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Witness:	Wm. Edward Blunk
Type of Exhibit:	Rebuttal Testimony
Sponsoring Party:	KCP&L Greater Missouri Operations Company
Case No.:	HC-2012-0259
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MISSOURI PUBLIC SERVICE COMMISSION

CASE NO.: HC-2012-0259

REBUTTAL TESTIMONY

OF

WM. EDWARD BLUNK

ON BEHALF OF

KCP&L GREATER MISSOURI OPERATIONS COMPANY

Kansas City, Missouri
July 2012

Certain Schedules Attached To This Testimony Designated "Highly Confidential" Have Been Removed Pursuant To 4 CSR 240-2.135.

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OF

WM. EDWARD BLUNK

Case No. HC-2012-0259

Q: Please state your name and business address.

A: My name is Wm. Edward Blunk. My business address is 1200 Main Street, Kansas City, Missouri 64105.

Q: By whom and in what capacity are you employed?

A: I am employed by Kansas City Power & Light Company ("KCP&L") as Supply Planning Manager.

Q: On whose behalf are you testifying?

A: I am testifying on behalf of KCP&L Greater Missouri Operations Company ("GMO" or the "Company").

Q: What are your responsibilities?

A: My primary responsibilities are to facilitate the development and implementation of fuel and power sales purchase and risk management strategies for KCP&L and for GMO, formerly known as Aquila, Inc. ("Aquila").

Q: What is your education, experience, and employment history?

A: I received a Bachelor of Science degree in 1978 in agricultural economics cum laude as an Honors Scholar from the University of Missouri at Columbia. I received a Master in Business Administration degree in finance from the University of Missouri in 1980. I have also completed additional graduate courses in forecasting theory and applications.

Before graduating from the University of Missouri, I joined the John Deere Company in 1977 and through 1981 performed various marketing, marketing research, and dealer management tasks. I joined Kansas City Power & Light Company in 1981 as Transportation Special Projects Analyst. My responsibilities included fuel forecasting, fuel planning, and other analyses related to commercial negotiations and disputes with railroads and coal companies. I was promoted to the position of Supervisor, Fuel Planning in 1984. That position was upgraded in 2007 to Manager, Fuel Planning. In 2009 my position was changed to Supply Planning manager. While in these positions I have been responsible for developing risk management and hedging programs.

Q: What experience and expertise do you possess with regard to hedging and related financial instruments?

A: I first became acquainted with hedging during my studies at the University of Missouri in its agricultural economics program. The first futures markets were developed to meet the needs of farmers and agricultural producers, so agriculture has used hedging and similar concepts probably longer than any other industry. I have been involved in hedging coal and coal prices for KCP&L since the early 1980s. Since joining KCP&L in 1981, I have attended several seminars and workshops that addressed risk and risk management. The various seminars focused on different aspects of risk and strategies for managing risk. I have attended seminars presented by Princeton Energy Programme and served on EPRI advisory groups focused on energy markets and risk management. I have also participated in a utility hedge plan benchmarking study. I have been instrumental in the design and implementation of KCP&L's natural gas hedging program since it began in 2001.

In developing KCP&L's natural gas hedging program I performed independent research into hedging strategies and programs. For the past several years I have served as Chairman of the Electric Power Research Institute's "Understanding Power & Fuel Markets & Generation Response" advisory group. I also participate in the "Power Technology, Market Analysis & Risk" advisory group. Both of those groups address fuel market risk.

Q: Have you ever worked for Aquila, now known as KCP&L Greater Missouri Operations Company?

A: No. However, since Great Plains Energy Incorporated acquired Aquila in July 2008 and renamed that corporation GMO, my duties with regard to natural gas and other fuel purchase strategies have applied to GMO operations. In this regard, I have familiarized myself with the hedging and financial strategies employed by Aquila with regard to its regulated electric and steam generating operations.

Q: Have you previously testified in a proceeding before the Missouri Public Service Commission or before any other utility regulatory body?

A: I have previously testified before both the Missouri Public Service Commission and the Kansas Corporation Commission ("KCC") in multiple cases on issues regarding fuel prices, fuel price forecasts, hedging and other strategies for managing fuel price risk, fuel-related costs, fuel inventory, and the management of emission allowance inventory.

Q: What is the purpose of your Rebuttal Testimony?

A: The purpose of my Rebuttal Testimony is to provide opinions on why the natural gas hedging program adopted by Aquila, Inc. for its St. Joseph steam operations at the Lake Road Plant was reasonable and prudent at the time that Aquila designed, implemented,

and administered it. I will also provide comments on and critique the Direct Testimony of Donald E. Johnstone, submitted on June 1, 2012 on behalf of Ag Processing, Inc. ("AGP"). I will refute Mr. Johnstone's allegations that the Aquila hedging program was imprudent.

I. EXECUTIVE SUMMARY

Q: Please summarize your testimony.

A: I make the following key points in my testimony:

1) A hedge is comprised of positions in two different markets – the physical gas market and the futures gas market – which, when taken together, offset the risk of adverse price movement. AGP has only recognized one of those markets in the amount it has challenged as imprudent.

2) By design GMO's "One-Third Strategy" steam hedging program had the capacity to manage downward volume risk of as much as 66%, and was prudent in its design.

3) About half of the volume variance in natural gas usage resulted from changes in fuel mix, which shifted away from expensive natural gas to cheap coal and reduced the cost of steam. AGP failed to adjust its claim for that value it received.

4) GMO administered the steam hedging program prudently in 2009.

II. INTRODUCTION: A PRIMER ON HEDGING STRATEGIES TO MANAGE FUEL MARKET RISKS

Q: What is hedging?

A: Hedging is the process of protecting oneself against risk. Hedging employs various techniques, but basically involves taking equal and opposite positions in two different markets as offsets to one another.

On February 24, 2006 the Commission received from its Staff the 44-page *Joint Report on Natural Gas Market Conditions, PGA Rates, Customer Bills & Hedging Efforts of Missouri's Natural Gas Local Distribution Companies* ("Joint Report"), which was described by Staff as a "consensus document" submitted by the parties to Case No. GW-2006-0110. See Joint Report, Case No. GW-2006-0110 (Feb. 27, 2006). The Joint Report defined hedging as "the management of a natural gas portfolio to mitigate adverse upward price volatility." It went on to say that the "goal of hedging is not to 'beat the market' but rather to mitigate upward price volatility." See Joint Report at 8.

Q: What strategy would be employed if a company was concerned about increasing commodity prices?

A: That depends on the company's physical position. If the company needed to buy a commodity, it could hedge its "short" physical position, by going "long" in a financial position buying a call option or buying a futures contract. Buying a New York Mercantile Exchange ("NYMEX") natural gas call option would give the company the right to buy a NYMEX natural gas futures contract at a predetermined price before a preset deadline in exchange for paying a premium.

Q: Do companies interested in a particular commodity use both call options and put options in their hedging strategies?

A: Yes. Companies that want to be assured of the price they will receive or pay for a commodity will hedge their position by buying and selling calls and puts. For example, Massimo Mancini of Northwestern University's Kellogg School of Management reports that "Airlines use collars [a combination of calls and puts] to reduce the cost of the hedge."[1] A hedger with a short position might: (1) buy calls, (2) buy calls and sell puts to create a collar, (3) buy calls, sell puts, and sell calls to create a 3-way collar, or (4) buy futures and buy puts to create a synthetic call. All four scenarios can protect against the risk of prices moving upward and offer some degree of allowing the hedger to follow market prices down, but with different premium costs and risk profiles.

Q: Please give an example of how GMO used hedges during 2006-2009.

A: Assume GMO has an obligation to provide steam to its customers next July. GMO must buy the fuel necessary to meet that obligation. In other words, GMO is "short" fuel next July. The following steps describe how GMO has used hedges to meet that obligation.

1) GMO offsets this short position for fuel by going "long," in other words, purchasing natural gas futures and/or options for next July.

2) Natural gas futures contracts "expire" three (3) business days prior to the first day of the delivery month. That means the NYMEX will cease trading natural gas to be delivered in July around June 27th. If GMO holds that contract through expiration, the NYMEX will match GMO with a seller who will deliver natural gas to GMO at Henry Hub in Erath, Louisiana during the month of July. While GMO can transport the natural

gas from Sabine Pipe Line Company's Henry Hub to its facilities, it is more convenient to take delivery on Southern Star Central Pipeline.[2] Consequently as the July contract approaches expiration near the end of June, GMO will sell the July contracts it purchased in step 1. When GMO sells the July futures contracts, it will recognize as either a gain or loss the difference between the price it paid when it purchased the July futures contract and the price it received when it sold those same contracts. Those "hedge adjustments" are recorded in Account 501731-Hedge Settlements Steam.

3) In July, or at least three business days after GMO settles out of the hedge position, GMO will purchase natural gas on the spot market to then provide steam to its customers. The cost for the natural gas is recorded in Account 501730-Indsustrial Steam-Fuel. Since both Accounts 501730 and 501731 are accumulated in the QCA, the customers' risk of spiking natural gas prices is offset with the hedge adjustments from the natural gas derivatives. The key, as with hedging in general, is the net effect of adding two things that offset one another.

4) GMO's customers are protected from adverse price changes in natural gas because spot or cash natural gas prices are positively correlated to the NYMEX futures price for natural gas. When the cash price for natural gas goes up, the NYMEX futures price for natural gas goes up. Continuing with my example, GMO would then experience a gain from the time it purchased the futures contracts until it sold them. That gain from the futures transactions would offset the price increase for the spot or physical gas market. <u>It is the simultaneous offsetting of cash and futures positions that neutralizes the</u>

[1] Massimo Mancini, Kellogg Graduate School Of Management, Northwestern University, *Corporate risk hedging strategies and shareholders' value creation: the Southwest Airlines case*, at 16 (June 2, 2009), http://www.kellogg.northwestern.edu/research/risk/projects/Massimo%20Mancini%20Research.pdf.

market volatility. Likewise, when the cash prices go down, the NYMEX prices go down. GMO would then experience a loss on its futures contracts. But remember, there are two parts of a hedged transaction. The cash prices will also be lower. GMO will be paying less for natural gas than expected when the hedge was placed. Again, it is the simultaneous offsetting of cash and futures positions that neutralizes the market volatility.

Q: Can you determine the success or failure of a hedging program by only looking at the transactions in one of the two markets?

A: No.

Q: Does the amount that Mr. Johnstone has claimed is imprudent reflect both markets?

A: No. Mr. Johnstone does not make any showing of how the decline in the natural gas futures market corresponded with a similar decline in the physical natural gas market. Nor does Mr. Johnstone show that these markets offset each other.

Q: Does Mr. Johnstone's analysis account for GMO paying less for natural gas in the physical market than the market's expectation at the time the hedges were placed?

A: No. Mr. Johnstone did not charge GMO with imprudence for paying less for natural gas in the cash market than what the market was expecting when the hedges were placed.

Q: Why, then, do you sell the futures contracts instead of taking physical delivery?

A: By selling the futures contracts, we increase our flexibility to match gas purchases with gas requirements.

[2] According to CME Group, only 9,018 of the 76,864,334 natural gas contracts traded on the NYMEX in 2011 were ultimately delivered as physical natural gas at Henry Hub. That is about 0.01%.

Q: Are there benefits of using NYMEX natural gas futures contracts and options to hedge natural gas price risk?

A: Yes. Perhaps the three most significant benefits of using NYMEX natural gas futures contracts and options to hedge natural gas price risk are:

1) Liquidity. The NYMEX natural gas market is very liquid because NYMEX natural gas contracts can easily be bought or sold quickly. There are large numbers of buyers and sellers ready and willing to trade at any time during market hours. Because of high trading volumes there tend to be low spreads between asking and selling prices which results in little to no premium when entering or exiting a position.

While the Company could probably hedge its natural gas price risk with forward physical contracts, it would be at a price. The physical market is not as liquid as the futures market. Consequently, if the Company had to sell out of its position because of a reduction in expected requirements, it would likely be at a lower price than if it was buying the same quantity of gas at the same time. In other words, the bid – ask spread is typically wider in the cash or physical market than it is on the NYMEX.

2) Minimal counterparty credit risk. The NYMEX uses a central counterparty clearing model. All trades are cleared through the Exchange clearinghouse which becomes the ultimate counterparty, acting as the "buyer to every seller" and the "seller to every buyer." Counterparty credit risk is shared among clearing members, who represent some of the largest names in financial services. Consequently, the NYMEX has received and maintains an AA+ long-term counterparty credit rating from Standard & Poor's.

3) Less premium for term. GMO was able to place a hedge up to three years before the delivery month. The less liquid the market, the more likely there will be a premium

for a longer term. That is, when there is not an abundance of sellers, the sellers that exist will consider the risks they face in setting their sale price. The further into the future they are committing, the more price risk they see. Consequently sellers will embed in their price a premium for longer term.

Q: Will the customer ultimately pay the same for natural gas regardless of whether you sell the futures contracts or take physical delivery?

A: Yes. When the hedge adjustment is added to the cash price paid for natural gas purchased on the spot market, one would expect it to be about the same as either the futures price or the price in a comparable forward deal.

Q: Are there market participants that only focus on the gain or loss from the purchase and sale of futures contracts and do not use that gain or loss to offset a spot or cash position?

A: Yes, they are known as speculators. Speculators will take a futures position without having an underlying cash or natural position. Speculators are focused only on trying to gain from their futures transactions. Unlike GMO, speculators do not have a cash or physical position that will offset the gain or loss from the futures transaction.

Q: In his ninth factor on page four of his Direct Testimony Mr. Johnstone states, "GMO allowed the then existing hedge positions to simply run their course." Do hedgers not engaged in speculation, like GMO, normally allow positions to simply run their course?

A: Yes. Hedgers take positions to protect against adverse price movements in future periods. Closing positions prematurely removes that protection. Speculators, on the other hand, attempt to time the market and remove positions at any time to take a profit.

III. REVIEW OF AQUILA'S GAS HEDGING PROGRAM FOR STEAM OPERATIONS

Q: In your capacity as Supply Planning Manager, have you reviewed the natural gas hedging program that Aquila adopted for its Lake Road Plant steam operations?

A: Yes, in my capacity as Supply Planning Manager I have responsibilities for KCP&L, as well as GMO, and have reviewed the relevant documents and data regarding the Aquila gas hedging programs for its steam operations.

Q: Did Aquila adopt a policy for gas hedging regarding its steam operations?

A: Yes. The policy is dated February 15, 2006 and is found at Schedule GLG-1, attached to the Rebuttal Testimony of Company Witness Gary L. Gottsch. As part of my review and analysis of that document, I prepared my own summary of the policy after Aquila was acquired by Great Plains Energy and became GMO in July 2008, which I have attached as Schedule WEB-1.

Q: How is a hedging strategy developed?

A: The first step in developing a hedging strategy is to identify the hedger's purpose. What is the risk that causes concern and how does the hedger want to change that risk? There are a number of strategies that may be employed, depending on the objectives of the program. As a hedger the goal of these strategies is to reduce risk. By contrast, a speculator assumes risk in the pursuit of profit.

Q: What was the objective of Aquila's hedging strategy?

A: Aquila's hedging strategy was designed to mitigate upward price volatility. It also provided some opportunity to take advantage of market price declines.

Q: Briefly describe Aquila's steam hedging plan.

A: Aquila's steam hedging program, the One-Third Strategy, was designed to be market neutral, meaning that Aquila did not try to predict the price of natural gas as either rising or falling, but rather to purchase financial contracts that would result in an average market cost over two to three years in the future.

Under the One-Third Strategy:

1. One-third of the portfolio consisted of fixed price contracts bought on the New York Mercantile Exchange (NYMEX)

2. One-third of the portfolio consisted of NYMEX options (either long calls or a combination of long calls and short puts).

3. One-third of the portfolio was left unhedged to manage the risk of requirements being less than projected and provide additional opportunity to follow the market down.

Q: Was this hedging program for steam operations based on a hedging program that had been previously used by Aquila?

A: Yes. My review of Aquila documents indicates that the natural gas hedging program for Aquila's steam operations was similar to a program that Aquila established for the electric operations of Aquila Networks-MPS, as set forth in Schedule WEB-2,[3] which was approved by the Kansas Corporation Commission just a couple of months before it was implemented for the steam system.

[3] Although this Memorandum from Aquila's Commodity Risk Management Group to its Energy Resources Group (Feb. 25, 2005) indicates that it is a "Highly Confidential" document, it is no longer considered Highly Confidential.

An Aquila memorandum dated February 25, 2005 indicates that Aquila presented its 2005-07 hedging plan to the Commission's Staff and the Office of the Public Counsel at a July 9, 2004 resource planning update. See Schedule WEB-2 at 3, n. 2.

Q: How did Aquila's hedging strategy change its risk?

A: The one-third of the volume that was hedged using fixed price futures instruments changed the risk from exposure to upward market prices to relatively certain prices but with no volume flexibility. The one-third that was hedged using options or collars changed the risk from the uncertainty of market prices to limited price exposure and limited volume flexibility. The remaining one-third that was not hedged addressed the risk of natural gas requirements being less than projected. This remaining one-third mitigates the risk of being committed to a fixed price should volumes be less than expected.

Q: Did GMO's hedging program increase risk?

A: No. When a hedger buys a futures contract to hedge a "short"[4] position, he reduces his risk of upward price movement in exchange for giving up the opportunity to follow prices down. When a hedger buys call options to hedge a short position, he effectively pays someone else to insure him against the risk of upward prices. When a hedge combines the purchase of call options with the sale of put options, it creates a collar. GMO used a portfolio of futures, collars, and call options to limit the risk of upward price movement. It paid for that risk management and price stability with option premiums and by giving up some opportunity should prices drop.

[4] One's position is referred to as "short" when (1) they have sold a futures contract to establish a market position, (2) they have a market position that obligates them to deliver, (3) their net position shows they have sold more than they possess.

Q: How does the One-Third Strategy address the risk of rising natural gas prices?

A: Two-thirds of the portfolio is hedged with fixed price contracts or with options that would tend to benefit a purchaser like GMO in a market where natural gas prices are rising.

Q: How does the One-Third Strategy address the risk of falling natural gas prices?

A: The one-third of the portfolio that is not hedged will take advantage of the declining prices. The one-third of options contracts will also take advantage of the decline down to the floor side of any collars. To the extent the call options were not combined with put options to create collars, they are not limited by the bottom side of the collar.

Q: How does the One-Third Strategy address the risk of fuel requirements being less than expected?

A: The one-third that is not hedged mitigates volume risk and, to the extent the one-third of the portfolio that is hedged with options contracts does not strike the bottom side of a collar, it too provides volume flexibility. The One-Third Strategy accommodates at least a 33% and as much as a 66% decline in volumes.

Q: Mr. Johnstone makes several references in his Direct Testimony to actual volumes being significantly different than budget or forecast volumes. Is it common for actual volumes to be different than budget or forecast?

A: Yes, it is common for actual marginal or swing fuel volumes to be different than budget or forecast. As described above, volume uncertainty is one of the risks that is managed by GMO's One-Third Strategy natural gas hedging program.

Q: In the third factor that Mr. Johnstone lists at page 3 of his Direct Testimony he states, "GMO's forecast of natural gas requirements was very far from the mark (in several months usage forecasts were 2 and more times actual)." During 2009, the year that is the subject of AGP's Complaint, which months were two or more times actual?

A: None. Mr. Johnstone is not recognizing the value AGP received because of the lower than budget proportion of natural gas in the production of steam. About half of the volume variance in natural gas usage was due to the shift away from the more expensive natural gas to cheap coal. In 2009 there were no months where total budget fuel input was two or more times actual. The most extreme variance for total fuel input for any month in 2009 was about 1.4 times actual. Adjusting for the very favorable variance in fuel mix, there were two months when budgeted natural gas input was about 1.3 or 1.4 times actual, but there were no months when the adjusted value was 2 or more times actual.

Q: How did the volume of GMO's hedges for 2009 compare to actual natural gas requirements for 2009?

A: Schedule WEB-3 shows that for 2009, GMO had hedged 780,000 MMBtus of natural gas. 390,000 MMBtus of that was with futures contracts and 390,000 MMBtus with with options. 340,000 MMBtus of the options portion was hedged with collars. That compares to actual natural gas requirement of 1,051,497 MMBtus. In other words, GMO ended up hedging about 74 percent of its actual natural gas requirement. Considering the uncertainty in burn projections, that is quite close to its target of 66 percent. If GMO had perfect clairvoyance and thus had been able to perfectly forecast that natural gas

requirement, it would have hedged 704,503 MMBtus, which is two-thirds of the actual requirement. The volume of GMO's hedges for 2009 are a mere 10 percent off from what they would have been with perfect clairvoyance.

Q: Based upon your review of the documents and the testimony of Mr. Johnstone, do you believe that the Aquila natural gas hedging program for steam operations was prudent?

A: Yes. I believe that Aquila's natural gas hedging program for its steam operations was designed and administered in a prudent and reasonable fashion, given the facts that were available to Aquila at the time that the policy was designed and the purchases were made.

IV. THE COMMISSION'S HEDGING GUIDANCE

Q: Do regulated utilities in Missouri such as GMO use derivatives to hedge?

A: Yes. Missouri utilities were using futures, options, and collars to hedge before 1998.[5] Moreover, the Commission has encouraged hedging through its Natural Gas Price Volatility Mitigation Rule 4 CSR 240-40.018, which states that "natural gas local distribution companies should undertake diversified natural gas purchasing activities as part of a prudent effort to mitigate upward natural gas price volatility . . . ." That rule goes on to delineate call options, collars, futures contracts, financial swaps, options and other instruments as tools for managing price and/or usage volatility. KCP&L has engaged in hedging natural gas since 2001. GMO began hedging natural gas and using natural gas derivatives to cross hedge electricity price risk for purchased power before 2005.

[5] Missouri Public Service Commission, *Natural Gas Roundtable/Consumer Choice: Opportunities and Risks*, Kansas City, July 7, 1998.

Q: Has the Commission conducted any inquiries into energy market price risk management?

A: Yes. The Commission has conducted multiple such inquiries in natural gas price risk management. The most recent was in 2005 in response to the Office of the Public Counsel's request that the Commission "ensure that natural gas utilities have done everything in their power to mitigate price spikes and keep rates stable."[6] The Commission expressed its concern regarding "gas acquisition strategies that will ameliorate price spikes" and agreed to "take evidence on this issue as requested by Public Counsel."[7]

Q: What was the result of the 2005 investigation?

A: On February 24, 2006 the Commission received from its Staff the Joint Report, which I describe at page 6 of this Rebuttal Testimony. The cover of the Joint Report contained a satellite photograph of Hurricane Katrina approaching landfall and a graph depicting natural gas prices from the beginning of 2004 to the beginning of 2006.

Q: What observations did the Joint Report make with regard to hedging and hedging strategies?

A: The Joint Report noted that Commission Rule 4 CSR 240-40.018 contained the following purpose statement: "This Rule represents a statement of Commission policy that natural gas local distribution utilities should undertake diversified natural gas purchasing activities as part of a prudent effort to mitigate upward natural gas price volatility and secure adequate natural gas supplies for their customers." Id., p. 3. In this context, the Joint Report concluded:

[6] Public Counsel's Motion to Open a New Case, Case No. GW-2006-0110 (Sept. 12, 2005).
[7] Order Establishing Case, Case No. GW-2006-0110. (Sept. 27, 2005) p. 6.

> A central question is what is an appropriate hedging strategy? The answer depends on your view of hedging's objectives, benefits, costs and risks. Hedging strategies that obtain price certainty in lieu of price variability may not result in the lowest costs. If a utility sets an objective to achieve the lowest delivered cost to customers, and if market prices stay at, or increase from, current levels, then the lower the percentage of market price exposure, the better. If market prices drop significantly, the opposite will be true. If a utility has targeted its hedging strategy at limiting exposure to market price spikes, the appropriate level of hedging for that utility will depend on its perception of forecasted market price trends and the benefits, costs and risks of relative hedging mechanisms.

Q: The Commission's Natural Gas Price Volatility Mitigation Rule is directed to natural gas Local Distribution Companies ("LDC"). How is it relevant to this case?

A: The LDC Rule is instructive in identifying the Commission's concern about the impact of energy market price volatility on utility customers. Missouri LDCs pass natural gas costs through a purchased gas adjustment ("PGA") to their customers. Similarly, GMO passes natural gas costs through a Quarterly Cost Adjustment ("QCA") to its customers. While PGAs and the QCA have differences, both sets of customers are ultimately exposed to the market price of natural gas.

Q: Has this Commission expressed any opinion on GMO's gas hedging program for its steam operations?

A: Yes. In its September 28, 2011 Report and Order in HC-2010-0235, the Commission found that Aquila prudently implemented its natural gas hedging program for steam operations and that such program was prudently designed.

Q: Have any other public utility commissions reviewed GMO's gas hedging program for electric operations, which was the model for the hedging program implemented for steam operations?

A: Yes. Aquila presented a similar One-Third Strategy of gas hedging for its electricity operations to the Kansas Corporation Commission ("KCC"). See Schedule WEB-4,

Application, In re Aquila, Inc. for Approval of an Accounting Order to Establish a Natural Gas Hedge Program for Electric Generation, No. 06-AQLE-494-HED (Kan. Corp. Comm'n, Nov. 3, 2005).

In response to Aquila's Application, KCC Staff filed a memorandum in support of a proposed Stipulation and Agreement that would approve the program, stating:

> "This program is designed to reduce, but not eliminate the volatility of [Aquila's] monthly ECA [energy cost adjustment] prices. It is Staff's opinion the proposed program would work as designed.
>
> "Aquila-WPK submitted a well developed Application and the presentation of its 'preferred hedge plan' is the best Staff has ever seen. Aquila should be commended."

See Schedule WEB-5, Staff Memorandum in Support of Stipulation and Agreement, Id. (Dec. 22, 2005), Attachment 1 at 3.

Q: Did the Kansas Corporation Commission approve the proposed Stipulation and Agreement?

A: Yes. In an Order issued December 27, 2005, the KCC granted the Joint Motion and approved the Stipulation, finding that it was "reasonable, in the public interest, and should be approved." See Schedule WEB-6, Order Granting Joint Motion and Approving Stipulation and Agreement, Id. (Dec. 27, 2005).

V. AG PROCESSING OVERSTATES ITS CLAIM

Q: Did AGP err in charging that the entire hedge adjustment is imprudent?

A: Yes.

Q: What is AGP's error in charging that the entire hedge adjustment is imprudent?

A: Actually there are two major errors with AGP's claim that the entire hedge adjustment is imprudent. First, while Mr. Johnstone devotes a significant portion of his testimony to the issue of natural gas as the swing fuel and how that should have been a consideration in the design of the hedging program, he made no such consideration in calculating AGP's claim. Because natural gas was the swing fuel, lower customer demand meant that natural gas represented a lower proportion of the fuel mix. Consequently, even with the hedge losses, customer rates were lower with the lower demand because they reflected a lower proportion of the higher priced natural gas and a higher proportion of lower priced coal. In other words, the same lower-than-forecast natural gas usage that Mr. Johnstone says created volatility in fuel costs actually drove down the effective price AGP paid for steam. AGP made no adjustment for those benefits.

AGP's second major error in charging that the entire hedge adjustment was imprudent was that it failed to recognize the cash or physical gain that offset the futures loss. As I describe at pages 7-9 and 22-24 of my Rebuttal Testimony, a hedge is constructed by linking a futures or derivative transaction with a similar cash or physical transaction. It is the simultaneous offsetting of physical and futures positions that neutralizes the market risk.

Q: How did that lower ratio of natural gas to coal affect GMO's steam customers in 2009?

A: Coal is significantly less expensive than natural gas. Hence, the lower ratio of natural gas to coal meant that less of the expensive fuel (natural gas) and more of the cheap fuel (coal) was used to make steam. That savings passed through the QCA to the steam customers.

Q: Was this lower ratio of natural gas to coal, which reduced the cost of producing steam, considered by Mr. Johnstone's when reaching his conclusion that "hedging" increased volatility in retail rates?

A: No. When discussing the hedge adjustment, Mr. Johnstone failed to make an adjustment for the lower percentage of natural gas in the fuel mix than was expected. About half of the difference between actual natural gas requirements and projected natural gas requirements was due to that lower ratio of natural gas to coal.

Q: How do cash or physical gains offset futures loss?

A: A hedge is constructed by linking a futures or derivative transaction with a similar cash or physical transaction. Those transactions offset one another.

Q: Please illustrate how a hedge works.

A: When constructing a hedge you perform two transactions: (1) buy what you sell, and (2) sell what you buy. Table 1 illustrates how this works using natural gas futures to hedge spot natural gas prices.

Table 1: Illustration of Hedge Mechanics with Derivative Loss				
	A	B	C	D
		Physical Market	Futures Market	Net Impact
1	February	NEED: 10 MMBtus natural gas for August forecast price is $5.00/MMBtu = $50.00	BUY: 10 MMBtus August natural gas futures at $5.00/MMBtu = $50.00	
2	July 27th		SELL: 10 MMBtus August natural gas futures at $4.00/MMBtu = $40.00	
3	August	BUY: 10 MMBtus natural at $4.00/MMBtus= $40.00		
4	**Change**	GAIN: $10.00	LOSS: $10.00	$10.00 - $10.00 = **$0.00**

Q: Using your illustration in Table 1 above, please explain what AGP is recommending.

A: Using the numbers in my example in Table 1, AGP has taken no issue with the $10.00 gain in the physical or spot market shown in cell B4. AGP has not recommended that the spot market gain be disallowed. On the other hand, AGP is arguing that the loss on the futures market shown in cell C4 is imprudent. AGP has not recognized that the true impact of any hedge is what is shown in the sum of the change in the spot market (cell B4) plus the change in the futures market (cell C4) which is shown in cell D4, Net Impact of Changes.

Q: Please illustrate how GMO could have a hedge gain.

A: Using my table again but with different numbers, I will demonstrate a hedge gain. In this example, the hedge gain is $5.00, but again the net impact of the hedge is $0.00.

Table 2: Illustration of Hedge Mechanics with Derivative Gain				
	A	B	C	D
		Physical Market	Futures Market	Net Impact
1	February	NEED: 10 MMBtus natural gas for August forecast price is $5.00/MMBtu = $50.00	BUY: 10 MMBtus August natural gas futures at $5.00/MMBtu = $50.00	
2	July 27th		SELL: 10 MMBtus August natural gas futures at $5.50/MMBtu = $55.00	
3	August	BUY: 10 MMBtus natural at $5.50/MMBtus= $55.00		
4	**Change**	LOSS: $5.00	GAIN: $5.00	-$5.00 + $5.00 = **$0.00**

Q: Can you determine the success or failure of a hedging program by only looking at the transactions in just the futures market?

A: No. You can not determine the success or failure of a hedging program by only looking at the futures market transactions.

VI. REFUTATION OF MR. JOHNSTONE'S OPINIONS

Q: Mr. Johnstone alleged that "net cost of the hedging program during 2009" was imprudent. Did Mr. Johnstone identify any standards or guidelines for assessing the prudence of GMO's hedging program *ex ante*?

A: No. Mr. Johnstone did not identify any standards or guidelines that could be used to evaluate the reasonableness of a hedging program before it is actually implemented.

Q: Why is it important to set standards or guidelines that can be used to evaluate the reasonableness of a hedging program before it is implemented?

A: Understanding what the rules are before a program is implemented avoids judgment by 20/20 hindsight. In writing for the National Regulatory Research Institute, Kenneth Costello and John Cita assert:

> The reasonableness of a hedging program should be evaluated before a program is actually implemented. If regulators decide to perform *ex post* reviews, they run the risk of creating unrealistic or inefficient performance standards or both. The success of a risk-management program should not be evaluated strictly on how things turn out.[8]

Q: Mr. Johnstone asserts that the QCA mechanism mitigated fuel cost volatility such that GMO's hedging program was not needed. Is that view consistent with the Commission's Rule regarding natural gas price volatility or with testimony submitted on behalf of AGP in GMO's prior retail steam rate cases?

A: No. Mr. Johnstone's allegation that the GMO hedging program was not needed is not consistent with GMO's responsibility to mitigate commodity price exposure, the Commission's Rule regarding natural gas price volatility, or testimony submitted on behalf of AGP in GMO's prior industrial steam rate cases.

Q: Why is Mr. Johnstone's assertion not consistent with the Commission's Rule regarding natural gas price volatility?

A: As I discussed earlier, the Commission's Natural Gas Price Volatility Mitigation Rule, 4 CSR 240-40.018, states that "natural gas local distribution companies should undertake diversified natural gas purchasing activities as part of a prudent effort to mitigate upward natural gas price volatility…." The Rule describes its function as to "mitigate upward

natural gas price spikes," "balance market price risks, benefits, and price stability," and "dampen upward volatility". It also states, "Financial gains or losses associated with price volatility mitigation efforts are flowed through the Purchased Gas Adjustment…." As I read the Rule, it is intended to encourage prudent efforts to mitigate upward price volatility.

Q: Is Mr. Johnstone's assertion consistent with testimony submitted on behalf of AGP in GMO's prior retail steam rate cases?

A: No. On pages 4 and 5 of his Direct Testimony filed on behalf of AGP on October 14, 2005 in GMO's 2005 steam rate case, Case No. HR-2005-0450, Maurice Brubaker discusses hedging. He states on page 5:

> Especially in light of the high and volatile gas prices currently being faced, it is appropriate for the effects of the hedging program to be reflected in determining the fuel and purchased power costs properly chargeable to consumers. … The fuel and purchased power prices that are the result of the hedging program should be used to determine the cost chargeable to customers, to the extent of the hedge. See Schedule WEB-7 at 7.

Q: Did Mr. Johnstone's Direct Testimony in Case No. HR-2005-0450 also express a concern about natural gas price volatility?

A: Yes. Mr. Johnstone stated, "The high prices and volatility in the natural gas costs and markets are a concern." See Schedule WEB-8 at 11.

[8] Kenneth W. Costello, Senior Institute Economist, and John Cita, Ph.D, Chief, Economic Policy and Planning Kansas State Corporation Commission, *Use of Hedging by Local Gas Distribution Companies: Basic Considerations and Regulatory Issues*, The National Regulatory Research Institute, May 2001, pg 51.

Q: What do you make of these statements by Mr. Brubaker and Mr. Johnstone on behalf of AGP?

A: I read both of their statements as expressing concern about high natural gas prices and the risk of those prices going higher. I interpret Mr. Brubaker's statement as encouraging Aquila to hedge its natural gas requirements for generating steam and as encouraging the Commission to charge the costs of such hedging activities to the steam consumers, including AGP. In other words, Mr. Brubaker not only asked for a hedging program, but asked that Aquila adopt for its steam operations the same program that was being used by Aquila for its electric operations. The program Mr. Brubaker was asking for was the One-Third Strategy.

Q: How do you respond to Mr. Johnstone's claim that "Aquila passed on the opportunity for customer input"?

A: In light of Mr. Brubaker and Mr. Johnstone's testimony in Case No. HR-2005-0450 that I describe above, Mr. Johnstone's claim is plainly false. As I read Mr. Brubaker's testimony, AGP asked that the same hedging program Aquila was using for its purchased power requirements be used for natural gas requirements for steam generation. To me, a customer's sworn testimony submitted before this Commission is the best documentation of customer input that I could ask for.

Q: In his seventh factor on page 4, as well as on page 20, of his Direct Testimony, Mr. Johnstone characterizes GMO's put option sales as profit oriented or "speculative" and not intended to provide price protection. Is that a proper characterization of the put option sales?

A: No. The main purpose of speculation is to profit from betting on the direction in which a market will be moving. Speculators do not have natural offsetting positions which would balance any gains or losses. In contrast, hedgers like GMO take an offsetting position in a derivative in order to balance any gains or losses in the physical market. When GMO constructed price collars by purchasing call options and selling put options, it protected itself and its customers from upward price movement. GMO then committed to buy gas that it fully expected to need at prices that were below market at the time the deal was made. That is not speculation.

Q: Why did GMO sell put options?

A: GMO sold or wrote put options and turned some of the call options it had purchased into collars as a means of mitigating the hedging program's premium expense.

Q: Is it a common practice for hedgers to sell puts so as to mitigate a hedging program's premium expense?

A: Yes. The practice is described in the February 24, 2006, *Joint Report on Natural Gas Market Conditions, PGA Rates, Customer Bills & Hedging Efforts of Missouri's Natural Gas Local Distribution Companies* as follows:

> Financial instruments can be used in combination to balance price risk or reduce the overall cost of hedging. One combination of financial instruments used by LDCs is a collar. A collar pairs a call option with a put option to set a ceiling and floor for the price of natural gas. A put option works as a floor on the price to be paid for natural gas whereas a call option places a ceiling on the price. For example, an LDC buys a call

option with a strike price of $10/MMBtu for a premium of $0.50/MMBtu, and at the same time sells a put option with a strike price of $7/MMBtu for a premium of $0.20/MMBtu. This means that the LDC has basically "collared" the price of natural gas between $7 and $10/MMBtu, and the premium received for the put option offsets part of the premium paid for the call option. The call option sets the ceiling price and the put option sets the floor price for the covered volumes of gas. If the cost of the call option and the price of the put option are equal, the arrangement is known as a costless collar. See Joint Report, Case No. GW-2006-0110 (Feb. 27, 2006) at page 12.

Q: In his Direct Testimony at pages 19-20, Mr. Johnstone also talked about buying put options. Did Aquila purchase put options?

A: No. It was not necessary for Aquila to buy puts as described by Mr. Johnstone.

Q: In his discussion on Aquila's use of put options at page 20 of his Direct Testimony, Mr. Johnstone stated, "Aquila sold price protection to others instead of buying protection for its account." Do you agree with that statement?

A: No. Aquila purchased price protection for it and its customers by purchasing call options. It then employed a common hedge cost management strategy in that it sold put options to construct price collars and used the premiums from selling the puts to offset the cost of purchasing call options. Mr. Johnstone did not point out that all of the put option sales were tied to call option purchases and that puts were only sold when they would combine with a call to create a collar. This was a prudent risk management practice because it limited the cost of the hedge program.

Q: Mr. Johnstone discusses the results of the hedging program on pages 24-31 of his Direct Testimony. How would you characterize Mr. Johnstone's discussion of those results?

A: Every example and every number cited by Mr. Johnstone in his discussion of hedge results on pages 24 through 31 of his Direct Testimony are focused on 2006. None of his

examples or numbers relate to 2009, the relevant period for this case. Mr. Johnstone's Direct Testimony starting at line 7 on page 24 and continuing line 10 of page 31 has no bearing on this case.

Q: Does Mr. Johnstone's analysis of the sales forecast and gas requirements forecast on pages 31 through 32 of his Direct Testimony suffer from the same lack of relevance?

A: Yes. The problems Mr. Johnstone points to with GMO's forecast were in 2006 and 2007. As Mr. Johnstone points out on page 2 of his Direct, this case is about 2009 hedging program costs. Issues with sales or usage forecasted for 2006 or 2007 have no bearing on 2009 hedging program costs.

Q: On pages 3 and 4 of his Direct Testimony, Mr. Johnstone identifies several factors which he says contribute to his conclusion of imprudence. Are those factors also irrelevant because they focus on a time period outside of this case?

A: Yes. Several of Mr. Johnstone's factors are based on examples from 2006 or 2007, which have no bearing on the 2009 hedging program costs under review here.

VII. PRUDENCE

Q: Is it appropriate to use 20/20 hindsight when reviewing the results of a hedging program?

A: No. While I am not an attorney, I understand that the Commission measures prudence based on the circumstances that existed at the time the challenged item occurred. In other words, GMO's hedging program should be judged by asking whether the conduct was reasonable at the time, under all the circumstances that existed at that time.

Q: When was the first hedge placed for 2009?

A: The first hedge was placed July 27, 2006.

Q: Is July 2006 the appropriate time to evaluate GMO's hedging program so as to avoid the use of hindsight?

A: Yes. Since Mr. Johnstone in his first factor on page 3 of his Direct Testimony argues that GMO's natural gas hedging program was not needed, he must agree that July 2006 is the proper time to assess the decisions that affect 2009 hedge costs.

Q: In July 2006 did GMO know that customer load in 2009 was going to be lower than its steam customers' had projected?

A: No.

Q: In July 2006 did GMO know that it would use a lower proportion of natural gas in its fuel mix to produce steam for customers in 2009 than it budgeted?

A: No.

Q: Has AGP challenged the efficiency of any of GMO's hedges?

A: No. Mr. Johnstone makes no claim that GMO paid more than market for any of the hedges it placed.

Q: Has AGP challenged the efficiency of any of GMO's natural gas purchases?

A: No. Mr. Johnstone makes no claim that GMO paid more than market for any of the natural gas it purchased.

Q: Was there any detrimental impact of using natural gas futures contracts to hedge the price of natural gas?

A: No. When both the sides of the hedge transaction are considered—the physical market and the futures market—then there is no detrimental impact of the Company's hedging activities on customers. The loss that AGP is challenging on the futures market side of the transaction is offset by the gain on the physical market side of the transaction. As a

result, there is no detrimental impact of the hedges. AGP improperly considered only one side of the hedge transaction—it simply disallowed the loss in the futures market without considering the offsetting gain in the physical market side of the transaction.

Furthermore, AGP is claiming that the imprudence resulted from volumes being less than projected, which, as I already discussed, actually resulted in lower prices for AGP because of the more favorable fuel mix. AGP failed to adjust its claim for those lower prices.

Q: Does the fact that GMO experienced a loss on the derivative side of its hedges mean that customers were harmed?

A: Absolutely not. The reason for hedging is to mitigate risk. In that regard, a hedge is like insurance. To say a customer is harmed when only looking at the derivative side of a hedge is like saying you were harmed because you paid a premium for fire insurance on your house, but your house did not burn down, so you did not get a settlement payment from the insurance company. Were you harmed because you paid the insurance premium but the house did not burn down? No. Can you demand that the insurance company return your premium? No. AGP is essentially saying that because gas prices did not go through the roof, it wants the hedge premiums back so it can use the money to further lower its fuel costs.

Q: In your opinion, has AGP been able to substantiate its claim that GMO's hedging activities were imprudent?

A: No.

VIII. CHANGES IN THE NATURAL GAS MARKET AND NATURAL GAS COSTS

Q: Were there substantial changes in the U.S. natural gas market and in natural gas costs between early 2006 and 2009?

A: Yes. The dramatic changes in supply and demand were unprecedented, and are directly relevant to the performance of the hedging program that Aquila adopted in 2006 for its Lake Road Plant steam operations.

Q: Why are these changes in the natural gas market relevant to this case?

A: As I explain in detail below, it was changes in the gas market, caused by the development of shale gas, as well as by variations in weather and the resulting economic conditions, that were responsible for the majority of the 2009 hedge program costs. Only a small part of the hedge costs can be attributed to lower than expected volumes of customer steam usage.

Q: What was the outlook for natural gas in early 2006?

A: The United States was expected to be in a supply-limited environment with a number of uncertainties concerning that supply. Consequently, it was expected that average 2006 prices would be similar to 2005 prices. Moreover upside gas price volatility was expected to exceed downside price volatility especially during times of adverse weather.

Q: What was driving this expectation for high prices and risk of upward price volatility?

A: Weather forecasters were predicting that the 2006 hurricane season would have two times more activity than normal. At the end of 2005 2.5 BCFD (billion cubic feet per day) of production was still curtailed because of damage from Hurricanes Katrina and Rita. U.S. LNG (liquefied natural gas) imports had declined about 10% in 2005. Scheduled

increases in worldwide regasification capacity exceeded scheduled increases in liquefaction by more than 2 to 1. That meant there would be increased global competition for LNG. As a result the U.S. only expected modest increases in LNG imports.

Q: What changes have occurred in the natural gas market over the past ten years?

A: Since about 2000, the level of uncertainty increased significantly for natural gas. The market shifted from being in a state of supply-surplus to being supply-limited. A characteristic of supply-limited environments is that prices are set by the marginal buyer rather than the underlying supply curve. That means prices will rise until sufficient demand is reduced as to bring supply and demand into balance. The specific factors driving demand and determining what price the marginal buyer will pay vary by commodity but are also interrelated.

Q: How did that shift from supply-surplus to supply-limited markets affect natural gas prices?

A: Prices are higher in supply-limited markets than in supply-surplus markets. Prices are also more uncertain and volatile in supply-limited markets than in supply-surplus markets.

Q: How did those changes impact the price of natural gas leading up to 2006?

A: Since the turn of the new century, natural gas experienced significant price volatility. During the winter of 2000-2001 natural gas prices ranged between $4.485/MMBtu to $9.978/MMBtu. The Commission recognized this in its Order of January 23, 2001 where it noted "[r]ecent price increases in the commodity cost of natural gas" and established a

Natural Gas Commodity Price Task Force. See In re Commission Inquiry into Purchase Gas Costs Recovery, Case No. GW-2001-398.

Natural gas in December 2004 was about $6.83/MMBtu. In December 2005 it reached a peak of $15.378/MMBtu, then dropped to $4.120/MMBtu in September 2006. These moves represented a price spike of 125%, followed by a decline of 73%. By July 2008 natural gas had returned to $13.58, but then dropped 82% to $2.508, a price level that the markets had not seen since March 2002. In the first nine months of 2010 the price of natural has ranged from $3.651 to $6.009.

Q: Please explain the shift in the natural gas market from supply-surplus to supply-limited and the effect of this shift on natural gas prices?

A: Following a decade of low natural gas prices, natural gas markets suffered a severe shock in the winter of 2000/2001. That winter the natural gas market was supply-limited. As can be seen in Schedule WEB-9, which is a chart of population weighted winter heating degree days, the four winters preceding winter 2000/2001 were all warmer than normal with winters 1998/1999 and 1999/2000 being significantly warmer than normal. Prior to the very cold winter of 2000/2001, the United States experienced a period of excess supply commonly referred to as the "gas bubble." As shown in Schedule WEB-10, natural gas storage levels were drawn down to unusually low levels in the very cold winter of 2000/2001. Natural gas prices responded by jumping to about $10.00/MMBtu, which was more than double the all-time high price (NYMEX near-month close) before September 2000. The natural gas industry responded with increased drilling thereby increasing natural gas production. Before September 2000, there had never been more than 800 rigs devoted to natural gas. By May 2001 over 1,000 rigs were working on

natural gas wells. Consequently, storage was restored to a new record level of 3,238 Bcf in December 2001.

As shown by Schedule WEB-11, the following winter 2001/2002 was very mild resulting in lower than normal demand. Storage at the end of winter 2001/2002 was 1,491 Bcf, a record high end of winter level. Prices dropped to less than $2.00/MMBtu. The industry again responded but this time with decreased drilling. When prices started trending up later in 2002, the industry was much slower to respond. In fact, second quarter 2002 was the last quarter when U.S. marketed natural gas production was more than 5,000 Bcf (billion cubic feet). Production in third quarter 2005, which included some impact from Hurricanes Katrina and Rita, was only 4,668 Bcf. U.S. marketed natural gas production had not been that low since third quarter 1993. Moreover, production for October 2005 was slightly less than 85 % of average production for the preceding ten Octobers. In brief, the U.S. was in a natural gas supply-limited environment which had driven prices up searching for a new demand/supply balance point.

Q: What factors were driving the increased price uncertainty in the natural gas market?

A: There were a number of factors that caused the increased price uncertainty in the U.S. natural gas market. However, the key drivers were:

- Uncertainty about what price was required to reduce the marginal demand;
- The speed at which natural gas markets could swing from surplus of supply to being supply-limited;
- The influence of hedge funds; and

- Changes in demand projection paradigms.

Q: Why was there uncertainty about what price was required to reduce the marginal demand for natural gas?

A: The power industry tends to be the marginal customer for natural gas and effectively determines the upper bound on natural gas prices because of its ability as an industry to switch fuels. The complexity of determining when that fuel switching would take place had increased over the past few years. Traditionally, it was assumed that when natural gas was more expensive than oil on a $/MMBtu basis, fuel switching would take place. While this was still true in some situations, the fuel switch decision is made on a unit-by-unit basis. It is a function of regional anomalies such as taxes and fuel transportation rates, and the unit's power generation technology (*i.e.*, steam generators, combustion turbine, or combined cycle), which in turn affects the unit's heat rate, emission levels, environmental constraints, and minimum run times.

Q: What do you mean by the speed at which the natural gas market could swing from surplus of supply to being supply-limited?

A: Significant weather events can have major immediate impacts on the supply/demand balance for natural gas. Summer 2005 and Winter 2000/2001, which I discussed earlier, both show just how quickly the natural gas market can swing from a supply surplus to being supply-limited. Summer 2005 was the warmest in many years, driving electric sector demand for natural gas to new levels. Exacerbating the supply and demand imbalance was the loss of significant quantities of natural gas production due to hurricanes. Summer/fall 2005 was probably the most active hurricane season on record.

Hurricanes Katrina and Rita demonstrated just how much impact hurricanes can have on natural gas supply.

Hurricanes Katrina and Rita made landfall on August 28, 2005 and September 19, 2005, respectively. They were a major turning point for the natural gas industry. In the January 19, 2006 release of the U.S. Minerals Management Service's (MMS) *Impact Assessment of Offshore Facilities from Hurricanes Katrina and Rita*, MMS Regional Director Chris Oynes said:

> The overall damage caused by Hurricanes Katrina and Rita has shown them to be the greatest natural disasters to oil and gas development in the history of the Gulf of Mexico. Just last year [2004], in the devastating Hurricane Ivan, there were seven platforms destroyed, compared with the 115 platforms destroyed in Katrina and Rita.

Schedule WEB-12 shows that production following Hurricanes Katrina and Rita dropped to levels not seen since September 1989. Before Hurricanes Katrina and Rita, the MMS estimated that natural gas production in the Gulf of Mexico was about 10 Bcf/d (billion cubic feet per day). Five months after those hurricanes struck, at the end of January 2006, about 17% of Gulf natural gas production was still off-line. *Natural Gas Week* reported in its January 9, 2006, edition that "perhaps 200 Mcf/d to 1 Bcf/d may be gone for good." Consequently, the predictions based on long-range weather trends were that 2005 was the beginning of a decades-long season of hurricanes like Katrina and Rita. Those predictions further increased the uncertainty of natural gas production and drove even more price uncertainty.

Q: How were hedge funds affecting the natural gas market in 2005?

A: The influx of new hedge funds into the energy market had increased market volatility and uncertainty. Ron Denhardt, vice president of natural gas services at Strategic Energy and Economic Research, put it this way in the April 22, 2005, edition of Platts' *Inside*

FERC's Gas Market Report: "The way I'm seeing the market is that unless there is strong evidence the [supply/demand balance] is too loose, people playing the paper market can drive prices all over the place."

Q: How did changes in demand projection paradigms add uncertainty to the natural gas market?

A: Earlier demand forecasts were developed under different paradigms. Since 2005, the price for natural gas has been outside of the range of prices that would have been used to develop statistical price sensitivities. Furthermore, the analyses for determining power sector demand become more complex. It was no longer a simple comparison between the price of natural gas and oil on a $/MMBtu basis. In addition, from 1999 to 2004, gas-fired generation increased 27% and gas-fired capacity in the power industry more than tripled.

Q: In January 2006, when did you expect the price uncertainty in natural gas markets to decrease?

A: In my January 2006 testimony in Case No. ER-2006-0314, I answered a similar question as follows:

> The lingering impact from Hurricanes Katrina and Rita, the expectation that hurricane seasons like 2005 may be the new norm, the possibility of a warmer than normal summer either followed or led by a colder than normal winter, were just a few of the factors that lead me to believe that while we may see lower prices, natural gas price uncertainty will not decrease until after new supply from sources such as liquefied natural gas ("LNG") imports increases significantly and that is not expected until 2007 or later.

Q: Did others hold a similar view?

A: Yes. The EIA's January 2006 *Short-Term Energy Outlook* showed Henry Hub natural gas prices, which averaged $9.00/MMBtu in 2005, were projected to average $9.80 in 2006 and $8.84 in 2007.

Q: Since January 2006 have there been any major unexpected changes in the fundamentals for natural gas?

A: Yes. Perhaps the single most significant change was the development of shale gas.

Q: How has shale changed the fundamental outlook for natural gas?

A: The main change has been the tremendous increase in natural gas reserves that are now perceived as economically recoverable. Natural gas proved reserves increased 12.6% from 2006 to 2007. Since 1950, that is double the next largest year-over-year increase of 6.3% in 1956. From 2004 to 2007 natural gas proved reserves increased 23.5%. That compares to the next largest 3-year increase since 1950 of only 16.5%, which was set from 1954 to 1957.

As recently as 2002, the United States Geological Survey in its Assessment of Undiscovered Oil and Gas Resources of the Appalachian Basin Province calculated that the Marcellus Shale Field contained an estimated undiscovered resource of about 1.9 trillion cubic feet of gas. In early 2008, Terry Englander, a geoscience professor at Pennsylvania State University, and Gary Lash, a geology professor at the State University of New York at Fredonia, estimated that the Marcellus Shale Field might contain more than 500 trillion cubic feet of natural gas. That is 250 times the 2002 estimate!

In June 2009 the Potential Gas Committee, a widely recognized and knowledgeable non-profit organization affiliated with the Colorado School of Mines,

released the results of its year-end 2008 assessment of the nation's natural gas resources, indicating that the United States possesses a total resource base of 1,836 trillion cubic feet. That is a 39% increase over the 2006 assessment and is the highest resource evaluation in the Committee's 44-year history and was more than double the 18% increase from 2004 to 2006 reported in September 2007. Most of the increases from the prior assessments arose from re-evaluations of shale-gas resources. Shale now accounts for about 33% of the total resource base.

Dry shale gas production has increased from 1.0 trillion cubic feet in 2006 to 4.8 trillion cubic feet, or 23 percent of total U.S. dry natural gas production, in 2010. Wet shale gas reserves increased to about 60.64 trillion cubic feet by year-end 2009, when they comprised about 21 percent of overall U.S. natural gas reserves, now at the highest level since 1971.[9]

Q: Since the Commission's Natural Gas Commodity Price Task Force of 2001, has the Commission conducted any other inquiry relating to natural gas prices and markets?

A: Yes. At the request of the Office of the Public Counsel that the Commission "ensure that natural gas utilities have done everything in their power to mitigate price spikes and keep rates stable," the Commission ordered an investigation be opened.[10] The Commission expressed its concern regarding "gas acquisition strategies that will ameliorate price spikes" and agreed to "take evidence on this issue as requested by Public Counsel."[11]

[9] U.S. Energy Information Administration, "Review of Emerging Resources: U.S. Shale Gas and Shale Oil Plays", July 8, 2011, http://www.eia.gov/analysis/studies/usshalegas/ Accessed June 28, 2012.
[10] Public Counsel's Motion to Open a New Case, In re Investigation into the State of Missouri's Natural Gas Local Distribution Companies' Compliance with Commission Rule 4 CSR 240-40.018, Case No. GW-2006-0110 (Sept. 12, 2005); Order Establishing Case, id. (Sept. 27, 2005).
[11] Order Establishing Case, id. at 6.

As I discuss at pages 6, 19, and 29 of this Rebuttal Testimony, on February 24, 2006 the Commission received from its Staff the 44-page "Joint Report on Natural Gas Market Conditions, PGA Rates, Customer Bills & Hedging Efforts of Missouri's Natural Gas Local Distribution Companies." This Joint Report is relevant because it demonstrates that hedging strategies designed by a company like Aquila to mitigate price volatility, especially upward volatility, will utilize the same economic considerations and financial instruments regardless of whether the company is an LDC procuring gas for use by its customers or a steam utility procuring gas to be converted into steam service for its customers.

Q: How did those changes in the natural gas market affect GMO's hedges?

A: Those market changes caused a negative hedge adjustment. In fact, those market changes were the lion's share of the total hedge costs in the natural gas hedging program for steam operations in 2009. The volume variance from GMO's budget for 2009 represented only a small part of the total hedge adjustment.

Q: How does the price of natural gas during the three-year period of 2006 to 2009 compare with natural gas prices from 2000 to 2009?

A: Schedule WEB-13 shows the market price of natural gas from July 2000 through December 2010. It generally shows that the market dramatically spiked upwards four times: (1) winter of 2000-01, (2) winter February-March 2003, (3) August 2005-February 2006, and (4) February-August 2008. It also spiked downward four times: (1) September 2004, (2) September-beginning October 2006, (3) September 2007 and (4) September 2009. The September-October 2006 downward spike is the only downward spike that came close to the magnitude of the four upward spikes.

In Schedule WEB-13 you can see the price changes that occurred during this volatile period. As I noted earlier in my testimony, natural gas reached a peak of $15.38/MMBtu in December 2005, dropped to $4.20 in September 2006, then rose to $13.58 in July 2008, but then dropped 82% to $2.51 on September 3, 2009. Prices had not been that low since March 2002.

Q: How would you describe this period of 2005 to 2009 in terms of being able to predict the price of natural gas?

A: It was an exceedingly difficult time to attempt to predict the price of natural gas. In retrospect, although there have been periods of volatility in natural gas markets in recent history, the period from Memorial Day 2005 to November 2009 is unmatched by any other period in past twenty years. Because it is impossible to predict prices in commodities markets like natural gas, an analysis conducted with the benefit of 20/20 hindsight must be done carefully.

Q: What are the issues that arise in conducting an historical analysis using 20/20 hindsight?

A: With the benefit of history, it is always easy to second guess what a company should have done to protect itself against financial and commodity risks. Pieces of evidence or trends that appear to be minor or insignificant at the time take on greater significance or major importance when viewed after the fact.

IX. CONCLUSION

Q: Based upon your experience in working with financial instruments and hedging programs utilized by public utilities, what is your opinion regarding the natural gas hedging program that Aquila used with regard to its steam operations at the Lake Road Plant in St. Joseph?

A: I believe that Aquila made a reasonable decision in early 2006 to implement the One-Third Strategy as a natural gas hedging program that would apply to steam operations in St. Joseph. Aquila had already demonstrated experience and expertise with hedging programs and other financial instruments, and adopted this relatively conservative program to avoid being criticized as engaging in speculative behavior.

The program was designed appropriately for the goal of mitigating price volatility. The hedging costs for 2009 must be viewed in the context of the precipitous drop in natural gas prices, which could not have been predicted in early 2006, especially after the price increases seen in the aftermath of Hurricanes Katrina and Rita. The subsequent advancements in shale gas technology and the sudden appearance of such resources could not have been anticipated in late 2005 or early 2006.

The program also was administered properly, given the expected volume information that was provided to Aquila by its steam customers. Efforts were made to modify positions, as Mr. Gottsch noted in his Rebuttal Testimony at 13-14, when such steps were feasible.

Overall, based on the information that was known and acted upon at the time, the natural gas hedging program for Aquila's steam operations was reasonable and prudent.

Q: Does that conclude your testimony?

A: Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

Ag Processing, Inc., Complainant,	)	
v.	)	Case No. HC-2012-0259
KCP&L Greater Missouri Operations Company, Respondent.	)	

AFFIDAVIT OF WILLIAM EDWARD BLUNK

STATE OF MISSOURI)
) **ss**
COUNTY OF JACKSON)

William Edward Blunk, appearing before me, affirms and states:

1. My name is William Edward Blunk. I work in Kansas City, Missouri, and I am employed by Kansas City Power & Light Company as Supply Planning Manager.

2. Attached hereto and made a part hereof for all purposes is my Rebuttal Testimony on behalf of KC&PL Greater Missouri Operations Company consisting of forty - five (45) pages, having been prepared in written form for introduction into evidence in the above-captioned docket.

3. I have knowledge of the matters set forth therein. I hereby affirm and state that my answers contained in the attached testimony to the questions therein propounded, including any attachments thereto, are true and accurate to the best of my knowledge, information and belief.

William Edward Blunk

Subscribed and affirmed before me this 2nd day of July, 2012.

Nicole A. Wehry
Notary Public

My commission expires: Feb 4, 2015

NICOLE A. WEHRY
Notary Public - Notary Seal
State of Missouri
Commissioned for Jackson County
My Commission Expires: February 04, 2015
Commission Number: 11391200

SCHEDULE WEB-1

THIS DOCUMENT CONTAINS HIGHLY CONFIDENTIAL INFORMATION NOT AVAILABLE TO THE PUBLIC

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Date: February 25, 2005

To: Energy Resources

From: Commodity Risk Management

RE: Missouri Natural Gas & Purchase Power Hedge Strategy – Implementing the Market Neutral Approach - Update

The Missouri Public Service Commission ("MPSC") issued an April 2004 order accepting the Stipulated Settlement (the "Stipulation Agreement") between interveners and Aquila, Inc. d/b/a Aquila Networks – Missouri ("Aquila") regarding Aquila's rate disposition for the period April 22, 2004 through April 21, 2006. Appendix A of the Stipulation Agreement details the Interim Energy Charge ("IEC") by which Aquila is allowed to recover, subject to the specified predetermined energy charge limitation, the production fuel and purchase power costs incurred to meet combined Missouri Public Service and St. Joseph Light & Power Company customer requirements during that period. In the event the cumulative two years of energy charges under the IEC are determined to be less than the predetermined charge Aquila will be obligated to refund any over collection thereof to its constituent ratepayers. Representatives of MPSC staff and Aquila management will if necessary, determine the reasonableness of cumulative energy charges, from both a customer and shareholder perspective. To that end, Aquila continues to refine and correspondingly implement the post 2004 Hedging Strategy detailed below.[1]

Aquila's hedging plan for natural gas and on-peak purchase power is designed to be market neutral. Market neutral means the utility is not trying to make a directional call on whether the price of natural gas or on-peak purchase power is rising or falling but rather methodically purchasing financial contracts that result in an average market cost over an extended period of time. This approach dampens the affect of rapidly rising or declining markets on the system fuel, specifically natural gas, and on-peak purchased power costs. There are two key elements of a hedging program:

1. Determine how much of the price volatility the utility needs to mitigate. For example: Purchasing all requirements under long-term fixed price contracts provides 100% price certainty but takes away any benefit of declining markets from the utility and ultimately it's customers. Aquila and the MPSC Staff have discussed and Aquila has subsequently implemented a strategy that provides price mitigation on two-thirds of its natural gas and on-peak purchased power volumes.[2] One third of the volumes float with index.

2. Determine what period of time is included in the hedging program. The time period selected can vary from hedging only summer peak loads for the current year to a multi-year hedging that dollar cost averages the price for an extended period and mitigates year-to-year volatility. Aquila and the MPSC Staff have discussed and Aquila has subsequently implemented a strategy of three years.[2]

Schedule 2-1
HC

The hedging plan uses fixed price contracts and options that financially settle for the difference between the market price on the day of settlement and the fixed price on the contract. These financial settlements are accounted for in account 417.1 Expenses of non-utility operations. These financial settlements are part of the utility operations. However, because they are financial instruments they are not provided for within the FERC defined fuel accounts. The hedging plan is executed by purchasing one-third of the monthly forecast quantity, for each month over a 28 month period, proportionally procured in fixed price financial contracts. An additional one-third of the monthly forecast quantity is proportionately procured using options (primarily participatory collar) form and the remaining one-third of the monthly forecast quantity will be purchased at the then prevailing daily market indexes (i.e. floating with the market). This portfolio approach (i.e. use of fixed price financial instruments, options, and index) mitigates the impact of rising prices with the two thirds quantity that is hedged with fixed price contracts (1/3) and options (1/3) while the index portion (1/3) of the portfolio floats upward with market prices. This same approach also allows the utility and ultimately its customers to participate in declining markets through the two-thirds of the portfolio that floats with index (1/3) and the options (1/3) (that would not be exercised) when prices were declining. The fixed price contracts will result in higher than market cost for one third of the portfolio.

Rather than implement a generally less efficient on-peak purchase power hedge plan at a remote hub Aquila will convert projected on-peak purchase power quantities into equivalent quantities of natural gas.[3] To determine the equivalent number of natural gas contracts to hedge on-peak purchased power, a market heat rate is computed. The market heat-rate is calculated by dividing the sum of the forward CIN price plus or minus the historic monthly CIN/N-SPP or CIN/ENT basis by the sum of the NYMEX forward and historic monthly Williams Pipelines basis net losses.[4]

$$\text{Market Heat Rate} = \frac{\text{CIN monthly forward prices +- appropriate basis to N-SPP or Entergy}}{\text{NYMEX Forward gas +- Williams Pipeline basis}}$$

The volumetric forecasts for the natural gas and natural gas equivalent on-peak purchase power needed to meet Aquila's net system requirements during the subsequent three years is developed as part of the fuel budget process. This budget is typically developed prior to July 15 of each year. (*e.g.*, By July 15, 2004 the initial monthly fuel budget forecasts for calendar year's 2005, 2006, and 2007 will be established, budgeted forecasts are finalized near the latter part of October). Energy Resources will then commence, subject to the subsequent monthly fixed and collar structure price and premium/price targets established by Commodity Risk Management, purchasing a proportional quantity of fixed-price and options during each month of the subsequent three years, sufficient to have fully procured the one-third volume of fixed and options prior to October 31 of the calendar year immediately proceeding the calendar year of need (*e.g.*, purchase calendar 2007 monthly fixed needs in equal quantities during the 28 months from the date hereof through October 31, 2006).[5]

If there are significant changes in key inputs to the volumetric forecast for natural gas and on-peak purchased power such as the cost of natural gas, the cost of on-peak purchase power, scheduled unit availability or whenever directed by Commodity Risk Management, Energy Resources will re-run the fuel budget model. These re-runs of the model will be done no less frequently than three months of the prior (re)run. The resulting new forecasted natural gas and on-peak purchase power

natural gas equivalent quantities will then become the new-targeted procurement quantities. Energy Resources will then adjust its purchasing to meet the new target quantities.

Energy Resources and Commodity Risk Management will meet no less than once a month to discuss all issues relevant to this hedging process. Energy Resources will record and otherwise document and all transactions including a summary of and current valuation of the hedge accounts.

The 2005 fuel (and purchase power) budget process is predicated on a Missouri Power Supply Plan comprised of the i) effective commercial operation of the South Harper Peaking Facility on June 1, 2005[6], ii) consummation of a definitive agreement regarding the purchase of 78 MW's of unit participation capacity and associated energy from Nebraska Public Power District's Cooper Nuclear Station (reference the June 4, 2004 Letter of Intent), and iii) consummation of a definitive agreement regarding the purchase of 150 MW's of system participation capacity and associated system-average-cost energy from Southwestern Public Service (reference the June 22, 2004 Memorandum of Understanding).[7]

Energy Resources will, subject to the directives of Commodity Risk Management, mechanically and proportionally close the monthly fixed and option positions procured in accordance with the above plan at expiration and on or before the expiration date depending upon market conditions, respectively, of the corresponding contract month (e.g., March 2006 fixed contracts will be sold/settled no earlier than the first trading day and no later than expiration on the last trading day of February 2006).[8]

---

[1] During the applicable portions of calendar 2004 Energy Resources mechanically and proportionally purchased fixed price and correspondingly sold or otherwise closed NYMEX positions post the effective date of the Stipulation Agreement through the end of the 2004.

[2] Aquila presented its 2005-2007 hedging plan to MPSC and OPC staffs at the July 9, 2004 Resource Planning update.

[3] Exceptions can from time-to-time be made provided Commodity Risk Management concurs. Energy Resources will be responsible for documenting any such exception.

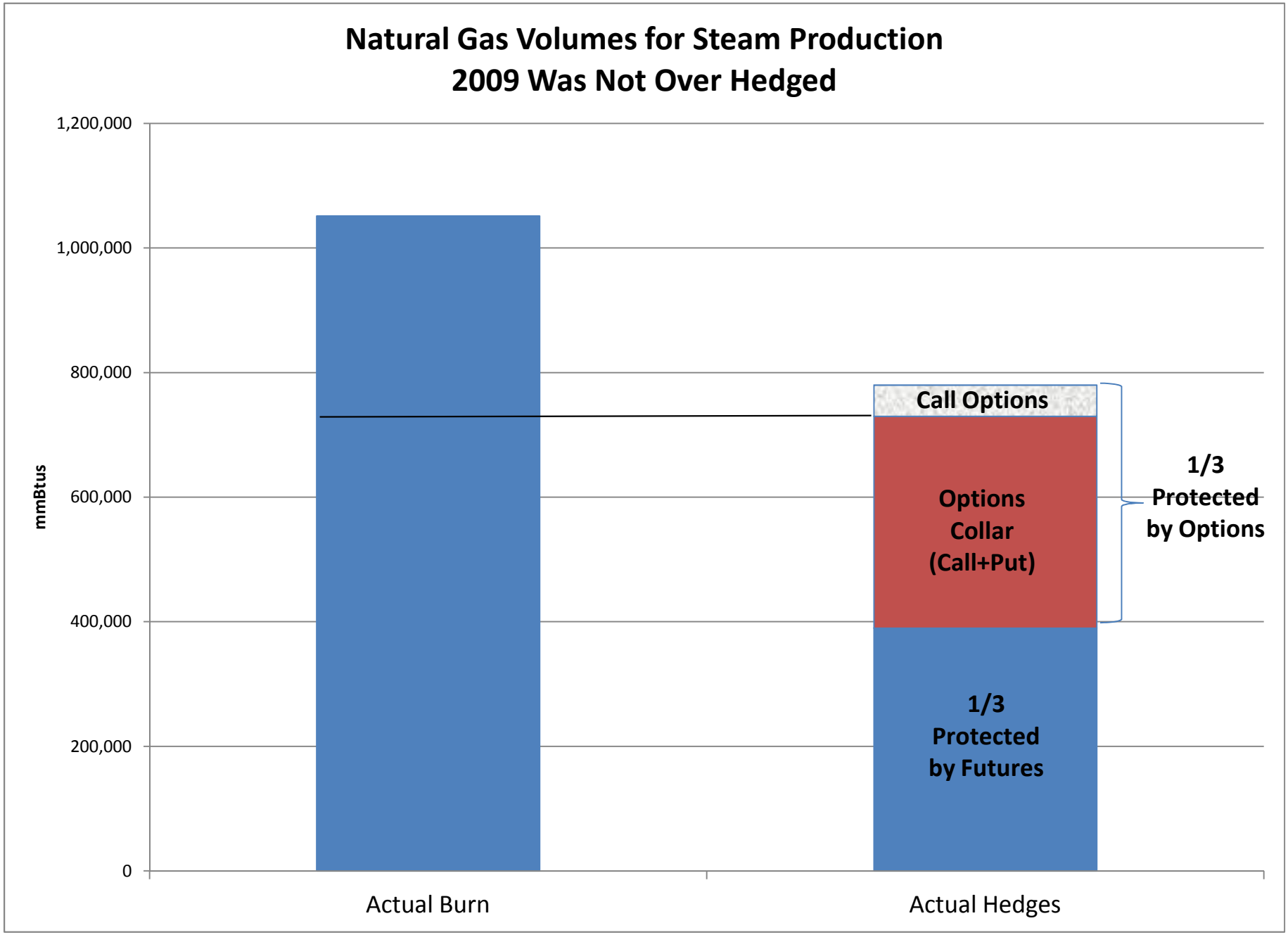
[4] It is understood that the appropriate liquid forward market used to determine the market heat rate will likely change as the regional transmission markets develop, potentially necessitating a change in the forward and/or basis used to determine the representative market heat rate.

[5] Due to implementation timing limitations calendar 2005 and 2006 monthly quantities will be procured over four and 16 month timeframes, respectively (*e.g.*, Energy Resources will purchase approximately 60 NYMEX monthly contracts each month July through October to procure the one-third fixed price component, approximately 2.4 Bcf, of the calendar 2005 forecasted 7.2 Bcf natural gas and on-peak purchase power equivalent natural gas need)

[6] South Harper Peaking Facility effective commercial operation date will be amended pending a meaningful determination/resolution of Aquila's i) request for Certificate of Public Convenience and Need or ii) appeal to the Missouri Court of Appeals.

[7] Southwestern Public Service and Aquila continue to negotiate a definitive agreement despite expiration of the Memorandum of Understanding. Aquila continues to seek alternative 2005 summer and longer-term power supply alternatives.

[8] Effective January 2005 Energy Resources shall document the economic justification if it closes a position, other than puts, prior to that positions expiration.



Schedule WEB-3

BEFORE THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS

In the Matter of the Application of Aquila, Inc., d/b/a Aquila Networks-WPK, for Approval of an Accounting Order to Permit Aquila, Inc., d/b/a Aquila Networks-WPK, to Recover Amounts Necessary to Expend in Order to Establish and Maintain a Natural Gas Hedge Program for Electric Generation for the 2006 Summer Season; and for Approval of its "Gas Hedge Program for Electric Generation"	))))))))	Docket No. 06-AQLE-494-HED

APPLICATION

COMES NOW Aquila, Inc., d/b/a Aquila Networks-WPK ("Aquila"), and pursuant to K.S.A. 2002 Supp. 66-117, files this application with the Kansas Corporation Commission ("KCC") for an order approving its request for an accounting order to permit Aquila to recover such amounts of its funds as may be necessary to expend in order to establish and maintain a gas hedging program for the 2006 summer season, defined as June 1 through September 30, under the Gas Hedge Program for Electric Generation and for approval of its "Gas Hedge Program for Electric Generation." In support of its application, Aquila states as follows:

1. Aquila is a corporation duly organized under the laws of the State of Delaware, with a principal place of business at 20 West Ninth Street, Kansas City, Missouri 64105. Aquila is authorized to do business and is conducting business in the State of Kansas.

2. Aquila is engaged, generally, in generating, transporting, distributing and selling electricity in portions of Kansas. Aquila provides service to nearly 70,000 electric customers in Kansas. Aquila's Kansas operations are subject to the jurisdiction of the KCC.

3. Based upon meetings that Aquila has conducted with members of the KCC Staff, CURB and based anecdotally upon discussions which took place during the formal roundtable discussions and the most recent focus group study held by the KCC regarding natural gas price

volatility, Aquila believes it is important that some type of price protection should be afforded to its residential and commercial customers by establishing a ceiling price to be paid on a percentage of its projected summer natural gas for generation volumes as well as fixing another percentage for the 2006 summer season. In order to establish a ceiling price on a percentage of the projected summer natural gas for generation volumes to be purchased for the 2006 summer season, it is likely that Aquila will have to spend approximately $600,000.00. Aquila requests that the KCC authorize Aquila to expend up to $600,000.00 to establish such a ceiling price. Aquila is willing to invest such funds, as needed, to establish a ceiling price on the percentage of gas purchases for which the ceiling price is being established. However, Aquila will invest such funds to reach the target price cap expenditure only if the KCC authorizes the recovery of the funds expended through a separate average charge per customer (expressed as a per kilowatt-hour charge) and stated separately on customer bills. The $600,000, or $.924 per month per residential customer, $3.264 per month per commercial customer for the summer season, is the suggested budget.

4. Aquila is requesting the KCC issue an accounting order authorizing Aquila to: 1) record those monies expended by Aquila in establishing a gas ceiling price for one third of the 2006 budgeted summer season natural gas generation budget in an account to accrue interest at the KCC approved interest rate for customer deposits; 2) recover the program costs from all of its residential and commercial customers on a per customer basis (expressed as a separate per kilowatthour charge) during the months of December 1, 2005 through May 31, 2006, or as soon after the program is approved by the KCC; 3) to reconcile the expenditures to the recoveries reflecting any over or under recovery through the ECA process; and 4) to make such report or reports deemed necessary by the KCC regarding such account. Any resulting cost or benefit resulting from the settlement of the call options or futures swaps shall be credited or recovered, respectively, through Aquila's monthly ECA

filings during the months of July 1, 2006 through October 31, 2006.

5. Attached hereto and incorporated herein by reference is the testimony of Gary L Gottsch. Mr. Gottsch is a Gas Supply Representative for the Energy Resources group of Aquila Networks and is testifying in support of Aquila's request for approval of an accounting order in this matter and approval of Aquila's Gas Hedge Program for Electric Generation.

6. Attached hereto and incorporated herein by reference is Aquila's proposed changes to its ECA tariff to reflect the Gas Hedge Program.

7. The authority requested by this application will allow Aquila to take actions, which are reasonably designed to mitigate the volatility of natural gas prices in the summer months. It is the goal of Aquila's Gas Hedge Program for Electric Generation that these actions will mitigate price volatility, at a reasonable cost, relative to Aquila's traditional operations. Therefore, Aquila requests the KCC find the authority requested is in the public interest.

WHEREFORE, Aquila respectfully requests that the KCC issue an order granting Aquila's request for an accounting order to permit Aquila to recover such amounts of its funds as may be necessary to expend in order to establish and maintain a gas ceiling price for a portion of the 2006 summer season under the Gas Hedge Program for Electric Generation; for approval of its Gas Hedge Program for Electric Generation; and for such other relief as the KCC may deem appropriate.

James G. Flaherty, #11177
ANDERSON & BYRD, LLP
216 S. Hickory, P. O. Box 17
Ottawa, Kansas 66067
(785) 242-1234, telephone
(785) 242-1279, facsimile
Attorneys for Aquila, Inc., d/b/a Aquila Networks - WPK

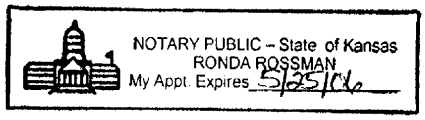
VERIFICATION

STATE OF KANSAS, FRANKLIN COUNTY, ss:

James G. Flaherty, of lawful age, being first duly sworn on oath, states: That he is an attorney for Aquila, Inc., d/b/a Aquila Networks - WPK; that he has read the above and foregoing Application, knows the contents thereof; and that the statements contained therein are true.

James G. Flaherty

SUBSCRIBED AND SWORN to before me this 3rd day of November, 2005.



Notary Public

My Commission Expires:

AQUILA INC d/b/a AQUILA NETWORKS-WPK
(Name of Issuing Utility)

Schedule: 04-ECA

Replacing Schedule 04-ECA Sheet 4
Which was filed March 30, 2005

ENTIRE SERVICE AREA
(Territory to which schedule is applicable)

No supplement or separate understanding shall modify the tariff as shown hereon.

Sheet 4 of 4 Sheets

Statistics	Summer Period May - September Limits	Summer Period May - September Alternative* Fuel Ratios	Winter Period October - April Limits	Winter Period October - April Alternative* Fuel Ratios
Thermal Efficiency (Heat rate)	Max. Of 12,100 BTU/kWh		Max. Of 12,200 BTU/kWh	
Percentage of BTU from:				
Coal	16% to 100%	30%	16% to 100%	25%
Oil	0% to 25%	15%	0% to 75%	42%
Gas	0% to 84%	55%	0% to 84%	33%
Nuclear	-% to -%	-%	-% to -%	-%
Line Loss	Maximum of 14%		Maximum of 14%	

*These alternative fuel ratios must be used in calculating the fuel cost, if actual performance falls outside the limit values.

Assessment for Estimating Accuracy: In the event that the estimated total energy costs per kWh for any three (3) consecutive months exceed by more than five percent (5%) the actual cost per kWh for those same months, The Company shall submit an explanation. If the Company cannot show that the estimate was realistic and the actual costs was the lowest overall cost that could have been incurred, the Kansas Corporation Commission may, at its discretion, assess the Company, for the purpose of recovering administrative costs of handling the adjustment, in an amount not to exceed the difference between the amount billed to customers under the estimated rate and the actual increase in energy costs for those billing periods.

Electric Hedge Program

The Company shall operate its Electric Hedge Program pursuant to the Commission's orders in Docket No. 06-AQLE-___-___. Costs and revenues associated with any purchase of straight call options and other alternative risk management strategies, the balance of which shall not exceed $600,000 per year, shall be recovered as a separate cost component from all participating customers during the months of December through May. Any over or under recovery, and any of the budget amount not used by the Company, shall be reflected in the Company's ECA filings. During the months of July through October, the monthly costs and revenues generated from the exercise of all financial derivatives shall be flowed back to all participating customers as a cost component of the respective monthly ECA. The Company shall also make such report or reports deemed necessary by the Commission regarding such costs and revenues.

Issued October 31, 2005
Month Day Year

Effective Upon Commission Approval
Month Day Year

By Maurice L. Arnall Director, Regulatory
Signature Title

06-AQLE-___-___
Approved
Kansas Corporation Commission
_____ __, 2005
/S/ Susan K. Duffy

BEFORE THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS

In the Matter of the Application of Aquila, Inc., d/b/a Aquila Networks-WPK, for Approval of an Accounting Order to Permit Aquila, Inc., d/b/a Aquila Networks-WPK, to Recover Amounts Necessary to Expend in Order to Establish and Maintain a Natural Gas Hedge Program for Electric Generation for the 2006 Summer Season; and for Approval of its "Gas Hedge Program for Electric Generation".	)	Docket No. 06-AQLE-494-HED

STAFF MEMORANDUM IN SUPPORT OF STIPULATION AND AGREEMENT

COMES NOW the Staff of the State Corporation Commission of the State of Kansas ("Staff" and "Commission", respectively) and files its Memorandum in support of the Stipulation and Agreement filed by Aquila, Inc., d/b/a Aquila Networks-WPK (Aquila), Staff and Citizens' Utility Ratepayer Board (CURB) on December 22, 2005.

1. On December 22, 2005, Aquila, Staff and CURB (Joint Movants) entered into a Stipulation and Agreement in this matter and filed their Joint Motion for an Order Approving Stipulation and Agreement.

2. In support of the Stipulation and Agreement entered into and filed by Joint Movants, Staff incorporates herein by reference the Memorandum prepared by Dr. John Cita, Chief of Economic Policy and Planning, dated December 22, 2005, which is attached hereto as Attachment 1.

Respectfully submitted,

Otto A. Newton #8760
Assistant General Counsel
Kansas Corporation Commission
1500 SW Arrowhead Road
Topeka, KS 66604-4027
(785) 271-3157

VERIFICATION
06-AQLE-494-HED

STATE OF KANSAS)
) ss.
COUNTY OF SHAWNEE)

Otto A. Newton, being duly sworn upon his oath deposes and states that he is an Assistant General Counsel for the State Corporation Commission of the State of Kansas, that he has read and is familiar with the foregoing pleading and that the statements contained therein are true and correct to the best of his knowledge, information and belief.

Otto A. Newton

Subscribed and sworn to before me this 22nd day of December, 2005.

NOTARY PUBLIC - State of Kansas
JANET R. BAUMGARTNER
My Appt. Exp. 3-5-06

Notary Public

My appointment expires: March 5, 2006

Attachment 1

MEMORANDUM

To: Chair Brian Moline
Commissioner Robert Krehbiel
Commissioner Michael Moffet

From: John Cita
Date: December 22, 2005

RE: Staff's Discussion and Evaluation of the Summer 2006 Hedge Program Application of Aquila, Inc. and Support for the Joint Motion Seeking Approval of the Unanimous Stipulation and Agreement ("S&A"), Docket No. 06-AQLE-494-HED.

Background and Cumulative Performance of the Program

This Application is important because it is the first of what could be many. With this Application Aquila, Inc., d/b/a Aquila Networks-WPK ("WPK") becomes the first jurisdictional electric utility to seek approval of a Gas Hedge Program. In conjunction with approving its implementation of an ECA mechanism, the Commission has ordered Empire District Electric ("EDE") to submit a hedge program application. (Docket No. 05-EPDE-980-RTS.) In response to Westar Energy's ("WE") request to implement an ECA mechanism, Staff recommends that WE submit a Hedge Program Application. That recommendation was uncontested. (Docket No. 05-WSEE-981-RTS.) And finally, KCPL has indicated that it will soon request implementation of an ECA mechanism and, in response, Staff will recommend that KCPL submit a complementary Hedge Program Application (for the purpose of hedging on behalf of its ECA customers).[1]

As the Commission probably knows, if and when a utility employs an ECA mechanism, that implies its customers will be subject to monthly ECA charges/prices that change over time as the utility's fuel and purchase power expenses change. Having ECA mechanisms simply means retail customers will be faced with some degree of price volatility.

If ratepayers are risk averse, then facing price volatility can *reduce their welfare.* Moreover, risk averse ratepayers, by definition, are willing to pay extra in order to face less risk. Staff and others have gathered evidence that suggest (residential) customers of jurisdictional gas utilities *are* risk averse. Unfortunately, no such evidence has been gathered from WPK's retail customers; however, we have no reason to believe that WPK's retail customers are significantly different than the Kansas consumers that have thus far been surveyed.

[1] Incidentally, WE, EDE and KCPL have for some time and currently do hedge their shareholders' exposure to natural gas price volatility. When a utility takes advantage of the Commission's ECA provisions (as stated in Order dated April 19, 1977, Docket No. 75-GIMC-009-GIG) that has the effect of shifting gas price volatility from shareholders to ratepayers.

In summary, achieving *more stable* monthly ECA prices, at a small additional cost, is the motivation for this Hedge Program Application. All parties recognize WPK's retail customers currently face some degree of price volatility given WPK's reliance on an ECA mechanism. (As the Commission may be aware, complaints about both the level and volatility of WPK's recent ECA prices are discussed and evaluated in Docket No. 05-AQLE-972-GIE.) We do assume that WPK's customers are risk averse and, therefore, we assume that WPK's customers would be willing (and able) to pay extra in order to face lower price ***volatility***. As Staff has repeatedly stated, hedging serves to protect ratepayers from price *volatility*; hedging *does not* provide ratepayers with a lower price on average. And so it is in this case, hedging is not intended to provide customers with (speculation-induced) savings in the long run, rather its intent is to provide greater price *stability.*

Staff Evaluation of WPK's Proposed Inaugural Hedge Program

On Whose Behalf Would the Hedge Program be Implemented?
The proposed Program would be implemented on behalf of WPK's residential and commercial customers. Consequently, those two classes would be responsible for the cost of the program and would share in its benefits. The industrial class customers that are subject to the ECA would *not* participate in the program.[2]

What is the Proposed Program Budget Amount?
WPK proposes an annual budget of $600,000. The method used to arrive at that amount is *consistent* with the method that has been used to set approved budget amounts for the Natural Gas LDC Hedge Programs.

How Would the Approved Budget Amount be Recovered?
It would be recovered through a distinct *volumetric charge* appearing as a line item charge on the monthly bills of residential and commercial customers. The proposed charges are: $0.00178/kwh for residential and $0.00140/kwh for commercial. With these charges and given the expected usage levels over the time period the charges would be collected, the economic burden on the two classes as roughly equal. Moreover, the charges are proportional to the respective usage levels over the summer months, the months whose usage would be hedged. In short, the respective charges (i.e., costs) do match the respective benefits each class is expected to receive.

Which Summer Months would be Hedged?
Only the months of June through September 2006 would be hedged. The proposed Program would terminate after September 2006.

The Hedge Charges would be Assessed Over Which Months?

[2] As I understand it, WPK sought interest among its industrial class customers in having and paying for a hedge program installed on their behalf. Officials of WPK have indicated that sufficient interest was lacking.

The proposed hedge charges would apply from January through May. However, if WPK applies to renew this Program, to extend its life beyond September 2006, then it is anticipated the (new) hedge charges would apply to a longer time period, possibly October through May.

Has WPK Specified Which Derivatives Would be Used to Establish a Price Cap?
WPK plans to rely primarily on swaps and call options. Alternative hedging vehicles could be used. Given the size of the proposed budget, about a third of WPK's summer gas requirements would not be hedged and, therefore, would move with the market. Equivalently, about two-thirds of WPK's expected (i.e., normal)[3] summer gas purchases would be hedged. That proportion is *consistent* with the usual amounts hedged in Commission-approved Programs.

Has WPK Indicated when it plans to Place its Derivatives?
WPK submitted a detailed time schedule showing when it expects to arrange or purchase its preferred hedging instruments. The proposed schedule is *consistent* with that of a *bona fide* hedger.

At What Level Would WPK's Gas Purchase Prices be Capped?
As a practical matter, it is difficult to say with any degree of accuracy. The difficulty lies in not knowing where the market prices will be at the time hedges are placed. Suffice it to say, Staff has evaluated WPK's forecast price caps and found them to be reasonable given the requested hedging budget and expected hedge coverage.

Will WPK Submit Monthly Reports to Staff and CURB Showing the Progression of Implementation and Subsequent Program Performance?
Yes. As the Commission knows, Staff monitors both the implementation and resultant performance of approved programs. This monitoring is facilitated by the monthly reports.

Summary and Recommendation
This program is designed to reduce, but not eliminate the volatility of WPK's monthly ECA prices.[4] It is Staff's opinion the proposed program would work as designed.

Aquila-WPK submitted a well developed Application and the presentation of its "preferred hedge plan" is the best Staff has ever seen. Aquila should be commended.

The Hedge Program described through the proposed S&A is nearly identical to any of the Hedge Programs this Commission has approved over the years. Those programs have

[3] As a provider of electricity to retail customers, WPK purchases all of the various fuels used to generate the required electricity. In a normal year WPK purchases approximately 25 MMBtu of natural gas on behalf of its average residential customer. This hedge program is designed to hedge those natural gas purchases. This program would not hedge any other fuels nor would it hedge WPK's purchased power.

[4] If and when a competitive wholesale electric market is developed, it is likely that derivatives for directly hedging the price of electricity – such as an electricity futures contract – will be widely available and economical to use. When those instruments are available it may be possible to design hedge programs that would largely eliminate ECA price volatility.

worked to reduce the volatility of monthly bills at a very low cost.[5] Accordingly, such programs have worked to enhance the well being of risk averse retail customers.

For reasons stated and evidence presented in this Memorandum, Staff believes the Commission could find implementation of the proposed Hedge Program to be consistent with the public interest. It follows that Staff believes Commission approval of the unanimous S&A would be reasonable.

Cc: Don Low

[5] Incidentally, at this moment in time, the cumulative net cost of the Commission approved Hedge Programs is negative. That is, thus far, the Hedge Programs have delivered both less volatile bills and positive net savings on those bills.

VERIFICATION
06-AQLE-494-HED

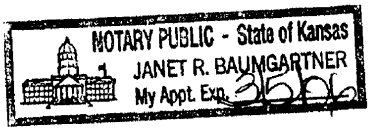
STATE OF KANSAS)
) ss.
COUNTY OF SHAWNEE)

John Cita, being duly sworn upon his oath deposes and states that he is Chief of Economic Policy and Planning for the State Corporation Commission of the State of Kansas, that he prepared the foregoing Memorandum and is familiar with the content thereof and that the statements contained therein are true and correct to the best of his knowledge, information and belief.

John Cita

John Cita

Subscribed and sworn to before me this 22nd day of December, 2005.



Janet R Baumgartner

Notary Public

My Appointment expires:

March 5, 2006

CERTIFICATE OF SERVICE
06-AQLE-494-HED

I hereby certify that a true and correct copy of the foregoing Staff Memorandum in Support of Stipulation and Agreement was placed in the United States Mail, postage prepaid, on this 22nd day of December, 2005, properly addressed to:

James G. Flaherty
Anderson & Byrd, LLP
216 S. Hickory, P.O. Box 17
Ottawa, KS 66067

Richard C. Green, Chairman, President & CEO
Aquila, Inc., d/b/a Aquila Networks-WPK/
Aquila Networks-KGO
20 West 9th Street
Kansas City, MO 64105

David R. Springe
Consumer Counsel
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Topeka, KS 66604-4027

Otto A. Newton
Assistant General Counsel

THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS

Before Commissioners: Brian J. Moline, Chair
Robert E. Krehbiel
Michael C. Moffet

In the Matter of the Application of Aquila, Inc., d/b/a Aquila Networks-WPK, for Approval of an Accounting Order to Permit Aquila, Inc., d/b/a Aquila Networks-WPK, to Recover Amounts Necessary to Expend in Order to Establish and Maintain a Natural Gas Hedge Program for Electric Generation for the 2006 Summer Season; and for Approval of its "Gas Hedge Program for Electric Generation".	)	Docket No. 06-AQLE-494-HED

ORDER GRANTING JOINT MOTION AND APPROVING STIPULATION AND AGREEMENT

NOW, the above-captioned matter comes before The State Corporation Commission of the State of Kansas (Commission) on the Joint Motion for an Order Approving Stipulation and Agreement filed by Aquila, Inc., d/b/a Aquila Networks-WPK ("Aquila" or "Company"), the Commission Staff (Staff) and Citizens' Utility Ratepayer Board (CURB). Having examined its files and records and being duly advised in the premises, the Commission finds and concludes as follows:

I. BACKGROUND

1. On November 3, 2005, Aquila filed its Application seeking an Order from the Commission approving its request for an accounting order to permit Aquila to recover such amounts of its funds as may be necessary to expend in order to establish and maintain a gas ceiling price for fuel for its electric generation for the 2006 summer season, defined as June 1 through September 30, under the Gas Hedge Program for Electric Generation and for approval of its "Gas Hedge Program for Electric

Generation" tariff. In support of its Application, Aquila filed its proposed tariff and the direct testimony of Mr. Gary L. Gottsch, its Gas Supply Representative in Aquila's Energy Resources division.

2. On November 8, 2005, Citizens' Utility Ratepayer Board (CURB) filed a Petition to Intervene seeking a Commission order granting CURB leave to intervene as a party in this matter. On November 14, 2005, the Commission issued its Order granting CURB's intervention.

3. On November 14, 2005, the Commission entered an Order suspending operation of the changes proposed in Aquila's Application for a period of two hundred forty (240) days from the date of filing the Application, November 3, 2005, until July 1, 2006.

4. On December 22, 2005, Aquila, Staff and CURB (collectively, "Joint Movants") filed their Joint Motion for an Order Approving Stipulation and Agreement (Joint Motion), including as Attachment A thereto the Stipulation and Agreement entered into by Joint Movants on December 22, 2005 (Stipulation and Agreement).

5. On December 22, 2005, Staff filed its Memorandum dated December 22, 2005 prepared by Dr. John Cita, Chief of Economic Policy and Planning, supporting approval of the Stipulation and Agreement.

II. DISCUSSION

6. Aquila believes it important that some type of price protection be afforded its residential and commercial customers by establishing a ceiling price to be paid on a percentage of its projected summer natural gas for generation volumes as well as fixing another percentage for the 2006 summer season. In order to establish a ceiling

price on a percentage of the projected summer natural gas for generation volumes to be purchased for the 2006 summer season, Aquila estimates that it will need to spend approximately $600,000. Aquila is willing to invest such funds, as needed, to establish a ceiling price on the percentage of gas purchases for which the ceiling price is being established so long as the Commission authorizes recovery of the funds expended. Aquila seeks authorization to recover the funds expended through a separate average charge per customer, expressed as a per kilowatt-hour charge, and stated separately on customer bills. Application at p. 2. Aquila's Application requests the Commission issue an accounting order authorizing the Company to: 1) record those monies expended by Aquila in establishing a gas ceiling price for one-third of the 2006 budgeted summer season natural gas generation budget in an account to accrue interest at the Commission approved interest rate for customer deposits; 2) recover the program costs from all of its residential and commercial customers on a per customer basis, expressed as a separate per kilowatt-hour charge, from the date the program is approved through May 31, 2006; 3) reconcile the expenditures to the recoveries reflecting any over or under recovery through the ECA process; and 4) make such report or reports deemed necessary by the Commission regarding such account. Any resulting cost or benefit resulting from the settlement of the call options or futures swaps shall be credited or recovered, respectively, through Aquila's monthly ECA filings during the months of July 1, 2006 through October 31, 2006. Application at pp. 2 and 3. Aquila states that its proposed risk management strategy for the 2006 summer program is the purchase of straight call options for one-third of the budgeted volumes of gas requirements for generation, fixing the price on another one-third of the position with NYMEX futures which will be

converted to swaps, leaving one-third of budgeted volumes to float in the market. Purchases will occur between December 2005 and May 2006, with the exception of the purchases for the June budgeted usage which will be condensed into December 2005 through April 2006 due to financial expiration of June positions in May. For the 2006 summer program, Aquila plans to concentrate on managing the price risk for the period between June and September. Aquila will attempt placement of positions on the 15th of each month, December 2005 through May 2006. Gottsch Pre-filed Direct at pp. 2 and 3.

7. According to Staff, Aquila's Application is important because it is the first of what could be many applications by jurisdictional electrical utilities seeking to implement a gas hedge program. Staff Memorandum at p. 1. Staff concludes that although hedging does not provide ratepayers with a lower price on average, it does serve to protect ratepayers from price volatility. Evidence gathered from focus groups in the past suggests that residential customers of jurisdictional gas utilities are willing to pay extra in order to face less risk. Staff suggests that the retail electric customers of Aquila would not be significantly different in their views on seeking protection from price volatility. Staff Memorandum at pp. 1 and 2. Therefore, Staff concludes that Aquila's electric customers would be willing and able to pay extra in order to achieve lower price volatility. Achieving more stable monthly ECA prices, at a small additional cost, is the motivation for Aquila's Gas Hedge Program Application. Staff Memorandum at p. 2.

8. The Stipulation and Agreement presented by Joint Movants for the Commission's consideration and approval, together with Staff's verified Memorandum, reflects Staff's investigation of the Company's Application, as well as extensive negotiations between the parties in this matter. Joint Movants constitute all of the parties

in this docket and all are signatories to the Stipulation and Agreement. Staff's Memorandum prepared by Dr. Cita supports approval of the Stipulation and Agreement. Joint Movants stipulate and agree that the Gas Hedge Program for Electric Generation as requested and filed by Aquila in its Application should be modified and conditioned as follows:

A. The budget for Aquila's Gas Hedge Program for Electric Generation shall not exceed $600,000 for the 2006 summer season defined as June 1, 2006, through September 30, 2006. All Hedge Program costs incurred by Aquila, such as transaction costs, interest on margin accounts and the direct costs of financial derivatives are to be covered by the approved budget. The rate of interest on margin accounts will be the prime rate as published in the *Wall Street Journal.* An interest charge will be assessed on the initial margin amount, starting from when the account is first established through the expiration of the swap or futures contract, as the case may be. Aquila may file a Motion to adjust the approved budget depending on market conditions.

B. All payoffs, positive or negative, associated with the settlement of financial derivatives shall be passed through to Aquila's ECA clause and applied only to its residential and commercial customers in accordance with the clause's provisions.

C. Consistent with the basic design of Hedge Programs implemented by the Commission's jurisdictional natural gas LDCs, Aquila's preferred hedge strategy is the placement of a price cap. Aquila has met with and consulted Staff and CURB regarding details and implementation of its preferred, or planned,

Hedge Program design. The program design details or parameters that have been presented and resolved include the following:

1. quantity or volume of gas to hedge;
2. summer months to be hedged;
3. price cap (and possibly floor) level;
4. hedge instruments to be used to set the cap;
5. timing of hedge placement.

For its selection of the actual, planned parametric values, Aquila has provided reasonable discussion and analysis and, thus, adequate support.

D. As the Hedge Program is actually implemented, Aquila shall have full discretion over selection of the final Gas Hedge Program for Electric Generation parameters. Aquila shall also meet with Staff and CURB throughout the implementation period, as needed, for the purpose of discussing significant changes from the planned hedge program.

E. Aquila shall recover the program costs for the Gas Hedge Program for Electric Generation from its ECA residential and commercial customers during the months of January 2006 through May 2006 on a volumetric basis. The charge for residential customers will be $0.00178/kwh and for commercial customers $0.00140/kwh. Aquila shall maintain a monthly balance for amounts spent on hedge costs compared to amounts recovered from customers through the hedge charge. To the extent the net monthly balance shows that Aquila's expenditures on hedges exceed the amounts recovered from customers, Aquila shall accrue interest on the excess amount during the following month at the

prime rate as published in the *Wall Street Journal*. To the extent the monthly balance shows that Aquila's expenditures on hedges are less than the amounts recovered from customers through the hedge charge, Aquila shall accrue interest on the shortfall during the following month at the Commission's approved rate for customer deposits. Aquila shall recover or pay interest pursuant to the methodology above through a charge to or credit to the approved budget. The interest charges set forth in this paragraph E are separate from the interest on margin accounts described in paragraph A, which are treated separately. Aquila shall show the amounts collected from customers through the hedge charge as a separate line item on the customer's bill during the months of January 2006 through May 2006.

F. Aquila shall submit monthly hedge reports to Staff and CURB throughout the program year. Reports during the implementation months (January through May) shall detail actual implementation of the program while reports during the summer months (June through September) will detail actual program performance. Monthly reports will be submitted electronically and during the first week of each month. The implementation reports will describe all activity during the prior calendar month while the performance reports will summarize performance for the instant calendar month. At the end of the 2006 program year, Aquila shall also submit a report on the cumulative, historical performance of its hedge program efforts.

G. Aquila shall retain all information and records necessary to verify derivative transactions performed either by Aquila or on its behalf so that Staff or CURB may perform an audit of those transactions.

H. The parties agree that the Gas Hedge Program for Electric Generation shall be for the summer of 2006. To the extent that the Company, Staff or CURB believe that modifications to the approved program are necessary, such as a change in the budget, it shall file a Motion in this Docket requesting such changes as it deems necessary. In the event the Company desires to continue the Hedge Program for the summer of 2007, it shall file an appropriate application making the request no later than July 15, 2006.

9. Aquila must file its Gas Hedge Program for Electric Generation tariff with the Commission for approval within thirty (30) days of the date of the Order approving the Stipulation and Agreement. Stipulation and Agreement at paragraph 6.

10. The Stipulation and Agreement expresses the parties' agreement with regard to certain modifications and conditions applied to the Gas Hedge Program for Electric Generation as requested in Aquila's Application. According to Staff, the Hedge Program described through the proposed Stipulation and Agreement is nearly identical to any of the hedge programs approved by the Commission in the past achieving reduced volatility of monthly gas bills at a very low cost. All parties support the Company's implementation of a Gas Hedge Program for Electric Generation, as modified and conditioned by the Stipulation and Agreement, and take the position that the Stipulation and Agreement is reasonable and could be found by the Commission to be in the public interest.

III. FINDINGS AND CONCLUSIONS

11. Aquila provides retail electric service to nearly 70,000 customers in the State of Kansas. Aquila is a certificated electric public utility subject to regulatory jurisdiction of the Commission. The Application, as modified and conditioned by the Stipulation and Agreement, affects the cost of electricity as allowed under the monthly ECA; therefore, the Commission, pursuant to K.S.A. 66-101, *et seq.*, K.S.A. 66-104, K.S.A. 66-117, and K.S.A. 66-131 has jurisdiction over Aquila and the subject matter herein.

12. Settlements are favored in the law, *Bright v. LSI Corporation*, 254 Kan. 853, 86 P.2d 686 (1994). However, the Commission must make an independent judgment concerning whether the settlement is in the public interest and should be approved. In making this assessment, the Commission takes into consideration the immediate and future effects on consumers.

13. The Gas Hedge Program for Electric Generation proposed in the Application, as modified and conditioned by the Stipulation and Agreement, is likely to reduce the risk of price volatility for Aquila's residential and commercial electric customers. Implementing Aquila's Gas Hedge Program for Electric Generation will afford the Company's customers a measure of protection against such price volatility during the forthcoming summer season. The Commission concludes that the Gas Hedge Program for Electric Generation is a reasonable means of providing each customer an absolute increase in the level of price protection.

14. The Stipulation and Agreement provides that Aquila's activities will be effectively monitored by Staff through monthly reporting and consultation. The reporting

requirements of the Stipulation and Agreement will facilitate Staff keeping the Commission apprised of all program developments, particularly in the event that immediate corrective action is needed.

15. For the foregoing reasons, the Commission finds that the Stipulation and Agreement is reasonable, in the public interest, and should be approved.

IT IS THEREFORE, BY THE COMMISSION ORDERED:

(A) The parties' Joint Motion is hereby granted and the Stipulation and Agreement is hereby approved and incorporated in this Order by reference.

(B) Aquila's Application, as modified and conditioned by the Stipulation and Agreement, is hereby approved.

(C) Aquila shall file its Gas Hedge Program for Electric Generation tariff referenced in paragraph 9 above with the Commission for approval within thirty (30) days from the date of this Order.

(D) The Commission retains jurisdiction over the subject matter and the parties for the purpose of entering such further order or orders, as it may deem necessary and proper.

(E) A party may file a petition for reconsideration of this Order within fifteen (15) days from the date of service of this Order. If service is by mail, service is complete upon mailing, and three (3) days shall be added to the above time frame.

BY THE COMMISSION IT IS SO ORDERED.

Moline, Chr.; Krehbiel, Com.; Moffet, Com.

Dated: DEC 2 7 2005

ORDER MAILED

DEC 2 7 2005

Executive Director

Susan K. Duffy
Executive Director

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Exhibit No.:
Witness: Maurice Brubaker
Type of Exhibit: Direct Testimony
Issue: Fuel
Sponsoring Party: Ag Processing, Inc.
Case No.: HR-2005-0450

Before the Public Service Commission
of the State of Missouri

In the Matter of the Tariff Filing of Aquila, Inc., to Implement a General Rate Increase for Retail Steam Heat Service Provided to Customers in its L&P Missouri Service Area.	))))	Case No. HR-2005-0450

Direct Testimony and Schedule of

Maurice Brubaker

On behalf of

Ag Processing, Inc.

Project 8418
October 14, 2005

PUBLIC VERSION

BRUBAKER & ASSOCIATES, INC.
ST. LOUIS, MO 63141-2000

Before the Public Service Commission
of the State of Missouri

In the Matter of the Tariff Filing of Aquila, Inc., to Implement a General Rate Increase for Retail Steam Heat Service Provided to Customers in its L&P Missouri Service Area.	))))	Case No. HR-2005-0450

STATE OF MISSOURI)
) **SS**
COUNTY OF ST. LOUIS)

Affidavit of Maurice Brubaker

Maurice Brubaker, being first duly sworn, on his oath states:

1. My name is Maurice Brubaker. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 1215 Fern Ridge Parkway, Suite 208, St. Louis, Missouri 63141-2000. We have been retained by Ag Processing, Inc. in this proceeding on their behalf.

2. Attached hereto and made a part hereof for all purposes is my direct testimony and schedule which were prepared in written form for introduction into evidence in Missouri Public Service Commission Case No. HR-2005-0450.

3. I hereby swear and affirm that the testimony and schedule are true and correct and that they show the matters and things they purport to show.

M S Brubaker
Maurice Brubaker

Subscribed and sworn to before this 11th day of October 2005.

CAROL SCHULZ
Notary Public - Notary Seal
STATE OF MISSOURI
St. Louis County
My Commission Expires: Feb. 26, 2008

Carol Schulz
Notary Public

My Commission Expires February 26, 2008.

Before the Public Service Commission
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In the Matter of the Tariff Filing of Aquila, Inc., to Implement a General Rate Increase for Retail Steam Heat Service Provided to Customers in its L&P Missouri Service Area.	))))	Case No. HR-2005-0450

Direct Testimony of Maurice Brubaker

Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A Maurice Brubaker. My business address is 1215 Fern Ridge Parkway, Suite 208, St. Louis, Missouri 63141-2000.

Q WHAT IS YOUR OCCUPATION?

A I am a consultant in the field of public utility regulation and president of Brubaker & Associates, Inc., energy, economic and regulatory consultants.

Q PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

A This information is included in Appendix A to my testimony.

Q ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?

A I am appearing on behalf of Ag Processing, Inc.

Introduction

Q WHAT SUBJECTS ARE ADDRESSED IN YOUR TESTIMONY?

A I address fuel cost levels and coal costs.

Q ARE ANY OTHER WITNESSES ALSO APPEARING FOR THE SAME PARTIES?

A Yes. Mr. Michael Gorman presents evidence concerning an appropriate return on equity, capital structure and overall rate of return for Aquila. Ms. Sharon Hennings presents evidence with respect to problems associated with the acquisition of high Btu coal at the Sibley and Lake Road generating stations, and discusses alternatives available to Aquila that were not pursued.

Mr. Jim Selecky presents testimony with respect to depreciation rates and expense levels associated with Aquila's generating stations.

Q HAVE YOU AND THE OTHER WITNESSES COLLECTIVELY ADDRESSED ALL APPROPRIATE REVENUE REQUIREMENT ADJUSTMENTS?

A No. Our testimony addresses only selected revenue requirement issues. To the adjustments we recommend should be added adjustments that are recommended by others (and accepted by the Commission) in order to determine the overall final revenue requirement that is appropriate.

Natural Gas Prices

Q FOR PURPOSES OF ITS DIRECT TESTIMONY, WHAT LEVEL OF NATURAL GAS PRICES DID AQUILA ASSUME?

A As expressed in the testimony of Aquila witness Boehm, and shown on Schedule JGB-2, Aquila used the average of 2006 NYMEX futures prices, measured over the period October through December 2004. On an annual basis, the price proposed is $6.57 per MMBtu.

Q HAVE YOU EXAMINED MORE RECENT NYMEX FUTURES PRICES?

A Yes. Schedule 1 attached to my testimony presents a listing of more recent NYMEX natural gas futures prices for one-, two- and three-year periods spanning April 2006 through March 2009. The prices displayed are mid-month values from January through September 2005, and the prices as of October 5, 2005.

Q HOW WOULD YOU CHARACTERIZE THE TREND IN THESE PRICES?

A The prices were relatively stable, with a slight upward trend through the May data point. Thereafter, as summer weather approached, and the Gulf Coast natural gas gathering and processing facilities were severely damaged by the effects of Hurricanes Katrina and Rita, the prices have escalated substantially.

Q DO YOU BELIEVE THAT THESE MORE RECENT PRICES REPRESENT NEW PERMANENT LEVELS OF PRICING FOR NATURAL GAS?

A No, I do not. I believe they are, in large part, a reaction to the uncertainty surrounding the condition of, and time to restore to normal, the offshore production platforms and the associated delivery systems and processing facilities that have been damaged by Hurricanes Katrina and Rita. However, I believe gas prices will stay high until there is better visibility with respect to the restoration of these volumes to the market.

Q DO YOU INTEND TO UPDATE THIS INFORMATION LATER IN THE CASE?

A Yes, that is my present intent.

Q DOES AQUILA HAVE A HEDGING PROGRAM FOR ITS PURCHASED ENERGY REQUIREMENTS (FUEL AND PURCHASE POWER) ASSOCIATED WITH L&P AND MPS?

A Yes. This is discussed in the responses to several data requests, including Aquila's responses to MPSC Data Request Nos. 266 and 269.

Q WHAT IS THE PURPOSE OF A HEDGING PROGRAM?

A The purpose of a hedging program is to moderate the effects of rising and falling prices of the commodity being acquired. A hedging program may contain strategies such as purchasing quantities and locking in fixed prices over a period of time, purchasing call option contracts that cap the exposure to rising prices while permitting the buyer to participate in price declines, and other strategies.

Q DOES AQUILA PROPOSE TO REFLECT THE OPERATION OF ITS HEDGING PROGRAM IN DETERMINING FUEL AND PURCHASE POWER COSTS TO CHARGE TO ITS ELECTRIC AND STEAM CUSTOMERS?

A No. Aquila has indicated in response to several data requests, including the response to SIEUA Data Request No. 217 that it does not propose to reflect the effects of the hedging program when determining the level of fuel and purchase power expense to be borne by customers.

Q IN YOUR VIEW, WOULD IT BE APPROPRIATE TO REFLECT THE EFFECTS OF THE HEDGING PROGRAM?

A Yes. As noted above, the main purpose of the hedging program is to dampen the price swings in the market, and to otherwise protect consumers from increases in

price. Unless the results of the hedging program are reflected in determining the prices to be charged to consumers, this objective will not be met. Rather, consumers would continue to be exposed to the effects of market volatility, and the hedging program would basically benefit stockholders, rather than consumers.

Especially in light of the high and volatile gas prices currently being faced, it is appropriate for the effects of the hedging program to be reflected in determining the fuel and purchase power costs properly chargeable to consumers.

Q HOW SHOULD THE EFFECTS OF THE HEDGING PROGRAM BE INCORPORATED?

A The fuel and purchase power prices that are the result of the hedging program should be used to determine the cost chargeable to customers, to the extent of the hedge. It is only the unhedged volumes that should be subject to a market or any other level of pricing.

Q PLEASE PROVIDE AN EXAMPLE.

A For example, assume that a utility has hedged 60% of its natural gas requirements at a price of $5.00 per MMBtu, and that the balance is exposed to market prices. In looking forward, the Commission should consider the 60% of the volumes that have been locked in at $5.00 per MMBtu, and combine that with the expectation of market prices only for the remaining 40% of the volumes that are not hedged.

Of course, a hedging program contains many aspects, and they should all be considered to the extent that prices are defined either by locking them in at fixed levels, or by constraining the impact of price escalations by means of such

instruments as call option contracts that allow a utility to purchase natural gas at a specified strike price, in return for having paid a premium to the seller of the option.

High Btu Coal

Q MS. SHARON HENNINGS DISCUSSES THE PROBLEMS THAT AQUILA HAS ENCOUNTERED WITH RESPECT TO COAL DELIVERIES UNDER A CONTRACT WITH C.W. MINING CO. ARE YOU ALSO OFFERING TESTIMONY ON THIS SUBJECT?

A Yes.

Q WHAT IS THE NATURE OF THE PROBLEM WITH THE C.W. MINING CONTRACT?

A Aquila entered into this contract to secure a supply of high Btu coal for its Sibley and Lake Road generating facilities. Unfortunately, it has not received the contracted deliveries from C.W. Mining. As a result, it has replaced those supplies with higher cost supplies acquired in the market.

Q DOES AQUILA PROPOSE, IN THE FUEL PRICE ASSUMPTIONS CONTAINED WITHIN ITS DIRECT TESTIMONY, TO PASS ON TO CUSTOMERS THE INITIAL CONTRACTED FOR PRICE OR THE HIGHER REPLACEMENT PRICE?

A It proposes to charge customers the higher replacement price.

Q IS IT REASONABLE FOR CUSTOMERS TO PAY THE HIGHER REPLACEMENT PRICE?

A No. Customers should only be charged for the contract for price plus the rail charges for delivery.

Q WHY SHOULD CUSTOMERS PAY THIS AMOUNT?

A Aquila entered into the contract with C.W. Mining based on its own evaluations and analyses. Aquila is the one that was responsible for contracting for the coal, including the selection of the specific suppliers to perform this role. In addition, I understand that Aquila has taken legal action to assert its rights under the contract.

Until the litigation process is complete, and until there is a full airing of Aquila's actions surrounding the execution of the contract, its management of the contract, and the legal proceedings, customers should not be required to pay anything more than the initial contracted price.

Q HOW MANY TONS OF HIGH BTU COAL, AND AT WHAT PRICE, HAS AQUILA PROPOSED FOR PURPOSES OF DEVELOPING ITS ELECTRIC AND STEAM REVENUE REQUIREMENTS?

A Based on my review of workpapers supplied by Aquila in connection with its direct testimony in this proceeding, I find the following information with respect to the purchases of high Btu coal for the test year.

TABLE 1

High Btu Coal Purchases for the Test Year (from Aquila's Direct Testimony)

Utility System	Tons	Dollar Cost (000)	Cost per Ton
L&P Steam	28,551	*****	*****

Q BASED ON THIS INFORMATION, HOW SHOULD ADJUSTMENTS BE MADE?

A The adjustment to be made is equal to the volumes indicated in this table, times the difference in price between what Aquila has included in its test year revenue requirement, and the contract price, including rail delivery charges.

Q WHAT COST PER TON WOULD BE APPROPRIATE TO UTILIZE?

A Based on the contract price of $19.40/ton plus rail delivery charges (based on actual costs incurred during 2005 of ******/ton at Lake Road), the cost per ton delivered for high Btu coal at Lake Road (L&P) should be ******/ton.

Q ON THE BASIS OF THESE PRICES, WHAT ARE THE APPROPRIATE REDUCTIONS TO AQUILA'S TEST YEAR FUEL COSTS?

A For L&P Steam, it is $373,000.

Q SHOULD ADJUSTMENTS BE MADE FOR ANY ADDITIONAL SO2 ALLOWANCES THAT AQUILA WAS REQUIRED TO BURN?

A Yes. To the extent that purchasing of substitute coal has caused Aquila to include in its proposed revenue requirements the costs associated with SO2 allowances in

addition to those that would have been required under the C.W. Mining contract, that adjustment should also be made in the revenue requirement.

Q MS. HENNINGS ALSO PRESENTS EVIDENCE WITH RESPECT TO THE POSSIBLE USE OF PETROLEUM COKE AS A SUBSTITUTE FOR HIGH BTU COAL. HOW SHOULD THIS INFORMATION BE CONSIDERED?

A To the extent that the Commission would consider allowing Aquila to charge prices in excess of the contract for prices, the possibility of Aquila having acquired petroleum coke, rather than high Btu coal should be reflected in the revenue requirement calculation, and Aquila should be required to pursue development of this option.

Q BASED ON THE DOLLAR PER MILLION BTU COST ESTIMATE PROVIDED BY MS. HENNINGS, WHAT WOULD BE THE ADJUSTMENT TO AQUILA'S TEST YEAR REVENUE REQUIREMENT PROPOSAL IF PETROLEUM COKE WERE SUBSTITUTED FOR THE ACTUAL PURCHASES OF HIGH BTU COAL?

A On the basis of a cost of $1.50/MMBtu for petroleum coke and a heat content for the high Btu coal of 12,000 Btu/lb., for L&P Steam it would be $325,000.

Q DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A Yes, it does.

Appendix A

Qualifications of Maurice Brubaker

Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A Maurice Brubaker. My business address is 1215 Fern Ridge Parkway, Suite 208, St. Louis, Missouri 63141.

Q PLEASE STATE YOUR OCCUPATION.

A I am a consultant in the field of public utility regulation and President of the firm of Brubaker & Associates, Inc., energy, economic and regulatory consultants.

Q PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

A I was graduated from the University of Missouri in 1965, with a Bachelor's Degree in Electrical Engineering. Subsequent to graduation I was employed by the Utilities Section of the Engineering and Technology Division of Esso Research and Engineering Corporation of Morristown, New Jersey, a subsidiary of Standard Oil of New Jersey.

In the Fall of 1965, I enrolled in the Graduate School of Business at Washington University in St. Louis, Missouri. I was graduated in June of 1967 with the Degree of Master of Business Administration. My major field was finance.

From March of 1966 until March of 1970, I was employed by Emerson Electric Company in St. Louis. During this time I pursued the Degree of Master of Science in Engineering at Washington University, which I received in June, 1970.

In March of 1970, I joined the firm of Drazen Associates, Inc., of St. Louis, Missouri. Since that time I have been engaged in the preparation of numerous studies relating to electric, gas, and water utilities. These studies have included analyses of the cost to serve various types of customers, the design of rates for utility services, cost forecasts, cogeneration rates and determinations of rate base and operating income. I have also addressed utility resource planning principles and plans, reviewed capacity additions to determine whether or not they were used and useful, addressed demand-side management issues independently and as part of least cost planning, and have reviewed utility determinations of the need for capacity additions and/or purchased power to determine the consistency of such plans with least cost planning principles. I have also testified about the prudency of the actions undertaken by utilities to meet the needs of their customers in the wholesale power markets and have recommended disallowances of costs where such actions were deemed imprudent.

I have testified before the Federal Energy Regulatory Commission (FERC), various courts and legislatures, and the state regulatory commissions of Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Guam, Hawaii, Illinois, Indiana, Iowa, Kentucky, Louisiana, Michigan, Missouri, Nevada, New Jersey, New Mexico, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, South Dakota, Texas, Utah, Virginia, West Virginia, Wisconsin and Wyoming.

The firm of Drazen-Brubaker & Associates, Inc. was incorporated in 1972 and assumed the utility rate and economic consulting activities of Drazen Associates, Inc., founded in 1937. In April, 1995 the firm of Brubaker & Associates, Inc. was formed. It includes most of the former DBA principals and staff. Our staff includes consultants

with backgrounds in accounting, engineering, economics, mathematics, computer science and business.

During the past ten years, Brubaker & Associates, Inc. and its predecessor firm has participated in over 700 major utility rate and other cases and statewide generic investigations before utility regulatory commissions in 40 states, involving electric, gas, water, and steam rates and other issues. Cases in which the firm has been involved have included more than 80 of the 100 largest electric utilities and over 30 gas distribution companies and pipelines.

An increasing portion of the firm's activities is concentrated in the areas of competitive procurement. While the firm has always assisted its clients in negotiating contracts for utility services in the regulated environment, increasingly there are opportunities for certain customers to acquire power on a competitive basis from a supplier other than its traditional electric utility. The firm assists clients in identifying and evaluating purchased power options, conducts RFPs and negotiates with suppliers for the acquisition and delivery of supplies. We have prepared option studies and/or conducted RFPs for competitive acquisition of power supply for industrial and other end-use customers throughout the Unites States and in Canada, involving total needs in excess of 3,000 megawatts. The firm is also an associate member of the Electric Reliability Council of Texas and a licensed electricity aggregator in the State of Texas.

In addition to our main office in St. Louis, the firm has branch offices in Phoenix, Arizona; Chicago, Illinois; Corpus Christi, Texas; and Plano, Texas.

NYMEX NATURAL GAS FUTURES PRICES ($/MMBTU)
(APRIL 2006 - MARCH 2009)

Line	Contract Month	1/14/2005 Futures Prices	2/15/2005 Futures Prices	3/15/2005 Futures Prices	4/15/2005 Futures Prices	5/16/2005 Futures Prices	6/15/2005 Futures Prices	7/15/2005 Futures Prices	8/15/2005 Futures Prices	9/15/2005 Futures Prices	10/5/2005 Futures Prices
1	Apr-06	6.049	6.264	6.878	7.063	6.829	7.559	7.870	8.772	10.007	10.981
2	May-06	5.914	6.129	6.733	6.913	6.714	7.411	7.710	8.547	9.627	10.441
3	Jun-06	5.924	6.154	6.758	6.950	6.758	7.451	7.752	8.578	9.652	10.436
4	Jul-06	5.944	6.184	6.783	6.985	6.804	7.498	7.802	8.623	9.693	10.461
5	Aug-06	5.964	6.209	6.808	7.005	6.840	7.533	7.847	8.662	9.736	10.486
6	Sep-06	5.959	6.194	6.787	6.985	6.837	7.522	7.835	8.640	9.712	10.456
7	Oct-06	5.989	6.219	6.812	7.018	6.877	7.554	7.870	8.667	9.741	10.481
8	Nov-06	6.299	6.514	7.107	7.338	7.202	7.909	8.215	9.027	10.131	10.906
9	Dec-06	6.574	6.794	7.392	7.648	7.502	8.224	8.545	9.362	10.511	11.306
10	Jan-07	6.779	7.019	7.603	7.858	7.712	8.451	8.780	9.607	10.796	11.616
11	Feb-07	6.759	6.984	7.568	7.838	7.697	8.441	8.770	9.592	10.771	11.511
12	Mar-07	6.564	6.784	7.387	7.693	7.552	8.281	8.620	9.407	10.536	11.211
13	Apr-07	5.674	5.899	6.357	6.573	6.512	7.116	7.465	8.082	8.826	9.051
14	May-07	5.534	5.759	6.222	6.418	6.389	6.986	7.300	7.912	8.551	8.661
15	Jun-07	5.556	5.789	6.232	6.438	6.427	7.026	7.348	7.947	8.586	8.697
16	Jul-07	5.579	5.809	6.242	6.463	6.464	7.058	7.389	7.982	8.616	8.732
17	Aug-07	5.594	5.829	6.257	6.498	6.494	7.830	7.426	8.022	8.649	8.767
18	Sep-07	5.569	5.814	6.237	6.473	6.480	7.068	7.420	8.012	8.634	8.747
19	Oct-07	5.579	5.827	6.257	6.508	6.500	7.101	7.455	8.047	8.666	8.781
20	Nov-07	5.869	6.112	6.544	6.823	6.830	7.421	7.795	8.407	9.051	9.241
21	Dec-07	6.159	6.377	6.832	7.118	7.150	7.731	8.115	8.742	9.436	9.691
22	Jan-08	6.394	6.612	7.062	7.343	7.370	7.946	8.320	8.972	9.726	10.036
23	Feb-08	6.374	6.592	7.032	7.323	7.355	7.931	8.310	8.957	9.701	9.966
24	Mar-08	6.167	6.392	6.832	7.153	7.205	7.779	8.165	8.777	9.466	9.706
25	Apr-08	5.337	5.552	5.912	6.143	6.185	6.679	7.065	7.557	8.031	7.981
26	May-08	5.217	5.432	5.792	5.998	6.050	6.564	6.920	7.387	7.811	7.671
27	Jun-08	5.242	5.457	5.812	6.028	6.080	6.594	6.955	7.422	7.856	7.716
28	Jul-08	5.272	5.482	5.832	6.058	6.110	6.624	6.990	7.462	7.896	7.756
29	Aug-08	5.297	5.507	5.852	6.093	6.145	6.659	7.020	7.502	7.941	7.801
30	Sep-08	5.277	5.487	5.837	6.073	6.130	6.639	7.010	7.497	7.931	7.791
31	Oct-08	5.292	5.497	5.852	6.093	6.150	6.669	7.045	7.537	7.961	7.821
32	Nov-08	5.567	5.772	6.127	6.378	6.465	6.999	7.395	7.892	8.356	8.271
33	Dec-08	5.842	6.047	6.387	6.653	6.760	7.304	7.715	8.227	8.741	8.721
34	Jan-09	6.067	6.287	6.622	6.893	6.980	7.524	7.940	8.447	9.031	9.051
35	Feb-09	6.067	6.272	6.592	6.873	6.965	7.512	7.935	8.432	9.006	8.996
36	Mar-09	5.897	6.077	6.387	6.683	6.815	7.372	7.795	8.258	8.776	8.731
37	1st Year Avg [1]	6.227	6.454	7.051	7.275	7.110	7.820	8.135	8.957	10.076	10.858
38	2nd Year Avg [2]	5.837	6.068	6.509	6.761	6.765	7.416	7.709	8.322	8.992	9.173
39	3rd Year Avg [3]	5.531	5.739	6.084	6.331	6.403	6.928	7.315	7.802	8.278	8.192
40	Total 3-Year Avg	5.865	6.087	6.548	6.789	6.759	7.388	7.720	8.360	9.116	9.408

Notes:

[1] 1st year time frame is from April 2006 through March 2007

[2] 2nd year time frame is from April 2007 through March 2008

[3] 3rd year time frame is from April 2008 through March 2009

NYMEX NATURAL GAS FUTURES PRICES ($/MMBTU)
APRIL 2006 - MARCH 2009

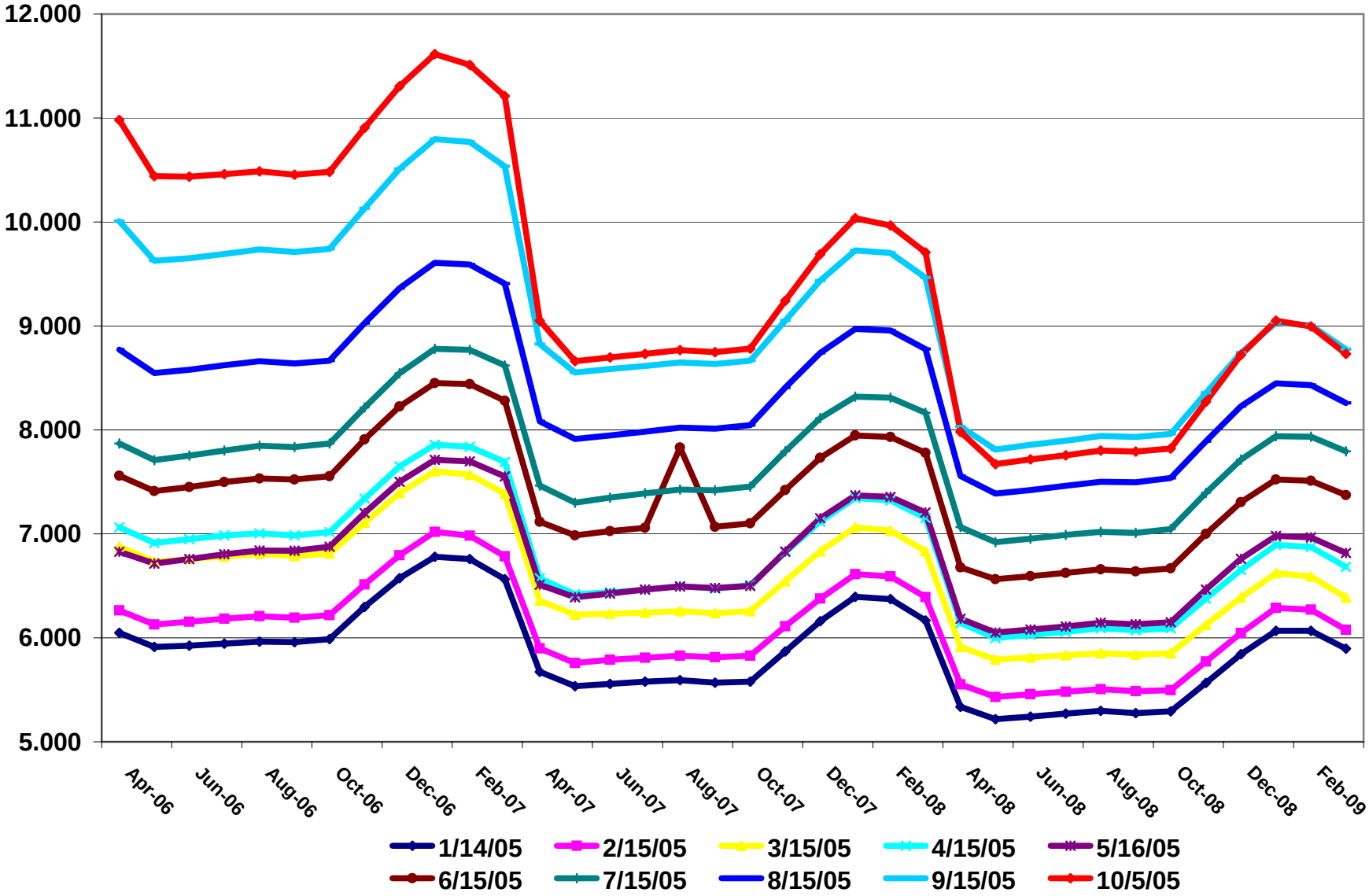

Exhibit No.:	
Issues:	Cost of Service and Interim Incentive Energy Charge
Witness:	Donald Johnstone
Type of Exhibit:	Direct Testimony
Sponsoring Party:	AGP
Case Number:	HR-2005-0450
Date Testimony Prepared:	October 14, 2005

Aquila, Inc. d/b/a
Aquila Networks – L & P

Case No. HR-2005-0450

Prepared Direct Testimony

Donald Johnstone

On behalf of

AG PROCESSING INC, A COOPERATIVE (AGP)

October 2005

Competitive Energy
DYNAMICS

Schedule WEB-8

BEFORE THE

PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the matter of Aquila, Inc. d/b/a Aquila Networks- L&P, for authority To file tariffs increasing steam Rates for the service provided to Customers in the Aquila Networks- L&P area.	)))))	Case No. HR-2005-0450

Affidavit of Donald Johnstone

State of Missouri)
) ss
County of Miller)

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
Donald Johnstone

Subscribed and sworn before me this 13th day of ~~February, 2004~~ October, 2005

Tracy D. Graham
Notary Public

[SEAL]

Tracy D Graham
Notary Public Notary Seal
State of Missouri
County of Miller
Expires December 15, 2007

My Commission expires:_____

Before the
Missouri Public Service Commission

Aquila, Inc. d/b/a
Aquila Networks – L & P

Case No. HR-2005-0450

Prepared Direct Testimony of Donald Johnstone

Table of Contents

Before the
Missouri Public Service Commission

Aquila, Inc. d/b/a
Aquila Networks – L & P

Case No. HR-2005-0450

Prepared Direct Testimony of Donald Johnstone

Q PLEASE STATE YOUR NAME AND ADDRESS.

A Donald Johnstone. My address is 384 Black Hawk Drive, Lake Ozark, Missouri, 65049.

Q BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A I am employed as President of Competitive Energy Dynamics, L. L. C.

Q PLEASE DESCRIBE YOUR QUALIFICATIONS AND EXPERIENCE.

A My qualifications and experience are set forth in Appendix A.

Q WHAT ARE THE PURPOSES OF YOUR TESTIMONY?

A I have been retained on behalf of AG PROCESSING INC, A COOPERATIVE ("AGP"). My assignment is to review the costs associated with retail steam

service in general and in particular for AGP. I also address principles related to the possible establishment of an Interim Incentive Energy Charge.

DESCRIPTION OF STEAM SERVICE

Q PLEASE DESCRIBE THE RETAIL STEAM SERVICE PROVIDED BY AQUILA.

A The retail steam business was acquired by Aquila, Inc. d/b/a/ Aquila Networks-L&P ("L&P" or "Company") as a part of its purchase of St. Joseph Light and Power. It has consisted of firm steam service to five industrial customers located in a physical proximity to L&P's Lake Road Plant in St. Joseph, Missouri. Of the five customers, AGP is the largest. All customers are required to pay both a "Reserved Capacity Charge" and an "Energy Charge" per million BTU delivered. The steam business is growing due to increased usage from present customers and also with the addition of Triumph, a new customer that will be the second largest after AGP.

For the test year, including known and measurable changes as filed by the Company, the present rates are estimated to provide $7 million in annual operating revenue for L&P.[1] The steam service peaks in the winter, but operates at a consistently high level throughout the year. In recent years much of the steam has been produced by the coal fired boiler at the Lake Road Plant. Gas fired boilers produce the remainder of the steam, albeit at a much higher

[1] Any reference to present rates, revenues, or the cost of service claimed by Aquila should not be construed as support for any particular cost item or the increase requested by Aquila.

cost. While the adjusted test year cost of fuel (as submitted in the Company filing) is $1.36 per million BTU for coal, the cost of gas is $6.73 per million BTU, about five times higher. Aquila has explained that these fuel prices were, at the time it applied for this rate increase, expected to be representative of prices the first year the new rates are in effect. These prices will be effected by the Commission ordered true-up through October 31. The true-up will address "all major changes to revenue, expenses, rate base, and capital structure occurring through the true-up date.[1]" Without prejudging the particular costs for the L&P steam business, current market prices for gas have been much higher in recent weeks. Given current conditions in the natural gas market, this means that steam produced from natural gas could at times be nearly eight times more expensive than steam produced from coal.

As the steam business grows, the additional energy will be sourced in natural gas, thus creating additional extreme price pressures if the current market prices persist. The recent gas prices exacerbate the price pressures that were already significant.

Q PLEASE DESCRIBE THE PROXIMITY OF THE AGP PLANT TO THE LAKE ROAD PLANT.

A AGP is without question the customer closest to the Lake Road Plant as the AGP facility is immediately adjacent to it. The steam is literally delivered across

[1] Missouri Public Service Commission Case No. HR-2005-0450 Order Concerning Test Year And True-Up, And Adopting Procedural Schedule, Issue Date: July 21, 2005, page 3.

the fence of the Lake Road Plant property. Consequently the distribution mains needed to take the steam down the road to the other customers are simply not needed and are of no use in providing service to AGP. Furthermore, the energy losses that would otherwise be inherent in deliveries through the distribution mains are avoided. I will discuss the implications further in the rate design testimony that is scheduled to be submitted on October 28.

Q PLEASE DESCRIBE THE LAKE ROAD PLANT OF L&P.

A The steam portion of the plant produces steam for retail steam service and steam is also used to generate electricity for retail electric customers. The net continuous electrical capability of the steam portion of the plant is 151.8 megawatts ("MW"), as reported in the Aquila FERC Form 1 report for the year ended December 31, 2004. In addition, the plant site is home to a combustion turbine electric generator.

Q YOU MENTIONED ABOVE THAT STEAM IS PROVIDED AS A FIRM SERVICE. HAS THE SERVICE TO AGP BEEN RELIABLE?

A Not as reliable as AGP would like. There have been interruptions in the steam service and furthermore, any interruption in the steam service can lead to an even longer interruption in AGP production. This occurs because it often necessarily takes time to restart AGP processes when the steam interruption is of a magnitude that leads to an interruption in the AGP processes. Also, any

interruptions in the steam service make it difficult for AGP to maintain the consistently high quality product that is needed.

COST OF SERVICE

Q WHAT ARE THE COSTS OF THE LAKE ROAD PLANT THAT ARE ATTRIBUTABLE TO FIRM RETAIL STEAM SERVICE?

A There several categories of costs. First, coal and natural gas fuel costs are the primary variable costs. The fuel costs are incurred to fire the boilers that make the steam. For the purposes of this case Aquila has developed an estimate of the fuel requirements based on a simulation of the joint operation of the Lake Road Plant for steam service and electric service. Most the time the coal fired No. 5 boiler is operated in a base load mode for retail steam service and that is reflected in the simulation.

A second category of costs are the fixed costs of the facilities that are used solely to provide steam service. An example is the distribution facilities typically used to send the steam to five of the six customers. The costs of these facilities are appropriately recovered from the steam service customers that use them.

A third category of costs are the fixed costs of Lake Road Plant facilities used jointly for steam service and electric service. These costs are shared between electric and steam customers.

A fourth category of costs are the operating and maintenance costs associated with the facilities. Generally the responsibility for these costs should follow the responsibility for capacity costs of the facilities and are therefore shared between electric and steam customers.

There are also costs associated with general plant and with administrative and general costs. These include both local costs and Aquila corporate costs that are allocated, presumably based on a measure of cost causation.

Q GIVEN THE CIRCUMSTANCES OF AQUILA, L&P, RETAIL ELECTRIC SERVICE, RETAIL GAS SERVICE, AND RETAIL STEAM SERVICE, HOW IS THE COST OF STEAM SERVICE DETERMINED?

A First, I note that while separate applications for rate increases have been filed for the electric and steam services, there is no separate company that provides the steam service. Instead, it is Aquila, Inc. d/b/a Aquila Networks-L&P. As a practical matter this means that many of the costs are parsed out pieces of Aquila corporate costs - to L&P and to the steam service.

Aquila witnesses refer to methods for estimating the cost of steam service based on Aquila corporate cost allocation procedures and jurisdictional cost allocation methods that apparently have been explained in past cases. I find no clear explanation in this case of the rationale for all of the various costs attributed to the steam service.

Q WHAT IS THE ANNUAL REVENUE FROM STEAM SERVICE AS COMPARED TO ELECTRIC SERVICE?

A Test year present operating revenue is $7 million for steam service and $112 million for the Aquila Networks – L&P electric service. Thus, the steam service operating revenue amounts to six percent of the electric service operating revenue.

Q HOW SHOULD THE COST OF STEAM SERVICE BE DETERMINED?

A At one level the answer is a simple one. The cost of steam service is simply the sum of the direct costs and any properly allocated costs incurred to provide the service. As a practical matter, the interrelationships of the electric and steam services, and also the interrelationships of the many Aquila business units, make this a challenging task.

More specifically, I have several recommendations. First, Aquila must bear the burden of showing that the costs it claims are in fact fair and reasonable for the steam service. I do not believe a mere reference to methods not submitted and explained in this case is necessarily adequate.

Second, the Commission should consider as a relevant factor the impact of higher steam costs on the local economy. AGP alone represents 162 jobs. Also, the facts that existing customers are expanding and that a large new customer is being added are a positive part of the local economic impact, even though price pressures are created for the steam service.

Third, the Commission should consider the fair and reasonable costs directly associated with steam service as a relevant factor in its deliberations. In other words, those costs not directly associated with steam service depend on judgments as to whether or not, or to what extent, the costs are *apropos* for collection from steam customers.

Finally, it will be necessary to establish just and reasonable rates based on a consideration of all relevant factors.

FUEL COSTS

Q ARE THE COSTS OF FUEL A PARTICULAR CONCERN?

A Yes. The high prices and volatility in the natural gas costs and markets are a concern. I understand that Aquila has engaged in hedging activities, although there is no explanation of those activities in Aquila's direct testimony.

Q WHAT IS THE PROPORTION OF THE COAL AND GAS THAT IS USED TO PROVIDE STEAM SERVICE?

A Most of the energy is derived from coal, but the larger portion of the cost is in the natural gas. Taking the energy content first, Chart 1 illustrates month by month the amounts of energy (in million BTU) derived from each fuel. For the twelve months of the test year as adjusted by L&P, 62% of the energy came from coal and the remaining 38% came from natural gas.

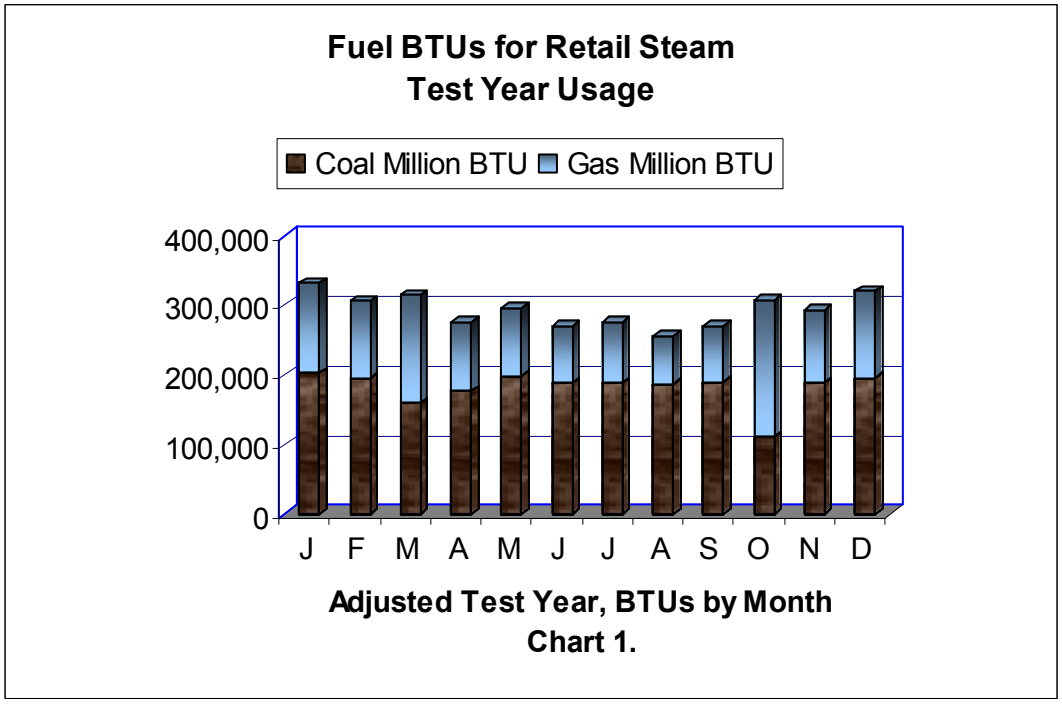

Chart 1.

Q WHAT IS THE FUEL COST ASSOCIATED WITH THE ADJUSTED TEST YEAR COAL AND GAS USAGE?

A Aquila states an intent to recover the cost of fuel for the first year that new rates will be in effect. On this basis, the coal cost is $1.36 per million BTU according to Aquila's workpapers. The gas cost in the Aquila filing is $6.73 per million BTU based on a 12 month strip for 2006. However, gas costs have changed markedly since the case was filed. Solely for the purpose of illustration I will use the October 11 closing NYMEX[1] gas futures prices for the months of May 2006 thru April 2007 to illustrate the potential impact of gas costs relative to coal costs. The average of the 12 monthly prices is $10.55 per

[1] The New York Mercantile Exchange, Inc.

million BTU for natural gas.

With this wide spread in prices, natural gas costs would comprise roughly 82% of fuel costs, even though gas represents only 38% of the BTUs.

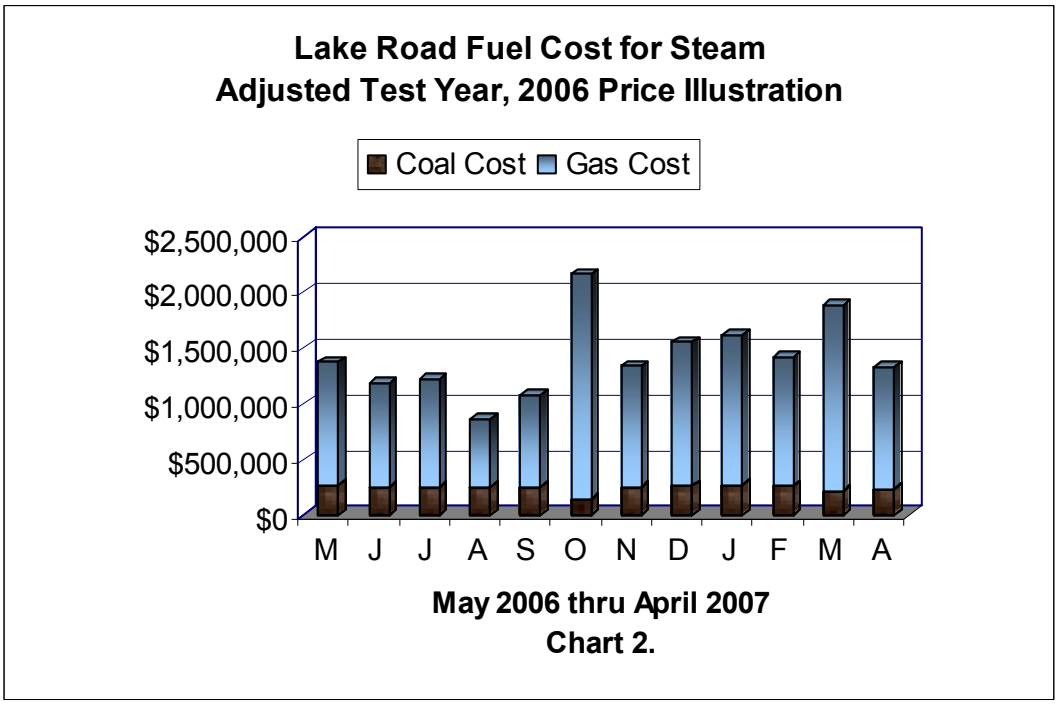

Chart 2.

Q DOES AQUILA HEDGE ITS COST OF NATURAL GAS?

A Aquila engages in hedging activities. However, what is not revealed in its direct testimony is the expected actual gas costs including the effect of related financial instruments.

Q WHAT ARE THE INTERESTS OF AGP IN REGARD TO FUEL COSTS FOR STEAM?

A First, AGP, like any rational customer, has an interest in receiving service at the lowest cost consistent with reliable service, that is, service that is in all

respects safe and adequate. In addition AGP has an interest in rate stability. I support and recommend the need for a responsible approach to the management of the volatility of the natural gas market so as to mitigate swings in steam prices. Of course, with only a base rate mechanism, there will not be swings apart from changes authorized in a base rate case.

AGP recognizes a likely problem for both L&P and steam customers if the fuel cost for natural gas is set and fixed as a part of the base rates. On one hand there is a risk that too high a price will be "locked in" which will result in a possible detriment to the ratepayers and potential excessive profits to the utility. On the other hand, fixing too low a fuel cost will simply result in another rate filing, possibly in a very short time. Inevitably, a fixed base rate will be either too high or too low as compared to actual fuel costs. Consequently, I will advance some principles that may lead to a reasonable solution.

INTERIM INCENTIVE ENERGY CHARGE

Q WHAT ARE THE CONSIDERATIONS THAT GO INTO A RECOMMENDATION FOR THE RECOVERY OF FUEL COSTS WITH A MECHANISM OTHER THAN THE TRADITIONAL APPLICATION OF BASE RATES?

A I am not a lawyer and do not intend to offer a legal opinion. I am, nevertheless, aware of more than one recent instance of Commission approval

of the use of a mechanism referred to as an "Interim Energy Charge" (IEC"). I am also aware of a recently enacted provision of the Missouri statues [Section 386.266 RSMo.] that explicitly identifies some considerations pertinent to an "Interim Energy Charge" ("IEC") and a "Periodic Rate Adjustment" ("PRA") for electric utilities. The considerations include:

- Only prudently incurred fuel costs are eligible;
- Incentives to improve efficiency are encouraged;
- There is to be a true-up of revenues and allowed costs;
- There is to be a base rate case with new rates effective four years hence;
- There is to be sufficient opportunity for a fair ROE; and
- All relevant factors are to be considered.

Q ARE THE SAME CONSIDERATIONS APPROPRIATE FOR THIS PROCEEDING IF THERE IS A RATE ADJUSTMENT MECHANISM FOR STEAM FUEL COSTS?

A Yes. In large part these are common sense provisions. For example, it is well established that any costs that are not prudently incurred should not be recovered from ratepayers. Likewise, there should be true-up and audit provisions to ensure this result. Any revenues collected due to costs that are later found to violate the mechanism (due to the true-up provision or the prudence requirement) would need to be refunded.

Another important consideration is the encouragement of incentive

mechanisms. To the extent that all fuel costs are passed thru on a more or less automatic basis – with no impact on utility earnings -- the utility's incentive to hold fuel costs to a minimum is greatly reduced. In contrast, traditional base rate regulation has provided an important incentive to minimize actual costs. In a rate case the rates are set at a level designed to provide an opportunity for the utility to earn a fair return. But once rates are set, the actual return is at risk from one rate case to the next. This means that the actual return (utility profits) will always be relatively higher to the extent that the utility minimizes costs between cases. Thus the utility has an incentive to minimize its costs through efficient operations and, to the extent it does so, it is rewarded by increased earnings. In my opinion this vulnerability of the utility's profits is desirable because it creates a powerful incentive to minimize costs. Unfortunately, this incentive does not always result in lower rates for the ratepayers. Thus it can be one-sided. Overall the benefits are important and the incentive should be preserved to the extent possible in the context of any fuel cost adjustment mechanism.

Q DO YOU HAVE COMMENTS ON THE NEED TO CONSIDER ALL RELEVANT FACTORS AND THE NEED FOR A RATE CASE EVERY FOUR YEARS?

A Yes. First, as to the rate case requirement, it is easy to see the logic. From a consumer perspective, when a component as large as fuel is passed thru to consumers with an adjustment mechanism, the rate case will help to ensure

that the base rates do not become excessive and remain so. The requirement is symmetrical in that rates can either go up or go down as a result of the four year rate case provision.

The remaining issue is the requirement for the Commission to consider all relevant factors. This is always important when the revenue requirement is being determined in a rate case. The extension of the requirement to the matter of the adjustment mechanism is also appropriate for at least two reasons. *First*, the fuel costs are a large portion of total costs. *Second*, the mechanism can remain in effect as an adjustment to rates for up to four years. Therefore, the mechanism should receive at least the same level of scrutiny as base rates.

Q WHAT ARE SOME OF THE RELEVANT FACTORS TO BE CONSIDERED?

As a part of "all relevant factors" there must, among all other relevant considerations, be a consideration of relevant customer perspectives. In the context of any adjustment mechanism deriving from the instant proceeding the relevant customer perspectives include the need for:

- An affirmative utility obligation to minimize fuel costs[1];
- An affirmative utility obligation to engage in fuel cost and price stabilization mechanisms; and
- A substantial percentage share of the subject fuel cost should

[1] The minimization of fuel costs must be in the context of L&P's responsibility to provide safe and adequate service, and all that is reasonably inferred as a part of that responsibility.

continue to be recovered in base rates, without periodic adjustments to capture variations.

Q WHY SHOULD THERE BE AN AFFIRMATIVE UTILITY OBLIGATION TO MINIMIZE FUEL COSTS IF THERE IS AN ADJUSTMENT MECHANISM FOR FUEL COSTS?

A The answer is found in an understanding of the incentives that exist and incentives that are created or removed. The incentives, taken together, need to be sufficient to align utility interests with ratepayer interests.

The purpose of establishing an affirmative obligation to minimize fuel costs is to replace, to the extent possible, the financial incentive to minimize costs that is reduced or eliminated by the change from base rate recovery of fuel costs to an adjustable rate mechanism. A regulatory obligation on the utility to minimize costs would be a movement to balance the interest of customers in low cost service against the need to reflect cost changes on a more timely basis.

In this regard, it is very important to distinguish the incentives under an adjustment mechanism from the incentives under base rates. If the recovery of variations in fuel costs is moved from base rates to an adjustable rate, the financial incentives that would be inherent in base rate regulation are eliminated. Earnings would no longer be enhanced or diminished due to changes in the fuel costs. Consequently, without earnings at stake directly, the only financial incentive left to motivate good performance is the threat of

a fuel cost disallowance in the event that the utility cannot prove prudence. While the prudence review is important, in my opinion it is a weak substitute for the financial incentive inherent in base rates. An affirmative obligation to minimize fuel costs would at least be a step in the direction of maintaining a reasonable incentive for the utility to minimize costs. This is accomplished by raising the bar for expected performance and by leveling the field somewhat for those that might be challenging the claimed fuel costs.

Another consideration is the fact that the typical structure of an adjustment mechanism makes it likely that fuel costs will be charged to customers before there is an effective review for prudence. An after-the-fact review of costs already charged to customers provides only a diminished incentive to lower costs. Instead, it tends to motivate what could be characterized as "gaming" of the regulatory system. Gaming will not produce low rates but, rather, excessive documentation and other activities intended to shield utility decisions from an adverse prudence review. Consequently there is a larger more difficult burden on the reviewers (commission staff and other parties) to identify any imprudence as a means to incent and ensure low costs for consumers. As a practical matter, it is difficult to look backwards to establish what could have been done differently or what the result would have been under prudent fuel procurement management.

In summary, without earnings directly at stake, the threat of a retrospective fuel cost disallowance becomes the prime motivator or incentive

for the utility to minimize fuel costs. This misaligns ratepayer and utility interests. An affirmative prospective obligation to minimize costs is needed to help restore a beneficial alignment of consumer and utility interests.

Q WHY SHOULD THERE BE AN AFFIRMATIVE UTILITY OBLIGATION TO ENGAGE IN FUEL COST AND PRICE STABILIZATION MECHANISMS.

A Simply put, customers prefer price stability over price fluctuations. Base rates tend to provide that stability. An adjustment mechanism swings the pendulum in the opposite direction with respect to fuel costs. And again there is an incentive problem that arises if the utility is simply allowed to pass thru undampened price volatility. Absent a consumer protection measure, the full volatility associated with fuel costs would likely be fully shifted from the utility to customers, even though there is an ability to dampen the price volatility. Therefore, it is logical to require fuel cost and price stabilization mechanisms where fuel cost volatility is a concern. The possibilities range from a simple percentage cap on the size of any increase, to hedging strategies, to an adjustment mechanism that by design does not pass through all of the changes in fuel costs. What is important is to strive to align the utility interests with those of the consumer. An appropriate rate design for the adjustment mechanism will inherently maintain an incentive for the utility to stabilize and minimize costs.

Q YOUR LAST POINT ADDRESSES A NEED TO CONTINUE TO HAVE A SUBSTANTIAL PERCENTAGE OF THE FUEL COSTS COLLECTED IN BASE RATES, WITHOUT PERIODIC ADJUSTMENTS. WHY IS THIS SO?

A To the extent that a meaningful percentage of fuel costs remains in base rates and not subject to adjustment between rate cases, a meaningful amount of the traditional base rate incentive to minimize costs will be maintained. Also stability in the costs will be encouraged as that would stabilize earnings for the utility while at the same time stabilizing retail rates. Consequently, utility interests in low and stable costs for the purpose of maximizing earnings would be better aligned with the consumer interests in low and stable rates. Thus, by design, the incentives to minimize and stabilize fuel costs would be inherent in the rates themselves and there would be a reduced need to rely on prudence reviews and additional obligations created by regulation to incent utility behavior. A final observation is that the risk of flawed purchasing practices or inefficient operations would substantially remain on the party with direct control over those actions – the utility. This appropriately enforces accountability with financial consequences.

Q ARE YOU AT THIS TIME RECOMMENDING A PARTICULAR INTERIM INCENTIVE ENERGY CHARGE MECHANISM?

A No, I am not. However, an interim incentive rate adjustment mechanism that meets the recommendations outlined hereinabove would be seriously reviewed

by AGP. The fuel cost levels that would be included in base rates and in an interim incentive energy charge mechanism must be considerations along with the structure. However, since the true-up period for this case ends October 31, roughly two weeks from now, it is too soon for anyone to know what fuel costs will ultimately be a part of the adjusted test year. Nevertheless, AGP recognizes fuel cost recovery as a serious issue and for that reason is stating at this time its position in regard to the principles that it supports.

Q DOES THIS CONCLUDE YOUR TESTIMONY?

A Yes it does.

Appendix A

Qualifications of Donald E. Johnstone

Q PLEASE STATE YOUR NAME AND ADDRESS.

A Donald E. Johnstone. My address is 384 Black Hawk Drive, Lake Ozark, MO 65049.

Q PLEASE STATE YOUR OCCUPATION.

A I am President of Competitive Energy Dynamics, L. L. C. and a consultant in the field of public utility regulation.

Q PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

A In 1968, I received a Bachelor of Science Degree in Electrical Engineering from the University of Missouri at Rolla. After graduation, I worked in the customer engineering division of a computer manufacturer. From 1969 to 1973, I was an officer in the Air Force, where most of my work was related to the Aircraft Structural Integrity Program in the areas of data processing, data base design and economic cost analysis. Also in 1973, I received a Master of Business Administration Degree from Oklahoma City University.

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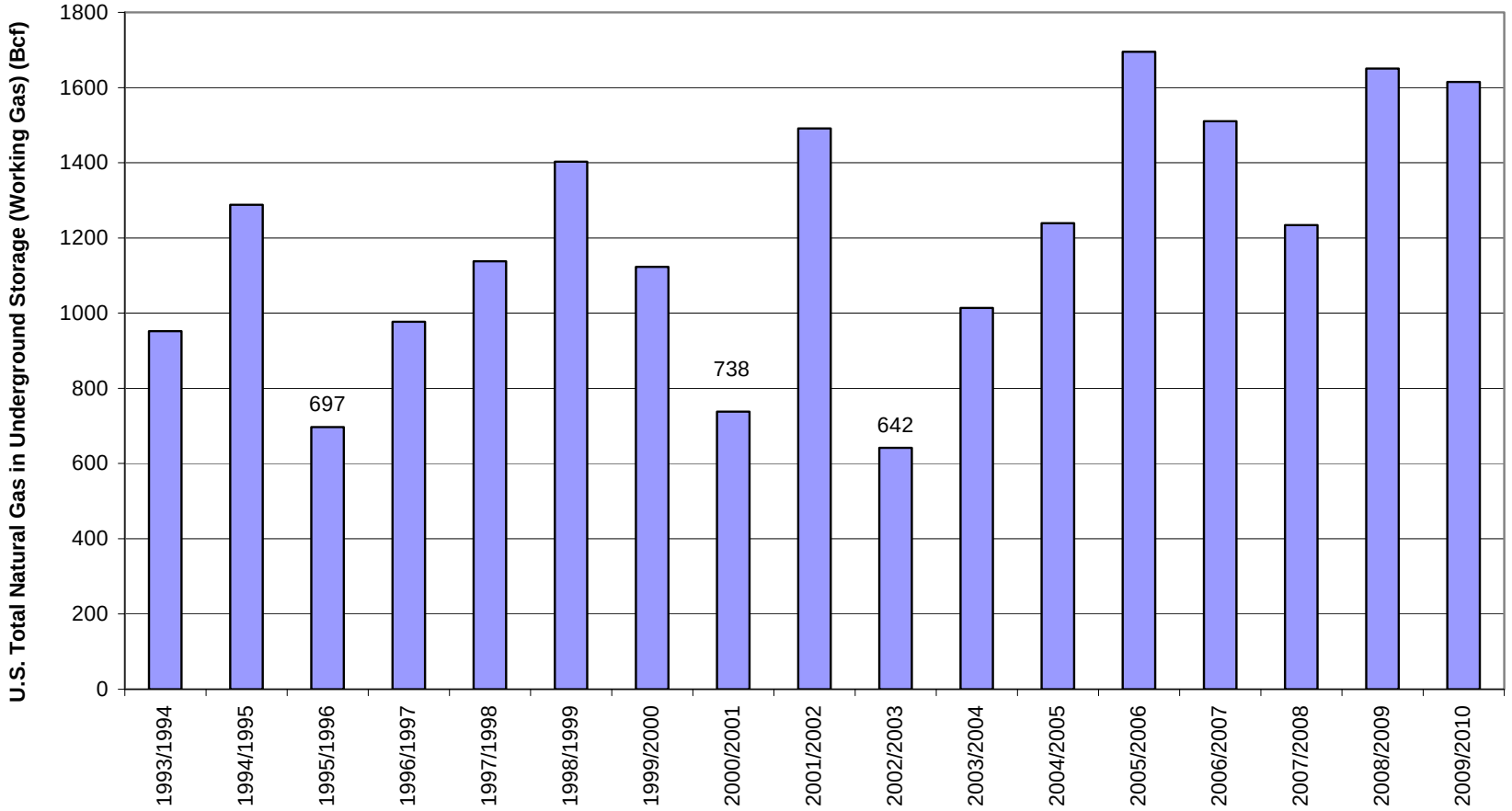
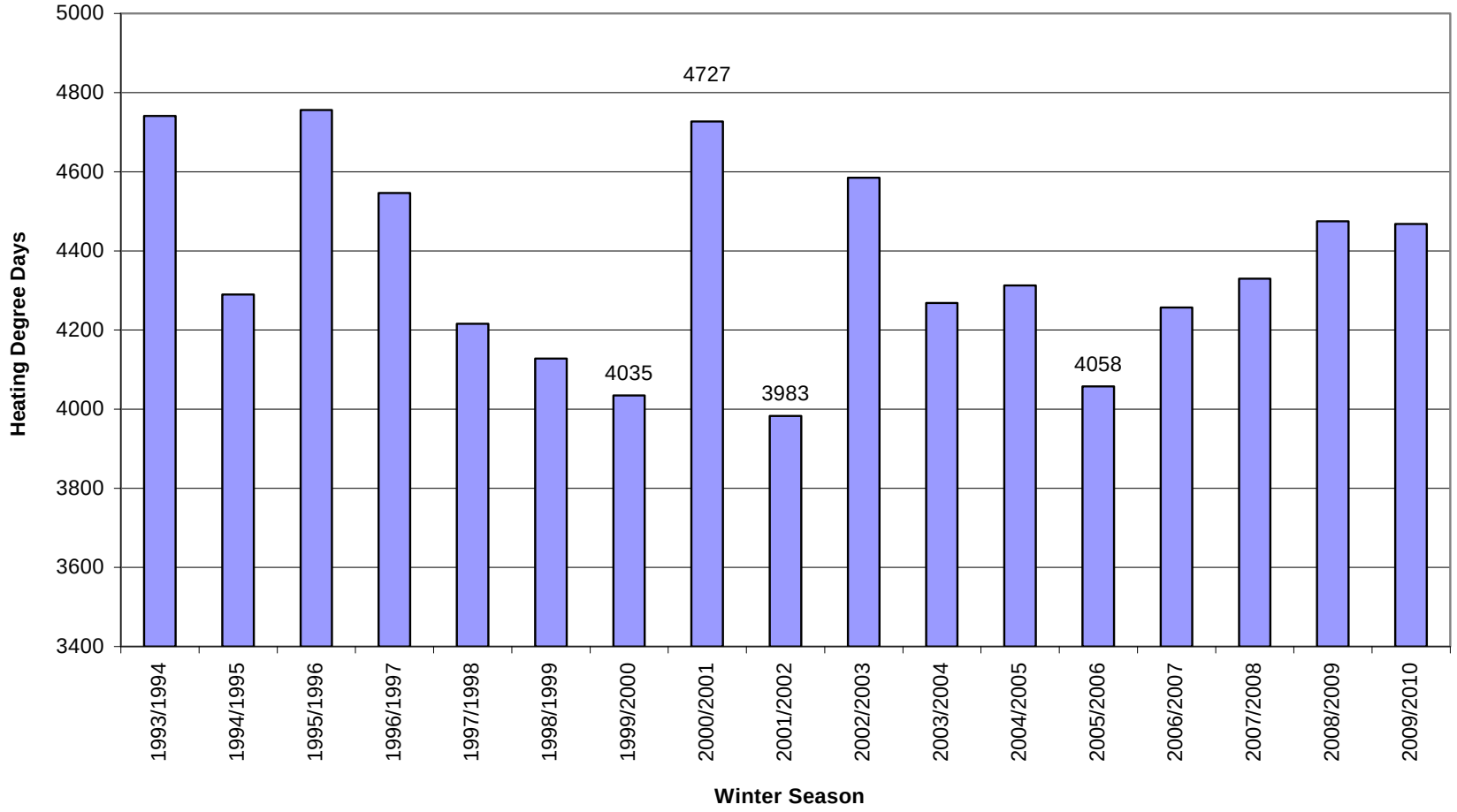
Natural Gas Storage - Winter Low



Population Weighted Heating Degree Days



Schedule WEB-10

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

Competitive Energy
DYNAMICS

Schedule WEB-11

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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Direct Testimony of Donald Johnstone

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

Q PLEASE STATE YOUR NAME AND ADDRESS.

A My name is Donald Johnstone and my address is 384 Black Hawk Drive, Lake Ozark, Missouri, 65049. I am employed by Competitive Energy Dynamics, L. L. C.

Q ON WHOSE BEHALF ARE YOU APPEARING?

A I am appearing on behalf of intervenor AG PROCESSING INC, A COOPERATIVE (AGP). I have also been retained by Triumph and Omnium, each of whom is a steam customer of the applicant utility.

Q PLEASE STATE YOUR QUALIFICATIONS AND EXPERIENCE.

A I have been working in the utility business since 1973. I started as an engineer for the Union Electric Company, where I had assignments in power operations and corporate planning. Since 1981 I have worked as a consultant in the field of utility regulation. My work has taken me to many states and I have addressed various matters including 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.

SUMMARY

Q WHAT ARE THE SUBJECTS ADDRESSED IN YOUR TESTIMONY?

A 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.

QCA HISTORY

Q DID AGP SUPPORT THE ADOPTION OF THE RATE MECHANISM THAT IS KNOWN AS THE "QUARTERLY COST ADJUSTMENT" OR "QCA"?

A 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.

Q PLEASE SUMMARIZE THE OPERATION OF THE QCA.

A 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.

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

A 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.

Q DID THE COAL PERFORMANCE STANDARD WORK AS DESIGNED?

A 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.

Q 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.

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

A 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.

Q WHAT ACTIONS WERE TAKEN TO ADDRESS THE CONCERNS WITH THE HEDGING PROGRAM?

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

QCA RECOMMENDATIONS

Q IF THERE CONTINUES TO BE A QCA, IS THE INITIAL EXPERIENCE WITH THE COAL PERFORMANCE STANDARD REASON TO ELIMINATE THE PROVISION?

A No. The logic for it continues to be sound. Due to the vast difference in the cost of 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 prices of fuels.

Q IF THERE CONTINUES TO BE A QCA SHOULD THE 80/20 TRACKING APPROACH CONTINUE?

A Yes. There are several reasons why this should continue. First, the 80% factor provides very substantial protection for Aquila's cost of fuels. No doubt in part due to the QCA, Aquila did not apply for a steam rate increase along with its last prior application for an electric rate increase. The current steam rates have been effective since March 6, 2006, so by the time new rates take effect in this case it will have been more than three years. Of course, under the recently enacted Missouri electric FAC legislation a rate case is required every four years. In comparison, Aquila has almost gone that long.

Q HAVE THE ANNUAL AUDITS OF THE QCA COSTS BEEN RESOLVED?

A No.

Q ARE YOU AWARE OF ANY BENEFITS THAT HAVE ACCRUED TO AQUILA DUE TO THE QCA?

A Yes. Substantial changes in cost have been passed on to customers, thereby shielding Aquila from a large measure of the impact of the cost increases while customers have been on the receiving end of the costs.

Q HAVE ANY CONCERNS BEEN RAISED BY AQUILA?

A Yes. Aquila has stated that both the coal performance threshold and the 80/20 mechanism have resulted in less than 100% pass through of the costs. 100% pass through is the apparently the current goal of Aquila according to the testimony of Mr. Rush.

Q HAVE ANY CONCERNS BEEN RAISED BY AGP?

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.

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 RECOMMEND?

A 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.

Q ARE YOU OPPOSED TO THE QCA AS MODIFIED IN THE PROPOSAL OF MR. RUSH IN THIS PROCEEDING?

A Yes, strongly opposed. The 100% pass-through of costs, including the elimination of the coal performance standard, would create a mechanism with no direct financial incentive to encourage cost-effective operations, maintenance, and fuel procurement. Furthermore, it would offer no protection to customers in the event of poor 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 after-the-fact prudence review, and as a practical matter, that shifts a great burden to Staff and customers. In my opinion, realistically, only the most egregious imprudent actions would ever be pursued so the value of the prudence review as an incentive or a remedy is very limited.

Q DO YOU SUPPORT THE CONTINUATION OF THE CURRENT QCA?

A Yes. It is far superior to use a mechanism such as the current QCA that encourages a cost-effective result in the first place and minimizes the reliance on after-the-fact reviews.

Q PLEASE SUMMARIZE THE MINOR ADJUSTMENTS YOU RECOMMEND.

A The base cost of gas should be reset. Also, the coal performance standard should be reset at a level of roughly 90% to 95% of the continuing level of operation. Also, the

blocking structure of the coal performance standard should accommodate reasonably expected outages.

Q DOES THIS CONCLUDE YOUR TESTIMONY?

A Yes it does.

Appendix A
Qualifications of Donald E. Johnstone

Q PLEASE STATE YOUR NAME AND ADDRESS.

A Donald E. Johnstone. My address is 384 Black Hawk Drive, Lake Ozark, MO 65049.

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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

Notary Public

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

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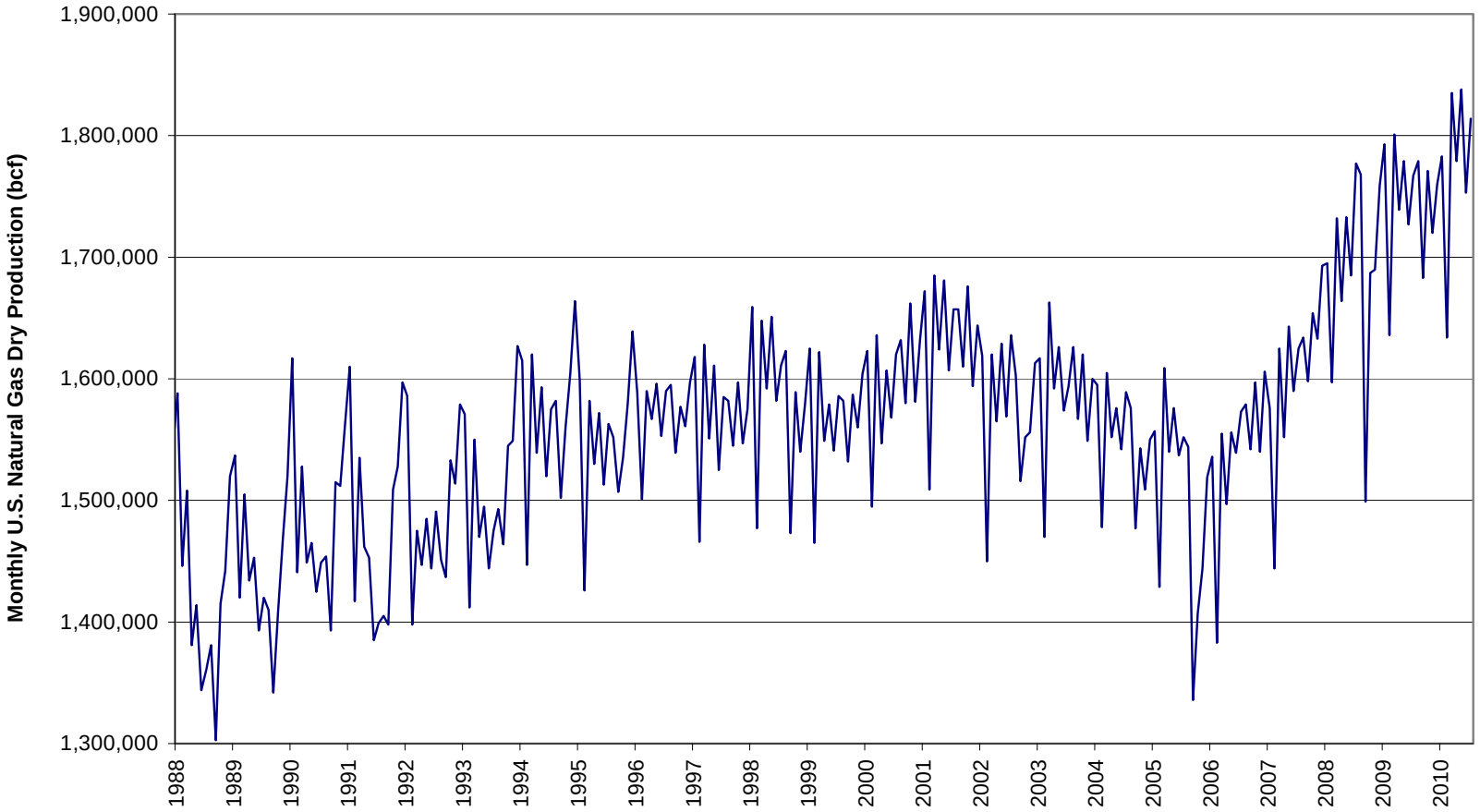
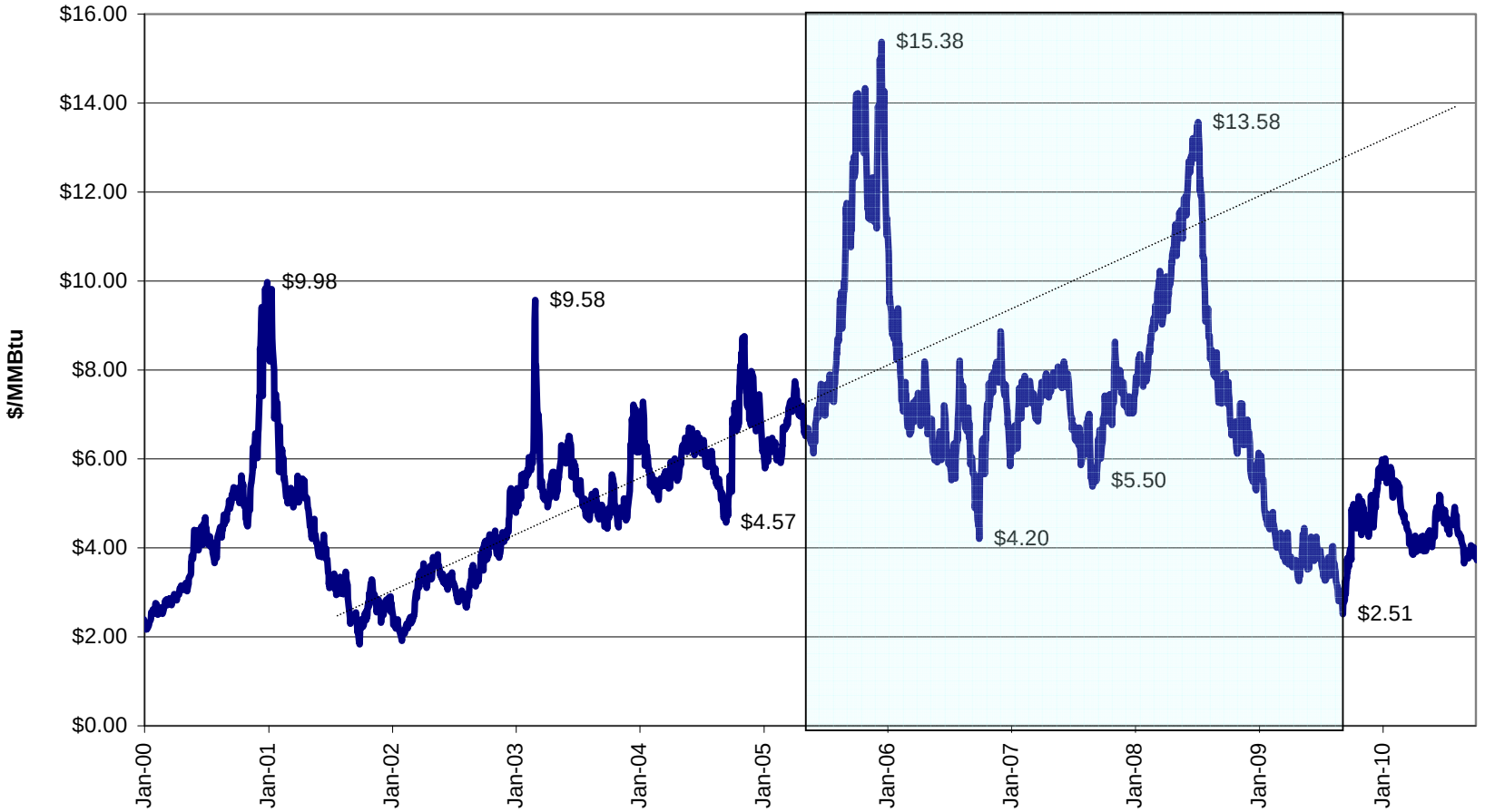
U.S. Natural Gas - Dry Production



Schedule WEB-12

NYMEX Natural Gas Settlement Price



Schedule WEB-13