Exhibit No.:

Issues: Combustion Turbines

Valuation

Witness: Cary G. Featherstone

Sponsoring Party: MoPSC Staff Type of Exhibit: Rebuttal Testimony

Case No.: EO-2005-0156
Date Testimony Prepared June 13, 2005

MISSOURI PUBLIC SERVICE COMMISSION UTILITY SERVICES DIVISION

REBUTTAL TESTIMONY

OF

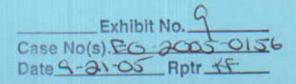
CARY G. FEATHERSTONE

AQUILA, INC. D/B/A AQUILA NETWORKS - MPS ELECTRIC

CASE NO. EO-2005-0156

Jefferson City, Missouri June 2005

Denotes Highly Confidential Information



BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of the Application of Aquila, Inc., for Authority to Acquire, Sell and Lease Back Three Natural Gas-Fired Combustion Turbine Power Generation Units and Related Improvements to be Installed and Operated in the City of Peculiar, Missouri)) (Case No. EO-2005-0156))						
AFFIDAVIT OF CARY G. FEATHERSTONE							
STATE OF MISSOURI)) ss. COUNTY OF COLE)							
Cary G. Featherstone, being of lawful age in the preparation of the following Rebuttal consisting of 44 pages to be presented following Rebuttal Testimony were given by set forth in such answers; and that such matknowledge and belief.	in the above case; that the answers in the him; that he has knowledge of the matters						
<i>€</i>	ary 6. Touthoustone						
Subscribed and sworn to before me this	day of June 2005.						
CHARLO ON MOTARY PUBLIC OF MISSON	TONI M. CHARLTON Notary Public - State of Missouri My Commission Expires December 28, 2008 Cole County Commission #04474301						

1	TABLE OF CONTENTS	
2	CARY G. FEATHERSTONE	
3	AQUILA, INC. d/b/a AQUILA NETWORKS-MPS ELECTRIC	
4	CASE NO. EO-2005-0156	
5		
6		
7 8	NECESSITY OF MAKING A COST DETERMINATION FOR THE SOUTH HARPER COMBUSTION TURBINES IN THIS CASE	4
9	OVERVIEW OF AQUILA FILING	10
10	SOUTH HARPER FACILTY	18
11 12	BACKGROUND OF THE THREE SIEMENS WESTINGHOUSE COMBUSTION TURBINES	21
13 14	VALUATION OF THE THREE SIEMENS WESTINGHOUSE COMBUSTION TURBINES	27
15	OFFERS TO SELL THE SIEMENS TURBINES	31
16	IMPAIRMENT CHARGE	35
17	SALES LEASE BACK CONCERNS	41
18		

1		REBUTTAL TESTIMONY
2		OF
3		CARY G. FEATHERSTONE
4		AQUILA, INC.
5		d/b/a AQUILA NETWORKS-MPS ELECTRIC
6		CASE NO. EO-2005-0156
7		
8		•
9	Q.	Please state your name and business address.
10	Α.	Cary G. Featherstone, Fletcher Daniels State Office Building, 615 East 13 th
11	Street, Kans	as City, Missouri.
12	Q.	By whom are you employed and in what capacity?
13	A.	I am a Regulatory Auditor with the Missouri Public Service Commission
14	(Commissio	n).
15	Q.	How is your testimony organized?
16	Α.	I have organized my rebuttal testimony by areas as follows:
17 18 19 20 21 22 23 24		 My credentials Overview of Aquila's filing Necessity of making a determination in this case Background of the three Siemens Westinghouse combustion turbines Valuation of the three Siemens Westinghouse combustion turbines Aries Combined Cycle Unit.
25	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 telecommunication companies. I have been involved in cases concerning proposed rate increases, earnings investigations and complaint cases as well as cases relating to mergers and acquisitions and certification cases.

- Q. Have you previously filed testimony before this Commission?
- A. Yes, I have. Schedule 1 to this testimony is a summary of rate cases in which I have submitted testimony. In addition, Schedule 1 also identifies other cases where I directly supervised and assisted in audits of several public utilities, but where I did not file testimony.
- Q. With reference to Case No. EO-2005-0156, have you examined and studied the books and records of Aquila Inc regarding the electric operations of its Aquila Networks MPS division (MPS)?
 - A. Yes, with the assistance other members of the Commission Staff (Staff).
 - Q. What is the purpose of your rebuttal testimony?
- A. The purpose of this rebuttal testimony is to respond to the direct testimony of the Aquila's witness Dennis R. Williams filed on January 13, 2005 in which he states what

Aquila is seeking from the Commission in this case and Aquila's support for why the Commission should give Aquila what it seeks. In particular, I am addressing Aquila's requests that the Commission authorize "Aquila Networks-MPS to record on its regulated books of account a transfer price of \$70,796,850 related to its acquisition from AE [Aquila Equipment LLC] of the CTs [three combustion turbine generators with a combined nominal rating of 300 MW], find "that the fair market value of the CTs is \$70,796,850" and find "that the proposed transaction does not provide a financial advantage to AE." Staff witness Philip K. Williams testifies in rebuttal on the Commission's applicable affiliate transaction rule and on asset impairment charges that Aquila has taken relating to its acquisition of the combustion turbines. Staff witness John Kiebel testifies in rebuttal concerning the Chapter 100 financing requested by Aquila.

- Q. What is Aquila requesting from the Commission?
- A. Aquila witness Dennis R. Williams states at page 10, line 12 of his direct testimony that Aquila is requesting three things:

First, the Commission has requested to make a determination that the acquisition of the [Combustion Turbines] from [Aquila Equipment] by its regulated Aquila Networks-MPS division at a fair market transfer value of \$70,796,850 does not provide a financial advantage to [Aquila Equipment].

Second, Aquila requests permission to enter into a sale and lease back arrangement whereby legal title to the Project, including the [Combustion Turbines], will be conveyed to Peculiar to pay for the installation and construction of the Project through the issuance by Peculiar of tax-advantaged Bonds under the Act.

Finally, Aquila is requesting authorization to cause the Project assets to be pledged and conveyed to the Trustee under the Indenture as security for the benefit of the holders of the Bonds. The specific and additional related elements of relief being requested by Aquila are set forth in the prayer of the Application.

NECESSITY OF MAKING A COST DETERMINATION FOR THE SOUTH HARPER COMBUSTION TURBINES IN THIS CASE

- Q. Why is Aquila seeking for the Commission to value the combustion turbines in this case?
 - A. In response to Staff's Data Request No. 32, Aquila stated:

Aquila is requesting the approval of the valuation of an affiliate transaction. The affiliate transaction rules (4 CSR 240-20.015) require a lower of cost or market determination be made to transfer assets from a non-regulated to regulated entity and the reporting of all affiliate transactions to the Commission annually. The rules also provide a means to place a transaction in front of the Commission if the Company deems the transaction not in compliance with the rules (4 CSR 240-20.015 (10). The rules do not, however, provide a process for the Company to place the valuation of the transaction in front of the Commission if the Company believes the transaction is in compliance.

Therefore, the Company is requesting Commission approval of the transfer value of the turbines, generators and equipment that was transferred from AQP to MPS Networks in accordance with the affiliate rules. The Company will use the approved value of this equipment for determination of rates in the pending Missouri rate case but understands other parties may wish to reserve their right to challenge the value for rate making purposes.

- Q. What is your understanding of this data request response?
- A. I interpret the above to mean, while the Company will use in its pending rate case whatever, if any, value is made in this case for the combustion turbines, there will be no rate determination made ultimately from this case. Staff believes that no ratemaking decision should be made as result of this case.
- Q. Do you agree with Aquila's statement in its response that "[t]he rules do not, however, provide a process for the Company to place the valuation of the transaction in front of the Commission if the Company believes the transaction is in compliance."

A. Yes. The applicable Commission Rule, 4 CSR 240-20.015 which is attached to the rebuttal testimony of Staff witness Phillip K. Williams as Schedule 3, provides that if an asset is transferred from an affiliate of a regulated electrical corporation to the regulated electrical corporation then the regulated electrical corporation is not to pay to the unregulated affiliate more than the lesser of the market price or fully distributed cost of the asset unless the regulated entity obtains a variance from the Commission. While the rule provides guidance as to what fully distributed cost is and what the regulated entity must be able to show regarding the transaction and records that it must keep regarding them, it does not authorize or require a company to obtain a Commission determination of the lesser of the "fair market price" or "fully distributed cost" of an asset transferred from an affiliate to an electric corporation. A copy of 4 CSR 240-20.015 is attached to the rebuttal testimony of Staff witness Williams as Schedule 3.

- Q. Should the Commission determine the value of the three combustion turbines in this case?
- A. No. The Commission should not value these combustion turbines in this case. Construction of the South Harper facility where the combustion turbines are located continues as of the date of this testimony. The cost determination of the value of the generating assets being constructed at the South Harper facility will be made in Aquila's rate case filed on May 24, 2005, Case No. ER-2005-0436. During the course of that case, all costs associated with the construction of the South Harper facility will be evaluated, including those costs related to the combustion turbines. Since the South Harper facility is currently being constructed, Staff will perform what is known as a construction audit of all of the expenditures relating to this power generating facility.

Aquila's application in this case requests that the Commission determine the transfer value for the three combustion turbines that have already been transferred from Aquila's non-regulated subsidiary to Aquila itself and assigned to one of its two Missouri-regulated divisions—MPS. A determination of the true costs for the three combustion turbines and their final total installed cost are not known at this time. To value these three combustion turbines at this time before the South Harper facility is complete and in operational would result in a piece-meal determination of the total cost of the South Harper facility. Numerous costs must be considered before a final just and reasonable price for the South Harper facility can be determined. No ratemaking determination should be made in this case both because it is unwarranted and because Aquila has a pending general electric rate increase case before the Commission in Case No. ER-2005-0436.

- Q. What did the Staff do in its audit of Aquila for purposes of this case?
- A. Staff interviewed several Aquila personnel about the original purchase of the three combustion turbines by Aquila Merchant, a wholly owned subsidiary of Aquila and the construction of new South Harper generating facility. Staff reviewed Aquila's responses to data requests it issued in connection with this case. Staff reviewed Aquila's Board of Directors minutes, Annual Reports to Shareholders and SEC Forms 10-K and 10-Qs. Staff toured the South Harper facility site where the turbines are being installed and visited both locations where the units were maintained in storage. Staff participated in the Integrated Resource Planning (IRP) meetings held twice a year and reviewed documents relating to Aquila's planning process. In particular, Staff attended several IRP meetings where the South Harper facility and these three combustion turbines were topics of discussion.

Q. What knowledge, skill, experience, training and education do you have in with regard to Aquila's application in Case No. EO-2005-0156?

A. I have acquired knowledge of the ratemaking and regulatory process through my employment with the Commission and through my experience and analyses in prior rate cases, complaint cases, merger cases and certificate cases before the Commission. I have participated in several Aquila rate cases, complaint cases, merger cases and certificate cases, and filed testimony on a variety of topics. I have also acquired knowledge of these topics through review of Staff work papers from prior rate cases brought before this Commission relating to Aquila. Specifically, as it relates to topics surrounding this case, I have previously examined generation and generation related topics; conducted and participated in several construction audits, specifically the costs of construction projects relating to power plants. I have also been involved in the fuel and fuel-related areas for power plant production on numerous occasions. I have been involved in many rate cases including the last several rate cases filed by Aquila and its predecessor company, UtiliCorp United, Inc. (UtiliCorp). I have reviewed the Company's testimony, work papers and responses to data requests addressing the particular matters raised by MPS in this application.

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

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

Kansas City Power & Light Company - Wolf Creek Nuclear Generating Station

AmerenUE - Callaway Nuclear Generating Station

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

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

- Q. Please give a brief history of Aquila's utility operations in Missouri?
- A. What is now Aquila began as a Missouri corporation that provided utility service within what is now the service area of Aquila Networks—MPS in 1917. By the mid-1980's that entity was named UtiliCorp United, Inc. (UtiliCorp) and reorganized itself as a Delaware corporation. In March 2002, UtiliCorp became Aquila, Inc. The Commission approved this name change early in 2002. Previous to UtiliCorp, the Company was called Missouri Public Service Company.
- Q. Please identify Aquila's current operations including its utility services provided within the state of Missouri.
- A. Aquila is an investor-owned electric and natural gas utility that is engaged in the generation, purchase, transmission, distribution and sale of electricity on a regulated basis to approximately 452,646 customers in three states, Missouri, Kansas and Colorado (page 6 of UtiliCorp 2004 Annual Report.). The Company also serves 910,116 natural gas customers on a regulated basis in seven states: Kansas, Colorado, Michigan, Minnesota, Iowa, Nebraska and Missouri. Aquila's Missouri operations represent approximately 46% of the Company's total utility operations. The Company continues to provide trading and marketing of

wholesale services on a limited basis as it winds down its non-regulated operations for natural gas and electricity.

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

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

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

- Q. When did Aquila acquire its L&P division?
- A. On December 31, 2000 when Aquila merged with the St. Joseph Light & Power Company. Essentially the operations of St. Joseph Light & Power Company became Aquila's L&P division. The Commission approved this merger in Case No. EM-2000-292.

A.

- Q. In general terms, what areas of Missouri are served by MPS and by L&P?
- 2
- A. MPS serves customers in and about Kansas City, Missouri. L&P serves

3

customers in and about St. Joseph, Missouri.

4

OVERVIEW OF AQUILA FILING

5

Q. Why did Staff audit Aquila in this case?

6

On December 3, 2004, Aquila filed an application seeking certain

7

authorizations relating to the installation and construction of three Siemens Westinghouse

8

simple cycle combustion turbines (Siemens turbines or turbines) at a new generating facility

9

near Peculiar, Missouri known as South Harper. The Company's application states in part,

10 11

This Application is being filed by Aquila to obtain from the Commission (i) a determination that Aquila's acquisition for its

12 13

regulated Missouri electric utility operations from an affiliated entity of three (3) 105 megawatt natural gas-fired combustion turbines for the

14 15 purpose of constructing an electric generation station in an area near the City of Peculiar, Cass County, Missouri does not provide a financial advantage to the unregulated affiliate, (ii) authorization to

16 17 18

enter into a sale and leaseback arrangement with the City of Peculiar to facilitate the issuance of tax-advantaged Chapter 100 revenue bonds to finance the construction and operation of a power generation station

19 20

and, (iii) authorization to cause said electric generation station to be subjected to the lien of the Indenture as security for the benefit of the

21

holders of the revenue bonds.

[Source: Aquila Application, page 1]

22 23

> Q Does Aquila have any other cases pending before the Commission that the

25

24

Staff believes implicate any of the same issues that the application in this case raises?

26

A. Yes. On May 24, 2005, Aquila filed a general rate increase case for its

27

Missouri electric operations, i.e., its MPS and L&P divisions, in Case No. ER-2005-0436.

28

Aquila filed for an increase in its Missouri electric retail rates for its Aquila Networks—MPS

29

division (MPS), exclusive of franchise and occupational taxes, corresponding to a revenue

10

11

12

13

14

15

16

17

18

19

20

21

22

referred to as MPS or Missouri Public Service. This represents an overall 20.3% increase to existing rates. Aquila also filed for an increase in electric rates for its Aquila Networks— L&P division (L&P) corresponding to an increase in revenues of \$9.4 million. This proposed increase for L&P represents an 8.4% overall increase to existing rates. On May 27, 2005, Aquila filed a general rate increase case, Case No. HR-2005-0450, for the Missouri steam operations of its L&P division seeking an increase in steam rates that corresponds to a \$5 million increase in revenues to Aquila. This proposed increase represents a 44.3% in steam rates for L&P's six commercial steam customers. In this case Aquila seeks valuation of the three combustion turbines it is installing at its South Harper facility. With the South Harper facility construction schedule, valuation of those combustion turbines will be a part of

Q. Have Case Nos. ER-2005-0436, HR-2005-0450 and this case, Case No. EO-2005-0156 been consolidated for any purpose?

the considerations in determining the appropriate rates in Case No. ER-2005-0436.

Α. The rate cases Aguila filed on May 24 and 27, 2005 (Case Nos. ER-2005-0436 and HR-2005-0450, respectively), have not been consolidated with the asset transfer case Aquila filed on December 3, 2004 (Case No. EO-2005-0156). Since Case No. EO-2005-0156 is not a rate case and no determination from this case will result in any impact on rates, for regulatory purposes, the value of the requests Aquila makes in its application are limited. It is uncertain if any of the ultimate costs determined from this case will be included in the costs in Aquila's filed general electric rate increase case. When this rebuttal testimony was prepared, the Staff had not completed its review of the rate increases sought by Aquila in Q.

Case No. ER-2005-0436 and no other party had made any recommendations in response to those rate increase requests.

Will Aquila's L&P division be directly affected if the Commission grants

Aquila any of the relief it seeks in this case?

6 a

A. The South Harper facility that is currently under construction is designated as an MPS division generating asset and as such, would not impact the L&P division rate base investment. As indicated above, there is no rate determination that will be made from this

case regardless of whether the South Harper facility is assigned to MPS or L&P.

In addition, much uncertainty surrounds the L&P division. Aquila recently announced that it is soliciting offers to purchase this property among several of its other utility properties. Aquila is currently evaluating inquiries for these properties to determine which it will ultimately sell.

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

Staff has examined costs of power plants numerous times, most notably when Kansas City Power & Light (KCPL) and AmerenUE (Union Electric) built the Wolf Creek and Callaway nuclear generating facilities in the mid-1980s. Construction audits were also performed for KCPL's LaCyne 2 and latan 1 coal-fired generating stations. Staff has also examined costs relating to combustion turbines installed by Empire District Electric Company (Empire) at its State Line 1 and 2 facilities. When State Line 2 was converted to a

combined cycle unit in 2001, a construction audit was performed for those expenditures.

2

More recently, in Empire's last rate case, Case No. ER-2004-0570, costs relating to Energy

3

Center 3 and 4, which are simple-cycle combustion turbines, were examined.

4

All of the construction audits were done in the context of rate increase applications by

5

the utilities.

6

Q. What other additional costs need to be considered in determining the final

7

reasonable costs for rate recovery of the South Harper facilities?

8

A. All of the costs to design and construct the facilities should be considered in

9

total to make a final determination of the actual cost to install the three combustion turbines

10

currently being constructed at the South Harper Facility. While the significant costs of the

11

South Harper facility are the three 105-megawatt turbines, other costs including the

12

installation costs must be evaluated and the site selection and related costs must be reviewed.

13

In addition to the installation costs for these units, consideration must be given to the

14

transmission facilities and any upgrades to the substation and transmission network must be

15

analyzed before any recommendation on the total costs of the plant including the turbines can

16

17

be made.

It would be premature to make any recommendations on the costs for the combustion

18

turbines. The South Harper facility must be evaluated along with other alternatives that

19

Aquila could have made to meet its capacity needs of MPS division. Aquila had other

20

combustion turbines that it owned in addition to the three Siemens turbines that it could have

21

considered for the South Harper facility. Aquila could have also investigated the current

22

market for new equipment that may have led to lesser costs than those incurred for the

23

Siemens turbines that were originally purchased by Aquila's non-regulated subsidiary. And

_

1 I

finally, Aquila had a 50% interest in the Aries Combined Cycle Unit that has been providing MPS capacity and energy since 2001 through a purchased power agreement that must be evaluated in order to determine the most optimal generation decision for MPS and its customers. None of these options were examined by Aquila or presented in this case.

- Q. Why is it necessary to review the site location chosen for the Siemens turbines?
- A. These turbines were originally purchased to be located on the same existing site as Aries II located at Pleasant Hill. Those plans were terminated in July 2002. Aquila then planned to locate them in an undeveloped site known as Camp Branch located at Harrisonville, Missouri. It terminated those in 2004. Finally, a third site, the South Harper facility site, which is located directly outside Peculiar, Missouri, is where current construction is nearing completion. The Staff does not evaluate cost incurred in site selection and related matters until a rate case.
 - Q. What other turbines did Aquila own?
- A. In addition to the three Siemens turbines, Aquila Merchant also purchased 18 General Electric 7EA combustion turbines (General Electric turbines) during 2000 and 2001 time frame. Fourteen of these were installed in Illinois and Mississippi. Three of the General Electric turbines were sold to other utilities and one was "released" to the manufacturer before shipment. Each General Electric 7EA turbine is nominally rated at approximately 75 megawatts. Aquila Merchant paid approximately ** ____ ** million each for four of these combustion turbines. Aquila Merchant sold three of these combustion turbines to other entities at a loss and released the forth combustion turbine back to General Electric losing the reservation charges. The price at which Aquila Merchant sold two of

ì

17

18

19

20

21

22

23

- A. No. In April of 2004, Aquila Merchant sold its 50% interest in Aries to Calpine, the owner of the other 50% interest.
- Q. Is it significant that Aquila no longer has any ownership interest in the Aries facility?
- A. Yes. Through Aquila's indirect ownership share of Aries, it had the right to negotiate the installation of the three Siemens turbines at the Aries generating facility and the original plans were to install these combustion turbines there. The turbines were originally planned to be built at the Aries site. The decision to sell to Calpine and the decision in 1999

î

to build Aries as a non-regulated merchant plant ultimately forced installation of these Siemens turbines at another site. Locating these combustion turbines at the South Harper facility rather than at the Aries facility may make the installation more costly. The costs of land, water rights, natural gas pipeline facilities, as well as transmission and substation facilities, all play a part in taking advantage of the economies of scale of the Aries facility in relationship to installing the Siemens turbines at another location such as South Harper. An analysis should be performed to determine the cost differential, if any, relating to the installed cost at the South Harper Facility, including the transmission upgrades with what the cost would have been if the combustion turbines were installed at the Aries Generating Facility as originally planned.

The costs of future capacity requirements of MPS that may occur as early as 2007 could be affected by decisions that Aquila made regarding the Aries unit and ultimate ownership of that generating facility. These decisions relate to Aquila building the unit as a non-regulated merchant plant; partnering with Calpine, and selling its interests in the facility with the attendant loss of availability for providing capacity to MPS and future expansion of the facility's generating capacity. The land and related infrastructure of the Aries site has tremendous value. With the difficulties Aquila has had with the location of the South Harper facility, it is easy to understand the value of the Aries site that Aquila gave up.

- Q. Does the Aries site now have transmission and substation facilities?
- A. Yes. When Aries was built in 2002, MPS already had a substation that it operated adjacent to where the Aries combined-cycle combustion turbine was built. Aries was built on land MPS had earlier acquired. The Aries site is adjacent to the existing

substation. The substation and its transmission facilities were upgraded to accommodate both the capacity from the Aries Combined Cycle Unit and for future generating units.

In addition to the loss of value of using the Aries site for the Siemens turbines, also lost were the upgrades made to the substation and transmission facilities in 2002.

- Q. Who paid for the upgrades to the transmission and substation facilities at Aries?
 - A. MPS paid for most of the upgrades.
- Q. Was the South Harper the first location, besides Aries, that the Siemens turbines were planned for?
- A. No. After the decision to not employ the turbines at the Aries facility, Aquila decided while the units were in storage to build the units at a Higginsville location called Camp Branch. When it appeared there would be community opposition to this location, Aquila made the decision to move the project to a location outside the city of Peculiar, Missouri.
- Q. Has there been any opposition to locating the combustion turbines at the South Harper site?
- A. Yes. A citizens-based group called StopAquila.Org and Cass County filed court action seeking to stop construction of the South Harper facility. As part of its response, Aquila sought from the Commission a certificate authorizing it to build the turbines at the South Harper location or clarification of its existing authority for which the Commission opened Case No. EA-2005-0248. The Commission granted that under its existing certificate, Aquila had specific authority to build the South Harper facility:

The Commission recognizes, however, that Aquila is under order by the Circuit Court of Cass County to obtain "specific authorization" for

construction of the South Harper Facility and the Peculiar Substation pursuant to the language in Section 64.235, RSMo. Therefore, the Commission finds under the broad authority for oversight of electric utilities found in Chapters 386 and 393, RSMo, and pursuant to the ruling by the Cass County Circuit Court under Section 64.235, RSMo, that Aquila has specific authority under its existing certificates to construct and operate the South Harper Facility and Peculiar Substation, both of which are fully contained within Aquila's certificated area.

10

IT IS THEREFORE ORDERED:

11 12

13 14 15

16 17

18 19

20 21

22

23

24 25

26

27

28

29

30

31

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

- Q. When was the last time MPS built its own generation?
- MPS participated in the Jeffrey Energy Center 1, 2 and 3, coal-fired A. generating units, as a partner with Westar Energy. Jeffrey Unit 1 became operational in 1978, Unit 2 in 1980 and Unit 3 in 1983.

SOUTH HARPER FACILTY

- What is the South Harper facility? Q.
- South Harper is the name of the new generating facility currently under A. construction near Peculiar, Missouri in Cass County. When complete, this facility will have three Siemens Westinghouse 501D5A combustion turbines capable of generating approximately 105 megawatts of electricity each with a total station capacity of 315 megawatts.

Q. When is this facility scheduled to be completed?

A. Currently, Aquila expects that this facility will be completed in summer of 2005. Aquila expects the first combustion turbine, Unit 3, to go into service mid-July 2005, the second combustion turbine, Unit 2, to go into service the first of August 2005 and for the last combustion turbine, Unit 1, to go into service by mid-August 2005.

- Q. When were the turbines to start supplying capacity to MPS?
- A. MPS is matching the availability of these combustion turbines to serve its load with the date of the Aries Combined Cycle purchased power agreement ended May 31, 2005.
 - Q. Why is Aquila building these generating units?
- A. To replace capacity that was being supplied through a purchased power agreement that expired May 31, 2005.
- Q. Who was supplying power under the purchased power agreement and how much power was Aquila entitled to under the agreement?
- A. MPS entered into a purchased power agreement (PPA) with Aquila Merchant, a wholly-owned subsidiary of Aquila (then called UtiliCorp United, Inc.), on February 22, 1999. Aquila Merchant created a company known as Merchant Energy Partners Pleasant Hill, LLC (MEPPH) to supply power to MPS. Aquila Merchant and subsequent operating partner, Calpine Corporation (Calpine), completed construction of a 585-megawatt combined cycle unit at the Aries Power Plant site located at Pleasant Hill, Missouri with an in-service date of March 2002.

The partners identified the Aries Combined Cycle Generating Facility (Aries Plant) was completed and ready to generate electricity as a combined cycle unit by March 2002. Initially, under contract, the Aries PPA allowed for the partners to supply power from other

sources if Aries was not complete when the combined cycle portion of the contract started in January 2002. Under the expired Aries capacity contract, the combined cycle plant provided to MPS 200 megawatts during October through March and 500 megawatts during April through September starting in 2002 through May 31, 2005. Aries provided 320 megawatts of peaking capacity service to MPS during the summer of 2001 under the same capacity

 contract.

Q. Were the three Siemens turbines purchased for the regulated Missouri Public Service Division?

A. These units were originally purchased by Aquila Merchant, a wholly owned subsidiary of Aquila and were to be installed at the Aries Generating Facility. The units were designated as Aries II and were to be operated as a merchant plant. These three turbines were initially designated as Aries II to be installed on land where the Aries Combined Cycle Unit is located. The land for the Aries site was previously owned by MPS and is adjacent to MPS' existing substation where it has operated for many years. The three turbines were initially planned to supply power to the MPS Division or to other entities through a purchase power agreement. Aquila Merchant developed the Aries II project relying on successfully getting a purchased power agreement with MPS. Highly Confidential Schedule 2 is a March 5, 2002 presentation concerning the Aries II project. This presentation indicated that Aries II was dependent upon having a purchased power agreement with MPS.

Q. Did Aquila Merchant plan to have a purchased power agreement with MPS for the Siemens turbines?

A. Yes. Aquila Merchant submitted a response to a Request for Proposal (RFP) where MPS was seeking bids for a capacity power contract. Aquila Merchant submitted

Q.

A.

proposals to MPS to supply all of the generating capacity output of these three combustion turbines to the regulated operations of MPS.

July 2002, Aquila decided to cancel the Aries 2 project after the energy market, primarily the

merchant energy market, collapsed. During the summer of 2002 Aquila decided to exit the

merchant trading market and canceled plans on developing further merchant generating sites.

After the Aries II project was canceled, Aquila attempted to sell the Siemens turbines to other

utilities, including KCPL. When Aquila was unable to reach an agreement to sell the

Siemens turbines to KCPL, the units were placed in storage facilities at two locations in the

Kansas City area. The Siemens turbines and generators were stored at MPS' Ralph Green

generating facility, a regulated combustion turbine in operated by MPS. The balance of the

Siemens turbines, transformers and breakers were stored in two airplane hangers at the old

When were the three Siemens turbines delivered for storage?

THREE

Did Aquila Merchant ever enter into a purchase power agreement with MPS

No. The three combustion turbines were never delivered to the Aries site. In

3 4

for the three Siemens turbines?

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

BACKGROUND THE

August 2002 through late 2002.

Richards Garber airport in Kansas City.

COMBUSTION TURBINES 20 21

Q.

A.

Α.

Q. What Aquila affiliate purchased the Siemens turbines?

22

23

Aguila Merchant purchased the three combustion turbines from Siemens Westinghouse Power Corporation in an equipment contract signed in September 2001. The

Aguila took delivery of these three turbines and related plant starting in

SIEMENS

WESTINGHOUSE

Q.

initial letter of agreement was signed February 2000. Aquila Merchant started to discuss with Siemens in late 1999 the possibility of purchasing these units.

3

4

Did it take an unusual length of time to negotiate a contract for the Siemens

5

6

7

8

9

10

11 12

13

15

14

16 17

18

19

20

21

22 23 turbines in the 1999 to 2001 timeframe? A. Yes. It took Aquila Merchant 19 months to negotiate terms to purchase the three Siemens turbines between the time of the letter agreement to the signing of the

Merchant, indicated that the two Siemens 501F (F frame) combustion turbines installed at

equipment contract in September 2001. In contrast, Mr. Kreimer, formerly of Aquila

Aries took "about 11 months to complete from start of the negotiations to signing of the

contract. Aquila Merchant's negotiation period for the three Siemens 501D5A combustion

turbines took 21 months from November 1999 when the actual specifications went out for the

three combustion turbines..." to the final signed contract in September 2001.

Was the timing of the negotiations between Aquila Merchant and Siemens for Q. these three combustion turbines beneficial to Aquila's regulated MPS division?

A. No. These negotiations took place when the power equipment industry was experiencing a sellers' market. Purchasers were having to pay premiums to reserve manufacturer's slots to place orders and negotiate contract terms. During an interview David Kreimer, Aquila Network's former Director of Engineering, indicated "that during the time Aquila Merchant was negotiating with Siemens for the three combustion turbines it was a brutal sellers market for all forms of generation." He stated "that it was the most brutal sellers [market] that he experienced in the 30 years that he had been working in the industry at the time of the negotiations and when Aquila Merchant entered into the agreement to purchase these combustion turbines." Mr. Kreimer stated that "the sellers' market peaked

4

5

around August 2002 and pricing for the large F frame machines began to decline quickly....the sellers' market for the larger [Siemens] F model combustion turbines started losing value first before the values for the smaller Siemens 501D5a's and General Electric 7EA combustion turbine[s] started to decline—the smaller combustion turbine's market value lasted longer" [Source: Data Request 56.1, April 29, 2005 Kreimer interview].

6

Q. What is the size of the larger F frame machines that Mr. Kreimer referred to in his interview?

7 8

9

10

11

12

A. The F frame units are Siemens 501FD combustion turbines and are the range of 150 to 160 megawatts in size. The Aries Combined Cycle Unit has two F frame combustion turbines. The Siemens 501D5A combustion turbines Aquila is installing at the South Harper Facility are 105 megawatts and the smaller General Electric 7EA combustion turbines discussed earlier are nominally rated at 75 to 80 megawatts [Source: Data Request 56.1, April 29, 2005 Kreimer interview].

13 14

Q. Was Mr. Kreimer involved in the purchase of the three Siemens turbines?

Yes. When Aquila negotiated for and bought these units, Mr. Kreimer was

15

A.

employed by Aquila Merchant. He was directly involved in the discussions between

16 17

Siemens Westinghouse and Aquila regarding these combustion turbines. Mr. Kreimer also

18

was involved in the negotiations of a 1999 contract to purchase two Siemens 501F

19

20

Q. Why is the nature of the combustion turbine market that was occurring in

EconoPacs installed at Aries to create the combined-cycle unit.

2000 and 2001, described as a brutal sellers' market, important now?

21

A. Combustion turbine prices declined after the 2001-2002 timeframe ending the

2223

sellers market in this country. The power equipment market was substantially impacted as

Rebuttal Testimony of Cary G. Featherstone

11.

result of the collapse of the merchant power market and the utility industry's building of natural gas-fired generation. Highly Confidential Schedule 3 is an analysis that shows the combustion turbine prices from various sources. While some of the material on this schedule is considered highly confidential, one of the sources is not. Aquila provided copies of "Gas Turbine World" that is used in the utility and power market industry to track combustion turbine costs.

During the time period that Aquila was in negotiations with Siemens in 2000 and 2001, the 501D5A turbines were estimated to be selling for \$25.5 million. In 2003, when MPS would have been negotiation for turbines for its capacity needs, the turbines were selling for \$19.9 million. By 2004, the market for this model turbine decreased to \$18.7 million.

The General Electric 7EA models have experienced a similar decline. The "Gas Turbine World" reported in the 2000-2001 handbook that these units were selling for \$21 million. The 2000 price was \$16.6 million and the 2004 price was \$14.8 million. The volatility of the natural gas market contributed to the decline in sales of gas-fired generation. To the extent this sellers' market resulted in Aquila Merchant paying higher costs for the combustion turbines it acquired then and those same combustion turbines are included in electric rate case filed by Aquila on May 24, 2005, Case No. ER-2005-0436, the cost to MPS may pay more for these combustion turbines than if the regulated entity would have negotiated prices for this equipment on its own. Aquila is requesting that costs for the South Harper facility be reflected in rates in Case No. ER-2005-0436. It would be not be appropriate for Aquila to seek to include the higher costs for the Siemens turbines in setting rates. To the extent that Aquila Merchant overextended itself in the acquisition of

combustion turbines at a time of great demand for those units, while at the same time, the merchant energy market was in a dramatic decline should not have an impact on MPS. Any increased costs resulting from the failures of Aquila Merchant's should not be passed on to MPS customers. The timing was right for MPS to take full advantage of the softing of the combustion turbine market with the June 2005 in service date. If given the choice of when to purchase equipment, negotiating when the seller has many buyers is not the time to get the best price. This is especially the case since MPS did not need the turbines until June 1, 2005.

- Q. If Aquila did not need these combustion turbines until 2005, when should it have begun negotiating for them?
- A. Aquila would have had to take delivery sometime late 2004 for an in-service date in June 2005. Negotiations likely would need to have started with the equipment manufacturer sometime in 2003 to achieve this delivery date.
- Q. Did Aquila look into procuring sources of electricity other than the three Siemens combustion turbines?
- A. The affiliated group of Aquila entities had these three combustion turbines. Attempts to sell them soon after they were acquired had brought insufficient interest by non-affiliates to culminate in a sale prior to them being offered to MPS. MPS was the last in line to get the opportunity to acquire these units. And even after offering them to others outside of MPS, MPS did not get the best price compared to what was offered to others. An organizational decision was made in January 2004 that these combustion turbines would be used to meet MPS's capacity needs beginning in 2005. Aquila took the turbines that it could not sell to others and used them for MPS. MPS could have negotiated for turbines on its own which would not have been in a sellers' market but, instead, now have turbines that were

Α.

negotiated at time of a "brutal sellers market" and had been in storage for over two and half years with no warranties.

3

Q. Are combustion turbines typically stored before being installed?

4 5

2002, over two and one-half years. Combustion turbines cost tens of the millions dollars. It

No. Aquila is installing turbine units that have been in storage since late

6

is unusual for combustion turbines to be stored for a lengthy period of time. Construction of generating units is planned around when a unit is needed—its crucial in-service date. The

7

procurement of major equipment components and the scheduled delivery is carefully

9

planned, especially the delivery of combustion turbines. Everything relating to the

10

installation is targeted by the in-service date. Typically the equipment is delivered from the

11

manufacturer directly to the construction site for installation.

12

Q Why are combustion turbines normally delivered directly from the

13

manufacturer to the construction site?

A.

14

keep them in inventory. Also, even before they are assembled, their components are very

Combustion turbines are costly; therefore, there is a strong incentive not to

15 16

large and heavy, and difficult and expensive to move requiring specialized equipment for

17

lifting and hauling. Much planning and coordination is necessary to transport and deliver

18

these expensive components to the construction site when they are installed. The South

19

Harper equipment required heavy lifts for the combustion turbines and generators and the

20

balance of plant equipment stored in an air plane hangers took an estimate of over 400 truck

21

loads to move to the South Harper site.

22

Q. Why are the transportation costs to move these combustion turbines significant?

23

3

5

6

7 8

9

10 11

12

13

14

15

16 17

18 19

20

21

22

23

In the construction audit of the South Harper facility, all costs will be A. examined, including transportation, handling and all storage costs. To ensure that no duplication of these costs is included in setting rates and that none of the storage costs are included in the final costs of South Harper facility, all expenditures will be examined after the South Harper facility is complete.

- Q. Do the three combustion turbines have manufacturer's warranties?
- A. When Aguila Merchant received them, the combustion turbines had manufacturer's warranties; however, those warranties have expired.
- Q. Could Aquila have gotten manufacturer's warranties after it obtained the combustion turbines from Aquila Merchant?
- Yes. Siemens would have extended the original warranties, for a price. The A. estimated cost for this extension was \$ 2.2 million. Aguila chose not to incur this additional cost [Source: Data Request 56.1]. Therefore, the three combustion turbines that Aquila is installing at South Harper do not have warranties. Installing "new" combustion turbines and associated equipment without such protection is unusual.

VALUATION **OF** THE THREE **SIEMENS** WESTINGHOUSE **COMBUSTION TURBINES**

- Q. Did Aguila hire a consultant to value the Siemens turbines as of the date Aguila acquired them from Aguila Merchant?
- Yes. Aguila hired R. W. Beck (Beck) to value the three combustion turbines. Α. Attached to the direct testimony of Aquila witness Dennis R. Williams as Schedule DRW-1, is a report entitled "Limited Appraisal of Three SWPC 501 D5A Combustion Turbines and Auxiliaries." This firm identified \$70.8 million as the "fair market value" for the three

combustion turbines that should be reflected on the regulated books of MPS. Aquila took a write-down from the purchase price that Aquila Merchant had paid to the value recommended by Beck in December 2004. Staff witness Phillip K. Williams discusses this write-down in detail in his rebuttal testimony.

- Q. What was the original value of the Siemens turbines?
- A. Aquila Merchant purchased the three combustion turbines in September 2001 for \$78.7million, including transformers and breakers.
- Q. Should the Commission rely on Beck's analysis for its valuation of the combustion turbines?
- A. No. Beck's review is inadequate for ratemaking purposes. There are other cost estimates for turbine prices that support the costs of the Siemens turbines given the Commission's affiliated transaction rules requiring the lower of cost or market standard be used to determine the values of this equipment. In valuing the turbines, Beck reviewed costs Aquila Merchant incurred then made judgments as to which of those costs should be included in arriving at the value for the combustion turbines that should be recorded in Aquila's books.
- Q. What adjustments did Beck make to the cost to Aquila Merchant of the Siemens turbines?
- A. Siemens evaluated various cost components relating to the combustion turbines purchased by Aquila Merchant. Under the original cost method Beck made several adjustments from Aquila Merchant's book value of \$76,137,869. These adjustments were for an option payment of \$3.7 million, expiration of warranty for \$2.2 million, production modifications of \$300,000, rehabilitation costs of \$600,000 and internal labor of \$39,399

- Q. What was Beck's result from the cost method it used?
- A. Beck determined under the original cost approach, the Siemens turbines should be valued at \$69,245,970 (the cost of \$76,137,869 less adjustments of \$6,891,899). The transformers and breakers amount would be valued at \$2,386,050 (net of adjustments of \$65,670).

The combustion turbines, transformers and breakers should be valued at the following:

Turbines Original cost Less: Adjustment Turbine Value after adjustment	\$76,137,869 (<u>6,891,899</u>)	\$69,245,970
Transformers Less: Adjustments Breakers Value after adjustment	\$1,686,150 (44,850)	\$1,641,300
Breakers Less: Adjustments Value after adjustment	\$ 765,570 (20,820)	<u>\$ 744,750</u>
Total Transformers & Breakers		<u>\$ 2,386,050</u>
Total Turbines, Transformers and Breakers		<u>\$71,632,020</u>

Q. What did Beck identify as the cost to Aquila Merchant of the Siemens turbines?

1
2

A. Beck identifies the original cost that Aquila Merchant paid for the three turbines to be \$76, 137,869 or \$25,379,290 for each turbine. It also identifies as original cost for the transformers and breakers \$2,578,364. These amounts total to \$78,716,233. The actual contract price Aquila Merchant negotiated with Siemens in September 2001 for the three combustion turbines (excluding the transformers and breakers) was ** ______ **, or ** _____ ** per unit.

Q. Did Beck recommend that the original cost approach be used to value the Siemens turbines?

A. No. Beck developed another approach called the "replacement cost" approach. This valuation assumed the starting cost of each turbine would \$24,500,000 for each turbine, or \$73,500,000 for all three turbines. From this amount Beck deducted an amount of \$1,849,200 for a standard exhaust stack that MPS replaced with a more substantial exhaust stack. Beck also deducted the \$2.2 million for the cost of expired warranty. Finally, Beck deducted \$1.0 million for a "multi unit discount" that Beck assumed would have been given for the purchase of three combustion turbines.

The amount Beck recommends for the value of the combustion turbines under the replacement cost approach is \$ 68,410,800 (the starting point of \$ 73,500,000 less the total adjustments of \$ 5,089,200). Under this approach Beck assumed the same amounts for the transformers and breakers of \$ 2,386,050 (net of adjustments of \$ 65,670).

Beck's analysis that applies to the replacement costs method of the three combustion turbines follows:

Q.

1 Cost \$73,500,000 2 Adjustments: 3 Warranty (2,240,000)4 **Exhaust Stacks** (1,849,200)5 Multi-Unit Purchase (1,000,000)6 7 Combustion Turbines subtotal \$ 68,410,800 8 9 Transformers & Breakers 2,386,050 10 11 Value – Replacement Cost Method \$ 70,796,850 12 13 [Schedule 4; Data Request No. 5] 14 Q. What value is Aquila proposing the Commission adopt for determining the 15 appropriate cost for the three Siemens turbines? 16 A. Aguila's position is that the market value of \$70,796,850 identified by Beck 17 be used to determine the cost value for the South Harper facility. This amount is for the three 18 turbines and associated transformers and breakers. 19 Q. Does Staff agree with Aquila? 20 A. No. Staff does not believe that the value for this equipment can be determined 21 at this time and that it cannot be determined until all the costs and relevant circumstances are 22 evaluated relating to the South Harper facility are examined in total in the rate case filed on 23 May 24, 2005. However, the best cost for the three Siemens turbines and related equipment 24 (transformers and breakers) is not the Beck recommendation but an offer made in August 25 2002 to KCPL of \$66,760,000 for the three Siemens turbines. This amount sets the market 26 value of these units, not the Beck estimate. 27 OFFERS TO SELL THE SIEMENS TURBINES

Did Aquila Merchant attempt to sell the turbines?

	A.	Yes.	Aquila Merchant res	ponded t	o a reque	est f	for prop	osal	issu	ed by	KC.	PL ir
uly	2002.	Aquila	Merchant provided	several	options	to	KCPL	for	not	only	the	three
Siem	nens turb	oines but	the four General Ele	ectric 7E	A turbine	es.						

- Q. What was the price at which Aquila Merchant offered to sell the Siemens turbines to KCPL?
- A. Aquila Merchant offered the three turbines for \$69 million, or \$23 million for each unit, including associated transformers and breakers. At the time the units still had manufacturer warranties [Source: Data Request No. 5].
- Q. Did Aquila Merchant offer to sell the Siemens turbines to any one else beside KCPL?
- A. Yes. Aquila Merchant offered two of the three units to Black & Veatch for

 ** ___ ** million per unit, or total of ** ___ ** million. [Source: OPC Data Request

 No. 1032]
- Q. Did Black & Veatch respond to Aquila Merchant's offer of the two Siemens turbines?
- A. No, Aquila Merchant indicated that no discussions took place after it made its offer to Black & Veatch.
- Q. If the Commission decides that a value needs to be determined for the three turbines in this case, what should that value be?
- A. As stated earlier, Staff believes the Commission should not make any decision in this case regarding the values for any aspect of the South Harper costs until the plant is completed and a review of all expenditures is made in total, which will take place in Aquila's current rate case, Case No. ER-2005-0436. If the Commission believes that a determination

of the values for these generating units in this case is desired, then the maximum costs for the 2 three turbines should be for what Aquila offered them to KCPL and Black & Veatch. The 3 KCPL offer was \$69 million including the transformers and breakers. Because the warranty 4 has expired, the value for it should reduce the KCPL offer by \$2.2 million to \$66.8 million

5

for these units [Source: Data Request No. 5].

Aguila withdrew the offer in October 2002.

6

7

proposal from KCPL and Aquila's response identifying specific terms and conditions

Highly Confidential Schedule 5 contains the material respecting the request for

8

regarding its offer for the sale of the Siemens turbines.

9

Q. Why were the Siemens turbines not sold to KCPL?

10

A. The parties could not come to terms that were mutually satisfactory and

11

Q. Why was the KCPL offer withdrawn?

12 13

A. In an interview with Mr. Kreimer, he indicated that the turbines were being shipped and Aquila Merchant had to devote its attention to finding adequate storage. Mr.

15

14

Kreimer stated:

16 17 18

19 20 21

30 31

Aquila withdrew the offer to KCPL because the offer price was in part based on avoiding delivery and avoiding an estimated \$9mm of storage costs. When it became clear KCPL was not going to take delivery, Aquila had to focus its attention on taking delivery of the units. Aquila Merchant had to make an immediate decision on the destination of the units because they were on the rail awaiting shipment. The units had to be shipped to a destination where the storage facilities could be constructed and procedures put in place to preserve and to protect the units. The units would have to be monitored and inspected on a routine basis and maintenance during storage would have to be done in compliance with the requirements of Siemens Westinghouse. The impending shipment and the early delivery associated with the KCPL development schedule resulted in withdraw of the offer. Once a plant to mitigate storage costs was implemented, it became more important to focus on the impending shipments of the 7EA turbines.

Q. Why should the KCPL offer be the prevailing price for the Siemens turbines?

- A. Aquila purchased these units at a time of unprecedented pricing for turbine equipment during a brutal sellers market. The units were purchased by a non-regulated affiliate of Aquila with a history of affiliated abuse with regard to power transactions relating to the Aries purchased power agreement. The turbines were offered to other entities and only provided to MPS for its capacity needs when there appeared to be no other market for these units. The units have been in storage over two and one-half years which is unprecedented in the regulated utility industry. The units no longer have warranties and as such, risk of operations will be upon MPS if there is equipment failure within 12 months from its in service date, which is typical for this type of equipment.
- Q. Should MPS be offered at least what other companies were offered for these three turbines?
- A. Yes. There is no rational basis that MPS, a division of Aquila, should not be offered at least as good a price for this generating equipment as a unrelated companies such as KCPL. The KCPL offer was made not only for the generating units but included the transformers and breakers. The additional equipment for the turbines is being purchased by MPS even though the transformers and breakers were included in the price to KCPL.
 - Q. Does KCPL set the market price for these units?
- A. It comes close but one must remember, Aquila Merchant was unsuccessful selling these units to not only KCPL but also to Black & Veatch; that firm did not respond to the offer of two of the three units. One could argue that even the KCPL price, including the transformers and breakers did not set the true market value of these generating units since

NP

combustion turbines and associated transformers and breakers. The cost of this equipment

was transferred in 2002 from Aquila Merchant to another wholly owned subsidiary of

Aquila, Aquila Equipment LLC, at book cost. Beck identified an appraised market value for

21

22

23

2 3 4

the turbines and related transformers and breakers, an amount of \$70,796,850. Aquila witness Dennis R. Williams indicated that this amount does not include the preliminary survey charges of \$3 million. The difference in the amount paid for the turbines, transformers and breakers and the amount of the market value determined by Beck is \$7,919,383 (\$78,716,233 - \$70,796,850). This amount, plus the approximate \$3 million in survey costs were taken as an impairment charge in December 2004. These amounts were essentially written off at the Aquila Equipment subsidiary level prior to the transfer to Aquila's MPS division in 2004.

- Q. Why did Aquila take a substantial write-down of in excess of \$10 million for these assets?
- A. Part of the costs relating to the write-down is an option payment that was paid by Aquila Merchant to negotiate the initial contract with Siemens-Westinghouse in February 2000. In addition, Aquila Merchant incurred costs for preliminary survey, permitting and siting costs at the Aries facility where it originally planned to install the three Siemens combustion turbines. Aquila also wrote-down \$2.2 million relating to a warranty for the three Siemens combustion turbines that expired. None of these costs have any value to installing the combustion turbines at the South Harper facility and, therefore, Aquila could not justify charging these costs to the construction of that facility.

While these costs are substantial to Aquila Equipment, they do not provide any value to the MPS division for the South Harper construction project and, therefore, could not be justified.

Q. What was the survey cost for?

- A. The survey costs related to initial work to preliminarily survey, site and permit the three Siemens turbines at the Aries facility that was jointly owned by Aquila Merchant and Calpine. Aquila Merchant initially purchased the three Siemens turbines for installation at the Aries site (Aries II). It originally planned to sell power from those turbines (Aries) to MPS through a purchased power agreement (PPA) with MPS when the Aries Combined Cycle PPA terminated on May 31, 2005. Part of the cost relating to the \$3 million also was for negotiations with Calpine for land rights, water rights, and road access to the Aries site for the Aries II facility. Clearly, it would be inappropriate to assign the preliminary survey cost for Aries site to the South Harper project.
 - Q. What was the cost associated with the warranty for the Siemens turbines?
- A. Siemens-Westinghouse identified a cost of \$2.2 million to extend the warranties for the three combustion turbines in storage. Aquila declined to accept this offer to extend the warranties. The combustion turbines Aquila is installing at South Harper do not have a manufacturer's warranty. It would be inappropriate to place the full value of the contract price which included a warranty at the time of purchase and delivery. Since the warranty expired while the units were in storage, it could not be justified to include costs for something that no longer exists.
 - Q. Please describe the option payment.
- A. The option payment was an amount paid to Siemens-Westinghouse for the opportunity to negotiate a contract. It was a nonrefundable and nonnegotiable amount that was required to be paid by Aquila Merchant to negotiate terms of a contract for the three Siemens turbines. Aquila Merchant entered into a Letter of Agreement with Siemens after arriving at a contract price for the three 105 megawatt 501D5A combustion turbines. The

3

4 5

6 7

8

9

10

11

12 13

14

15

16 17

18 19

20

21

22

23

Letter of Agreement was dated February 4, 2000 and after extensive negotiations, Aquila Merchant ultimately signed a contract for these three turbines in September 2001. It took 19 months from the time of the Letter of Agreement to the final signed contract with Siemens.

- Q. Did the Letter of Agreement identify the period to negotiate the final contract with Siemens?
- A. Yes. Siemens agreed to take the three turbines off the market for a period of 180 days from the date of the Letter of Agreement if Aquila agreed to pay Siemens a nonrefundable option fee of \$1,237,500 for each unit or \$3.7 million for the three Siemens turbines.
 - Q. Did Aquila finalize the contract with Siemens within the 180 day period?
- A. No. Because the contract was not finalized within this time frame, Aquila Merchant had to pay an additional option payment of **__ **million to Siemens for the right to continue negotiations to complete the agreement for the purchase of these combustion turbines. As indicated, the contract was not finalized until September 2001 with delivery dates beginning in August 2002.
 - Q. What are option payments?
- These payments can be thought of as reservation charges or amounts that are Α. paid to reserve a manufacturing slot from equipment suppliers such as Siemens-Westinghouse. While preliminary agreements can be reached that forms the basis of a letter agreement, a final contract requires extensive negotiations between the parties. During the contract negotiations, an equipment manufacture will take a unit out of the market during a specified period of time, in the case of the Siemens turbines, 180 days, while the negotiations are conducted. During the time that the unit is off the market, the equipment supplier agrees

not to offer the unit to any other entity and will negotiate exclusively for those units with the party paying the option or reservation payment. In the case of the turbines being purchased for Aries II, a second option payment had to be made to Siemens if Aquila Merchant wanted to continue the process to purchase these units because the 180 days agreed to by the seller and purchaser expired.

- Q. Do amounts for option payments or even if options payments are required at all, change depending on the market conditions for power equipment?
- A. Yes. At the time the Siemens turbines were acquired in 2000 and 2001, the equipment suppliers had a tremendous advantage in negotiating the sale of these units because it was during a time of high demand for the combustion turbine market by utilities and independent power producers, or merchant companies. Mr. Kreimer, then working for Aquila Merchant, indicated that this was a sellers' market (the worst he had seen in over thirty years in the industry), and that the option payment was a nonnegotiable and nonrefundable amount to be paid for the right to negotiate for these generating units.
- Q. Should the option payments be included in the cost of the South Harper facilities?
- A. No. Aquila has already recognized that the first option payment of \$3.7 million is not a proper cost for recovery and has already eliminated that cost from its request this Commission determine the value for these combustion turbines in this case. Aquila has included that amount as part of the impairment charge made at the end of 2004. The second option payment of ** __** million had to be paid to Siemens to continue negotiations because Aquila Merchant did not complete the contract negotiations within the 180-day period initially agreed to in the Letter of Agreement. Because these units were purchased at

1

4

5 6

7 8

9 10

11

12 13

14 15

16 17

18

20

19

21

22

23

a time that was identified as a "brutal sellers' market," the purchasers of this equipment were held hostage by the equipment manufacturers. If Aquila Merchant wanted these turbines it had to continue negotiations beyond the 180-day period. In order to do this, Aquila Merchant had to pay additional sums of money to Siemens.

- Q. If MPS needed the Siemens turbines for in-service date in June 2005, would it have negotiated with an equipment manufacturer during this sellers' market of 2000 and 2001?
- A. No. MPS would have negotiated an equipment contract sometime during 2003 with delivery schedules for the units to occur late 2004 with an in-service date of June 2005. As discussed above, the power equipment market declined largely as result of the collapse of the merchant power market.
- Q. Would MPS have had to pay an option payment for the right to negotiate a contract for this equipment?
- MPS, like any other entity purchasing major equipment components, would A. have to pay some amount of money up front to the manufacturer so that they would negotiate exclusively for a contract for those units. Some of the equipment supply agreements refer to these amounts as earnest fees.
 - What are "earnest fees"? Q.
- Earnest fees can be thought of as down payments and generally are applied to A. the first payment if a contract is completed. Earnest fees are paid up front to initiate negotiations and effectively reserve the unit for the purchaser for a specified period of time. If the purchaser terminates negotiations to acquire units from another manufacturer, they forfeit or lose the earnest fees paid to the initial supplier. MPS would not likely have had to

pay two options payments totaling ** ___ ** million (first option payment of \$ 3.7 million and the second option payment of ** __ ** million) to negotiate a contract at a time

necessary for an in-service date of June 2005. Aquila has recognized that the first option payment should not be assigned to the South Harper facility. MPS should have also

recognized that it would be inappropriate to include the second option payment.

Q. Has Aquila determined if the \$3 million of survey costs should be charged to the South Harper facility?

A. Yes. In a meeting with Aquila personnel, it indicated that a decision had been made that the survey costs should not be charged to the construction costs for the South Harper project. The survey costs, along with the warranty cost, the first option payment of \$3.7 million, were taken as an impairment charge in December 2004.

SALES LEASE BACK CONCERNS

- Q. Is the arrangement with the City of Peculiar for the Chapter 100 financing a sales leaseback?
- A. Yes. As part of the Chapter 100 financing the City of Peculiar will "own" the South Harper facility, even though all the electric output of the facility will be the exclusive right of MPS. At any time, Aquila may pay off the revenue bonds for a nominal sum of money to take over the ownership of the unit.
- Q. What is the nominal sum that Aquila will have to pay to the City of Peculiar to take over the full ownership of South Harper facility?
- A. In the Lease Agreement dated as December 30, 2004, filed as Appendix 7 to Aquila's original application, under Article XI, Option and Obligation to Purchase the Project, Section 11.1 Option to Purchase the Project, an amount of \$1,000 plus payment of

1

4 5 6

3

7 8

9 10

11

12 13 14

15 16 17

22 23

24 25 26

27

28

29 30

31

32 33

34

35

all bonds outstanding is required to exercise the ownership of South Harper. Section 11.1 states:

> The Company shall have, and is hereby granted, the option to purchase the [South Harper] Project at any time, upon payment in full of all Bonds then Outstanding or provision for their payment having been made pursuant to Article XIII of the Indenture.

The purchase price payable by the Company in the event of its exercise of the option granted in this Section shall be the sum of the following:

- an amount of money which, when added to the amount (a) then on deposit in the Bond Fund, will be sufficient to redeem all the then, outstanding Bonds on the earliest redemption date next succeeding the closing date, including principal and interest to accrue to said redemption date and redemption expense; plus
- an amount of money equal to the Trustee's and the Paying Agent's agreed to and reasonable fees and expenses under the Indenture accrued and to accrue until such redemption of the Bonds; plus
- an amount of money equal to all payments due and (c) payable pursuant to the Economic Development Agreement through the end of the calendar year in which the date of purchase occurs, plus
 - (d) the sum of \$1,000.
- Q. Is there any feature of the agreement between City of Peculiar and Aquila that allows Aquila to purchase the South Harper facility at the end of the lease at a market-based price?
- A. No. There is no provision in the lease agreement that would allow for Aquila to buy the unit at a market price. Aquila will only have to pay the nominal sum plus pay off the revenue bonds to assume ownership from the city.
- Q. Have there been problems with sale lease back transactions regarding Aquila's generating assets in the past?

1

4 5

6 7

8 9

11

10

13

12

14 15

16

17

18 19

20

21

22

23

A. Yes. In the last two rate cases Staff has expressed concern about the repurchase of Aquila's Greenwood Energy Center (Greenwood) from financial institutions who bought the units when completed by Aquila's predecessor company, Missouri Public Service Company.

- Q. What is the Greenwood Energy Center?
- A. Greenwood is located in the Southeastern part of Jackson County and has four combustion turbine generators, each capable of producing 64-megawatts of electricity with a total station capacity of 256-magawastts of natural gas-fired generation. These are peaking generators. The first two units at Greenwood were completed in June of 1975. The third Greenwood unit was completed in the summer of 1977 and the fourth unit was completed in early 1979.
 - How do the Greenwood units relate to the South Harper issue? Q.
- Staff wanted to make sure that the sale leaseback language of the Lease A. Agreement with the City of Peculiar did not contain provisions that required Aquila to acquire the South Harper at market price at the end of lease.
 - What happened to the Greenwood generating assets? Q.
- These units were originally sold by Aquila and leased back to the Company A. when construction was complete. The Greenwood leases did not have a provision for buying the units outright like the South Harper lease has at nominal values. The Greenwood leases required Aquila to repurchase the units at market values negotiated between the banks and Aguila if the Company desired to own the units at the end of the lease. The Company paid market value for generating units that were almost fully depreciated. This transaction illustrates what happens when companies chose to not own power plants for regulated

5 6

7 8

9

11

10

13

12

14

15 16

17

18

19

20

21

22

23

operations and the resulting cost increases that occur from decisions not to place generating plants in rate base.

Each of these leases was for a period of 25 years. The leases for Greenwood Units 1 and 2 terminated in June 2000. The Greenwood Unit 3 lease terminated June 2002 and the Greenwood Unit 4 lease was to originally terminate June 2003. The Company decided to "buy-out" the lease of Unit 4 prior to its termination date. The Greenwood units were sold to the financial institution at the actual "original cost" to construct each unit; thus, there was no gain associated with the sale transaction (Source: Case No. ER-2001-672, Data Request No. 281).

After the lease costs were paid for 25 years and the Company reacquired the units at market prices, the costs of the Greenwood units will be greater over their lives since the Company chose to not own and rate base the generating units. Since the four units were leased for 25 years, they were not included in rate base and, in effect, had to be reacquired by Aquila, at prices very close to their original mid-1970's purchase price. If the units had been included in rate base when built, they would have had a reduced net plant value after 25 plus years, and MPS's customers, by the time Aquila re-acquired the units, would have been required to provide less return on investment than they will have to provide in current circumstances. This is because the customers will have to pay for the newly reacquired costs in rates at about the same costs as when the units were originally purchased. In short, rates will be higher to customers now due to Aquila's reacquisition of the Greenwood units than had Aquila owned those units from the day they were built.

- Q. Does conclude your rebuttal testimony?
- A. Yes, it does.

Cary G. Featherstone

SUMMARY OF RATE CASE INVOLVEMENT

<u>Year</u>	Case No.	<u>Utility</u>	Type of <u>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	Direct	Contested

<u>Year</u>	Case No.	<u>Utility</u>	Type of Testimony	<u>Case</u>
		(telephone)		
1983	Case No. EO-83-9	Investigation and Audit of Forecasted Fuel Expense of Kansas City Power & Light Company (electric forecasted fuel true-up)	Direct	Contested
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	Direct Rebuttal Surrebuttal	Contested
1988	Case No. TC-89-14	discontinuance of public utility) 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	Direct Surrebuttal	Contested

<u>Year</u>	Case No.	<u>Utility</u>	Type of Testimony	Case
		(electric)		
1990	Case No. GR-90-198	UtiliCorp United, Inc., Missouri Public Service Division (natural gas)	Direct	Stipulated
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 gasacquisition 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	Direct	Contested

<u>Year</u>	Case No.	<u>Utility</u>	Type of <u>Testimony</u>	Case	
		(natural gas)			
1995	Case No. ER-95-279	Empire District Electric Company (electric)	Direct	Stipulated	
1996	Case No. GA-96-130	UtiliCorp United, Inc./Missouri Pipeline Company (natural gas certificate case)	Rebuttal	Contested	
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. EO-97-144	UtiliCorp United Inc./Missouri Public Service Company (electric)	Verified Statement	Commission Denied Motion	
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)	Direct	Contested	
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	Rebuttal	Withdrawn	

Year	Case No.	<u>Utility</u>	Type of Testimony	Case	
		subsidiary)			
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)	
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	
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)	Verified Statement Direct Rebuttal Surrebuttal	Stipulated	
2002	Case No. ER-2002-424	Empire District Electric Company (electric)	Direct	Stipulated	

<u>Year</u>	Case No.	<u>Utility</u>	Type of Testimony	Case
2003	Case Nos. ER-2004-0034 and HR-2004-0024 (Consolidated)	Aquila, Inc., d/b/a Aquila Networks-MPS and Aquila Networks-L&P	Direct Rebuttal Surrebuttal	Stipulated
2004	Case No. GR-2004-0072	Aquila, Inc., d/b/a Aquila Networks-MPS and Aquila Networks-L&P	Direct	Stipulated

AUDITS WHICH WERE SUPERVISED AND ASSISTED:

<u>Year</u>	Case No.	<u>Utility</u>	Type of Testimony	<u>Case</u> <u>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

Schedules 2, 3 and 5

Are Deemed

Highly Confidential

In Their Entirety

AQUILA, INC. AQUILA NETWORKS-MPS-INVESTOR (ELECTRIC) CASE NO. EO-2005-0156 MISSOURI PUBLIC SERVICE COMMISSION DATA REQUEST NO. MPSC-5

DATE OF REQUEST:	December 10, 2004
DATE RECEIVED:	December 10, 2004
DATE DUE:	December 29, 2004
REQUESTOR:	Phil Williams
BRIEF DISCRIPTION: Please provide all appraisals of the plant site and the value o combustion turbines.	
QUESTION:	
	ers that support the appraisals of the plant site and the value of be sold and then be leased back for the proposed plant at
RESPONSE: See files on	attached CD
ATTACHMENT: CD with 17	7 files
ANSWERED BY: Robert Br	rune
SIGNATURE OF RESPOND	DENT

DATE: _____

Aquila CT Appraisal - Pricing Summary

010144 02-01362-01000 11/19/2004 Client No. W/O No. Date

	Original Cost	Replacement Cost	Aquila offer to sell to KCPL	Rolis Royce ofter to sell to Aquila	SWPC offer to self grey unit to Aquila	Penn Energy internet offer 1	Penn Energy Internet offer 2	Utility Warehouse internet offer
СТ								
qty	3	. 1	3	2	! 1	1	1	1
Cost	\$76,137,869	\$24,500,000	\$69,000,000	\$43,000,000	\$19,000,000	\$26,000,000	\$33,000,000	\$15,000,000
Adjustments								,,
Option Payment	(\$3,712,500)							
CO No. 1 (Exhaust Stacks)		(\$1,849,200)		(\$1,849,200)	(\$1,849,200)	(\$1,849,200)	(\$1,849,200)	
CO No. 1 (Other)		, , , ,						
Warranty	(\$2,240,000)	(\$2,240,000)	(\$2,240,000)		(\$2,240,000)			
Guarantees	, , , , ,				,,,,,			
Prod Mods	(\$300,000)							
Rehabiliation	(\$600,000)							
TFA	, ,			\$2,350,000	\$2,350,000			\$2,350,000
Mult Unit Purchase		(\$1,000,000)		4-,,				72,,000
Change to DLN		(4.1)		\$5,000,000	\$5,000,000			\$5,000,000
Transportation				\$1,200,000	\$1,200,000	\$1,200,000	\$1,200,000	\$1,200,000
Internal Labor	(\$39,399)			41,200,000	41,255,055	41,200,000	47,000,000	Φ1 ,200,000
Total Adjustments	(\$6,891,899)	(\$5,089,200)	(\$2,240,000)	\$6,700,800	\$4,460,800	(\$649,200)	(\$649,200)	\$8,550,000
CT Subtotal*	\$69,245,970	\$68,410,800	\$66,760,000	\$71,200,800	\$61,460,800	\$77,360,800	\$98,350,800	\$53,550,000
* adjusted for three units	4	****	7	4,,	001,110,011	4-7,0-0,000	************	110,0,000
Transformers & Breakers Transformers qty	6	6		6	6	6	6	6
Cost	\$1,686,150	\$1,686,150		\$1,686,150	\$1,686,150	\$1,686,150	\$1,686,150	\$1,686,150
Adjustments	+ · ! ! ·	+		* .,	4.,,	**********	4.1	**/****/***
Storage	(\$15,500)	(\$15,500)		(\$15,500)	(\$15,500)	(\$15,500)	(\$15,500)	(\$15,500)
Retesting	(\$28,305)	(\$28,305)		(\$28,305)		(\$28,305)	(\$28,305)	(\$28,305)
Additional Retainage	(\$1,045)	(\$1,045)		(\$1,045)	(\$1,045)	(\$1,045)	(\$1,045)	(\$1,045)
Transformer Subtotal	\$1,641,300	\$1,641,300		\$1,641,300	\$1,641,300	\$1,641,300	\$1,641,300	\$1,641,300
Breakers	_	_		_	_	_	_	_
<u>aty</u>	3			3			3	3
Cost	\$765,570	\$765,570		\$765,570	\$765,570	\$765,570	\$765,570	\$765,570
Adjustments								
Bond	(\$7,500)	(\$7,500)		(\$7,500)	(\$7,500)		(\$7,500)	(\$7,500)
Storage	(\$13,320)	(\$13,320)		(\$13,320)	(\$13,320)	(\$13,320)	(\$13,320)	(\$13,320)
Breakers Subtotel	\$744,750	\$744,750		\$744,750	\$744,750	\$744,750	\$744,750	\$744,750
Procurement								
Cost	\$126,644	\$126,644		\$126,644	\$126,644	\$126,644	\$126,644	\$126,644
Adjustment	+ ·= - · ·	4		·	¥:==,3	*,***	T.==,	40,011
B&M Services	(\$126,644)	(\$126,644)		(\$126,644)	(\$126,644)	(\$126,644)	(\$126,644)	(\$126,644)
Procurement Subtotal	\$0	\$0		\$0	\$0	\$0	\$0	\$0
\$2,578,364	Ψ	40		40	40	φυ	90	40
Transformers & Breakers Subtotal	\$2,386,050	\$2,386,050		\$2,386,050	\$2,386,050	\$2,386,050	\$2,386,050	\$2,386,050
Total	\$71,632,020	\$70,796,850	\$66,760,000	\$73,586,850	\$63,846,850	\$79,736,850	\$100,736,850	\$55,936,050