Exhibit No.: Issues: Turbine Valuation Witness: Nancy Heller Hughes Sponsoring Party: Aquila Networks-MPS And L&P Case No.: ER-2005-0436

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Before the Public Service Commission of the State of Missouri

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Surrebuttal Testimony

of

Nancy Heller Hughes

Exhibit No. Case No(s). $\underline{\xi}$ Case No(s). 36

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3		BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI
4		SUBBERUTTAL TESTIMONV OF
5		NANCY HELLER HUGHES
6		ON BEHALF OF AQUILA, INC.
7		D/B/A AQUILA NETWORKS-MPS AND AQUILA NETWORKS-L&P
8		CASE NO. EK-2005-0450
9	Q.	PLEASE STATE YOUR NAME, OCCUPATION, AND BUSINESS ADDRESS.
10	А.	My name is Nancy Heller Hughes. I am a Senior Director in the Seattle office of
11		R. W. Beck, Inc. My business address is 1001 Fourth Avenue, Suite 2500,
12		Seattle, Washington 98154-1004.
13		
14	Q.	PLEASE OUTLINE YOUR EDUCATIONAL BACKGROUND.
15	· A.	I graduated from the University of Chicago with a Bachelor's Degree in Business
. 16	•	and Statistics in 1977. I received a Master's Degree in Business Administration
17		at the University of Chicago in 1978.
18		
19	Q.	PLEASE SUMMARIZE YOUR PROFESSIONAL EXPERIENCE.
20	A .	I have worked in the utility industry since 1977 specializing in utility rates and
21		regulation, depreciation, and valuation, and have testified on these issues before
22		state regulatory commissions, the Federal Energy Regulatory Commission
23		("FERC") and courts of law. From 1977 to 1982, I worked for Ernst and
24		Whinney (now Ernst & Young) as a member of the firm's utility consulting
25		group. In 1982, I joined the consulting and engineering firm of R. W. Beck where
26		I am still employed. Since 1988, a substantial part of my work has involved
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appraisals and valuations. I have performed appraisal studies to determine the value of a wide range of utility property including electric, water, wastewater, natural gas, pipeline, telecommunications and solid waste property. These studies have been performed in connection with the sale and acquisition of property, eminent domain cases, property tax issues, and utility rate cases. A record of my testimony experience is provided in Schedule NHH-1.

Q. ARE YOU A MEMBER OF ANY PROFESSIONAL SOCIETIES?

A. Yes. I am an Accredited Senior Appraiser ("ASA"), in the Public Utility Discipline, by the American Society of Appraisers. I am also a member of the Society of Depreciation Professionals.

Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?

A. I am testifying on behalf of Aquila, Inc. d/b/a/ Aquila Networks-MPS and Aquila
 Networks-L&P ("Aquila").

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A. The purpose of my testimony is to support the appraisal performed by R. W. Beck of three Siemens Westinghouse Power Corporation ("SWPC") 501D5A Combustion Turbines and Auxiliaries (the "Assets") that is referred to in the surrebuttal testimony of Dennis R. Williams. The Assets were originally purchased by MEP Investments, LLC (MEP), a subsidiary of Aquila Merchant Services (AMS), which is a subsidiary of Aquila. The Assets were transferred to Aquila's regulated subsidiary, Aquila Networks-MPS, in November 2004.

1	Q.	IS A COPY OF THE R. W. BECK APPRAISAL REPORT ATTACHED TO
2		YOUR TESTIMONY?
3	А.	Yes. A copy of the R. W. Beck, Inc., report "Limited Appraisal of Three SWPC
4		501 D5A Combustion Turbines and Auxiliaries," prepared for Aquila, Inc.,
5		November 22, 2004 is attached as Schedule NHH-2.
6		
7	Q.	PLEASE DESCRIBE THE R. W. BECK APPRAISAL.
8	А.	At the request of Aquila, R. W. Beck performed a limited appraisal to determine
9		the estimated fair market value of the Assets. The date of valuation used in the
10		appraisal was November 2004, the date that the transfer of Assets took place from
11		Aquila's unregulated subsidiary to its regulated subsidiary.
12		
13	Q.	DID YOU PARTICIPATE IN THE APPRAISAL?
14	А.	Yes, I did. I was the Accredited Senior Appraiser on the project and reviewed the
15		work that was performed.
16		
17	Q.	WAS THE R. W. BECK APPRAISAL PERFORMED IN COMPLIANCE WITH
18		THE UNIFORM STANDARDS OF PROFESSIONAL APPRAISAL PRACTICE
19		("USPAP")?
20	A .	Yes, our appraisal was performed in accordance with USPAP. Since only the
21		Cost Approach and Market Approach methods to valuation were performed, the
22		appraisal was a limited, restricted use appraisal as defined by USPAP. As
23		discussed in our appraisal report, the Income Approach was not used because the
24		combustion turbine units were not yet installed and could be moved to almost any
25		location making it difficult to project revenues given the variation in electricity
26		prices throughout the United States.

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1	Q.	PLEASE SUMMARIZE THE RESULTS OF THE R. W. BECK APPRAISAL.					
2	A.	Based on the results of the analyses performed and described in our appraisal					
3		report, we are of the opinion that the fair market value of the Assets at November					
4) 	2004 is equal to \$70,796,850.					
5							
6	Q.	DOES THIS CONCLUDE YOUR TESTIMONY?					
7	А.	Yes, it does.					
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Record of Testimony Submitted by Nancy Heller Hughes

	Utility	Proceeding	Subject of Testimony	Before	Client	Date
1.	Chugach Electric Association, Inc.	Docket No. U-04-102	Depreciation	Regulatory Commission of Alaska	Homer Electric Association	5/05
2.	Alyeska Pipeline Company (Trans-Alaska Pipeline System)	OAH No. 05-0307-TAX	Property Tax Value	Alaska State Assessment Review Board	North Slope Borough, Fairbanks North Star Borough, City of Valdez	5/05
3.	Qwest Corporation	Docket Nos. T-01051B-03- 0454 and T-00000D-00- 0672	Reproduction Cost New Less Depreciation Study	Arizona Corporation Commission	Qwest Corporation	5/04, 12/04
4.	AEP Texas Central Company	PUC Docket No. 28840	Depreciation	The Public Utility Commission of Texas	Cities served by AEP Texas Central Company	2/04
5.	Chugach Electric Association, Inc.	Docket No. U-01-108	Depreciation	Regulatory Commission of Alaska	Homer Electric Association, Inc.	7/02
б.	Connecticut Light & Power Company and Yankee Gas Services Company	Docket No. (X07) CV-95- 0072561-S	Property Tax Value	Superior Court of the State of Connecticut, Judicial District of Tolland	City of Meriden, Connecticut	1/01
7.	Pennsylvania Power & Light, Inc.		Fair Market Value of Two Power Blocks	Arbitration Panel	Access Leasing Corp. and Cypress Leasing Corp.	1/99
8.	U S WEST Communica- tions, Inc.	Docket No. T-1051B-99- 105	Reproduction Cost New Less Depreciation Study	Arizona Corporation Commission	U S WEST Communications, Inc.	1/99, 6/00
9.	Chugach Electric Association, Inc.	Docket No. U-97-107	Depreciation	Alaska Public Utilities Commission	Alaska Electric Generation & Transmission Cooperative	11/97

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R. W. Beck

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Record of Testimony Submitted by Nancy Heller Hughes

	_	Utility	Utility Proceeding Subject of Testimon		Before	Client	Date	
	10.	Municipal Electric Authority of Georgia	Docket No. 7967-U	Authority to Provide Telecommunications Services	Public Service Commission State of Georgia	Municipal Electric Association of Georgia	1 1/97	
	11.	Southern California Edison	Case No. BC 093 146	Condemnation of Electric Distribution Plant	Superior Court of the State of California, County of Los Angeles	City of Azusa, California	2/95	
	12.	Waste Management of Arkansas, Inc.	Case No. 93-0234	Landfill Condemnation	Circuit Court of Pulaski County, Arkansas	Arkansas State Highway Department	8/94	
	13.	Chugach Electric Association	Docket No. U-93-15	Depreciation	Alaska Public Utilities Commission	Homer Electric Assn., Matanuska Electric Assn., and Alaska Electric Generation & Transmission Cooperative	8/93	
	14.	U S WEST Communications, Inc.	Docket No. T-1051-93-183	Reproduction Cost New Less Depreciation Study	Arizona Corporation Commission	U S WEST Communications, Inc.	7/93	
	15.	Jess Ranch Water Company	Application 92-01-034	Certificate of Public Convenience and Necessity	California Public Utilities Commission	Town of Apple Valley, California	4/ 9 3	
	16.	Washington Natural Gas Company	Docket No. UG-920840	Revenue Attrition	Washington Utilities and Transportation Commission	Commission Staff	4/93	
	17.	Pacific Gas and Electric Company	Case No. 213069	Street Light Condemnation	Superior Court of the State of California, County of Kern	City of Bakersfield, California	3/92	
	18.	Pacific Gas and Electric Company	Case No. 393325-6	Street Light Condemnation	Superior Court of the State of Calífornia, County of Fresno	City of Fresno, California	9/91	
Sched	19 <i>.</i>	Georgia Power Company	Docket No. 4007-U	Depreciation, Decommissioning, Cost Allocation and Rate Design	Georgia Public Service Commission	U.S. Department of Defense	8/91	
ule NHH- Page 2 of 1	20,	El Paso Electric Company	Docket No. 9945	Cost Allocation and Rate Design	Public Utilities Commission of Texas	U.S. Department of Defense	5/91	
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R. W. Beck

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Record of Testimony Submitted by Nancy Heller Hughes

	Utility	Proceeding	Subject of Testimony	Before	Client	Date
21.	U S WEST Communications, Inc.	Docket No. T-1051-91-004	Reproduction Cost New Less Depreciation Study	Arizona Corporation Commission	U S WEST Communications, Inc.	1/91
22.	System Energy Resources, Inc.	Docket No. ER89-678	Decommissioning	Federal Energy Regulatory Commission	City of New Orleans	11/90 1/91
23,	Alascom, Inc.	Docket No. U-87-25	Cost Allocation and Rate Design	Alaska Public Utilities Commission	U.S. Department of Defense	11/88
24.	United Cities Gas Company	Docket No. 3799-U	Rate of Return and Capital Structure, Rate Design	Georgia Public Service Commission	U.S. Department of Defense	10/88
25.	Louisiana Power & Light Company	Docket No. CD-86-11	Depreciation	City Council of New Orleans	City Council of New Orleans	12/87 3/88
26.	Duke Power Company	First Proceeding in Arbitration	Depreciation, Purchased Capacity Rate	Mecklenberg County, North Carolina	North Carolina Municipal Power Agency No. 1, et al.	11/87 2/88
27.	Sierra Pacific Power Company	Docket No. 86-557	Depreciation	Public Service Commission of Nevada	Commission Staff	3/87
28.	System Energy Resources, Inc.	Docket No. ER82-616-030	Depreciation	Federal Energy Regulatory Commission	City Council of New Orleans	3/87
29.	El Paso Electric Company	Docket No. ER86-368	Depreciation	Federal Energy Regulatory Commission	Imperial Irrigation District	8/86
30.	Washington Natural Gas Company	Cause No. U-84-60	Revenue Attrition	Washington Utilities and Transportation Commission	Commission Staff	12/84
31.	Anchorage Telephone Utility	Docket No. U-80-42	Access Charge Cost of Service and Rate Design	Alaska Public Utilities Commission	Municipality of Anchorage	3/81

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R. W. Beck

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Limited Appraisal of Three SWPC 501 D5A Combustion Turbines and Auxiliaries

Prepared For Aquila, Inc.

November 22, 2004



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Aquila, Inc.

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Section 6 APPRAISAL CERTIFICATION

This report has been prepared for the use of the client for the specific purposes identified in the report. The conclusions, observations and recommendations contained herein attributed to R. W. Beck, Inc. (R. W. Beck) constitute the opinions of R. W. Beck. To the extent that statements, information and opinions provided by the client or others have been used in the preparation of this report, R. W. Beck has relied upon the same to be accurate, and for which no assurances are intended and no representations or warranties are made. R. W. Beck makes no certification and gives no assurances except as explicitly set forth in this report.

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Section 1 PREMISE OF THE STUDY

1.1 Purpose and Intended Use

R. W. Beck, Inc. (Beck) was retained by Aquila, Inc. (Aquila) to perform a limited appraisal study on three Siemens Westinghouse Power Corporation (SWPC) 501D5A combustion turbines and auxiliary equipment (the Assets) that were originally purchased by MEP Investments, LLC (MEP), a subsidiary of Aquila Merchant Services (AMS), which is a subsidiary of Aquila. The title to the Assets has been (in the case of the combustion turbine equipment), or will be assigned and transferred to Aquila Equipment, LLC (AEQ). MEP, AMS and AEQ are unregulated subsidiaries of Aquila. It is our understanding that Aquila plans to transfer the Assets to Aquila's regulated subsidiaries and build a new power plant near Peculiar, Missouri. Aquila estimates that the new power plant utilizing the Assets will become commercially available sometime during the summer of 2005.

This appraisal is confidential and proprietary information of Aquila and may be used by Aquila as part of the filing necessary before the Missouri Public Service Commission (MPSC) regarding the value of the Assets. The MPSC has set forth specific rulings regarding transfer of assets between affiliated companies. As specified in the scope of services agreed to between the Aquila and Beck, this appraisal was prepared using only the Cost Approach and the Market Approach. As such, this appraisal is a limited, restricted use appraisal as defined by the Uniform Standards of Professional Appraisal Practice (USPAP). The conclusions contained in this report are based solely on the information, data and assumptions discussed and described herein.

In undertaking the studies and analyses required to provide an opinion with respect to the value of the Assets, we have relied on generally accepted valuation methods and procedures. This limited, restricted use appraisal report has been prepared in accordance with USPAP.

1.2 Date of Valuation

The value of the Assets is estimated as of November 2004 using the Cost Approach and the Market Approach methods of valuation.



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1.3 Definition of Value

In undertaking the studies and analyses required to provide an opinion with respect to the value of the Assets, we have relied on generally accepted valuation methods and procedures in accordance with USPAP. The definition of market value used in this Report is set forth in USPAP as follows:

Market value is the most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

- 1. Buyer and seller are typically motivated,
- 2. Both parties are well informed or well advised, and acting in what they consider their best interests,
- 3. A reasonable time is allowed for exposure in the open market,
- 4. Payment is made in terms of cash in United States dollars or in terms of financial arrangements comparable thereto, and
- 5. The price represents the normal consideration for the property sold unaffected by special or creative financing of sales concessions granted by anyone associated with the sale.¹

1.4 Property Interest Appraised

The property interest being valued is the fee simple ownership rights of the Assets with no restrictions, indebtedness or other encumbrances. A description of the Assets can be found in Section 3 of this report.

1.5 Highest and Best Use

Highest and best use is defined as the reasonably probable and legal use of the property being appraised "that is physically possible, appropriately supported, financially feasible, and results in the highest value."² In our opinion, the highest and best use of the Assets is their projected use: to produce electrical power and energy.

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¹ Uniform Standards of Professional Appraisal Practice (USPAP), Glossary.

² Ibid.

1.6 Scope of Work

At the request of Aquila, Beck performed a limited appraisal to determine the estimated market value of the Assets. In undertaking the studies and analyses required to provide an opinion with respect to the market value of Assets, we have relied on generally accepted valuation methods and procedures in accordance with USPAP. In performing the limited appraisal, Beck considered only the Cost Approach and the Market Approach to valuation. The results of our indicators of value developed are described in Section 4 of this report.

As will be discussed in Section 4 of this report, although we did not use the Income Approach in the valuation of the Assets, we believe that the Income Approach would not provide meaningful figures in developing the value of the Assets. Therefore, the Income Approach was considered, however no analyses regarding the Income Approach were performed.

1.7 Research Undertaken

Our opinions set forth, herein, are based on information provided to us by Aquila, other information generally available to us, and studies and analyses undertaken by us, all of which are basic to and in support of our opinion regarding the market value of the Assets. The studies and analyses undertaken in preparation of the opinions contained herein have been performed in accordance with standard engineering practices and USPAP as promulgated by the Appraisal Standards Board of the Appraisal Foundation. These studies and analyses included a site visit to the Assets and investigations and review of certain documents relating to the Assets.

1.8 R. W. Beck, Inc.

Beck is an independent firm of engineers and consultants providing professional services in the fields of operation, planning, organization, financial analyses, engineering design, construction management and other matters related to electric, water, gas, wastewater and solid waste utilities. The firm has extensive experience in the utility industry including valuation and appraisal of utility and industrial property. Beck has main offices in Austin, Texas; Boston, Massachusetts; Columbus, Nebraska; Denver, Colorado; Houston, Texas; Indianapolis, Indiana; Madison, Wisconsin; Minneapolis, Minnesota; Nashville, Tennessee; Orlando, Florida; Phoenix, Arizona; Sacramento, California; San Diego California; Seattle, Washington; and Tampa, Florida. Beck also has twelve satellite offices located throughout the United States.

Since it was founded in 1942, Beck has been involved in property valuation. Beck has provided appraisal reports for a variety of utility property. With a staff having significant experience in providing services related to appraisals of electric, water, natural gas, solid waste and telecommunications systems and in the design,

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R. W. Beck 1-3

Schedule NHH-2 Page 8 of 30 construction and operation of these systems, Beck is well qualified to prepare appraisal reports.

Specifically, the appraisers and other personnel working on this assignment have the knowledge and experience to complete the assignment competently. A list of individuals contributing to the limited appraisal report and a summary of their qualifications and experience are provided in Exhibit 1 to this report.

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Section 2 ASSUMPTIONS AND LIMITING CONDITIONS

In the preparation of this limited, restricted use appraisal report and the opinions that follow, we have made certain assumptions with respect to conditions that may occur in the future. In addition, we have used and relied upon certain information and assumptions provided to us by sources that we believe to be reliable. We believe the use of such information and assumptions is reasonable for the purposes of this report. However, some assumptions will invariably not materialize as stated herein or may vary significantly due to unanticipated events and circumstances. Therefore, the actual results can be expected to vary from those forecasted to the extent that actual future conditions differ from those assumed by us or provided to us by others.

The conclusions and opinions found in this report are made expressly subject to the following conditions and stipulations:

- No responsibility is assumed by Beck for matters that are legal in nature, nor do we render any opinion as to the title, which is assumed to be good and marketable. No opinion is intended to be expressed for matters that would require specialized investigation or knowledge beyond that normally used by an appraiser engaged in valuing the type of assets described in this report.
- We made no determination as to the validity, enforceability, or interpretation of any law, contract, rule, or regulation applicable to the Assets and their proposed operation. However, for the purposes of this report, we assumed that all such laws, contracts, rules, and regulations will be fully enforceable in accordance with their terms as we understand them and that the operators of the Assets will operate the Assets in accordance with all applicable laws, contracts, rules, and regulations.
- All existing liens and encumbrances have been disregarded and the value of the Assets was appraised as though free and clear and under responsible ownership.
- Beck personnel conducted field reviews of the Assets on November 3, 2004. A description of the field review is provided in Section 3. We have assumed that there are no hidden or unapparent conditions that would make the Assets more or less valuable.
- We assume the Assets will be operated in a reasonable and prudent manner consistent with industry practices.
- We assume that the Assets will be placed into commercial operation and operated in compliance with all federal, state, and local environmental laws and regulations at the date of valuation.

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- Substances such as asbestos, chemicals, toxic wastes, or other potentially hazardous materials could, if present, adversely affect the value of the Assets. Unless otherwise stated in this report, we did not consider the existence of hazardous substance, which may or may not be present in or on the Assets. The stated value estimates are predicated on the assumption that there is no material in or on the Assets that would cause such a loss in value and as such are likely to represent the highest reasonable value of the Assets.
- For the purpose of performing the valuation, we assumed that a typical purchaser of the Assets would be able to operate the Assets in accordance with contractual terms and conditions of the existing contracts, and that the agreements, rights, and easements would be assigned to a typical purchaser.
- No one outside Beck has provided significant assistance in the preparation of this report. Individuals affiliated with Beck and contributing to this report are Neal D. Suess, P.E., Senior Appraiser; Nancy Heller Hughes, Accredited Senior Appraiser; Rob Brune, Technical Assistant. A description of the qualifications and experience of the individuals contributing to the appraisal report is provided in Exhibit 1.
- The studies and analyses undertaken in the preparation of the opinions contained herein have been performed in accordance with standard engineering practices and USPAP.

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Section 3 DESCRIPTION OF THE ASSETS

3.1 Background

As discussed earlier, the Assets were originally procured for Aquila's unregulated business and are now being contemplated for use by Aquila's regulated entities. The Assets, as defined herein, include three 501D5A combustion turbines with generators and auxiliaries, three generator step-up (GSU) transformers, three auxiliary transformers, and three generator breakers. MEP originally procured the combustion turbines, generators, and auxiliaries in 2001 directly from SWPC. The GSU transformers and auxiliary transformers were procured in early 2002 by Burns & McDonnell (B&M) for MEP from HICO America, Inc. (HICO). The generator breakers were also procured by B&M for MEP in early 2002 from Alstom T&D Inc. (Alstom). The combustion turbines, generators and auxiliaries were received in the fourth quarter of 2002 and placed directly in storage at two locations in the greater Kansas City area. The transformers and generator breakers were received in August 2004 and September 2004, respectively, and also placed directly in storage. The Assets remain in storage and are currently being preserved and maintained by Aquila personnel. The equipment is described in more detail below along with the preservation and maintenance recommendations of the manufacturers, the maintenance records, and the condition of the equipment as observed by Beck as of November 3, 2004.

3.2 Description of the Assets

3.2.1 Combustion Turbines, Generators, and Auxiliaries

Beck has reviewed the Equipment Supply Agreement between MEP and SWPC, dated September 2001 and Change Order 001 to the Contract, dated September 26, 2001 (collectively, the "ESA"), which describes the terms and conditions of the purchase of three 501D5A combustion turbine Econopacs. The ESA scope of supply includes the following equipment for each of three combustion turbine units unless specified otherwise below.

- Combustion turbine with DLN combustors for firing natural gas
- Combustion turbine enclosure
- Inlet filter house with silencers



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- Inlet evaporative cooler
- Exhaust expansion joint
- Exhaust stack (deleted in CO No. 1 and not included in this appraisal)
- Fuel gas skid
- Starting package
- Fire protection skid
- Mechanical Package, including lubricating oil equipment
- Rotor air cooler
- Control oil skid
- Water wash skid
- Pipe Rack and Piping
- Open air cooled generator rotor and stator assembly for 60 Hz 13.8 kV service
- Generator Enclosure
- Electrical package, including switchgear, motor control centers, uninterruptible power supply system, and TXP control system (excluding on unit control station)
- Erection manuals, commissioning manuals, operating and maintenance manuals, and drawings.
- Transportation of the equipment to the project site in the greater Kansas City, Missouri area.

The equipment was purchased with Technical Field Assistance included for construction and commissioning (approximately 160 man weeks), training services, warranty, performance guarantees, and emissions guarantees. However, it is our understanding that the warranty is no longer valid. Additionally, SWPC has issued several minor production modifications to the 501D5A model combustion turbines since the subject assets were purchased, which have not yet been incorporated into the Assets as they currently exist.

3.2.2 Transformers

Beck has reviewed the Purchase Order between B&M and HICO, dated February 6, 2002 and Change Orders 1, 2, and 3 (collectively, the "HICO PO"), which describes the terms and conditions of the purchase of three GSU transformers and three auxiliary transformers. The HICO PO scope of supply includes the following equipment.

 Three 13.8 to 161 kV GSU transformers rated at 78/104/130 MVA, including all special tools, and initial fill of oil.

- Three 4.16 to 13.8 kV auxiliary transformers rated at 5000 kVA, including all special tools, and initial fill of oil.
- Erection manuals, commissioning manuals, operating and maintenance manuals, and drawings.
- Transportation of the equipment to the project site in the greater Kansas City, Missouri area.

Additionally, the equipment was purchased with a warranty for one year after the equipment is placed in service.

3.2.3 Generator Breakers

Beck has reviewed the Purchase Order between B&M and Alstom, dated February 7, 2002 and Change Order 1 (collectively, the "Alstom PO"), which describes the terms and conditions of the purchase of three generator breakers. The Alstom PO scope of supply includes the following equipment.

- Three 13.8 kV, 63 A, 60 Hz generator breakers, including all special tools, and a performance bond.
- Erection manuals, commissioning manuals, operating and maintenance manuals, and drawings.

Additionally, the equipment was purchased with a warranty for one year after the equipment is placed in service.

3.3 Condition of the Assets

3.3.1 Combustion Turbines, Generators, and Auxiliaries

The combustion turbines and generators are being stored at the Ralph Green Plant site, in Pleasant Hill, Missouri, in temporary enclosures without climate control. The combustion turbines are wrapped as shipped and dehumidifiers have been installed to minimize storage impacts. The generators are also wrapped as shipped in hermetically sealed packaging and in shipping crates. The combustion turbine and generator auxiliaries, including enclosures, skids, piping, coolers, and auxiliaries are being stored at the Richards Gebaur Air Force base in Kansas City, Missouri, in two warehouses without climate control. Aquila has coordinated with SWPC since delivery of the equipment and has arranged for preservation and maintenance of the combustion turbines, generators, and auxiliaries to be performed by Aquila personnel in accordance with the recommendations of the manual titled, "Storage and Preservation Manual for Econopac Systems," SWPC Document No. SPM-2000, Revision 5. Pursuant to SWPC recommendations, temporary power has been installed to energize space heaters on motors and climate control equipment on the electrical

Schedule NHH-2 Page 14 of 30 packages. Other storage and preservation techniques have been employed, including the use of humidity monitoring, rotation of equipment, and the like. Storage and preservation records are in good order and Aquila has indicated that the records are being submitted to SWPC on a frequent and regular basis.

3.3.2 Transformers

The transformers are being stored at the Ralph Green Plant site, in Pleasant Hill, Missouri. The cores have been placed on concrete pads and are being maintained in an outside, open air environment. The GSU auxiliary equipment and the auxiliary transformers are also being stored in an outside, open air environment, but are in the original shipping crates, which have been wrapped in plastic. The transformers are not assembled and were not filled with oil at the time of our observation. However, Aquila has indicated that vacuum oil filling of all transformers in situ, in order to preserve the manufacturers' warranty, was initiated on November 16, 2004 under supervision of factory service. Aquila has coordinated with HICO since delivery of the equipment and has arranged for preservation and maintenance of the transformers to be performed by Aquila personnel in accordance with the recommendations of the manual titled, "Instruction & Maintenance Manual," HICO Spec No. HSM-6155. Pursuant to HICO recommendations, temporary power has been installed to energize space heaters and inert gas and dessicant are been utilized for humidity control. Storage and preservation records are in good order and Aquila has indicated that the records are being submitted to HICO on a frequent and regular basis.

3.3.3 Generator Breakers

The generator breakers are being stored at the Richards Gebaur Air Force base in Kansas City, Missouri, in one of the two warehouses along with combustion turbine auxiliaries. The generator breakers remain in original shipping crates. Aquila has coordinated with Alstom since delivery of the equipment and has arranged for preservation and maintenance of the generator breakers to be performed by Aquila personnel in accordance with the recommendations of the manual titled, "Instruction Manual," Alstom Document No. S22-001EN/03. Pursuant to Alstom recommendations, the use of inert gas and dessicant are being used for humidity control. Storage and preservation records are in good order.

3.3.4 Conclusions on Condition of the Assets

Based on our observation all equipment and materials discussed in Section 3.2 have been received, have not been damaged, and are in storage as described herein. Based on our review of the storage and preservation manuals, the related records provided to us for our review by Aquila, and our observations, it appears that the equipment has been stored and preserved in accordance with the manufacturer's recommendations and the equipment is in good condition. However, due to the storage duration it is

Schedule NHH-2 Page 15 of 30 likely that some rehabilitation of the equipment, such as replacement of seals and gaskets, will be necessary prior to placing the equipment in service.

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Section 4 FAIR MARKET VALUE ANALYSES

4.1 Introduction

There are three generally accepted valuation approaches that can be used to estimate the value of property: the Cost Approach, the Income Approach and the Market Approach. The Cost Approach analyzes various cost methods, such as the Original Cost Method, the Reproduction Cost Method and the Replacement Cost Method. For the purposes of valuing the Assets, the Replacement Cost Method, which is an estimate of the cost of new assets similar to the existing Assets and the Original Cost Method, which is the original cost of the Assets, best represent the methods of determining value under the Cost Approach. The Income Approach values the property by determining the present worth of prospective net earnings using a discounted cash flow analysis. The Market Approach assesses value based on recent fair market sales of similar assets under similar circumstances.

We believe that all applicable approaches to valuation should be considered. However, our scope of work with Aquila was limited to performing only the Cost Approach and the Market Approach. Although this is considered a limited appraisal, since only the Cost Approach and the Market Approach methods to valuation were performed, we believe that these two approaches, especially in this case, are the most appropriate method for valuing the Assets. For example, the Income Approach would be difficult to use for valuation of the Assets since the Assets could be moved to almost any location to maximize the revenue potential of the Assets given the variety in electricity prices throughout the United States.

In valuing the Assets for this limited appraisal, the Assets are considered to be three individual units, each considered a single, fully integrated system, of which each of the major components is interrelated in terms of structure, design, and function. None of the individual components are designed for, or intended for use in, commercial operation independent of the other components during normal operation of the Assets. In the event certain major components are independently operated, the operating efficiency, reliability, and intended purpose of the Assets would decline.



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4.2 Cost Approach

4.2.1 Original Cost

The Original Cost Method for the Assets involves determining the original cost of the Assets. This method includes adjusting the book value for any physical depreciation associated with the Assets due to wear and tear, for the value lost relating to such issues as warranty expiration, and for certain costs specific to the Assets which currently carry no inherent value, such as storage costs. Based on information provided by Aquila, the book value of the Assets is described in Table 4-1.

Table 4-1 Book Value of the Aquila Assets

ltem	Book Value		
Combustion Turbines	\$76,137,869		
Transformers & Breakers	\$2,578,364		
Book Value	\$78,716,233		

Based on documents provided by Aquila, the book value of the combustion turbines (excluding the transformers and generator breakers) is \$76,137,869. The book value has been adjusted for option payments made to retain manufacturing slots, lost value associated with the expiration of the warranty, costs associated with the incorporation of production modifications released by SWPC since the equipment was purchased, the costs associated with rehabilitation of the Assets necessary prior to the equipment being ready for operation, which is required due to the duration the Assets have been in storage, and internal labor costs associated with the equipment purchase and storage. The adjustment values were developed based upon documents provided by Aquila, discussions with SWPC, and our experience with similar costs. These deductions represent the depreciation of the Assets from their original costs.

Based on documents provided by Aquila, the book value of the transformers and generator breakers is \$2,578,364. The book value has been adjusted for costs associated with manufacturer's performance bonds, storage, additional factory testing, and procurement services. The adjustment values were developed based upon documents provided by Aquila and discussions with SWPC. These deductions represent the depreciation of the Assets from their original costs.

Table 4-2 provides the value of the Assets using the Original Cost Method.

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Under the Original Cost Method				
ltem	Original Cost			
Combustion Turbines				
Book Value	\$76,137,869			
Adjustments				
Option Payment	(\$3,712,500)			
Warranty	(\$2,240,000)			
Production Modifications	(\$300,000)			
Rehabilitation	(\$600,000)			
Internal Labor	<u>(\$39,399)</u>			
Combustion Turbines Subtotal	\$69,245,970			
Transformers & Breakers				
Book Value	\$2,578,364			
Adjustments				
Performance Bond	(\$7,500)			
Storage	(\$28,820)			
Re-test	(\$28,305)			
Procurement Services	(\$126,644)			
Additional Retainage	(\$1,045)			
Transformers & Breakers Subtotal	\$2,386,050			
Value – Original Cost Method	\$71,632,020			

Table 4-2 Value of the Aquila Assets Under the Original Cost Method

4.2.2 Replacement Cost

The Replacement Cost Method generally involves determining the estimated current cost of similar assets that could be manufactured and purchased under present market conditions to produce an equivalent net functionality to that of the Assets being valued. This method indicates the cost of building comparable equipment at present market prices. In addition, since the manufacturers still produce the Assets, the technical features of the Assets should be comparable to similar Assets being contemplated in today's market for the same basic use.

Since the replacement cost is recognized to be a test of the reasonableness of actual expenditure rather than a repetition of the actual expenditure, our estimated replacement cost represents an expected cost of a "generic" unit for the Assets. The generic unit utilizes current technology that will meet all the present requirements for environmental protection and can produce essentially the same output as the Assets. We believe that this is a reasonable assumption. A typical purchaser would not be willing to buy the Assets at a cost inclusive of any additional costs associated with the existing Assets if the market may offer similar facilities without the costs based on a

specific design. Our cost estimation follows professional valuation procedures. Asset costs are defined based on considerations of physical characteristics and other criteria such as materiality, identifiability, and process function. Cost estimates of labor and materials pertaining to individual property units are developed from construction specifications and other contracts and accounting information. Properties are also priced using recognized cost estimating manuals, direct quotes, or our judgment when no other price information is available.

We have had discussions with SWPC regarding current costs associated with the 501D5A technology combustion turbines. Based upon these discussions we have determined that the cost to purchase a new combustion turbine in today's market would be \$24,500,000. This would include all existing production modifications that have been issued since the Assets were purchased. It would also include a warranty and all guarantees associated with a new unit. This pricing also includes exhaust stacks for the combustion turbines, which are not included on the Assets.

In order to produce a replacement cost that would be comparable to the original cost, adjustments would need to be included to remove the costs/value of the warranty and the exhaust stack. In addition, since the Assets include three (3) combustion turbines, there may be a price reduction for a multi-unit purchase of combustion turbines as compared to purchasing a single combustion turbine package.

We have adjusted the replacement cost estimate to take into account the reduction in replacement cost for the value of the warranty, the value of the exhaust stacks and the reduced costs associated with the purchase of multiple units from the manufacturer. These values were developed based upon discussions with SWPC and other combustion turbine manufacturers.

The transformers and generator breakers were recently delivered and were observed to be in good condition. Therefore, similar costs, and adjustments, used for the transformer and generator breakers included in the Original Cost Method valuation above have been utilized for the Replacement Cost Method.

Table 4-3 provides the value of the Assets using the Replacement Cost Method.

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Under the Replacement Cost method			
ltem	Replacement Cost		
Combustion Turbines			
Replacement Cost	\$73,500,000		
Adjustments			
Warranty	(\$2,240,000)		
Exhaust Stacks	(\$1,849,200)		
Multi-Unit Purchase	<u>(\$1,000,000)</u>		
Combustion Turbines Subtotal	\$68,410,800		
Transformers & Breakers \$2,386,0			
Value - Replacement Cost Method	\$70,796,850		

Table 4-3 Value of the Aquila Assets Under the Replacement Cost Method

4.3 Income Approach

The Earnings Stream Method under the Income Approach involves a determination of an estimated value, which based upon an assumed level of revenues and expenses, would result in a typical purchaser receiving a return on its investment of an assumed amount, if that typical purchaser paid the estimated value.

As stated previously, since the Assets are not installed, performing an analysis under the Income Approach is not reasonable for developing the value of the Assets. The Assets could technically be moved to different locations that would produce a variety of revenue levels, depending upon the current forecast of market prices for a particular location. This could produce any number of results under the Earnings Stream Method of valuation. It would be reasonable to assume that if a third-party were looking to purchase the Assets, they would move these turbines to maximize the level of revenue from the operation of the Assets, thereby increasing their value.

For the above reasons, we have not performed an analysis under the Income Approach for the valuation of the Assets.

4.4 Market Approach

The Comparable Sales Method under the Market Approach involves a review of recent sales and offers of similar facilities between a willing buyer and a willing seller, who are unrelated, as an indication of the general market price for such facilities.

In reviewing sales of combustion turbines to determine if a sufficient basis exists for comparison to the Assets, consideration must be given to factors related to the particular units being sold and the circumstances related to the sale which may have an

Schedule NHH-2 Page 21 of 30 effect on the sales price of such facility. For instance the relationship between the purchasing and selling parties and other transactions between such parties at essentially the same time as the sale may affect the sales price. Also, technical features of the equipment being sold, such as the location, competing facilities, resource needs of other utilities in the area and the potential output of the equipment will affect the value.

The Comparable Sales Method is primarily applicable to property which is readily substitutable and where a number of similar type properties have recently been traded. A number of factors must be weighed when making comparisons to facilities for the purpose of the Market Approach. These include but are not limited to the following:

- The capacity and size of the facility/equipment being reviewed.
- Location and potential limitations associated with the equipment at that particular location.
- Age and remaining life of the equipment.
- Prior uses of the equipment.
- Variety of technical features associated with the equipment being reviewed.

We have found or are aware of six different offers to sell equipment similar (i.e., 501D5A equipment) to the Assets. (One of the offers was for the Assets being valued). In order to produce a comparable sales method analysis that would be comparable to the figures developed in the Cost Approach, adjustments need to be included for the costs/value of the warranty, the value of technical field assistance, the value of the exhaust stack, the value of modifications to make the comparable facilities dry, low NO_x burners, and the costs associated with transportation to the current location of the Assets.

We have adjusted the market prices to take into account the above referenced items. These adjustments were developed based upon discussions with SWPC and other combustion turbine manufacturers.

The offers that were reviewed are as follows:

- Offer 1 was an offer from Aquila to Kansas City Power and Light Company for the Assets. The price included transportation and the transformers and breakers.
- Offer 2 was an offer from Rolls Royce to Aquila for two combustion turbines. The price was adjusted to reflect three combustion turbines and other adjustments as noted.
- Offer 3 was an offer of a single combustion turbine from a private party through SWPC. The price was adjusted to reflect three combustion turbines and other adjustments as noted.

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- Offer 4 was an Internet offer for a single combustion turbine. The price was adjusted to reflect three combustion turbines and other adjustments as noted.
- Offer 5 was an Internet offer for a single combustion turbine. The price was adjusted to reflect three combustion turbines and other adjustments as noted.
- Offer 6 was an Internet offer for a single combustion turbine. The price was
 adjusted to reflect three combustion turbines and other adjustments as noted.

As described previously Offer 4, 5 and 6 are Internet offers. It is difficult to fully evaluate these Internet offers since a variety of factors could influence additional adjustments to these offers. These additional adjustments include the date of the offer, the scope of supply, the division of responsibility, location, options included on the combustion turbines and the equipment preservation techniques. It would require a significant effort to explore each of these aspects for each internet offer. Although we have made adjustments to the offer price based on factors that were known, other adjustments may be necessary.

Table 4-4 provides a summary of the comparable sales method for the Assets.

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Value of the Aquila Assets Under the Market Approach						
ltem	Offer 1	Offer 2	Offer 3	Offer 4	Offer 5	Offer 6
Combustion Turbines						
Offer	\$69,000,000	\$64,500,000	\$57,000,000	\$78,000,000	\$99,000,000	\$45,000,000
Adjustments						
Warranty	(\$2,240,000)	\$0	(\$2,240,000)	\$0	\$0	\$0
Technical Field Assistance	\$0	\$2,350,000	\$2,350,000	\$0	\$0	\$2,350,000
Exhaust Stacks	\$0	(\$1,849,200)	(\$1,849,200)	(\$1,849,200)	(\$1,849,200)	\$0
Dry Low NO _x	\$0	\$5,000,000	\$5,000, 000	\$0	\$0	\$5,000,000
Transportation	<u>\$0</u>	<u>\$1,200,000</u>	<u>\$1,200,000</u>	<u>\$1,200,000</u>	<u>\$1,200,000</u>	<u>\$1,200,000</u>
Combustion Turbines Subtotal	\$66,760,000	\$71,200,800	\$61,460,800	\$77,350,800	\$98,350,800	\$53,550,000
Transformers & Breakers	\$0	\$2,386,050	\$2,386,050	\$2,386,050	\$2,386,050	\$2,386,050
Comparable Sales	\$66,760,000	\$73,586,850	\$63,846,850	\$79,736,850	\$100,736,850	\$55,936,050

Table 4-4

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Section 5 CONCLUSIONS

5.1 Fair Market Value

The results of our analyses of the estimated Fair Market Value of the Assets are summarized in Table 5-1.

Summary of Value moleators			
Indicator	Value		
Cost Approach			
Original Cost Approach	\$71,632,020		
Replacement Cost Approach	\$70,796,850		
Income Approach	Not Applicable		
Market Approach	\$55,936,050 to \$100,736,850		
Market Approach	\$55,936,050 to \$100,736,850		

Table 5-1 Summary of Value Indicators

As stated previously, this is a limited appraisal in that only the Cost Approach and the Market Approach were used at the direction of Aquila. However, due to the relevance of the Cost Approach and the Market Approach as discussed in Section 4, as compared to the Income Approach, we believe that the Cost Approach and the Market Approach produce the best indications of value for the Assets.

Generally, a potential purchaser of a property should be willing to pay the lesser of the value indicated by the Cost Approach (specifically the Replacement Cost Method) and the value indicated by the Income Approach. If the prospective purchaser were to pay an amount greater than that indicated by the Income Approach, the purchaser would be unable to earn its desired return on equity.

Similarly, the purchaser should be unwilling to pay more than the value indicated by the Cost Approach (the Replacement Cost Method) because the purchaser could construct or purchase similar project assets at the indicated replacement cost. However, the purchaser might be willing to pay more than the replacement cost for certain income producing assets if the earnings stream valuation clearly supports a higher price because the potential cost of the risks associated with the design, development, and construction of a project or any special technical or other features of a project are generally not precisely measured in the Replacement Cost Method.

In addition, if the Market Approach clearly indicated a value that was supported by the Income Approach, a potential purchaser may be willing to pay more than the value



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Schedule NHH-2 Page 25 of 30 indicated by the Cost Approach. The reason for this increased value under the Market Approach could include the intrinsic value associated with the value of acquired contractual rights, the ability to expand production at a facility site, or a number of other reasons.

As stated previously, we have not performed an analysis of the value of the Assets under the Income Approach. However, the value of the Assets under the Cost Approach (specifically the Replacement Cost Method) is supported by the value of the Assets under the Market Approach.

Therefore, based on the analyses performed within this Report and our knowledge in valuation of similar facilities, we are of the opinion that the limited fair market value of the Assets is \$70,796,850.

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Section 6 APPRAISAL CERTIFICATION

We, the undersigned, certify that, to the best of our knowledge and belief:

- The statements of fact contained in this report are true and correct.
- The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and the unbiased professional analyses, opinions, and conclusions of Beck.
- Beck has no present or prospective interest in the properties that are the subject of this report, and has no personal interest or bias with respect to the parties involved.
- Compensation is not contingent upon the reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of the limited appraisal.
- The report is not based on a requested minimum valuation, a specific valuation, or the approval of a loan.
- Representatives of Beck made on-site, above-ground, general field observations of the properties that are the subject of this Report.
- Beck staff, under the principal supervision of the undersigned, provided assistance in the preparation of this report. A list of significant contributors is included in the report.
- The analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with USPAP promulgated by the Appraisal Standards Board of the Appraisal Foundation and the Principles of Appraisal Practice and Code of Ethics of the American Society of Appraisers.

Respectfully submitted,

R. W. BECK, INC.

Neal D. Suess, PE, Project Manager November 19, 2004



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INDIVIDUALS CONTRIBUTING TO THE REPORT

Neal D. Suess, P.E.

B.S. IN MECHANICAL ENGINEERING, IOWA STATE UNIVERSITY

Mr. Suess is experienced in developing economic feasibility analyses and independent engineering appraisals for the purpose of utility property acquisitions. He has also prepared appraisal studies of generation facilities in connection with leveraged lease financings and property tax appraisals. In addition, Mr. Suess is experienced in contract negotiations, power supply planning, and cost-of-service and rate design. His experience includes preparing expert testimony before state and local regulatory agencies and the Federal Energy Regulatory Commission.

Prior to joining R. W. Beck, Mr. Suess was the electric director for a Midwestern municipal utility and was the planning engineer for a municipal joint-action agency. He has experience directing the operations of a municipal electric utility, including hands-on experience in operating power generating facilities. This has included managing a crew of thirty employees, developing and managing operating and capital improvements budgets, and developing strategic plans.

Nancy Heller Hughes, ASA

B.A. IN BUSINESS AND STATISTICS, UNIVERSITY OF CHICAGO M.B.A IN FINANCE AND ACCOUNTING, UNIVERSITY OF CHICAGO

Ms. Hughes is an Accredited Senior Appraiser (ASA) of Public Utility property certified by the American Society of Appraisers. She has worked in the public utility industry since 1977 specializing in utility rates and regulation, depreciation, and valuation. She has testified as an expert witness on these issues before federal and state regulatory commissions, city councils and courts of law. In the area of utility rates and regulation, Ms. Hughes is responsible for conducting and analyzing revenue requirement, cost-ofservice and rate design studies for electric, gas, telephone, and solid waste utilities. She has also been active in utility merger and acquisition cases before federal and state regulatory agencies.

Ms. Hughes has performed valuation and appraisal studies to determine the value of a wide range of utility property including electric, water, wastewater, telecommunications, railroad, and solid waste landfill property. These studies have been performed in connection with the sale and acquisition of property, eminent domain cases, property tax issues, and utility rate cases. In conjunction with her appraisal work, Ms. Hughes has testified as an expert witness on the valuation of utility property in court proceedings and utility rate cases.

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Robert A. Brune, P.E.

B.S. IN MECHANICAL ENGINEERING, UNIVERSITY OF COLORADO

Mr. Brune has 12 years of experience in thermal electric generating plant projects, providing both on-site and off-site technical input, including feasibility studies, detailed design, budget reviews, technical assessments, construction supervision, start-up, and performance testing. Mr. Brune's experience has been with domestic and international combustion turbine and coal-fired projects utilizing equipment from most major industry manufacturers. His project work has been in support of developers, contractors, utilities, municipalities, and financial institutions.

Mr. Brune has coordinated technical due diligence efforts for financial institutions and developers including plant systems technical analysis and the review of financial model and technical inputs to support project financing. His review and analysis of project information identified fatal flaws and areas of risk relating to design, performance, contractual obligations, construction costs, construction schedule, and operations. Mr. Brune has been involved in consulting services related to acquisition and divestiture analysis for power generation assets, as well the economic and financial analysis pertaining to the deregulation of the power market. Mr. Brune also has experience in preparing conceptual design information to support project development, including arrangement drawings, along with cost and performance estimates for various combustion turbine and thermal unit alternatives. Mr. Brune has been involved in all facets of performance testing from procedure development, procedure review, test coordination, test witnessing and results review. He is familiar with ASME Power Test Codes, computer-modeling simulations and has both managed and worked on projects utilizing combustion turbines manufactured by GE, SWPC, and ABB as well as steam turbines manufactured by Siemens, Westinghouse and Toshiba.

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BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

State of Washington)) ss County of King)

AFFIDAVIT OF NANCY HELLER HUGHES

Nancy Heller Hughes, being first duly sworn, deposes and says that she is the witness who sponsors the accompanying testimony entitled "Surrebuttal Testimony of Nancy Heller Hughes;" that said testimony was prepared by her and under her direction and supervision; that if inquiries were made as to the facts in said testimony and schedules, she would respond as therein set forth; and that the aforesaid testimony and schedules are true and correct to the best of her knowledge, information, and belief.

Nancy Heller Hughes

Subscribed and sworn to before me this 12 day of <u>Jocember</u>, 2005.

My Commission expires:

4-5-06

LINDA L. ROSS STATE OF WASHINGTON NOTARY ---- PUBLIC MY COMMISSION EXPIRES 4-05-06