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Witness: Scott H. Heidtbrink
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MISSOURI PUBLIC SERVICE COMMISSION

CASE NO.: EO-2011-0390

DIRECT TESTIMONY

OF

SCOTT H. HEIDTBRINK

ON BEHALF OF

KCP&L GREATER MISSOURI OPERATIONS COMPANY

**Kansas City, Missouri
February 2012**

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Case No. EO-2011-0390

1 **Q: Please state your name and business address.**

2 A: My name is Scott H. Heidtbrink. My business address is 1200 Main Street, Kansas City,
3 Missouri 64105.

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

5 A: I am employed by Kansas City Power & Light Company (“KCP&L”) as Senior Vice
6 President – Supply.

7 **Q: On whose behalf are you testifying?**

8 A: I am testifying on behalf of KCP&L Greater Missouri Operations Company (“GMO” or
9 the “Company”) for the territories served by St. Joseph Light & Power (“L&P”) and
10 Missouri Public Service (“MPS”).

11 **Q: What are your responsibilities?**

12 A: I am responsible for all aspects of KCP&L’s supply division, including GMO. This
13 includes all of KCP&L’s and GMO’s energy generation resources, generation dispatch,
14 off-system sales, coal procurement, and asset management for the jointly owned
15 generation facilities.

16 **Q: Please describe your education, experience and employment history.**

17 A: I received a Bachelor of Science degree in electrical engineering from Kansas State
18 University in 1986. I previously served as Vice President, Power Generation and Energy
19 Resources of Aquila’s regulated gas and electric operations. I was responsible for

1 Aquila's power generation plants in Missouri and Colorado and for the Company's
2 energy resources, including integrated resource planning, generation dispatch, off-system
3 sales, coal procurement, and asset management for the company's minority ownership
4 positions in other coal-fired plants.

5 I joined Aquila in 1987 as a field engineer at the Company's Lee's Summit,
6 Missouri service center and held gas and electric utility operations engineering and field
7 and customer operations management positions, including state president and general
8 manager – Kansas, from 1994 to 1997; vice president, network management/engineering,
9 1998 to 2000; vice president, Aquila Gas Operations, 2001; and Vice President,
10 Kansas/Colorado Gas, 2002 to 2004. I also led the deployment of Six Sigma into
11 Aquila's utility operations. I joined KCP&L in 2008 as part of the KCP&L acquisition of
12 Aquila.

13 **Q: Have you previously testified in a proceeding at the Missouri Public Service**
14 **Commission ("MPSC" or "Commission") or before any other utility regulatory**
15 **agency?**

16 A: I have previously testified before both the MPSC and the Kansas Corporation
17 Commission.

18 **EXECUTIVE SUMMARY**

19 **Q: What is the purpose of your testimony?**

20 A: The purpose of my testimony is to provide the history of the GMO, formerly Aquila,
21 hedging program.

22 **Q: Do you agree with Staff's proposed disallowance?**

23 A: Absolutely not.

1 **Q: Why do you disagree with Staff?**

2 A: Staff presented only “half the story” which puts the whole issue out of context. Staff
3 alleges GMO should not have hedged power with natural gas, yet GMO has been hedging
4 power with natural gas since 2004. It has been part of GMO’s retail cost of service since
5 2005 and has been included in the calculation of the semi-annual fuel adjustment clause
6 (“FAC”) since 2007. The Company has been fully transparent about this practice and it
7 was openly discussed in testimony in every rate case since 2005. The Staff has been fully
8 aware that GMO was hedging power with natural gas for the last seven years, through
9 four rates cases and through two FAC prudence reviews but only now, when one aspect
10 of the total program shows losses, suggests a disallowance. If you look at the hedging
11 program as a whole, the program has been successful as it has decreased total costs and
12 reduced volatility. If the Commission wishes for GMO to change its hedging strategy
13 then it should advise the Company to do so. However, to simply and suddenly disallow
14 prudently incurred costs from a previously accepted program is absolutely not
15 appropriate.

16 **HISTORY OF HEDGING PROGRAM**

17 **Q: When did GMO start its hedging program?**

18 A: In 2004.

19 **Q: Why did GMO start its hedging program?**

20 A: There was a significant amount of market volatility that created large swings in GMO’s
21 cash flow and earnings. GMO developed a hedging program to reduce market volatility
22 and stabilize cash flow and earnings.

1 **Q: Was the hedging program successful in reducing market volatility?**

2 A: Yes.

3 **Q: Were you at Aquila when the program began?**

4 A: Yes.

5 **Q: When did GMO begin hedging purchased power?**

6 A: GMO began hedging purchased power in 2004.

7 **Q: Has GMO's hedging program always included the use of natural gas futures or**
8 **options to cross hedge purchase power price risk?**

9 A: Yes. Since 2004, GMO has employed essentially three different hedging programs. All
10 three programs hedged purchased power with natural gas derivatives. GMO's
11 February 25, 2005, hedge program, which has sometimes been referred to as the "One-
12 Third Strategy" and at other times as the "post 2004 Hedging Strategy," was attached as
13 Schedule 2-2 to Staff witness Charles R. Hyneman's Direct Testimony in Rate Case No.
14 ER-2005-0436 ("ER-2005-0436") and Schedule 4-2 to Staff witness Charles R.
15 Hyneman's Surrebuttal Testimony in Rate Case No. ER-2007-0004 ("ER-2007-0004").
16 That attachment clearly states:

17 Rather than implement a generally less efficient on-peak purchase power
18 hedge plan at a remote hub Aquila will convert on-peak purchase power
19 quantities into equivalent quantities of natural gas. To determine the
20 equivalent number of natural gas contracts to hedge on-peak purchased
21 power, a market heat rate is computed.

22 **Q: Why did GMO decide to hedge on-peak purchased power in addition to projected**
23 **amounts of gas burned for generation?**

24 A: The GMO generation fleet has several simple-cycle combustion turbines that enable it to
25 meet its peak loads. GMO actively managed its system requirements, the availability of
26 wholesale power and its own generation fleet. There were several times that purchased

1 power from the wholesale market was more economic than running its own generation.
2 Therefore, GMO's fleet composition coupled with the availability of economic wholesale
3 power created an environment where GMO purchased a significant amount of on-peak
4 wholesale purchased power. This large amount of on-peak purchased power coupled
5 with high market volatility led to the large cash flow and earning swings.

6 **Q: Why did GMO decide to cross hedge purchased power with natural gas and not to**
7 **hedge purchased power with forward electric power contracts?**

8 A: The key reasons to utilize this approach included: (i) liquidity, (ii) contract size and
9 (iii) credit risk. Company witness Wm. Edward Blunk discusses these reasons at more
10 length in his Direct Testimony.

11 **Q: Are natural gas prices and electric power prices correlated?**

12 A: Yes. For most on-peak hours, natural gas is on the margin meaning wholesale power
13 prices are set by the cost of the last gas-fired unit to be dispatched. Although GMO was
14 not actually burning gas in its own generating units, it was purchasing wholesale power
15 that had its price derived from natural gas. Therefore, it was prudent to cross hedge
16 purchased power with natural gas. Company witness Dr. C. K. Woo's Direct Testimony
17 goes into more details about the prudence of cross hedging.

18 **Q: Has the Staff examined GMO's hedging program?**

19 A: Yes. Staff first investigated GMO's hedging program in 2005. Staff witness Charles R.
20 Hyneman included a copy of "Missouri Natural Gas & Purchase Power Hedge Strategy"
21 GMO's February 25, 2005, hedge program as a Schedule to his Direct Testimony in ER-
22 2005-0436. He also discussed the program through the course of the case.

1 In ER-2005-0436 Direct Testimony, Staff witness Cary G. Featherstone at page
2 32 stated: "Staff's position is that hedging is done to mitigate natural gas and energy
3 costs and should be reflected in the IEC mechanism to reduce the substantial risk of
4 extremely high energy markets."

5 **Q: Did Staff ever express any concerns with GMO's hedging program?**

6 A: Yes. In ER-2005-0436 Staff witness Charles R. Hyneman expressed a concern about
7 Aquila's "post-2004 Hedging Strategy" that was in place at that time. Mr. Hyneman felt
8 that program was too systematic and too rigid. Staff witness Cary G. Featherstone
9 expressed concern that Aquila was booking hedging costs to Account 430.17, i.e.,
10 "below-the-line". At page 33, Mr. Featherstone advocated that "the results of the
11 hedging program and prudently incurred costs to implement such program should be
12 included in the true-up IEC Audit," i.e., "above-the-line."

13 In ER-2007-0004 Staff witness Charles R. Hyneman repeated his concern about
14 Aquila's "post-2004 Hedging Strategy" as being too systematic without giving
15 consideration to current market conditions. He also noted that Aquila had made no
16 changes in its hedging policy since he examined it in 2005. He again attached Aquila's
17 "Missouri Natural Gas & Purchase Power Hedge Strategy" as a Schedule to his
18 Surrebuttal Testimony.

19 **Q: How did GMO address Mr. Featherstone's concern that hedging fuel and purchased**
20 **power should be "above-the-line"?**

21 A: GMO agreed to include hedge costs and benefits in its retail revenue requirement from
22 ER-2005-0436. Later GMO included the results of its hedging programs in its FACs

beginning with ER-2007-0004 and continuing on through ER-2009-0090 and ER-2010-0356.

Q: Following ER-2007-0004 how did GMO address both Staff's and the Commission's concerns about hedging fuel and purchased power?

A: Following ER-2007-0004, GMO agreed to look into other available hedging programs and decided to retain Kase and Company, Inc. ("Kase"), a risk-management and trading technology firm which provides trading, hedging and analytical solutions for managing market risk, to develop a natural gas price hedging program. As Company witness Wm. Edward Blunk explains, GMO has continued that program.

Q: Why did GMO chose the Kase Hedging Program?

A: GMO ultimately chose Kase because it was a proven program, the Staff's familiarity with the program, (KCP&L was using the Kase Hedging Program) and the program provided for some subjectivity.

Q: When working with Kase to structure a program for GMO was the Staff involved?

A: Yes. There were several conference calls to discuss the Kase program and how to best use it to mitigate market volatility risk for GMO. The Staff was invited to participate on all calls. The Staff chose not to provide input into the conference calls or make any recommendations on what GMO should do, but the Staff did participate in the conference calls.

Q: During those calls was it clear that GMO still planned on hedging on-peak purchase power with natural gas future contracts?

A: Yes.

1 **Q: Did either Staff witness Charles R. Hyneman or Cary G. Featherstone express any**
2 **concern with using natural gas futures or options to hedge electricity price risk?**

3 A: No.

4 **Q: Both ER-2005-0436 and ER-2007-0004 resulted in Stipulations and Agreements to**
5 **which both the Company and Staff were parties. Did those Stipulations and**
6 **Agreements address hedging?**

7 A: Yes. The *Nonunanimous Stipulation and Agreement* of ER-2005-0436 at p. 10 provided
8 that:

9 The Signatory Parties agree, for accounting and ratemaking purposes, that
10 hedge settlements, both positive and negative, and related costs (e.g.
11 option premiums, interest on margin accounts, and carrying cost on option
12 premiums) directly related to natural gas generation and on-peak
13 purchased power transactions under a formal Aquila Networks-MPS
14 hedging plan will be considered part of the fuel cost and purchased power
15 costs recorded in FERC Account 547 or Account 555 when the hedge
16 arrangement is settled.

17 The *Stipulation and Agreement As to Certain Issues* of ER-2007-0004 at pp. 5-6
18 provided:

19 that ultimate settlement values of Aquila's hedge contracts in place on
20 March 27, 2007 for the period June 1, 2007 through December 31, 2009
21 will be subject to the provisions of any fuel cost recovery mechanism
22 approved by the Commission in this case. However, the ultimate
23 settlement values will not be subject to challenge as to a prudence
24 disallowance relative to Aquila's original decisions to enter into these
25 hedge positions.

26 **Q: Did either Stipulation and Agreement preclude the recovery of hedge settlements**
27 **associated with natural gas futures or options used to hedge electricity price risk?**

28 A: No. In fact they did just the opposite. Both Stipulation and Agreements provided for the
29 recovery of hedge settlements associated with natural gas futures or options used to
30 hedge electricity price risk.

1 **Q: Has this Commission expressed any opinion leading one to believe GMO's use of**
2 **natural gas derivatives to cross hedge electricity price risk was unreasonable?**

3 A: No. Since 2004 when Aquila started using natural gas derivatives to cross hedge
4 electricity price risk neither this Commission nor its Staff has claimed that GMO's use of
5 natural gas derivatives to cross hedge electricity price risk was imprudent.

6 **Q: Has the Commission ever commented on the impacts of market volatility and the**
7 **magnitude of its impact on a company?**

8 A: Yes. Again, the clearest expression of that guidance was in Chairman Jeff Davis'
9 Concurring Opinion in ER-2007-0004 at pp. 5-6. Key statements from that Opinion are
10 as follows:

11 All of the proposed FAC mechanisms in this case had some facet that was
12 unappealing. Aquila's proposal to recover 100 percent of its fuel increase
13 costs was technically sound, but failed to ensure prudent and necessary
14 pass-through because the company incurred no risk of financial loss if it
15 failed to prudently manage its fuel costs. The 95 percent pass-through
16 adopted by the majority in this case is reasonable in that it allows the
17 company to recover all or most of its fuel and purchased power costs
18 above \$200 million, while encouraging the company to be prudent. For
19 instance, if fuel and purchased power costs increase by \$30 million in one
20 year to a level of \$230 million total -- a likely scenario based on the
21 testimony presented in this case -- the company will recover \$28.5 million
22 of those costs and lose \$1.5 million.

23 A company like Aquila might be able to make up a \$1.5 million annual
24 shortfall and, based on judgment and experience, such a shortfall is
25 reasonable under the circumstances. Thus, in my opinion, this approach is
26 most reasonable under the circumstances facing Aquila and the customers
27 it serves.

28 **Q: Has the Commission given GMO specific guidance regarding a hedging program?**

29 A: Yes. The clearest expression of that guidance was in Chairman Jeff Davis' Concurring
30 Opinion in ER-2007-0004. Key statements from that Opinion summarize that guidance
31 as follows:

- 1 • “Skyrocketing fuel and purchased power prices can compound rate risk for
2 consumers,” p. 3.
- 3 • “This commission recognizes the hardship rate volatility can place on all classes of
4 consumers - residential, commercial and industrial,” p. 4.
- 5 • “If Aquila fails to adopt a proper hedging strategy, fails to follow its hedging strategy
6 or abuses the discretion given to it by this commission in any other way, this
7 commissioner will not hesitate to modify or reject Aquila’s FAC application in a
8 future proceeding,” p. 7.

9 Those statements make it clear that GMO was to hedge fuel and purchased power prices
10 to avoid the risk of skyrocketing fuel and purchased power prices.

11 **Q: Why do you think Chairman Jeff Davis was so clear in his admonition to GMO to**
12 **hedge purchased power prices?**

13 A: I believe there were at least two factors that lead to Chairman Jeff Davis giving GMO
14 that charge to hedge fuel and purchased power. First, Staff had charged that Aquila’s
15 February 25, 2005, hedge strategy was imprudent. Second, GMO was implementing a
16 new fuel clause. I believe Chairman Jeff Davis recognized the risk to ratepayers was the
17 Company would stop hedging fuel and purchased power. That would leave ratepayers
18 exposed to the risk of “skyrocketing fuel and purchased power prices.”

1 **Q: How many times before the issuance of Staff's Report had GMO's practice of using**
2 **natural gas futures and options to hedge electricity price risk been reviewed by**
3 **Staff?**

4 A: Staff first reviewed GMO's use of natural gas futures and options to hedge electricity
5 price risk in ER-2005-0436. Since then Staff has audited the Company and reviewed its
6 practices in three more electric rate cases and two FAC prudence reviews.

7 **Q: Did Staff explain why after seven years, four rate cases, two FAC prudence reviews**
8 **it only now has determined "that a reasonable person would not buy options to**
9 **purchase natural gas at fixed prices in the future to hedge against future purchases**
10 **of electricity in the spot market because there is no direct link between these two**
11 **markets sufficient upon which to base such 'hedging'?"**

12 A: No.

13 **Q: In the course of those seven years, four rate cases, and two FAC prudence reviews**
14 **was there opportunity for Staff to challenge GMO's practice of using natural gas**
15 **derivatives to cross hedge electricity price risk?**

16 A: Yes.

17 **Q: Are the recent losses in the hedging program a surprise to you?**

18 A: No. It was always understood that in a declining natural gas market that the natural gas
19 hedges would lose money. It is also important to look at both sides of the equation.
20 Since natural gas and wholesale power prices are still correlated, GMO's cost for
21 purchased power has decreased as well. Therefore, as shown in Mr. Blunk's Direct
22 Testimony the cost of fuel plus purchased power including hedges has decreased since
23 May 2009.

1 **Q: In concluding your testimony, what is your recommendation to the Commission?**

2 A: GMO has repeatedly demonstrated a willingness to adjust its hedging program in
3 response to issues raised by Staff. This was illustrated by changing to a hedging strategy
4 that incorporated more judgment and consideration of market conditions once Staff
5 indicated its concerns with the program in place. GMO is even willing to stop hedging
6 power price risk with natural gas derivatives if the Commission so desires – but keep in
7 mind that this would expose its customers to the rate volatility and the Company is
8 unwilling to abandon a successful hedge program that protects its customers without clear
9 guidance from the Commission. Staff has recommended the Commission disallow the
10 costs and benefits of a prudent hedging program and in essence use this punitive
11 disallowance to enact changes in a successful hedging program that has been reviewed
12 several times. Therefore I recommend the Commission reject Staff’s recommendation.
13 If the Commission believes the Company should stop hedging power price risk, then it
14 should make that declaration in its order and disallow costs on a going forward basis if
15 the Company chooses to ignore the guidance. However, in the meantime the
16 Commission should allow the Company recovery of prudently incurred costs in the
17 existing program since it was acting in good faith under a program that has been subject
18 to several previous reviews.

19 **Q: Does that conclude your testimony?**

20 A: Yes, it does.

