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Witness: Donald Johnstone
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Aquila Networks-MPS and Aquila Networks-L&P

Case No. ER-2007-0004

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# Prepared Rebuttal Testimony of

# Donald Johnstone


On behalf of

Sedalia Industrial Energy Users' Association
and
Ag Processing Inc a Cooperative
[with St. Joseph Industrial Group]

February 2007

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Case No(s). ER-2007-0004
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Before the
Missouri Public Service Commission

Aquila Networks-MPS and Aquila Networks-L&P

Case No. ER-2007-0004

# Prepared Rebuttal Testimony of Donald Johnstone

**Q PLEASE STATE YOUR NAME AND ADDRESS.**

A My name is Donald Johnstone, and I reside at 384 Black Hawk Drive, Lake Ozark, Missouri, 65049. My qualifications and experience are set forth as Attachment A to my direct testimony that was filed on January 18, 2007.

**Q WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

A My purpose is to offer rebuttal to the specific fuel adjustment clause ("FAC") submitted with the direct testimony of Mr. Williams on behalf of Aquila. To this end, I will compare and contrast the Aquila FAC proposal to the rate design principles recommended in my direct testimony.

I find Aquila's proposal lacking in many respects. Besides offering a critical analysis of the Aquila proposal, I will explain and support alternative approaches to mitigate the many deficiencies. The alternative approaches are collected in the Alternative FAC. The Alternative FAC is the product of discussions among the non-utility parties. These parties have all opposed an

FAC for Aquila and it is my understanding that all continue to oppose an FAC. However, if the Commission is persuaded to approve an FAC, the attached is superior in many respects and therefore preferred by my clients. The degree of support from others is for them to state.

## SUMMARY

**Q PLEASE SUMMARIZE YOUR TESTIMONY.**

A My testimony may be summarized as follows:

- The FAC proposal of Aquila is an undesirable alternative to traditional rate mechanisms.
- Aquila's need for a FAC should meet a standard of acute need
  - While Aquila would like to have a FAC, whether or not it can prove acute need in consideration of all relevant factors is an open question.
- The attached Alternative FAC addresses many important rate design issues.
  - The Alternative FAC aligns the interests of Aquila with those of its customers. It constitutes much better policy by encouraging low cost (and prudent) choices every step of the way.
- The Alternative FAC offers consumer protections.
  - It minimizes the possibility of a negative impact on customers due to any extraordinary and potentially imprudent events that reduce the quantity of low-cost generation.
  - It reduces the effect on retail rates of elements of the FAC that are not dependent on fuel prices and are not supportive of just and reasonable rates under the FAC.
- The Alternative FAC contains several measures that together operate to mitigate the excessive rate volatility that is inherent in the Aquila FAC proposal. These provisions are necessary in order to have a FAC which will result in just and reasonable rates.
  - The accumulation and recovery periods are extended.
  - The current rate case level of FAC costs are separately defined for each accumulation period.
  - A soft rate cap is added to cushion the impact of any exceptionally large increase and to provide an opportunity for review before full collection.

Q **PLEASE PROVIDE A SIMPLE OVERVIEW OF THE AQUILA FAC PROPOSAL.**

A Aquila proposes 100 percent, dollar-for-dollar recovery of the costs incurred for fuel and purchased power and emission allowances, subject to a prudence review after the fact. While Aquila seeks to collect 100 percent of its fuel and purchased power expenses from its ratepayers, it does not offer to credit these same ratepayers with all of the revenues from off-system sales. On the other contrary, Aquila proposes to credit customers with 50 percent of the variations in the margins associated with off-system sales. The essence of the proposal is dollar-for-dollar recovery of variations in fuel and purchased power costs and a 50-cents on-the-dollar recovery of variations in the benefits of off-system sales.

As far as operational matters, Aquila would accumulate actual fuel costs in consecutive three-month periods. In each three-month period, the variation in fuel costs above or below the amount determined in this rate case would be determined. Once determined, the cost variation would be collected from customers in a three-month "recovery period." The requisite true-up and prudence reviews are provided.

As to impact on customers, Aquila proposes to implement FAC rate changes only if they are at least 2%. Small changes are deferred in favor of larger changes. There are no measures to limit or mitigate the size of rate changes.

**Q WHAT IS YOUR POSITION WITH REGARD TO A FAC FOR THE RECOVERY OF FUEL AND PURCHASED POWER COSTS?**

A As reflected in my direct testimony, I do not believe Aquila has shown sufficient basis to change from traditional regulations. In addition, the specific FAC proposal of Aquila suffers from many defects. It completely eliminates an important incentive to low cost efficient operations and passes through costs in a way that will make retail rates highly volatile. Simply put, cost recovery, even for fuel and purchased power, does not require volatile rates. For these and other reasons that will be developed more fully below, I oppose the Aquila FAC proposal.

**Q DESPITE THIS POSITION AND UNDERSTANDING THAT YOU HAVE IDENTIFIED IMPORTANT PROBLEMS IN THE PROPOSAL OF AQUILA, IS THERE AN ALTERNATIVE MECHANISM AVAILABLE TO THE COMMISSION?**

A Yes. With the assistance and input of the non-utility parties I have assembled an "Alternative FAC" proposal that is responsive to many of the problems that are inherent in the Aquila proposal. While many of the parties, each for their own reasons, feel quite strongly that there should be no fuel adjustment clause for Aquila, they have come together in discussions for the purpose of identifying a mechanism that would at least mitigate many of the important problems that are inherent in the Aquila proposal.

To my knowledge, none of the parties that have participated in the development of the Alternative FAC have changed their opinion as to the appropriateness of a FAC for Aquila. All that has changed is that there is a

more reasonable proposal in front of the Commission, should it be persuaded to proceed with a fuel adjustment mechanism.

While I appreciate the discussions, at this time the alternative proposal is my responsibility. The extent of support from others, if any, will be up to them to state for themselves.

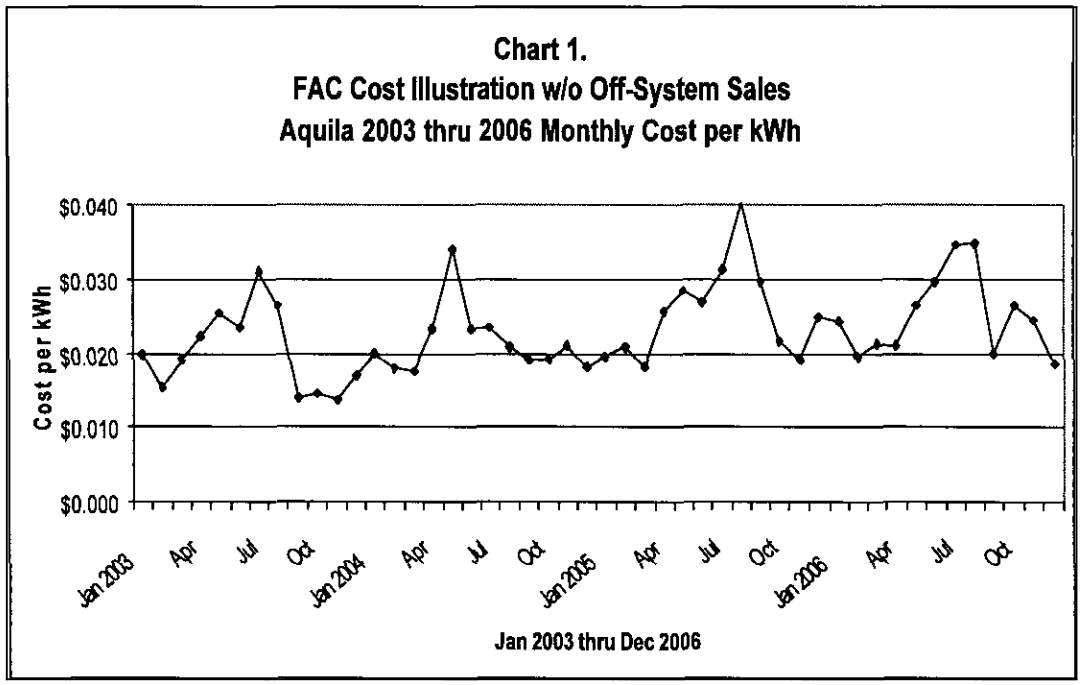
**Q PLEASE DESCRIBE THE ALTERNATIVE RATE ADJUSTMENT RATE MECHANISM.**

A The Alternative FAC is set forth on Schedule 1. It accepts the Aquila proposal for 50/50 sharing in the margins from off-system sales and extends the same sharing to fuel and purchased power costs. The variations in the net of fuel and purchased power costs and off-system sales margins are to be measured either above or below the level approved by the Commission in this proceeding. I will refer to this as the "rate case level." The sharing retains an important measure of incentive inherent in traditional regulation. In other respects, the alternative FAC has a number of important features that will protect consumers from unreasonable costs and rate changes.

## NEED FOR A FAC

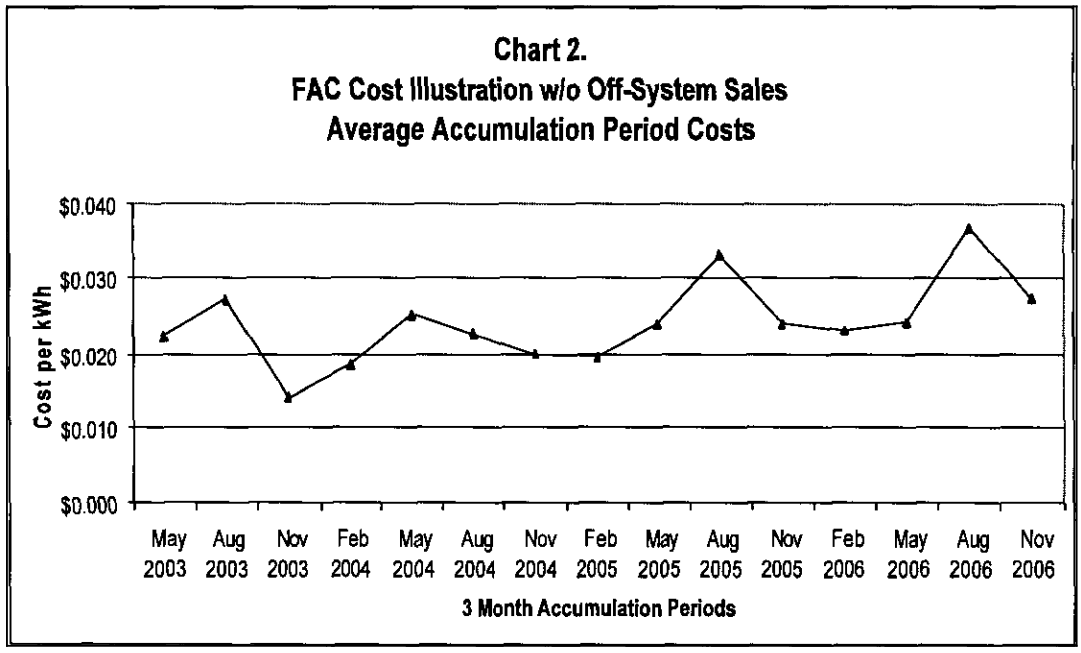
**Q HOW DOES AQUILA DESCRIBE ITS DESIRE FOR A FAC?**

A Aquila cites its recent history of fuel and purchased power costs and its several rate cases. Certainly there have been ups and downs in fuel and purchased power costs over the last several years. The following chart illustrates the monthly variations in those costs. As can be seen, there have been substantial changes both up and down.




1 Q **AQUILA PROPOSES A THREE-MONTH ACCUMULATION PERIOD. DOES THAT**
2 **MITIGATE THE VOLATILITY OF THE HISTORY?**

3 A Not to any meaningful degree. A three-month accumulation period does little
4 to mitigate volatility. Following is a chart of the fuel cost over the last four
5 years expressed in Aquila's proposed three-month accumulation periods.
6 Again, there is substantial volatility.




1 **Q WHAT DEFICIENCIES DO YOU FIND IN AQUILA'S CASE?**

2 A First, Aquila describes some of the historic changes in fuel cost. There is really
3 no debate on that point; certainly there have been significant changes in fuel
4 cost. However, I do not find a quantification of the impact on earnings.
5 Furthermore, there is no discussion of the future of fuel prices and the future
6 impact on earnings. By necessity, rates must be set on a forward-looking basis
7 and it is therefore important to adduce whatever information is available with
8 respect to the future before undertaking such a major change in regulation.

9 **Q ARE ALL FUEL COSTS VOLATILE?**

10 A Aquila witness Davis Rooney offers the following questions and answers in the
11 context of his direct testimony on the subject of spot market purchased power
12 prices:

Q. Please explain which fuel costs are used in power price determination.

A. The power market price estimating methods used by Aquila are concerned with only a few types of primary energy source costs. Nuclear fuel, coal, hydro, natural gas and fuel oil are the fuels that have a material impact on the ultimate market price for power.

Q. Please describe the method of updating primary fuel source prices.

A. Fuel costs assumptions vary by the fuel being considered. The methods used for determining the cost of each primary energy source are considered separately.

Q. Describe the method used to model nuclear, coal, and hydro fuel costs.

A. **The majority of the energy produced in the country is generated by base loaded plants most of which use nuclear, coal, or hydro fuels (stable cost) as their primary energy source.** The costs of these sources have two features in common. First, the cost is heavily dependent upon the individual plant. The costs for fuel at these plants vary due to a large number of factors, including refueling schedules, coal and delivery contracts, and water usage constraints. **The second feature these fuel costs have in common is that, compared to natural gas, they are relatively stable and do not generally exhibit high levels of volatility.** Therefore, the fuel cost estimate for actual fuel purchased costs contained in GED's Energy Velocity™ database for each individual plant is likely to hold throughout the timeframe of the test year. Therefore, for test year adjustment purposes, Aquila did not modify GED's costs for these fuels. [emphasis added]

Q. Have coal and coal transportation costs changed over the past several years?

A. Yes. As noted above the Department of Energy's Energy Information Administration reports that, in the electric power sector, current market conditions indicate that average coal prices will be 7.8% higher in 2007 than in 2005, with the bulk of this increase occurring in 2006. From 2004 to 2007 the expected increase is 23%. Electric utilities purchase power at a price derived from the cost of producing the power. The underlying cost of coal is one cost of producing the power.

**Q WHAT IS THE IMPORTANCE OF MR. ROONEY'S TESTIMONY?**

A All fuel costs are not highly volatile and inexorably increasing. Aquila may have experienced a difficult run, but it does not follow that a 100% tracking mechanism is an appropriate solution going forward. Past changes are not a prediction of the future.

**Q HAS THERE BEEN TESTIMONY IN OPPOSITION TO THE PROPOSAL FOR A FAC?**

A Yes. A number of parties have offered testimony in opposition to the proposed FAC. Of course, those testimonies must be given all due consideration.

## APPROVAL STANDARD

**Q WHAT STANDARD DID YOU RECOMMEND FOR THE COMMISSION IN DETERMINING WHETHER OR NOT TO APPROVE A PROPOSAL FOR A FAC?**

A As stated in my direct testimony, I recommend a standard of "acute need." The acute need standard implies a substantial financial need must be shown by the utility. Certainly any FAC, in order to be approved, ought to be more than a mere convenience to the utility. The substantial negative impacts of a FAC are the reason for my recommendation of the acute need standard. In other words, the negative effects on consumers would need to be weighed against the benefits to Aquila, and I recommend a standard of acute need so as to achieve a reasonable balance of customer and utility interests.

**Q IS ACUTE NEED CONSISTENT WITH SB179?**

A Yes. While I am not a lawyer, as I understand SB179, it is permissive with respect to any Commission approval of any periodic rate adjustment mechanism. I find nothing that suggests that a utility such as Aquila has an entitlement to a FAC. Rather, if there are certain findings, including, for example, a sufficient opportunity for a fair return on equity (among the several others), then the Commission "may" approve a FAC. In exercising its discretion, I recommend the standard of acute need for the Commission's consideration.

**Q DOES THE MERE FACT THAT FUEL COSTS HAVE GONE UP AND DOWN JUSTIFY A FAC?**

A No, not in my opinion. It is well established that certain costs may increase over time. On the other hand, it is also well established that other costs may decrease and efficiencies may be realized which can improve the utility's overall cost profile. Under traditional regulation, this is recognized and embraced. While certain costs may increase, these cost increases can be offset by decreases in other cost items. To the extent that offsets are not realized over time, the utility files for a rate increase. As a general rule, it is inconsistent and inappropriate to focus on a single cost item (i.e., fuel) in a vacuum. Rather, traditionally rates have been set by focusing on "all" relevant factors. The introduction of a tracking mechanism to recover fuel costs removes some or all of the fuel costs from the traditional approach. It will thereby increase the likelihood of the utility realizing improved and even

excess earnings. The effect can be to allow the utility to achieve earnings based just on operations excluding fuel costs. Increased efficiencies and any declining cost items are saved from the pressures created any tracked cost items which may be increasing. Thus, the mere fact that fuel and purchased power costs have increased is not is in itself an appropriate rationale for the implementation of a FAC. Rather, the utility should be required to show an "acute need" for such a mechanism.

## ALTERNATIVE FAC

**Q WHY IS THERE AN ALTERNATIVE FAC?**

A Speaking on behalf of my clients, the Alternative FAC was pursued in order to provide the Commission with an alternative to the Aquila proposal. It includes remedies for the many serious deficiencies in the Aquila proposal. At the same time there is an important policy goal to maintain as much of the benefit of traditional regulation as is possible. However, since this is the first FAC to be considered under the new law, and since there is the possibility of a sale of Aquila, the Alternative FAC is limited to a two-year term.

In contrast to the Aquila proposal that would put customers and Aquila at odds over the recovery of fuel and purchased power costs, the Alternative FAC includes a 50/50 sharing of variations in cost in order to maintain an alignment of the interests of Aquila and its ratepayers. The Alternative FAC also includes important consumer protections and measures that will mitigate retail rate volatility. Taken together, there are several features that will help

to ensure that only prudently incurred costs are recovered from customers. They will also ensure that Aquila has a continuing incentive to operate efficiently and to minimize costs. Thereby, they will also better ensure a result of just and reasonable rates for consumers and Aquila.

The Alternative FAC is a result of extensive cooperation and work by the non-utility parties. The result, I believe, is a superior alternative to the FAC proposed by Aquila.

## INCENTIVE TO OPERATE EFFICIENTLY

**Q SHOULD A FAC PASS THROUGH 100 PERCENT OF THE VARIATIONS IN FUEL AND PURCHASED POWER COSTS TO CUSTOMERS?**

A No, it should not, because there are many disadvantages to such an approach. Perhaps the largest disadvantage is that a 100 percent pass through largely eliminates the important incentive effect of traditional regulation. An alternative approach that constitutes better regulatory policy would maintain either all or a substantial measure of the traditional incentive. One simple solution is to implement a sharing mechanism for the variations in costs that will occur under the rider.

**Q DID AQUILA PROPOSE A SHARING MECHANISM AS A PART OF ITS FAC?**

A Yes it did. Aquila proposed to share the variations in the margins (the profits) of off-system sales. Aquila correctly explains that, as compared to a rider with 100% pass-through, this approach retains important incentives for the utility to maximize the beneficial effects of off-system sales.

**Q DID AQUILA PROPOSE ANY SHARING OF THE VARIATIONS IN THE COST OF FUEL PURCHASED POWER AND EMISSION ALLOWANCES?**

A No. I will refer to these various costs collectively as the "fuel basket." When it comes to the fuel basket, Aquila proposes 100 percent pass through of all variations - without regard to the source or magnitude of the variations. Therefore, instead of maintaining an important incentive as it did in its off-system sales sharing proposal, the Aquila proposal for the fuel basket eliminates the financial incentive.

## PRUDENCE REVIEWS DO NOT INCENT LOW COST

**Q DOES THE AFTER-THE-FACT PRUDENCE REVIEW THAT IS A PART OF THE PROPOSED FAC ELIMINATE THE NEED FOR A MORE DIRECT FINANCIAL INCENTIVE?**

A No, it does not. The prudence review adds nothing that did not previously exist. It has always been a responsibility of Aquila to prove prudence before being allowed to pass along changes in cost through higher rates. Since the rates would be changing periodically under a FAC, it follows that the responsibility for a prudence review must follow along with the periodic rate adjustments. However, the benefits of the prudence review are diminished as compared to traditional regulation, because the prudence review in the context of the FAC is after the fact. Under the Aquila proposal, the customers will provide revenues to cover the costs long before the prudence review is completed.

**Q UNDER THE TRADITIONAL APPROACH TO REGULATION IN MISSOURI, IS THERE AN IMPORTANT INCENTIVE TO HOLD COST TO A MINIMUM AND TO OPERATE THE UTILITY IN AN EFFICIENT MANNER?**

A Yes, there is. Under traditional regulation, once the rates are set, Aquila's financial returns will always be better if it operates efficiently and in a least-cost manner. That is not the result under a FAC. The only requirement for the utility to recover the subject costs is to pass the prudence review, which has moved from before the fact to after the fact.

In a rate case, Aquila would have to prepare and defend its filing. However, in its proposed FAC, rather than approaching the Commission with a case in which it is expected to prove its costs, there is a subtle shift to reliance on the Staff of the Commission to ferret out any imprudence. One can only hope that State resources are provided that are adequate to the task at hand. The question of Staff resources is simply ignored by Aquila.

**Q IS IT POSSIBLE TO INTRODUCE A SUBSTANTIAL MEASURE OF THE TRADITIONAL INCENTIVES INTO THE FAC?**

A Yes. The simple solution is to share the impact of variations in costs. I recommended that 50 percent of the variations be considered for pass-through under the fuel rider. The other 50 percent would continue to be recovered pursuant to traditional regulation. In other words, a rate case in which all relevant factors are considered would continue to be the mechanism for granting increased or decreased rates, based on changes in these and all other costs.

**Q IS AQUILA DENIED AN OPPORTUNITY TO RECOVER ALL OF ITS COST AND TO EARN A FAIR RETURN IN CONJUNCTION WITH A SHARING MECHANISM?**

A No. The most obvious evidence of this is the 50/50 sharing that is proposed by Aquila in conjunction with its off-system sales margins. However, just as has always been the case, once base rates are set, revenues will be collected pursuant to the sale of electricity, and the utility's financial returns will depend upon its ability to operate efficiently and in a low-cost fashion. That is exactly the situation that will continue with respect to the 50 percent of the cost variations that will not pass through to consumers under a sharing mechanism.

## CONSUMER PROTECTIONS

**Q DOES THE AQUILA PROPOSAL PROVIDE REASONABLE CONSUMER PROTECTIONS?**

A No. It is devoid of features that would minimize the possibility of imprudent costs being passed through to consumers during the recovery period. In this important sense, there is a serious lack of consumer protections.

**Q IS IT POSSIBLE TO ADD CONSUMER PROTECTIONS TO A FAC?**

A Yes it is. One consumer protection that has already been discussed is the recommendation to share the recovery of variations in the cost of the fuel basket between traditional rate mechanisms and the FAC. At this time, I recommend a 50/50 sharing between traditional regulation and FAC recovery of these costs.

Another feature to protect consumers against the possible pass-through of imprudent costs would derive from performance standards for Aquila's low-cost generation. I recommend performance standards for the quantity and cost of coal-fired generation, as well as for the quantity and cost of certain purchased power.

## CONSUMER PROTECTION - SHARING

**Q PLEASE EXPLAIN WHY YOU CHARACTERIZED THE 50/50 SHARING MECHANISM AS A CONSUMER PROTECTION WHEN IT ATTACHES TO THE FUEL BASKET.**

A The 50/50 sharing mechanism provides an important incentive for Aquila to operate in more than just a prudent manner. It provides an incentive for it to operate in an efficient manner that will minimize cost. It provides a direct financial incentive in the same fashion that traditional regulation has provided such an incentive. Therefore, in this important respect, it is reasonable to characterize the extension of sharing, to include variations in the cost of the fuel basket, as a consumer protection.

## CONSUMER PROTECTION - PERFORMANCE STANDARDS

**Q PLEASE EXPLAIN WHY PERFORMANCE STANDARDS ARE A CONSUMER PROTECTION.**

A Under traditional base rate regulation, Aquila bears the brunt of the additional cost if there is an outage in one of its lower cost base load generating units. The additional costs that I am referring to in particular are the fuel and purchased power costs that are incurred when the low-cost generation is

replaced with higher cost generation during the period of an outage. It is a consumer protection to continue to address such replacement power costs in the context of traditional regulation instead of in any FAC. Indeed, the motivation for the proposed FAC is the changes in the price of fuels. It is simply an unnecessary side effect that Aquila could coincidentally be provided with replacement power cost recovery in the FAC.

For example, if a FAC had been in effect when Taum Sauk went out of service, the consumers could have been immediately responsible for the higher cost of fuel and purchased power. But Taum Sauk is just the most recent example. The problem attaches to the possibility of an extended outage of any source of low cost energy.

In effect, FAC recovery of the cost of replacement power amounts to outage insurance for Aquila. There is no reason for consumers to provide such insurance. If such insurance is a good idea, it should be purchased by Aquila and addressed in the context of base rate proceedings. Indeed, Aquila has proposed to pass along any insurance proceeds, but not before the unnecessary and inappropriate rate increases that would cover already insured losses.

**Q DO YOU HAVE A SPECIFIC RECOMMENDATION FOR A PERFORMANCE STANDARD FOR THE COAL-FIRED GENERATION OF AQUILA?**

A Yes. Recognizing that the FAC is designed to address recovery of volatile aspects of the utility's cost structure and is not designed to provide protection against unplanned unit outages, I recommend simple standards be applied to the entire fleet of coal-fired generation. The quantity standard I recommend is

a coal-fired MWh output of not less than 96 percent of the coal-fired MWh output that is a part of the Commission Staff's fuel run in this proceeding.

**Q PLEASE EXPLAIN WHY 96 PERCENT IN COMBINATION WITH THE STAFF FUEL RUN IS A REASONABLE STANDARD.**

A The Staff fuel run is based on a normal level of outages. Staff has examined the outage history and built into its analysis a reasonable level of performance. As I understand the fuel run, it does not reflect either the best or the worst performance possible, but rather a reasonable, normal level based on the analysis of several recent years of experience. Therefore, I believe the Staff run forms a good basis for the performance standard.

However, in any given period, there is a reasonable spread of performance experience above or below normal. In order to accommodate a reasonable degree of variation, I looked to the projections of future generation that were provided by Aquila as an attachment to the testimony of Mr. Rooney in Schedule HDR-8. That schedule provides a forecast of coal-fired generation for the period of 2006 through 2010. The year with the lowest amount of coal-fired generation had generation equal to 96.7 percent of the average for the entire period. I rounded down from 96.7 percent to the 96 percent level that I recommend as the performance standard.

**Q WHAT HAPPENS IF AQUILA'S COAL-FIRED GENERATION FALLS BELOW THE STANDARD?**

A If Aquila generation does not come up to the level of the performance standard (in either of the accumulation periods), then additional generation will be imputed. The generation will be imputed at the average cost of coal-fired generation during the period.

In order to give effect to the lower-cost generation that is imputed, it is necessary to remove a corresponding quantity of high-cost generation from the generation mix.

**Q DOES YOUR PROPOSAL DENY THE RECOVERY OF PRUDENTLY INCURRED COSTS?**

A No, it does not. Under traditional regulation, Aquila bears full responsibility for the operational consequences of its system between major rate cases. In a rate case the outage history is reviewed and normalized. In effect, my recommendation preserves that result to the extent that there are extraordinary outages. On the other hand, to the extent that outages remain within a normal range, the performance standard will allow costs to be tracked and shared via the Alternative FAC.

As long as Aquila continues to operate above the threshold level set by the performance standard, the 50/50 sharing mechanism will provide reasonable incentives for Aquila to operate efficiently. However, under my recommendation for a performance standard, the incentive increases to the traditional level when the standard is not attained.

**Q WHAT PERFORMANCE STANDARD DO YOU RECOMMEND FOR PURCHASED POWER GENERATION?**

A I recommend that a performance standard be attached to the capacity purchases from the Nebraska Public Power District ("NPPD"). These are capacity purchases with relatively low-cost energy charges. The energy charges, but not the capacity charges, would be subject to the FAC mechanism.

**Q WHAT PERFORMANCE STANDARD DO YOU RECOMMEND FOR THE ENERGY DERIVED FROM THE NPPD CAPACITY PURCHASES?**

A Again, I have relied on information from the Staff fuel run. There are different quantities of purchases in the two accumulation periods. I used the MWh output from the two respective periods and again applied the 96 percent that was used in conjunction with coal-fired generation. This establishes a performance quantity standard for each accumulation period.

**Q WHAT PRICE DO YOU RECOMMEND BE ATTACHED TO THIS SOURCE OF ENERGY?**

A If Aquila does not meet the performance quantity standard for the NPPD purchased power energy, the purchase deficiency would be imputed. I recommended that the purchases be imputed at the average cost of the purchased power under the capacity contracts for the period, subject to a price cap. The recommended price cap would escalate the current average purchase price based on escalation in the cost of coal-fired Aquila generation.

In effect, purchased power prices would be allowed to escalate to the same degree that Aquila experiences escalation in the average price of its coal-fired generation.

## MITIGATION OF RATE VOLATILITY

**Q DOES THE PROPOSAL OF AQUILA MITIGATE THE VOLATILITY OF RETAIL RATES?**

A No, it does nothing to mitigate the volatility that is inherently created with the addition of a fuel cost tracking mechanism.

**Q IS IT POSSIBLE TO CHANGE THE DESIGN TO INCORPORATE FEATURES THAT WILL MITIGATE THE NEGATIVE AFFECTS OF A FUEL ADJUSTMENT CLAUSE ON RETAIL CUSTOMERS?**

A Yes, it is. With the addition of such features, the result is more likely to produce just and reasonable rates.

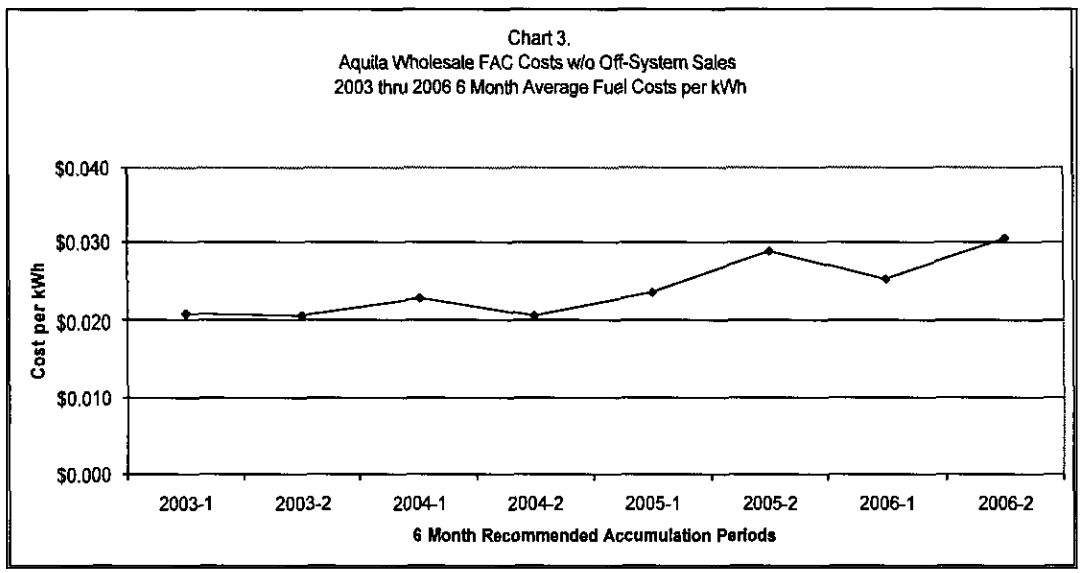
**Q DOES A 50/50 SHARING MECHANISM HAVE A BENEFICIAL EFFECT ON RATE VOLATILITY?**

A Yes, it does. While the primary purpose of a 50/50 sharing of both fuel costs and the off-system sales margins is to retain the incentives inherent in traditional base rate treatment, an additional benefit is that a reduced level of volatility will be passed through to retail rates.

## RATE VOLATILITY MITIGATION - 6 MONTH ACCUMULATION PERIODS

**Q DO THE THREE-MONTH ACCUMULATION PERIODS PROPOSED BY AQUILA FACILITATE MORE STABLE RATES?**

A No, not to any significant degree. It is possible to have a moderating effect on rate volatility by extending the period in which the variations and costs are accumulated. I recommend an extension to a six-month period. This will allow for some averaging of highs and lows in cost over the accumulation period. The following chart illustrates the beneficial effect on volatility and moving from a three-month to a six-month accumulation period.




## RATE VOLATILITY MITIGATION - 12 MONTH RECOVERY PERIODS

**Q IS IT POSSIBLE TO MITIGATE THE NEGATIVE IMPACTS OF RETAIL RATE VOLATILITY BY EXTENDING THE RECOVERY PERIODS?**

A Yes, it is. Aquila proposed three-month recovery periods. In effect, summer costs would be collected in winter and winter costs would be collected the

following summer. The same is true with respect to spring and fall. Since there can be significant differences in a retail kilowatt hour sales between these four periods of the year, the effect of volatility in costs can be magnified if there is a large variation in one period and the variations are collected in a the period with fewer kilowatt hour sales. The impact of the cost variations is necessarily magnified. That is a serious negative effect of the Aquila proposal that should be remedied if there is to be a FAC.

**Q WHAT RECOVERY PERIOD DO YOU RECOMMEND?**

A I recommend twelve-month recovery periods. This will have the beneficial effect of spreading out cost variations over a slightly longer period, thereby mitigating the rate impacts. In addition, cost variations are not moved from one season to another, but rather spread over a twelve-month period. The consistent application of this approach will minimize any unintended shifting of cost between or among customer classes.

## RATE VOLATILITY MITIGATION - SEASONAL BASE COSTS

**Q DOES AQUILA PROPOSE AN ANNUAL AVERAGE BASE COST FOR FUEL AND PURCHASE POWER?**

A Yes. Aquila proposed an annual average level to be determined in this case for the MPS division and the L&P division. The use of a simple annual average in and of itself will create cost variations. The variations will occur because there is a known seasonal pattern in the level of fuel and purchased power costs. This seasonal variation is illustrated on Charts 1 through 3 above. It is a

rather simple matter to develop the cost separately for each accumulation period. This will incorporate the effects of the seasonal pattern and thereby eliminate the creation of variations simply because of the seasonal patterns.

**Q WHAT IS YOUR RECOMMENDATION TO CORRECT THE PROBLEM IN THE AQUILA FAC?**

A I recommend a separate cost level for the fuel basket to be set for the two 6-month accumulation periods that a part of the alternative FAC. This will avoid the needless creation of cost variations that are simply due to seasonal nature of fuel and purchase power costs included in the basket.

## RATE VOLATILITY MITIGATION - RATE CAP

**Q DOES AQUILA PROPOSE ANY CAP ON THE AMOUNT OF INCREASE IN RETAIL RATES?**

A No. Under the Aquila proposal there is no cap whatsoever on the size of any increase in retail rates.

**Q IS IT POSSIBLE TO PROVIDE A RATE CAP WITHOUT CONSTRAINING THE INTENDED COST RECOVERY?**

A Yes, it is. I recommend what is sometimes described as a "soft cap." The effect of a soft cap is to limit the immediate increase, but to provide for the intended recovery through an extended recovery period while providing interest to Aquila to compensate it for the carrying cost.

**Q WHAT RATE CAP DO YOU RECOMMEND?**

A I recommend a rate cap based on the experience under the residential rate with an average amount of usage in each month. The usage profile would be set forth in the FAC. Each time there is a change in rates under the FAC I recommend a cap of 1.5 percent. In effect, this would allow the average retail customer to experience a rate increase of up to 3 percent per year. The affect would still vary somewhat from customer to customer and among other rate classes, but I believe this would provide a reasonable level of protection to all consumers.

**Q ARE THERE ANY BENEFICIAL FEATURES TO THE RATE CAP BESIDES MERELY EXTENDING THE RECOVERY AND LIMITING ANY SHARP AND EXTRAORDINARY RATE INCREASES?**

A Yes, there are. By definition, the rate cap will come into effect only when there are significant increases in the cost of fuel purchase power and off-system sales margins. In these circumstances, I believe it is likely that the parties and perhaps the Commission itself would wish to have an investigation before the full amount of the increase is passed through to consumers. By limiting the initial amount of any increase to 1.5 percent, there would be a twelve-month delay during which a prudence review or any other review could be conducted by the commission. Thus, besides just limiting the extent of any increase at any point in time, there is a beneficial effect of better ensuring that the costs recovered ultimately will only be those of which had been prudently incurred by Aquila.

## RATE - LOSS FACTORS BY RATE AND VOLTAGE LEVEL

**Q DOES AQUILA PROVIDE FOR SEPARATE LOSS FACTORS BY RATE CLASS AND VOLTAGE LEVEL OF SERVICE?**

A No, it did not, even though this is required by the Commission rules. I recommend the incorporation of these factors to account for delivery at both secondary and primary voltages. This will allow for an appropriate distinction among rate classes and voltage levels of service.

## ILLUSTRATION OF RATE IMPACT OF AQUILA PROPOSAL

**Q IS IT IMPORTANT FOR THE COMMISSION TO BE AWARE OF THE POTENTIAL IMPACTS ON RETAIL RATES?**

A Yes it is. I believe it would be very difficult for the Commission to find that a FAC mechanism would result in just and reasonable rates if it is not first informed of the potential impact that the mechanism would have on retail rates.

**Q DID YOU REQUEST THAT AQUILA PROVIDE SUCH AN ILLUSTRATION?**

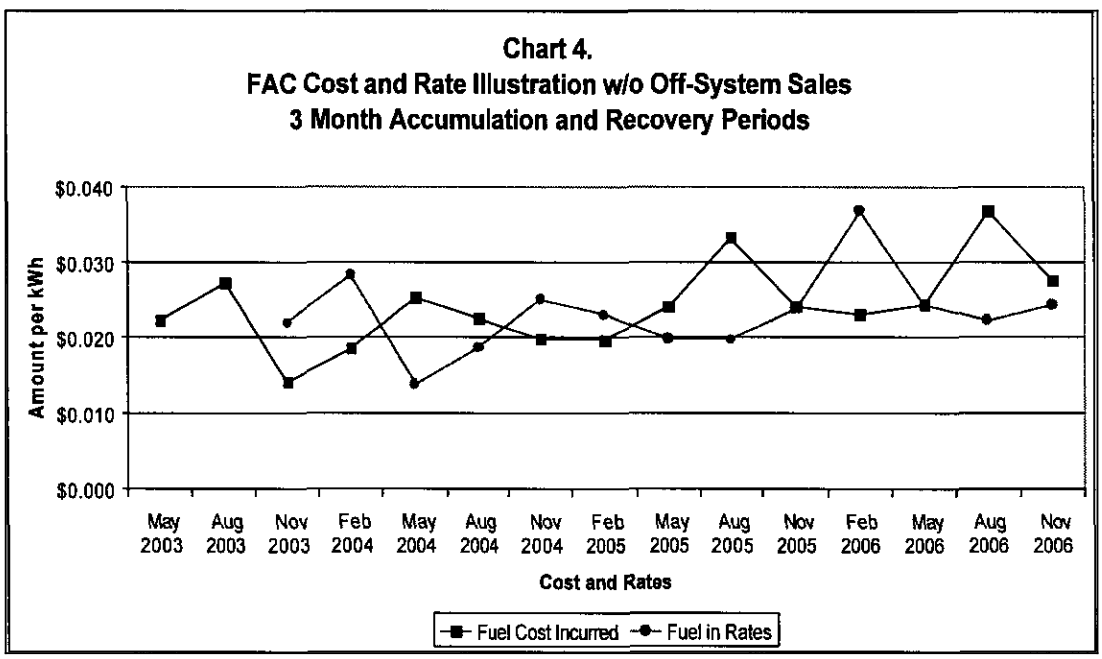
A Yes, I did. Unfortunately Aquila responded that it has not itself studied the effect of its proposal on retail rates. All it offered in response was a summary of the historical results under a wholesale fuel adjustment clause. It provided historical wholesale FAC impact information for the period from 2003 through 2006.

**Q CAN YOU ILLUSTRATE THE IMPACT OF AQUILA'S PROPOSAL AND CONTRAST THAT WITH THE IMPACT OF THE ALTERNATIVE FAC?**

A Yes. I have prepared an analysis based upon the fuel and purchased power costs that were tracked under the wholesale FAC for the period from 2003 through 2006. My analysis assumes that all costs were prudently incurred, and it excludes the effect of the off-system sales margins, which were not provided along with the other data. Although these are significant limitations and qualifications, the result nevertheless provides some insight into the impact of the FAC proposal on retail rates.

1 Q **PLEASE DESCRIBE CHART 4.**

2 A Chart 4 illustrates the effect of the fuel and purchased power portion of the
3 FAC proposed by Aquila. It covers the period from 2003 through 2006,
4 accumulates fuel and purchased power costs in the three-month accumulation
5 periods proposed by Aquila, and illustrates the retail rate changes that would
6 accompany the cost variations. All of the cost volatility flows to the retail
7 rates.



# AQUILA MPS and L&P

## ALTERNATIVE FAC

FUEL ADJUSTMENT CLAUSE

DEFINITIONS:

ACCUMULATION PERIOD:

The first accumulation period shall commence July 1, 2007 and the last shall end June 30 2009. There shall be six-month accumulation periods and twelve-month recovery periods with beginning, ending, and filing dates as follows:

| Accumulation Period | Filing Date | Recovery Period |
|---|---|---|
| January 1 – June 30 | By August 1 | October 1 – September 30 |
| July 1 – December 31 | By February 1 | April 1 – March 31 |

There shall be a final Recovery Period of 12 months to resolve the results of the final true-up and final prudence review unless otherwise ordered by the Commission in the final prudence review proceeding.

RECOVERY PERIOD:

The time during which the Cost Adjustment Factor (CAF) is applied to customer bills with proration.

SUBJECT COSTS AND REVENUES:

Costs subject to the Fuel Adjustment Clause (FAC) mechanism will be the Company's allocated Missouri Jurisdictional costs for fuel consumed in Company generating units, purchased power energy charges and emission allowance costs. Subject costs do not include the purchased power demand costs. Subject revenues are revenues derived from interchange and off-system sales and sales of emission allowances.

APPLICATION

The FAC is applicable to kWh sales under all rate schedules.

OPERATION OF THE RATE ADJUSTMENT MECHANISM

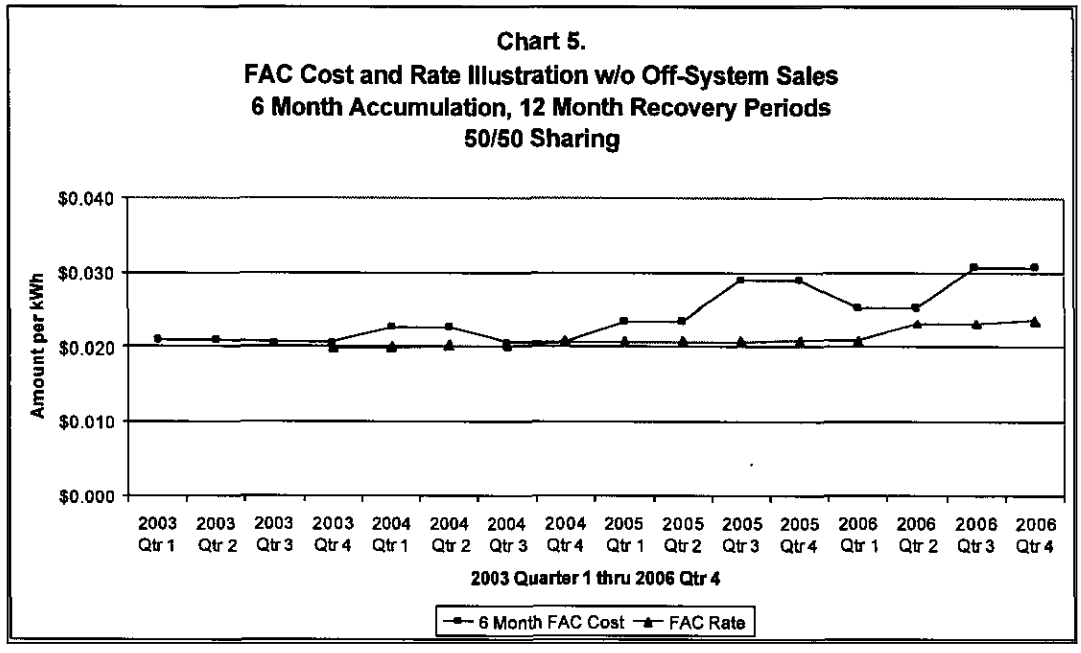
The price per kWh of electricity sold will be adjusted subject to application of this FAC. The price will reflect 50% of the accumulation period net Missouri Jurisdictional costs and revenues (separately in the L&P and MPS areas) above or below base amount specified on Sheet No. ___ for: [account numbers to be added]

1. fuel consumed in Company electric generating plants, plus
2. purchased power (excluding demand, capacity, or facilities charges, and reimbusements for fixed costs recovered by the utility through base revenues, whether explicitly identified or subsumed within an energy charge), and all hedge costs, settlement costs and benefits; plus
3. emission allowance costs, minus
4. revenue from interchange and off-system sales and sales of emission allowances, plus or minus

## ILLUSTRATION OF RATE IMPACT OF ALTERNATIVE FAC

**Q CAN YOU SHOW THE EFFECT OF THE ALTERNATIVE FAC ON THE SAME BASIS?**

A Yes. Chart 5 illustrates the effect of the census FAC based on the same fuel and purchased power costs that were used for Chart 4. As noted, these costs exclude the off-system sales margins. Chart 5 illustrates a greatly reduced variation in retail rates in contrast to the ups and downs that would be a part of the Aquila proposal. The changes are smaller and tend to simply track upwards over time.




**Q DOES THIS CONCLUDE YOUR TESTIMONY?**

A Yes.

5. an adjustment for recovery period sales variation in the most recent prior recovery period. This is based on the difference between the revenue projected to be recovered based on the sales that were the basis for the recovery period FAC and the revenues based on actual recovery period sales.

6. Interest on deferred electric energy cost and revenue amounts shall be determined monthly. Interest shall be calculated at a rate equal to the weighted average interest rate paid on short-term debt during the accumulation period, applied to the beginning and ending monthly balance of deferred electric energy costs and revenue amounts. The accumulated interest shall be included in the determination of the CAF.

The Cost Adjustment Factor is the result of dividing the Adjustment period net cost to be recovered by the estimated kWh sales for the recovery period, rounded to the nearest $.0001 after loss adjustment. The formulas are as follows.

APC = F + P + E - X

APCV = (APC – B) x 50% + C + I

CAF = (APCV / SR) x DVA, subject to Rate Cap

TCAF = Sum of currently effective CAFs

Where:

APC is the accumulation period net cost

APCV is the accumulation period net cost variation above base cost, plus under / over recover balances and interest

CAF is the cost adjustment factor for an accumulation period to be applied during the corresponding recovery period

TCAF is the sum of the currently effective CAFs

F = Actual system cost of fuel times 19.xxx% for L&P and times 80.xxx% for MPS, subject to the performance standard

P = Actual system cost of interchange and purchased energy times 19.xxx% for L&P and times 80.xxx%, subject to the performance standard

E = Actual system emission allowance cost times 19.xxx% for L&P and times 80.xxx% for MPS

X = Actual system interchange, off system sales revenue and emission allowance sales revenue times xx.xxx% for L&P and times yy.yyy% for MPS,

B = Accumulation period calculated base cost = SA x accumulation base cost per kWh at generation level

C = Under / Over recovery from prior recovery period, and any modifications due to a prudence proceeding or an order of the Commission in a base rate proceeding

SA = Actual sales (kWh) for the accumulation period at the generation level

SR = Estimated sales (kWh) for the recovery period at the generation level

I = Interest

DVA = Delivery voltage adjustment factor

| | L&P | MPS |
|---|---|---|
| DVA secondary voltage delivery | xx | xx |
| DVA primary voltage delivery | xx | xx |

All APC, CAF AND TCAF calculations will be separate for Aquila Networks – L&P and Aquila Networks – MPS.

APPLICABLE BASE COST PER KWH

The following table sets forth the base amount of the subject costs and revenues by Aquila division and by time period.

| | January through June | July though December |
|---|---|---|
| L&P | $.0xxx | $.0xxx |
| MPS | $.0xxx | $.0xxx |

PERFORMANCE STANDARDS

During each accumulation period the Company will be subject to performance quantity standard for the quantity of coal-fired energy production. The performance quantity standard is 2598 GWh for the period January through June and 2799 GWh for the period July through December. In the event that the performance quantity standard is not met, additional coal generation shall be imputed at the average cost of coal production for the period. The kWh amount of the highest cost resource shall be reduced by the kWh amount of any imputed generation. The imputed generation adjustments shall be accorded a rebuttable presumption of prudence in the review process.

During each accumulation period the Company will be subject to performance standards for energy purchased under the NPPD capacity contracts and any replacements thereof. The performance quantity standard is 635 GWh for the period January through June and 660 GWh for the period July through December In the event that the performance quantity standard is not met, additional purchases of a like kind shall be imputed at the average cost of the subject purchases for the period. The price of energy purchases shall not exceed $14.19 per MWh in the period January through June and $13.11 per MWh in the period July through December; provided, however, that the purchased energy price performance standard shall be adjusted with escalation equal to that experienced in the average cost per MWh of coal fired generation in the accumulation period compared to a July 1, 2007 price benchmark of $13.46 per MWh for coal fired generation. In the event that adjustments to the purchased power quantity are made pursuant to these purchased power provisions the cost of the kWh amount of the highest cost resource shall be reduced by the kWh amount of the imputed power purchases. The imputed purchase quantity and price shall be accorded a rebuttable presumption of prudence in the review process.

# AQUILA MPS and L&P

## ALTERNATIVE FAC

REBUTTABLE PRESUMPTION OF PRUDENCE

Prudence as used in this tariff shall mean and refer to the decisional process employed by the utility in consideration of all information available to it at the time of decision and focused upon an objective of minimization of total cost of production and delivery, reasonably balanced with reliability; provided, however, that if the facts and information then known to the decision-maker(s) would have caused a reasonable person in possession of those facts and information to have made further inquiry, the decision-maker(s) also shall be charged with knowledge of such additional facts and such additional information that would reasonably have been disclosed by that inquiry; further provided, that neither negligent nor wrongful acts, conduct nor omissions shall be considered to be prudent, nor shall any increased costs resulting therefrom be included in charges under this tariff.

The requesting utility shall have the burden of proof to show that a level of costs beyond those imputed under this mechanism is prudent.

A rebuttable presumption of prudence shall mean and refer only to the result of a verification that calculations made by the utility have been properly performed in accordance with the formulas provided in this tariff, which shall be sufficient to meet the filing utility's burden of proof subject to a later true-up proceeding as requited by law and absent a colorable challenge to the utility's acquisition decisions, in such case the presumption shall dissolve and the utility shall retain the full burden of proof as to prudence of those decisions and proper calculation of the adjustment.

RATE CHANGE THRESHOLD

If the Cost Adjustment Factor for a given recovery period, including the costs and revenues from preceding recovery periods for which an adjustment to rates was not issued, is not more than +/- $.0010, then the adjustment will not be implemented, and the applicable costs and revenues will instead be included as part of the FAC in the next recovery period.

RATE CHANGE CAP

The CAF shall be subject to limitation pursuant to this Rate Cap provision

The Rate Cap shall be 1.5%, [since there is a six month filing schedule, this is approximately 3% per year] provided that the percentage shall be subject to review and change by the Commission if an environmental rider is approved.
CAF (including the secondary voltage loss adjustment for purpose of calculating the cap) shall be limited to an amount equal to the Rate Cap times the Historic Total Charge. The capped CAF without voltage adjustment shall be calculated by removing the secondary voltage adjustment.

The Historic Total Charge shall be computed as the annual average cost per kWh under the rate for residential service, usage profile set forth below, the current base rate, and all Rider FAC charges and credits in effect each month of the twelve month period ending on date that the next recovery period charge is to become effective.

## ALTERNATIVE FAC

The Capped CAF as adjusted for applicable loss factors shall be applicable for all customers subject to this rider. Costs excluded from recovery during the first twelve months of a recovery period due to operation of the cap shall be recovered in the next consecutive 12 month recovery period and shall include interest on deferred amounts and shall include adjustments, if any, approved by the Commission.

| Residential Usage Profile | | |
|---|---|---|
| | MPS | L&P |
| January | | |
| February | | |
| March | | |
| April | | |
| May | | |
| June | | |
| July | | |
| August | | |
| September | | |
| October | | |
| November | | |
| December | | |

APPLICABLE RULES AND REGULATIONS

Applicable rules and regulations and reporting requirements include, but are not limited to, 4 CSR 240-3.161 , and 4 CSR 240-20.090.

AQUILA MPS and L&P

# ALTERNATIVE FAC

1 RATES

Cost Adjustment Factor (CAF)

| | | | L&P | | MPS | |
|---|---|---|---|---|---|---|
| Eff. Date | Applicable Billing Months | | Secondary | Primary | Secondary | Primary |
| March xx 2008 | April 2008 | March 2009 | | | | |
| Sep xx 2008 | Oct. 2008 | Sep 2009 | | | | |
| March xx 2009 | April 2009 | March 2010 | | | | |
| Sep xx 2009 | Oct. 2009 | Sep 2010 | | | | |

Total Cost Adjustment Factor (TCAF)

| | | | L&P | | MPS | |
|---|---|---|---|---|---|---|
| Eff. Date | Applicable Billing Months | | Secondary | Primary | Secondary | Primary |
| March xx 2008 | April 2008 | Sep 2008 | | | | |
| Sep xx 2008 | Oct. 2008 | March 2008 | | | | |
| March xx 2009 | April 2009 | Sep 2009 | | | | |
| Sep xx 2009 | Oct. 2009 | March 2009 | | | | |
| March xx 2010 | April 2010 | Sep 2010 | | | | |
| | Final 12 month reconciliation, if needed | | | | | |

BEFORE THE

PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

| | | |
|---|---|---|
| In the Matter of Aquila, Inc. d/b/a Aquila Networks-MPS and Aquila Networks-L&P, for authority to file tariffs increasing electric rates for the service provided to customers in the Aquila Networks-MPS and Aquila Networks-L&P service areas | ) | Case No. ER-2007-0004 |

**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 18th day of January, 2007

Carolyn Neporadny
Notary Public

CAROLYN NEPORADNY
Notary Public - Notary Seal
STATE OF MISSOURI
Commissioned for Camden County
My Commission Expires: August 30, 2009
Commission Number 05452654

My Commission expires:_____