Exhibit No.:Issue(s):Relief Requested in Aquila AcquisitionWitness:Ted RobertsonType of Exhibit:RebuttalSponsoring Party:Public CounselCase No.:EO-2005-0156Date Testimony Prepared:June 10, 2005

REBUTTAL TESTIMONY

OF

TED ROBERTSON

Submitted on Behalf of the Office of the Public Counsel

NP

AQUILA, INC.

Case No. EO-2005-0156

June 13, 2005

Exhibit No._ Case No(s). 20.2005-0156 Date 9-21-05 Rptr XS

BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

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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 TED ROBERTSON

STATE OF MISSOURI)) ss COUNTY OF COLE)

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Ted Robertson, of lawful age and being first duly sworn, deposes and states:

1. My name is Ted Robertson. I am a Public Utility Accountant for the Office of the Public Counsel.

2. Attached hereto and made a part hereof for all purposes is my rebuttal testimony consisting of pages 1 through 81 and Schedule TJR-1 through TJR-5.

3. I hereby swear and affirm that my statements contained in the attached testimony are true and correct to the best of my knowledge and belief.

Ted Robertson, C.P.A. Public Utility Accountant III

Subscribed and sworn to me this 13th day of June 2005.

KATHLEEN HARRISON Notary Public - State of Missouri County of Cole My Commission Expires Jan. 31, 2006

- Herrow

Kathleen Harrison Notary Public

My commission expires January 31, 2006.

TABLE OF CONTENTS

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1

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Testimony		Page	
I.	Introduction	1	
II.	Aquila's Application	3	
III.	Public Counsel Summary		
IV.	 Does The Transfer Value Proposed By Aquila Provide An Unfair Financial Advantage To Its Non-Regulated Affiliate A. Affiliate Transactions Rule B. Equipment's Actual Cost And Purpose C. R. W. Beck Appraisal 	11 11 29 37	
V.	Permission To Enter Into A Sale And Leaseback Arrangement Whereby Legal Title To The CTs Will Be Conveyed To Peculiar To Obtain Financing For The Installation And Construction Of The Electric Generation Station Through The Issuance By Peculiar Of Tax-Advantaged Revenue Bonds Under The Act	73	
VI.	Authorization To Cause The Project Assets To Be Pledged And Conveyed To A Trustee Under An Indenture Of Trust As Security For The Benefit Of The Holders Of The Revenue Bonds	74	
VII.	Other Requests Contained Within The Aquila Application	75	
V111 .	Other Information	78	

1 2 3 4 5 6 7 8		REBUTTAL TESTIMONY OF TED ROBERTSON AQUILA INC. CASE NO. EO-2005-0156
9	I.	INTRODUCTION.
10	Q.	PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.
	A.	Ted Robertson, PO Box 2230, Jefferson City, Missouri 65102-2230.
12		
13	Q.	BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?
14	А.	I am employed by the Office of the Public Counsel of the State of Missouri ("OPC" or
15		"Public Counsel") as a Public Utility Accountant III.
16		
]7	Q.	WHAT IS THE NATURE OF YOUR CURRENT DUTIES AT THE OPC?
18	А.	Under the direction of the OPC Chief Public Utility Accountant, Mr. Russell W.
19		Trippensee, I am responsible for performing audits and examinations of the books and
20		records of public utilities operating within the State of Missouri.
21		
22	Q.	PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND OTHER
23		QUALIFICATIONS.
24	A .	I graduated in May, 1988, from Southwest Missouri State University in Springfield,
25		Missouri, with a Bachelor of Science Degree in Accounting. In November of 1988, I

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1		passed the Uniform Certified Public Accountant ("CPA") Examination, and I obtained
2		CPA certification from the State of Missouri in 1989. Also, I currently hold a valid CPA
3		license issued by the State of Missouri. My CPA license number is 2004012798.
4		
5	Q.	HAVE YOU RECEIVED SPECIALIZED TRAINING RELATED TO PUBLIC
6		UTILITY ACCOUNTING?
7	А.	Yes. In addition to being employed by the Office of the Public Counsel for nearly fifteen
8		year, I have attended the NARUC Annual Regulatory Studies Program at Michigan State
9		University, and I have also participated in numerous training seminars relating to this
10		specific area of accounting study.
11		
12	Q.	HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE MISSOURI PUBLIC
13		SERVICE COMMISSION ("COMMISSION" OR "MPSC")?
14	А.	Yes. I have been employed by the Public Counsel since July of 1990, and have testified
15		on numerous issues before this Commission. Please refer to Schedule TJR-1, attached to
16		this testimony, for a listing of cases in which I have previously submitted testimony.
17		
18	Q.	WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?
19	Α.	The purpose of this testimony is to express the Public Counsel's recommendations
20		regarding the requests described in the Aquila, Inc. (hereinafter "Aquila" or "Company")
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Application. The issues I intend to address in this testimony include, 1) the electrical corporation Affiliate Transactions Rule and its impact on the instant case, 2) the financial advantage that has accrued to Aquila's non-regulated affiliate due to the equipment's transfer to the Missouri regulated operation, 3) the Chapter 100 financing proposal and its impact as it pertains to Company's request, and 4) the various other requests sought by Company in the Application. (when using the generic term equipment I am referencing in total the turbines, transformers, generator breakers and other balance of plant transferred)

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AQUILA'S APPLICATION.

10 Q. PLEASE SUMMARIZE THE COMPANY'S APPLICATION.

11 Α. On or about December 6, 2004, Aquila filed with the Commission an Application for the 12 authority to acquire, sell and lease back three natural gas-fired combustion turbine power 13 generation units and related improvements to be installed and operated in the City of 14 Peculiar, Missouri. Company's Application alleges that in September 2001 MEP 15 Investments, LLC ("MEP") a wholly-owned non-regulated subsidiary of Aquila acquired from Siemens Westinghouse Power Corporation ("SWPC") three 105 megawatt natural 16 gas-fired combustion turbines and associated transformers and breakers at a cost of 17 \$78,716,233. (Application ¶ 6) In September 2002, the equipment was transferred from 18 MEP to Aquila Equipment, LLC ("AE" or "AEP"). (Application ¶ 6) The equipment was 19 owned by AE and comprised the only material assets owned by AE (AE is not engaged in 20

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any ongoing line of business). (Application ¶6) Company also alleges, there are an additional \$3 million (approximately) of "preliminary survey charges" associated with the equipment which it is evaluating for possible transfer to the regulated utility. (Application ¶6) The total value of the equipment and preliminary survey charges is \$81.7 million. (Application ¶6) However, Company has alleged that the "fair market value" of the equipment, not including the \$3 million of survey charges, is \$70,796,850. (Application ¶ 9)

9 Q. ACCORDING TO AQUILA'S APPLICATION DO THE ASSETS CHANGE HANDS 10 AGAIN?

Yes. On page nine of the Application, in paragraph 20, it states that because the Project Α. 12 (i.e., South Harper) as summarily described involves a transfer of legal title of the 13 equipment and real estate upon which the Project shall be located to Peculiar, in 14 furtherance of obtaining tax-advantaged Chapter 100 RSMo financing at a transfer value 15 to Aquila Networks-MPS of \$70,796,850 and a pledge of the Project assets to the Trustee 16 under the terms of the Indenture, Aquila filed the Application for various required 7 Commission findings and approvals. One finding being sought, according to the 18 Application, is that the public interest would be served by a "determination of the 19 Commission of the reasonableness of the transfer price of the equipment from AE to

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		Aquila Networks-MPS" at said transfer price will have a direct bearing on future cost of
2		service.
3		
4	Q.	HOW ARE THE SPECIFIC REQUESTS DESCRIBED IN THE APPLICATION?
5	А.	On page one of the Application is a listing of three specific requests:
6		
7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24		 A determination that Aquila's acquisition for its regulated Missouri electric utility operations from an affiliated entity of three 105 megawatt natural gas-fired combustion turbines for the purpose of construction 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. Authorization to 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. Authorization to cause said electric generation station to be subjected to the lien of the indenture as security for the benefit of the holders of the revenue bonds.
25 26		The language pertaining to the three requests listed above is expanded on page four,
27		paragraph 8, of the Application wherein Company states its requests are:
28		
29 30		The Commission's determination that the acquisition of the CTs from AE by its regulated Aquila Networks-MPS division at a

1		transfer value of \$70,796,850 does not provide a financial
2		advantage to AE.
3	2.	Domination to enter inter a sale sale to the head of the second sale of the
5	<i>L</i> .	Permission to enter into a sale and leaseback arrangement whereby legal title to the CTs will be conveyed to Peculiar to obtain
6		financing for the installation and construction of the electric
7		generation station through the issuance by Peculiar of tax-
8		advantaged revenue bonds under the Act.
- 9		
10 [3	Authorization to cause the Project assets to be pledged and
11		conveyed to a trustee under an indenture of trust as security for the
12		benefit of the holders of the revenue bonds.
13		
14		
15	TT	
	nowever, bej	ginning on page nine of the Application, Company further expands
16	its requests fi	rom the Commission for an order that also provides the following.
17		
18		Finding that the collectory and in this Application is not
19	(A)	Finding that the relief requested in this Application is not
20		detrimental to the public interest;
21	(B)	Authorizing Aquila Networks-MPS to record on its regulated
22		books of account a transfer price of \$70,796,850 related to its
23		acquisition from AE of the CTs;
24		
25	(C)	Finding that the fair market value of the CTs is \$70,796,850;
-26		
27	(D)	Finding that the proposed transaction does not provide a financial
-28		advantage to AE;
-29		
30	(E)	Authorizing Aquila to sell and convey to Peculiar all real estate,
-31		facilities equipment and installations necessary to install, construct,
32		control, manage, and maintain the Project;
33		
34 35	(F)	Authorizing Aquila to lease the Project from Peculiar and operate
- 22 - 36		the Project;
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1 2 3 4		(G)	Authorizing Aquila to cause the Project to be pledged to the Trustee under the terms of the Indenture as security for the holders of the Bonds;
5 6 7		(H)	Authorizing Aquila to enter into and perform in accordance with the terms of the Agreement;
8 9		(I)	Authorizing Aquila to enter into and perform in accordance with the terms of the Lease;
10 11 12 13		(J)	Authorizing Aquila to enter into and perform in accordance with the terms of the Indenture;
14 15 16		K)	Authorizing Aquila to enter into and perform in accordance with any and all other necessary agreements and instruments under the Act;
17 18 19 20		(L)	Authorizing Aquila to do any and all other things incidental, necessary or appropriate to the performance of any and all acts specifically to be authorized in such order or orders;
21 22 23 24		(M)	Finding that the Project, in combination with power supply agreements, is the least cost option for additional power generation for Aquila Networks-MPS's operations; and
25 26 27 28 29			er, making such other orders as it may deem just and proper in the instances.
30	Q.	DID PUBLIC	COUNSEL REQUEST ADDITIONAL CLARIFICATION OF WHAT
31		COMPANY	WAS ACTUALLY SEEKING FROM THE COMMISSION WITH ITS
32		APPLICATIO	ON?
33	A.	Yes. In respo	onse to OPC Data Request No. 20, which sought additional clarification as to
34		what it was a	ctually requesting from the Commission, Company stated:
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1 2 3 4 5		Aquila would like the Commission to approve the value to be booked for the CTs that were transferred from AE to Aquila.
6		This position was further corroborated by Company in its response to MPSC Staff Data
7		Request No. 32 wherein it stated Aquila's request is:
8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25		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 (sic) to MPS Networks in accordance with the affiliate Rules. (Emphasis added by OPC)
26	Q.	DID AQUILA SUBSEQUENTLY MODIFY OR LIMIT ITS REQUESTS?
27	A .	Yes. On June 8, 2005, Company filed an amended application which limited the requests
28		of the original application. On page two of the First Amended Application, it states:
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1 2 3 4 5 6 7 8 9 10		In order to narrow the issues to be presented to the Commission in this case, Aquila hereby amends its Application by striking from the prayer of the Application subparagraph (M) appearing on page 11 thereof, that requests a finding from the Commission that the Project (as therein defined), in combination with power supply agreements, is the least cost option for additional power generation for Aquila Networks-MPS. In all other respects, the Application, as filed on December 12, 2004, is restated, ratified, and confirmed.
11	III.	PUBLIC COUNSEL SUMMARY.
12	Q.	PLEASE SUMMARIZE THE PUBLIC COUNSEL'S POSITION ON THE ISSUES IN
13		THIS CASE.
14	А.	The Public Counsel's positions on the various issues in this case are as follows:
15	1	
16		1 The affiliate transactions Rule ("Rule") of 4 CSR 240-20.015 does not support the
17		requests contained within Company's Application. Company did not file for a
18		variance of the Rule and there has been no challenge to its most recent CAM
19		filing; therefore, the most logical place in which to determine a reasonable value
20		for the equipment is in the Company's current general rate increase case.
21		
22		2. That the "determination of reasonableness for the value of the equipment" as
23		proposed by Aquila should be rejected. That is, the fair market value ("FMV") of
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1	the equipment as proposed by the Company cannot be determined to be
2	reasonable because significant evidence to the contrary exists.
3	
4	The evidence Public Counsel presents in this testimony casts a considerable
5	shadow of doubt on the Company's alleged value assigned to the equipment. It
6	indicates that Company's proposed FMV significantly overstates the actual value
7	of the equipment. Therefore, according to the Company, since its only request to
8	the Commission is for a determination of the reasonableness of the equipment's
9	alleged FMV, and not a determination of its value for ratemaking purposes, Public
10	Counsel recommends that the Commission should simply find that the Company
1	proposed equipment value cannot be determined to be reasonable at this time.
12	
13	By rejecting the Company's FMV determination request the affiliate transaction
14	can then be suspended for review in the current general rate increase case, Case
15	No. ER-2005-0436. The suspension of the affiliate transaction will then allow for
16	the actual value of the equipment to be determined after it and the rest of the
7	associated construction costs for the entire South Harper project are subjected to a
18	detailed review and audit process.
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1 []		3. That Public Counsel has no objection to the Chapter 100 financing as long as the
2		Commission does not order or acquiesce to any valuation or ratemaking
3		assessment of the general or specific terms and conditions of the sale/leaseback
4		and other financing arrangements Company proposes to enter into.
5		
6		4. That the Public Counsel opposes various other requests contained within the
7		Application. Specifically, Public Counsel opposes the requests A through D
8		because it is our belief that the equipment's proposed \$70,796,850 transfer price is
9		not a reasonable fair market value for the equipment. It is indeed detrimental to
10		the public interest and does in fact provide a financial advantage to the non-
11		regulated affiliate Aquila Equipment, LLC. Public Counsel also opposes the
12		requests G through L due to the fact that, as written, it appears that Company is
13		requesting the Commission to provide an order that supports a future ratemaking
14		determination for its actions. As for requests E and F, Public Counsel has no
15		objection to the requests.
16		
17	IV .	DOES THE TRANSFER VALUE PROPOSED BY AQUILA PROVIDE AN
18		UNFAIR FINANCIAL ADVANTAGE TO ITS NON-REGULATED AFFILIATE?
19	A .	AFFILIATE TRANSACTIONS RULE.
20	Q.	WHAT IS AN AFFILIATE TRANSACTION?

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1	А.	An affiliate transaction is defined in 4 CSR 240-20.015(1)(B) as:
2		
3 4 5 6 7 8 9 10 11 12 13		Affiliate transaction means any transaction for the provision, purchase or sale of any information, asset, product or service, or portion of any product or service, between a regulated electrical corporation and an affiliated entity and shall include all transactions carried out between any unregulated business operation of a regulated electrical corporation and the regulated business operation of a electric corporation. An affiliate transaction for the purposes of this Rule excludes heating, ventilating and air conditioning (HVAC) services as defined in section 386.754 by the General Assembly of Missouri.
14	Q.	WHAT IS AN AFFILIATED ENTITY?
15	Α.	An affiliated entity is defined in 4 CSR 240-20.015(1)(A) as follows:
 16 17 18 19 20 21 22 23 24 25 		Affiliated entity means any person, including an individual, corporation, service company, corporate subsidiary, firm, partnership, incorporated or unincorporated association, political subdivision including a public utility district, city, town, county, or a combination of political subdivisions, which directly or indirectly, through one (1) or more intermediaries, controls, is controlled by, or is under common control with the regulated electrical corporation.
26	Q.	HOW DOES THE AFFILIATE TRANSACTIONS RULE IMPACT THIS
27		APPLICATION?
28	А.	The essence of the Affiliate Transactions Rule is that it was implemented in order to
29		prevent subsidization of a utility's non-regulated operations by its regulated operations.

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		The purpose of the electric utilities Affiliated Transactions Rule is defined in 4 CSR 240-
2		20.015 as:
3		
4 5 6 7 8 9 10 11 12 13 14		PURPOSE: This Rule is intended to prevent regulated utilities from subsidizing their non-regulated operations. In order to accomplish this objective, the Rule sets forth financial standards, evidentiary standards and recording-keeping requirements applicable to any Missouri Public Service Commission (commission) regulated electrical corporation whenever such corporation participates in transactions with any affiliated entity (except with regard to HVAC services as defined in section 386.754, RSMo Supp. 1998, by the General Assembly of Missouri). The Rule and its effective enforcement will provide the public the assurance that their rates are not adversely impacted by the utilities' non-regulated activities.
15	-	
16	Q.	WITH REGARD TO AQUILA'S APPLICATION, WHAT DOES THE AFFILIATE
17		TRANSACTIONS RULE REQUIRE?
18	А.	The purpose of the Affiliated Transactions Rule is to set financial standards, evidentiary
19		standards and recordkeeping requirements on utilities that engage in affiliated
20		transactions. Since the Company has transferred property from a non-regulated affiliate
21		to the regulated utility, it is subject to those standards and recordkeeping requirements.
22		For example, the financial standard associated with transfers from an affiliate to a
23		regulated electrical utility is defined in 4 CSR 240-20.015 as:
24		
25 26		(2) Standards.
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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	 (A) A regulated electrical corporation shall not provide a financial advantage to an affiliated entity. For the purposes of this Rule, a regulated electrical corporation shall be deemed to provide a financial advantage to an affiliated entity if - 1. It compensates an affiliated entity for goods or services above the lesser of A. The fair market price; or B. The fully distributed cost to the regulated electrical corporation to provide the goods or services for itself.
17	Furthermore, 4 CSR 240-20.015(2)(B) and (D) add:
18	
19	(B) Except as necessary to provide corporate support functions, the
20	regulated electrical corporation shall conduct its business in such a
21	way as not to provided any preferential service, information or
22	treatment to an affiliated entity over another party at any time, and
23 24	(D) The regulated electrical corporation shall not participate in any
24	(D) The regulated electrical corporation shall not participate in any affiliated transactions which are not in compliance with this Rule,
26	except as otherwise provided in section (10) of this Rule.
27	
28	
29	Section (10) of the Rule defines how a variance from the standards can be implemented.
30	Essentially, a utility may file for a variance if it has engaged in an affiliate transaction that
31	is not in compliance with the standards set out in subsection (2)(A) if to its best
32	knowledge and belief compliance would not be in the best interests of its regulated
	14

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		customers. If	a variance is granted by the Commission, the affiliate transaction shall
2		remain interin	n and subject to disallowance.
3			
4	Q.	WHAT DO T	HE EVIDENTIARY STANDARDS FOR AFFILIATE TRANSACTIONS
٦Ì	Υ.		HE EVIDENTIART STANDARDS FOR AFFILIATE TRANSACTIONS
5		IMPOSE UPO	ON THE UTILTY?
6	A .	The relevant e	evidentiary standards are defined in 4 CSR 240-20.015(3)(A), (B), and (D)
7		as:	
8			
9 10		(A)	When a regulated electrical corporation purchases information, assets, good or services from an affiliated entity, the regulated
			electrical corporation shall either obtain competitive bids for such
12			information, assets goods or services or demonstrate why
13 14			competitive bids were neither necessary nor appropriate.
15		(B)	In transactions that involve either the purchase or receipt of
16		(1)	information, assets, goods or services by a regulated electrical
17			corporation from an affiliated entity, the regulated electrical
18			corporation shall document both the fair market price of such
19	1		information, assets, goods and services and the FDC to the
20			regulated electrical corporation to produce the information, assets,
21			goods or service for itself.
22			To the section of the
23 24		(D)	In transactions involving the purchase of goods or services by the
24 25			regulated electrical corporation from an affiliate entity, the regulated electrical corporation will use a commission-approved
26			CAM which sets forth cost allocation, market valuation and
27			internal cost methods. This CAM can use benchmarking practices
28			that can constitute compliance with the market value requirements
29			of this section if approved by the commission.
30			
31			
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Ĭ	Q.	WHEN AQUILA DETERMINED THAT ITS MISSOURI REGULATED UTILITY
2	- 	REQUIRED NEW PEAKING GENERATION DID COMPANY PREPARE AND SEND
3		OUT REQUESTS FOR PROPOSALS ("RFP") FOR THE COMBUSTION TURBINES?
4	А.	No. Company's response to OPC Data Request No. 1014 states:
5		
6		The regulated corporation did not obtain the bids for the respective
7 8 9		equipment.
	~	
10	Q.	IN LIEU OF THE RFP PROCESS, WHAT ACTIONS DID AQUILA UNDERTAKE TO
		SECURE THE EQUIPMENT?
12	А.	Recognizing that its unregulated affiliate had assets sitting in storage that had been
13		stranded due to the failed speculative Aries II Power Project ("Aries II") venture, Aquila
14		transferred the equipment to the Missouri regulated utility (the original Aries power
15		project is a non-regulated independent power producer ("IPP") and the speculative Aries
16		II power project venture, had it not failed, would have also been an IPP).
17		
18	Q.	RECOGNIZING THAT THE EQUIPMENT TRANSFERRED FROM THE NON-
19		REGULATED AFFILIATE TO THE REGULATED UTILITY WOULD BE SUBJECT
20		TO THE AFFILIATE TRANSACTIONS RULE, WHAT ACTION DID THE
21		COMPANY UNDERTAKE?
]	1	16

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1	A.	Company engaged the services of R. W. Beck to perform an appraisal of the equipment's
2		value.
3		
4	Q.	IS IT THE PUBLIC COUNSEL'S BELIEF THAT THE APPRAISER WAS HIRED TO
5		SUPPORT THE BOOK VALUE COST COMPANY HAD RECORDED FOR THE
6		EQUIPMENT?
7	А.	Yes. Based on my review of the responses to OPC DR No. 14 and MPSC DR No. 5, It is
8		my belief that the appraiser was hired to perform an appraisal that would support the book
9		value cost of the equipment transferred.
10		
11	Q.	HAS AQUILA EVER DEMONSTRATED WHY COMPETITIVE BIDS WERE
12		NEITHER NECESSARY NOR APPROPRIATE FOR THE EQUIPMENT'S
13		TRANSFER TO THE REGULATE UTILITY?
14	A.	No. However, in its response to OPC Data Request No. 1014, Aquila did provide the
15		following:
16		
17 18 19		2. The equipment held in Aquila Equipment LLC. was obtained by a combination of commercially available equipment and competitive bids.
20 21 22 23 24		3. The Self-Build option selected by Resource Planning utilized 501D5A equipment, which was immediately available, as the low cost option.
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1	Q.	DOES THE COMPANY'S RESPONSE TO OPC DR NO. 1014 NEGLECT TO STATE
2		PERTINENT INFORMATION?
3	Α.	Yes. The Company's response neglects to inform the reader that the competitive bids
4		identified in item #2 were let and negotiated prior to calendar year 2002 or that the
5		transfer of the equipment to the regulated utility occurred approximately three years later
6		in 2004 (the equipment was originally intended for the Aries II Power Project).
7		
8	Q.	ARE "COMPETITIVE" BIDS THAT ARE OVER THREE YEARS OLD
9		APPROPRIATE TO FORM THE BASIS OF THE CURRENT TRANSACTION?
10	А.	No. At a minimum, any competitive bids let and negotiated before 2002 for the
1		abandoned Aries II Power Project should be considered "stale" with regard to the current
12		South Harper construction project. Also, just because Aquila Inc. had immediately
13		available nonperforming assets sitting stranded on the books of one of its unregulated
14		subsidiaries does not automatically mean that the transfer of the equipment occurred at
15		the lowest cost available. Other lower cost options (which I will discuss later in this
16		testimony) were available had the Company chosen instead to follow the Affiliate
17		Transactions Rule standards and obtained competitive bids for the equipment.
18		
19	Q.	DO YOU BELIEVE AQUILA HAS DEMONSTRATED WHY COMPETITIVE BIDS
20		WERE NOT NECESSARY OR APPROPRIATE?
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l	A .	No. It is my opinion that the Company did not demonstrate why competitive bids were
2		neither necessary nor appropriate. Company's failure to issue competitive bids for the
3		equipment, or demonstrate why they were neither necessary nor appropriate, is contrary to
4		the electric Affiliate Transactions Rule.
5		
6	Q.	EARLIER YOU STATED THAT UNDER CERTAIN CIRCUMSTANCES A UTILITY
7		CAN REQUEST A VARIANCE FROM THE AFFILIATE TRANSACTIONS RULE.
8		WHAT ARE THE CIRCUMSTANCES WHEREBY A VARIANCE CAN BE
9		OBTAINED?
10	A .	According to 4 CSR 240-20.015(2)(D), if a utility knows that an affiliate transaction is
11		not in compliance with the Affiliate Transactions Rule it may request a variance from the
12		standards. In addition, 4 CSR 240-20.015(10)(A)2. further defines the conditions for
13		obtaining a variance as:
14		
15		A regulated electrical corporation may engage in an affiliate transaction not in compliance with the standards set out in subsection (2)(A) of this
16 17		Rule, when to its best knowledge and belief, compliance with the
18		standards would not be in the best interests of its regulated customers and
19	ll –	it complies with the procedures required in subparagraphs (10)(A)2.A. and
20		(10)(A)2.B. of this Rule -
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1	Q.	DOES AQUILA BELIEVE THAT THE EQUIPMENT TRANSACTIONS ARE IN
2		COMPLIANCE WITH THE AFFILIATE TRANSACTIONS RULE?
3	Α	Yes. Referencing it Policy and Procedure Manual for Affiliate Rules, provided in
4		response to OPC Data Request No. 1015, Company states:
5		
6 7 8 9 10 11		We have directly charged this transaction. Section IV(5) (page 15) defines fully distributed costs as "Transfers from an affiliate to the regulated operation must be at the lower of cost or FMV." Aquila hired a consultant (R. W. Beck) to aid in the determination of fair market value (FMV).
12		Based upon the above language, it is my belief that Company believes the equipment
13		transactions comply with the three basic requirements of 4 CSR 240-20.015. Therefore,
14		Company had no need to request a variance as defined in 4 CSR 240-20.015(10).
15	:	
16	Q.	WHO MUST MAKE THE INITIAL DETERMINATION THAT AN AFFILIATE
17		TRANSACTION IS IN COMPLIANCE WITH THE REQUIREMENTS OF 4 CSR 240-
18		20.015?
19	А.	It's my understanding that the utility makes that determination within the boundaries of
20		the Affiliate Transactions Rule, and its Commission approved CAM. The Company's
21		response to MPSC Staff Data Request No. 32 states
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2 3 4 5 6		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.
7		If a utility does not believe its affiliate transactions to be in compliance with the
8		standards, it may request a variance from the standards. Since Company did not request a
9		variance, one should assume that it believes the equipment transactions comply with the
10		Rule.
11		
12	Q.	DID AQUILA FOLLOW ITS COMMISSION APPROVED COST ALLOCATION
13		MANUAL IN ITS TRANSFER OF THE EQUIPMENT?
14	А.	Company alleges that it has. In its response to OPC Data Request No. 1015, which
15		requested a copy of the CAM section that governs the equipment transactions, Company
16		stated:
7		
18	-	Section A of the Company Cost Allocation Manual (CAM) states that cost
19	1	allocation are used only when costs cannot be directly assigned to specific
20 21		states and/or product lines. The transfer of this asset can be directly assigned. Therefore we have followed the CAM by directly assigning
22		the asset transfer.
23		
24		(Emphasis added by OPC)
25 26		
26		
		21

Q. WHEN WAS AQUILA'S MOST RECENT CAM FILED? 2 Α. According to Company's response to OPC Data Request No. 1031, the most recent CAM 3 was filed with the annual affiliate filing on March 15, 2005. 4 5 Q. WERE THERE ANY CHALLENGES TO THAT CAM? The response to OPC Data Request No. 1031 states that there were, "no challenges" to the 6 Α. 7 CAM filing. 8 9 IF A UTILITY'S AFFILIATE TRANSACTIONS ARE IN COMPLIANCE WITH 4 CSR Q. 10 240-20.015, IS THERE ANY REQUIREMENT IN THE RULE FOR THE 11 COMMISSION TO DETERMINE THE REASONABLNESS OF A SPECIFIC 12 DOLLAR VALUE FOR A TRANSACTION? 13 Α. No. It's my understanding that there is no such requirement defined in the language of 4 14 CSR 240-20.015. 15 16 Q. IF THE AFFILIATE TRANSACTIONS ARE DETERMINED BY AQUILA TO BE IN 17 COMPLIANCE WITH 4 CSR 240-20.015, WHAT MUST IT DO TO INSURE THAT 18 THE EQUIPMENT'S VALUE, AS APPROPRIATE, IS INCLUDED IN THE 19 **RATEMAKING PROCESS?**

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[]	А.	Company must maintain the relevant records and documents so that during the course of
2		
4		the CAM review and/or a general rate increase case the parties can subject the evidentiary
3		material to examination via the audit process.
4		
5	Q.	WHAT ARE THE RECORD-KEEPING REQUIREMENT OF THE RULE?
6	A.	The "third leg" for compliance within 4 CSR 240-20.015 pertains to record-keeping
7		requirements. Sections 4 through 7 define those requirements in detail for both the
8		regulated and non-regulated entities involved in the affiliate transactions. For example, 4
9		CSR 240-20.015(4) states:
10		
11		(A) A regulated electric corporation shall maintain books, accounts and
12		records separate from those of its affiliates.
13		
14 15		(B) Each regulated electrical corporation shall maintain the following
16	1	information in a mutually agreed-to electronic format (i.e., agreement between the staff, Office of the Public Counsel and the
17		regulated electrical corporation) regarding affiliate transactions on
18		a calendar year basis and shall provide such information to the
19	Į.	commission staff and the Office of the Public Counsel on, or
20		before, March 15 of the succeeding year:
21	1	
22	1	A full and complete list of all affiliated entities as defined
23		by this Rule;
24		
25		2. A full and complete list of all goods and services provided
26		to or received from affiliate entities;
27 28		3. A full and complete list of all contracts entered with
28 29		affiliate entities;
30	11	
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1 2 3 4			4.	A full and complete list of all affiliate transactions undertaken with affiliated entities without a written contract together with a brief explanation of why there was no contract;
5 6 7 8			5.	The amount of all affiliate transactions by affiliated entity and account charged; and
9 10 11			6.	The basis used (e.g., fair market price, FDC, etc.) to record each type of affiliate transaction.
12 13 14		(C)		ition, each regulated electrical corporation shall maintain the ving information regarding affiliate transactions on a calendar asis:
15 16 17 18			1.	Records identifying the basis used (e.g. fair market price, FDC, etc.) to record all affiliate transactions; and
19 20 21			2.	Books of accounts and supporting records in sufficient detail to permit verification of compliance with this Rule.
22		Similar requi	rements	also exist in the Affiliate Transactions Rule for the records of the
23		affiliated enti	ities of 1	he regulated electrical corporation.
24				
25	Q,	IS IT THE P	UBLIC	COUNSEL'S BELIEF THAT AQUILA'S REQUEST, FOR AN
26		ORDER DE	FERMI	NING THE EQUIPMENT'S VALUE, IS PREMATURE?
27	A	Yes. The Af	filiate I	ransactions Rule merely defines the financial/evidentiary standards
28		and record-k	eeping 1	requirements that the utility must comply with in order to allow the
29		inclusion of	affiliate	transactions in the ratemaking process. It does not require nor
30		support the C	Compan	y's requests before the Commission in the instant case. The Affiliate
Į				24

1 Transactions Rule does not have any requirement whereby the Commission shall 2 determine the reasonableness of the value of the equipment outside of a general rate 3 increase case if no challenge occurs to its annual CAM filing or a variance to the Rule is 4 not requested. It merely set the parameters whereby the utility arranges and tracks the 5 affiliate transactions it enters into with affiliates. The actual value of the relevant 6 transaction, and whether or not it is allowed or disallowed in the ratemaking process, 7 should only occur within the confines of a general rate increase case. 8 9 DO YOU BELIEVE AQUILA'S REQUEST IS CONSISTENT WITH THE AFFILIATE Q. 10 TRANSACTIONS RULE REQUIREMENTS? 11 Α. No. Company's apparent reliance on the Affiliate Transactions Rule to obtain a favorable 12 Commission order for the equipment's value is a mistaken interpretation of the Rule's 13 requirements. Except for sections that describe when and how a variance of the affiliate 14 transactions Rule is obtained, there is no requirement that a utility ever come before the 15 Commission to even report its affiliate transactions prior to its annual CAM filing. In 16 instances requiring a variance, the Rule merely defines the procedures whereby a suspect 17 transaction that has not met the standards requirement shall be presented before the 18 Commission for possible exemption or suspended for review and possible disallowance at 19 the time of the utility's annual CAM filing. 20

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Î	Q.	IF THE COMPANY HAS ALREADY DETERMINED THE EQUIPMENT
2		TRANSACTIONS TO BE IN COMPLIANCE WITH THE AFFILIATE
3		TRANSACTIONS RULE, IS THERE ANY NEED TO REVIEW THE VALUE OF THE
4		ALLEGED EQUIPMENT COSTS OUTSIDE OF A GENERAL RATE INCREASE
5		CASE?
6	А.	No. To my knowledge, the Company's most recent CAM filing was not challenged with
7		regard to these transactions thus, there is no need or requirement within the Affiliate
8		Transactions Rule to determine the reasonableness of the values assigned to the
9		transactions.
10		
11	Q.	IS IT THE PUBLIC COUNSEL RECOMMENDATION THAT THE AFFILIATE
12		TRANSACTIONS BE DISALLOWED?
13	А.	No. Even though Public Counsel believes the equipment transactions may have actually
14		been structured so as to be in noncompliance with the requirements of the Rule, due to
15		the Company's lack of obtaining competitive bids for the equipment to be placed at the
16		South Harper site, we do not believe the transactions should be disallowed at this time.
17		The Company has determined that the equipment transactions were in compliance with
18		the Rule, and its CAM has not been challenged on this issue. Thus, the issue regarding a
19		determination of the reasonableness of the equipment's value is not an issue that the Rule
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		requires the Commission to act upon before the conclusion of Company's current general
2		rate increase case.
3		
4		Since the Company has apparently met the record-keeping requirements of the Rule for
5		the equipment transfers, it is the Public Counsel's belief that the determination of the
6		reasonableness of their value should be addressed in the Company's current general rate
7		increase case filing. That way the evidentiary documents can be subjected to the close
8		examination process of a complete audit, by all parties associated with the case; thereby,
9		providing Aquila and its management with a reasonably quick answer to its requests.
10		
11	Q.	ARE YOU AWARE OF ANY MISSOURI CASES WHEREBY THE COMMISSION
12		HAS DETERMINED THE REASONABLENESS OF THE VALUE OF NEW
13		INVESTMENT PRIOR TO IT BEING CONSTRUCTED?
14	А.	No. However, with regard to whether new investment shall or shall not obtain rate base
15		treatment, in Union Electric Company, Case No. EA-79-119, the Commission Order
16		stated:
17		
18 19 20 21 22 23		the Commission realizes that the building of plant is a risky and expensive proposition. Therefore, the Commission will entertain requests from utilities to approve plant construction within their certificated areas only if all <i>necessary</i> information and facts are presented for a learned and rational decision. By so doing, the utility would remove the contingency of obtaining a rate base determination after the plant was
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1 2 3 4 5 6 7 8	built, and thus the possibility that the Commission would find and conclude that the plant was not needed after monies had been expended to build the same. Union Electric Co., 24 MO. P.S.C. (N.S.) 78 (1980) (Emphasis added by OPC)
9	Continuing, it states:
10 11 12 13 14 15 16 17 18 19 20 21 22 23	the Commission leaves open the option of approving the addition of plant when and if it is provided with full information and the facts concerning the same. If utilities seek Commission approval of any plant construction in their certificated area or accept Commission regulation of their expansion plans, the Commission expects their construction programs over the next twenty (20) years to be submitted with full and complete information updated annually. Such information would include all units proposed, projected load forecasts and full cost information to support a least-cost approach to meeting energy needs. Further, in addition to annual updates of all information, the Commission would expect timely information on any changes proposed in such plans. Union Electric Co., 24 MO. P.S.C. (N.S.) 79 (1980)
24 25	The Order's language refers to the provision of what is commonly know as "Integrated
26	Resource Planning" documents in order to obtain Commission approval to include new
27	investment in the utility's rate base. Such documents are an integral part of a utility's
28	strategic planning to meet its current and future capacity needs, and they are required by
29	the Commission in order to gain a complete understanding of the utility's needs with
30	regard to its ability to provide service to its customers. The language only discusses the
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		likelihood of including the new investment in rate base. It says nothing with regard to the
2		Commission approving a determination of the plant's actual investment value.
3		
4	Q.	IN THE INSTANT CASE, HAS AQUILA PROVIDED THE INTEGRATED
5		RESOURCE PLANNING DOCUMENTS THE ORDER DISCUSSED?
6	A.	No, it has not.
7		
8	B.	EQUIPMENT'S ACTUAL COST AND PURPOSE.
9	Q.	DOES THE VALUE AQUILA ASSIGNED TO THE EQUIPMENT TRANSFER
10		PROVIDE A FINANCIAL ADVANTAGE TO ITS UNREGULATED AFFILIATE?
1	А.	Yes, it does. The Company has transferred the equipment costs from the financial books
12		of an unregulated affiliate to the financial books of the Missouri regulated operation at a
13		value Public Counsel has reason to believe is excessive. I believe it relevant that the
14		Commission be aware of certain inconsistencies in the Company's determination of the
15		equipment's alleged FMV. The issues I will describe in the following testimony have
16		provided a substantial financial advantage for the unregulated affiliate involved in the
17		equipment transfer.
18		
19	Q.	WHAT WERE THE ACTUAL COSTS INCURRED BY AQUILA'S AFFILIATE TO
20	ļ	PURCHASE THE EQUIPMENT?

	А.	There are three major categories of equipment costs associa	ted with Aquila's request, 1)
2		combustion turbines, 2) transformers, and 3) generator brea	kers. Company's response to
3		OPC Data Request No. 10 states that the total for the indivi	dual costs were as follows:
4			
5 6 7 8 9 10		1. Turbines \$76,137,869 2. Transformers 1,774,515 3. Breakers 803,849 Total \$78,716,233	
11	Q.	PLEASE PROVIDE A BREAKDOWN OF THE COMBU	STION TURBINES ACTUAL
12		COSTS	
13	А.	Public Counsel's review of the Equipment Supply Agreeme	ent, and Company responses to
34		various other data requests (e.g. OPC DR No. 10, 14 and N	IPSC DR No. 5), identified the
15		following costs for the combustion turbines:	
16			
17 18		Combustion Turbines	
19		ESA Contract Price ¹	\$70,455,285
20		Option Payment No. 1	3,712,500
21		Subtotal	\$74,167,785
22		Option Period Extension Payment	3,000,000
23		Option Payment for Additional Services	320,000
24		Subtotal	\$77,487,785
25		Change Order No. 1 ²	(1,389,300)
26		Total	\$76,098,485
27 28			
20 29		¹ Company's response to MPSC Staff Data Request copy of a **	

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4	Also, Company's response to OPC Data Request No. 1033 provided a **
6 7	**. Subsequently, in a **
8 9	
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11 12	**
13 14 15 16 17 18 19 20 21 22 23	² On of about October 2001, a Change Order No. 1 was entered into that modified the options identified in Section 4 of the ESA. The new options included simulator training \$17,000, gas sensors \$87,600, dual serial links \$50,000, central control room \$85,300, redundant control DPUs \$220,000, and (\$1,849,200) to delete the cost of exhaust stacks. The newly selected options reduced the ESA contract costs in total by (\$1,389,300). Per the responses to OPC DR No. 14 and MPSC DR No. 5, after the execution of the Change Order No. 1, the resulting price for the three combustion turbines, excluding the option payments, was revised to \$69,065,985.
24	To the above total Aquila added approximately (\$15) for un-located costs and \$39,399 of
25	labor costs. As adjusted, the total cost for the turbines rose to \$76,137,869:
26	
27	Aquila Un-located/Labor Cost Addition
28 29	Total \$76,098,485
30	Unlocated (15)
31	Labor 39,399
32 33 34	Subtotal \$76,137,869

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1	Q.	WHEN WERE THE COMBUSTION TURBINES DELIEVERED TO THE NON-	
2		REGULATED AFFILIATE?	
3	А.	Company response to OPC Data Request No. 1003 states that the actual delivery dates of	
4		the combustion turbines were as follows:	
5			
6 7 8 9 10		 Unit 1 - October 24, 2002 Unit 2 - December 6, 2002 Unit 3 - December 19, 2002 	
11	Q.	PLEASE PROVIDE A BREAKDOWN OF THE TRANSFORMERS ACTUAL COSTS.	
12	А.	Company response to OPC Data Request No. 1002 provided a copy of Purchase Order	
13		No. 5262, dated February 28, 2002, that states that the transformers were produced by	
14		HICO America Inc. ("HICO") in Korea for a total cost of \$1,638,000. Included in the	
15		total was \$1,217.000.01 for 3 main power transformers @ \$405,666.67 each, \$141,000	
16		for 3 auxiliary transformers @ \$47,000 each, and freight of \$280,000.	
17			
18		A subsequent Change Order No. 1, dated June 4, 2002, was later written to address	
19		necessary changes to accommodate the delay of the Aries II Power Project. The Aries II	
20		delay added an additional \$77,920 of costs related to storage of the equipment (i.e.,	
21		concrete pads \$18,000, crating \$5,000, assembly/disassembly after testing \$1,200, crane	
22		service \$5,720, maintenance of units in storage \$12,000 and testing after storage & before	
		32	

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1 shipment \$36,000). The new total for the equipment, subsequent to Change Order No. 1, 2 was listed as \$1,715,920.01; however, a Change Order No. 2, dated July 11, 2002, was 3 later written that allowed HICO to reschedule the manufacturing of the purchased material and to place all goods into storage to accommodate the Aries II Power Project's 4 5 delay. 6 7 Change Order No. 2 adjusted the actual incurred storage-related costs to the new amount 8 of \$46,500 (i.e., concrete pads \$9,000, crating \$3,000, assembly/disassembly before/after 9 testing \$500, crane service \$3,000, maintenance of units in storage \$6,000 and testing 10 after storage & before shipment \$25,000). The new total cost for the transformers, 1 subsequent to Change Order No. 2, was then identified as \$1,684,500.01 (a Change Order 12 No. 3, dated August 13, 2002, was later written to add internal accounting information, 13 but it did not change the costs from those listed in Change Order No. 2). To the 14 \$1,684,500 Company added approximately \$90,015 of additional Burns & McDonnell 15 ("B&M") costs (which mostly, if not all, were project management type costs) that 16 resulted in a total cost for the transformers of \$1,774,515. 17 18 PLEASE PROVIDE A BREAKDOWN OF THE GENERATOR BREAKERS ACTUAL Q. 19 COSTS.

The Company's response to OPC Data Request No. 1004 states that 3 - FKG2S Generator 11 Α. 2 Circuit Breaker 13.8kV-63A-60Hz were ordered by Alstom T&D Inc. (from Areva T&D 3 Inc. ("Areva")) to be built in France. The Areva order included: 3 breakers @ \$239,500 4 each for a total of \$718,500, freight @ \$8,750 each for a total of \$26,250 and a 5 performance bond of \$7,500. 6 7 The Areva order was subsequently modified by a Change Order No. 1, dated June 4, 8 2002, to address necessary changes to accommodate the Aries II Power Project delay. 9 Change Order No. 1 added an additional \$7,500 for storage fees and \$4,320 in finance 10 charges. The total costs, subsequent to Change Order No. 1, was then identified as 11 \$764,070. 12 13 A Change Order No. 2, dated August, 23, 2004, was later written that reduced the Change 14 Order No. 1 storage fees to \$7,380 and left the financing charges at \$4,320; however, it 15 also added an additional \$9,000 in storage fees and \$8,000 for an Areva representative to 16 supervise the unloading of the equipment. The total costs after taking into account both 17 change orders was \$780,950. To the \$780,950 Company added approximately \$22,899 of 18 additional Burns & McDonnell costs (which mostly, if not all, were project management 19 type costs) which resulted in a total cost for the generator breakers of \$803,849. 20

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1	Q.	WHEN WERE THE BREAKERS SHIPPED TO AQUILA?
2	Α.	It's my understanding that the generator breakers was shipped to Company on or about
3		July of 2004.
4		
5	Q.	WHAT DO THE \$3 MILLION IN PRELIMINARY SURVEY CHARGES COMPANY
6		REFERS TO IN ITS APPLICATION REPRESENT?
7	А.	Company's response to OPC Data Request No. 1 states that \$2,736,133.31 of
8		preliminary survey charges were Aries II costs of which \$101,446.20 was transferred to
9		the regulated MPC (mostly legal costs for the "Camp Branch Project," and the drafting of
10		an engineering contract). However, Company also states that these costs are not included
		in the current Application.
12		
13	Q.	DIDN'T AQUILA LATER INITIATE AND BOOK TO ITS FINANICAL RECORDS A
14		WRITEDOWN OF THE EQUIPMENT'S COST?
15	A.	Yes. Company's response to OPC Data Request No. 1026 states that in the fourth quarter
16		of 2004 it transferred the equipment from the unregulated side of its business to its
.7		regulated Missouri operation. Commensurate with the transfer, it took a \$10.8 million
18		non-cash charge to reflect the \$70,796,850 it now alleges as the equipment's value. Prior
19		to the charge being taken, the equipment's total cost booked was approximately
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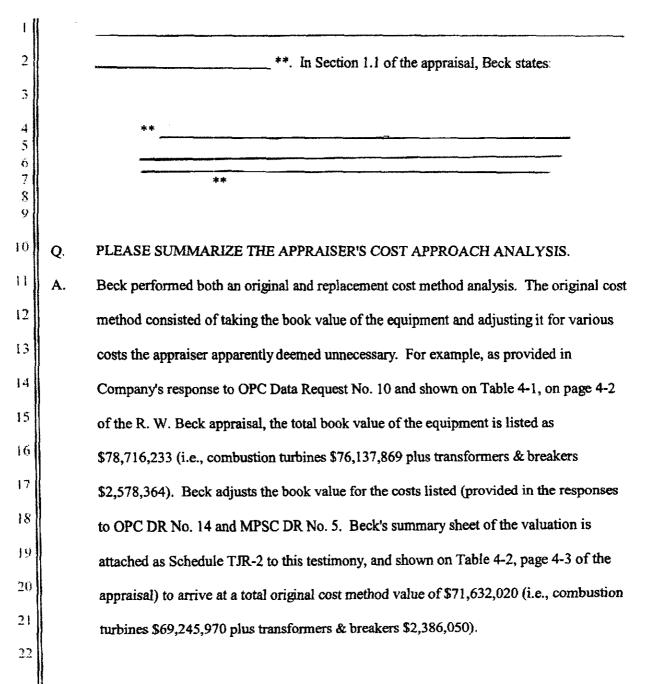
1		\$81,598,964 (includes the \$2,736,133 preliminary survey charges discussed earlier, and
2		\$146,598 of engineering, procurement and construction ("EPC") design costs capitalized).
3		
4	Q.	WHY WAS THE EQUIPMENT ORIGINALLY PURCHASED?
5	А.	The equipment was originally procured for the Aries II Power Project which was a
6		proposed enlargement of the current Aries power plant capacity. Also, it's my
7		understanding that the firm of Burns and McDonnell was employed by Aquila as the
8		manager for that construction project, and that they were originally responsible for the
9		procurement of the equipment for that project.
10		
1	Q.	WAS THE ARIES II POWER PROJECT LATER CANCELLED?
12	А.	Yes. It is my understanding that the Aries II Power Project was cancelled by Aquila.
13		
14	Q.	DOES THE PUBLIC COUNSEL BELIEVE THAT AQUILA'S FAILURE TO OBTAIN
15		COMPETITIVE BIDS FOR THE EQUIPMENT HAS LED TO ITS
16		OVERVALUATION BY AQUILA?
7	А.	Yes. The lack of competitive bids is indeed a major reason we believe the equipment is
18		overvalued. Public Counsel also believes that there are other reasons that the value of the
19		equipment, as proposed by Company, is excessive. However, Aquila did not obtain
20		competitive bilds for the equipment prior to transferring it from the non-regulated
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1		operation to the regulated operation nor, did Company, in my opinion, adequately
2		demonstrate why competitive bids were neither necessary nor appropriate. Instead, on or
3		about October 2004 Company hired R. W. Beck ("Beck") to appraise the costs of the
4		combustion turbines, transformers and generator breakers. The Beck appraisal was **
5		** in its scope and preparation (as described by the appraisers). Thus, it is
6		"limited" in its accuracy and validity. I intend to show the Commission that the appraisal
7		and its conclusions are severely flawed because they do not adequately account for the
8		true costs of the equipment in a competitive environment.
9		
10	C.	R. W. BECK APPRAISAL
1	Q.	WHAT TYPE OF APPRAISAL DID R. W. BECK PREPARE?
12	A.	R. W. Beck performed what it described as a **
13		
14		*
15		**. The appraisal, attached as Schedule DRW-1 to the direct testimony of
16		Company witness, Mr. Dennis R. Williams, states, **
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1	Beck's replacement cost method valuation was also provided in the responses to OPC DR
2	No. 14 and MPSC DR No. 5 (Beck's summary sheet of the valuation is attached as
3	Schedule TJR-2 to this testimony), and is described in Section 4.2.2, page 4-4 of the
4	appraisal, as:
5	
6	**
7	₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩
8	
9	**
10	
11	
12	To develop the total replacement cost method analysis Beck tripled the \$24,500,000 and
13	made various other adjustments to arrive at a value of \$70,796,850 (i.e., combustion
14	turbines \$68,410,800 plus transformers & breakers \$2,386,050). The calculation of the
15	\$70,796,850 is shown on page 4-5 of the appraisal, Table 4-3, as:
16	
17	Item Replacement Cost
18	Combustion Turbines
19	Replacement Cost \$73,500,000
20	Adjustments
21	Warranty (2,240,000)
22	Exhaust Stacks (1,849,200)
23	Multi-Unit Purchase(1.000,000)Combustion Turbines Subtotal\$68,410,800
24	Transformers & Breakers2,386,050
25 26	Transformers & Breakers
20 27	Value - Replacement Cost Mentod \$70,770,000
28	
20	
	39

		Incidentally, Beck's costing for the transforme	rs and breakers remained the same under
2		both the original and replacement cost approa	ch analyzes.
3			
4	Q.	PLEASE SUMMARIZE THE APPRAISER'S	MARKET APPROACH ANALYSIS.
5	А,	Beck's market approach analysis (i.e., compar	able sales method) consisted of a review of
6		recent sales and offers of similar equipment.	The analysis identified and adjusted six
7		different offers to sell equipment similar to th	e Aquila assets (actually one of the offers
8		was for the potential sale of the Aquila equip	nent to another utility). To the respective
9		offers, Beck made various adjustments simila	r to those it made in the original cost
10		method valuation.	
11			
12		The beginning and adjusted values of the six	comparable offers for the combustion
13		turbines, as determined by R. W. Beck, were	provided in the responses to OPC DR No.
14		14 and MPSC Staff DR No. 5 (Beck's summa	ry sheet of the offers is attached as Schedule
15		TJR-2 to this testimony), and are shown on T	able 4-4, page 4-7 of the appraisal, as
16			
17 18		CT Offer	Adjusted CT Offer
19 20		Offer 1 \$69,000,0000	\$66,760,000
20 21 22		Offer 2 \$64,500,000	\$71,200,800
22 23 24		Offer 3 \$57,000,000	\$61,460,800
24		40	

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1	Offer 4	\$78,000,000	\$77,350,800	
2 3	Offer 5	\$99,000,000	\$98,350,800	
4		•••••••••••••	<i>**</i> 0,00 0,000	
5	Offer 6	\$55,936,050	\$53,550,000	
6		••••	<i>400,00</i> 0,000	
7				
8	To arrive at its final co	mparable sales values l	Beck added the adjusted origin	nal cost
9	method value of the tra	unsformers and breaker	s to the above Adjusted CT O	ffer values:
10				
11		Trans/Break	Comparable Sales	
12				
13	Offer	\$ 0	\$66,760,000	
14				
15	Offer 2	\$2,386,050	\$73,586,850	
16				
17	Offer 3	\$2,386,050	\$63,846,850	
18				
19	Offer 4	\$2,386,050	\$79,736,850	
20		. ,		
21	Offer 5	\$2,386,050	\$100,736,850	
22		~_, - , - , , , - , -		
23	Offer 6	\$2,386,050	\$55,936,050	
24		•=,,		
25				
23				
26	Company's response to	o OPC Data Request N	o. 1006 further described the	six offers,
27	before adjustment by l	Beck, as:		
28				
	Offer 1 was for	om MED Investments I	LC, a subsidiary of Aquila	
29	Monohert Ser	has to Kansas City Do	wer & Light Company with o	ntions
30	Nierchani Serv	ACCS IO NAIISAS CILY PO	e 105MW combustion turbine	ruons or The
31	for the purchas			9. I IIV
	1	41		

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2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23		 offer was for \$23,000,000 per combustion turbine generator set of equipment (turbine/generator, transformers, breakers, etc.). Offer 2 was from Rolls-Royce to Aquila for two steam injected combustion turbines and associated auxiliaries. The offer was for \$43,000,000. Offer 3 was from Siemens Westinghouse Power Corporation for one combustion turbine it was storing for a customer. Similar terms as original contract, including the TFA. The offer was for \$19,000,000. Offer 4 was an internet offer from Global Equipment Exchange, #12551, for one 130MW combustion turbine. It was built in 2001 and never installed and was stored in a warehouse. The offer was for \$26,000,000. Offer 5 was an internet offer from Global Equipment Exchange, #12540, for one 120MW combustion turbine. It included enclosure for thermal and sound for outdoor installation. The offer was for \$33,000,000. Offer 6 was an internet offer from Utilitywarehouse.com for one 120MW combustion turbine. It included enclosure for thermal and sound for outdoor installation. The offer was for \$12,000,000.
24 25	Q.	WHAT WERE THE CONCLUSIONS REACHED BY BECK'S APPRAISAL?
26	А.	Beck's conclusions are described on page 5-2 of the appraisal as:
27		
28 29 30 31 32 33 34 35		**
;	•	47

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]		The value listed above is corroborated in the Company responses to OPC DR No. 14 and
2		MPSC Staff DR No. 5 which identify that R. W. Beck's appraised value under the
3		replacement cost method for all the equipment is \$70,796,850.
4		
5	Q.	IS THE REPLACEMENT COST METHOD VALUE THE AMOUNT AT WHICH THE
6		EQUIPMENT WAS TRANSFERRED FROM THE NON-REGULATED AFFILIATE
7		TO THE MISSOURI REGULATED OPERATION?
8	A .	Yes. The replacement cost method value of \$70,796,850 is the amount at which
9		Company transferred the assets from AE to MPG. This value was also corroborated by
10		the Company's response to MPSC Staff Data Request No. 3 which provided a copy of a
11		Journal Entry that shows the transfer of \$70,796,850 to MPG on November 30, 2004. It
12		is also the value that Company requests this Commission issue an order to validate its
13		"reasonableness."
14		
15	Q.	IS IT THE PUBLIC COUNSEL'S BELIEF THAT THE VALUE OF THE EQUIPMENT,
16		AS RECOMMENDED BY R. W. BECK, IS OVERVALUED?
17	A .	Yes. I believe that the values identified in both the cost and market approaches of the
18		appraisal are excessive. Furthermore, I do not believe that Beck's conclusion that its
19		market approach valuations support its original cost approach replacement cost method
20		valuation for the equipment is appropriate.
	}	

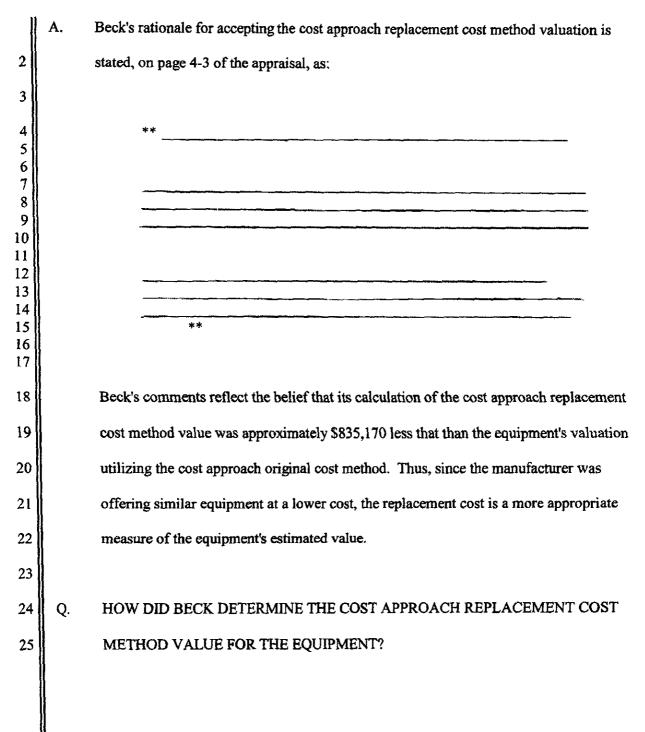
1 Q. PLEASE EXPLAIN WHY PUBLIC COUNSEL BELIEVES BECK'S COST 2 APPROACH REPLACEMENT COST METHOD VALUATION IS EXCESSIVE. 3 Α. Public Counsel's primary concern is that Beck's reliance on the cost approach replacement 4 cost method to value the equipment transfer is inappropriate, and inaccurate, because the 5 conclusion that it was the lower cost is not accurate. While it is the Public Counsel's firm 6 belief that the value of the equipment transferred should have been determined via a 7 competitive bid process, it is also our belief that Beck's acceptance of the cost approach 8 replacement cost method valuation as a surrogate for the value of the equipment was 9 based on an inaccurate calculation of both the cost approach original cost method and 10 cost approach replacement cost method. 11 12 Beck's analysis incorrectly calculates values for both methods and then compared its 13 original cost method value to its replacement cost method value. The replacement cost 14 method value was then inappropriately represented as the lower cost option of the two 15 methods. Beck also erred in that it then compared the replacement cost method value to apparently inflated market approach offers it represents as current market pricing for 16 17 similar equipment.

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Q. WHAT WAS BECK'S RATIONALE FOR ADOPTING THE COST APPROACH REPLACEMENT COST METHOD VALUATION?



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1	<u>A</u> .	To support its cost approach replacement cost method, Beck, on page 4-4 of the appraisal,
2		states the following:
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12 13		**
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16 17		
18		
19 20		
20		
22		
23 24		
25		
26	Q.	IS BECK'S ORIGINAL COST METHOD VALUATION OF THE COMBUSTION
27		TURBINES EXCESSIVE?
28	Α.	Yes. Public Counsel believes that Beck's original cost method overvalues the cost of the
29		combustion turbines by approximately \$7,882,150. In its responses to OPC DR No. 14

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1	and MPSC Staff DR No. 5 (Beck's summary sheet of the valuation is attached as
2	Schedule TJR-2 to this testimony), and shown on Table 4-2, page 4-3 of the appraisal,
3	Beck lists the following adjusted original cost method valuation of the combustion
4	turbines:
5	
6 7 8 9	Combustion TurbinesBook Value\$76,137,869Adjustments(3,712,500)
10	Warranty (2,240,000)
11	Production Modifications (300,000)
12	Rehabilitation (600,000) Internal Labor (39,399)
13 14	Internal Labor <u>(39,399)</u> Combustion Turbine Total \$69,245,970
15	
16	
17	Beck's starting book value is supported by the following actual costs for the combustion
18	turbines identified in the ESA, and the responses to OPC DR Nos. 10, 14 and MPSC
19	Staff DR No. 5:
20	
21	Combustion Turbines
22	
23	ESA Contract Price \$70,455,285
24	Option Payment No. 1 3.712.500
25	Subtotal \$74,167,785
26	Option Period Extension Payment 3,000,000 Option Payment for Additional Services 320,000
27	Option Payment for Additional Services <u>320,000</u> Subtotal \$77,487,785
28 29	Subtotal $$77,487,785$ Change Order No. 1 ($1,389,300$)
29 30	Subtotal \$76,098,485
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1 2 3 4 5		Un-located Labor Total	(15) <u>39,399</u> \$76,137,869
6		However, it is the Public Counsel's belief that E	Beck's original cost method
7		calculation neglects to exclude certain actual co	osts incurred which should not have
8		been included in the determination of the adjust	ted original cost.
9			
10	Q.	PLEASE DESCRIBE THE ACTUAL COMBU	ISTION TURBINE COSTS THAT
1		SHOULD BE EXCLUDED FROM THE ORIC	GINAL COST METHOD
12		VALUATION.	
13	А.	At a minimum, Public Counsel believes that th	e following costs should be excluded:
14	5 5 6		
15 16 17 18 19 20 21		Option Payment #1 Option Period Extension Payment Un-located Labor Total	\$3,712,500 3,000,000 (15) <u>39,399</u> \$6,751,884
22	Q.	DID BECK'S ORIGINAL COST METHOD V	ALUATION EXCLUDE THE COSTS
23		LISTED IN THE PRIOR Q&A?	

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1	А.	Beck's appraisal did exclude the Option Payment No. 1 costs and the Labor costs, but it
2		did not exclude the other Option Period Extension Payment (i.e., Option Payment No. 2)
3		or the Un-located costs.
4		
5	Q.	DID BECK'S ANALYSIS ALSO EXCLUDE COSTS ASSOCIATED WITH AN
6		EXPIRED EQUIPMENT WARRANTY?
7	А.	Yes. Public Counsel believes that that was a reasonable adjustment to make given that
8		the combustion turbines warranty had expired and was not renewed.
9		
10	Q.	WHAT WAS THE PURPOSE OF THE OPTION PAYMENT NO. ?
11	A.	In response to OPC Data Request No. 14, and MPSC Staff Data Request No. 5, Company
12		provided a copy of the original combustion turbine purchase Letter Agreement, dated
13		February 4, 2000. The Letter Agreement states the following:
14		
15		In order to provide an option for Aquila to purchase these Units for
16		one hundred eighty (180) days from the date of the Letter Agreement
17		("Option Period"), Aquila agrees to pay Siemens Westinghouse a
18		nonrefundable option fee of \$1,237,5000 for each Unit. ("Option
19		Fee"), due by wire transfer upon execution of this Letter Agreement.
20		Until the executed Letter Agreement and Option Fee are received by
21		Siemens Westinghouse, all Units are subject to prior sale.
22	11	
23	ll	After the execution of this Letter Agreement by both parties and the
24		receipt of the Option Fee by Siemens Westinghouse, the parties shall
25	11	endeavor in good faith to negotiate a contract based upon this letter
26	II.	Agreement within the Option Period. If at any time prior to reaching
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2 3 4 5 6 7 8 9 10 11 12 13 14 15		agreement on the contract or upon expiration of the Option Period, Aquila notifies Siemens Westinghouse of its election to terminate the Letter Agreement for any reason, or if for any reason a contract has not been signed within the Option Period or such longer period as may be mutually agreed upon in writing, then this Letter Agreement shall terminate. Both parties acknowledge the intent to provide adequate personnel to support the finalization and execution of a contract on or before such period expires subject to agreement on the terms thereof in the course of good faith negotiations contemplated thereby. Upon such termination the Option Fee shall be retained by Siemens Westinghouse as the full termination fee (Emphasis added by OPC)
16		Company agreed to provide Siemens Westinghouse a nonrefundable option fee (i.e.,
17		Option Payment No. 1) of \$1,237,500 for each unit (total \$3,712,500) in order to provide
18		it with the opportunity to purchase the units for one hundred eighty days from the date of
19		the Letter Agreement. In essence, MEP paid a premium to guarantee certain
20		manufacturing slots for its speculative purchase of the combustion turbines; however, the
21		180 day time period expired before a contract could be finalized thus, the first option
22		payment of \$3,712,500 was forfeited.
23		
24	Q.	DID COMPANY CONFIRM THAT THE PURCHASE OF THE COMBUSTION
25		TURBINES WAS INTENDED TO FURTHER THE ACTIVITIES OF THE NON-
26		REGULATED AFFILIATE'S SPECULATION IN THE POWER MARKET?

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	A.	Yes. MEP Investment, LLC ("MEP"), the non-regulated operation of Aquila, purchased
2		the CTs to further its speculation activities in the power market. During an April 29,
3		2005 interview of Mr. Dave Kriemer, Director of Engineering of Aquila Networks, he
4		stated that it was a seller's market unprecedented at the time. He added that the first
5		option payment (i.e., \$3.7M) was paid to purchase a "queue" position for the right to
6		negotiate a contract with Siemens. It was based upon 5% of the contract value and it only
7		provided a right to get into line to negotiate a contract. According to Mr. Kriemer,
8		Siemens said there are the openings we have, if you can live with them, you can get in
9		line. He added that the purchase was a speculative purchase since Aquila did not have
10		any actual off-take contracts for the CTs generation.
1		
12	Q.	WHAT WAS THE PURPOSE OF THE OPTION PERIOD EXTENSION PAYMENT?
13	A .	Option Payment No. 2 (i.e., the \$3 million option payment) was for the period extension
14		that allowed MEP to continue its negotiations until the Equipment Supply Agreement was
15		signed on or about September 2001. Company's response to OPC Data Request No. 1033
16		included a letter from Siemens to Aquila, dated July 30, 2001, that stated:
17		
18		**
19 20		~ <u></u>
21		
22 23		
20	1	51

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2 3		**
4 5 6		(Emphasis added by OPC)
7		Furthermore, Company added:
8		
9 10		**
11		,
12 13		
14 15		
16 17		**
18 19		It's my belief that Option Payment No. 2, just like Option Payment No. 1, was a
20		"premium" payment that the non-regulated affiliate, MEP, paid to guarantee certain CT
21		manufacturing slots during the negotiation process in this particular speculative venture.
22		
23	Q.	WHY SHOULD THE \$3 MILLION OPTION PERIOD EXTENSION PAYMENT BE
24		EXCLUDED FROM THE ORGINAL COST METHOD VALUATION?
25	A.	The \$3 million option payment was a speculation premium (just like the first option
26		payment). The service provided to MEP for the payment was not a part of the product's
27		actual costs, it was in fact intended for the purchase of "time" to complete the

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negotiations for its speculative purchase of the combustion turbines. It was not an actual cost of the combustion turbines themselves. The ESA, and Company responses to OPC DR No. 14 and MPSC Staff DR No. 5, clearly state that the original contract price of the CTs was \$70,455,285 (not including any option fee, change order, un-located or other labor costs).

The reality of the situation is that the CTs should probably never have been purchased if MEP did not have a contract in place to produce sufficient revenues to cover their cost, and apparently it did not. In any event, the speculation costs should not be considered the responsibility of the regulated Missouri operations because they were incurred by a nonregulated affiliate to further its own self-serving interests. The costs are not something for which the ratepayers of the regulated company should be held responsible. Public Counsel believes that the \$3 million option payment was nothing more than a "**premium**" MEP paid to guarantee manufacturing slots so that it could further its speculative power market activities.

Q. ARE THERE OTHER COSTS WHICH SHOULD ALSO BE EXCLUDED FROM THE ORIGINAL COST METHOD VALUATION?

A. Yes. The CTs in question are for the most part older used equipment. Even though the
 CTs have not been utilized in an actual generating capacity, the Missouri regulated

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		operation was not the original purchaser plus, the equipment's age at the time of its
2		proposed in-service date at the South Harper site will approximate two and one-half
3		years. Therefore, I believe that an adjustment for some depreciation associated with the
4		age of the CTs should be included in the determination of the original cost method
5		valuation.
6		
ļ		
7	Q.	DOES BECK RECOGNIZE THAT DEPRECIATION IS A VALID COST FOR THE
8		APPRAISAL PROCESS?
9	А.	Yes. In response to MPSC Staff Data Request No. 35, Company provided a copy of the
10		Professional Services Agreement between it and R. W. Beck. On page one of Exhibit A,
11		it states:
12		

13 14		
15		**
16		
17		(Emphasis added by OPC)
18		
19		
20		Referencing the cost approach to valuation, on page two it states:
21		
22	11	**
22		
23		**
22 23 24 25	h	
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1 2 3		(Emphasis added by OPC)
4	Q.	DID BECK INCLUDE A DEPRECIATION ADJUSTMENT IN ITS ANALYSIS?
5	Α.	Beck included a total reduction in value adjustment of \$900,000 relating to product
6		modifications and rehabilitation costs of the previously stored CTs (provided in
7		Company's response to OPC DR No. 14 and MPSC Staff DR No. 5 (Beck's summary
8		sheet of the valuation is attached as Schedule TJR-2 to this testimony), and classified as
9		** per the response to MPSC Staff DR No.
10		35). The adjustments, which I believe are an attempt to recognize costs similar in nature
11		to depreciation are admirable, but insufficient.
12		
13		For example, if we assume a thirty year operating life, the annual depreciation cost
]4		associated with the CTs approximates \$2,312,866 (i.e., ESA contract price \$70,455,285
15		plus Option Payment for Addition Services - \$320,000 plus Change Order No.
16		(\$1,389,300) divided by thirty). Two and one-half years time the \$2,312,866 annual
17		deprecation approximates \$5,782,165. If we reduce that amount by Beck's product
18		modifications and rehabilitation adjustments, the value for depreciation not recognized in
19		the original cost method valuation approximates \$4,882,165 (i.e., \$5,782,165 less
20		\$900,000).
21		
	11	

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1	Q.	DOES PUBLIC COUNSEL BELIEVE THAT THERE SHOULD BE AN
2		ADJUSTMENT IN BECK'S ORIGINAL COST METHOD VALUATION THAT
3		RECOGNIZES THE ADDITIONAL DEPRECIATION YOU CALCULATED?
4	А.	Normally, depreciation is only taken against plant that is actually in service, however, the
5		instant case creates a special situation in which I believe a depreciation-like adjustment
6		would be appropriate. Aquila's non-regulated affiliate purchased the equipment for a
7		speculative IPP venture that did not pan out. The equipment was then stored for a
8		number of years before being assigned and transferred to the operations of the regulated
9		utility. Even though the equipment was not actually placed in service it is now several
10		years older. It's likely that the equipment has been surpassed by technological
11		improvements and its costs, which were incurred in a seller's market, are not
12		representative of pricing that exists in today's market for similar equipment.
13		
14	Q.	BY HOW MUCH ARE THE CTs OVERVALUED, ACCORDING TO PUBLIC
15		COUNSEL ANALYSIS?
16	A .	Public Counsel believes that Beck's original cost method valuation could overstate the
17		cost of the CTs by as much as \$7,882,150 (i.e., the \$3 million Option Payment No. 2 plus
18		the Un-located costs plus a depreciation-like adjustment of \$4,882,165 for obsolescence
19		and current market pricing impacts).
20		
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ł	Q.	IS THE ORIGINAL COST METHOD VALUATION OF THE TRANSFORME	RS AND
2		BREAKERS ALSO EXCESSIVE?	
3	A.	Yes. Public Counsel believes that Beck's appraisal overvalues the costs of the	
4		transformers and generator breakers together by approximately \$3,300. Since Be	eck
5		utilized the same valuation for the transformers and generator breakers in both it	
6		approach original cost and replacement cost methods, both valuations are excess	
			ive by
7		that amount.	
8			
9	Q.	PLEASE IDENTIFY: THE PROPER COSTS FOR THE TRANSFORMERS.	
10	A.	Company's response to OPC Data Request No. 1002 provided a copy of Purchas	se Order
11		No. 5262 that identified the following costs Company incurred for the transform	ners:
12			
13		3 main power transformers @ \$405,666.67 each \$1,217.000	
14		3 auxiliary transformers @ \$47,000 each 141,000 Freight 280,000	
15 16		Freight <u>280,000</u> Total \$1,638,000	
17	N		
18			
19		Subsequently, the Aries II Power Project was delayed so a Change Order No. 1	
20		was written to address necessary cost changes to accommodate the project dela	y:
21			
22		Change Order No. 1 – Storage Costs	
23		Concrete pads for storage \$ 18,000	
24	.	Crating 5,000	
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1 2 3 4 5 6 7	Assembly/disassembly before/after testing1,200Crane service5,720Maintenance of units in storage12,000Testing after storage & before shipment36,000Total\$ 77,920
8	The Change Order No. 1 costs were later modified by a Change Order No. 2 which was
9	written to allow HICO to reschedule manufacturing of the purchased material and place
10	all goods into storage due to the Aries II Power Project delay:
11	
12 13 14 15 16 17 18 19 20 21 21 22	Change Order No. 2 - Storage CostsConcrete Pads For Storage\$ 9,000Crating3,000Assembly/Disassembly Before/After Testing500Crane Service3,000Maintenance Of Units In Storage6,000Testing After Storage & Before Shipment25,000Total\$ 46,500
23	The final purchase cost of the transformers was:
24 25 26 27 28 29 30 31	3 Main Power Transformers @ \$405,666.67 each \$1,217.000 3 Auxiliary Transformers @ \$47,000 each 141,000 Freight 280,000 Sub-Total \$1,638,000 Change Order No. 2 46,500 B&M EPC Costs ¹ 90,015 Total \$1,774,515

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1 2 3 4		¹ Additional Burns & McDonnell costs (which mostly, if not all, were project management type costs) resulted in a total cost for the transformers of approximately \$1,774,515.
5		It is the Public Counsel's understanding that the order changes, and B&M costs, were
6		incurred in association with either the Aries II Power Project, or its delay and ultimate
7		cancellation. These costs are completely unrelated to the South Harper construction and
8	•	should not be construed as a part of the cost of that construction or the plant investment
9		assigned to it. The only valid and reasonable costs associated with the transformers, in
10		their proposed capacity, is the \$1,638,000 which includes their actual purchase price plus
11		freight.
12		
13	Q.	PLEASE IDENTIFY THE PROPER COSTS FOR THE GENERATOR BREAKERS.
14	А.	The Company's response to OPC Data Request No. 1004 provided a copy of Purchase
15		Order 5360 that identified the following costs Company incurred for the generator
16		breakers:
17		
18 19 20 21 22 23		3 Generator Circuit Breaker @ \$239,500 each \$718,500 Freight @ \$8,750 each 26,250 Subtotal \$744,750 Performance Bond 7,500 Total \$752,250
		50

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1 🛙	Subsequently, the Aries II Power Project was delayed so a Change Order No. 1 was
2	written to address necessary cost changes to accommodate the project delay:
3	
4	Change Order No. 1
5	Storage Fees \$ 7,500
6	Finance Charges
7	Total \$11,820
8	
9	
10	The Change Order No. 1 costs were later modified by a Change Order No. 2 which was
11	written to allow HICO to reschedule manufacturing of the purchased material and place
12	all goods into storage due to the Aries II Power Project delay:
13	
14	Change Order No. 2
15	Storage Fees Month 1-6 \$500 per \$ 7,380
16	Storage Fees Month 7-12 \$750 per 9,000
17	Finance Cost 4,320
18	Areva Service Rep. Supervision <u>8,000</u>
19	Total \$28,700
20	
21	
22	The final purchase cost of the generator breakers was:
23	
24	3 Generator Circuit Breaker @ \$239,500 each \$718,500
25	Freight @ \$8,750 each <u>26,250</u>
26	Subtotal \$744,750 Performance Bond 7,500
27	
28	
29	Change Order No. 2 28,700
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2 3 4 5 6 7		B&M EPC Costs ¹ Total <u>22.899</u> \$803,849 ¹ Additional Burns & McDonnell costs (which mostly, if not all, were project management type costs) resulted in a total cost for the generator breakers of approximately \$803,849.
8		Again, it is the Public Counsel's belief that the order changes and B&M costs were
9		incurred in association with either the Aries II Power Project itself, or its subsequent
10		delay and ultimate cancellation. These costs are completely unrelated to the South Harper
11		construction and should not be construed as a part of the cost of that construction or the
12		plant investment assigned to it. In addition, I agree with Beck's appraisal that the cost of
13		the performance bond should be excluded. The only valid and reasonable costs
14		associated with the generator breakers, in their proposed capacity, is the \$744,750 which
15		includes their actual purchase price plus freight.
16		
17	Q.	IF THE EXCESSIVE EQUIPMENT COSTS YOU HAVE IDENTIFIED WERE
18		REMOVED FROM BECK'S COST APPROACH ANALYSIS WOULD THE
19		VALUATION FOR THE ORIGINAL COST METHOD BE LESS THAN THE
20		AMOUNT DETERMINED IN BECK'S REPLACEMENT COST METHOD?
21	A .	Yes. Incorporating Public Counsel's adjustments for the excessive equipment costs into
22		Beck's original cost method calculation would result in a value of \$63,746,570 (i.e.,
23		\$71,632,020 less CTs \$7,882,150 less transformers and generator breakers \$3,300). The
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1		replacement cost method valuation reduced by excessive transformer and generator
2		breaker costs approximates \$70,793,550 (i.e., \$70,796,850 less transformers and
3		generator breakers \$3,300). The result is that the original cost method value is
4		approximately \$7,046,980 less than the value determined in the replacement cost method
5		(i.e., replacement cost method \$70,793,550 less original cost method \$63,746,570).
6		Beck's conclusion that the replacement cost method valuation is a lower cost than the
7		original cost method valuation is incorrect, and since it is incorrect, it is not appropriate
8		for this Commission to order a determination that it is the "reasonable" value at which the
9		equipment should be booked on the records of the Missouri regulated operation.
10		
1	Q.	PLEASE EXPLAIN WHY PUBLIC COUNSEL BELIEVES BECK'S MARKET
12		APPROACH VALUATION IS EXCESSIVE.
13	А.	In an attempt to verify the validity and accuracy of the six offers identified in the Beck
14		appraisal, and the Company's response to OPC Data Request Nos. 14, 1006 and MPSC
15		Staff DR No. 5, I reviewed the terms and adjustments associated with the offers. My
16		review of the offers, and additional documents and sources of information, identified
7		several major inconsistencies that if incorporated into Beck's appraisal would
18		significantly change the identified results and probable conclusions.
19		
20	Q.	WHAT INCOSISTENCIES HAVE YOU IDENTIFIED?
		62

A. The most glaring inconsistencies are represented by the internet offers obtained by Beck to support its conclusions. For example, the costs for the combustion turbines, before adjustment, for Offers 4, 5 and 6 are described in the response to OPC Data Request Nos. 14, 1006 and MPSC Staff DR No. 5, and the appraisal, as \$78 million, \$99 million and \$45 million, respectively. However, on or about February 3, 2005, I performed an internet search for those properties wherein I contacted the sellers of the equipment. The sellers responses to me stated that the selling price per combustion turbine was \$15 million, \$15 million and \$22 million per unit (the offers are attached to this testimony as Schedule TJR-3). Translating the per unit costs into comparable total costs, my internet search indicates that a more accurate costing of Offers 4, 5, and 6 may actually be \$45 million, \$45 million and \$66 million, respectively. That is, the appraisal's Offer 4 is \$33 million too high, its Offer 5 is \$54 million too high and its Offer 6 is \$21 million too low.

14 Q. DOES THE PUBLIC COUNSEL HAVE CONCERNS WITH THE COST OF OFFER 15 NO. 6?

A. Yes. It seems abnormal that the cost associated with Offer 6 rose from \$15 million per unit to \$22 million per unit while the other internet offers identified dropped significantly.
I am of the opinion that the seller was merely trying to bargain for a higher price due to fact that it apparently had another party that was keenly interested in the equipment. For

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1	l	example, the seller in its response to Public Counsel stated that they were working with
2		another party looking for the same equipment, and that they were project participants.
		another party looking for the same equipment, and that they were project participants.
3		
4	Q.	DID THE PUBLIC COUNSEL LOCATE OTHER COMBUSTION TURBINES FOR
5		SALE WHOSE COSTS WERE MORE IN LINE WITH THE RESULTS OF ITS
6		INTERNET SEARCH RESULTS FOR OFFERS 4 AND 5?
7	А.	Yes. I located the following two additional combustion turbine sales (the offers are
8		attached to this testimony as Schedule TJR-4) that I believe are relevant to this issue:
.9		
10 11 12 13 14 15 16 17 18 19 20 21 22		 The first sale was an offer for six 92.6MW Westinghouse 501D5 combustion turbines at an estimated price of \$15 million each. These combustion turbines are apparently of similar design and size to those transferred from the Aquila affiliate at the much higher cost; however, seller did indicate that some additional conversion costs of approximately \$4 million per unit may be required. The second sale was for three 156MW MHI M501F combustion turbines at a current price of \$13 million each. These combustion turbines are much larger than those transferred from the Aquila affiliate, but it's my understanding that they are a newer version in the evolutionary timeframe of gas turbines than the W501D5 at issue.
23		Assuming that the two offers described above are reasonable, the total offer prices for
24		three combustion turbines would approximate \$45 million and \$36 million, respectively.
25		These costs appear to be more inline with the costs I received from the sellers for Beck's
26		Offers 4 and 5 thus, I believe they substantiate that the rise in the cost of Offer 6 is
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]		abnormal under current pricing circumstances. Either way, the combustion turbine costs
2		I've identified are significantly lower than the offer costs which Beck relied on to value
3		Aquila's equipment.
4		
5	Q.	DID THE PUBLIC COUNSEL'S REVIEW UNCOVER ANY ADDITIONAL COST
6		INFORMATION THAT INDICATES THE BECK DATA IS EXCESSIVE?
7	А.	Yes. Additional searching on my part yielded costing information contained within the
8		reference Gas Turbine World 2003 Handbook. It's my understanding that the Gas
9		Turbine World Handbook is a highly respected and accepted source of project planning,
10		design and construction operation for combustion turbine projects. In fact, Company's
1		response to MPSC Staff Data Request No. 41 states that Gas Turbine World is a
12		publication that provides annual price levels, which are arrived at by a consensus of
13		industry users and industry suppliers for budgeting purposes.
14		
15		On page 20 of the GTW Handbook (the reference is attached to this testimony as
16	-	Schedule TJR-5) it lists the following price for a simple cycle plant of a type similar to
17		that transferred to the Missouri regulated operation by the Aquila non-regulated affiliate:
18		
19		Genset - W501D5A, 120,500kW, 9840 Btu, 34.75 efficiency, plant price
20 21		\$19,9000,000 , per kW \$165
21		(Emphasis added by OPC)
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1		The combustion turbine is similar to those transferred from the Aquila non-regulated
2		affiliate, but its published sale price is significantly lower than most of the offers in
3		Beck's appraisal. At a price of \$19.9 million each, the cost of three combustion turbines
4		would approximate \$59.7 million. Excluding the appraised cost of the transformers and
5		breakers, the \$59.7 million is approximately \$8.7 million less than Beck's replacement
6		cost method value (i.e., \$68.4 as shown in the responses to OPC DR No. 14 and MPSC
7		Staff DR No. 5) for the combustion turbines.
8		
9.		Furthermore, it is an interesting fact that Beck's appraisal quotes higher prices for CTs
10		that are at least one year older than a similar CT is priced in the reference book. It is
1	-	particularly interesting when one contemplates that at the time the Aquila affiliate
12		purchased the CTs a price premium may have been placed on the purchase, and
13		subsequent to that purchase there has been a softening in the market for combustion
14		turbines.
15		
16	Q.	IS THE PUBLIC COUNSEL AWARE THAT DURING THE TIME PERIOD THAT
7		AQUILA'S NON-REGULATED AFFILIATE PURCHASED THE COMBUSTION
18		TURBINES IT WAS CONSIDERED TO BE A "TIGHT" MARKET THUS, A
19		PREMIUM WAS BEING CHARGED FOR NEW TURBINES?

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	А.	Yes, Aquila's own documents make this point. Referencing the Aries II Power Project,
2		Public Counsel sought information from the Company regarding the project in general
3		and its ultimate disposition. Company indicated that the project was cancelled due to
4		termination of the RFP process; however, on page seven of the Proposal Overview and
5		Executive Summary, page 7, provided in the Company's response to OPC Data Request
6		No. 1009, it states:
7		
8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28		Development success for combustion turbine base power-generating facilities in the current competitive market demands the speculative reservation of manufacturing slots with the major manufacturers of this type of equipment. Recognizing their powerful position, these manufacturers have demanded significant non-refundable reservation fees and price premiums for this equipment in addition to a major shift of manufacturing, deliver, and performance risks to the future Owners of this equipment. Aquila Inc. recognized the need to provide a speculative schedule of exclusive future deliveries of combustion turbines in order to support its capacity growth strategy. To this end, the three Siemens Westinghouse 501D5A ECONOPAC packaged electric generating units were reserved by executed Letter of Intent and the payment of the required reservation fee during the first quarter of 2000. Upon successful completion of a Power Sales Agreement, Aquila Inc. will assign these turbines to MEPPH and direct the delivery to Pleasant Hill Missouri for used in the development of the Aries II facility. (Emphasis added by OPC)
29 30	Q.	DOES A TIGHT MARKET NOW EXIST FOR THE COMBUSTION TURBINES?
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1	A .	Based on my review of combustion turbine current costs, it's my belief that the market for
2		combustion turbines has weaken since Aquila's non-regulated affiliate purchased the
3		combustion turbines it transferred to the Missouri regulated operation. This position is
4		further collaborated by the Market Offers 2 and 3 contained in Beck's appraisal
5		Company's response to OPC Data Request No. 1006, which provided documentation
6		supporting those offers, contains language in the Rolls Royce offer that states due to a
7		softening of the power market in March of 2002 the units were placed in storage. Also,
8		the SWPC offer adds that times have changed, market is down. (i.e., Offers 2 and 3,
9		respectively).
10		
11	Q.	IS THE PUBLIC COUNSEL AWARE OF ANY OTHER INFORMATION THAT
12		WOULD SUPPORT THE COMPANY DOCUMENTATION THAT THE MARKET
13		PRICE FOR THE SIEMENS W501D5A ECONOPAC HAS SOFTENED?
14	А	Yes. have personally reviewed an RFP response, for a peer Missouri utility, wherein
15		early 2004 the utility received a firm offer for a W501D5A Econopac for a price that was
16		significantly less than the price reported in the Gas Turbine World Handbook for the
17		previous year. The offer included equipment in storage which had been previously
18		purchased from Siemens Westinghouse, but had not been installed. In essence, if Aquila
19		had issued competitive bids for the combustion turbines, rather than relieve its
20		unregulated affiliate of the financial pressures associated with the affiliates stranded
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		equipment, it's possible that the three combustion turbines could have been purchased for
2		a price that was far below the value recommended in Beck's appraisal.
3		
4	Q.	ARE THERE ALSO PROBLEMS WITH THE COSTS BECK DETERMINED FOR
5		OFFERS 1, AND 3?
6	A.	Yes. Offer 1 was an August 7, 2002 response from the Aquila non-regulated affiliate
7		MEP to an RFP from Kansas City Power & Light Company ("KCPL") for combustion
8		turbines, transformers, breakers, etc. The cost at which the equipment was offered was
9		\$23 million per set of equipment according to the Company's responses to OPC DR No.
10		14 and MPSC Staff DR No. 5. KCPL did not accept the offer. Public Counsel sought to
1		discover why KCPL rejected the offer. In its response to OPC Data Request No. 1016,
12		Company stated:
13		
14		The KCPL Bid Letter was verbally solicited by KCPL as part of final
15		planning for the addition of peaking capacity to their system. This
16 17		opportunity was one of several turbine procurement choices being evaluated by KCPL resulting from an RFP issued in mid 2002. Aquila
18		was not on the original RFP mailing list but was allowed to submit the bid
19		proposal since Aquila had surplus equipment resulting from its
20		decision to exit the Merchant Energy businesses. Following the bid
20		submittal, Aquila had several follow-up meeting with KCPL in an attempt
22		to reach agreement. There was no formal written reply submitted by
23		KCPL and they subsequently terminated all procurement activity without a
24		commitment.
25		
26		(Emphasis added by OPC)
27		
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However, in its response to MPSC Staff Data Request No. 38 Company provided a letter, dated October 11, 2002, from Aquila to KCPL that stated the following: ** (Emphasis added by OPC) It's Public Counsel's understanding that KCPL may have been more interested in the other equipment (which had a similar operating capacity and a significantly lower offer cost) thus, the offer for the Siemens equipment was withdrawn, by Aquila's non-regulated operation, and cannot be considered to have been a reasonable offer for Beck's comparable market approach cost analysis. It was not a reasonable or realistic offer to use in the market approach cost analysis because it was neither accepted nor rejected by KCPL. The offer was merely pulled from the bid table by MEP approximately two months after it was issued. Even if it were considered to be an actual offer, based on the documents provided by Aquila, it did not appear to me that KCPL was interested in the Siemens equipment. It's quite possible that KCPL found the cost for the Siemens

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1		equipment to be too high or, at least, not a particularly good bargain when compared to
2		other offers. In any event, the Siemens equipment offer was withdrawn by MEP long
3		before Beck actually prepared its analysis thus, Beck should have been aware the offer
4		did not exist and was not a reasonable comparable.
5		
6	Q.	WHAT IS THE PROBLEM WITH OFFER 3?
7	А.	Beck's appraisal contains an adjustment in excess of \$2 million to Offer 3 for technical
8		field assistance ("TFA"); however, the documentation provided in the Company's
9		responses to OPC Data Request Nos. 14, 1006 and MPSC Staff DR No. 5 state that the
10		\$19 million per unit offer includes the TFA cost. On page 2 of the offer, it states:
11		
12 13		We would estimate the price when we get done, assuming you will want the same TFA etc, as the original contract at about \$19M.
14 15		
16		If the documentation is correct, Beck may be overvaluing the Offer 3 adjusted value by an
7		amount in excess of \$2 million.
18		
19	Q.	PLEASE SUMMARIZE THE PUBLIC COUNSEL'S POSITION ON THE
20	×.	CONCLUSIONS ARRIVED AT IN BECK'S APPRAISAL.
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A. I believe that the costs and conclusions arrived at in the R. W. Beck appraisal are neither accurate nor valid. Based on my review of the equipment's actual costs, the R. W. Beck appraisal, and other supporting documents, it is my belief that the cost at which Beck recommended the equipment transfer is excessive.

Beck's appraisal treats the valuing of the equipment under the market approach as a surrogate for the income approach, believing that a potential purchaser should pay the lesser of the cost approach or the income approach. If that is true, current market pricing information indicates that the value of the equipment under Beck's cost approach replacement cost method is <u>not</u> supported by the value of the equipment under its market approach. In fact, the values Beck determined under both the cost and market approaches are, for the most part, unreasonable, and unsupportable. The results for both methods culminate in excessive pricing of the equipment's cost when compared to actual market

Therefore, the Company's request that the Commission issue an order determining the transfer price of the equipment to be "reasonable" should not be done because the price at which the transfer occurred is in fact not "reasonable" at all. Since the value of the transfer price, which is what Beck's appraisal recommended, is not a reasonable amount at which to value the equipment a detriment to ratepayers would occur should the

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1		Commission make such a determination. As such, Public Counsel believes that a
2		determination of the equipment's value (along with the costs of the entire South Harper
3		plant investment) would be better left to the detailed audit processes, and investigation by
4		all interested intervening parties and stakeholders, in the Company's current general rate
5		increase case.
6		
7 8 9 10 11 12	V.	PERMISSION TO ENTER INTO A SALE AND LEASEBACK ARRANGEMENT WHEREBY LEGAL TITLE TO THE CT _S WILL BE CONVEYED TO PECULIAR TO OBTAIN FINANCING FOR THE INSTALLATION AND CONSTRUCTION OF THE ELECTRIC GENERATION STATION THROUGH THE ISSUANCE BY PECULIAR OF TAX-ADVANTAGED REVENUE BONDS UNDER THE ACT
12	Q.	DOES THE PUBLIC COUNSEL OPPOSE AQUILA'S PROPOSED
14		ARRANGMENTS FOR THE SALE AND LEASEBACK WITH THE CITY OF
15		PECULIAR OR ITS INVESTMENT FINANCING?
16	A .	As long as the Commission does not order or acquiesce to any valuation or
17		ratemaking assessment of the general or specific terms and conditions of the
18		sale/leaseback and financing arrangements Company proposes to enter into, the
19		Public Counsel will present no opposition to the issues in the instant case. In the
20		event that the Commission seeks to order or assign a valuation or ratemaking
21		action associated with the inherent costs identified in the general and specific
22		terms and conditions of the actions, the Public Counsel would oppose the actions
23		in their entirety. Our opposition would be based upon the fact that the actions
		73

		requested are inherently tied to the valuation of the equipment that was transferred
2		from Aquila's non-regulated affiliate to the Missouri regulated operation. Public
3		Counsel believes that the equipment's alleged value, as proposed by Company, is
4		excessive in that it is not representative of current market conditions and pricing
5		and was not valued via a competitive bid process.
6		
7	VI.	AUTHORIZATION TO CAUSE THE PROJECT ASSETS TO BE
8		PLEDGED AND CONVEYED TO A TRUSTEE UNDER AN INDENTURE
9		OF TRUST AS SECURITY FOR THE BENEFIT OF THE HOLDERS OF
10		THE REVENUE BONDS
11	Q.	DOES THE PUBLIC COUNSEL OPPOSE AQUILA'S PROPOSED
12		ARRANGMENTS FOR THE PLEDGING AND CONVEYANCE OF THE
13		ASSETS AS SECURITY FOR THE REVENUE BONDS?
14	А.	As long as the Commission does not order or acquiesce to any valuation or ratemaking
15		assessment of the general or specific terms and conditions of the pledge, indenture of trust
16		or the revenue bonds Company proposes to enter into, the Public Counsel will not oppose
17		the actions. In the event that the Commission seeks to order or assign a valuation or
18		ratemaking action associated with the inherent costs identified in the general and specific
19		terms and conditions of the actions, the Public Counsel would oppose the actions in their
20		entirety. Our opposition would be based upon the fact that the actions requested are
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1		inherently tied to the valuation of the equipment that was transferred from Aquila's non-
2		regulated affiliate to the Missouri regulated operation. Public Counsel believes that the
3		equipment's alleged value, as proposed by Company, is excessive in that it is not
4		representative of current market conditions and pricing, and was not valued via a
5		competitive bid process.
6		
7	VII.	OTHER REQUESTS CONTAINED WITHIN THE AQUILA APPLICATION.
8	Q.	WHAT CONCERNS DOES PUBLIC COUNSEL HAVE WITH THE OTHER
9		REQUESTS CONTAINED WITHIN AQUILA'S APPLICATION?
10	А.	As I described earlier, Aquila listed the following requests of the Commission in its
1		Application:
12		
13 14		A. Finding that the relief requested in this Application is not detrimental to the public interest;
14		deatheritat to the public interest,
16		B. Authorizing Aquila Networks-MPS to record on its regulated
17		books of account a transfer price of \$70,796,850 related to its
18		acquisition from AE of the CTs;
19		
20		C. Finding that the fair market value of the CTs is \$70,796,850;
21 22		D. Finding that the proposed transaction does not provide a financial
22 23		advantage to AE;
24		
25		E. Authorizing Aquila to sell and convey to Peculiar all real estate,
26		facilities equipment and installations necessary to install, construct,
27		control, manage, and maintain the Project;
28		
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1	F.	Authorizing Aquila to lease the Project from Peculiar and operate					
2 3		the Project;					
- 11	^	Analyze and the second at the second state of the second					
4 5	G.	Authorizing Aquila to cause the Project to be pledged to the					
6		Trustee under the terms of the Indenture as security for the holders					
7		of the Bonds;					
8	H.	Authorizing Aquila to onton into and nonforms in according to with					
9	п.	Authorizing Aquila to enter into and perform in accordance with the terms of the Agreement;					
10		the terms of the Agreement,					
11	I.	Authorizing Aquila to enter into and perform in accordance with					
12	L,	the terms of the Lease;					
13							
14	J.	Authorizing Aquila to enter into and perform in accordance with					
15	· · ·	the terms of the Indenture;					
16							
17	К.	Authorizing Aquila to enter into and perform in accordance with					
18		any and all other necessary agreements and instruments under the					
19		Act;					
20							
21	L.	Authorizing Aquila to do any and all other things incidental,					
22		necessary or appropriate to the performance of any and all acts					
23		specifically to be authorized in such order or orders; and					
24							
25		er, making such other orders as it may deem just and proper in the					
26	circun	nstances.					
27							
28							
29	Public Couns	el opposes items A through D because it is our belief, as described in the					
30	nrior testimo	prior testimony, that the \$70,796,850 transfer price is not a reasonable fair market value					
30	prior testimor	prior destinony, diar die \$70,790,000 dansier price is not a reasonable fair market value					
31	for the equipr	for the equipment, is indeed detrimental to the public interest and does in fact provide a					
32	financial adva	financial advantage to the non-regulated affiliate AEP. Public Counsel also opposes the					
		and G through I due to the fact that as written it annears that Company is					
33	requests in ite	ems G through L due to the fact that, as written, it appears that Company is					
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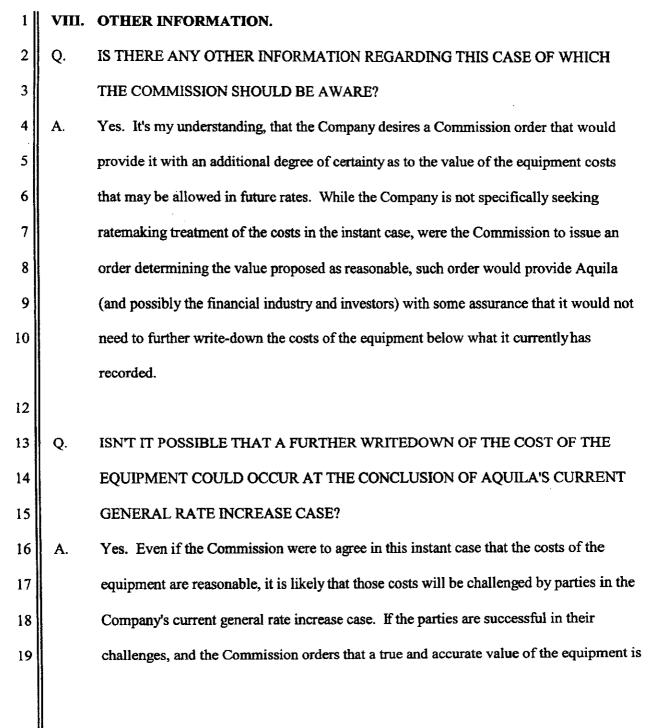
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1		requesting the Commission to provide an order that supports a future ratemaking
2		determination for its actions. Public Counsel recommends that the Commission not
3		validate Company's request for an order that allows "authorizing Aquila to cause the
4		Project to be pledged to the Trustee under the terms of the Indenture," "to enter into
5		and perform in accordance with" of any of the various agreements or financing
6		documents nor, "to do any and all other things incidental, necessary or appropriate
7		to the performance of any and all acts specifically to be authorized in such order or
8		orders." Each of these requests contains "carte blanche" language which attempts to gain
9		for the Company unwarranted support for ratemaking of the associated costs. Each of the
10		requests, A-D and G-L, are completely unwarranted and unsupported given that the filing
1		of the instant case actually consists of nothing more than a notification to the Commission
12		of an affiliated transaction that, I believe, does not meet the requirements of the Affiliate
13	2 2	Transactions Rule 4 CSR 240-20.015.
14		
15	Q.	DOES THE PUBLIC COUNSEL OPPOSE AQUILA'S REQUESTS IN ITEMS E AND
16		F?
17	А.	No. Public Counsel has no opposition to the Company entering into the arrangements to

sell and lease the plant provided the associated ratemaking impact of the costs is not determined or ordered in the instant case.

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actually less than that proposed in the instant case, it is probable that Aquila will have to make another entry in its financial records to further write-down the costs booked. In essence, Aquila's desire for a determination of the equipment costs in this case does not actually prevent a further write-down, but should the Commission provide Aquila with the determination it seeks it would provide the Company with an inappropriate advantage in the general rate increase case. The advantage provided to Company would be that the burden of proof for the equipment's value would transfer to parties other than Aquila and its non-regulated affiliate since the Commission would have already determined the alleged costs reasonable.

Q. DOES THE COMMISSION HAVE TO MAKE ANY DETERMINATION OF THE VALUE OF THE EQUIPMENT IN THIS CASE?

A. No. It is the Public Counsel's position that the Commission should not prejudice the parties in the current general rate increase case by making a determination that the fair market value of the equipment, as alleged by Aquila, is reasonable. It is not. In fact, quite the opposite is true in that the transfer price, as determined in Beck's appraisal, has significant flaws and cannot be relied on to provide what is a "reasonable" transfer price.

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1	Q.	IS IT EXPECTED THAT THE VALUE OF THE EQUIPMENT ALONG WITH THE
2		REST OF THE SOUTH HARPER CONSTRUCTION COSTS WILL BE REVIEWED
3		AND DETERMINED IN AQUILA'S CURRENT ELECTRIC GENERAL RATE
4		INCREASE CASE?
5	А.	Yes, and it is the Public Counsel's belief that the current general rate increase case is the
6		appropriate arena in which to determine the value of those costs.
7		
8	Q.	PLEASE SUMMARIZE THE PUBLIC COUNSEL'S POSITION ON THE ACTIONS
9		SOUGHT BY THE COMPANY'S APPLICATION?
10	А.	Public Counsel has reviewed the Company's support for the Application, along with
11		additional independent documents and sources, in order to provide a rationale unbiased
12	-	examination of the actions Company seeks. It is my belief that the Commission is not
13		required to, nor should it, agree to or make any determination in this case, of the value of
14		the equipment transferred from the unregulated affiliate to the Missouri regulated utility.
15		Neither should the Commission issue an order containing language that would provide
16		the Company with any unwarranted support for ratemaking of the associated costs of the
17		equipment at issue, or the South Harper plant investment and its financing. It is the
18		Public Counsel's belief that a determination of the equipment's cost, and its associated
19		financing, should be made in conjunction with Aquila's current rate increase case.

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1	However, should the Commission decide that a determination of the equipment costs
2	(including associated plant investment and financing costs) is to be made in the instant
3	case, I belief that the costs identified in the 2003 GTW Handbook are a more reasonable
4	estimate of the actual costs that the regulated utility would have incurred for the
5	combustion turbines had it issued RFPs for the equipment to be put into service in 2005.
6	Public Counsel believes the GTW published prices are a more accurate source for the
7	equipment costs than the R. W. Beck appraisal given that the appraisal contains
8	inaccurate costs and conclusions. Furthermore, it is my belief, based on the market
9	pricing I have reviewed, that had the Company actually issued competitive bids for the
10	equipment it is possible that the prices it would have paid may have been significantly
11	less than the GTW Handbook published prices. Thus, I believe, that the GTW published
12	prices are a more moderate position that benefits both the shareholder and the ratepayer.

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DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY? Q.

Yes, it does. Α.

CASE PARTICIPATION OF **TED ROBERTSON**

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Company Name	Case No.
Missouri Public Service Company	GR-90-198
United Telephone Company of Missouri	TR-90-273
Choctaw Telephone Company	TR-91-86
Missouri Cities Water Company	WR-91-172
United Cities Gas Company	GR-91-249
St. Louis County Water Company	WR-91-361
Missouri Cities Water Company	WR-92-207
Imperial Utility Corporation	SR-92-290
Expanded Calling Scopes	TO-92-306
United Cities Gas Company	GR-93-47
Missouri Public Service Company	GR-93-172
Southwestern Bell Telephone Company	TO-93-192
Missouri-American Water Company	WR-93-212
Southwestern Bell Telephone Company	TC-93-224
Imperial Utility Corporation	SR-94-16
St. Joseph Light & Power Company	ER-94-163
Raytown Water Company	WR-94-211
	WR-94-211 WR-94-297
Capital City Water Company	
Raytown Water Company	WR-94-300
St. Louis County Water Company	WR-95-145
United Cities Gas Company	GR-95-160
Missouri-American Water Company	WR-95-205
Laclede Gas Company	GR-96-193
Imperial Utility Corporation	SC-96-427
Missouri Gas Energy	GR-96-285
Union Electric Company	EO-96-14
Union Electric Company	EM-96-149
Missouri-American Water Company	WR-97-237
St. Louis County Water Company	WR-97-382
Union Electric Company	GR-97-393
Missouri Gas Energy	GR-98-140
Laclede Gas Company	GR-98-374
United Water Missouri Inc.	WR-99-326
Laclede Gas Company	GR-99-315
Missouri Gas Energy	GO-99-258
Missouri-American Water Company	WM-2000-222
Atmos Energy Corporation	WM-2000-312
UtiliCorp/St. Joseph Merger	EM-2000-292
UtiliCorp/Empire Merger	EM-2000-369
Union Electric Company	GR-2000-512
St. Louis County Water Company	WR-2000-844
Missouri Gas Energy	GR-2001-292
UtiliCorp United, Inc.	ER-2001-672
Union Electric Company	EC-2002-1
Empire District Electric Company	ER-2002-424
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Schedule TJR-1.1

CASE PARTICIPATION OF TED ROBERTSON

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Company Name

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Missouri Gas Energy Aquila Inc. Aquila Inc. Empire District Electric Company Aquila Inc. GM-2003-0238 EF-2003-0465

Case No.

ER-2004-0034 ER-2004-0570 EO-2005-0156

Schedule TJR-1.2

Aquila CT Appraisal - Pricing Summary

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

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	Original Cost	Replacement Cost	Aquila offer to sell to KCPL	Rolls Royce offer to sell to Aquila	SWPC offer to sell grey unit to Aquila	Penn Energy internet offer 1	Penn Energy internet offer 2	Utility Warehouse internet offer
ст .								
qty Cost	3 \$76,137,869	1 \$24,500,000	3 \$69,000,000	2 \$43.000.000	1 \$19.000.000	1 \$26,000,000	1 \$33.000.000	1 \$15,000,000
Adjustments							,	
Option Payment CO No. 1 (Exhaust Stäcks) CO No. 1 (Other)	(\$3,712,500)	(\$1,849,200)		(\$1,849,200)	(\$1,849,200)	(\$1,849,200)	(\$1,849,200)	
Warranty Guarantees	(\$2,240,000)	(\$2,240,000)	(\$2,240,000)		(\$2,240,000)			
Prod Mods Rehabiliation	(\$300,000) (\$600,000)							
TFA Mult Unit Purchase		(\$1,000,000)		\$2,350,000	\$2,350,000			\$2,350,000
Change to DLN Transportation Internal Labor	(#20.200)			\$5,000,000 \$1,200,000	\$5,000,000 \$1,200,000	\$1,200,000	\$1,200,000	\$5,000,000 \$1,200,000
Total Adjustments	(\$39,399) (\$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	\$77,350,800	\$98,350,800	\$53,550,000
* adjusted for three units				••••		••••	0-0,000,000	400,000,000
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								
Storage	(\$15,500)			(\$15,500)				
Retesting Additional Retainage	(\$28,305) (\$1,045)			(\$28.305) (\$1,045)			(\$28,305) (\$1,045)	(\$28,305) (\$1,045)
Transformer Subtotal	\$1,641,300	\$1,641,300		\$1,641,300	\$1,641,300	<u>(\$1,045)</u> \$1,641,300	<u>(\$1,045)</u> \$1,641,300	\$1,641,300
	41,041,000	41/041/000		a1,041,000	41,041,000	4 1,041,000	41,041,000	41,041,000
Breakers								
qty	3	-	l .	3				
Cost	\$765,570	\$765,570		\$765,570	\$765,570	\$765,570	\$765,570	\$785,570
Adjustments Bond								(*** 500)
Storage	(\$7,500) (\$13,320)			(\$7,500) (\$13,320)				
Breakers Subtotal	\$744.750	\$744,750	└──┼╍───	\$744,750	\$744,750	\$744,750	\$744,750	\$744,750
		4 1-1-1,100		4 1 -------------	e r - 4, r o e	41 44,700	•••••	•••••
Procurement								
Cost	\$126,644	\$126,644		\$126,644	\$126,644	\$126,644	\$126,644	\$126,644
Adjustment								
B&M Services Procurement Subtotal	(\$126.644)			(\$126,644)			<u>(\$126,644)</u> \$0	<u>(\$126,844)</u> \$0
\$2,578,364	\$0	\$0		\$0	\$0	\$0	20	30
Transformers & Breakers Subtolal	\$2,386,050	\$2,386,050		\$2,386,050	\$2,388,050	\$2,386,050	\$2,386,050	\$2,386,050
Totai	\$71,632,020	\$70,796,850	\$66,760,000	\$73,586,850	\$63,846,850	\$79,736,850	\$100,736,850	\$55,936,050
	3 units	3 units	3 units	3 units	3 unita	3 units	3 units	3 units
	w/o warranty	w/o warranty	w/o warranty	w/o warranty	w/o warranty	w/o warranty	w/o warranty	w/o warranty w/o prod mods
	w/o prod mode w/o rehab	s w/ prod mods w/rehab	w/o prod mods w/o rehab	w/o rehab	w/o prod mods w/o rehab	w/o prod mods w/o rehab	w/o rehab	w/o rehab
	w/o stacks	w/o stacks	w/o stacks	w/o stacks	w/o stacks	w/o stacks	w/o stacks	w/o stacks
	w/ TFA	w/ TFA	w/ TFA	w/ TFA	w/ TFA	w/ TFA	w/ TFA	w/ TFA
	w/ DLN	w/ DLN	w/ DLN	w/ DLN	w/ DLN	w/ DLN	w/ DLN	w/ DLN
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Schedule TJR-2 Partial response to OPC DR No. 14 and MPSC Staff DR No. 5

Robertson, Ted

From: equipment@ogjexchange.com [gip@ogjexchange.com]

Sent: Monday, February 07, 2005 10:19 AM

To: ted.robertson@ded.mo.gov

Subject: RE: Global Equipment Exchange Product Request

\$15 million each.

ł

----Original Message----From: ted.robertson@ded.mo.gov [mailto:ted.robertson@ded.mo.gov] Sent: Friday, February 04, 2005 4:30 PM To: equipment@ogjexchange.com Subject: Global Equipment Exchange Product Request

Auction Item Name: 130MW Siemens Westinghouse (Mitsubishi) 501 D5A GTG Auction Item Number: 12551 ISO Rating: 130 Request Info: What's current ballpark price?

First Name: Ted Last Name: Robertson Phone: Fax: Address: ted.robertson@ded.mo.gov City:

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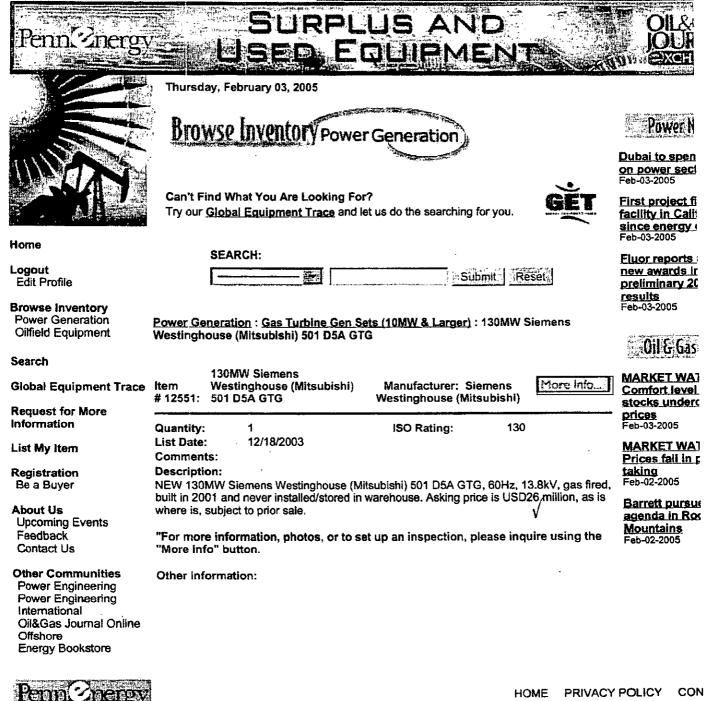
PennWell Corporation c/o Email Unsubscribe 1421 South Sheridan Road Tuisa, Oklahoma 74112 USA

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Schedule TJR-3.1 Includes partial response to OPC DR No. 14 and MPSC Staff DR No. 5

2/7/2005

For sale - gas turbines, line pipe, diesel generators, pumping units



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Schedule TJR-3.2 Includes partial response to OPC DR No. 14 and MPSC Staff DR No. 5

Robertson, Ted

From: equipment@ogjexchange.com [glp@ogjexchange.com]

Sent: Thursday, February 03, 2005 3:01 PM

To: ted.robertson@ded.mo.gov

Cc: Paul Westervelt; rwilliamson@thomassenamcot.com

Subject: RE: Global Equipment Exchange Product Request

Ted,

Thanks for your inquiry. There are two units available. Estimated pricing is \$15 million each, as is where is, subject to prior, sale. Let us know if interested and we can discuss this further.

Regards, Randy Hall PennEnergy 713-499-6330

> -----Original Message-----From: ted.robertson@ded.mo.gov [mailto:ted.robertson@ded.mo.gov] Sent: Thursday, February 03, 2005 2:26 PM To: equipment@ogjexchange.com Subject: Global Equipment Exchange Product Request

Auction Item Name: 120MW Siemens Westinghouse 501 D5A GTG Auction Item Number: 12540 ISO Rating: 120 Request Info: Ballpark pricing info.

First Name: Ted Last Name: Robertson Phone: Fax: Address: ted.robertson@ded.mo.gov City:

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Schedule TJR-3.3 Includes partial response to OPC DR No. 14 and MPSC

Staff DR No. 5

For sale - gas turbines, line pipe, diesel generators, pumping units

mer Thursday, February 03, 2005 Power Browse Inventory Power Generatio Dubai to spen on power sec1 Feb-03-2005 Can't Find What You Are Looking For? First project fi Try our Global Equipment Trace and let us do the searching for you. facility in Cali since energy (Feb-03-2005 Home SEARCH: Fluor reports Logout new awards ir Submit Reset Edit Profile preliminary 20 results Feb-03-2005 **Browse Inventory Power Generation** Power Generation : Gas Turbine Gen Sets (10MW & Larger) : 120MW Siemens **Oilfield Equipment** Westinghouse 501 D5A GTG Uil & bas Search 120MW Siemens Manufacturer: Siemens Item MARKET WAT More-Info. **Global Equipment Trace** # 12540: Westinghouse 501 D5A GTG Westinghouse Comfort level stocks underc **Request for More** prices Feb-03-2005 120 Quantity: 1 **ISO Rating:** Information List Date: 12/18/2003 Comments: MARKET WA1 List My Item Prices fall in r **Description:** taking Feb-02-2005 Registration New, 120MW Siemens Westinghouse 501 D5A GTG, 60Hz, gas fuel, with NOx control (25ppm), includes enclosure for thermal and sound for outdoor installation. Price USD33 Be a Buyer million, as is where is, subject to prior sale. Generator rated at MVA 139MW at 33C, Barrett pursue About Us 13.8kV. Additional information upon request. agenda in Roc Upcoming Events Mountains Feedback "For more information, photos, or to set up an inspection, please inquire using the Feb-02-2005 Contact Us "More Info" button. **Other Communities** Other Information: Power Engineering Power Engineering International Oil&Gas Journal Online Offshore Energy Bookstore

RennChergy

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Schedule TJR-3.4 Includes partial response to OPC DR No. 14 and MPSC Staff DR No. 5

Robertson, Ted

From: Sent: To: Subject: Milt Fyre [milt@rmaglobal.com] Friday, February 04, 2005 11:47 AM 'Robertson, Ted' RE: Ballpark Number

Ted, the price is \$22 m. We are working with another party looking for the same equipment. They are project participants.

BR

-----Original Message-----From: Robertson, Ted [mailto:ted.robertson@ded.mo.gov] Sent: Thursday, February 03, 2005 2:25 PM To: 'milt@easystreet.com' Subject: RE: Ballpark Number

For the W501D5A

Ted Robertson

-----Original Message-----From: Milt Fyre [mailto:milt@easystreet.com] Sent: Thursday, February 03, 2005 3:33 PM To: 'Robertson, Ted' Subject: RE: Ballpark Number

What site?

Milt Fyre Resource Management Associates, Inc. utilitywarehouse (http://www.utilitywarehouse.com) powerplantsonline.com (http://www.powerplantsonline.com) Ph 503-239-5157 Fax 503-239-5136 Cell 503-351-9898 mailto:milt@rmaglobal.com

-----Original Message-----From: Robertson, Ted [mailto:ted.robertson@ded.mo.gov] Sent: Thursday, February 03, 2005 11:50 AM To: 'sales@rmaglobal.com' Subject: Ballpark Number

Site says extremely low price. What's the ballpark number?

Thanks,

Ted Robertson

Schedule TJR-3.5 Includes partial response to OPC DR No. 14 and MPSC Staff DR No. 5

Click Here to Return to POWER PLANT INDEX 120 MW Siemens Westinghouse 501D5A Gas Turbine Generator For Sale Extremely Low Price!!!!!!! Contact Milt Fyre for more details. Phone: 503-239-5157 Fax: 503-239-5136 Email: milt@rmaglobal.com Siemens Westinghouse 120 MW 501D5A Gas Turbine Generator. 60 Hz., dual fuel, 10,500 BTU heat rate, water injection NOx control (25 ppm NOx), available immediately. No additional switchgear. Enclosure: thermal & sound for outdoor installation. 2050 HP Electric Motor Starter Motor Natural Gas Water injection NOx Control FUEL - NATURAL GAS. Limit for oil and particulate carry over in gaseous fuels is 99.95% removal of dust or droplets at 10 microns or larger. Fuel supply temperature range: Natural Gas 50 F. to 80 F. LUBE OIL & CONTROL SYSTEM AC Motor Driven Main Pump 100% Power source Fin Fan CapacityCoolers Filters Duplex Loading Rate

Type of start	Cold	Warm	Hot
Time required to reach synchronous speed	12	12	12
Time Required to Synchronize (min)	0.5	0.5	0.5
Time Required to attain rated load (min)	7.5	7.5	7.5

LUBE OIL RESERVOIR, COOLERS AND VAPOR EXTRACTORS

Capacity of Reservoir	5545
Total Number of Oil Coolers/Total Required at Rated Load	1
Tube Material and Type	C.S./Finned
Total Amount of Lubricating Oil in System Gal	4220

Oil Vapor Extraction

Number	2
Total Power, kW	7.5

Lube Oil Pumps

Oil Pump:	2 x 100% AC Motor/1 x 100% DC Motor
Horsepower each:	2 @ 100 HP/1 @ 10 HP

Schedule TJR-3.6 Includes partial response to OPC DR No. 14 and MPSC Staff DR No. 5 **Turning Gear**

Motor Horsepower	10
Speed, rpm	3

GENERATOR DATA

Rated MVA 139 MW at 33C Rated Terminal Voltage 13.8 kV

Rated Power Factor at the Generator Terminals 0.90 lagging - 0.95

Rated Active Power at generator terminals must be continuously available over a GTG speed range of 100-103%

Rated Active Power at generator terminals will de-crease in proportion with speed over a GTG speed range of 100-95%

Rated Active Power at generator terminals shall not be affected by voltage changes over the operating range +/- 5%

Reactive Power output under steady state conditions should be fully available at all relevant voltage levels within +/-5%

Type of unit	synchronous
Speed, rmp	3,600
Field Current (rated MVA, kV and PF) amp	1453
Field Voltage (rated MVA, kV and PF) volts	198.5

Required Discharge Resistor to give a maximum DC component of negative field voltage 4.0 times the value at rated load (if the field cannot tolerate this voltage, so state)

Short Circuit Ratio (minimum):		· 0.60	at rated output
Three-Phase Capacitance to Ground	(mfd) M	Micro Fd/phase:	0.197

EXCITER DATA

Rated 350 kW(output of rectifiers) 3 phase diode rectifiers 250 VDC AC field circuit breakers Ceiling voltage (DC) 1.43 P.U. Exciter response ratio (minimum) 0.5 Permanent magnet generator (PMG) 3.5 kVA PMG rated voltage 120 V PMG rated frequency 480 Hz. Type of generator voltage regulator MGR (analog), both manual and automatic control Maximum allowable temperature/temperature rise Armature winding 130 C Field winding 130 C

Exciter Coolers

STARTING CAPACITY

Electric motor, self-synchronous, duo-concentric clutch, 2050HP, 4,000V, Power Factor 85.

> Schedule TJR-3.7 Includes partial response to OPC DR No. 14 and MPSC Staff DR No. 5

PROTECTION SYSTEM INSTRUMENTS AND TRIP FUNCTIONS

Alarms:

When any of the following conditions exists an alarm is generated:

Manual emergency trip Manual stop turbine and generator high bearing metal temperatures Turbine and generator high vibration Flame out Inlet air filter high differential pressure Fuel supply pressure low Lube oil level low Lube oil high temperature Lube oil low temperature DC lube oil pump running DC lube oil pump overload High lube oil filter differential pressure Turbine over speed Loss of turning gear Loss of governor control power Fire extinguishing system actuated Fire extinguishing system disarmed Governor control system failure Igniter trip (Failure to fire) Generator stator high temperature Generator air filter differential Generator rotor ground Exciter field over current Voltage regulator power supply failure Regulator on minimum excitation limit Regulator over excitation Regulator loss of control power Regulator operating on backup AVR Minimum excitation trip

> Schedule TJR-3.8 Includes partial response to OPC DR No. 14 and MPSC Staff DR No. 5

AUTO UNLOAD

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When any of the following conditions exists an alarm is generated and GTG load is decreased until the condition resets itself.

Three or more blade thermocouples have failed The GTG frequency is high with the generator breaker closed Generator stator temperature high Compressor inlet pressure low Blade path differential greater than 60 F Blade path spread greater than 110 F Blade path variance high Blade path spread high or failure for more than 12 hours Disc cavity temperature high Rotor air cooling air temperature high Rotor cooling air thermocouple trouble

> Schedule TJR-3.9 Includes partial response to OPC DR No. 14 and MPSC Staff DR No. 5

TRIP

When a trip condition occurs, an alarm is generated with the trip condition being retained and all other conditions are prevented from alarming. Therefore, the trip condition which causes the trip is identified to the operator (first out). Any trip condition is cleared by the operator initiating a trip reset. The following conditions constitute a trip condition:

Gas over fuel at ignition High GTG vibration Trip initiated by the operator in the control room Trip initiated by the operator in the GT electrical skid Trip initiated by the operator in the PS&G cabinet Bleed valves are not in the requested position GTG is accelerating too slowly. A fire is detected An auto unload condition exists prior to reaching synch speed Critical monitoring of inputs indicate not good quality The master trip relay de-energizes GTG fails to reach 225 rpm with the starting device engaged within a minute GTG fails to reach ignition within 2 minutes after reaching 225 rpm and spent hold not selected GTG fails to ignite. GTG fails to reach 1600 rpm within 150 seconds GTG over-speed GTG under-speed GTG load exceeds maximum MW set point The operator initiates a trip from the CRT graphics Lube oil pressure low Lube oil reservoir level low Blade path spread high A load dump fault does not self-reset with 10 seconds of a load rejection Generator differential Generator ground Negative phase sequence Loss of field V/Hz trip Excite field over-current Voltage regulator power supply failure Regulator over-excitation Minimum excitation trip BOP trip

ELECTRICAL OUTPUT GUARANTEE:

Seller guarantees that the Adjusted Electrical output of the CT Unit (the "Adjusted Electrical Output-CT") shall be greater than 119,845kW (Net of CT-Unit Auxiliary loads) when operated on the specified natural gas fuel and at the Basis Conditions.

HEAT RATE GUARANTEE:

The hear rate shall not be more than 10,504 BUT/kWh (LHV) when operated on the specified natural gas fuel at Basis Condition.

Schedule TJR-3.10 Includes partial response to OPC DR No. 14 and MPSC Staff DR No. 5

BASE CONDITIONS

1

Fuel natural gas Load base Ambient Temperature 90 F Barometric Pressure 14.696 PSIA Ambient Relative Humidity 60% Fuel LHV@77F Fuel Temperature Water Fuel Ratio 21,086 BTU/LB 50 F less than or equal to 1.5/1.0 Generator Power Factor 9/.95 Frequency 60Hz.

> Schedule TJR-3.11 Includes partial response to OPC DR No. 14 and MPSC Staff DR No. 5

Contact Milt Fyre for more details. Phone: 503-239-5157 Fax: 503-239-5136 Email: milt@rmaglobal.com

Main Entrance

1

Email: sales@rmaglobal.com Phone: (503) 239-5157 Fax: (503) 239-5136 Copyright 1995-2003: RMA Inc.

Schedule TJR-3.12 Includes partial response to OPC DR No. 14 and MPSC Staff DR No. 5

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Robertson, Ted

From: equipment@ogjexchange.com [glp@ogjexchange.com]

Sent: Monday, February 07, 2005 10:18 AM

To: ted.robertson@ded.mo.gov

Cc: Paul Westerveit

Subject: RE: Global Equipment Exchange Product Request

Ted,

Estimated pricing is \$15 million each.

Regards, Randy Hall PennEnergy 713-499-6330

> -----Original Message-----From: ted.robertson@ded.mo.gov [mailto:ted.robertson@ded.mo.gov] Sent: Friday, February 04, 2005 4:11 PM To: equipment@ogjexchange.com Subject: Global Equipment Exchange Product Request

Auction Item Name: 92.6MW Westinghouse (Fiat) 501 D5 GTG Auction Item Number: 12547 ISO Rating: 92.6 Request Info: Current ballpark pricing per unit.

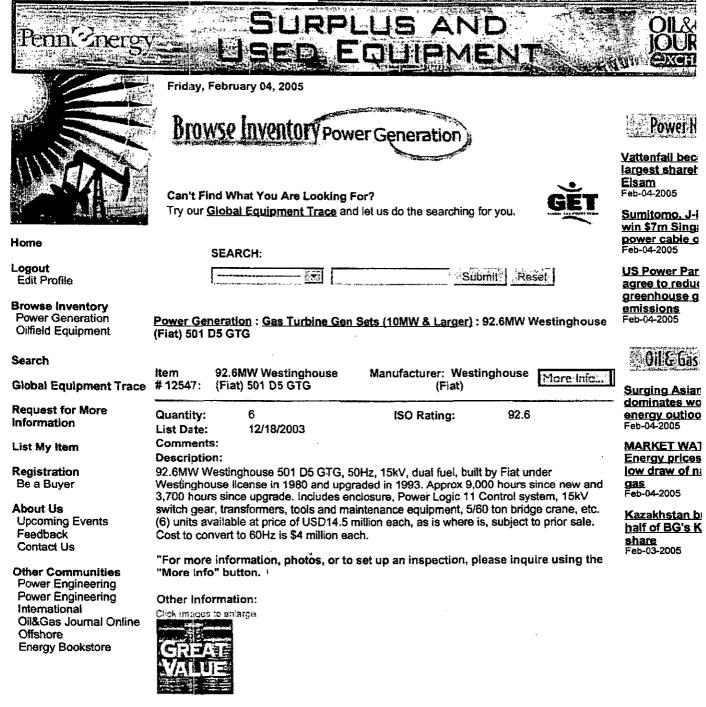
First Name: Ted Last Name: Robertson Phone: Fax: Address: ted.robertson@ded.mo.gov City:

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For sale - gas turbines, line pipe, diesel generators, pumping units





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Robertson, Ted

From: equipment@ogjexchange.com [glp@ogjexchange.com]

Sent: Thursday, February 03, 2005 2:30 PM

To: ted.robertson@ded.mo.gov

Cc: Paul Westervelt

Subject: RE: Global Equipment Exchange Product Request

Ted,

Thank you for your inquiry. Current pricing is around \$13 million USD each, as is where is, subject to prior sale.

Regards, Randy Hall PennEnergy 713-499-6330

> -----Original Message-----From: ted.robertson@ded.mo.gov [mailto:ted.robertson@ded.mo.gov] Sent: Thursday, February 03, 2005 2:28 PM To: equipment@ogjexchange.com Subject: Global Equipment Exchange Product Request

Auction Item Name: MHI M501F Gas Turbine Generator (GTG) Auction Item Number: 35102 ISO Rating: 156 Request Info: Ballpark pricing info.

First Name: Ted Last Name: Robertson Phone: Fax: Address: ted.robertson@ded.mo.gov City:

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For sale - gas turbines, line pipe, diesel generators, pumping units

Thursday, February 03, 2005 inventor Power Generation Dubai to spen on power seci Feb-03-2005 Can't Find What You Are Looking For? First project fi Try our Global Equipment Trace and let us do the searching for you. facility in Cali since energy (Feb-03-2005 Home SEARCH: Fluor reports Logout new awards ir 120 Submit Reset Edit Profile preliminary 20 <u>results</u> Feb-03-2005 **Browse Inventory Power Generation** Power Generation : Gas Turbine Gen Sets (10MW & Larger) : MHI M501F Gas **Oilfield Equipment Turbine Generator (GTG)** Oil & Gas Search Item MHI M501F Gas Turbine Generator More Info. MARKET WAT **Global Equipment Trace** # 35102: (GTG) Manufacturer: MH Comfort level stocks underc **Request** for More prices Feb-03-2005 Quantity: 3 **ISO Rating:** 156 Information List Date: 03/16/2004 Comments: List My Item MARKET WAT **Description:** Prices fall in r Registration taking Three (3) GTG Manufacturer: MHI Gas Turbine Model: M501F Generator: 218.733 MVA Feb-02-2005 Be a Buyer Air Cooled (TEWAC) 0.9 PF, 18 kV, 60 Hz Generator Manufacturer: MELCO Auxiliary Systems: Inlet Air System with Evaporative Cooler Exhaust System Lube Oil System Barrett pursue About Us Control Oil System Rotor Turning Equipment Starting Motor Heat Exchangers (Lube Oil agenda in Roc **Upcoming Events** Cooler, Turbine Rotor Air/Fuel Gas Heater) Fire Protection System (CO2) Fuel Gas Mountains Feedback Control System Compressor Water Wash System Gas Turbine Control and Electrical Feb-02-2005 Contact Us Systems GTG and Auxiliaries Enclosures with Ventilation **Other Communities** "For more information, photos, or to set up an inspection, please inquire using the Power Engineering "More Info" button. **Power Engineering** International Other Information: Oil&Gas Journal Online Click images to enlarge Offshore **Energy Bookstore**



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Schedule TJR-4.4

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Vol. 23

For Project Planning, Design, Construction, Operation

2003 GTW Handbook

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> North America James E. Janson, VP

Pricing Trends	
Section 1 Section	Simple Cycle Genset Prices
	Combined Cycle Prices
	Mechanical Drive Prices
Design Change	
Section 2	Engineering and Technology
	New Production Models
	Service Model Uprates
*	Retired Production Models
Design Perfor	mance
Section 3	Standardized Rating Factors
	Simple Cycle Performance Specs
	Combined Cycle Performance Specs
	Mechanical Drive Performance Specs
	Marine Propulsion Performance Specs
Reference Pro	ljøcts
Section 4	Gas Turbine Orders and Installations
	Engineering Procurement Construction
	Heat Recovery Steam Generators
	Turbine Inlet Cooling Systems
Products Serv	vices
Section 5	Company Directory of Suppliers
	Balance of Plant Equipment
	Construction Plant Design
	Operation Maintenance Support
	Overhaul Rebuild Replacement
Editorial Abst	racts
	Gas Turbine World 2002 issues
	Gas Turbine World 2001 Issues
Cover Photo	Bagian Bay power station in South Wales powered by

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Equipment-only for a skid-mounted single fuel gas turbine, electric gen Schedule TJR-5.1

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Genset	Base Load	Host Rate	Efficiency	Plant Price	Per kW
°G6111FA		9760.Btu	35.0%	\$ 18,600,000	
G7121EA		10,420 Btu	32.8%	\$ 16,600,000	
3T11N2		10,050 Btu	33.9%	\$ 19,700,000	\$ 169
N501D5A		9840 Btu	34.7%	\$ 19,900,000	
·09171E		÷ 10,100 Btu	··· 33.8%	\$ 20,400,000	
1701DA		9810 Btu	34.8%	\$ 22,400,000	\$ 155
/94.2		9950 Btu	34.4%	\$ 24,700,00 0	\$ 155
3T13E2	165,100 kW	9560 Btu	35.7%	\$ 27,400,000	
G9231EC		9770 Btu	34.9%	\$ 27,100,000	\$ 160
G7241FA	171,700 kW	9420 Btu	36.2%	\$ 31,250,000	\$ 182
∃T24		9098 Btu	37.5%	\$ 27,700,000	
/84.3A		8980 Btu	38.0%	\$ 30,700,000	\$ 170
G7251FB		9215 Btu	37.0%	\$ 33,900,000	\$ 184
/501F	185,400 kW	9230 Btu	37.0%	\$ 29,250,000	
N501F		9190 Btu	37.1%	\$ 31,150,000	\$ 167
N501FD		9190 Btu	37.1%	\$ 31,650,000	\$ 167
/94.2A	190,700 kW	9660 Btu	35.3%	\$ 30,200,000	\$ 158
•G9311FA		9360 Btu	36.4%	\$ 38,880,000	\$ 160
N501G		8760 Btu	38.5%	\$ 40,300,000	\$ 159
-G9351FA		9250 Btu	36.9%	\$ 40,900,000	\$ 160
3726		8930 Btu	38.2%	\$ 38,800,000	
4501G		8730 Btu	38.5%	\$ 41,450,000	\$ 157
/94.3A		8840 Btu	38.6%	\$ 42,300,000	\$ 159
·G9371FB		9040 Btu	37.7%	\$ 45,700,000	
W701F		8930 Btu	38.2%	\$ 43,200,000	\$ 160
vi701G		8820 Btu	38.7%	\$ 44,720,000	\$ 165
1701G2		8630 Btu	39.5%	\$ 55,700,000	\$ 167

20 2003 GTW Handbook

Schedule TJR-5.2