Exhibit No.:

Issues: Quarterly Cost Adjust. Witness: Donald Johnstone

Type of Exhibit: Direct Testimony Sponsoring Party: AGP

Case Number: HR-2009-0092

Date Testimony Prepared: February 27, 2009

Aquila, Inc. / dba Kansas City Power & Light Company Greater Missouri Operations

Case No. HR 2009-0092

Prepared Direct Testimony of

**Donald Johnstone** 

On behalf of

AG PROCESSING INC, A COOPERATIVE

February 2009



### Before the Missouri Public Service Commission

#### Aquila, Inc. / dba Kansas City Power & Light Company Greater Missouri Operations

Case No. HR 2009-0092

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### Before the Missouri Public Service Commission

#### Aquila, Inc. / dba Kansas City Power & Light Company Greater Missouri Operations

Case No. HR 2009-0092

#### **Prepared Direct Testimony of Donald Johnstone**

1	Q	PLEASE STATE YOUR NAME AND ADDRESS.
2	Α	My name is Donald Johnstone and my address is 384 Black Hawk Drive, Lake Ozark,
3		Missouri, 65049. I am employed by Competitive Energy Dynamics, L. L. C.
4	Q	ON WHOSE BEHALF ARE YOU APPEARING?
5	Α	I am appearing on behalf of intervenor AG PROCESSING INC, A COOPERATIVE (AGP). I
6		have also been retained by Triumph and Omnium, each of whom is a steam customer
7		of the applicant utility.
8	Q	PLEASE STATE YOUR QUALIFICATIONS AND EXPERIENCE.
9	Α	I have been working in the utility business since 1973. I started as an engineer for the
10		Union Electric Company, where I had assignments in power operations and corporate
11		planning. Since 1981 I have worked as a consultant in the field of utility regulation.
12		My work has taken me to many states and I have addressed various matters including
13		rate design, the cost of service, fuel costs, forecasting, resource planning, and

industry restructuring. My experience has included electric, gas, water, sewer, and steam utility services. A more complete description is set forth in Appendix A.

#### 3 **SUMMARY**

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- 4 Q WHAT ARE THE SUBJECTS ADDRESSED IN YOUR TESTIMONY?
- I address the Quarterly Cost Adjustment mechanism. I oppose the QCA as modified by
  Aquila dba KCPL/GMO ("Aquila" or "Company") and recommend elimination of the
  QCA if Aquila's proposal were to be the form.

In the alternative I recommend the continuation of the current QCA with an adjustment to reflect the current base cost of fuel and an adjustment to the coal performance standard to reflect reasonable operational experience and capability.

#### 11 QCA HISTORY

- 12 Q DID AGP SUPPORT THE ADOPTION OF THE RATE MECHANISM THAT IS KNOWN AS THE
- 13 "QUARTERLY COST ADJUSTMENT" OR "QCA"?
- Yes. The QCA is the product of a stipulation and agreement to which AGP and Aquila were parties. AGP was then, and remains now, the largest of the customers on the steam system. (Triumph and Omnium are also large steam customers with an interest in this matter.) While I am not an attorney and do not offer a legal interpretation of the agreement, I will speak to my understanding of that agreement and the value of the present QCA.

#### PLEASE SUMMARIZE THE OPERATION OF THE QCA.

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The QCA tracks changes in the cost of the coal, natural gas and oil fuels that are used to produce steam. Like the Aquila and UE electric fuel riders, it collects cost variations over a period of several months and then recovers the accumulated variations in overlapping 12-month periods. This approach mitigates the volatility in retail rates and avoids sharp and extraordinary increases or decreases in rates.

An important goal from the perspective of AGP was to provide substantial, but not complete, cost tracking with respect to the price of fuels. The goal of the substantial tracking was to provide more durable earnings for Aquila and to extend the time between rate cases for the benefit of both Aquila and its steam customers. On the other hand, the goal of less than complete tracking of the fuel cost was to provide for mechanisms that would maintain an alignment of the financial interests of Aquila and the financial interests of its customers in a low cost for fuel.

The QCA includes some innovative techniques that were the product of the give and take that resulted in the stipulation. The first innovative mechanism is the provision that tracks 80% of fuel cost changes through the QCA while leaving the remainder for traditional base rate regulation. At the time, the several Missouri electric FAC's that employ a similar approach did not exist. Thus, this was the first such sharing mechanism in the State. The second innovative aspect of the QCA established a performance threshold for the coal-fired boiler that produces most of the steam. An important consideration is that Aquila makes decisions on a regular basis that affect the availability of the boiler. The impact of those operating and maintenance decisions properly belongs to Aquila.

From another perspective, there can be no contention that the price of fuels impacts Aquila's ability to operate and maintain its boiler. Yet operating and maintenance matters have a large and direct impact on the total cost of fuel. That is because natural gas is a much more expensive fuel that is used when coal-fired steam is limited. Thus, in this regard an important goal of AGP was to ensure Aquila remained financially accountable for the operating performance of the coal-fired boiler in the event that it did not meet reasonable expectations.

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## HOW WAS THE PERFORMANCE THRESHOLD FOR THE COAL-FIRED BOILER DETERMINED?

It was set by an agreement contained in the stipulation. In evaluating the acceptability of the agreed performance threshold, I considered two factors. First was the level of the coal-fired steam production that was being used to develop and support the revenue requirements in the Staff's production cost model. The second was the company's forecast of future usage. The intent was to provide a threshold that would generally allow costs to pass through, thereby allowing costs to be tracked without adjustment due to the performance threshold. The concept was intended to protect customers from the costs occasioned by any significant unexpected shortfall in the performance of the coal boiler. This performance threshold, like all other aspects of the QCA, was agreed to and supported by Aquila as well as AGP.

#### DID THE COAL PERFORMANCE STANDARD WORK AS DESIGNED?

Yes and no. I think it is fair to say that both AGP and Aquila were surprised by the extent to which cost adjustments occurred pursuant to this provision. That is both

good news and bad. The bad news is that the performance of the coal-fired boiler was below the performance threshold and, all other things held equal that had an adverse impact on Aquila's earnings. The good news is that customers were protected from the consequence of performance below the threshold.

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## DOES THE QCA MAKE IT IMPOSSIBLE FOR CUSTOMERS TO KNOW WHAT THEIR RATES WILL BE AFTER THE RATE CASE?

A Unfortunately, the QCA changes rates every quarter and this rate case will be only one aspect of the change in costs. The total rate increase for the next year remains unknown. It also complicates the comparison of present and proposed rates.

#### IS THERE REASON FOR CONCERN WITH AQUILA'S PAST FUEL PURCHASE PRACTICES?

Yes. Prior to approval of the QCA the fuel related operations of the steam system and the electric system were integrated. It came as a surprise when it was learned that Aquila had developed a gas hedging program for the steam operation that was separate from the electric operation. Another surprise was that the hedging approach was simply patterned after one Aquila had used for it gas LDC business. Finally, Aquila's hedging of its natural gas supplies was based on a simple approach intended to stabilize costs. Even that aspect did not perform well because Aquila failed to consider that gas in the steam context was a swing fuel that was used only to the extent necessary after operation of the coal-fired boiler (the base load supply). This was a particular problem because forecast load growth did not materialize.

#### 1 Q WHAT ACTIONS WERE TAKEN TO ADDRESS THE CONCERNS WITH THE

#### 2 **HEDGING PROGRAM?**

- 3 A Aquila ceased operation of the program. However, the costs incurred before the
- 4 program ceased operation, some of which were extraordinary, were passed through to
- 5 customers pursuant to the QCA.

#### 6 **QCA RECOMMENDATIONS**

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- 7 Q IF THERE CONTINUES TO BE A QCA, IS THE INITIAL EXPERIENCE WITH THE COAL
- 8 PERFORMANCE STANDARD REASON TO ELIMINATE THE PROVISION?
- 9 A No. The logic for it continues to be sound. Due to the vast difference in the cost of 10 steam from coal versus natural gas it is important to maintain a focus on high
- performance for the coal-fired steam production.

As a practical matter there is only one coal-fired boiler that produces steam and as a consequence any loss of production from that boiler creates a large operating cost penalty. Absent a performance threshold, the FAC would function as replacement cost insurance for the steam produced by that unit. That insurance function is something quite different from an adjustment intended to accommodate changes in the price of fuels. Therefore, another function of the coal performance threshold is to limit the operation of the QCA to the matter it is intended to resolve - changes in the

1	Q	IF THERE CONTINUES TO BE A QCA SHOULD THE 80/20 TRACKING APPROACH
2		CONTINUE?
3	Α	Yes. There are several reasons why this should continue. First, the 80% factor
4		provides very substantial protection for Aquila's cost of fuels. No doubt in part due to
5		the QCA, Aquila did not apply for a steam rate increase along with its last prior
6		application for an electric rate increase. The current steam rates have been effective
7		since March 6, 2006, so by the time new rates take effect in this case it will have been
8		more than three years. Of course, under the recently enacted Missouri electric FAC
9		legislation a rate case is required every four years. In comparison, Aquila has almost
10		gone that long.
11	Q	HAVE THE ANNUAL AUDITS OF THE QCA COSTS BEEN RESOLVED?
12	Α	No.
13	Q	ARE YOU AWARE OF ANY BENEFITS THAT HAVE ACCRUED TO AQUILA DUE TO THE
14		QCA?
15	Α	Yes. Substantial changes in cost have been passed on to customers, thereby shielding
16		Aquila from a large measure of the impact of the cost increases while customers have
17		been on the receiving end of the costs.
18	Q	HAVE ANY CONCERNS BEEN RAISED BY AQUILA?
19	Α	Yes. Aquila has stated that both the coal performance threshold and the 80/20
20		mechanism have resulted in less than 100% pass through of the costs. 100% pass
21		through is the apparently the current goal of Aquila according to the testimony of Mr.
22		Rush.

#### Q HAVE ANY CONCERNS BEEN RAISED BY AGP?

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A Yes. One important concern was Aquila's design and implementation of a hedging program for natural gas. A particular problem was that too much gas was hedged relative to system needs. That occurred in large part because forecast increases in steam sales did not materialize as planned. Another concern was the overall approach to the design of the hedging program and its implementation. Generally speaking, hedging, if used, must be designed to fit the nature of the loads and ought to be integral to a purchasing approach designed to minimize the cost of gas purchased over time.

#### 10 Q HAS AGP PURSUED A PRUDENCE ADJUSTMENT IN THE QCA PROCEEDINGS?

A No. A part of the consideration has been the fact that cost tracking was already less than 100% due to the 80/20 and due to the coal performance standard. There is some sense of rough justice as a result. Nevertheless, I can make no commitments as to any future positions that may be pursued by or on behalf of my clients.

## Q DO YOU SEE A REASONABLE BALANCE OF COMPANY AND RATEPAYER INTERESTS IN

THE QCA, ASSUMING APPROVAL OF THE MINOR ADJUSTMENTS THAT YOU

#### 17 RECOMMEND?

On the one hand, it is impossible to predict the future circumstances that may affect cost recovery under the QCA. On the other hand, there are continuing concerns about coal performance and gas purchasing for the steam system. At this point I think the QCA as designed has worked reasonably well and should be continued in its present

- form with minor adjustments limited to the establishment of a new base fuel cost and an adjustment to the coal performance standard to reflect current experience.
- 3 Q ARE YOU OPPOSED TO THE QCA AS MODIFIED IN THE PROPOSAL OF MR. RUSH IN
- 4 THIS PROCEEDING?
- 5 Α Yes, strongly opposed. The 100% pass-through of costs, including the elimination of 6 the coal performance standard, would create a mechanism with no direct financial 7 incentive to encourage cost-effective operations, maintenance, and fuel procurement. 8 Furthermore, it would offer no protection to customers in the event of poor 9 performance of the coal-fired boiler until after the fact and then only in the event of a determination of imprudence by the Commission. The only protection would be the 10 11 after-the-fact prudence review, and as a practical matter, that shifts a great burden 12 In my opinion, realistically, only the most egregious to Staff and customers. 13 imprudent actions would ever be pursued so the value of the prudence review as an 14 incentive or a remedy is very limited.

#### 15 Q DO YOU SUPPORT THE CONTINUATION OF THE CURRENT QCA?

- 16 A Yes. It is far superior to use a mechanism such as the current QCA that encourages a
  17 cost-effective result in the first place and minimizes the reliance on after-the-fact
  18 reviews.
- 19 Q PLEASE SUMMARIZE THE MINOR ADJUSTMENTS YOU RECOMMEND.
- 20 A The base cost of gas should be reset. Also, the coal performance standard should be 21 reset at a level of roughly 90% to 95% of the continuing level of operation. Also, the

- 1 blocking structure of the coal performance standard should accommodate reasonably
- 2 expected outages.
- 3 Q DOES THIS CONCLUDE YOUR TESTIMONY?
- 4 A Yes it does.

## Appendix A Qualifications of Donald E. Johnstone

1	Q	PLEASE STATE YOUR NAME AND ADDRESS.
2	A	Donald E. Johnstone. My address is 384 Black Hawk Drive, Lake Ozark, MO 65049.
3	Q	PLEASE STATE YOUR OCCUPATION.
4	Α	I am President of Competitive Energy Dynamics, L. L. C. and a consultant in the field
5		of public utility regulation.
6	Q	PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.
7	Α	In 1968, I received a Bachelor of Science Degree in Electrical Engineering from the
8		University of Missouri at Rolla. After graduation, I worked in the customer engineering
9		division of a computer manufacturer. From 1969 to 1973, I was an officer in the Air
10		Force, where most of my work was related to the Aircraft Structural Integrity Program
11		in the areas of data processing, data base design and economic cost analysis. Also in
12		1973, I received a Master of Business Administration Degree from Oklahoma City
13		University.
14		From 1973 through 1981, I was employed by a large Midwestern utility and
15		worked in the Power Operations and Corporate Planning Functions. While in the
16		Power Operations Function, I had assignments relating to the peak demand and net
17		output forecasts and load behavior studies which included such factors as weather,
18		conservation and seasonality. I also analyzed the cost of replacement energy
19		associated with forced outages of generation facilities. In the Corporate Planning
20		Function, my assignments included developmental work on a generation expansion

planning program and work on the peak demand and sales forecasts. From 1977 through 1981, I was Supervisor of the Load Forecasting Group where my responsibilities included the Company's sales and peak demand forecasts and the weather normalization of sales.

In 1981, I began consulting, and in 2000, I created the firm Competitive Energy Dynamics, L.L.C. As a part of my twenty-five years of consulting practice, I have participated in the analysis of various electric, gas, water, and sewer utility matters, including the analysis and preparation of cost-of-service studies and rate analyses. In addition to general rate cases, I have partici¬pated in electric fuel and gas cost reviews and planning proceedings, policy proceedings, market price surveys, generation capacity evaluations, and assorted matters related to the restructuring of the electric and gas industries. I have also assisted companies in the negotiation of power contracts representing over \$1 billion of electricity.

I have testified before the state regulatory commissions of Delaware, Hawaii, Illinois, Iowa, Kansas, Massachusetts, Missouri, Montana, New Hampshire, Ohio, Pennsylvania, Tennessee, Virginia and West Virginia, and the Rate Commission of the Metropolitan St. Louis Sewer District.

#### BEFORE THE

#### PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

In the Matter of the Application of	)	
Aquila, Inc. d/b/a KCP&L Greater	)	
Missouri Operations Company for	)	Case No. HR-2009-0092
Approval to Make Certain Changes in its	)	
Charges for Steam Heating Service	)	

#### Affidavit of Donald Johnstone

State of Missouri	)	
	)	SS
County of Camden	)	

Donald Johnstone, of lawful age, on his oath states: that he has reviewed the attached written testimony in question and answer form, all to be presented in the above case, that the answers in the attached written testimony were given by him; that he has knowledge of the matters set forth in such answers; that such matters are true to the best of his knowledge, information and belief.

Donald Johnstone

Subscribed and sworn before me this 11th day of February, 2009

CYNTHIA E. BALLIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Camden County
My Commission Expires: July 18, 2012
Commission Number: 08379951

#### **BEFORE THE**

#### PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

In the Matter of the Application of	)	
Aquila, Inc. d/b/a KCP&L Greater	)	
Missouri Operations Company for	)	Case No. HR-2009-0092
Approval to Make Certain Changes in its	)	
Charges for Steam Heating Service	)	

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Donald Johnstone

Subscribed and sworn before me this <u>I</u>th day of February, 2009

CYNTHIA E. BALLIN Notary Public - Notary Seal State of Missouri Commissioned for Camden County My Commission Expires: July 18, 2012 Commission Number: 08379951