual costs will be  
31 refunded back to the customers of MPS and Light & Power up to the forecast levels. Amounts  
32 refunded to customers will include interest so that customers are protected from any over-  
33 collection.



1 Q. Will IEC refunds to MPS and Light & Power customers be the same in amount,  
2 if it is determined refunds must be made?

3 A. No. Since these two operating divisions of Aquila are completely separated for  
4 regulatory purposes of this Commission, each having its own tariffs and cost structure, there will  
5 be two different IEC Audits, even though they likely will be conducted at the same time. The  
6 IEC Audits will be separate for MPS and Light & Power, with each audit being performed to  
7 determine “actual and prudently incurred variable costs for fuel and purchased power” costs  
8 identified on the books of MPS and Light & Power (paragraph 4 of Appendix A to the  
9 Stipulation and Agreement in Case No. ER-2004-0034).

10 Q. Did the Commission approve an IEC in Aquila’s last electric rate case, Case No.  
11 ER-2004-0034?

12 A. Yes. In an Order issued on April 13, 2004 the Commission authorized the use of  
13 an IEC. The rates in Case No. ER-2004-0034 went into effect April 22, 2004. The IEC for both  
14 MPS and L&P started the same time as the effective date of the tariffs—April 22, 2004.

15 Q. Were you involved in negotiating the IEC in Aquila’s last rate case?

16 A. Yes. Another Staff member and I sponsored the IEC mechanism in the last  
17 Aquila rate case.

18 Q. How did that IEC agreement work?

19 A. As noted above, that agreement (attached as Schedule 2) provides for recovery  
20 by Aquila from its customers of a base amount of fuel and purchased power plus an interim  
21 amount that is subject to refund with interest. The base amount was determined using actual  
22 natural gas and purchased power costs. The interim amount was determined using Aquila’s

1 forecasted natural gas and purchased power costs. Since there is a refund provision, the IEC  
2 agreement was intended to provide a “safety net” for both Aquila and its customers.

3 Paragraph 1 of the Aquila Stipulation states the following:

4 The Parties agree that resolution of the fuel and purchased power  
5 expense issues in Case Nos. ER-2004-0034 and HR-2004-0024 has  
6 been achieved as among themselves by an Interim Energy Charge  
7 (“IEC”) mechanism of setting rates to include a specific amount of the  
8 Missouri jurisdictional electric cost of fuel and purchased power on a  
9 permanent (i.e., not subject to refund) basis and to include another  
10 additional amount of variable fuel and purchased power cost on an  
11 interim basis, subject to true-up and refund

12 a. The specific amount to be included in the Missouri retail rates on a  
13 permanent basis for the Aquila Networks—MPS (“MPS”) electric  
14 operations is \$87,700,206 (1.6654 cent/kWh) and the additional  
15 amount to be included in Missouri retail rates on an interim basis,  
16 subject to refund, for the Aquila Networks---MPS electric operations is  
17 \$16,100,000 (0.3057 cents/kWh) for an overall total of \$103,800,206  
18 (1.9712 cent/kWh). The actual agreed upon cents per kilowatt hour  
19 IEC for each customer class is shown in Appendix B.

20 b. The specific amount to be included in the Missouri retail rates on a  
21 permanent basis for the Aquila Networks—L&P (“L&P”) electric  
22 operations is \$22,705,656 (1.2641 cent/kWh) and the additional  
23 amount to be included in Missouri retail rates on an interim basis,  
24 subject to refund, for the L&P electric operations is \$2,400,000  
25 (0.1336 cents/kWh) for an overall total of \$25,105,656 (1.3977  
26 cent/kWh). The actual agreed upon cents per kilowatt hour IEC for  
27 each customer class is shown in Appendix B.

28 c. The specific annual amount to be included in Missouri retail rates  
29 on a permanent basis for the L&P industrial steam operations is  
30 \$4,374,480 with no additional amount to be included in Missouri retail  
31 rates on an interim basis, subject to refund.

32 d. These amounts are meant to include only the Missouri retail  
33 variable costs accumulated in the FERC account numbers 501, 547  
34 and 555 and will be updated in the true-up portion of the case specified  
35 hereafter in this Agreement. The fixed costs in FERC account 501,  
36 547 and 555 will be recovered in permanent rates and will not be  
37 updated in the true-up portion of the case. The portion subject to true-  
38 up and refund, referred to herein as the “IEC Amount,” is explained in  
39 more detail herein and generally is designed to address the potential  
40 volatility in natural gas and wholesale electricity prices. This IEC

1 Amount will be the basis of the IEC to be approved by the  
2 Commission. The IEC will be reflected separately on all MPS and  
3 L&P electric rate schedules expressed in cents/kWh. The agreed to  
4 IECs are shown in Appendix B. The IEC will be collected on an  
5 interim basis and will be subject to true-up and refund under the terms  
6 of this Agreement...

7 [Schedule 2]  
8

9 The specific terms of the IEC are set out in the “Interim Energy Charge Rider Electric”  
10 tariff sheet 109 of the Company’s tariff sheets filed as result of the Commission’s decision in  
11 Case No. ER-2004-0034.

12 Q. Has an IEC been used by any other utility in Missouri?

13 A. Yes. The Empire District Electric Company (Empire), has used the IEC  
14 mechanism twice, once in 2001 and again as result of its last rate case, Case No. ER-2004-0570.  
15 The IEC was used during a time when natural gas and purchased power prices were high. The  
16 energy markets were very volatile in the fall of 2000 and early 2001. Utilities experienced high  
17 natural gas and purchased power prices during this time period. In fact, some of the natural gas  
18 prices in early 2001 were not unlike those in today’s energy markets. High natural gas and  
19 purchased power prices have inflicted tremendous cost increases during much of 2003, 2004  
20 and continue in 2005 to date.

21 Q. What amount of the IEC revenues were incorporated in Empire’s rates in  
22 2001?

23 A. In Case No. ER-2001-299, Empire received an amount in excess of  
24 \$19 million for the IEC. This first IEC included all fuel and purchased power costs, both  
25 variable and fixed. The later Aquila IEC included only variable fuel and purchased power  
26 costs, as did the Empire’s IEC in its last rate case, Case No. ER-2004-0570.

27 Q. Has Empire had to return any monies through an IEC refund mechanism?

1           A.     Yes. In Case No. ER-2002-424, Empire refunded, with interest, all of the  
2 monies collected under its first IEC, after having reduced the amount collected under the IEC  
3 by some \$7 million annually in Case No. ER-2002-1074.

4           Q.     Was Empire allowed to keep any money collected as part of the IEC amount?

5           A.     Empire did not retain any of the IEC amount. It returned the entire  
6 \$19 million with interest to its customers. Empire was able to retain any IEC revenues in  
7 excess of fuel and purchased power costs below the base amount of the IEC. Once an IEC  
8 concludes, the amount of fuel costs built into permanent rates, the base amount of the IEC, is  
9 the level that the utility collects in rates. If utility companies can keep their fuel and  
10 purchased power costs below the base, or permanent level, the utility will retain those  
11 collected revenues for its shareholders. Thus, in Empire's 2001 IEC, it was able to "beat" the  
12 base IEC amounts, to the benefit of its shareholders.

13          Q.     Was the Staff concerned about allowing Empire retain monies collected in  
14 rates from its customers, even though the fuel costs were under the base (permanent)  
15 amount?

16          A.     No. A primary feature of the IEC is that utilities get the potential to keep  
17 monies collected in excess of actual fuel and purchased power costs. If the base IEC amount  
18 is developed properly, this provides utility companies using an IEC an economic incentive to  
19 drive fuel costs down sufficiently to keep some of the collected revenues. It is equally  
20 important to set the IEC forecast amount at an appropriate level. If the forecast amount is too  
21 low, in a rising energy market the company will not have a reasonable opportunity to collect  
22 sufficient revenues to cover its fuel and purchased power costs. If the forecast is set too high,  
23 the utility company may not have necessary incentives to keep fuel and purchased power

1 costs low. An IEC forecast amount set too high is nothing more than a pass-through of fuel  
2 and purchased power costs. Thus, it is very important to establish the proper base and  
3 forecast amounts in the IEC mechanism.

4 Q. What amount did the IEC contribute to Empire's revenue requirement upon  
5 which its rates were set in its last rate case?

6 A. In Case No. ER-2004-0570, Empire received an IEC amount of \$8,249,000  
7 for variable fuel and purchased power costs that went into effect March 27, 2005. The  
8 current Empire IEC is for three years for the period March 27, 2005 through March 26, 2008.

9 Q. How has Staff determined fuel and purchased power costs in prior Aquila rate  
10 cases?

11 A. Staff has traditionally used actual fuel and purchased power prices to  
12 determine the level of fuel and purchased power expenses included in the development of the  
13 revenue requirement. Fuel costs include the cost of coal, oil and natural gas. Staff witness  
14 Graham Vesely identifies the use of the actual prices for coal, freight and oil in his direct  
15 testimony and Staff witness Charles Hyneman discusses the development of natural gas  
16 prices in his direct testimony filed in this proceeding. Fuel costs also include the amounts for  
17 purchased power. Staff witness David Elliott determined the amounts of purchased power  
18 costs and discusses them in his direct testimony filed in this case.

19 The development of the fuel and purchased power costs typically has substantially  
20 relied on the actual historical information on the generating facilities and their operational  
21 costs. It is very difficult to predict or forecast future costs, especially for fuel. Because of  
22 the volatility in prices, it is even more difficult to predict the prices for fuels burned in the

1 Company's generating facilities and the cost of energy purchased through the interchange  
2 markets, either through a capacity agreement or spot purchase.

3 Q. Is the cost of natural gas difficult to forecast?

4 A. Yes. Along with purchased power costs, the volatility in natural gas costs is  
5 probably the most difficult to predict with any certainty. Natural gas markets have  
6 historically been quite volatile, but in the recent past they have been even more volatile. No  
7 one can predict with a reasonable degree of certainty, the natural gas prices that utilities will  
8 pay in the future to fuel their power generating facilities.

9 Q. Is it difficult to satisfactorily predict a single point for fuel and purchased  
10 power prices?

11 A. Yes. It is extremely difficult to make predictions in the current volatile energy  
12 market, using either actual historical prices or some type of forecast levels. An IEC avoids  
13 the need to develop a single price or 12 monthly prices because, while you still have to  
14 determine a base amount to set permanent rates, the forecast amount that is subject to refund  
15 allows flexibility in pricing the natural gas and purchased power prices.

16 Q. Does Staff still support the use of actual costs to develop fuel and purchased  
17 power expense levels to include in rates?

18 A. Although Staff still believes that the use of historical costs is generally the  
19 most reliable approach to determining fuel prices, it is extremely difficult in the current  
20 energy market to predict the future with any degree of certainty. Therefore, total reliance on  
21 historical averages to determine fuel prices is not the method that Staff would recommend the  
22 Commission use for setting rates for Aquila in this case. Because of the extreme volatility in  
23 the natural gas and purchased power markets during the past almost three years starting in

1 early 2003, Staff has had to develop its prices by reflecting the higher prices of today's  
2 market. The greater the volatility of the energy market, the less confident one can be about  
3 fuel price determinations. Using historical levels to develop prices for natural gas costs may  
4 lead to under-collection of fuel costs by the Company, while use of forecasts may result in  
5 over-collection, if there is no mechanism in place to true-up to actual and prudent costs.

6 Q. How did the Staff determine the natural gas and purchased power prices it is  
7 using in this case?

8 A. Staff used recent actual natural gas and purchased power prices Aquila  
9 incurred through June 30, 2005, for developing the natural gas and purchased power prices it  
10 is using in this case. Using the latest prices gives effect to the most recent market of market  
11 of higher prices through June 30, 2005 update period. In effect, Staff's proposal is to ensure  
12 that the Company's natural gas and purchased power costs would be indicative of the higher  
13 market conditions. Equally important, however, is the concern that Aquila will incur even  
14 higher fuel and purchased power price levels and not return to the lower more normal  
15 historical levels of 2002, thus the reason for the need to develop a fuel mechanism like the  
16 IEC. The IEC, in effect, offers protection from over- and under-recovery of fuel costs when  
17 the proper safeguards are implemented.

18 Q. How is the IEC a protection from over- and under-recovery of fuel costs?

19 A. Because a base using more conservative prices for natural gas and purchased  
20 power is determined and a ceiling, or cap, using higher forecasted prices for these  
21 commodities is determined, the IEC allows for the return of monies if the forecast amounts  
22 do not materialize. In reality, the IEC ensures that the customers get benefit of any lower

1 fuel costs if the energy market declines and the Company is protected from the upside of  
2 higher fuel costs if the energy market stays at its historical highs or rises.

3           If the IEC is not implemented, and a single point is used for both fuel and purchased  
4 costs, in energy markets that are rising, generally, the Company will under-recover the actual  
5 higher fuel and purchased power costs having, in some cases, tremendously adverse effect on  
6 its earnings. An example, if rates support a \$5 per mmBtu amount for natural gas and the  
7 actual amount is \$7 per mmBtu, and rates support \$35 per mWh amount purchased power  
8 price, and the actual costs turns out to be \$40 per mWh, the company will not recovery its  
9 costs, unless there are costs reductions in other parts of its operations. Increases in revenues  
10 can off-set or at least mitigate the under recovery. Conversely, if the energy costs are set too  
11 high in rates, without some sort of refund mechanism, the Company will reap a windfall if  
12 these prices fall. As an example, if the price for natural gas is set at \$7 per mmBtu, and the  
13 price for purchased power is set at \$45 per mWh, the Company would over-collect if the  
14 energy prices fell below these levels. Without any opportunity for a refund of this over-  
15 collection, the Company would benefit substantially.

16           Q.     Have there been other times when energy costs were difficult to determine in  
17 the course of setting rates?

18           A.     Yes. Developing fuel prices is always difficult, but there have been several  
19 times, including the most current time frame, where the task has become even more difficult.  
20 During the 2000/2001 winter, natural gas prices hit unprecedented levels. In some cases,  
21 natural gas prices hit upwards of \$12 mmBtu. The IEC was developed to address this  
22 extremely volatile market.



1           In the early 1980s, the Commission authorized the use of a forecasted fuel mechanism  
2 for several electric utilities that had been exposed to escalating fuel costs. This mechanism  
3 was used to address extraordinary circumstances and Staff believed that a similar approach  
4 could be used to address the unprecedented, volatile and extremely high costs of natural gas.

5           Q.     Does the Staff believe that a solution to the difficulty of developing natural  
6 gas and purchased power pricing in this case is an IEC-styled fuel mechanism?

7           A.     Yes. Staff, early in the audit of Aquila, believed that it would be advisable to  
8 attempt to develop another IEC mechanism similar to the one currently in existence for  
9 Aquila to address the volatility found in the natural gas and purchased power market that is  
10 driving up prices. The Company has discussed the possibility of an IEC mechanism with  
11 Staff prior to filing this case. However, Aquila filed its case assuming there would be a fuel  
12 clause mechanism in place with a true-up mechanism in the Company's direct filing. I will  
13 discuss the fuel clause later in this testimony.

14          Q.     Why did the use of Interim Energy Charges come about?

15          A.     Just as fuel prices were uncertain in the 1980s, they have become even more  
16 volatile and less predictable in the recent past. Years ago, Staff was interested in developing  
17 a forecasted fuel process that identified natural gas as the only fuel source that would form  
18 the basis for the forecasted fuel mechanism. After extensive discussions in the 2001 Empire  
19 case, it became apparent that a broader forecasted fuel mechanism would be necessary  
20 because of the interrelationship between gas prices and wholesale electricity prices for  
21 purchased power. With the unprecedented and extraordinary high natural gas prices that had  
22 been experienced during much of the latter part of year 2000 and the early part of 2001, it  
23 became apparent that a modification of the traditional and historical approach to determining

1 fuel prices in that rate case was necessary. A major contributing factor to the decision to  
2 depart from using historical costs only to determine the basis of the fuel prices used for fuel  
3 expense was Empire's generating plant addition of State Line Combined Cycle Unit. The  
4 State Line Combined Cycle Unit went into service in June 2001. This generating facility  
5 burned only natural gas and therefore represented a significant increase to Empire's fuel burn  
6 using natural gas. Empire's exposure to the increase in natural gas fuel burn came at a time  
7 when natural gas prices had been steadily rising. When the unit did go into service, natural  
8 gas prices were retreating but still higher than in previous periods. This placed significantly  
9 more risk on Empire than most of the other electric utilities operating in the state of Missouri.

10 Q. Has Aquila experienced a similar increase in its natural gas consumption?

11 A. Yes. Aquila, like Empire, has seen a significant increase in natural gas use to  
12 fuel its generators and through the purchased power agreements. In the last case, one of the  
13 contributing factors for recommending an IEC was the exposure that Aquila had with the  
14 Aries Combined Cycle Unit. Aquila had executed a purchased power agreement to take  
15 power from that unit through May 31, 2005. In that purchased power agreement, MPS  
16 supplied the natural gas to fuel the energy it received from the Aries unit. Despite the  
17 expiration of the Aries contract, Aquila has installed its own capacity at South Harper for 315  
18 megawatts. In much the same way as Empire, Aquila has increased its dependence on  
19 natural gas, which in turn increases the Company's exposure to the fluctuations of that very  
20 volatile energy market.

21 Q. You suggested earlier that the natural gas market affects purchased power  
22 prices. Please explain.

1           A.     Yes. Equally important to electric utilities are the effects high natural gas  
2 prices have had on the purchased power market. With escalating natural gas prices, the  
3 purchased power costs have also increased. While certainly not the only factor, there is a  
4 relationship between natural gas prices and purchased power cost. To some degree higher  
5 purchased power prices track natural gas pricing. Moreover, if a forecasted fuel mechanism  
6 was used that did not include purchased power costs, the utility could potentially benefit  
7 from forecasting natural gas only. The forecasted natural gas prices may make the purchased  
8 power prices more economical, giving the utility an incentive to purchase power and not  
9 generate power from natural gas. In other words, the utility could “game” or benefit from  
10 such a situation. The inclusion of purchased power costs along with the other fuel cost  
11 components in the forecasted fuel process will significantly reduce the risk of the process  
12 being taken advantage of. It is not the intent that either the utility or its customers unduly  
13 benefit from the forecast fuel process. This fuel and purchased power mechanism cannot be  
14 used to allow utilities to reap windfall profits, nor can this process allow customers to unduly  
15 benefit from being totally insulated from the rising fuel and purchased power costs.

16           Q.     How has the volatile energy market exposed the Company to grater risk?

17           A.     In Aquila’s last rate case, Case No. ER-2004-0034, its policy witness Keith  
18 Stamm, Aquila’s Senior Vice President and Chief Operating Officer, in his direct testimony  
19 at page 18, line 15, stated that “for each \$1 increase in natural gas commodity prices, the  
20 annualized cost of fuel to serve our intermediate and peaking loads increases by  
21 approximately \$10.5 million.” As indicated above, with the Company dependent on natural  
22 gas to fuel its electric generators, the increased costs of the natural gas commodity exposes  
23 Aquila to much the same risk as Empire with respect to its use of natural gas as a fuel source.

1           The increased risk to Aquila is illustrated by using the above-noted numbers  
2 presented by Mr. Stamm. If the estimates for natural gas price are missed by just \$1, the  
3 potential for Aquila either to receive a windfall or to incur shortfall in costs would be  
4 substantial. If Aquila over-collected in its fuel cost by this estimate, the customers would be  
5 paying significantly greater rates than they should. On the other hand, if the forecast in fuel  
6 cost was under-stated, then Aquila would under-collect its fuel cost in rates resulting in a  
7 significant shortfall. If these shortfalls were on the order of the \$10.5 million, that would be  
8 approximately one-sixth of net operating income for the Company's MPS electric operations  
9 as determined by the amount in Staff's direct filing (\$10.5 million compared to the  
10 approximately \$65 million of adjusted jurisdictional amount shown in Accounting Schedule  
11 9-4, line 111). The greater reliance on natural gas coupled with the high cost of that fuel  
12 places Aquila in a difficult situation.

13           Q.     What is Staff's recommendation regarding the IEC?

14           A.     Staff believes that some type of forecasted mechanism is necessary to protect  
15 both the customers and the Company during this extraordinary period of high natural gas  
16 costs. If a base can be determined and a forecast, then an interim amount can be computed  
17 that would be subject to a true-up process to actual costs, with a refund provision that will  
18 accrue interest.

19           Q.     How would the Interim Energy Charge the Staff proposes work?

20           A.     The mechanism would be similar to the one currently in existence. The  
21 Interim Energy Charge requires the establishment of a base amount for fuel and purchased  
22 power cost that would be set as part of permanent rates. The Interim Energy Charge then  
23 identifies an amount of fuel and purchased power cost above the base cost and up to a

1 “forecasted” price that would be subject to refund. This interim charge would be in effect for  
2 a period of up to 24 or 36 months from the effective date of the rates determined in this case.  
3 At the conclusion of this period, a true-up audit would be performed to identify actual cost  
4 for fuel and purchased power in order to determine if Aquila over- or under-collected  
5 amounts during this period. If the Company over-collected its actual cost for fuel and  
6 purchased power up to the interim amount, then it would refund to its customers with interest  
7 down to the base amount. Of course, if Aquila under-collected costs associated with fuel and  
8 purchased power, the Company would not have to refund any amounts.

9 Q. How could a base be determined?

10 A. Staff’s has examined the historical costs based on actual prices paid for  
11 natural gas and purchased power over several years. While energy prices are at  
12 unprecedented levels, the base, or floor could be something less than the amount  
13 recommended in this case by either Aquila’s \$6.57 per mmbtu (Empson Direct, p. 12, l. 16)  
14 or the level of \$7 per mmbtu recommended by Staff witness Charles Hyneman. To provide  
15 an additional incentive to the Company to seek out low cost energy, for both natural gas and  
16 purchased power, a base below Staff’s amount being recommended by Staff witness  
17 Hyneman could be used.

18 Q. How could the forecast or ceiling be determined?

19 A. As long as a refund mechanism with interest is in place, a significantly higher  
20 level than those the Company or Staff is recommending could be developed for the  
21 forecasted levels for the ceiling.

22 Q. What base and forecast levels does the Staff recommend?

1           A.     The Staff recommends that the Parties develop a range of prices that could be  
2 used for the IEC. Therefore, Staff is not, at present, recommending specific base or forecast  
3 levels. All IEC mechanisms that have been used, two for Empire and one currently in effect  
4 for Aquila, were developed by getting a consensus from the parties in the respective cases for  
5 the use of an IEC approach, in general, and then, specifically agreeing to the IEC base and  
6 forecast levels.

7           The use of the IEC mechanism in the past has been a collaborative process with the  
8 parties exchanging ideas, each bringing their own perspective and interests to the discussions.  
9 The IEC base and forecast levels have been the subject of much discussion and ultimately,  
10 were negotiated among the parties. In fact, the Aquila IEC from the last case reflected not  
11 only the negotiations specifically concerning the IEC base and forecast prices, but also the  
12 negotiations were affected by the overall settlement negotiations for the total revenue  
13 increase. Thus, it is important for all the parties to have an opportunity to express viewpoints  
14 on the IEC mechanism and the base and forecast levels. Consequently, Staff is not proposing  
15 IEC base and forecast levels at this time.

16           Q.     Why should an Interim Energy Charge be adopted?

17           A.     It is advantageous. The Interim Energy Charge alleviates the need to pinpoint  
18 fuel prices used to develop fuel and purchased power costs. Because any amounts over-  
19 collected are subject to refund with interest, the pressure to predict price increases for the fuel  
20 components is significantly reduced. A good deal of the risk of missing the forecast is  
21 neither on the Company nor on its customers. Staff believes that it is a distinct advantage to  
22 be able to have a mechanism that allows recovery of any over-collection of costs back to  
23 Aquila's customers. In essence, this approach provides a "safety net" for both Aquila and its

1 customers if the cost levels are missed. Staff does not believe this mechanism is appropriate  
2 for normal economic circumstances and still supports the use of actual historical information.  
3 But when we see dramatic cost volatility, such as those seen recently in the natural gas  
4 industry, and the potential impact is so great on a particular company, this type of approach  
5 can be used effectively.

6 Q. Have forecasted fuel mechanisms been used in past cases?

7 A. Yes. Forecasted fuel with a true-up provision was used in several electric  
8 cases in the early 1980s. The early forecast fuel process was developed as a result of high  
9 fuel prices caused by two oil embargoes in the 1970s. The forecasted fuel mechanism was  
10 developed and used as a means of addressing the rising fuel prices that the electric utility  
11 industry was experiencing, just as the IEC mechanism was developed couple of years ago.  
12 While these early forecasted fuel provisions were significantly different than the IEC  
13 mechanism, the processes have some similarities. There were two significant features that  
14 enabled the forecasted fuel mechanism to work: 1) the forecasted fuel prices and resulting  
15 fuel burns were developed in the context of a rate case; and 2) there was a true-up audit of  
16 the forecasted fuel prices only, with a refund provision.

17 Several forecasted fuel true-up cases were used in the 1980s. Kansas City Power and  
18 Light Company (KCPL) was the first utility to use this process. In each of KCPL's rate cases  
19 in 1981, 1982 and 1983, the forecasted fuel process was used. The following table identifies  
20 the rate cases where forecasted fuel was used along with the associated forecasted fuel true-  
21 up case number:

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Forecasted Fuel

	<u>Rate Case</u>	<u>True-up Case</u>
Kansas City Power and Light	ER-81-42	----
	ER-82-66	EO-83-9
	ER-83-49	EO-84-4

In fact, Empire used this process in one of its rate cases in the early 1980s. Several other utilities used this process during the high inflationary period of the early part that decade, as well.

Q. How did the forecasted fuel process work?

A. A forecasted level of fuel prices for coal and, on occasion, natural gas was determined in the rate case. The period of the forecast fuel prices was six months after the operation of law date of the rate case. When actual fuel prices became known, the Staff did a true-up audit to determine if the utility over- or under-collected in the forecasted fuel mechanism. The forecasted fuel prices were subject to refund with an interest provision for any amounts over-collected by the company. The tariffs filed by the Company in the rate case were identified with a “subject-to-refund” provision. If the company over-collected any dollar amount of the forecasted fuel price, the customers received a credit to their bills. The company was allowed to keep any amounts that were under-collected up to the forecast amount. Any amount that the company under-collected over the forecast level was absorbed by the company. The forecasted fuel price set a maximum and minimum fuel price in rates. The base or permanent rates contained the base fuel price and the amount that was subject to refund was set at the forecasted fuel price. Fuel prices were set at the base level and the true-up could not go below that level once these fuel prices were set in the rate case.

Q. Previous forecasted fuel true-ups appear to only have included forecasts for coal and natural gas costs. How does Staff envision the IEC mechanism be used in this case?



1           A.     While the early forecasted fuel was previously developed to include only coal  
2 and natural gas prices, the stipulations reached between the signatory parties in the Empire  
3 and Aquila rate cases include all components of fuel and purchased power costs. Just as the  
4 forecasted fuel mechanism in the 1980s relied on inputs and assumptions developed during  
5 the course of the respective rate cases, the fuel components in the interim energy provision  
6 have been established during the course of the audit in current Aquila rate case. Even though  
7 the Company and Staff typically develop two different fuel models with two different sets of  
8 assumptions, the results may be vastly different depending on the overall assumptions used to  
9 calculate the levels of expense determined by the fuel runs. The fuel models, with the proper  
10 prices, can be used to establish the basis for the base rate and the forecast rate. The fuel run  
11 using the base prices could be used to develop the base IEC amount and another run using  
12 forecasted prices could be used to determine the forecasted IEC amount.

13           Q.     Are there other costs added to the amounts developed in the fuel run?

14           A.     Yes. In addition to the fuel and purchased power costs determined by the fuel  
15 run, demand charge costs for Aquila's capacity agreements have to be included. Costs  
16 relating to the non-variable component of fuel have to be included in the total fuel and  
17 purchased power costs included in this case. These amounts include rail car maintenance,  
18 rail maintenance, fuel handling and a variety of other costs. These amounts would be  
19 included in the base, or permanent part to the IEC. However, the non-variable components to  
20 fuel and purchased power should not be included in the forecast levels or part of the overall  
21 IEC. Since these are fixed costs, they are included in the permanent rates but not part of the  
22 IEC mechanism.

23           Q.     How would the IEC true-up process the Staff proposes work?

1           A.     The forecasted fuel mechanism would have a true-up provision to actual and  
2 prudently incurred fuel and purchased power costs separately by MPS and Light & Power  
3 identified through a true-up process. The true-up process would begin after the expiration of  
4 the Interim Energy Charge, which would occur no later than 24 months, for a two-year IEC,  
5 or 36 months for a three-year IEC, from the original effective dates of the appropriate tariff  
6 sheets. All the variable components of fuel cost and purchased energy would be examined  
7 during this true-up. The price of fuel and the operations of the generating units would be  
8 reviewed, along with purchased power cost, to identify an actual level of prudently incurred  
9 fuel cost to be used to compare to the forecasted level to determine any over- or under-  
10 collection. To the extent that the Company over-collects in any amount above the base level  
11 up to the forecasted interim level, those dollars will be refunded to Aquila's customers with  
12 interest. No over-collection below the base amount would be refunded. If the true-up results  
13 in an under-collection, then Aquila would not obligated to return any amount of money to its  
14 customers.

15           The interest rate would be the prime interest rate identified in the Wall Street Journal  
16 as of the last month of the forecasted fuel process.

17           Q.     Should the Commission adopt an Interim Energy Charge?

18           A.     Yes. Staff recommends the Commission adopt the Interim Energy Charge for  
19 the purpose of setting variable fuel and purchased power expense levels in this rate case.

## 20 **MODIFICATIONS TO EXISTING IEC MECHANISM**

21           Q.     Will there need to be modifications to the existing IEC mechanism currently  
22 in effect for Aquila?

1           A.     Yes.   Several areas of concern exist with the current IEC mechanism  
2 developed in Case No. ER-2004-0034.  When the IEC mechanism was developed for Aquila  
3 in the last case, the Company did not have a significant hedging program in place and,  
4 therefore, no provision was made to include the results and costs for hedging.  The existing  
5 IEC mechanism will have to address the impact for hedging in the true-up IEC Audit.  The  
6 proposed IEC mechanism that may result from the Commission's decision in this case,  
7 should include the results from a well thought out, managed and prudently executed hedging  
8 program.

9           Q.     Is a utility company's hedging for natural gas done to mitigate energy costs  
10 and reduce the risk of volatility in the energy markets?

11          A.     Yes.   Generally, utility companies, both electric and natural gas local  
12 distribution companies (LDC's), use some type of hedging program to purchase natural gas.  
13 This is especially important in the markets that exist today and over the past several years.  
14 Utilities use the hedging of natural gas to minimize the cost affects of expected raising  
15 markets.  Staff's position is that hedging is done to mitigate natural gas and energy costs and  
16 should be reflected in the IEC mechanism to reduce the substantial risk of extremely high  
17 energy markets.  Staff believes that a well thought out, managed and prudently executed  
18 hedging program should be used to reduce the risk of volatility and minimize fuel costs.

19           In particular, in energy markets like the heating season in 2000 (September through  
20 December) and 2001 (January through March), the energy markets of late 2003 and 2004 and  
21 the current market may benefit by a hedging programs implemented by electric and natural  
22 gas companies.

1           Q.     Has does Aquila treat the gains, losses and costs to implement its hedging  
2 program?

3           A.     Aquila books the results of the hedging program and related costs a FERC  
4 (Federal Energy Regulatory Commission) below-the-line account. Aquila books hedging  
5 costs to Account 430.17. No hedging costs or the results of the hedging program are booked  
6 to 501, 547 or 555, which are the accounts identified in the Stipulation in Case No.  
7 ER-2004-0034 for those accounts that are going to be used for the true-up in the IEC Audit.  
8 By contrast, it is my understanding that Empire books hedging costs to one of these three  
9 accounts and includes results (and costs) in its IEC mechanism, giving full credit to any  
10 reduction in natural gas pricing. In other words, the benefits of Empire's hedging program  
11 would be used in the IEC mechanism to reduce the cost impact from the higher energy  
12 markets

13           In order to accurately determine the amount of any refund owed the customers, the  
14 results of the hedging program and prudently incurred costs to implement such program  
15 should be included in the true-up IEC Audit.

16           Q.     Did Aquila have a hedging program in place prior to the implementation of  
17 the existing IEC mechanism?

18           A.     Yes. Aquila had a limited hedging program that was expiring in at the end of  
19 2003. After the IEC mechanism went into effect on April 22, 2004, Aquila started a  
20 different, more intense effort to hedge energy costs in July 2004. For most of the remainder  
21 of 2004, the hedging program lost money; thus, this would have added costs to the IEC  
22 mechanism if it had been included in the calculations.

1 For more detailed discussion on Aquila's hedging policies, please refer to the direct  
2 testimony of Staff witness Hyneman.

3 Q. What other areas of concern exist with respect to the current IEC mechanism  
4 that need to be addressed in any proposed second IEC that would result from a Commission  
5 decision in this case?

6 A. Any new IEC should be developed so as to be able to identify unusual events  
7 that occur infrequently. Aquila experienced two such events in 2004. The first one was a  
8 breached contract by one of Aquila's coal suppliers, C.W. Mining. The other unusual event  
9 was a scheduled outage at Sibley Generating Station. Both of these unusual events  
10 significantly impacted the actual fuel and purchased power costs for 2004 that are the basis  
11 of the IEC mechanism. The IEC mechanism started in April 2004, when rates from Case No.  
12 ER-2004-0034 went into effect. From the very beginning of the current IEC period both of  
13 these unusual events caused increased fuel and purchased power costs over and above those  
14 contemplated when the IEC was negotiated by the Parties in Aquila's last rate case. Thus,  
15 the current IEC mechanism has been in an under-recovery mode from its inception, due in  
16 large part from these two unusual events.

17 Q. Does Staff believe that these two events should not be included as part of the  
18 IEC mechanism?

19 A. Staff is taking the position that the C.W. Mining coal contract breach needs to  
20 be evaluated in the context of what legal recourse Aquila has regarding collecting damages  
21 from the coal supplier. Staff is proposing to condition recovery for the use of the higher  
22 priced replacement coal on Aquila's pursuit of the legal remedies in the courts for damages.

1           As to the Sibley outage, while Staff wants to identify the amount of increased costs  
2 for additional fuel and purchased power occurring from the outage, Staff is not proposing any  
3 disallowance, nor does intend to remove these additional costs in the IEC true-up. It is  
4 important, however, to clearly identify the amounts for the outage to fully assess the impacts  
5 of any suggested under-recovery relating to high natural gas costs. While natural gas prices  
6 may have been high during the period of the IEC, they did not contribute to the majority of  
7 the under-recovery of costs to date—the coal contract and Sibley outage caused the majority  
8 of under-recovery.

9           Q.     If the effects of the under-recovery are part of the true-up IEC Audit, why is it  
10 necessary to address this matter in context of this rate case?

11          A.     In developing an IEC mechanism in this current rate case to replace to the IEC  
12 mechanism from the last Aquila rate case, it is important to learn from the problems that have  
13 occurred previously. The hedging program, the coal contract problem and the Sibley outage  
14 all caused the significant under-recovery of the existing IEC mechanism as of the end of July  
15 2005. Future IEC mechanisms should identify unusual events so determination can be made  
16 for the prudence of recovery and to quantify the effects of the unusual events in relation to  
17 other causes such as high natural gas costs.

18          Q.     Are the final costs for the IEC mechanism complete?

19          A.     No. The current IEC mechanism goes through April 2006. Each month's IEC  
20 amount is only the status of that month's view. The final costs of the IEC mechanism will be  
21 determined in the true-up IEC Audit occurring after April 2006. It is only at this time that all  
22 prudently incurred actual variable costs for fuel and purchased power will be determined and  
23 the actual IEC amount subject to refund can be quantified. The two-year IEC mechanism

1 will have significant costs increases for the coal contract dispute and the Sibley outage.  
2 These two unusual events will contribute greatly to any under-recovery of fuel and purchased  
3 power costs, if the trend continues.

4 Q. What is the C.W. Mining coal issue?

5 A. C.W. Mining submitted a bid to provide high Btu coal to Aquila's Sibley and  
6 Lake Road generating facilities. Aquila entered into a contract in September 2003 with C.W.  
7 Mining to supply coal commencing in January 2004. Before the contract took effect, C.W.  
8 Mining notified Aquila that it was having labor disputes. At no time during the contract did  
9 C.W. Mining supply coal in the quality and quantity it agreed to provide Aquila. C.W.  
10 Mining only provided about one-third the required coal tonnages in any given month.

11 C.W. Mining indicated to Aquila that it thought it would be able to fulfill the terms of  
12 the contract. Aquila was forced to replace the contract amounts not being supplied by C.W.  
13 Mining with much higher (twice the price) coal from spot market. This could not come at  
14 worse time for Aquila because the price for coal has been rising so there was a significantly  
15 greater costs to the Company.

16 C.W. Mining issued a letter to Aquila in late 2003 citing labor interruptions that  
17 would not allow the mining company to fulfill the terms of the contract that was to start in  
18 January 1, 2004. During various times in 2004, C.W. Mining notified Aquila, citing  
19 Section 13 of the contract of a "force majeure" that its labor problems were continuing that  
20 precluded the contracted supply of coal from being delivered. In spring 2005, C.W. Mining  
21 notified Aquila that it was terminating the contract. In the termination notice, C.W. Mining  
22 did allude to a willingness to supply coal to Aquila on re-negotiated terms. This would seem  
23 difficult for a coal supplier who was unable to ever supply the contracted amounts of coal.

1 This had the appearance of a coal supplier that did not like the price that it negotiated and  
2 was attempting to negotiate better terms in an increasing energy market, with rising coal  
3 prices. Unfortunately, the breached coal contract has impacted the IEC mechanism causing a  
4 significant under-recovery to the Aquila's MPS and Light & Power divisions.

5 Q. If C.W. Mining notified Aquila in December 2003 before the contract terms  
6 even went into effect that it was having labor problems that did not permit the delivery of the  
7 agreed upon quantity of coal, why did Aquila continue with the agreement?

8 A. \*\* \_\_\_\_\_  
9 \_\_\_\_\_  
10 \_\_\_\_\_  
11 \_\_\_\_\_  
12 \_\_\_\_\_  
13 \_\_\_\_\_ \*\* [Highly

14 Confidential Data Request Nos. 289, 290 and 386].

15 For more detailed discussion on C.W. Mining problem, please refer to the direct  
16 testimony of Staff witness Vesely.

17 Q. What is the approximate value to replace the coal that Aquila had to purchase  
18 for the C.W. Mining coal supply problem?

19 A. The problem with the C.W. Mining cost Aquila at least six million dollars  
20 (Data Request No. 358). However, in a meeting Aquila indicated that the cost was much  
21 greater than this figure. This amount will be subject to further review in this case, and  
22 especially during the IEC true-up to determine a proper level for this issue. Regardless of the



1 exact amount, this increased cost significantly impacted the IEC mechanism and has  
2 contributed to at least six million dollars of under-recovery in the IEC amount.

3 Included in the coal supply issue are any additional amounts incurred for emission  
4 allowances that had to be purchased when Aquila purchased high sulfur Illinois coal to  
5 replace C.W. Mining coal. The resultant additional costs for the emission allowances are not  
6 part of the IEC mechanism, so there is no impact on the under-recovery calculation of the  
7 IEC amount.

8 Q. How have the additional costs for the replacement coal been treated in this  
9 case?

10 A. Staff is proposing to treat the C.W. Mining coal issue as part of any future  
11 IEC mechanism and address the issue of cost recovery as part of the existing IEC true-up  
12 audit. Staff has used year two of the original C.W. Mining contract to incorporate in the base  
13 IEC amount. Staff proposes to include the replacement coal prices, which are approximately  
14 twice the amount of the C.W. Mining price, in the forecast ceiling amount. This forecast  
15 amount would be subject to refund if certain conditions are not met by Aquila. Among those  
16 conditions would be a good faith showing that Aquila exhausted all its legal remedies to hold  
17 C.W. Mining responsible for breaching the contract to supply coal to the Company's Sibley  
18 and Lake Road generating facilities. Aquila would have to show that it made every effort to  
19 pursue full restitution and reimbursement of the costs for the contracted coal supply for the  
20 two generating units. These reimbursement costs would include:

- 21 1. the difference between the original C.W. Mining contract coal cost  
22 and the replacement cost of coal for the new contract going forward
- 23 2. the difference between the original C.W Mining contract coal and  
24 the cost of replacement coal from first month of the contract (January  
25 2004) until the new replacement contract becomes effective sometime  
26 fall 2005)

1                   3. any additional freight costs incurred as a result of the breached  
2                   contract

3                   4. additional emission costs relating to the breach of C.W. Mining,  
4                   primarily as a result of burning Illinois coal that contains much higher  
5                   sulfur, causing Aquila to have to purchase expensive emission  
6                   allowances

7                   5. all legal, litigation and court costs relating to Aquila's exercising its  
8                   legal remedies for breach by C.W. Mining for terminating the coal  
9                   supply agreement.

10            Q.     What impact did the Sibley outage have on the existing IEC mechanism?

11            A.     Sibley is the lowest cost generation of electricity that Aquila has on its system.  
12 Any time Sibley is not available for service, the replacement of Sibley's generation is at a  
13 higher fuel cost. The higher energy costs are reflected on the books of Aquila in FERC  
14 Accounts 501, 547 and 555. These accounts are where the fuel and purchased power costs  
15 are charged and are the accounts that are included in the IEC mechanism. The additional  
16 costs resulting from the Sibley outage have been reflected in the IEC mechanism and will be  
17 part of the IEC true-up.

18            Q.     How long was Sibley out of service?

19            A.     Sibley had a scheduled (planned) outage to perform work on its boiler tubes  
20 starting on April 11, 2004. The original estimate was for a four-week outage, but there were  
21 some problems getting sufficient number of workers in the tight confined space of the boiler.  
22 Moreover, the welder crews could not make the number of welds originally projected to meet  
23 the schedule. As a result the scheduled outage was significantly extended beyond the  
24 original estimate for the planned outage. The generating unit did not come back into service  
25 until June 5, 2004. The total outage was 55 days, almost eight weeks.

26                   Sibley had another scheduled outage on November 4 through 11, 2004, an additional  
27 week the unit was out of service. In addition, there were almost two weeks of forced

1 (unplanned) outages that occurred at various times throughout the 2004. In total, the most  
2 economical generating unit on Aquila's system was out of service over 11 weeks in 2004.  
3 This contributed substantially to the under-recovery of the IEC for that period.

4 Q. What is the significance of the outages at Sibley?

5 A. The IEC mechanism for Aquila began on April 22, 2004, while Sibley was out  
6 of service. The unit did not come back into operation until June 5. Thus, right from the very  
7 beginning of the existing IEC mechanism, Aquila was behind in collections because fuel  
8 costs were higher from the Sibley outage.

9 Q. Has Staff proposed to disallow any costs from the Sibley outages?

10 A. No. Outages, planned and unplanned, occur throughout the year for all power  
11 plants. Extended outages occur when major work is performed, such as occurred with Sibley  
12 in the spring of 2004. While there were problems with the Sibley outage, there was no  
13 evidence that there was any imprudent activity on the part of the contractors or Aquila.

14 Q. Why should the Sibley outage be a concern for the IEC mechanism?

15 A. Since there was a significant cost associated with the Sibley outage, it affected  
16 the recovery of the fuel and purchased power costs through the IEC mechanism. The under-  
17 recovery of the existing IEC is likely to be a topic of this case as discussions take place on  
18 developing a new IEC. Therefore, it is important to identify the causes of any under-  
19 recovery to properly put into context the reasons for such under recovery. As an example,  
20 some might draw the conclusion that an under-recovery is due to high natural gas and  
21 purchased power costs. While certainly, high energy costs play into the IEC mechanism,  
22 they are not by any means the sole cause of the under-recovery. The Sibley outage and

1 several other items discussed in this testimony have contributed to the current state of the  
2 under-recovery of the existing IEC.

3 Q. Are there any additional concerns that have occurred since the development of  
4 the IEC mechanism in the last rate case?

5 A. Yes. There is a difference concerning how the amounts of MPS and Light &  
6 Power are actually booked on each of the divisions' records. Aquila is currently producing  
7 two different views of the monthly IEC monitoring with two significantly different results.  
8 While it is likely that these two methods will continue to be in conflict with one another and  
9 may well result in an issue before the Commission, it is important to address this matter with  
10 the Parties in this rate case if an IEC mechanism is going to be developed to avoid any repeat  
11 of the problem caused by these two very different approaches.

12 Q. What are the two different methods used by Aquila in calculating the monthly  
13 IEC amounts for the existing IEC mechanism

14 A. One method is based on the collection of revenues using the allocation factors  
15 identified in the Stipulation between MPS and Light & Power, and the other method is based  
16 on how fuel and purchased power costs are actually charged to each of the operating  
17 divisions' books. The results are significantly different.

18 While Staff is not attempting to resolve this booking issue concerning the current IEC  
19 mechanism in this rate case, any future use of the IEC mechanism will have to be more clear  
20 on how the true-up process will identify costs between MPS and Light & Power.

21 Q. Would the issues discussed above dealing with the IEC mechanism go away if  
22 a fuel clause mechanism were in use?

1           A.     No. All the issues cited above would be just as much of a problem in a fuel  
2 clause recovery mechanism as they have been in the IEC mechanism. While many advocate  
3 a total pass-through recovery mechanism, all fuel clause mechanisms being considered  
4 contain a provision for some type of true-up mechanism, as is required by the new law that  
5 allows IEC and fuel clause mechanisms. The fuel clause true-up would include only those  
6 prudently incurred costs for recovery. The fuel clause would still have to address the  
7 hedging issue; the C.W. Mining coal contract issue; the Sibley outage effects; the booking of  
8 fuel and purchased power costs between MPS and Light & Power, which is caused from the  
9 allocation of these two operating divisions of Aquila.

10 **FUEL MECHANISM—SENATE BILL 179**

11           Q.     Have there been changes recently on how the Commission can determine fuel  
12 and purchased power costs in a rate case?

13           A.     During the last legislative session, the General Assembly passed a bill that  
14 was signed into law on July 14, 2005 that allowed the Commission more flexibility for  
15 determining fuel and purchased power costs in setting rates. The fuel mechanism commonly  
16 became known as Senate Bill 179 (SB 179). This bill allows the Commission to consider an  
17 interim energy charge or fuel clause mechanism that electric utilities could use for cost  
18 recovery of fuel and purchased power costs.

19           Q.     Is the Senate Bill 179 fuel mechanism currently in place?

20           A.     No. The Commission does not have procedural rules in place to implement  
21 Senate Bill 179.

22           Q.     What is your understanding of the process being used to implement this bill?

1           A.     The first part of the implementation process was a series of meetings among  
2 stakeholders that will be affected by Senate Bill 179. In section 386.266.13 of the law, it is  
3 stated that “the public service commission shall appoint a task force, consisting of all  
4 interested parties, to study and make recommendations on the cost recovery and  
5 implementation of conservation and weatherization programs for electric and gas  
6 corporations.”

7           On August 17, 2005, the first of the Rulemaking Roundtable meetings occurred  
8 among utility industry members, utility customer groups, Department of Natural Resources,  
9 the Office of Public Counsel and Commission Staff. From this first meeting, several more  
10 meetings were held throughout the month of September 2005. After the meetings in  
11 September occurred, some draft rules have been circulated among the stakeholders, but no  
12 consensus has been reached on how to implement this law. Meetings are currently planned  
13 for October and November to continue the rulemaking discussion and to determine what  
14 recommendations can be made to the Commission. If there is no agreement among the  
15 parties in this process, then differing proposals will be put before the Commission for  
16 decision. If no agreement can be reached, it is expected that the Commission will request  
17 interested parties to submit comments, and possibly hold hearings on the implementation of  
18 Senate Bill 179. The Commission would then have to make decisions to implement the fuel  
19 mechanisms.

20           Consequently, none of the details have been agreed to by the stakeholders on how  
21 Senate Bill 179 should be implemented.

22           Q.     Did Senate Bill 179 contemplate a rulemaking procedure?

23           A.     Yes. In section 386.266.9 of the law, it is stated that:

1 prior to the effective date of this section, the commission shall have  
2 the authority to promulgate rules under the provisions of chapter 536,  
3 RSMo, as it deems necessary, to govern the structure, content and  
4 operation of such rate adjustments, and the procedure for the  
5 submission, frequency, examination, hearing and approval of such rate  
6 adjustments. Such rules shall be promulgated no later than one  
7 hundred fifty days after the initiation of such rulemaking proceeding.  
8 Any electric, gas, or water corporation may apply for any adjustment  
9 mechanism under this section whether or not the commission has  
10 promulgated any such rules.

11 Q. Is there an expectation that rules for Senate Bill 179 will be in place for  
12 implementation by Aquila in this case?

13 A. No. Much work remains to develop the necessary rules to fully implement  
14 Senate Bill 179. Responsive testimony in this case is currently scheduled for November 18  
15 for rebuttal and December 13 for surrebuttal, and evidentiary hearings are currently  
16 scheduled for January 9 through February 10, 2006.

17 Q. Does Senate Bill 179 require a rate case before an IEC or fuel clause  
18 mechanism be put in place?

19 A. Yes. In section 386.266.4 of the law, it is stated that “the commission shall  
20 have the power to approve, modify, or reject adjustment mechanisms submitted under  
21 subsections 1 to 3 of this section only after providing the opportunity for a full hearing in a  
22 general rate proceeding...”

23 Q. Does Staff consider Aquila’s May 24, 2005 rate filing in this case to be  
24 sufficient to comply with the provisions of Senate Bill 179?

25 A. No. Because there are no Commission procedural rules currently in place for  
26 the implementation of Senate Bill 179, it is not possible to consider Aquila’s rate filing in  
27 this case to meet the requirements under Senate Bill 179 provisions.

1 **SOUTH HARPER GENERATING FACILITY**

2 Q. What is South Harper Generating facility?

3 A. South Harper Generating facility (South Harper) is Aquila's newest  
4 generating facility. This generating station is comprised of three natural gas fired Siemens  
5 Westinghouse (Siemens) 501D5A combustion turbines (Siemens turbines) each cable of  
6 generating 105 megawatts of electricity with a total station capacity of 315 megawatts.

7 The generating station is located in MPS' service territory South of Kansas City on  
8 land close to the city of Peculiar, Missouri in Cass County. Construction started in late 2004,  
9 continuing through out the first half of 2005, with construction substantially completed by  
10 July 11, 2005, when the last turbine met system load requirements.

11 Q. When was the last time MPS built its own generation?

12 A. MPS participated in the Jeffrey Energy Center 1, 2 and 3, coal-fired  
13 generating units, as a partner with Westar Energy. Jeffrey Unit 1 became operational in  
14 1978, Unit 2 in 1980 and Unit 3 in 1983. This is the first generating unit that Aquila has  
15 constructed since 1983.

16 Q. What is the value of the three Siemens turbines?

17 A. Staff has used an amount of \$66,760,000 for the three turbines and related  
18 generator auxiliaries, transformers and generator breakers [page 3 of the September 1, 2005  
19 Stipulation].

20 Q. How was the determination made for the valuation of the combustion turbines  
21 of the South Harper generating facility?

22 A. The amount was determined in Case No. EO-2005-0156 and agreed to by  
23 Aquila, the Office of the Public Counsel and Staff. A Stipulation was reached and presented



1 to the Commission on September 1, 2005 regarding the value that should be used for the  
2 three combustion turbines and related equipment that have been installed at the South Harper  
3 generating facility. On September 21, 2005, the Commission had an on-the-record  
4 conference relating to the Stipulation in Case No. EO-2005-0156. The Stipulation has not  
5 been approved as of the date of this filing.

6 Q. If the Commission has not approved the Stipulation reached in Case No.  
7 EO-2005-0156, then why has Staff used the amount from that agreement to value the  
8 Siemens turbines at South Harper?

9 A. Even though the Commission has yet to approve the Stipulation reached in  
10 Case No. EO-2005-0156, the amount agreed to by the Parties to the Stipulation of  
11 \$66,760,000 was the amount recommended by Staff [page 3 of the September 1, 2005  
12 Stipulation]. Staff continues to believe that the value of the three Siemens turbines and  
13 related equipment should be \$66,760,000. This was an amount that Aquila Merchant, who  
14 owned this equipment previously, had offered to Kansas City Power & Light (KCPL). Staff  
15 took the position in Case No. EO-2005-0156, and takes the same position in this case, that  
16 the value of the Siemens turbines should be no greater than the price offered to KCPL, a non-  
17 Aquila entity.

18 Q. Were the three Siemens turbines originally purchased from the manufacturer  
19 for the regulated MPS division?

20 A. No. These units were originally purchased from Siemens Westinghouse  
21 Power Corporation in September 2001 by Aquila Merchant Services (Aquila Merchant), a  
22 wholly owned non-regulated affiliate of MPS. These units were to be installed at the Aries  
23 Generating Facility, located in Pleasant Hill, Missouri where the Aries Combined Cycle Unit

1 (Aries) was built. The three Siemens turbines were initially designated as Aries II and were  
2 to be operated as a merchant plant. The land for the Aries site was previously owned by  
3 MPS and is adjacent to MPS' existing substation where it has operated for many years.

4 The three Siemens turbines were initially planned to supply power to the MPS  
5 division or to other entities through a purchase power agreement. Aquila Merchant  
6 developed the Aries II project relying on successfully getting a purchased power agreement  
7 with MPS.

8 Q. Did Aquila Merchant ever enter into a purchase power agreement with MPS  
9 for the three Siemens turbines?

10 A. No. The plans to install the Siemens turbines at Aries were terminated in July  
11 2002, a month before the first turbine was delivered to Aquila in Kansas City. Aquila  
12 decided to cancel the Aries II project when the energy market, primarily the merchant energy  
13 market, collapsed. During the summer of 2002 Aquila decided to exit the merchant trading  
14 market and canceled plans on developing further merchant generating sites.

15 Q. Were the turbines ever delivered to the Aries site?

16 A. No. The three combustion turbines were never delivered to the Aries site.  
17 After the decision to not employ the turbines at the Aries facility Aquila attempted the sell  
18 the turbines and related equipment to non-Aquila third party entities, including Kansas City  
19 Power & Light (KCPL). When Aquila was unable to reach an agreement to sell the Siemens  
20 turbines to KCPL, the units were placed in storage facilities at two locations in the Kansas  
21 City area. The Siemens turbines and generators were stored at MPS' Ralph Green generating  
22 facility, a regulated combustion turbine operated by MPS. The balance of the Siemens

1 turbines, transformers and breakers were stored in two airplane hangers at the old Richards  
2 Garber airport in Kansas City.

3 Aquila started taking physical delivery of the turbines in August 2002 during  
4 negotiations with KCPL. The last of the turbine equipment was delivered in late 2002. The  
5 units remained in storage over two and half years while they awaited use.

6 Q. Where did Aquila plan to locate the Siemens turbines after it decided not to  
7 install them at the Aries site?

8 A. In January 2004, Aquila decided to build the units at a Higginsville location  
9 called Camp Branch MPS. When it appeared there would be community opposition to this  
10 location, Aquila made the decision to move the project to a location outside the city of  
11 Peculiar, Missouri sometime in the late summer 2004—the South Harper site.

12 Q. Has there been any opposition to locating the combustion turbines at the South  
13 Harper site?

14 A. Yes. A citizens-based group called StopAquila.Org and the County of Cass  
15 filed a lawsuit seeking to stop construction of the South Harper facility. As part of its  
16 response, Aquila sought from the Commission a certificate authorizing it to build the  
17 generating units incorporating the turbines at the South Harper site or clarification of its  
18 existing authority. The Commission opened Case No. EA-2005-0248 for that application.  
19 The Commission determined that under its existing certificate, Aquila had specific authority  
20 to build the South Harper facility:

21 The Commission recognizes, however, that Aquila is under order by  
22 the Circuit Court of Cass County to obtain “specific authorization” for  
23 construction of the South Harper Facility and the Peculiar Substation  
24 pursuant to the language in Section 64.235, RSMo. Therefore, the  
25 Commission finds under the broad authority for oversight of electric  
26 utilities found in Chapters 386 and 393, RSMo, and pursuant to the

1 ruling by the Cass County Circuit Court under Section 64.235, RSMo,  
2 that Aquila has specific authority under its existing certificates to  
3 construct and operate the South Harper Facility and Peculiar  
4 Substation, both of which are fully contained within Aquila's  
5 certificated area.

6 IT IS THEREFORE ORDERED:

7 That the Commission confirms that the Commission has already  
8 granted Aquila, Inc., under its existing certificates of convenience and  
9 necessity, specific authorization to construct plant anywhere in its  
10 service territory, specifically including, but not limited to, the specific  
11 authorization to install, acquire, build, construct, own, operate, control,  
12 manage and maintain an electric power generation station comprised  
13 of three 105-MW, natural gas-fired combustion turbines and an  
14 associated transmission substation, transformers and breakers together  
15 with any and all other installations, facilities, structures, fixtures and  
16 equipment related thereto for the production and transmission of  
17 electric power and energy....

18 Q. When were the turbines to start supplying capacity to MPS?

19 A. Aquila planed on having the units operational to serve MPS load by the date  
20 its purchased power agreement to take up to 500 MW of capacity from the Aries Combined  
21 Cycle Unit ended, May 31, 2005.

22 Q. Why is Aquila building these generating units?

23 A. Aquila needs to replace capacity that was being supplied from the Aries unit  
24 through a purchased power agreement that expired May 31, 2005.

25 Q. Who was supplying power under the purchased power agreement and how  
26 much power was Aquila entitled to under the agreement?

27 A. MPS entered into a purchased power agreement (PPA) with Aquila Merchant,  
28 a wholly-owned subsidiary of Aquila (then called UtiliCorp United, Inc.), on February 22,  
29 1999. Aquila Merchant created a company known as Merchant Energy Partners Pleasant  
30 Hill, LLC (MEPPH) to supply power to MPS. Aquila Merchant and subsequent operating

1 partner, Calpine Corporation (Calpine), completed construction of a 585-megawatt combined  
2 cycle unit at Aries Pleasant Hill site with an in-service date of March 2002.

3 The partners identified the Aries was completed and ready to generate electricity as a  
4 combined cycle unit by March 2002. Initially, under contract, the Aries PPA allowed for the  
5 partners to supply power from other sources if Aries was not complete when the combined  
6 cycle portion of the contract started in January 2002. Under the expired Aries capacity  
7 contract, the combined cycle plant provided to MPS 200 megawatts during October through  
8 March and 500 megawatts during April through September starting in 2002 through May 31,  
9 2005. Prior to Aries being able to operate as a combined cycle unit (primarily awaiting the  
10 completion of the heat recovery steam generator system) Aries provided 320 megawatts of  
11 peaking capacity service to MPS during the summer of 2001 under the same capacity  
12 contract.

### 13 **COURT CASES INVOLVING SOUTH HARPER**

14 Q. Is there current litigation relating to the South Harper Facility?

15 A. Yes. Cass County and a consumer group called STOPAQUILA.ORG both  
16 filed in the Circuit Court of Cass County, Missouri lawsuits to stop construction of the South  
17 Harper facility. The STOPAQUILA.ORG case was designated as Case No.CV104-1380CC  
18 and consolidated with the Cass County case that was designated as Case No. CV104-  
19 1443CC.

20 The Circuit Court found that Aquila did not obtain the proper zoning permits and said  
21 it could not construct the turbines at the South Harper site. Aquila appealed to the Missouri  
22 Court of Appeals in the Western District. This case was designated as WD64985. The  
23 Western District Court issued a decision on June 21, 2005 uphold the Circuit Court's

1 decision; however, it withdrew that decision and the matter is currently still pending before  
2 that court.

3 In another case before the Western District Court designated as WD65000, the City of  
4 Peculiar appealed a circuit court decision in favor of StopAquila.Org, Formerly Known as  
5 Neighbors Against The Peculiar Annexation that held that the City of Peculiar had to obtain  
6 voter approval to issue the bonds that were part of the for Chapter 100 financing it was  
7 transacting with Aquila. In an order handed down October 4, 2005, The Western District  
8 Court held that the city could not lawfully issue the bond without voter approval.

9 Q. Will all this litigation affect the South Harper facility?

10 A. These court cases may have a significant impact on the future of the South  
11 Harper facility. It may be that Aquila will have to remove the turbine units and all related  
12 equipment from the South Harper site. Obviously, there would be tremendous costs, in the  
13 tens of millions of dollars, to disassemble and relocate these three turbines and related  
14 equipment. This would have an adverse affect on Aquila's already troubled financial  
15 condition and could have an impact on Aquila's customers concerning adequate and  
16 economical generation of electricity.

17 Staff continues to monitor the progress of these court cases and awaits the outcome of  
18 the decisions.

19 Q. What impact do these court cases have on Aquila's current rate case?

20 A. Until a final decision is made by the courts no impact can be ascertained. The  
21 Staff is using costs from the construction of the South Harper facility for 315 MW of the 500  
22 MW of combustion turbine generating capacity Aquila should have built to replace the  
23 capacity it lost with the end of the Aries capacity PPA. Therefore, what the Staff has

1 included in rate base for this capacity will not change due to that litigation. Staff witness  
2 Robert E. Schallenberg addresses the capacity issue in his direct testimony.

3 **SOUTH HARPER IN-SERVICE DATE**

4 Q. Has Staff determined if South Harper is in service?

5 A. Yes and no. While Staff witness Leon Bender has determined that South  
6 Harper combustion turbines have performed all the tests to demonstrate that the units meet  
7 the in-service criteria the Staff has established, because of the pending litigation that could  
8 result in removal of the South Harper facility, the Staff does not conclude that the units  
9 satisfy the statutory used and useful standard.

10 Q. When were South Harper generating units declared in-service by Aquila?

11 A. The South Harper facility went into service generating electricity and Aquila  
12 accepted provisional acceptance of the three combustion turbines on the following schedule:

13	South Harper Unit 1	July 11, 2005
14	South Harper Unit 2	July 1, 2005
15	South Harper Unit 3	June 30, 2005

16 South Harper Unit 3 started being dispatched and meeting system load requirements  
17 June 30, 2005; Unit 2 begin meeting system load requirements on July 1, 2005 and Unit 1  
18 began its commercial operation on July 11, 2005 [Data Request 367]. The South Harper  
19 facility became “fully operational” and became capable of meeting Aquila’s customers’ load  
20 requirements on the dates identified above.

21 Q. Does meeting Staff’s in-service criteria mean that the unit is capable of being  
22 placed in rate base?

1           A. While the generating units must meet the in-service criteria to be considered  
2 to meet the used and useful test as to if the unit is actually needed and is capable of  
3 providing electricity to its customers, for rate base determination, the in-service criteria do  
4 not determine when the generating units should be declared commercially in-service for  
5 meeting system load requirements. Meeting the in-service criteria from a testing  
6 perspective does not determine when the generating units should be placed in plant in  
7 service, the start of depreciation and the discontinuance of allowance for funds used during  
8 construction (AFDC).

9           Q. When should power plants be declared in-service?

10          A. From the perspective of when the construction phase is over and the units are  
11 transferred to plant in service, that takes place when the units are available to meet system  
12 load requirements. When construction on the units is complete, they will be declared  
13 commercially in-service and their use will be transferred from control of the construction  
14 site management to the control of the dispatchers operating Aquila's electrical system.  
15 Once the units are deemed ready to be dispatched to meet system load requirements, the  
16 units are declared commercial and they are considered in-service. At that time, the units  
17 should be placed in plant-in-service.

18          Q. What is the significance of placing an asset in plant-in-service?

19          A. Once an asset is transferred from construction work in progress to plant-in-  
20 service, the AFDC stops and the asset starts being depreciated.

21          Q. When should Aquila place the South Harper turbines in plant-in-service?



1           A.    South Harper Unit 1 should be placed in plant-in-service July 11, 2004; Unit 2  
2           should be placed in plant-in-service July 1, and Unit 3 should be placed in plant-in-service  
3           June 30, 2005.

4           **SOUTH HARPER CONSTRUCTION AUDIT**

5           Q.    Did Staff perform a construction audit of South Harper construction costs?

6           A.    Yes.   Several Staff members were involved in reviewing the construction  
7           costs of the South Harper turbines.   Staff witnesses Leon Bender, Phillip Williams and  
8           myself were primarily responsible for participating in the review of costs to install the  
9           turbines at South Harper.

10          Q.    What is a construction audit?

11          A.    A construction audit is typically conducted just prior to and during the course  
12          of a rate increase application filed by the utility, where costs relating to the construction  
13          project are being requested for rate recovery.   The construction audit is designed to examine  
14          the expenditures of large capital additions, generally relating to power plants.

15               Staff has examined costs of power plants numerous times, most notably when Kansas  
16          City Power & Light (KCPL) and AmerenUE (Union Electric) built the Wolf Creek and  
17          Callaway nuclear generating facilities in the mid-1980s.   Construction audits were also  
18          performed for KCPL's LaCyne 2 and Iatan 1 coal-fired generating stations.   Staff has also  
19          examined costs relating to combustion turbines installed by The Empire District Electric  
20          Company (Empire) at its State Line 1 and 2 facilities.   When State Line 2 was converted to a  
21          combined cycle unit in 2001, a construction audit was performed for those expenditures.  
22          More recently, in Empire's last rate case, Case No. ER-2004-0570, costs relating to Energy  
23          Center 3 and 4, which are simple-cycle combustion turbines, were examined.

1 All of the construction audits have been conducted in the context of rate increase  
2 applications by the utilities.

3 Q. What costs are considered in determining the final costs for rate recovery of  
4 the combustion turbines based on the South Harper facility?

5 A. All of the costs to design and construct the facility should be considered in  
6 total to make a final determination of the actual cost to install the three combustion turbines  
7 completed in early July 2005 at the South Harper facility. The significant costs of the South  
8 Harper facility are the three 105-megawatt turbines, with other costs including the  
9 installation costs for the three turbines.

10 In addition to the installation costs for these units, consideration must be given to the  
11 transmission facilities, and any upgrades to the substation and transmission network must be  
12 analyzed.

13 Q. Has Staff proposed adjustments to the South Harper construction costs for use  
14 in this case?

15 A. Yes. Staff witness Williams has identified several adjustments Staff believes  
16 should be made to the final costs to construct the South Harper facility. The Staff's approach  
17 to these adjustments was to place the South Harper turbines and related equipment costs and  
18 the construction costs on the same basis as if MPS would have purchased and constructed  
19 these facilities without any impacts from the non-regulated affiliate involvement, and without  
20 consideration of any litigation regarding the legality of Aquila building on the site. If MPS  
21 would have purchased the turbines, it would have started negotiating with the turbine  
22 equipment manufacturer in fall of 1999, contracted with Siemens in September 2001, taken  
23 delivery in fall 2002 for in-service date of June 1, 2005, the time of the expiration of the

1 Aries PPA. Staff has attempted to remove all costs that relate in any way to the problems  
2 these turbine have had because they were originally purchased as non-regulated merchant  
3 plant assets.

4 Q. What are the adjustments that Staff believes should be made to the final  
5 construction costs of South Harper?

6 A. First, South Harper's combustion turbines and related equipment should be re-  
7 valued to the agreed upon level of \$66,760,000 identified in the Stipulation presented to the  
8 Commission on September 1, 2005 in Case No. EO-2005-0156. This was discussed earlier  
9 in my testimony.

10 Second, the all storage costs should be removed from the construction costs.

11 Third, consultant costs were removed from the construction costs.

12 Fourth, legal costs were taken out of the South Harper cost.

13 Q Why were storage costs removed from the construction costs?

14 A. These costs relate to the purchase of the turbines by Aquila Merchant when  
15 the units were going to be used as Aries II. The storage costs relate to the delivery of the  
16 equipment in fall of 2002. MPS did need the capacity associated with South Harper until the  
17 completion of the Aries PPA in May 31, 2005. The units were not actually delivered to the  
18 South Harper site until March 2005. Thus, the turbines were stored in excess of two-and-  
19 one-half years. If MPS were planning to meet an in-service date of May 31, 2005, the units  
20 would not have had to be purchased in September 2001, when turbine costs were being  
21 purchased in a brutal sellers market. MPS could have planned for when the units were  
22 needed at the site for installation and scheduled delivery dates accordingly.

1 Staff adjusted all costs for storage of these units that were solely as result of the  
2 turbines being transferred from one of Aquila's non-regulated subsidiaries.

3 Q. Why were the consultant fees removed from the construction costs?

4 A. Aquila hired a consultant to perform an appraisal to value the three turbines to  
5 transfer the units from one of the Company's non-regulated subsidiaries. The only reason  
6 that the appraisal had to be done was because of this transfer. If MPS would have purchased  
7 the turbine equipment like any other public utility, (acquiring the South Harper equipment on  
8 its own) there would have been no need for the appraisal. These costs should not be included  
9 in the final construction costs of the facility.

10 All costs associated with the transfer of this equipment from the non-regulated should  
11 not be charged to the construction costs. Staff has attempted to remove all costs impacts  
12 related to the transfer of the units by the non-regulated affiliate to put the installation costs on  
13 the same basis as though MPS had acquired the units themselves on a stand-alone basis.

14 Q. Why were the legal costs removed from the construction costs?

15 A. Staff also removed all legal and consultant costs for South Harper that were  
16 incurred in the Cass County Court case. These costs were for defense of the Court decision  
17 where Aquila did not meet the County's building zoning permits. The legal costs that need  
18 to be removed are those for litigation costs for the court cases in Cass County and Western  
19 District court. Aquila made a decision to not seek zoning permitting and construction  
20 permits. That decision has had a devastating effect on the South Harper project and may  
21 result in the requirement that the facility be dismantled and moved. Clearly, this was a  
22 conscious decision on Aquila's part and its customers should not bear any responsibility for  
23 reimbursement of those costs that resulted from deliberate actions. Staff proposes that those

1 costs relating to the legal costs in defense of the South Harper facility in the courts should not  
2 be permitted in the construction costs.

3 Q. Were there other legal costs that Staff believes need to be removed from  
4 South Harper's construction costs?

5 A. Aquila has also charged legal costs for two cases filed with the Commission.  
6 Other legal costs were removed for two cases before the Commission – Case Nos. EA-2005-  
7 0248 and EO-2005-0156. Case No. EA-2005-0248 directly related to a case begun before  
8 the Cass County Court where the Court held Aquila needed site specific authorization from  
9 the Commission or Cass County approval to build a generating facility in Cass County. In  
10 Case No. EA-2005-0248 Aquila sought such construction authorization for site specific  
11 approval from the Commission.

12 Case No. EO-2005-0156 was an application both for authority to engage in a Chapter  
13 100 financing arrangement with the City of Peculiar and for the valuation of the three  
14 combustion turbines and ancillary equipment. That valuation would not have been necessary  
15 if MPS had acquired the turbines from outside entities instead of a non-regulated affiliate. If  
16 this equipment had been purchased from a turbine manufacturer directly instead of MPS  
17 receiving the assets from a non-regulated affiliated it would not have need to file an  
18 application with the Commission seeking authority to value the turbines.

19 Staff also removed the consultant fees for an R.W. Beck appraisal conducted to assist  
20 Aquila in determining the value of the transferred equipment. This appraisal would not have  
21 been necessary if the equipment had not have been transferred from a non-regulated affiliate.

22 Q. Does Staff believe that all consultant and legal costs associated with the  
23 construction of South Harper should be disallowed?

1           A.     No. Clearly, there are some consultant and legal costs needed to construct the  
2 South Harper facility. There needs to be a breakdown of these costs to determine those that  
3 relate to the appraisal of the turbines and those legal costs that relate to the Court cases and  
4 cases before the Commission. Staff has submitted data requests for these breakdowns in  
5 consultant and legal costs but has not received the information as of this filing. When Staff  
6 obtains this information then the necessary adjustments will be made for those costs that  
7 should be part of this plant addition.

8           As an example, Staff believes the costs to file application before the Commission for  
9 Chapter 100 financing is necessary and required under Commission rules. There is a clear  
10 benefit to having the Chapter 100 financing, so those costs that relate to that part of Aquila's  
11 application in Case No. EO-2005-0156 should be identified and included in South Harper  
12 construction costs.

13           There are also legal costs and consultant costs that should be included in South  
14 Harper's construction. Costs for surveying, negotiating vendor and equipment contracts,  
15 engineering services necessary to the installation of South Harper construction should be  
16 identified and included in the final construction costs.

17           Q.     Did the Staff make any other adjustments to Aquila's plant-in-service  
18 accounts?

19           A.     Yes. An adjustment was made regarding the storage of the Siemens turbines.  
20 Aquila constructed six concrete foundations to specifically place the three turbines and three  
21 generators during the two and half years of storage. Aquila purchased six tent houses that  
22 fully enclosed each of this equipment. Aquila has not removed the costs of the concrete

1 foundations and tent houses. These costs are charged to Aquila's Ralph Green Generating  
2 Facility, where the turbines were stored.

3 Q. Why has Staff included the South Harper Generating facility in the cost of  
4 service?

5 A. The South Harper Generating facility includes three combustion turbines.  
6 Staff's believes that Aquila should have built a total of 500 megawatts of generation.  
7 Therefore, Staff believes the cost of the combustion turbines installed at the South Harper  
8 facility should be included in cost of service even if a determination is made that the plant  
9 should not have been built at the South Harper site.

## 10 **INVESTIGATION**

11 Q. Is Staff conducting an investigation of Aquila?

12 A. Yes. Certain allegations have recently come to the attention of Staff. Staff  
13 will request information, perform interviews and possibly conduct depositions of Aquila  
14 personnel to ascertain the nature and validity of these allegations. Staff will bring any  
15 matters it learns to the Commission deemed to be relevant to the on-going operations of  
16 Aquila and that might affect this case or that is important to the Commission's oversight  
17 function of Aquila's operations. To the extent that any matter is needed to be brought to the  
18 Commission's attention in this, Staff will provide additional testimony as necessary.

19 Q. Does conclude your direct testimony?

20 A. Yes, it does.

**Cary G. Featherstone**

**SUMMARY OF RATE CASE INVOLVEMENT**

<u>Year</u>	<u>Case No.</u>	<u>Utility</u>	<u>Type of Testimony</u>	<u>Case</u>
1980	Case No. ER-80-53	St. Joseph Light & Power Company (electric)	Direct	Stipulated
1980	Case No. OR-80-54	St. Joseph Light & Power Company (transit)	Direct	Stipulated
1980	Case No. HR-80-55	St. Joseph Light & Power Company (industrial steam)	Direct	Stipulated
1980	Case No. GR-80-173	The Gas Service Company (natural gas)	Direct	Stipulated
1980	Case No. GR-80-249	Rich Hill-Hume Gas Company (natural gas)	No Testimony filed	Stipulated
1980	Case No. TR-80-235	United Telephone Company of Missouri (telephone)	Direct Rebuttal	Contested
1981	Case No. ER-81-42	Kansas City Power & Light Company (electric)	Direct Rebuttal	Contested
1981	Case No. TR-81-208	Southwestern Bell Telephone Company (telephone)	Direct Rebuttal Surrebuttal	Contested
1981	Case No. TR-81-302	United Telephone Company of Missouri (telephone)	Direct	Stipulated
1981	Case No. TO-82-3	Investigation of Equal Life Group and Remaining Life Depreciation Rates (telephone-- depreciation case)	Direct	Contested
1982	Case Nos. ER-82-66 and HR-82-67	Kansas City Power & Light Company (electric & district steam heating)	Direct Rebuttal Surrebuttal	Contested
1982	Case No. TR-82-199	Southwestern Bell Telephone Company (telephone)	Direct	Contested
1983	Case No. EO-83-9	Investigation and Audit of Forecasted Fuel Expense of Kansas	Direct	Contested



<u>Year</u>	<u>Case No.</u>	<u>Utility</u>	<u>Type of Testimony</u>	<u>Case</u>
		City Power & Light Company (electric-- forecasted fuel true-up)		
1983	Case No. ER-83-49	Kansas City Power & Light Company (electric)	Direct Rebuttal Surrebuttal	Contested
1983	Case No. TR-83-253	Southwestern Bell Telephone Company (telephone)	Direct	Contested
1984	Case No. EO-84-4	Investigation and Audit of Forecasted Fuel Expense of Kansas City Power & Light Company (electric-- forecasted fuel true-up)	Direct	Contested
1985	Case Nos. ER-85-128 and EO-85-185	Kansas City Power & Light Company (electric)	Direct	Contested
1987	Case No. HO-86-139	Kansas City Power & Light Company (district steam heating-- discontinuance of public utility)	Direct Rebuttal Surrebuttal	Contested
1988	Case No. TC-89-14	Southwestern Bell Telephone Company  (telephone-- complaint case)	Direct Surrebuttal	Contested
1989	Case No. TR-89-182	GTE North, Incorporated (telephone)	Direct Rebuttal Surrebuttal	Contested
1990	Case No. GR-90-50	Kansas Power & Light - Gas Service Division (natural gas)	Direct	Stipulated
1990	Case No. ER-90-101	UtiliCorp United Inc., Missouri Public Service Division (electric)	Direct Surrebuttal	Contested
1990	Case No. GR-90-198	UtiliCorp United, Inc.,	Direct	Stipulated

<u>Year</u>	<u>Case No.</u>	<u>Utility</u>	<u>Type of Testimony</u>	<u>Case</u>
		Missouri Public Service Division (natural gas)		
1990	Case No. GR-90-152	Associated Natural Gas Company (natural gas)	Rebuttal	Stipulated
1991	Case No. EM-91-213	Kansas Power & Light - Gas Service Division (natural gas-- acquisition/merger case)	Rebuttal	Contested
1991	Case Nos. EO-91-358 and EO-91-360	UtiliCorp United Inc., Missouri Public Service Division (electric-- accounting authority orders)	Rebuttal	Contested
1991	Case No. GO-91-359	UtiliCorp United Inc., Missouri Public Service Division (natural gas)	Memorandum Recommendation	Stipulated
1993	Case Nos. TC-93-224 and TO-93-192	Southwestern Bell Telephone Company (telephone-- complaint case)	Direct Rebuttal Surrebuttal	Contested
1993	Case No. TR-93-181	United Telephone Company of Missouri (telephone)	Direct Surrebuttal	Contested
1993	Case No. GM-94-40	Western Resources, Inc. and Southern Union Company (natural gas-- sale of Missouri property)	Rebuttal	Stipulated
1994	Case No. GM-94-252	UtiliCorp United Inc., acquisition of Missouri Gas Company and Missouri Pipeline Company (natural gas--acquisition case)	Rebuttal	Contested
1994	Case No. GA-94-325	UtiliCorp United Inc., expansion of natural gas to City of Rolla, MO (natural gas-- certificate case)	Rebuttal	Contested
1995	Case No. GR-95-160	United Cities Gas Company (natural gas)	Direct	Contested
1995	Case No. ER-95-279	Empire District Electric Company (electric)	Direct	Stipulated
1996	Case No. GA-96-130	UtiliCorp United, Inc./Missouri	Rebuttal	Contested

<u>Year</u>	<u>Case No.</u>	<u>Utility</u>	<u>Type of Testimony</u>	<u>Case</u>
		Pipeline Company (natural gas-- certificate case)		
1996	Case No. EM-96-149	Union Electric Company merger with CIPSCO Incorporated (electric and natural gas-- acquisition/merger case)	Rebuttal	Stipulated -
1996	Case No. GR-96-285	Missouri Gas Energy Division of Southern Union Company (natural gas)	Direct Rebuttal Surrebuttal	Contested
1996	Case No. ER-97-82	Empire District Electric Company (electric-- interim rate case)	Rebuttal	Contested
1997	Case No. GA-97-132	UtiliCorp United Inc./Missouri Public Service Company (natural gas—certificate case)	Rebuttal	Contested
1997	Case No. GA-97-133	Missouri Gas Company (natural gas—certificate case)	Rebuttal	Contested
1997	Case Nos. EC-97-362 and EO-97-144	UtiliCorp United Inc./Missouri Public Service (electric complaint case)	Direct Verified Statement	Contested Commission Denied Motion
1997	Case Nos. ER-97-394 and EC-98-126	UtiliCorp United Inc./Missouri Public Service (electric)	Direct Rebuttal Surrebuttal	Contested
1997	Case No. EM-97-395	UtiliCorp United Inc./Missouri Public Service (electric-application to spin-off generating assets to EWG subsidiary)	Rebuttal	Withdrawn
1998	Case No. GR-98-140	Missouri Gas Energy Division of Southern Union Company (natural gas)	Testimony in Support of Stipulation And Agreement	Contested
1999	Case No. EM-97-515	Kansas City Power & Light Company merger with Western Resources, Inc. (electric acquisition/ merger case)	Rebuttal	Stipulated (Merger eventually terminated)

<u>Year</u>	<u>Case No.</u>	<u>Utility</u>	<u>Type of Testimony</u>	<u>Case</u>
2000	Case No. EM-2000-292	UtiliCorp United Inc. merger with St. Joseph Light & Power Company (electric, natural gas and industrial steam acquisition/ merger case)	Rebuttal	Contested (Merger closed)
2000	Case No. EM-2000-369	UtiliCorp United Inc. merger with Empire District Electric Company (electric acquisition/ merger case)	Rebuttal	Contested (Merger eventually terminated)
2001	Case No. ER-2001-299	Empire District Electric Company (electric)	Direct Surrebuttal True-Up Direct	Contested
2001	Case Nos. ER-2001-672 and EC-2002-265	UtiliCorp United Inc./Missouri Public Service Company (electric)	<b>Verified Statement</b> Direct Rebuttal Surrebuttal	Stipulated
2002	Case No. ER-2002-424	Empire District Electric Company (electric)	Direct Surrebuttal	Stipulated
2003	Case Nos. ER-2004-0034 and HR-2004-0024 (Consolidated)	Aquila, Inc., d/b/a Aquila Networks-MPS and Aquila Networks-L&P (electric & industrial steam)	Direct Rebuttal Surrebuttal	Stipulated
2004	Case No. GR-2004-0072	Aquila, Inc., d/b/a Aquila Networks-MPS and Aquila Networks-L&P (natural gas)	Direct Rebuttal	Stipulated
2005	Case No. EO-2005-0156	Aquila, Inc., d/b/a Aquila Networks- MPS (electric)	Rebuttal Surrebuttal	Stipulation pending

AUDITS WHICH WERE SUPERVISED AND ASSISTED:

<u>Year</u>	<u>Case No.</u>	<u>Utility</u>	<u>Type of Testimony</u>	<u>Case Disposition</u>
1986	Case No. TR-86-14 (telephone)	ALLTEL Missouri, Inc.		Stipulated
1986	Case No. TR-86-55 (telephone)	Continental Telephone Company of Missouri		Stipulated
1986	Case No. TR-86-63 (telephone)	Webster County Telephone Company		Stipulated
1986	Case No. GR-86-76 (natural gas)	KPL-Gas Service Company		Withdrawn
1986	Case No. TR-86-117 (telephone)	United Telephone Company of Missouri		Withdrawn
1988	Case No. GR-88-115 (natural gas)	St. Joseph Light & Power Company	Deposition	Stipulated
1988	Case No. GR-88-116 (industrial steam)	St. Joseph Light & Power Company	Deposition	Stipulated
2004	Case No. HM-2004- 0618 (industrial steam)	Trigen- Kansas City Energy purchase by Thermal North America		Stipulated
2005	Case No. GM-2005- 0136 (natural gas)	Partnership interest of DTE Enterprises, Inc. and DTE Ozark, Inc in Southern Gas Company purchase by Sendero SMGC LP	Recommendation Memo	Stipulated

AQUILA, INC.  
d/b/a AQUILA NETWORKS MPS

CASE NO. ER-2004-0034

STIPULATION AND AGREEMENT

**AGREEMENT REGARDING FUEL AND  
PURCHASED POWER EXPENSE - -  
INTERIM ENERGY CHARGE**

1. The Parties agree that resolution of the fuel and purchased power expense issues in Case Nos. ER-2004-0034 and HR-2004-0024 has been achieved as among themselves by an Interim Energy Charge (“IEC”) mechanism of setting rates to include a specific annual amount of the Missouri jurisdictional electric cost of fuel and purchased power on a permanent (i.e., not subject to refund) basis and to include another additional amount of variable fuel and purchased power cost on an interim basis, subject to true-up and refund.

a. The specific annual amount to be included in Missouri retail rates on a permanent basis for the Aquila Networks—MPS (“MPS”) electric operations is \$87,700,206 (1.6654 ¢/kWh) and the additional amount to be included in Missouri retail rates on an interim basis, subject to refund, for the Aquila Networks—MPS electric operations is \$16,100,000 (0.3057 ¢/kWh) for an overall total of \$103,800,206 (1.9712 ¢/kWh). The actual agreed upon cents per kilowatt hour IEC for each customer class is shown in Appendix B.

b. The specific annual amount to be included in Missouri retail rates on a permanent basis for the Aquila Networks—L&P (“L&P”) electric operations is \$22,705,656 (1.2641 ¢/kWh) and the additional amount to be included in Missouri retail rates on an interim basis, subject to refund, for the L&P electric operations is \$2,400,000 (0.1336 ¢/kWh) for an overall total of \$25,105,656 (1.3977 ¢/kWh). The actual agreed upon cents per kilowatt hour IEC for each customer class is shown in Appendix B.

c. The specific annual amount to be included in Missouri retail rates on a permanent basis for the L&P industrial steam operations is \$4,374,480 with no additional amount to be included in Missouri retail rates on an interim basis, subject to refund.

d. These amounts are meant to include only the Missouri retail variable costs accumulated in the FERC account numbers 501, 547 and 555 and will be updated in the true-up portion of the case specified hereafter in this Agreement. The fixed costs in FERC account numbers 501, 547 and 555 will be recovered in permanent rates and will not be updated in the true-up portion of the case. The portion subject to true-up and refund, referred to herein as the "IEC Amount," is explained in more detail herein and generally is designed to address the potential volatility in natural gas and wholesale electricity prices. This IEC Amount will be the basis of the IEC to be approved by the Commission. The IEC will be reflected separately on all MPS and L&P electric rate schedules expressed in ¢/kWh. The agreed to IECs are shown in Appendix B. The IEC will be collected on an interim basis and will be subject to true-up and refund under the terms of this Agreement.

2. The actual, hourly variable costs of fuel and purchased power will be determined for each of Aquila's Missouri divisions using a method agreed to by Staff, Public Counsel and Aquila that equitably allocates these costs to each division. Fuel costs will be allocated to Aquila's steam operations based on the allocation method approved by the Commission in Case Nos. EO-94-36 and EO-93-351.

3. The Parties agree that each applicable Aquila rate schedule will indicate that a portion of the charge thereon reflected for service is subject to refund pursuant to the terms of this Agreement and will be calculated and refunded to each customer, based on the amount of each customer's usage during the IEC Period, at a later date and that such rate schedule will expire no



later than 12:01 a.m. on the date that is two years after the original effective date of the tariff sheets in this case, Case No. ER-2004-0034, unless earlier terminated by order of the Commission. The two-year period during which the IEC is in effect is referred to as the “IEC Period.”

4. Subsequent to the expiration of the Interim Energy Charge, an IEC Audit will commence in which the Parties will have the opportunity to audit Aquila's actual variable fuel and purchased power costs of serving native load, which will exclude fixed costs and the costs of fuel and purchased power for interchange (off-system) sales. The IEC Audit will be conducted under the same terms and conditions that apply to audits in general rate cases before the Commission. If the IEC Audit determines that all or a portion of the revenue collected by Aquila pursuant to the IEC mechanism exceeds Aquila's actual and prudently incurred variable costs for fuel and purchased power (as recorded in the FERC accounts 501, 547 and 555) for each operation on a Missouri retail basis during the period the IEC was in effect, Aquila will refund any excess up to the IEC Amount.

For the true-up, Aquila's true-up variable fuel and purchased power costs will be based on actual delivered coal costs, oil costs and natural gas costs, excluding fixed natural gas reservation charges, and actual purchased power costs, excluding demand charges relating to capacity purchases. The true-up will further exclude fixed costs charged to Accounts 501, 547 and 555 relating to fixed fuel components included in the permanent rates and to fuel and purchased power for interchange (off-system) sales.

5. If a dispute arises in the IEC Audit as to the prudence of Aquila's fuel or purchased power costs subject to this Agreement, the Parties agree to present the dispute to the Commission in a timely fashion consistent with the due process rights of the Parties to adequately prepare their

case. Any refundable amount that is undisputed shall be refunded promptly; however, no refund shall be made as to the amount in dispute until there is a final determination of that dispute, but interest shall continue to accrue during the litigation of the dispute and will be payable by Aquila to the extent it is finally determined that Aquila is required to make a refund of all, or a portion of, the amount in dispute.

6. The amounts to be refunded pursuant to the IEC Audit will be determined as follows:

a. The total amount to be refunded by MPS and/or L&P will be determined as follows:

First, determine Aquila's trued-up variable fuel and purchased power expense on a ¢/kWh basis separately for MPS and L&P by dividing trued-up fuel and purchased power expense by sales to native load (retail and wholesale, but not off-system); then

Second, if Aquila's trued-up variable fuel and purchased power expense on a ¢/kWh basis for MPS is greater than or equal to 1.9712 ¢/kWh, there will be no refund to MPS customers; and if Aquila's trued-up variable fuel and purchased power expense on a ¢/kWh basis for L&P is greater than or equal to 1.3977 ¢/kWh, there will be no refund to L&P customers; otherwise, Aquila will refund all or a portion of the revenue collected by the IEC; then

Third, if Aquila's trued-up variable fuel and purchased power expense on a ¢/kWh basis for MPS is less than or equal to 1.6654 ¢/kWh, Aquila will refund to each MPS customer all revenue collected by the IEC, plus interest; and if Aquila's trued-up variable fuel and purchased power expense on a ¢/kWh basis for L&P is less than or equal to 1.2641 ¢/kWh, Aquila will refund to each L&P customer all revenue collected by the IEC, plus interest; otherwise, Aquila will refund only a portion of the revenue collected by the IEC, plus interest; then

b. The amount to be refunded to each customer shall be determined as follows:

First, calculate the Trued-up IEC for each class as follows:

(i) For the residential class (MPS rate codes MO860 and MO870; L&P rate codes MO910 & 911, MO913 & 914, MO915, MO920 & 921, and MO922) the Trued-up IEC for each division is Aquila's trued-up variable fuel and purchased power expenses on a ¢/kWh basis as determined in the first step of 6.a., less the amount included in permanent rates on a ¢/kWh basis for that division (1.6654 ¢/kWh for MPS and 1.2641 ¢/kWh for L&P).

(ii) For the large primary class (MPS rate codes MO735 and MO737; L&P rate code MO944) the Trued-up IEC for each division is calculated by the following formula:

$$((A / B) \times (C \times D)) / E$$

where: A is the IEC Period revenues of the large primary class.

B is the IEC Period revenues of the Aquila Division.

C is the Trued-up IEC of the residential class.

D is the IEC Period sales of the Aquila Division.

E is the IEC Period sales of the large primary class.

(iii) For the remaining classes the Trued-up IEC are calculated by the following formula:

$$((A \times B) - (C \times D) - (E \times F)) / G$$

where: A is the Trued-up IEC of the residential class.

B is the IEC Period sales of the Aquila Division.

C is the Trued-up IEC of the large primary class.

D is the IEC Period sales of the large primary class.

E is the Trued-up IEC of the residential class.

F is the IEC Period sales of the residential class.

G is the IEC Period sales of all remaining classes.

Second, calculate the Refund Factor for each class by subtracting the Trued-up IEC for that class from the IEC paid by that class.

Third, calculate each customer's refund by multiplying the Refund Factor for the class by the customer's kWh usage during the IEC Period, then add the amount of interest.

7. The interest rate to be used for purposes of this Agreement will be the same as the prime rate of interest (as found in the Money Rates section of the Wall Street Journal) in effect on the day the IEC Period expires and will be applied to the amount to be refunded. Interest (if there is a refund) shall be applied for the period from the end of the first twelve months of the IEC Period through the end of the calendar month prior to the billing month in which bill credits for the refund appear on customers' bills. In other words, it is assumed that the total amount of any refund accrues during the first year and interest applies thereafter.

8. All Aquila Missouri retail electric customers taking service at any time during the IEC Period are potentially eligible to receive a refund, including interest and all applicable taxes and fees consistent with the terms and conditions of this Agreement. Generally, any such refund will appear as a one-time credit on the customer's bill, except that a refund in an amount exceeding \$1,000.00 may be issued by check when specifically requested by the customer, and in cases where a customer is no longer a customer in the billing month in which bill credits appear on the bills of remaining customers. In that instance, Aquila will mail to the last known address of such former customer a check for the amount of the refund owed that former customer. No such checks will be issued to a customer for a refund amount of less than \$3.00. Aquila may set off the amount of any refund owed a particular former customer under this Agreement against any amount owed Aquila by that former customer. After the bill credits have been made and checks issued, any amount of the total refund plus interest that may remain in Aquila's possession six months after the end of the application of the bill credits, for example, due to the inability to

locate a former customer, shall be donated by the Company promptly to a Low-income assistance program to be agreed upon by the parties.

9. During the IEC Period, Aquila shall provide the Parties with the Company's routine monthly revenue and sales reports, which reports shall include the following data: (1) actual kWh sales for each Missouri retail rate code by calendar month, and (2) the revenues from kWh sales, exclusive of taxes, for each Missouri retail rate code by calendar month. The routine reports shall also specifically identify the revenues associated with the IEC Period and the status of the IEC mechanism in terms of the accrued refund obligation. Aquila shall submit this data in electronic format on a quarterly basis within forty-five (45) days after the end of each calendar quarter.

Aquila also agrees, for the purposes of the IEC Period and this Agreement, to, for the duration of this Agreement, submit the following information to the Commission's Auditing Department and to the Public Counsel:

- a. Monthly operating reports;
- b. Monthly fuel reports;
- c. Monthly purchased power and interchange (off-system) sales reports.

Purchases and sales to any affiliate excluding the L&P Division will be included in the Interchange Revenue and Cost Accounts. Transactions between MPS and L&P will be accounted for as transfers at cost under a Joint Dispatch assumption;

- d. Monthly outage reports, including Jeffrey and Iatan outages;
- e. Monthly fuel prices for a) coal and freight, b) natural gas (commodity and transportation separately) and c) oil; and

f. A monthly statement identifying significant changes in fuel/rail contracts, capacity agreements and unusual operating conditions such as significant power plant outages, unusually high purchased power prices and natural gas prices, etc.

10. Commencing with the calendar quarter beginning April 1, 2004, and continuing during the IEC Period, Aquila shall provide quarterly reports to the Parties relating to the Company's analysis and record-keeping for any and all natural gas capacity release and off-system natural gas sales opportunities and transactions. In this report, Aquila shall provide information showing the amount of natural gas capacity that was available for its own use, the amount used, the amount available for capacity release; and for each amount of capacity released, the party to whom the capacity was released, the price of the release, and its duration, together with any other relevant information related to the transaction. This quarterly report shall also provide information showing the total amount of off-system natural gas sales; and for each off-system sale, the party to whom the off-system natural gas sale was made, the price of the sale, and its duration, together with any other relevant information related to the transaction. This report will also include Aquila's analysis of the natural gas market conditions during the time period covered, with explanations as to why the Company did or did not make any natural gas capacity releases or off-system natural gas sales. Any revenues collected by Aquila due to the release of unused natural gas capacity or net revenues from off-system sales of natural gas during the duration of the Agreement will be used to offset the calculation of the cost of the fuel and purchased power supplied to the Company's ratepayers on a dollar-for-dollar basis.

11. In consideration of the implementation of the IEC mechanism in this proceeding, and for its duration, Aquila, with respect to its electric and industrial steam operations, agrees to voluntarily forego any right it may have to request the use of, or to use, any other procedure or

remedy, available under current Missouri statute or subsequently enacted Missouri statute, in the form of a fuel adjustment clause, a natural gas cost recovery mechanism, or other energy related adjustment mechanism to which the Company would otherwise be entitled. This temporary and limited waiver by Aquila shall not be construed to prevent the Company from utilizing a purchased gas adjustment with respect to its natural gas operations.

At its own expense, Aquila shall post a bond, escrow its refund obligation, or otherwise provide adequate assurance to the parties to guarantee that any refund amounts due to its customers upon the expiration of the IEC will remain unencumbered in the event Aquila becomes insolvent or reorganizes its corporate structure.