BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of the Third Prudence Review of Costs Subject to the Commission-Approved Fuel Adjustment Clause of KCP&L Greater Missouri Operations Company.	))))	Case No. EO-2011-0390

POST-HEARING BRIEF OF KCP&L GREATER MISSOURI OPERATIONS COMPANY

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TABLE OF CONTENTS

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I. EXECUTIVE SUMMARY

The Staff's recommendation is to reject KCP&L Greater Missouri Operations Company's ("GMO" or "Company") use of its long standing hedging practice as "imprudent." Cross-hedging is widely taught and accepted within the industry. The Missouri Public Service Commission Staff ("Staff") has been aware that the practice of cross-hedging has been used by Aquila Inc. ("Aquila") since 2005, and while they have openly and on the record criticized a few other aspects of Aquila's previous hedging programs, the subject of cross-hedging was never brought up as a concern. When Aquila revised its hedging program in 2007 in response to the Staff's concerns, the Staff was included in the discussions that set up the current program. Between previous multiple prudence reviews of the Fuel Adjustment Clause ("FAC") program and rate cases, the Staff has had ample opportunities to raise their concerns regarding cross-hedging, but it has not. On an industry wide basis, an R-squared correlation coefficient of 0.80 is considered to be proof that a high correlation exists between natural gas and electricity prices. The correlation for GMO's cross-hedging practice is greater than 0.80. Given all of these facts, how can the Company be found to have acted imprudently?

The Staff also questioned some accounting issues. As demonstrated in the hearings, GMO did in fact follow the guidance given by at least some members of the Staff, but just as

important to note is that ultimately, the accounting issues raised have no effect on the ultimate outcome of the hedging program, nor do they even hint at imprudence.

The purpose of the hedging program is to reduce volatility. This is the clear direction that GMO received from the Missouri Public Service Commission ("Commission") when the FAC went into effect in 2007. It is not unusual, and even expected, to have hedging losses with any hedging program in a falling gas market. However, by design, you also have to look at the offsetting position on the physical side of the program. When taken in total, this program did in fact greatly reduce volatility. The Staff asserts that the derivative side of the program could have had less losses if only the Company would have known that gas prices would continue to fall. No one can possibly know where prices are going to go, and therefore to claim the Company was imprudent using this hindsight is just not right or appropriate. Eventually, gas prices are likely to rise again, and when they do, this exact same program will have derivative gains to offset the increased costs on the physical side of the program. Over time, by following this approach, the customer may not see the huge gains in a falling market, but they also won't see the huge losses in a rising market. GMO's hedge program has performed as designed and has in fact been effective.

Frankly, GMO does not understand how the Staff can take a position that a program that uses industry accepted practices, follows the guidance given by the Commission, and has been found to be prudent in previous reviews can now be asserted to be imprudent. The Commission should therefore reject the Staff's position in this matter.

II. INTRODUCTION

A. CROSS-HEDGING ELECTRIC PRICE RISK USING NATURAL GAS FUTURES CONTRACTS

This case involves a prudence review related to GMO's FAC for the period of June 1, 2009 through November 30, 2010. As a result, the Commission's traditional prudence standard discussed below applies to the issues in this case.

On November 28, 2011, the Staff filed its Staff Report which recommended no prudence adjustments, except for one area—This one area involves GMO's long-standing cross-hedging practice using natural gas futures contracts to hedge the risk associated with its spot purchased power costs.

The Staff's proposed disallowance and refund of GMO's hedging costs is based upon the contention that: "Staff has found GMO was imprudent in its use of natural gas hedges to mitigate risk associated with its future purchases in the spot power market." (Staff Ex. No. 10, Staff Report, p. 2) More specifically, Staff is contending that the two markets—the Purchase Power and the NYMEX Natural Gas markets—"are not directly linked sufficiently" that a prudent person would use purchases in the natural gas futures market to prudently offset the risk of price volatility in the spot purchased power market. (Id. at pp. 9-10)

Staff's disallowance is based upon GMO's use of a long-standing hedging technique that has been implemented by GMO since 2004. (GMO Ex. No. 5, Heidtbrink Direct, p. 3; Tr. 142, 216) GMO's hedging program uses natural gas futures contracts to cross hedge the price risk associated with spot purchased power risk. This hedging practice involves, "[T]he act of hedging one's position by taking an offsetting position in another good with similar price movements[.]" (Tr. 268) Although the two goods are not identical, they are correlated enough to create a hedged position as long as the prices move in the same direction. (Tr. 268)

In the case at hand, the Company has used natural gas futures contracts to cross hedge the price of purchased power because there is no viable electric futures market for electricity in the Southwest Power Pool region where GMO operates. On this point, the Company and Staff agree: There is no formal organized market where GMO could buy electric futures contracts for the SPP market area. (Staff Ex. No. 10, Staff Report, p. 9; Tr. 210-11) Therefore, another alternative is to cross hedge electricity with a commodity—in this case natural gas—that has similar price movements.

Staff contends that there is no reasonable method of hedging electric price risk using financial instruments, but instead the only reasonable methods are to build power plants or enter into purchase power agreements. (Tr. 210-12) If GMO stopped its hedging efforts using financial instruments, then it would "play the market" and buy purchased power on the spot market at the prevailing price at the time. The Company would pass along those purchased power costs to customers through the FAC—whatever those purchased power costs turned out to be at the time of purchase. The Staff does not contend that it is imprudent for GMO to hedge its purchased power costs, but it believes that it should not have used financial instruments to do so. (Tr. 213, 247) However, the only alternative method of hedging electric prices suggested by Staff is to construct power plants or enter into purchase power agreements. (Staff Ex. No. 2, Mantle Rebuttal, pp. 1-6; Tr. 132, 211) Neither of these alternatives are realistic methods of hedging electric prices in the near term since the lead times on such projects are several years. Moreover, building or buying natural gas-fired power plants does not protect either the Company or its customers from power market prices in a market driven by the price of natural gas.

Company witness Wm. Edward Blunk includes in his testimony tables that show how to use natural gas futures contracts to hedge the price of spot purchase power. He shows how the

gain or loss in the physical position is offset by the gain or loss in the futures market. Essentially, when constructing a hedge for spot purchased power, the Company performs two transactions that are directly and inseparably linked. (GMO Ex. No. 2NP, Blunk Surrebuttal, pp. 8-10)

The Company needs to physically buy on peak purchased power for its customers. In order to offset the risk of price spikes in electricity, it also enters into natural gas futures contracts for the BTU-equivalent of the purchased power it expects to buy. It is the joining of the purchase of the natural gas futures contracts with the future need to buy on peak purchased power that creates the hedge since the two positions offset to neutralize market volatility. (Id.)

Buying the purchased power is referred to as the "physical side" of the hedge. Buying the natural gas futures contracts is sometimes referred to as the "derivative side" of the hedge transaction. At the same time that the Company buys its purchased power, it also has natural gas futures contracts that it can sell to offset the increased price for electricity. (GMO Ex. No. 1NP, Blunk Direct, pp. 14-15; GMO Ex. 2, Blunk Surrebuttal, pp. 8-11)

This method provides a hedge or insurance against skyrocketing electric prices. For example, GMO knows in February that it is going to be buying purchased power in August to meet the peak demands of its customers. GMO knows that electric power prices are volatile, and GMO is concerned that the prices for electric power in August may be higher than presently anticipated.

At this point, GMO has a choice: (1) either it can attempt to hedge the risk that prices may be substantially higher than forecasted, or (2) it could just "play the market" by purchasing spot purchased power at the prevailing price without a hedge, and merely pass along to its customers whatever price it turns out to be in August through the FAC.

During the FAC audit period in this case, GMO chose to enter into a hedge to protect its customers against skyrocketing electric prices. GMO chose this approach based upon its own professional judgment that hedging was the prudent thing to do to protect its customers, the policy statement contained in Commission's *Natural Gas Price Volatility Mitigation Rule* (4 CSR 240-40.018) that encourages LDCs to hedge, and Commission orders and other signals received from the regulatory community that hedging was expected or at least strongly encouraged.[1]

It is also important to note that GMO shareholders do not profit by entering into a hedge. GMO's shareholders don't make money by hedging since the gains or losses in the physical market are largely offset by the opposite gains or losses in the derivative market and the gains or losses in the derivative market are passed along to consumers just as are the gains or losses in the physical market. Therefore, hedging does not create profit opportunities for shareholders.

[1] As explained by Mr. Rush, the Company had many reasons to believe that the Commission intended for it to continue to hedge price risk to protect its customers:

- Over the course of Aquila's rate cases beginning with Case No. ER-2005-0436 ("2005 Case"), various Staff members and intervenors have promoted the use of hedging to mitigate risk as well as the importance of the inclusion of these costs in rates.
    - Mr. Featherstone promoted the inclusion of the hedging impact in an Interim Energy Charge ("IEC") if one were to be approved in Case No. ER-2005-0436 (an IEC was not approved in that case).
    - Intervenor witness Maurice Brubaker also indicated that hedge settlements should be recorded above-the-line. (pages 4 and 5, Direct Testimony ER-2005-0436)
    - In Mr. Featherstone's Direct Testimony in Case No. ER-2007-0004 he again indicated that Aquila should include hedge settlements in any fuel clause authorized by the Commission.
    - Mr. Hyneman acknowledged in his deposition in this case, taken on April 12, 2012, that during the Case No. ER-2007-0004, he recommended that Aquila continue hedging. His concern was with the rigidity of the program in place at that time.
- In the Concurring Opinion of Chairman Jeff Davis in Case No. ER-2007-0004,Commissioner Davis states, "Aquila should be very mindful that the majority of this commission took a bold step in awarding Aquila a fuel adjustment mechanism. This commission and the General Assembly will be watching. If Aquila fails to adopt a proper hedging strategy, fails to follow its hedging strategy or abuses the discretion given to it by this commission in any other way, this commissioner will not hesitate to modify or reject Aquila's FAC application in a future proceeding." (GMO Ex. No. 7, Rush Surrebuttal, pp. 4-5) (footnotes omitted)

Hedges are designed to protect consumers and give them insurance against skyrocketing electric prices, and not make money for the Company or its shareholders. However, GMO and its shareholders will be directly and adversely affected if the Commission accepts the Staff's position in this case and disallows the losses on the derivative side of the hedge, while ignoring the offsetting gains in the physical market.

As GMO's experts have demonstrated, Staff's position on cross-hedging is erroneous and should be rejected by the Commission. (GMO Ex. No. 8, Woo Direct, pp. 1-30; GMO Ex. No. 9, Woo Surrebuttal, pp. 1-20; GMO Ex. No. 1, Blunk Direct, pp. 1-36; GMO Ex. No. 2, Blunk Surrebuttal, pp. 1-51)

Based upon the competent and substantial evidence in the record, the Commission should find and conclude:

(1) GMO's cross hedging practice was prudent and reasonable, based upon the circumstances that existed at the time the decision to cross hedge the risk associated with volatile spot purchased power risk was made. (GMO Ex. No. 8, Woo Direct, pp. 1-30; GMO Ex. No. 9, Woo Surrebuttal, pp. 1-20; GMO Ex. No. 1, Blunk Direct, pp. 1-36; GMO Ex. No. 2, Blunk Surrebuttal, pp. 1-51)

(2) Cross-hedging electricity prices with natural gas futures is a widely accepted technique for hedging spot purchased power price risk used by the electric industry. (GMO Ex. No. 1, Blunk Direct, pp. 15-18; GMO Ex. No. 2, Blunk Surrebuttal, p. 35; GMO Ex. No. 17; Tr. 307)

(3) Cross-hedging has been taught by the Electric Power Research Institute ("EPRI") since the mid-1990s (GMO Ex. No. 2, Blunk Surrebuttal, pp. 32, 35), and numerous Staff personnel, including Dana Eaves and Chuck Hyneman, have attended webinars presented by

PGS Energy Training where this cross-hedging technique was explained and taught. (GMO Ex. No. 2, Blunk Surrebuttal, pp. 33-36, Schedule WEB-15, pp. 1-8; GMO Ex. No. 7, Rush Surrebuttal, p. 23)

(4) Cross-hedging is a widely used technique for hedging commodities where the hedged commodity does not have a futures contract available, but the commodity that moves in the same direction does have a future contracts market available. (GMO Ex. No. 1, Blunk Direct, pp. 15-18; GMO Ex. No. 2, Blunk Surrebuttal, p. 35; GMO Ex. No. 17; Tr. 307)

(5) The evidence demonstrates that the R-squared of the correlation coefficient of around 0.80 is considered by the electric industry, accounting standards, and the SEC staff as a suitable level for hedges to be considered "highly effective." (GMO Ex. No. 3, Bresette Surrebuttal, pp. 9-10; GMO Ex. No. 2, Blunk Surrebuttal, pp. 22-23, Schedule WEB-13)

(6) Staff witness Dana Eaves' own analysis compares SPP Electricity Prices with the NYMEX natural gas settlement prices from February 2007 through August 2011. Staff concludes at page 15: "Staff would call this relationship as having a strong positive association for the data set in the analysis period." (Staff Ex. No. 1, Eaves Direct/Rebuttal, p. 15) Mr. Eaves also states that "For the period February 2007 thru October 2011 the data has a correlation coefficient of 0.8941." (Id.)

(7) Mr. Blunk used data contained in Staff's workpapers to determine that the correlation coefficient between SPP's electric prices and the NYMEX natural gas settlement price for the 12 months preceding the FAC audit review period, the approximate timeframe in which the decision makers at GMO would have been making the decision to cross hedge their electric prices using natural gas futures, was 0.9411. That equates to an R-squared of 0.89

(0.9411 x 0.9411) and exceeds the R-squared threshold of 0.80 for determining a hedge is "highly effective." (GMO Ex. No. 2, Blunk Surrebuttal, p. 24)

(8) Staff has been aware of GMO's cross-hedging practice since 2005 and has never previously suggested that it was imprudent to use natural gas futures contracts to hedge the price of electricity. (GMO Ex. No. 6, Rush Direct, p. 10; GMO Ex. No. 5, Heidtbrink Direct, pp. 3-11; GMO Ex. No. 4, Clemens Surrebuttal, pp. 5-10)

Based upon the competent and substantial evidence, the Commission should reject Staff's assertion that it is imprudent to use natural gas futures contracts to hedge the spot purchase power price risk for GMO's customers, and instead find that GMO's hedging practice was prudent during the FAC review period in this case.

B. ACCOUNTING ISSUES

Staff has also suggested that the Company accounted for the costs of its electric hedging practice in the wrong FERC Account. Staff is taking the position that the hedge costs associated with the natural gas futures contracts that were part of the cross-hedging program should have been accounted for in Account 555, the purchased power account, rather than the Account 547, the natural gas account.

At the same time, Staff also states that Staff never intended hedging costs placed in Account No. 555 to be passed through the FAC. Therefore, any hedging costs in Account No. 555 would not be recoverable in the FAC mechanism for this reason.

The Commission should reject these arguments of Staff. Previous Commission orders have made it clear that prudently incurred hedging costs should be flowed through the FAC. For example, in the Commission's *Order Clarifying Report and Order* issued on May 22, 2007 in Case No. ER-2007-0004, (Aquila's 2007 rate case), the Commission clearly stated on page 1:

"Under the Stipulation and Agreement, prudently incurred hedging costs will flow through the fuel adjustment clause…."

On page 10 of the *Non-Unanimous Stipulation and Agreement* in Aquila's 2005 rate case, Case No. ER-2005-0436, it stated: "The Signatory parties agreed, for accounting and ratemaking purposes, that hedge settlements, both positive and negative, ... will be considered part of the fuel cost and purchased power costs recorded in FERC Account 547 or Account 555 when the hedge arrangement is settled."

The Company has followed the terms of these stipulations and agreements. The 2007 stipulation required the Company to record the settlement costs in Accounts 547 or 555 when the hedges were settled and required the Company to maintain separate accounts for those costs. The Company followed this requirement. Moreover, the Company followed Staff's suggestion to "match its natural gas and purchased power hedging transaction settlements and associated hedging costs **with the cost of fuel** for accounting and ratemaking purposes" first expressed in Case No. ER-2005-0436. (GMO Ex. No. 11, pp. 1-2) (emphasis added)

The Company accounted for the natural gas hedge costs associated with its cross-hedging practice in Account 547 because, as Mr. Rush explain**s** in his Surrebuttal Testimony, at the time the hedges actually settle, the determination of whether the Company will generate using the natural gas associated with the futures contract, or purchase power on the spot market, has not yet been made since that determination is based upon a review of the least cost option after the hedge has settled. (GMO Ex. No. 7, Rush Surrebuttal, p. 11) Therefore all hedge settlement costs are considered natural gas settlement costs and are therefore recorded in Account 547, the natural gas account.

In fact, the Staff has not challenged any of the natural gas hedges used to hedge the cost of natural gas used to generate electricity in this case. (Staff Ex. No. 10, Staff Report, pp. 12-14) Staff "found GMO's hedging activities related to natural gas used for electric generation to be in compliance with GMO's natural gas hedge plan." (Id. at 13) Staff made no disallowances related to these hedges even though such hedges could have been used to hedge spot purchased power rather than generate electricity from GMO's own facilities. When hedges settle, the determination of whether or not the Company will generate versus purchase power has not yet been made. (GMO Ex. No. 7, Rush Surrebuttal, p.11) The fact that Staff arbitrarily chose to disallow only the hedges used to hedge spot purchased power and not those used for generation shows the inconsistency of Staff's position.

In addition, Staff witness Eaves conceded during cross-examination that the natural gas futures contracts that were designed to hedge the price of spot purchased power were also in compliance with the Company's hedging plan. (Tr. 268) In other words, the Company followed its hedging plan, including its plan to use natural gas futures to hedge the prices of spot purchase power.

From the Company's perspective, it should not matter which account, Account 547 or Account 555, the hedge costs associated with the cross-hedging practice were booked in. Both accounts include entries related to hedging, and all prudently incurred hedging costs are supposed to be flowed through the FAC, as noted by the Commission's *Order Clarifying Report and Order* in the 2007 Aquila rate case, and accounted for the hedging costs in FERC Account No. 547 or 555, as agreed to by the parties to the Aquila 2005 stipulation.

The Company has been recording its hedging costs associated with its cross-hedging practice in Account 547 since the 2005 rate case. Staff auditors have been aware that GMO was

hedging its purchased power with natural gas futures contract hedges, and the Staff has never questioned the accounting of these hedge costs until this case. In fact, until this case, GMO has had no indication from Staff that it disagreed with the inclusion of hedge settlement costs in the FAC. (GMO Ex. No. 7, Rush Surrebuttal, p. 26)

If the Commission determines that it would rather have the hedge costs associated with the cross-hedging practice booked in Account 555 rather than Account 547, then it should clearly say so, and the Company will book those costs in the preferred account in the future. However, it would be unreasonable and unlawful for the Commission to disallow these prudently incurred costs on the grounds that they should have been placed into a different account.

In summary, the Commission should find that GMO has been prudent in the use of natural gas futures contracts to hedge the price risk associated with spot purchased power. In addition, the Commission should conclude that GMO has properly accounted for the costs associated with this cross-hedging practice, and followed the applicable stipulations and agreements in related cases.

III. THE PRUDENCE STANDARD

Since this case is a prudence review of GMO's fuel purchasing practices, the Commission should utilize its traditional prudence standard for reviewing the issues in this case. This prudence standard is discussed below.

A. MISSOURI CASE LAW

The Commission recently reviewed and reaffirmed the prudence standard used in Missouri in its *Report & Order* in Re Atmos Energy Corporation, Case No. GR-2008-0364 (November 9, 2011), pp. 20-22; and Case No. GR-2009-0417 (December 21, 2011), pp. 18-21; in Re Kansas City Power & Light Company, Case No. ER-2010-0355 (April 12, 2011), pp. 74-

77. As explained by the Commission in the Kansas City Power & Light Company decision, the prudence standard is articulated in the Associated Natural Gas case as follows:

> [A] utility's costs are presumed to be prudently incurred.... However, the presumption does not survive "a showing of inefficiency or improvidence."
>
> …[W]here some other participant in the proceeding creates a serious doubt as to the prudence of an expenditure, then the applicant has the burden of dispelling these doubts and proving the questioned expenditure to have been prudent. (Citations omitted).
>
> In the [Union Electric] case, the PSC noted that this test of prudence should not be based upon hindsight, but upon a reasonableness standard:
>
> [T]he company's conduct should be judged by asking whether the conduct was reasonable at the time, under all the circumstances, considering that the company had to solve its problem prospectively rather than in reliance on hindsight. In effect, our responsibility is to determine how reasonable people would have performed the tasks that confronted the company.

See State ex rel. Associated Natural Gas v. Public Serv. Comm'n, 954 S.W.2d 520, 528-529 (Mo. App. W.D. 1997).

Furthermore, in order for the Commission to disallow a utility's recovery of costs from its ratepayers, the Commission must apply the following two pronged test: (1) evaluate whether the utility acted imprudently (that is, did it act reasonably at the time under the applicable circumstances); and 2) evaluate whether such imprudence was the ***cause*** of the harm (increased costs) to the utility's ratepayers. See Associated Natural Gas, 954 S.W.2d at 529.

B. BURDEN OF PROOF

As stated above, under the prudence standard, the Commission presumes that the utility's costs were prudently incurred. See State ex rel. Associated Natural Gas v. Public Serv. Comm'n, 954 S.W.2d 520 (Mo. App. W.D. 1997); State ex rel. GS Technologies Operating Co. Inc. v. Public Serv. Comm'n, 116 S.W.3d 680 (Mo. App. W.D. 2003) (citations omitted). This holding means that utilities seeking recovery of their fuel, purchased power and hedging costs are not

required to demonstrate in their cases-in-chief that all expenditures were prudent. See Union Electric, 66 P.U.R.4th at 212.

Such expenditures are presumed to be prudent as a matter of law. Staff witness Lena Mantle agrees that there is a presumption of prudence for public utility expenditures. (Staff Ex. No. 10, pp. 5-6; Tr. 197-198)

Staff or any other party may challenge the prudence of an expenditure by presenting competent and substantial evidence that creates "a serious doubt" as to the prudence of an expenditure. Once a serious doubt has been raised, then the burden shifts to the public utility to "dispel those doubts" and prove that the questioned expenditure was prudent.

Missouri case law has described the showing necessary to create a serious doubt sufficient to shift the burden back to the utility. In the Associated Natural Gas case, the Missouri Court of Appeals held that the Staff must provide evidence that the utility's actions caused higher costs than if prudent decisions had been made. See Associated Natural Gas, 954 S.W.2d at 529. Substantive and competent evidence regarding higher costs includes evidence about the particular controversial expenditures and evidence as to the "amount that the expenditures would have been if the [utility] had acted in a prudent manner." See id. In other words, Staff or the other parties must satisfy the following two-pronged evidentiary test to support a disallowance: 1) identify the imprudent action based upon industry standards and the circumstances at the time the decision or action was made; and, 2) provide proof of the increased costs caused by GMO's imprudent decisions. To meet this standard, a party must provide substantive, competent evidence establishing a causal connection or "nexus" between the alleged imprudent action and the costs incurred. In this case, Staff has failed to meet its burden.

IV. ISSUES LIST

In this Brief, the Company will address the following issues that were specifically listed in the joint Issues List filed by the parties on May 11, 2012:

1. Has Staff raised a serious doubt as to the prudence of GMO's use of natural gas hedges to mitigate the price risk associated with spot purchased power?
2. Was GMO imprudent in its use of natural gas cross-hedges to mitigate the price risk associated with spot purchased power during the FAC audit period?
3. If so, must GMO refund to ratepayers some amount plus interest through GMO's FAC mechanism? What is the amount that should be refunded, if any?
4. Did GMO properly account for its hedging costs under the Uniform System of Accounts, previous stipulations and orders of the Commission? If not, what is the appropriate remedy?
5. Do GMO's FAC tariffs authorize purchased power hedging costs for spot purchased power to be passed on to ratepayers through the FAC mechanism?
6. Does the Commission want GMO to stop hedging using natural gas futures contracts to mitigate the price risk associated with spot purchased power?
7. Should the Commission establish a policy which addresses the appropriateness of the use of derivative based hedges by electric utilities?

V. STAFF HAS NOT RAISED A SERIOUS DOUBT AS TO THE PRUDENCE OF GMO'S USE OF NATURAL GAS HEDGES TO MITIGATE THE PRICE RISK ASSOCIATED WITH SPOT PURCHASED POWER

Initially, Staff recommended a proposed disallowance and refund of approximately $18.8 million in its Staff Report and the Direct/Rebuttal Testimony of Dana E. Eaves on the grounds that it was imprudent for GMO to have used natural gas futures contracts to hedge the risk associated with purchased power costs. (Staff Ex. No. 10, Staff Report, p. 2; Staff Ex. No. 1, Eaves Direct/Rebuttal, pp. 3-5) Later, the Staff's proposed disallowance was ostensibly "corrected" to approximately $14.9 million after the Staff reviewed the Company's testimony in this case. Staff had failed to consider that it had previously entered into a

Stipulation and Agreement in Case No. ER-2007-0004 which precluded disallowance related to hedges in place on March 27, 2007. (GMO Ex. No. 7, p. 6; Tr. 208-09)

As explained herein, the Staff has not provided competent and substantial evidence to raise a "serious doubt" regarding the reasonableness or prudence of the Company's hedging practice. All Staff has done is present some conclusory statements in the Staff Report and its Direct/Rebuttal Testimony of Dana Eaves without supporting evidence to demonstrate that cross-hedging the risk of purchased power costs by using natural gas futures contracts is unreasonable or imprudent, judged by existing industry standards. As a result, since the Staff has failed to raise a serious doubt as to the prudence of the cross-hedging technique, GMO's hedging expenditures are entitled to the legal presumption of prudence.

In the Staff Report at pages 9-10 filed on November 28, 2011, the Staff recited the following conclusory statement:

> Staff knows of no formal organized market that allows for spot purchased power to be hedged which would aid GMO in mitigating the risk associated with buying spot market purchased power. It appears in the absence of such a formal market GMO has tried to create its own purchased power hedge market by purchasing NYMEX natural gas futures contracts to offset its risk in the spot market for purchased power. Staff concludes that purchasing natural gas futures contracts to mitigate risk associated with the purchase of spot purchase power is imprudent. The two markets (NYMEX Natural Gas and Purchase Power Markets) are not directly linked sufficiently that a prudent person would use option purchases in the natural gas futures market to prudently offset the risk of price volatility in the spot purchased power market. Under GMO's concept, GMO's actions are akin to placing a bet in the stock market in hopes of generating enough cash to pay for a future variable expense. GMO's "hedging" practice actually increases GMO's risk exposure, to the detriment of GMO's ratepayers; GMO must guess right when placing the bet, otherwise the initial risk exposure to volatile spot purchase power market remains. GMO's linking of natural gas futures contracts with purchases it makes in the spot market for purchased power is imprudent.

In its Staff Report, Staff failed to include any evidence that demonstrated that the two markets (NYMEX Natural Gas and Purchase Power Markets) are not directly linked

sufficiently that a prudent person would use natural gas futures contracts to prudently offset the risk of price volatility in the spot purchased power market. (Tr. 309, 312) In fact, Staff witness Eaves testified that at the time he filed the Staff Report which recommended an $18.8 million refund, he had not conducted any correlation analysis to determine if the NYMEX Natural Gas and electric prices were correlated. (Tr. 311) Apparently, all Mr. Eaves had done prior to filing the Staff Report, was to look at some graphs and charts contained on a website of the Southwest Power Pool. The record does not include those charts or graphs in the Staff Report or any of Staff's testimony to support Mr. Eaves' unsubstantiated conclusion that there was insufficient correlation between the NYMEX Natural Gas and Purchased Power Markets. (Tr. 311) As a result, there is no information in the Staff Report that raised a "serious doubt" regarding correlation between the natural gas futures and spot electricity markets. Staff's Report merely made an unsupported allegation that the markets "are not directly linked sufficiently that a prudent person would use [future][2] purchases in the natural gas futures market to prudently offset the risk of price volatility in the spot purchased power market. (Staff Ex. No. 10, p. 10)

After reading the Company's Direct Testimony, Staff witness Eaves did finally conduct a correlation analysis of the SPP electric prices and the natural gas futures prices. Mr. Eaves found that: "For the period February 2007 thru October 2011 the data has a correlation co-efficient of 0.8941." Based upon this correlation analysis, Staff witness Eaves concluded: "Staff would call this relationship as having a strong positive association for the data set in the analysis period." (Staff Ex. No. 1, Eaves Direct/Rebuttal, p. 15)

[2] Staff amended its original statement in its Staff Report. (Tr. 261)

Contrary to the conclusion in the Staff Report that the NYMEX Natural Gas and Purchased Power Markets "are not directly linked sufficiently that a prudent person would use option purchases in the natural gas futures market to prudently offset the risk of price volatility in the spot purchased power market," (Id. at p. 10) Mr. Eaves own analysis showed that these markets have a "strong positive association for the data set in the analysis period." (Id. at p. 15) This testimony does not raise a serious doubt regarding the prudence of using the cross-hedging technique to mitigate the risk of price spikes in the electric power markets.

When asked in Data Request No. 118 and during cross-examination, what was the minimum level of coefficient correlation that he would require to conclude that the data set has a "strong positive association," Mr. Eaves replied: "As a rule of thumb, a strong correlation or relationship has an [r] value range of between 0.85 to 1 or negative 0.85 to negative 1." (Tr. 315; GMO Ex. No. 18)

While Mr. Eaves recognized that an r-value of 0.85 indicated a "strong positive association," he applied a "perfect correlation" standard in his analysis of the data in this case to conclude that natural gas prices and electric prices were not sufficiently linked to support a cross-hedging strategy. (Tr. 318-20) According to Mr. Eaves, he would not be comfortable with the use of cross-hedging unless there was a perfect correlation almost all of the time between natural gas and electricity prices. (Tr. 318-20) This "perfect correlation" standard is not the standard used by the electric industry, the accounting profession, or any known regulatory agency in the country, and it should not be applied by the Commission in this case.

Prior to filing of the Staff Report or its Direct/Rebuttal Testimony of Dana Eaves, Staff had not conducted any surveys among electric companies across the country or in Missouri to determine if the use of natural gas futures contracts to cross hedge the risk of electric price

spikes is commonly used by the electric industry. (Tr. 304-05) Instead, Mr. Eaves merely relied upon his understanding of the practices of other electric companies in Missouri. (Tr. 305) Nor did Mr. Eaves attach any information to his testimony in this case that showed what the electric industry practices were at the time with regard to the use of natural gas futures to hedge electric price risk. (Tr. 306) In fact, Mr. Eaves testified that prior to March 26, 2012, the date he received an industry survey from the Company, he did not have any surveys that showed what the electric industry practices were with regard to the use of natural gas futures to hedge electric price risk. (Tr. 307) There was no testimony or other competent and substantial evidence presented by Staff that raised a "serious doubt" showing that GMO was using a hedging technique that was considered imprudent by the electric industry or other experts in the field of hedging.

In fact, the competent and substantial evidence filed by GMO demonstrated that other electric companies across the country, including Arizona Public Service, Florida Power & Light, Madison Gas & Electric, Mississippi Power—Southern Company, Portland General, and Ameren, use this cross-hedging technique, when necessary, to mitigate the price risk of spot purchased power. (GMO Ex. No. 17; GMO Ex. No. 2, Blunk Surrebuttal, p. 37, Schedule WEB-17) For example, GMO's email survey includes a response from Ameren's Wil Cooper that indicates that Ameren "used natural gas derivatives (futures, options, forwards, etc.) to cross hedge electricity price risk." (Id.) It is clear from the Company's survey that about one-half of the electric companies that responded to the survey have used this cross-hedging technique to mitigate the price risk associated with the spot purchase power market. (GMO Ex. No. 17; GMO Ex. No. 2, Blunk Surrebuttal, p. 37)

Staff witness Eaves did not include in the Staff Report, his Direct/Rebuttal Testimony, or his workpapers any Missouri Public Service Commission decision, or any decisions from other public utility commissions in the country that has found that the cross-hedging technique was unreasonable or imprudent. Staff witness Lena Mantle also was unfamiliar with any decisions in Missouri or elsewhere that had found the cross-hedging method was imprudent. (Tr. 212-13)

The Staff also failed to raise any "serious doubt" by citing to authoritative sources that questioned the use of the cross-hedging technique. In fact, Staff witness Eaves was unable to cite to any textbook, treatise, or scholarly article or publication that found that it was imprudent to use natural gas futures contracts to hedge the risk associated with electric price spikes. (Tr. 280) In fact, Mr. Eaves couldn't even recall any specific articles that he had read regarding this cross-hedging technique, with the exception of the articles authored by Dr. C.K. Woo, the Company's expert witness. (Tr. 280-81) Dr. Woo's scholarly research supported the use of natural gas futures contracts to hedge the price risk associated with spot purchased power. He also concluded in his testimony that GMO's cross hedging practice was prudent and reasonable, based upon the circumstances that existed at the time the decision to cross hedge spot purchased power risk was made. (GMO Ex. No. 9, Woo Surrebuttal, p. 2) In his testimony, Dr. Woo specifically stated: "[I]t is prudent to use NYMEX natural gas futures to effectively cross hedge the daily on-peak electricity price…." (GMO Ex. No. 9, Woo Surrebuttal, p. 2)

The only Missouri Public Service Commission publication related to hedging that had been reviewed by Mr. Eaves was the *Joint Report on Natural Gas Market Conditions, PGA Rates, Customer Bills & Hedging Efforts of Missouri's Natural Gas Local Distribution*

Companies in Case No. GW-2006-0110 which specifically encouraged LDCs to hedge their natural gas supplies. (Tr. 283) This Commission publication was certainly no support for Staff's attempts to raise a serious doubt about the prudence of hedging energy supplies by Missouri public utilities.

Finally, Staff did not present any information from hedging webinars or seminars that raised a "serious doubt" regarding the prudence of the use of natural gas futures contracts to hedge the risk of spot purchase power. To the contrary, the only webinar that Staff witness Eaves attended on the subject of electricity price hedging specifically explained and taught the use of the cross-hedging technique utilized by GMO for hedging the price of electricity using natural gas futures contracts. (Tr. 279)

Apparently, the only "doubt" that Staff was able to raise in its Staff Report or testimony in this case was the fact that in the particular FAC audit period reviewed (a period of declining natural gas and electricity prices), the derivative side of the hedge transactions incurred losses rather than gains. The competent and substantial evidence indicates that such losses are expected in a declining energy market. (Tr. 135)

It was the fact that there were losses on the derivative side of the hedge transaction that "caught the attention" of Mr. Eaves, and was the basis for his disallowance. (Tr. 217, 230) However, as the Commission has pointed out in its *Natural Gas Price Volatility Mitigation Rule*, 4 CSR 240-40.018 (GMO Ex. No. 16), the existence of losses in a hedging program is not unanticipated, and does not suggest that the hedging program is unreasonable or imprudent. In fact, the Commission has recognized in its *Rule* that "this is recognized as a possible result of prudent efforts to dampen upward volatility":

> (A) As part of a prudent planning effort to secure adequate natural gas supplies for their customers, natural gas utilities should structure their portfolios of

> contracts with various supply and pricing provisions in an effort to mitigate upward natural gas price spikes, and provide a level of stability of delivered natural gas prices.
>
> (B) In making this planning effort, natural gas utilities should consider the use of a broad array of pricing structures, mechanisms, and instruments, including, but not limited to, those items described in (2)(A) through (2)(H), to balance market price risks, benefits, and price stability. Each of these mechanisms may be desirable in certain circumstances, but each has unique risks and costs that require evaluation by the natural gas utility in each circumstance. Financial gains or losses associated with price volatility mitigation efforts are flowed through the Purchased Gas Adjustment (PGA) mechanism, subject to the applicable provisions of the natural gas utility's tariff and applicable prudence review procedures.
>
> (C) **Part of a natural gas utility's balanced portfolio may be higher than spot market price at times, and this is recognized as a possible result of prudent efforts to dampen upward volatility.** (emphasis added)

Even Staff witness Lena Mantle recognized that hedging losses cannot be known until "after the fact." (Tr. 231) In other words, only with the benefit of perfect hindsight does the decision maker know if there will be losses or gains as a result of the use of hedges. Of course, as the Commission and the courts have clearly pointed out, the reliance on hindsight is improper when applying the Commission's prudence standard. ("[T]he company's conduct should be judged by asking whether the conduct was reasonable at the time, under all the circumstances, considering that the company had to solve its problem prospectively rather than in reliance on hindsight." Re Kansas City Power & Light Company, Case No. ER-2010-0355 (April 12, 2011), pp. 74-77; See also State ex rel. Associated Natural Gas v. Public Serv. Comm'n, 954 S.W.2d 520, 528-529 (Mo. App. W.D. 1997). Yet, it appears that it is the existence of losses which are only known after the fact, that has played a prominent role in Staff's decision to allege that the cross-hedging practice is imprudent.

The only other possible "doubt" raised by Mr. Eaves was based solely upon his personal view that there needed to be a "perfect" correlation between natural gas futures and

electric prices before cross-hedging was a prudent practice. (Tr. 318-20) As explained below, this position lacks credibility and is contrary to the electric industry and accounting industry standards for evaluating cross-hedging practices.

In summary, Staff has failed to meet its burden to raise a "serious doubt" regarding GMO's long-standing practice of using natural gas futures contracts to hedge the purchase power costs. As a result, the Company is entitled to rely upon the legal presumption of prudence with regard to the hedging expenditures at issue in this case. The Staff's proposed disallowance and refund should therefore be rejected.

VI. GMO WAS PRUDENT IN ITS USE OF NATURAL GAS FUTURES CONTRACTS TO MITIGATE THE PRICE RISK ASSOCIATED WITH SPOT PURCHASED POWER DURING THE FAC AUDIT PERIOD

Even though the Staff did not meet its burden to raise a "serious doubt" regarding the Company's hedging practice, the Company presented the testimony of five witnesses to rebut each and every claim raised by Staff in this case to demonstrate that its hedging practice is reasonable and prudent. The Company also addressed accounting issues raised by Staff.

The Company's outside expert, Dr. C.K. Woo, is an economist and a renowned expert on cross-hedging.[3] He explained the basis for using natural gas futures contracts to hedge the price risk associated with spot purchase power. He has reviewed the level of correlation between natural gas and electric prices, and testified that these markets are highly correlated. He presented his opinion that GMO acted prudently by using this common hedging technique

[3] Dr. C.W. Woo is one of the most renowned experts on the topic of cross-hedging of natural gas futures contracts and spot purchase power. Having received his Ph.D. from the University of California-Davis, Dr. Woo specializes in public utility economics, applied microeconomics and applied finance. With 30 years of experience in the electricity industry, Dr. Woo has testified and prepared expert testimony for use in regulatory and legal proceedings in California, British Columbia and Ontario. He has published over 100 reference articles on electricity deregulation, procurement, risk management, and numerous other topics. (GMO Ex. No. 8, Woo Direct, Schedule CKW-1) More specifically, he has published sixteen (16) professional journal articles on electricity procurement and risk management. (GMO Ex. No. 8, Woo Direct, pp. 1-4)

to hedge the price of electricity using natural gas futures. (GMO Ex. No. 8, Woo Direct, pp. 1-30; GMO Ex. No. 9, Woo Surrebuttal, pp. 1-20)

Mr. Wm. Edward Blunk, the Company's Supply Planning Manager, explained how the Company uses natural gas futures contracts to mitigate the price risk associated with spot purchase power costs, and the reasons for doing so.[4] He testified that these cross hedges meet the tests used in the industry for demonstrating that the hedges are highly effective. He also addressed the specifics of GMO's cross-hedging practice during this FAC period. (GMO Ex. No. 1, Blunk Direct, pp. 24-35)

Mr. Scott H. Heidtbrink, KCP&L's Executive Vice President and Chief Operating Officer, testified about the history of the Company's cross-hedging program, going back to its initiation in 2004.[5] Mr. Heidtbrink was at Aquila during those years, and discussed the history around its initiation. (GMO Ex. No. 5, Heidtbrink Direct, pp. 1-12)

Mr. Gary L. Clemens was also at Aquila when the cross-hedging practice began and is personally familiar with discussions with the Staff and other parties in past Aquila rate cases.[6]

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[4] GMO witness Mr. Wm. Edward Blunk is employed by Kansas City Power & Light Company as Supply Planning Manager with the primary responsibilities to facilitate the development and implementation of fuel and power sales purchase and risk management strategies of KCP&L and GMO. With a Masters in Business Administration degree in finance from the University of Missouri, he has worked for the Kansas City Power & Light Company for thirty-one (31) years. Currently, Mr. Blunk has responsibilities for developing risk management and hedging programs. He has been involved with hedging coal and coal prices for KCP&L since the early 1980s. He has also been instrumental in the design and implementation of KCP&L's natural gas hedging program since it began in 2001. He has also attended seminars presented by Princeton Energy Programme, the EPRI, and PGS Energy Training on energy markets and risk management. (GMO Ex. No. 1, Blunk Direct, pp. 1-2)

[5] Mr. Scott H. Heidtbrink previously served as Senior Vice President—Supply for KCP&L and was responsible for KCP&L's and GMO's energy generation resources, generation dispatch, off-system sales coal procurement, and asset management for the jointly owned generation facilities. Having received a Bachelor of Science degree in electrical engineering from Kansas State University in 1986, he joined Aquila in 1987, and previously served as Vice President, Power Generation and Energy Resources of Aquila's regulated gas and electric operations. (GMO Ex. No. 5, Heidtbrink Direct, pp. 1-2)

[6] Mr. Garry L. Clemens is a self-employed utility consultant. After graduating from Northwest Missouri State University with a Bachelor of Science Degree in Business Administration in 1980, he joined Aquila as a Staff Accountant in Regulatory Services. From 1980 to July 2008, he held various positions in the Accounting and Regulatory Services departments with his final position being Senior Director of Regulatory Services. (GMO Ex. No. 4, Clemens Surrebuttal, pp. 1-2)

He discussed some of the interactions with Staff over the years related to the Company's hedging practices. (GMO Ex. No. 4, Clemens Surrebuttal, pp. 2-10).

Mr. Ryan A. Bresette, the Company's Assistant Controller, oversees margin accounting and derivative accounting.[7] He explained the basis for the accounting related to the hedges, and addressed specific accounting issues raised by Staff. (GMO Ex. No. 3, Bresette Surrebuttal, pp. 1-22)

Finally, Mr. Tim M. Rush discussed the Company's interactions with the Staff over hedging program issues, the details around the Company's FAC tariffs, and rebutted suggestions by Staff that hedging costs were not expected to be flowed through the FAC mechanism.[8] (GMO Ex. No. 6, Rush Direct, pp. 1-13; GMO Ex. No. 7, Rush Surrebuttal, pp. 1-27)

As mentioned above, the Staff's proposed disallowance and refund of GMO's hedging costs is based upon the contention that: "Staff has found GMO was imprudent in its use of natural gas hedges to mitigate risk associated with its future purchases in the spot power market." (Staff Ex. No. 10, Staff Report, p. 2) More specifically, Staff is contending that the two markets—the Purchase Power and the NYMEX Natural Gas markets—are not directly linked sufficiently that a prudent person would use purchases in the natural gas futures market

[7] Mr. Ryan A. Bresette graduated from Rockhurst University in 1994 with a Bachelor of Science in Business Administration with a major in Accounting. In 1997, he passed the Certified Public Accountant's examination. In May 2010, he received a Masters in Business Administration from the University of Missouri—Kanas City. He has worked for KCP&L since 2004 in various accounting-related positions. During the last seven years, he has either prepared or approved the accounting designation for financial instruments and forward contracts such as natural gas, purchased power and coal contracts. (GMO Ex. No. 3, Bresette Surrebuttal, pp. 1-2)

[8] Mr. Tim M. Rush serves as KCP&L's Director, Regulatory Affairs, overseeing the preparation of rate cases, class cost of service and rate design for KCP&L and GMO. He has been employed by KCP&L since 2001. Having received a Masters of Business Administration degree from Northwest Missouri State University and an undergraduate degree in Business Administration with a concentration in Accounting from the University of Missouri-Columbia, he was employed by St. Joseph Light & Power Company for over 24 years where he had responsibility for the regulatory area, marketing, energy consultant, customer service, and managed the Rates and Market Research Department for fifteen years. (GMO Ex. No. 6, Rush Direct, pp. 1-2)

to prudently offset the risk of price volatility in the spot purchased power market. (Staff Ex. No. 1, Eaves Direct/Rebuttal, pp. 2-3)

As GMO's experts have clearly demonstrated in this case, the Staff's position is erroneous and should be rejected by the Commission. More specifically, the evidence has demonstrated that:

A. NATURAL GAS AND ON PEAK ELECTRIC PRICES ARE HIGHLY CORRELATED IN MISSOURI

Based upon the competent and substantial evidence in the record, the Commission should find and conclude that the natural gas and electric markets are highly correlated (GMO Ex. No. 8, Woo Direct, pp. 5-28; GMO Ex. No. 9, Woo Surrebuttal, pp. 3-8; 10-20) and GMO's hedges themselves are considered "highly effective" judged by existing industry and accounting standards. (GMO Ex. No. 3, Bresette Surrebuttal, pp. 9-10; GMO Ex. No. 1, Blunk Direct, pp. 30-36; GMO Ex. No. 2, Blunk Surrebuttal, pp. 44-51, Schedule WEB-9)

In this case, Staff is taking the unprecedented position that natural gas futures contracts and spot purchased power prices are not directly linked sufficiently to permit the use of cross-hedging. The competent and substantial evidence simply does not support this assertion, and it should be rejected by the Commission.

FASB Opinion No. 133 and the related ASC Topic 815 determine how financial hedges are to be evaluated from the perspective of the accounting industry. (Id.) According to these accounting industry standards, to be "highly effective," the financial instrument used to hedge a transaction should be highly correlated with the risk being hedged. (GMO Ex. No. 3, Bresette Surrebuttal, pp. 9-10) There are two tests that are used to determine if hedges are considered highly effective—(1) the R-squared test, and (2) the "Dollar Offset Method."

Under the first test, the R-squared of the correlation coefficients must be greater than or equal to 0.80. R-squared is a statistic that measures the strength of the relationship between two data sets. Specifically, it gives the proportion, or if multiplied by 100, the percent, of the variability in one data set explained by the variability in another data set. The R-squared is the squared correlation coefficient. In this case, an R-squared of 0.80 means changes in natural gas prices explain 80% of the changes in electricity prices. (GMO Ex. No. 2, Blunk Surrebuttal, p. 22)

Under the Dollar Offset test, the change in value of the derivative is compared to the change in value of the hedged item. Hedges that yield a ratio within the range of 80-120 percent are deemed "highly effective." (GMO Ex. No. 2, Blunk Surrebuttal, p. 12) A more technical way to state this test is that the slope of the relationship between the variables must be between negative 0.8 and negative 1.25. (GMO Ex. No. 3, Bresette Surrebuttal, p. 9)

l. R-Squared Test

The R-squared test is based upon a review of the correlation coefficients of the data. This test looks at how closely two data sets move in the same direction—or are correlated. (GMO Ex. No. 2, Blunk Surrebuttal, pp. 22-24; GMO Ex. No. 3, Bresette Surrebuttal, pp. 9-10) The competent and substantial evidence shows that the electric industry, the accounting profession, the Financial Accounting Standards Board, and the staff of the Securities and Exchange Commission consider an R-squared of around 0.80 indicative that the daily on-peak electricity and natural gas prices are highly correlated, and that these markets are sufficiently linked so that cross-hedging would be considered "highly effective." (GMO Ex. No. 2, Blunk Surrebuttal, pp. 22-24; GMO Ex. No. 3, Bresette Surrebuttal, pp. 9-10)

The R-squared test applies to all hedges, including cross hedges. (Id. at 22, Schedule WEB-13, p. 2) It also uses a 0.80 R-squared as an indication that a hedge is "highly effective." (GMO Ex. No. 2, Blunk Surrebuttal, pp. 22-24) If a proposed hedge fails to exhibit an R-squared of 0.80, it does not mean it is not a viable hedge, but merely means that the hedge receives a different accounting treatment from a "highly effective" hedge. (Id. at 23)

Mr. Blunk used data on electric and natural gas prices contained in Staff's workpapers for the 12 months preceding the FAC audit review period to determine a correlation coefficient between SPP's electric prices and the NYMEX natural gas settlement price. (GMO Ex. No. 2, Blunk Surrebuttal, p. 24) This would be the approximate timeframe in which the decision makers at GMO would have been making the decision to cross hedge their electric prices using natural gas futures.

For this period, there was a correlation coefficient of 0.9411 between SPP electric prices and the NYMEX natural gas settlement prices. The 0.9411 correlation coefficient for the 12 months preceding the review period exceeds the R-squared threshold of 0.80 for determining a hedge is "highly effective." (Id.) That equates to an R-squared of 0.89 (0.9411 x 0.9411) and it means that 89% of the change in the electricity prices was explained by the changes in the natural gas prices for this period. (Id. at 22)

Dr. C.K. Woo analyzed the correlation between the daily on-peak per MWh procurement cost of a utility that owns natural-gas-fired generation and the daily natural gas price at Henry Hub for December 2007 through May 2009, the 18-month period immediately before the 18-month FAC review period. At the assumed 7 MMBtu/mwh level, Ameren and Associated Electric Cooperative's pricing points had correlation coefficients of 0.921 and 0.937, respectively. This data are indicative that daily per MWH procurement costs and the

daily Henry Hub natural gas prices and electric prices are highly correlated, supporting the use of cross hedging to effectively manage the per MWh procurement cost risk in Missouri. (GMO Ex. No. 9, Woo Surrebuttal, pp. 14-15)

Dr. Michael Proctor, formerly of the Commission Staff and the most knowledgeable Staff expert on electricity hedging at the time he was with the Commission according to the deposition testimony of Ms. Mantle, also reviewed the correlations between the electric and natural gas markets. Dr. Proctor's testimony in the 2009 GMO rate case concluded that 87.23% of the variation in SPP's electricity prices over a five year period was explained by variation in natural gas prices, and that there was little doubt that natural gas prices drove electricity prices for most of the hours of the year in the SPP region. (Ex. No. 22, Surrebuttal Testimony of Michael Proctor, filed April, 2009 in Case ER-2009-0090, p. 5; GMO Ex. No. 2, Blunk Surrebuttal, p. 31)

Staff witness Eaves' own analysis contained in his Rebuttal Testimony compares SPP Electricity Prices with the NYMEX natural gas settlement prices from February 2007 through August 2011. (Staff Ex. No. 1, Eaves Direct/Rebuttal, p. 15) While he disagreed that the markets are "highly correlated," he states at lines 9-10 on page 15: "Staff would call this relationship as having a **strong positive association for the data set in the analysis period**." (emphasis added) Mr. Eaves also states that "For the period February 2007 thru October 2011

the data has a correlation co-efficient of 0.8941." (Id. at 15)[9]

The competent and substantial evidence in the record supports a finding that the natural gas and electricity markets are "highly correlated" when evaluated using the R-squared test. Utilizing this first test, the Company's hedges would be highly correlated, and it would be reasonable to use natural gas futures to cross hedge the risk associated with spot purchased power.

2. Dollar Offset Method

Mr. Blunk also applied the Dollar Offset Method to the data for the FAC audit review period. In Mr. Blunk's Schedule WEB-9, he demonstrated that the estimated physical market change of value for on-peak electricity was 109.6% of the actual change in the value of the natural gas cross hedges. (GMO Ex. No. 2, Blunk Surrebuttal, p. 12, Schedule WEB-9.) This means that by hedge accounting standards, GMO's natural gas cross hedges for on-peak electricity were in hindsight "highly effective." That is, the hedges did what they were supposed to do. The electricity price movement was offset by a similar movement in the price of natural gas.

[9] Mr. Eaves also included in his Direct/Rebuttal Testimony a "One Day" Analysis for August 3, 2009, and compared what GMO paid for peak spot market electricity to GMO's NYMEX monthly natural gas settlement price. Based upon this flawed analysis, he concluded there was almost zero correlation in this data. (Staff Ex. No. 1, Eaves Direct/Rebuttal, p. 17) However, as Mr. Blunk explained in his surrebuttal testimony, Staff's "One Day" analysis is flawed and erroneous. (GMO Ex. No. 2, Blunk Surrebuttal, pp. 13-17). The following is a list of the more obvious errors with Staff's "One Day" analysis which are discussed in detail in Mr. Blunk's Surrebuttal Testimony:

(1) With over 500 days of data readily available Staff randomly chose 1 day of data and suggested that 1 randomly chosen day was representative.
(2) Staff misinterpreted or misunderstood the Company's data filings made pursuant to 4 CSR 240-3.190 ("3.190 data filings").
(3) Staff relied exclusively on hindsight data.
(4) Staff used the wrong New York Mercantile Exchange ("NYMEX") pricing data or misinterpreted the data used.
(5) Staff's calculations cannot be verified or replicated.

For these reasons, Staff's "One Day" analysis should not be relied upon by the Commission.

In this case, Staff did not directly address or otherwise controvert Mr. Blunk's testimony that the Dollar Offset method shows that GMO's hedges were "highly effective." (Staff Ex. No. 10, Staff Report, pp. 8-10; Staff Ex. No. 1, Eaves Direct/Rebuttal, pp. 1-22)

3. Staff's Perfect Correlation Test

The real dispute in this case seems to now turn upon what standard should be applied to this data. Staff is arguing that natural gas futures contracts and spot purchased power prices are not directly linked sufficiently to permit the use of cross-hedging.

Initially, Mr. Eaves indicated in response to DR No. 118 that as a rule of thumb, a 0.85 correlation coefficient was the "minimum level" to define a hedge as having a strong positive association. (GMO Ex. No. 18; Tr. 315) During the hearings, he also testified that a 0.85 correlation coefficient would be necessary for a hedge to be "highly correlated." (Tr. 318) However, at the end of the cross-examination, he was not satisfied that a 0.85 correlation coefficient would be satisfactory to find that the use of natural gas futures contracts would be prudent to hedge electric price risk. (Tr. 318-20):

318

Q. So you're saying that a .85 is a minimum level from your perspective to define it as being highly correlated?

A. If I had to pick a number, 85 sounds -- .85 sounds like a good number.

Q. Okay.

A. I mean, again, I come back to my original statement and we're – it's difficult to say this is the number, because that number is -- it's subjective, and sometimes you have to use professional judgment.

Q. And that's what you've applied in this case, right?

319

A. I've tried.

Q. I'd like to refer you to your deposition on page 102, and I asked you, could you prudently use that cross hedging to effectively cross hedge those two products?

***

A. Do you have a line number?

Q. Yeah. I'm going to ask you about lines 8 through 11 where you answered. You said there, I think with the dollars at risk here, with what we're talking about, <u>the correlation should almost be perfect all the time, and that's what I would be comfortable with</u>. Do you recall that answer?

A. Yes.

Q. Now, having read the testimony in this case, do you still believe that <u>the correlation should be almost perfect all of the time before it would be prudent to use natural gas futures contracts to hedge the price of spot purchased power</u>?

A. Yes, because the correlation doesn't tell the entire story. Correlation is not causation.

Q. Having read the testimony of Mr. Blunk and Mr. Bresette and now Dr. Woo, do you understand that the industry considers hedges to be highly effective even

320

though they don't have a perfect correlation?

A. Yes, and I think that's the reason we're here today. (emphasis added)

Mr. Eaves also testified that while he had reviewed FASB Opinion No. 133 which addresses the effectiveness of hedges for financial accounting purposes at some point in his career, he had not reviewed it recently or within the immediate period before he filed the Staff Report. (Tr. 321)

Rather than applying the industry standard of 0.80 for determining when natural gas prices and electricity prices are sufficiently correlated to permit cross-hedging, Staff witness Dana Eaves has applied his own personal standard or "comfort" level of an almost perfect correlation all of the time (Tr. 310, 318-20).:

Q. I'm asking, do you disagree with the accounting profession and the electric industry profession that finds that if you have a correlation of .80 or above, that that means you can effectively hedge natural gas and electricity prices?

A. Yes, I'm going to have to say I do in this case because it doesn't -- it doesn't fairly represent what's occurred --

Q. And that's --

A. -- in application of this.

Q. And that's because you feel like, given the dollars at stake here, the correlation should be almost perfect all of the time, right?

A. For the program that GMO has, yes. (Tr. 320)

Mr. Eaves was not aware of any article, textbook, or Commission opinion in Missouri or elsewhere in the country finding that the correlation should be "almost perfect all of the time" before it would be prudent to cross hedge electricity prices with natural gas futures contracts. (Tr. 326) In addition, Mr. Eaves was unwilling to recommend that the Commission apply his personal perfect correlation standard to this case (Tr. 328):

> **Q. Do you think they should use your personal standard or do you think they should use the standard that is applied by the accounting profession, the electric industry and the SEC staff?**
>
> A. I'm not going to speak for what the Commission should or shouldn't do. They can weigh what they want. I think they need to look at the outcome and see exactly how this program is put together. (emphasis added)

Of course, under the Commission's prudence standard, it would be improper and unlawful for the Commission to accept Mr. Eaves' recommendation to "look at the outcome" (if Mr. Eaves means the level of the losses) since that exercise would inherently be grounded in a hindsight review, rather than assessing what the Company knew at the time the decision was being made to cross hedge.

As the Commission weighs the evidence and Mr. Eaves' personal "perfect correlation" standard for determining if the natural gas and on-peak electricity prices are sufficiently linked to allow for cross-hedging of electric prices with natural gas futures contracts, it should also consider the inexperience of Mr. Eaves with the cross-hedging issue. Mr. Eaves has never taken an undergraduate or graduate course that addressed cross-hedging of natural gas and electricity prices. (Tr. 283) The only formal training course that Mr. Eaves has taken on the topic of energy hedging was the PGS Energy Training webinar. The PGS Energy Training webinar that Mr. Eaves and other staff attended on January 18, 2008 was entitled "How to

Financially Hedge Natural Gas & Electricity Price Risk" which taught the cross-hedging technique utilized by GMO. (Tr. 43-44)

Mr. Eaves has never previously testified on cross-hedging electricity prices with natural gas futures contracts. (Tr. 286) Until this case, Mr. Eaves had never previously recommended a prudence disallowance based upon an electric company's financial hedges or hedging activities. (Tr. 288) He had never authored a white paper, article or treatise on the subject of hedging. (Tr. 286) He did not include any publications or articles from other authors on cross-hedging in his workpapers or testimony in this case. (Tr. 279-80) When he was questioned in cross-examination, he was unable to recall an article or textbook that he had reviewed on cross-hedging, with the exception of some of those sixteen (16) articles authored by GMO's expert witness Dr. C.K. Woo. (Tr. 280-81) Nor was he able to cite any independent support (i.e. article, textbook, Missouri PSC opinion, or other regulatory agency decision) for his opinion that the correlation between natural gas prices and electric prices should be "almost perfect all of the time" before it would be prudent to use natural gas futures contracts to cross-hedging spot purchase power prices. (Tr. 325-326)

Based upon the competent and substantial evidence in the record, the Commission should find and conclude that natural gas and on peak electricity prices are highly correlated, and GMO was prudent in using natural gas futures contracts to hedge its customers' risk associated with spot purchased power.

B. IT IS PRUDENT TO USE MONTHLY NATURAL GAS FUTURES CONTRACTS TO CROSS HEDGE AND TO EFFECTIVELY MANAGE DAILY ON-PEAK ELECTRIC PRICE RISK

In Staff's testimony, Mr. Eaves expressed a fundamental misunderstanding of the nature of cross-hedging: "Since the spot market is hourly and the cost of gas in NYMEX

natural gas futures contracts is an average monthly price it is difficult to see how there could be a strong correlation between the two sufficient enough to hedge the more time granular spot market prices with the less time granular gas cost of the NYMEX futures." (Staff Ex. No. 1, Eaves Direct/Rebuttal, p. 3)

Contrary to the opinion expressed by Mr. Eaves, Dr. Woo testified that while the spot electricity market is hourly, NYMEX natural gas futures can be used to cross hedge the daily on-peak electricity price. (GMO Ex. No. 9, Woo Surrebuttal, p. 3) Staff witness Eaves does not seem to understand that a company can use natural gas futures contracts that settle on a monthly basis to hedge the on-peak electricity prices, even though those electric prices change more frequently than monthly.

As Mr. Blunk explained in his Surrebuttal Testimony (GMO Ex. No. 2, Blunk Surrebuttal, p. 16):

> As Staff noted, electricity prices can change hourly and the NYMEX settles its natural gas contract monthly. In fact every futures market that I know of settles less frequently than the physical market it hedges. To argue that a hedge program which uses a futures contract which settles less frequently than the physical market it is hedging is imprudent is saying that all hedging programs for all commodities that use futures contracts are imprudent. To reiterate, all futures markets settle less frequently than the cash market it hedges. This Staff criticism is not realistic or appropriate given the way futures markets work in the real world.

In order to be effective, it is not necessary for the natural gas futures contracts to be settled on a daily basis, as seems to be suggested by Staff's criticism of GMO's hedging program. What is important is that the natural gas futures contracts are available to produce dollars (or the natural gas itself) to offset the changing prices of electricity over the period of the hedge. The purpose of the cross-hedging program is to mitigate the risk of spiraling electric prices during the period of the hedge.

Dr. Woo presents analyses in his Surrebuttal Testimony that shows how natural gas prices are highly correlated with hourly on-peak electricity prices when a reasonable time period is considered. (GMO Ex. No. 9, Woo Surrebuttal, pp. 10-15) Based upon his analysis, Dr. Woo concluded that the "daily on-peak per MWH procurement cost of a utility that owns natural-gas-fired generation is highly correlated with the daily natural gas price at Henry Hub, thus justifying the utility's use of cross hedging to manage its procurement risk." (Id. at 4) He also concluded that "For the 18-month period of December 2007 through May 2009, the coefficients of correlation evaluated at heat rates of 7, 9, and 11 MMBTU/MWH are (a) AMRN: 0.921, 0.886, and 0.860; and (b) AECI: 0.937, 0.906, and 0.879." (Id.)

Based upon this evidence, the Commission should find and conclude that it was prudent for GMO to have used monthly natural gas futures contracts to hedge and effectively manage daily on-peak price risk for spot purchase power.

C. CROSS-HEDGING SPOT PURCHASED POWER WITH NATURAL GAS FUTURES CONTRACTS IS A WIDELY ACCEPTED METHOD OF HEDGING THE RISK ASSOCIATED WITH VOLATILE SPOT PURCHASED POWER COSTS

Cross-hedging spot purchased power with natural gas futures contracts is a widely accepted method of hedging the risk associated with volatile spot purchased power costs. (GMO Ex. No. 1, Blunk Direct, pp.15-18; GMO Ex. No. 2, Blunk Surrebuttal, p. 35; GMO Ex. No. 17; Tr. 307) The Company's informal survey showed that about one-half of the companies which responded used natural gas futures contracts to hedge the on-peak spot purchased power prices. In particular, Arizona Public Service, Florida Power & Light, Madison Gas & Electric, Mississippi Power—Southern Company, Portland General, and Ameren, responded to the survey and indicated that these companies use this cross-hedging technique. (Id.)

The cross-hedging technique has also been explained and taught by reputable industry and educational organizations over the years. Cross-hedging has been taught by the EPRI since the mid-1990s. (GMO Ex. No. 2, Blunk Surrebuttal, p. 35; GMO Ex. No. 17) PGS Energy Training is an educational organization that specializes in training related to electricity and natural gas industries. Over the years at least 55 Staff members from this Commission have attended various PGS Energy Training webinars. Mr. Blunk and numerous Staff, including Dana Eaves and Chuck Hyneman, have attended webinars presented by PGS Energy Training where this cross-hedging technique was explained and taught. (GMO Ex. No. 2, Blunk Surrebuttal, pp. 33-36)

The webinar that Mr. Eaves and other staff attended on that day in 2008 was entitled "How to Financially Hedge Natural Gas & Electricity Price Risk." In that webinar, there were two 90-minute sessions. The first session was on the general topics of hedging electric and natural gas price risk. And the second session was entitled: "Hedging Electricity Price Risk with Natural Gas Futures Contracts." (GMO Ex. No. 2, Blunk Surrebuttal, Schedule WEB-16, Slide 51) In fact, when the Commission reviews the slides of the webinar, it is obvious that the second half of this webinar focused almost exclusively on the cross-hedging technique that was utilized by GMO to cross hedge electricity price risk using natural gas futures contracts. (GMO Ex. No. 2, Blunk Surrebuttal, Schedule WEB-16)

Based upon the competent and substantial evidence in the record, the Commission should find and conclude that the use of natural gas futures contracts to hedge the risk associated with spot purchased power is a widely accepted and common hedging technique in the electric industry.

D. STAFF HAS BEEN AWARE OF GMO'S CROSS-HEDGING PRACTICE SINCE 2005 AND HAS NEVER PREVIOUSLY SUGGESTED THAT IT WAS IMPRUDENT TO USE NATURAL GAS FUTURES CONTRACTS TO HEDGE THE PRICE OF ELECTRICITY

Staff has been aware of GMO's cross-hedging practice since 2005 and has never previously suggested that it was imprudent to use natural gas futures contracts to hedge the price of electricity. In fact, Staff has never previously suggested that cross-hedging was imprudent in the four rate cases, and two FAC prudence reviews that have been conducted since the Company began this hedging practice. (GMO Ex. No. 6, Rush Direct, p. 10; GMO Ex. No. 5, Heidtbrink Direct, pp. 3-10; GMO Ex. No. 4, Clemens Surrebuttal, pp. 4-10)

In his Rebuttal Testimony, Mr. Charles Hyneman confirmed that he was aware of GMO's use of natural gas futures contracts to hedge the risk of purchased power since 2005: "I do agree that Staff became aware of Aquila's use of purchasing hedges for purchased power at some point during Aquila's 2005 rate case." (Staff Ex. No. 3, Hyneman Rebuttal, p. 10) During cross-examination, Ms. Mantle also confirmed that Staff FAC auditors had issued data requests in previous Aquila FAC prudence review cases (Case Nos. EO-2010-0167, EO-2009-0115) which had requested that GMO provide its hedging costs for <u>both generation and purchased power hedges</u>. (GMO Ex. Nos. 13, 14 and15; Tr. 221-26) Based upon these data requests, Ms. Mantle concluded that the drafter of the data request would have been previously aware that GMO uses natural gas hedges for hedging purchase power. (Tr. 223)

Notwithstanding the fact that Staff has been aware of GMO's cross-hedging practice for approximately seven (7) years, the Staff has never previously informed GMO personnel that they believed their hedging practice using natural gas futures contracts to hedge the risk associated with spot purchased power was imprudent. (Tr. 291) As explained below, if the

Commission Staff had informed the Company of their concerns regarding the hedging practice, GMO would have attempted to address them on a prospective basis.

Mr. Tim M. Rush has provided the Commission with a detailed timeline of regulatory interactions with the Staff and Commission prudence reviews regarding the Company's hedging program dating to 2004. (GMO Ex. No. 7, Rush Surrebuttal, Schedule TMR-3) Mr. Rush summarized the Company's concerns with regard to the Staff approach to this case:

> Unfortunately, the Company feels surprised and disappointed by Staff's effort to discredit the Company's cross-hedging strategy and contention that the cross-hedging plan is imprudent per se.
>
> The Company has participated in two FAC Prudence audits reviewed by Staff, and the Staff has, until this case, found the Company's practices to be prudent and recommended to the Commission no disallowances. The Company has had its practices reviewed in two rate cases since GMO was acquired by GPE. The Staff never raised cross-hedging of electric price risk using natural gas futures contracts as any type of concern. In fact, the Staff had requested and the Company provided its risk management policy, which contains the description of its cross-hedging program. It is my understanding that the Company had previously provided its hedging plan to the Staff in previous Aquila rate cases, and the hedging plan was attached to Staff testimony in those cases. The Company felt confident that when it changed its hedging strategy, as recommended by Staff, that it was addressing Staff's concerns.
>
> The Company also tried to keep Staff apprised of each step in the process of developing its hedging strategy by inviting Staff's participation in the overview of the program. For Staff to take the position that the cross-hedging costs were never intended to be included in the FAC is another surprising and disappointing position. Again, the Company has gone through two FAC reviews and two rate cases with the cross-hedging costs contained in the adjustment mechanism. The Company went through a prior case where the hedging costs had been "below the line" and the Staff and other parties wanted these cost placed "above the line" and reflected in the Company's cost of service. By placing these costs in cost of service implies to me that they will be reflected in rates to customers, unless found to be imprudent.

Rather than belabor the point, the Company requests that the Commission institute some policies or procedures with regard to electric companies' hedging programs that will hopefully lessen the type of after-the-fact criticism that have occurred in this case.

VII. NO REFUND IS APPROPRIATE IN THIS CASE

As explained above, in the Associated Natural Gas case, the Missouri Court of Appeals held that the Staff must provide evidence that the utility's actions caused higher costs than if prudent decisions had been made. See Associated Natural Gas, 954 S.W.2d at 529. Substantive and competent evidence regarding higher costs includes evidence about the particular controversial expenditures and evidence as to the "amount that the expenditures would have been if the [utility] had acted in a prudent manner." See id. In other words, Staff must not only show that the Company acted imprudently (which it has not done in this case), but it must also identify what the utility should have done to act in a prudent manner. Then, according to the Associated Natural Gas holding, the harm to consumers would be calculated based upon a comparison of the cost of the imprudent act vis-a-viz. the costs of the prudent course of the action.

While Staff has argued that it was imprudent for the Company to use cross-hedging to mitigate the price risk associated with spot purchased power under the circumstances of this case (Tr. 200), Staff has failed to identify what course of action the Company should have taken, under the circumstances that were known at the time the decisions to cross hedge were being made. Mr. Eaves, the Staff's sponsor of the prudence disallowance, did not have any suggestions regarding what the Company should have done under the circumstances of this case (Tr. 272):

Q. Again, the question was, if you're going to cross hedge the risk of spot purchased power with another commodity using financial instruments, what would you do?

A. There's -- other instruments you could use would be options, which are puts and calls.

Q. Is that what Staff's recommending in this case?

A. Staff has not recommended using puts and calls. I don't know what would be -- I haven't done that analysis, so I couldn't recommend something.

Q. So you're suggesting that what they did was imprudent, but you don't have a suggestion what they should have done, right?

A. That's correct. That's my role. (emphasis added)

Ms. Mantle also testified that she believes that the Company should not have cross hedged using natural gas futures in this case. (Tr. 212) But Ms. Mantle did not reject the use of cross-hedging of electric price risk using natural gas futures out of hand under all circumstances. She testified: "We're not saying cross hedging is bad as a total idea." (Tr. 201) When pressed on cross-examination, she explained: "It's a tool that can be used and should be used appropriately, just as you would not use a hammer to break apart a board if you wanted a straight cut. You'd use a saw. It's the appropriate tool in the appropriate place. We do not believe this was the appropriate tool in this place." (Tr. 201; see also Tr. 208)

Rather than explaining how GMO should have "prudently" used financial instruments to hedge the electric price risk, Ms. Mantle seems to imply that the Company should have relied upon building new generation plants, purchasing the Aries Plant in 2000 (Tr. 206), or entering into Purchased Power Agreements to hedge the risk associated with volatile electric prices. (Staff Ex. No. 2, Mantle Rebuttal, pp. 2-7) However, Staff does not quantify what any of these "alternative" courses of action would have cost GMO's customers. As a result, Staff has failed to provide the Commission with the information that would be necessary to calculate the harm to the consumers of GMO failing to follow Staff's preferred "steel in the ground" courses of action.

Staff witness Lena Mantle has testified that none of the following assertions are the basis for the Staff's proposed disallowance in this case:

(1) GMO's attempt to hedge its customers' risk associated with price spikes for spot purchased power costs. ["I do not believe that it was imprudent for Aquila to attempt to mitigate the volatility, no."] (Tr. 201);

(2) GMO relied too heavily on spot purchased power to meet its customers' needs rather than building additional power plants. (Tr. 205-06);

(3) GMO's decision to not purchase the Aries plant in the year 2000 (Tr. 206-07);

(4) GMO's decision not to build more generation in 2000 (Tr. 201); or

(5) GMO's failure to use the least cost option to serve its customers. (Tr. 206).

Based upon the record, it appears that the real reason for the adjustment is that there were losses on the derivative side of the hedge transaction during the FAC period. According to Mr. Eaves, it was the magnitude of the losses on the derivative side of the transaction that brought the cross-hedging issue to Staff's attention (Tr. 342), but Staff recognized that the magnitude of the losses are only known by the use of hindsight.

Q. As I understand your testimony in the deposition, it was the magnitude of the losses and what -- what brought Staff's attention to this issue?
A. Yes.
Q. But you only know those losses after the fact, right?
A. We only do, yes. (Tr. 231)

Ms. Mantle agreed with Mr. Eaves' conclusion that it was the magnitude of the losses which "caught the attention of the Staff" and apparently those losses were their real concern of the Staff. (Tr. 231) In the process of explaining her position, she also revealed volumes about the hindsight approach being taken by Staff in this case and the importance of losses on their decision: (Tr. 251-52)

Q. When should cross hedging be used?

A. I don't know. I would be with Mr. Blunk if his crystal ball worked well. If I knew that, then I probably wouldn't be working at the Commission either.

Q. Okay. So it was imprudent for them to hedge in this case, even though they've been doing it for seven years, and the fact that there were losses, that's how you determined what the cost is of that imprudent decision; is that what you're saying?

A. We can't ask for more than the losses. So, I mean, and it was the magnitude of the losses that brought it to our attention.

Q. And you're not considering the fact that natural gas prices and electricity prices were plummeting on the other side and there was a benefit to consumers of having those lower costs on that side of the market,

252

right?

A. But the customers did not receive all the benefit because of the hedging losses.

Q. They got lower prices for purchased power. That's what they got, right?

A. They got lower prices than if the hedging had remained the -- hedging losses had remained the same and the purchased power prices were higher, yes.

Q. So what you're saying is if the company had known that prices were going to be falling, it would have been better for the consumer not to have had the hedging insurance because we knew the prices were going to come down and there wouldn't be a need, the house wasn't going to burn down, and if we knew that, we wouldn't buy the insurance, right?

A. That's right. If your house -- you know your house isn't going to burn, you wouldn't buy home insurance.

Q. Is there going to be a hurricane this fall?

A. Most likely, yes, somewhere.

As Mr. Blunk explained in his testimony, the Staff is ignoring the "physical side" of the hedge transaction in its analysis. (GMO Ex. No. 2, Blunk Surrebuttal, pp. 8-12) Staff is ignoring the fact that natural gas and electricity prices were declining during the FAC review period. Staff is essentially suggesting, as acknowledged by Ms. Mantle in the quotation above, that the house did not burn down during the FAC period, so there was no need for the hedging insurance. Unfortunately, Staff is only looking at the net losses in the futures market

or the derivative side of the hedge, but they are not taking into account that the house did not burn down, and there was a gain on the physical position compared to the forecasted price. Only with 20/20 hindsight would the decision maker know if the energy prices were going to plummet or if a house was going to burn down.

The actual price of spot purchased power was less than had been forecasted so the insurance protection of the hedge was not needed. But that does not mean that it imprudent to have hedged against the possibility that the price would exceed the forecasted level. If the house had burned down, or the electric price had spiked above the forecasted level, then customers would be happy there was insurance.

Using the numbers in this Mr. Blunk's illustration in his Surrebuttal Testimony, Staff has not taken issue with the price paid for the purchased power and the $10.00 gain in the physical market. (GMO Ex. No. 2, Blunk Surrebuttal, pp. 8-11) Staff has not recommended that the physical market gain be disallowed. In fact, Staff has said in their Staff Report that the physical price that GMO paid for purchased power was prudent. (Staff Ex. No. 10, Staff Report, p. 8)

On the other hand, Staff is arguing that the net losses in the futures market side of the hedge transaction are imprudent. Staff has not recognized that the true impact of the hedge is shown by the sum of the change in the physical market-- plus the change in the futures market-- which is $0.00. They are offsetting changes. (GMO Ex. No. 2, Blunk Surrebuttal, pp. 8-9)

The Commission should not make the same mistake, but it should look at both sides of the hedge transaction—the physical position and futures market position. They can't be separated in a complete and objective analysis.

Until this case, Staff had never suggested disallowing the futures market impacts, either when the futures market was "in the money" or when it was "out of the money." The Commission should not adopt Staff's unprecedented position in this case and create a very unfortunate precedent for the future.

The Commission should also consider the overall level of fuel, purchased power, and hedging cost during the FAC period. While Staff did not make any prudence adjustments in prior FAC periods, the overall costs have declined from to lower levels during this FAC period, notwithstanding the hedging practices of the Company. (GMO Ex. No. 20; Tr. 335-37)

For all of the reasons stated herein, the Commission should reject the Staff's proposed disallowance and refund in this case. Simply put, there is no competent and substantial evidence to support the Staff's recommendations. As explained above, it is inappropriate, unreasonable, and unlawful for the Commission to order any refund or disallowance based upon the competent and substantial evidence in the record.

VIII. GMO PROPERLY ACCOUNTED FOR ITS HEDGING COSTS UNDER THE UNIFORM SYSTEM OF ACCOUNTS, PREVIOUS STIPULATIONS AND ORDERS OF THE COMMISSION

In this case, Staff has erroneously suggested that the Company accounted for the costs of its electric hedging program in the wrong FERC Account. Staff has argued that the Company did not place the hedge costs in the correct FERC Account No. 555. This is an account for purchased power costs. Instead the Company has placed hedge costs in Account No. 547 which relates to natural gas costs. Staff goes on to say that not placing these costs in this account is a misstatement. Staff also states that Staff never intended hedging costs placed

in Account 555 to be a part of the FAC. Therefore, any hedging costs in Account 555 would not be recoverable for this reason.

Again, the Company is shocked and disappointed by this unprecedented position. The Company has been audited by Staff for two previous FAC periods and had its rates and operations reviewed in several rate cases. The Company also has external auditors who have given us unqualified statements related to its books and records. Yet Staff now has decided that certain hedging costs were placed in the wrong account, and therefore, they should not be allowed for recovery from the customers that the hedging programs were designed to protect. For the reasons stated herein, this Staff position should be rejected by the Commission.

In the Non-Unanimous Stipulation and Agreement in Aquila's 2005 rate case, Case No. ER-2005-0436, the parties agreed as follows: "The Signatory parties agreed, for accounting and ratemaking purposes, that hedge settlements, both positive and negative, related costs (e.g. option premiums, interest on margin accounts, and carrying costs on option premiums) directly related to natural gas generation and on-peak purchased power transactions under a formal Aquila Networks-MPS hedging plan will be considered part of the fuel cost and purchased power costs recorded in FERC Account 547 or Account 555 when the hedge arrangement is settled." (Ex. No. 22, Non-Unanimous Stipulation And Agreement, Case No. ER-2005-0436, p. 10) The Stipulation also required that Aquila "maintain separate accounting in Accounts 547 and 555 to track the hedging transaction expenditures recorded under this agreement." (Id.)

As noted by Judge Stearley at the hearings, Staff filed Staff's Suggestions In Support Of Nonunanimous Stipulation And Agreement in Case No. ER-2005-0436 which clearly indicated that Staff understood that Aquila's hedging program included both "natural gas and

purchased power hedging." (GMO Ex. No. 11, pp. 1-2) The Suggestions goes on to state: "This accounting authority is acceptable to the Staff and should be implemented by the Commission because it allows Aquila to track the benefits and related costs for its hedging program **consistent with how fuel costs are developed and be in compliance with generally accepted accounting principles once the Commission grants the authority**." (Id. at 2) (emphasis added) (Tr. 166-70) Contrary to the position expressed by Mr. Hyneman in the hearings (Tr. 170), Staff has previously recognized in the Suggestions that the hedging program costs should be booked consistent with "how fuel costs are developed and in compliance with generally accepted accounting principles."

During the hearings, Judge Stearley also inquired regarding a portion of the transcripts in Case No. ER-2005-0436 in which Staff witness Robert Schallenberg indicated that hedging costs "can actually be booked as fuel expense." (Tr. 175):

> **Q. And I'm going to have to apologize that I have to cut this short here. One other thing. Explain to me what the Accounting Authority Order does in this case.**
> A. Is this the mark to market piece?
> **Q. Yes, I think it is. It's in Section 17 of the stip, page 10. It is the mark to market.**
> A. What that does, there is an in accounting terms it's called FASB 133. If you buy a financial instrument related to a commodity, between the time you buy it and the time it closes or settles, you are required to adjust it on your books as to its market value, unless it is tied to a physical transaction. fact, we call FASB 133, it's related to speculation. You're buying financial instruments without having physical transactions just hoping that the thing will settle in the money or you'll sell it while it's in the money. So you're just speculating on a financial transaction without any physical control. Our utilities, and that would include not only electrics but natural gas, under risk management that I'm aware of, they tie the financial transaction to the physical transaction, so that if they've agreed to buy a certain amount of gas at a certain time, they have gone
>
> 0150
>
> and gotten a financial transaction to hedge that to a price certain, not that the physical price will fluctuate, but when you look at that and combine it with the financial transaction, it will result in a price that's fixed. By

> making that connection, and that's what this portion of the stipulation is, they do not have to adjust their books based on the market value fluctuations of that financial instrument. And so it was designed to, one, allow Aquila to use what's called FASB 171, which is a regulatory one, so they no longer have to do a mark to market, and it also makes the connection between the physical transaction and the financial transaction for fuel expense more definite, so it can actually be booked as fuel expense. (GMO Ex. No. 12, pp. 149-50) (emphasis added)

The Company has followed the terms of this stipulation and agreement. The stipulation required the Company to record the settlement costs in Accounts 547 or 555 when the hedges were settled and required the Company to maintain separate accounts for those costs. The Company followed this requirement. (GMO Ex. No. 6, Rush Direct, pp. 9-10)

Staff is now taking the position that the hedge costs associated with the natural gas futures contracts that were part of the cross-hedging practice should have been accounted for in Account 555, the purchased power account, rather than the Account 547, the natural gas account. According to Staff, this is important because Staff does not believe costs in the 555 account should be passed through the Fuel Adjustment Clause, even though they are hedging costs, and the Commission has stated that hedging costs should be passed through the FAC. Staff bases its argument on a strained interpretation of GMO's tariffs which identifies costs that are to be included in the FAC.

The Company accounted for the natural gas hedge costs associated with its cross-hedging practice in Account 547 because at the time the hedges actually settle, the determination of whether or not the company will generate or purchase power has not yet been made since that determination is based upon a review of the least cost option. (GMO Ex. No. 7, Rush Surrebuttal, p. 11) Therefore all hedge settlements costs are actually natural gas settlement costs and are therefore recorded in the 547 account, the natural gas account.

It should not matter which account, Account 547 or Account 555 the hedge costs associated with the cross-hedging practice were booked in. Both accounts include hedging-related entries, and all prudently incurred hedging costs are supposed to be flowed through the Fuel Adjustment Clause, as noted by the Commission's *Order Clarifying Report and Order* in the 2005 Aquila rate case, and agreed to by the parties to the Aquila 2005 stipulation.

The Company has been recording its hedging costs associated with its cross-hedging practice in Account 547 since the 2005 rate case. Company witnesses Ryan Bresette and Ed Blunk explain the appropriateness of this accounting practice. Staff auditors have been aware that GMO was hedging its purchased power with natural gas hedges, and the Staff has never questioned the accounting of these hedge costs until this case. In fact, until this case, GMO has had no indication from Staff that it disagreed with the inclusion of hedge settlement in the FAC.

If the Commission determines that it would rather have the hedge costs associated with the cross-hedging practice booked in Account 555 rather than Account 547, then it should clearly say so in its order in this case, and the Company will book such costs to Account 555 in the future.. However, it would be unreasonable and unlawful for the Commission to disallow these prudently incurred costs on the ground that they should have been placed into a different accounting bucket.

IX. GMO'S FAC TARIFFS AUTHORIZE PURCHASED POWER HEDGING COSTS FOR SPOT PURCHASED POWER TO BE PASSED ON TO RATEPAYERS THROUGH THE FAC MECHANISM

In the Commission's *Order Clarifying Report and Order* issued on May 22, 2007 in Case No. ER-2007-0004, (Aquila's 2007 rate case), the Commission clearly stated on page 1: "…**prudently incurred hedging costs will flow through the fuel adjustment clause**, but

Aquila's 2006 hedge settlement losses of $11.5 million were expressly excluded. The Stipulation and Agreement further provides that the ultimate settlement values of Aquila's hedge contracts in place on March 27, 2007, will not be subject to prudence review. Any hedge position taken after March 27, 2007, however, is subject to a prudence review and potential disallowance." (emphasis added)

This means that with the implementation of the FAC, prudently incurred hedge costs were intended to be collected through Aquila's FAC clause. In addition, this means that the settlement amounts related to hedge contracts already in place on March 27, 2007, were protected from disallowance due to prudence issues. Initially these settlement costs were not removed by the Staff from the amount proposed for disallowance and refund in this case. However, this ostensible "error" has been corrected, but the Staff is continuing to ignore the overriding principle that all prudently incurred hedging costs just be flowed through the FAC mechanism.

In Mr. Hyneman's Rebuttal Testimony (Staff Ex. No. 3, Hyneman Rebuttal, p. 23), he quotes wording from the 2005 Aquila rate case Non-Unanimous Stipulation and Agreement. That portion of the stipulation and agreement is repeated here:

> 17. The signatory Parties agree, for accounting and ratemaking purposes, that hedge settlements, both positive and negative, and related costs (e.g. option premiums, interest on margin accounts, and carrying cost on option premiums) directly related to natural gas generation and on-peak purchased power transactions under a formal Aquila Networks-MPS hedging plan will be considered part of the fuel cost and purchased power costs recorded in FERC Account 547 or Account 555 when the hedge arrangement is settled…Aquila agrees to maintain separate accounting in Accounts 547 and 555 to track the hedging transaction expenditures recorded under this agreement.

This language in the stipulation makes it crystal clear that hedge costs directly related to on-peak purchased power transactions would be considered part of the fuel and purchased

power costs. Fuel and purchased power costs were always intended to flow through the FAC mechanism, as indicated by the Commission's *Order Clarifying Report and Order*.

For the foregoing reasons, the Commission should reject Staff's position that the FAC mechanism was not intended to flow-through hedging costs.

X. GMO WILL STOP HEDGING USING NATURAL GAS FUTURES CONTRACTS TO MITIGATE THE PRICE RISK ASSOCIATED WITH SPOT PURCHASED POWER IF DIRECTED TO DO SO BY THE COMMISSION

In the event that the Commission decides that it believes that GMO should abandon its existing practice of using natural gas futures contracts to mitigate the price risk associated with spot purchase power, then GMO will agree to do so. (GMO Ex. No. 7, Rush Surrebuttal, pp. 26-27) However, it is fundamentally unfair and unlawful for the Commission to order a refund in this case, based upon Staff's flawed analysis and hindsight review. (GMO Ex. No. 7, Rush Surrebuttal, pp. 26-27)

XI. THE COMMISSION SHOULD ESTABLISH A POLICY WHICH ADDRESSES THE APPROPRIATENESS OF THE USE OF NATURAL GAS HEDGES BY ELECTRIC UTILITIES

GMO believes that additional guidance from the Commission regarding the appropriateness of the use of natural gas hedged by electric utilities such as GMO would be helpful. (GMO Ex. No. 2, Blunk Surrebuttal, pp. 50-51) GMO suggests that the Commission implement a process to avoid similar disputes over the Company's hedging programs in the future. Ken Costello, Senior Institute Economist for the National Regulatory Research Institute put it this way:

> Commissions should establish guidelines up front. These guidelines can act as general policy statements on different aspects of hedging, including cost recovery, which constitutes a prudent decision on the part of the utility, and the necessary elements of an acceptable hedging strategy. In hedging with financial derivatives, utilities need to know from their regulators what are the "rules of the game." Otherwise, they will be reluctant to hedge even when it would be in

the interest of the consumers. Especially in an environment where rules are vague and all direct gains of hedging go to consumers, utilities understandably would have little incentive to hedge.

State commissions also need to strike a proper balance between "signing off" on a hedging strategy and micro-managing the execution of the plan. Commissions lack the necessary information to direct a utility's hedging activities on a daily basis or to advise a utility on every decision. This does not preclude a commission from evaluating the execution of a hedging strategy. But as an overall policy, it would be preferable for commissions to convey, prospectively, clarity to utilities than to partake in costly and contentious hindsight reviews that frequently turn into "Monday morning quarterbacking." Hedging is one those activities, similar to the purchasing of insurance, where by design it is expected to result in a net loss to consumers. Consequently, hedging is vulnerable to ex post regulatory interpretation. But, in view of the intent to avoid large losses or harm—a "peace of mind-type" benefit—hedging with the result of higher prices to consumers or lower profits to a utility can still be regarded as successful and prudent.

In sum, commissions should not tell utilities how to hedge; second-guessing lies counter to the traditional prudence standard and, more important, discourages utility hedging. Yet, a commission has a legitimate and useful role to play in evaluating the reasonableness of (1) a utility's hedging strategy, prospectively, and (2) the execution of the strategy itself.

XII. CONCLUSION

In conclusion, the Commission should reject the unprecedented position being advocated by the Commission Staff in this case. As the record clearly demonstrates, cross-hedging of electric price risk using natural gas futures contracts is a widely taught and accepted hedging technique. The Staff has been aware that the practice of cross-hedging has been used by Aquila since 2005, and while they have raised other concerns about Aquila's previous hedging programs (which the Company previously addressed), cross-hedging has not been previously raised as an issue. When Aquila revised its hedging program in 2007 in response to the Staff's concerns, the Staff was included in the discussions that set up the current program. However, until this case, GMO was never informed that Staff had any issues with the use of the cross-hedging method.

When competent and substantial evidence is fully considered, the Commission should find and conclude that Staff failed to raise a "serious doubt" regarding the prudence of the Company's hedging program. Notwithstanding Staff's failure to meet its burden of proof under the prudence standard, the Company has fully addressed the concerns raised in the record, and has shown that its hedging program is prudent.

The evidence demonstrates that:

(1) Natural gas and spot purchased power prices are highly correlated when judged by industry and accounting standards. The hedge data meets both the "R-squared Test" of around 0.80, and the related "Dollar Offset Test" used by the industry and the accounting profession to determine the effectiveness of the hedges.

(2) The Staff's "perfect correlation" test is unrealistic and is not used anywhere in the industry or by other regulatory agencies for judging the link between natural gas and electricity prices, and should be adopted by the Commission.

(3) GMO has properly accounted for its hedging costs under the uniform system of accounts, previous stipulations and agreements, Staff's suggestions in support of a previous stipulation and agreement, Staff's testimony in a previous case, and orders of the Commission.

(4) GMO'S FAC tariffs authorize purchased power hedging costs to be passed on to the customers through the FAC mechanism.

(5) Most importantly, the evidence indicates that the Company's hedging program is prudent, and there is no lawful basis for a disallowance and refund in this case.

WHEREFORE, KCP&L Greater Missouri Operations Company respectfully submits this initial brief, and requests that the Commission adopt the positions stated herein.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I do hereby certify that a true and correct copy of the foregoing document has been hand-delivered, emailed or mailed, First Class mail, postage prepaid, this 6th day of July, 2012, to all counsel of record in this matter.

/s/ Roger W. Steiner

Roger W. Steiner