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Planning/ Peaking Turbines*

Witness: Cary G. Featherstone

Sponsoring Party: MoPSC Staff

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MISSOURI PUBLIC SERVICE COMMISSION

UTILITY SERVICES DIVISION

SURREBUTTAL TESTIMONY

OF

CARY G. FEATHERSTONE

**Great Plains Energy Corporation
GREATER MISSOURI OPERATIONS COMPANY
MPS AND L&P ELECTRIC OPERATIONS**

CASE NO. ER-2009-0090

*Jefferson City, Missouri
April 2009*

****Denotes Highly Confidential Information****

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Surrebuttal Testimony of
Cary G. Featherstone

1 Q. What is the purpose of your surrebuttal testimony?

2 A. I respond to the rebuttal testimonies of several GMO witnesses regarding the
3 incomplete construction audits of several plant additions that have been, made or will be,
4 added to the plant in service balances of GMO and KCPL. These plant additions
5 for GMO and KCPL relate to the current construction projects at Iatan 1 for environmental
6 equipment and upgrades to the steam turbine (L&P), the completed construction projects of
7 environmental equipment at Jeffrey Energy Center, Units 1 and 3 (MPS), of which GMO has
8 an 8% ownership share and the environmental upgrades for the Sibley generating facility,
9 Unit 3, (MPS) of which GMO has a 100% ownership share.

10 An additional purpose of this surrebuttal testimony is to address the rebuttal testimony
11 filed on behalf of GMO by GMO witness Burton L. Crawford, Manager, Energy Resource
12 Management, relating to the area of capacity planning and peaking turbines.
13 Mr. Crawford supports inclusion of a new generating facility of GMO in the form of four
14 combustion turbines totaling 300 megawatts of capacity originally installed in 2002
15 in Clarksdale, Mississippi, designated as Crossroads Energy Center (Crossroads).
16 These generating units were built as a non-regulated facility by Aquila Merchant Services Inc.
17 (Aquila Merchant), an affiliate of GMO when GMO was named Aquila, Inc.

18 Q. How will you refer to GMO in this surrebuttal testimony?

19 A. Because GMO has two areas in its service territory that have different electric
20 rates based on differing rate bases and costs of service, when referring to the operations and area
21 that was most recently referred to as being served by Aquila as Aquila Networks-MPS
22 (the old Missouri Public Service Company (MoPub) service area) I will simply use the
23 designation of GMO MPS or MPS. When referring to the operations and area that was most

1 recently referred to as being served by Aquila as Aquila Networks-L&P (the former St. Joseph
2 Light & Power Company service area) I will simply use the designation of GMO L&P or L&P.
3 GMO merged with St. Joseph Light & Power Company in 2000 when it was
4 named UtiliCorp United, Inc.. At various places in this surrebuttal testimony when I discuss
5 historical aspects of GMO capacity planning I will use the name GMO was using at the
6 time-Aquila (Aquila, Inc.) during the period early 2002 to mid 2008 and UtiliCorp (UtiliCorp
7 United, Inc.) before early 2002. I refer to the former operating divisions
8 of Aquila-Aquila Networks-MPS and Aquila Networks-L&P, as MPS and L&P, respectively,
9 when discussing GMO when it was named Aquila, i.e., before it was acquired by Great Plains
10 Energy Corporation (GPE) on July 14, 2008.

11 **EXECUTIVE SUMMARY**

12 Q. Would you please summarize your surrebuttal testimony on the issue of
13 construction costs?

14 A. Staff's review of the Iatan 1, Sibley and Jeffrey Energy Center construction
15 costs are not complete and as such, Staff has proposed to either, (1) to the extent the costs of
16 that project exceed KCPL's and GMO's definitive estimates, make that portion
17 of GMO's rates interim subject to refund, or (2) expressly state in its Report and Order in this
18 case that the Commission is not deciding for the purpose of setting rates in this case the issue
19 whether the construction costs of the Iatan 1, Sibley and Jeffrey Energy Center projects were
20 prudently incurred, and that it will take up the matter of the prudence of those costs in a future
21 cases, if a party properly raises the issue before the Commission in those cases.

22 GMO has misinterpreted Staff's recommendation concerning the completion
23 of construction cost review, commonly referred to as a construction audit. GMO infers that it

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1 believes Staff's position is to exclude prudently incurred Iatan 1, Sibley and
2 Jeffrey Energy Center costs from the current case. That is not correct. Under the first option,
3 GMO would be permitted by the Commission to collect in permanent rates the construction
4 costs of Iatan 1, Sibley and Jeffrey Energy Center environmental enhancements up to the total
5 of the definitive estimates for the costs of these improvements and the remainder of the
6 construction costs interim subject to refund. Under the second option, GMO would be
7 permitted by the Commission to collect in permanent rates all of the construction costs of
8 Iatan 1, Sibley and Jeffrey Energy Center environmental enhancements, but the Commission
9 would specifically state in its Report and Order that the Commission has not decided the issue
10 of whether the construction costs of Iatan 1, Sibley and Jeffrey Energy Center were prudently
11 incurred and, if raised by a party in the next GMO and KCPL rate cases, would take up that
12 issue at that time.

13 Q. Would you please summarize your surrebuttal testimony on the area of the
14 capacity planning of Aquila and the related costs of combustion turbines?

15 A. The following summarizes my testimony on this topic.

16 GMO presents in its rebuttal testimony what it believes is justification for its inclusion
17 of Crossroads in its rate base for MPS in this filing. GMO believes that Crossroads is the
18 lowest cost generation planning and, therefore, represents the best option that the Company
19 had in the 2007 and 2008 time period to meet its system load requirements. Staff does not
20 agree with this assessment. Staff has examined the capacity issue at GMO (Aquila) since
21 1999 and has concluded that the replacement of a major purchased power agreement that
22 terminated in May 2005 has never been completely addressed by GMO (Aquila) until 2008,
23 when the Company moved Crossroads from an unregulated affiliate into its regulated plant

1 investment. Staff opposes the inclusion of the cost of Crossroads in rate base for MPS as it
2 was not a least cost planning decision and the plant is located in the state of Mississippi
3 several hundred miles from GMO's service territory.

4 The least cost planning decision for ratemaking in this case should be focused on the
5 events surrounding the time period of 2004 and 2005 when GMO (Aquila) was deciding how
6 to replace the full 500 megawatt capacity needs it had that it was meeting with a purchased
7 power agreement that expired before the summer of 2005. GMO is misdirecting the
8 Commission to the wrong time horizon.

9 In lieu of GMO's 315 megawatt South Harper facility and GMO's Crossroads facility,
10 Staff proposed to include what it has described as the MPS facility. The MPS facility
11 is a 525 megawatt facility based on the costs Aquila prudently incurred in building its
12 South Harper facility plus the costs of two additional 105 megawatt combustion turbines.
13 Since the legal issues surrounding the South Harper facility are now resolved with the
14 March 28, 2009 effective date of the Commission's Report and Order in Case No.
15 EA-2009-0118, the MPS facility is now the South Harper facility plus two additional
16 105 megawatt combustion turbines. This position is addressed at pages 85 to 93 in the
17 Staff Cost of Service Report, and rebuttal and surrebuttal testimonies of Staff witnesses
18 Lena M. Mantle and Charles R. Hyneman. This testimony supports that GMO (Aquila)
19 should have built its own generation to meet its growing electric needs and should have been
20 doing so since at least the late 1990s. The South Harper facility is the first
21 Commission-regulated generating capacity that GMO (Aquila) has built since 1983.
22 Between 1983 and 2005 GMO relied on purchased power agreements to meet the growing
23 demand for electricity in its MPS service territory. Staff was put into the position of imputing

1 the MPS facility to GMO because GMO (Aquila) did not build generating assets for MPS,
2 or L&P, for a substantial period of years.

3 Unlike the costs of a six combustion turbine site with three installed 105 megawatt
4 combustion turbines, which were based on Aquila's costs for South Harper facility as built in
5 2005, Staff did not have such a basis for the costs to acquire and build the two additional
6 combustion turbines to value the two additional turbines referred to as Turbines 4 and 5 in this
7 case (as well as the last two MPS rate cases - Case ER-2005-0436 and Case No.
8 ER-2007-0004). This is because Aquila did not adequately plan and pursue building
9 generating assets to meet its system load requirements. GMO (Aquila) did, with Calpine,
10 build the Aries Combined Cycle Generating Station (Aries), a 585- megawatt power plant.
11 That station went into service in early 2002. At that time, GMO, then known
12 as UtiliCorp United, Inc., had a corporate policy not to build generating assets for its
13 regulated utility operations. The Aries station was conceived, planned, designed, engineered
14 and costs determined by GMO, but GMO turned the project over to its unregulated subsidiary
15 Aquila Merchant Inc. (Aquila Merchant) to build. GMO (Aquila) signed a five-year
16 purchased power agreement with Aquila Merchant for MPS' operations that ended May 31,
17 2005, (the Aries Agreement). Before it began imputing generating assets, Staff took the
18 position in GMO's prior rate cases that the Aries Agreement was not an arms' length
19 transaction, and made adjustments in each of those cases to exclude the full value of the
20 capacity agreements between MPS and its affiliate, Aquila Merchant.

21 Planning for the expiration of the May 31, 2005, Aries Agreement, MPS developed a
22 least cost plan in early 2004 to meet MPS' capacity needs for the summer of 2005.
23 This capacity plan was that the least cost plan was to build five (5) turbines having a total

1 capacity of 525 megawatts. However, in the summer of 2005 Aquila MPS installed only
2 three combustion turbines totaling 315 megawatts at its South Harper site designed
3 for six such combustion turbines, following what it referred to as its “preferred plan.”
4 The remaining capacity to replace Aries was to be met by power from purchased power
5 agreements. South Harper was the subject of extensive litigation. Originally, the three
6 turbines GMO (Aquila) installed at South Harper were held in storage from 2002 to 2005 after
7 GMO (Aquila) no longer planned for them to be used by GMO's non-regulated subsidiary,
8 Aquila Merchant, who had planned to install them at its then owned Aries generating site, as
9 Aries II. GMO (Aquila) unsuccessfully attempted to sell these turbines before storing them
10 long term. Rather than building additional capacity, GMO (Aquila) subjected itself to the
11 volatile market conditions of the energy power markets. After the installation of the
12 combustion turbines at South Harper in 2005, GMO (Aquila) continued to rely on short-term
13 purchased power agreements for the remaining capacity necessary for it to meet its system
14 load requirements year-after-year. GMO (Aquila) did so until the decision by GMO (Aquila)
15 to transfer Crossroads from its non-regulated affiliate Aquila Merchant to MPS
16 in August 2008.

17 Up until January 2004, GMO (Aquila's) resource planning analyses only considered
18 capacity agreements. Since January 2004, GMO (Aquila) performed resource planning
19 analyses year-after-year, identifying a need to build generating units to make up for the
20 Aries capacity. Other than South Harper, GMO (Aquila) never built any of these units.
21 Even though GMO (Aquila) expressed to Staff in the past several years an intent to build
22 generating facilities, it failed to do so. GMO (Aquila) made no plans to build future
23 generating plant, other than its participation in the Iatan 2 coal-fired project.

1 The value of Crossroads is substantially overstated because the four combustion
2 turbines installed at that facility were purchased at a time when turbine manufactures were
3 selling those units in sellers' market with very high prices. GMO (Aquila) had many
4 opportunities to acquire turbine capacity for installation in and around its load center at
5 greatly reduced prices relative to the prices paid for the turbines installed at the Crossroads
6 facility. If the Commission allows Crossroads in rate base, it should do so at a substantially
7 reduced amount compared to what GMO is requesting in this case.

8 The four Crossroads turbine are book valued at approximately ** — ** million
9 each, or a total of ** — ** million. Based on GMO's imprudency in not acquiring that
10 owned capacity in 2004-2005, Staff believes those values should be significantly reduced in
11 the range of ** _____ _** million each or total range of ** _____ ** million based
12 on sales and offers to other utilities for the same turbine model.

13 In addition to the turbine values being over stated, the costs of the transmission plant
14 at Crossroads is higher than it would be if GMO (Aquila) would have installed the turbines at
15 an existing site such as South Harper. Staff believes that the there was a ** — ** million
16 amount that was estimated for transmission upgrades at the Aries site where those
17 three South Harper turbines were originally planned to be installed. Crossroads transmission
18 is substantially higher than this transmission upgrade estimate.

19 Staff believes that the annual transmission expenses will be higher for the Crossroads
20 units because of where they are located. If the turbines would have been installed in the
21 Kansas City area the transmission costs would be dramatically less.

22 Staff believes that the natural gas costs will be higher at Crossroads than it would be if
23 the capacity was located in the Kansas City area.

1 **COST REVIEW OF CONSTRUCTION PROJECTS**

2 Q. Did GMO address any concerns regarding Staff's review of the
3 Iatan construction project?

4 A. Yes. Several Company witnesses responded to Staff's recommendation made
5 at page 33 of my direct testimony relating to the review of the construction costs of Iatan 1 for
6 environmental equipment currently being installed and tested - the Air Quality Control
7 System (AQCS) equipment.

8 While several Company witnesses identify similar concerns regarding Staff's position
9 on review of the construction costs for several construction projects completed or soon to be
10 completed, GMO witness Chris Giles states the general position regarding Staff's proposal for
11 the review of construction costs for the Iatan 1 environmental equipment. Mr. Giles states the
12 following at page 10 (starting at line 20) of his rebuttal testimony:

13 By suggesting that it might be appropriate for the Commission
14 only to reflect in the Company's rates the definitive estimate for
15 the AQCS projects, Mr. Featherstone implies that costs incurred
16 over and above those estimates were not prudently incurred.
17 However, he does not provide any evidence, much less create
18 serious doubt about the Company's prudence.

19 Q. Has GMO accurately portrayed Staff's recommendation?

20 A. No. Staff is not recommending the Commission exclude all Iatan 1,
21 Sibley Unit 3 and Jeffrey Energy Center Units 1 and 3 costs from cost of service, unless the
22 equipment and generating units are not fully operational and used for service by the true-up
23 cut-off date established in this case. It is my understanding, that the only generating unit that
24 is in question regarding the in-service criteria is the Iatan 1 AQCS, which is the most
25 significant of these construction projects. The Iatan 1 construction affects GMO L&P's rates
26 as well as KCPL's rates.

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1 Q. What is Staff's recommendation regarding the construction costs for the
2 environmental plant additions for Iatan 1, Sibley Unit 3 and Jeffrey Energy
3 Center Units 1 and 3?

4 A. Staff recommended the following in its direct case at page 33 of my direct
5 testimony:

6 Staff recommends the Commission either, (1) to the extent the
7 costs of that project exceed KCPL's and GMO's definitive
8 estimate, make that portion of GMO's rates interim subject to
9 refund or (2) expressly state in its Report and Order in this case
10 that it is not deciding for the purpose of setting rates in this case
11 the issue whether the construction costs of the Iatan 1,
12 Sibley and Jeffrey Energy Center projects were prudently
13 incurred and that it will take up the matter of the prudence of
14 those costs in a future cases, if a party properly raises the issue
15 before the Commission in those cases.

16 Q. Is Staff proposing to exclude construction costs relating to the Iatan 1,
17 Sibley or Jeffrey Energy Center environmental plant additions in this case?

18 A. No. Staff is proposing, in particular with option 2, that the Commission simply
19 state in its Order issued in this rate case that "...it is not deciding for the purpose of setting
20 rates in this case the issue whether the construction costs of the Iatan 1, Sibley Unit 3 and
21 Jeffrey Energy Center Units 1 and 3 projects were prudently incurred and that it
22 [the Commission] will take up the matter of the prudence of those costs in a future cases,
23 if a party properly raises the issue before the Commission in those cases." This means that the
24 rates in this case would not exclude recovery for the Iatan 1 environmental plant additions for
25 GMO L&P and Sibley Unit 3 and Jeffrey Energy Center Units 1 and 3 for GMO MPS.
26 It would mean however, that the parties would have an opportunity to review the final
27 completed and actual costs relating to the Iatan 1, Sibley Unit 1 and Jeffrey Energy Center
28 Units 1 and 3 projects of GMO MPS and L&P.

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1 At no time did Staff expressly state, imply or infer that rates in this case would not
2 include completed Iatan 1 costs for GMO MPS and Sibley Unit 3 and Jeffrey Energy Center
3 Units 1 and 3 for GMO L&P, assuming that these units are fully operational and used for
4 service.

5 Q. Has GMO discussed with the Staff the proposal outlined in your
6 direct testimony for the treatment for plant additions?

7 A. No. At no time has GMO, Great Plains Energy, or KCPL, made any attempt to
8 discuss with Staff, Staff's proposal to address the prudence of the Iatan 1 environmental costs
9 even to assure itself that it understood Staff's proposal. The Company did not engage in any
10 discovery to assure itself that it understood Staff's position on this matter. The Company
11 misunderstood Staff's position and then devoted significant time and resources to dispute its
12 misunderstanding.

13 Q. When does KCPL anticipate the construction of the Iatan 1 environmental
14 equipment to be completed?

15 A. KCPL is working on finalizing and testing the newly installed environmental
16 equipment and presently anticipates the testing for the in-service criteria agreed to by the
17 Company and Staff to be completed sometime in April 2009.

18 Q. What is KCPL's estimate of the final construction costs for Iatan 1?

1 A. In KCPL witness Brent C. Davis direct testimony, KCPL identifies the Iatan 1
2 environmental cost estimates as follows:

3	\$ in millions	Control	Estimate	Increase
4		Budget	at	(Decrease)
5		<u>Estimate</u>	<u>Completion</u>	
6	Base Estimate	** _____ **	** _____ **	** _____ **
7	Project Contingency	** _____ **	** _____ **	** _____ **
8	Reserve Contingency	** _____ **	** _____ **	** _____ **
9	Total	** _____ **	** _____ **	** _____ **

10 [Source: Highly Confidential Schedule BCD-1 Davis' KCPL direct testimony filed in
11 Case NO. ER-2009-0089]

12 Q. What are Iatan common costs?

13 A. Common costs are those plant systems, equipment and facilities that provide
14 operational function to both units at Iatan, the original Unit 1 and the new Iatan 2.
15 An example of Iatan common costs is the emissions stack or chimney. This single chimney
16 facility has separate liners within it for the two generating units at Iatan. Buildings used for
17 equipment storage and shops may be common to both units. Water treatment facilities and
18 equipment are examples of common plant costs.

19 Q. What is the value of the Iatan common costs?

20 A. Not only have the common costs significantly changed a number of times but
21 the methodology for determining the common costs has changed.

22 The Iatan common costs as quantified by the Company can be summarized below:

23 **Iatan Unit 1 AQCS Project Costs**

24		<u>KCPL Share</u>	<u>GMO L&P Share</u>
25	January 21, 2009	** _____ **	** _____ **
26	February 6, 2009	** _____ **	** _____ **
27	March 26, 2009	** _____ **	** _____ **

28 [Source: E-mail transmittals from KCPL to Staff]

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1 Q. Did GMO and KCPL recently provide support for Iatan common costs?

2 A. Yes. Staff just received support for the most recent March 26th version of the
3 common costs on March 30, 2009. Staff will further examine common costs for the
4 Iatan facility.

5 Q. Are there issues with the Iatan common costs?

6 A. At this point it is not possible to know if there are going to be differences on
7 approaches of including common costs in rate base in this case. One element of concern
8 involves the chimney that is going to be used for both Iatan 1 and Iatan 2. In KCPL witness
9 Steven Jones rebuttal testimony filed in Case No. ER-2009-0089 at page 20, line 22, he states
10 "even though the Iatan Unit 2 chimney liner will not be utilized until 2010, the entire chimney
11 stack must be put into service in order to facilitate start-up and operations of Iatan 1
12 Unit AQCS." In KCPL witness Brent Davis' direct testimony, page 13, line 21 filed in
13 Case No. ER-2009-0089 he states "...it is appropriate to include a portion of the cost of the
14 new chimney in rates associated with the Iatan 1 projects and to allocate a portion to be in
15 rates associated with Iatan 2." This apparent difference in position with the Company will
16 have to be resolved in order to determine the proper level of common costs that should be
17 included in plant-in-service for the true-up portion of this case if Iatan 1 AQCS is fully
18 operational and used for service by the close of the true-up period.

19 Q. Will the common costs for Iatan 1 be included as part of the true-up audit?

20 A. Yes. Staff will have discussions and perform discovery on the common costs
21 for the Iatan 1 and 2 construction projects. Not only will the actual costs be considered during
22 the true-up review but also the allocation and assignment of these costs between the two
23 Iatan units. Costs associated with Iatan 1 will be included in the plant-in-service. I am under

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1 the impression that GMO and KCPL will be seeking an Accounting Authority Order (AAO)
2 for a portion of the common costs, i.e., those common costs associated with Iatan 2. Staff will
3 review any AAO proposal when and if GMO and KCPL provide such a proposal.

4 Q. Has GMO proposed to reduce its common costs by any reimbursements from
5 the Iatan 2 partners?

6 A. No. This is another item Staff must address to determine the amount of these
7 costs that should be recovered from GMO's customers.

8 Q. When does GMO anticipate the construction of the Sibley Unit 3 and
9 Jeffrey Energy Center Units 1 and 3 environmental equipment to be completed?

10 A. Sibley Unit 3 met its in-service criteria in the first quarter of 2009.
11 The Jeffrey Energy Center Units 1 and 3 environmental equipment were in service in 2008,
12 and the Jeffrey Energy Center Unit 2 is expected to be completed in second quarter 2009.

13 A. KCPL is working on finalizing and testing the newly installed environmental
14 equipment and presently anticipates

15 Q. Has Staff proposed similar treatment in this case that it has proposed
16 in past cases?

17 A. Yes. In KCPL's 2006 rate case, Staff did not complete the construction audit
18 regarding the Hawthorn 5 re-build which resulted from a boiler explosion that occurred in
19 February 1999. The unit was out of service until June 2001. Staff reviewed construction
20 costs for several combustion turbines installed at various times from May 1997 through 2003.
21 Staff did not complete its review of the Hawthorn 5 generating facility in the 2006 rate case.
22 Staff identified the units that it had completed its review and stated that it was unable to finish

1 the work to make a recommendation regarding the prudence of the Hawthorn 5 re-build.

2 I addressed this at page 25 of my direct testimony filed in Case No. ER-2006-0314.

3 Q. Was Staff able to go through the same review process
4 for Hawthorn 5 construction costs as it did for the
5 combustion turbine generators?

6 A. No. Unfortunately, with time constraints of the filing
7 deadline, Staff was not able to follow the same
8 approach for Hawthorn 5 that was used for the
9 combustion turbine generators. As an example, after
10 the initial discussion with personnel regarding each of
11 the combustion turbine generators construction, Staff
12 submitted follow-up questions, and reviewed additional
13 documentation. Follow-up discussion with KCPL
14 construction personnel took place with further review
15 of documentation and questions. With respect to the
16 West Gardner and Osawatomie generating units, Staff
17 talked to the KCPL project engineer three separate
18 times. Staff has not had the chance to complete the
19 review process of the Hawthorn 5 construction costs
20 using the same information gathering approach it has
21 used for the combustion turbine generators.

22 Q. Is the Hawthorn 5 construction project larger than the
23 combustion turbine projects?

24 A. Yes, substantially. . . .

25 * * * *
26 . . . Staff has only started the review of these files
27 within the last couple weeks of the audit. It is unlikely,
28 with the press of the remaining schedule for the KCPL
29 case, including the construction audit of the wind
30 turbines during the true-up portion of the case, that
31 Staff will be able to complete the document review.
32 Staff will not be able to complete the follow-up
33 interview process with Hawthorn 5 personnel. In fact,
34 Staff has questions that are outstanding regarding
35 interviewing KCPL construction management that Staff
36 wants to complete. For these reasons, Staff will
37 continue the Hawthorn 5 construction cost review in
38 the next rate case filed by KCPL, which is currently
39 scheduled to be filed February 1, 2007, according to the
40 KCPL Experimental Regulatory Plan.

1 Q. Did KCPL express any concerns regarding the delay of Staff's review of
2 construction costs regarding the re-build of Hawthorn 5?

3 A. No. KCPL did not express any concerns at all either in discussions it had with
4 Staff or did it provide responsive testimony on this subject. Staff's alternative proposal to
5 defer the issue of the prudence of the Iatan 1 environmental costs until a future case without
6 the rates being interim subject to refund is the same as the position taken in
7 KCPL's 2006 rate case referenced above regarding the review of the re-build of Hawthorn 5.

8
9 **CROSSROADS ENERGY CENTER GENERATING UNIT**

10 Q. GMO witness Mr. Crawford states, at page 9 of his rebuttal testimony, that
11 GMO "concluded that the Crossroads Energy Center would result in the lowest 20-year
12 NPVRR, including the cost of transmission service." Does Staff agree that this is the lowest
13 cost generation that GMO should have considered?

14 A. No. GMO proposes to include a new generating unit in its rate base.
15 The history and decision regarding including Crossroads in rate base is discussed in the direct
16 and rebuttal testimonies of Staff witnesses Mantle and Hyneman. My surrebuttal testimony
17 focuses on the history and decision of GMO (Aquila) during the period 1999 to 2005 when
18 the Company needed generating capacity as result of its load growth.

19 Q. Why does Staff not agree that Crossroads does not represent GMO's least cost
20 option?

21 A. Staff believes that the time period of 2007 that GMO is relying on to evaluate
22 the costs of this generating capacity is misplaced and well past the time when this capacity
23 was needed by the Company. The time that is relevant to the evaluation of least cost capacity
24 planning for GMO is the time period of 2004 when the Company had to make decisions

1 regarding its replacement of the 500 megawatt Aries purchased power agreement that expired
2 May 31, 2005. This agreement was originally with an affiliate of Aquila who owned and built
3 Aries with its partner, Calpine. GMO (Aquila) signed a five-year purchased power agreement
4 with Aquila Merchant for MPS.

5 Upon termination of the 500 megawatt Aries purchased power agreement,
6 GMO (Aquila) committed to replacing part of its capacity shortfall with three combustion
7 turbines that an Aquila affiliate had in storage - the combustion turbines it installed at
8 South Harper. In January 2004, Aquila informed Staff that it was going to use these
9 combustion turbines to partially replace the 500 megawatts of capacity it had been obtaining
10 from the Aries station in order to meet its capacity needs during the summer of 2005 peak
11 season. At the time, Staff questioned GMO (Aquila) why it was only installing three
12 combustion turbines, when the Company's own analysis showed the least costs planning to
13 replace the 500 megawatt Aries PPA was to install five combustion turbines. In 2004,
14 GMO explained that it only had three combustion turbines to install and it also thought there
15 were attractive short-term purchased power agreements available for the summer of 2006
16 which was the summer after the South Harper units were to become operational.

17 Q. Did Staff accept this explanation by GMO (Aquila)?

18 A. No. Staff continued to express its concerns it had previously communicated to
19 GMO (Aquila) many times that Staff believed the best approach for the Company was to
20 pursue the installation of three combustion turbines that were eventually installed at
21 South Harper and to build additional generating capacity making up the shortfall.
22 Staff expected GMO (Aquila) to build five combustion turbines making up approximately

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1 525 megawatts of capacity which would have more than adequate to replace
2 Aries 500 megawatts of capacity.

3 Q. Did GMO (Aquila) ever have an opportunity to purchase Aries after its
4 unregulated affiliate sold its interest to Calpine?

5 A. Yes. In late 2006, GMO (Aquila) informed Staff that it had planned to bid on
6 Aries unit that was put up for sale by its former partner, Calpine. Aquila bid for this
7 generating facility on December 4, 2006, but was not the successful bidder.

8 Q. Would you briefly describe the Aries and Iatan 2?

9 A. Yes. Aries is a 585 megawatt combined cycle facility and would have more
10 than met MPS' system load requirements for 2007 and beyond, possibly through 2010 when
11 Aquila's share of Iatan 2 Generating facility is expected to go into service. Iatan 2 is a
12 coal-fired generating plant which is currently being built by Kansas City Power & Light
13 Company (KCPL) and, in which Aquila has an 18 percent ownership share.

14 Q. Did Calpine's sale of Aries in 2006 influence GMO (Aquila's) decision to
15 build new capacity?

16 A. Yes. Because GMO (Aquila) did not need peaking capacity in addition to the
17 585-megawatt Aries combined cycle facility, it would not commit to building combustion
18 turbines before Calpine sold Aries.

19 Staff believes that GMO (Aquila's) decision to build Aries as merchant plant caused
20 the problems with its capacity planning. Aries was previously owned by GMO (Aquila) as a
21 non-regulated unit. GMO (Aquila) sold a 50% share of Aries in late 1999 to Calpine.
22 If GMO (Aquila) had built this plant as a regulated facility, there would not be the capacity
23 issues that have plagued GMO (Aquila) over the past several years. With ownership and

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1 control of the Aries capacity, GMO (Aquila) would not be subjected to the capacity market
2 year after year.

3 Q. Since GMO (Aquila) did not acquire the Aries Unit how did it meet its
4 capacity needs during the summers of 2007 and 2008 to meet system loads?

5 A. With short-term purchased power agreements for capacity from Crossroads.

6 Q. Why is the time frame of the Aries contract which ended in 2005 relevant to
7 the discussion of Crossroads?

8 A. Since GMO has taken the position through Mr. Crawford's rebuttal testimony
9 that Crossroads is the most economical capacity generation available to the Company, it is
10 essential to any assessment of the Crossroads facility to understand that it is GMO's actions
11 that positioned so that it appears on the surface this rate base decision looks good in 2007.
12 Staff believes, however, that the relevant time period is when the Aries contract ended in
13 2005, not two years later in 2007. The costs of combustion turbine acquisition and
14 installation in 2005 are substantially different than in the 2007 and 2008 time period.
15 For capacity replacement to have occurred by May 2005, GMO (Aquila) would have had to
16 have purchased the turbine equipment by 2004. The combustion turbine market in 2004 was
17 completely different than the market during 2007 and 2008 when GMO made its analysis and
18 concluded that Crossroads was the least cost decision.

19 Q. How did GMO base its decision that Crossroads was its least cost capacity
20 decision in 2007 and 2008?

21 A. GMO witness Mr. Crawford generally describes the process GMO (Aquila)
22 went through to determine that Crossroads was the best decision for the Company at page 9 of
23 his rebuttal testimony. GMO (Aquila) received responses from a request for proposal (RFP)

1 for purchased power agreements and self-build options. The self-build options contained
2 prices for turbines and equipment priced at 2007 costs. These costs would have significantly
3 increased compared to when GMO (Aquila) should have evaluated the capacity addition in
4 2004. To suggest that Crossroads is an economic decision as GMO indicates in
5 Mr. Crawford's rebuttal testimony is simply wrong.

6 Q. GMO witness Crawford states at page 12 of his rebuttal testimony
7 that GMO considered self-build options but "Crossroads was determined to be a lower cost
8 option than self-building." Does Staff agree that Crossroads is a low cost option for GMO
9 to meet its generating needs?

10 A. No. The comparison that GMO (Aquila) made prior to the acquisition was
11 based on the wrong time period. Aquila examined the costs in 2007 but that was three years
12 after the analysis should have been done. By 2007, the combustion turbine had increased
13 substantially causing Aquila to make the wrong decision on the costs of Crossroads.
14 The analysis that was done used inflated turbine costs over those that the Company could
15 have received had they pursued the self-build option in 2004 as opposed to 2008.
16 More important, Aquila likely would have never considered adding a power plant located in
17 Mississippi to its generating fleet unless the costs were substantially lower than any other
18 option. Since having a power plant several hundred miles from the Company's load center
19 presents logistic problem for operations and maintenance and, in particular, substantial costs
20 to transport the power back to GMO's customers. Clearly, it is beneficial to have the
21 generating fleet close to where the electricity is going to be used.

22 Had KCPL or GMO ever seriously suggested to consider the Crossroads facility Staff
23 would have wanted to know the magnitude of the additional costs that would be involved in

1 managing the plant facility and the substantial costs relation to the transmission of the power.
2 Those are costs that are incurred as long as the plant is needed for system load requirements.

3 **GMO (AQUILA) 2004 LEAST COST PLANNING DECISION**

4 Q. Mr. Crawford states at page 4 of his rebuttal testimony that "Staff relied on
5 analysis conducted by the Company." Is this correct?

6 A. Yes. As part of GMO's (Aquila) commitment to the resource planning process,
7 it presented findings from its least cost planning study in 2004. This analysis was based on
8 responses GMO (Aquila) had received from RFP's (similar to the REF process GMO used to
9 support its Crossroads decision in 2007). The 2004 analysis concluded that the least cost plan
10 to replace the Aries purchased power agreement was the construction and installation of five
11 combustion turbines, with each unit sized at 105 megawatts, totaling 525 megawatts of
12 capacity. Staff expressed to the Company that it thought the least cost plan was the best
13 course for GMO (Aquila) to follow. Attached as Highly Confidential Surrebuttal Schedule 1
14 is the 2004 integrated resource planning presentation regarding its Resource Planning dated
15 February 9, 2004.

16 The RFP process that GMO wants to ignore from the 2004 time period is the same
17 RFP process used by GMO in 2007 that it now embraces to support its view that Crossroads
18 is the most economic decision. While there is nothing wrong with the 2007 RFP process that
19 GMO conducted to determined its future capacity planning needs this analysis just is not the
20 one that would address GMO's (Aquila) earlier capacity needs in the 2005 time frame.
21 The actual decision needed to be made in 2004 because of the May 2005 expiration of the
22 Aries 500 megawatt purchased power agreement. GMO used the right analysis, just at the
23 wrong time.

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1 Q. Did Staff rely on GMO's (Aquila) least cost plan approach in previous
2 GMO (Aquila) rate cases?

3 A. Yes. After the completion of the Aries capacity agreement, GMO (Aquila)
4 constructed three combustion turbines at its South Harper facility. This facility was originally
5 sized to accommodate up to six combustion turbines with at least the size of the Siemens
6 model 501 D, each having 105 megawatts of capacity. The three installed combustion
7 turbines total 315 megawatts. Staff supported the use of the cost of these units in rate base in
8 the 2005 rate case. However, the South Harper site was subject to significant legal challenges
9 resulting in the Commission to have to rule on GMO's authority to construct South Harper
10 and these units three separate times. Therefore, Staff used the costs of South Harper as a
11 surrogate, or proxy, in GMO's (Aquila) 2005 (Case No. ER-2005-0436) and 2007
12 (Case No. ER-2007-0004) rate cases. In addition to the three combustion turbines,
13 Staff included the capacity for two more combustion turbines of the same size,
14 105 megawatts.

15 Q. Has Staff included the South Harper Generating Facility in the rate base of
16 MPS?

17 A. When Staff had to file its direct testimony in this case on February 13, 2009,
18 the legal process had not been fully completed. Since that time, it is my understanding that
19 the legal issues surrounding the South Harper facility are now resolved with the March 28,
20 2009 effective date of the Commission's Report and Order in Case No. EA-2009-0118.
21 Staff now considers the South Harper facility to be in rate base in this case. In addition to
22 South Harper generation Staff continues to support the two additional 105 megawatt
23 combustion turbines addressed at pages 85 to 93 in the Staff Cost of Service Report,

1 and rebuttal and surrebuttal testimonies of Staff witnesses Lena M. Mantle
2 and Charles R. Hyneman.

3 **GMO (AQUILA'S) CAPACITY PLANNING AND ADDITIONAL**
4 **PEAKING TURBINES**

5 Q. At page 4 of GMO witness Mr. Crawford's rebuttal testimony, he identifies the
6 February 2004 meeting where the least cost plan was provided to Staff. Did you attend
7 meetings between GMO (Aquila) and Staff regarding GMO (Aquila's) decision to build
8 South Harper?

9 A. Yes. On January 27, 2004, Staff met with several GMO (Aquila) personnel,
10 including Mr. Richard C. Green, then GMO (Aquila's) Chairman, Chief Executive Officer and
11 President. During that meeting GMO (Aquila), based on its 2004 resource plan, committed to
12 install three combustion turbines by June 2005. GMO (Aquila) had these units in storage at
13 its Ralph Green plant located at Pleasant Hill, Missouri. Within the next couple of weeks, in
14 early February 9, 2004, GMO (Aquila) held a second meeting with Staff and Public Counsel
15 at GMO (Aquila's) 6-month Integrated Resource Planning (IRP) presentation to provide the
16 results of GMO (Aquila's) review of its capacity needs. At this meeting GMO (Aquila)
17 provided its analyses of its least cost and preferred plans. Staff questioned GMO (Aquila)
18 about it's analysis of the Preferred Plan, but Staff did express its concerns
19 with GMO (Aquila's) capacity planning effort, and Staff took strong exception with GMO
20 (Aquila) as to why GMO (Aquila) was not pursuing the building of more generating assets,
21 particularly if that was GMO (Aquila's) "least cost" plan.

1 Q. Did GMO (Aquila) only evaluate its preferred plan?

2 A. No. When GMO (Aquila) developed its capacity plan and presented it to Staff
3 in January 2004, GMO (Aquila) determined that its least cost plan was to install
4 five combustion turbines, not three. At the February 9, 2004, IRP meeting, GMO (Aquila's)
5 lowest cost plan on a net present value revenue requirements over a 20-year period identified
6 replacing the Aries Agreement by constructing five combustion turbines totaling
7 535 megawatts, instead of the three totaling 315 megawatts that they installed at the
8 South Harper facility.

9 Staff asked GMO (Aquila) why it was not pursuing its least cost plan, instead of
10 installing three turbines. GMO (Aquila) indicated that it only had three combustion turbines
11 in storage at the time and planned to use them in its preferred plan. With its preferred plan,
12 GMO (Aquila) would make up the capacity shortfall resulting from the expiration of the Aries
13 Agreement with purchased power agreements.

14 Q. When did GMO (Aquila) begin planning to replace the power it was taking
15 under the Aries Agreement?

16 A. Power from the Aries Agreement ended May 31, 2005. So GMO (Aquila)
17 needed to have replacement capacity by that date. GMO (Aquila) started planning to replace
18 the Aries agreement by issuing Request for Proposals (RFPs) as early as the spring of 2001.
19 In response to Data Request No. 166 (Case ER-2005-0436) concerning the Aries replacement
20 power (attached as Highly Confidential Schedule 2) Aquila provided a history of its capacity
21 planning process, with much emphasis on replacing the Aries agreement in 2005.

22 From the time GMO (Aquila) signed the Aries agreement in February 1999,
23 GMO (Aquila) started considering replacing the Aries capacity, but only with purchased

1 power agreements. Even though the combustion turbines that are presently installed at the
2 South Harper facility had been in storage since beginning August 2002, it was not until the
3 January 2004 meeting that GMO (Aquila) committed to building a generating plant.

4 Q. How did GMO (Aquila) meet its capacity requirements after the summer of
5 2005 when South Harper was complete?

6 A. Since GMO (Aquila) did not build its least cost plan of five combustion
7 turbines, it relied on short term agreements in each of the years from 2006 to 2008.

8 Q. Does Staff believe that GMO (Aquila's) capacity planning was prudent?

9 A. No. Staff has been very critical of GMO (Aquila) approach to addressing its
10 capacity needs for its system. Examples of GMO (Aquila's) decision making:

- 11 • Having a corporate policy not to build regulated generation evidenced by not
12 having built generation since 1983, except for South Harper in 2005 which
13 effects the regulated operations to this day.
- 14 • In 1997 attempted to move all generating assets to an Exempt Wholesale
15 Generator (EWG), Case No. EM-97-395.
- 16 • MPS Resource planning in 1992 determined need for a combined cycle unit
17 by 2000 for MPS yet Aquila's corporate decision made to build unit as a non-
18 regulated merchant plant (Aries) after regulated operations did most of the
19 preliminary work for the development of the project.
- 20 • MPS purchased power agreement from 2001 to 2005 from a non-regulated
21 GMO (Aquila) affiliate (Aries Agreement).
- 22 • GMO (Aquila) sold its 50% share of Aries giving its partner ** _____
23 _____ ** to take unit over.
- 24 • GMO (Aquila) attempts unsuccessfully to re-acquire Aries in 2006.
- 25 • Despite having a known certain date to replace the Aries Agreement by
26 June 2005, GMO (Aquila) did not timely plan for the replacement of this
27 capacity. Until January 2004, did not seriously consider building generation
28 instead looking at another purchased power agreement from an affiliate
29 (Aries II).

- 1 • GMO (Aquila) attempts to sell at steep discounts three turbines which were
2 to be installed at Aries as Aries II in 2002. Units were placed in storage.
3 While units were for sale, at no time were the units ever considered or
4 offered to MPS to meet its growing capacity needs before 2004. In January
5 2004 GMO (Aquila) made decision to replace Aries Capacity Agreement
6 with three combustion turbines it had left over from its merchant business.
7 These units had been in storage since 2002 during which the units' warranty
8 expired. Units were eventually installed at the South Harper facility.
- 9 • South Harper legal issues caused by having to move forward on project to
10 get units in service by June 2005 to replace Aries Agreement. Since GMO
11 (Aquila) already had possession of units since 2002, appropriate planning
12 could have taken place much earlier than it did providing ample time to get
13 necessary community support.
- 14 • GMO (Aquila) had many combustion turbines, three of which were new
15 units, in its asset portfolio that it sold at distressed values resulting in
16 hundreds of millions of dollars of impairment charge losses that the
17 Company did not consider to use for its regulated operations despite MPS'
18 need to for capacity. (Raccoon Creek, Goose Creek and General Electric 7
19 EAs combustion turbines).
- 20 • In 2000 Aquila re-acquired MPS' four combustion turbines at Greenwood
21 which it had built starting in 1975 and sold under a sale lease back which had
22 a provision where the Company could acquire the units at the end of the
23 lease at the existing market value. Aquila re-acquired the units at greater
24 than the original purchase price even though the units were 25 years old.
25 The units were reacquired by a Aquila non-regulated MPS affiliate with a
26 corporate decision that MPS entered into a 15-year purchased power
27 agreement. This agreement was ultimately terminated and the units were
28 moved back in the regulated operations of MPS. The 25-year old units are
29 now in rate base at a greater amount than what they were originally
30 purchased for. Customers will have in essence paid for these units
31 twice- once through the lease and now in rate base.

32 The foregoing demonstrates that Aquila has not had appropriate and effective
33 decision-making regarding its resource plans or its resource planning process. These events
34 and circumstances are not the actions of a typical utility this Commission regulations.

1 **SOUTH HARPER COMBUSTION TURBINE VALUES**

2 Q. What value is Staff using for the South Harper site and three combustion
3 turbines, and which Staff used for its cost of the MPS facility and what it referred to in earlier
4 testimony as Turbines 1 through 3 of the MPS facility?

5 A. In Case No. EO-2005-0156, GMO (Aquila), Office of Public Counsel and
6 Staff agreed to a value of \$66.76 million for the combustion turbines, or \$22.25 million per
7 turbine. The cost for these turbines is \$211.9 per kilowatt (\$66.76 million divided
8 by 315,000 kilowatts). GMO (Aquila) wrote down the turbines to the agreed upon amount
9 and has reflected that amount on its books and records. Both GMO (Aquila) and Staff have
10 included the written down value of \$66.76 million for the three turbines in this case.

11 Q. Was the amount for the turbines agreed to in Case No. EO-2005-0156 the level
12 supported by Staff?

13 A. Yes. Staff filed extensive testimony in that case supporting the amount that
14 was finally agreed to by GMO (Aquila), the Office of Public Counsel and Staff.

15 Q. Would you quantify each of the write-downs?

16 A. GMO (Aquila) made a write-down of over \$10 million in November 2004 to
17 reflect, what it believed was a fair value for the three turbines installed at South Harper.
18 Additionally, GMO (Aquila) agreed to an almost \$4 million additional write-down when it
19 agreed to value the turbines at the \$66.76 million.

20 Q. Does Staff have market value information for valuing the South Harper
21 combustion turbines?

22 A. Staff filed testimony in Case No. EO-2005-0156 to support a valuation of
23 \$66.76 million for the three South Harper turbines, including related equipment. At one time

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1 GMO (Aquila) offered to sell the turbines for \$69 million including a warranty, to KCPL.
2 That offer formed the basis for the Staff's valuation. Attached as Highly Confidential
3 Schedule 3 are documents relating to GMO's (Aquila's) offer to KCPL provided in
4 Data Request No. 38 in Case No. EO-2005-0156. Also, Schedule 4 is a table identifying the
5 various values Staff considered for these units (Data Request No. 5 in Case No.
6 EO-2005-0156).

7 Q. How did Staff arrive at a valuation of \$66.76 million?

8 A. Because the warranty for the combustion turbines expired while they were in
9 storage, the \$69 million was adjusted downward by \$2.240 million to reflect the estimated
10 value of the warranty. This estimate of \$2.240 million originated from GMO (Aquila) and
11 was the result of discussions it had with the turbine manufacturer and a consultant
12 (R.W. Beck) hired to assist in developing a fair value of the units.

13 Q. Who manufactured the three combustion turbines?

14 A. These combustion turbines were manufactured by Siemens and are identified
15 as 501D5A with a capacity rating of 105 megawatts each, resulting in 315 megawatts of total
16 station capacity.

17 Q. Did GMO (Aquila) purchase these units for its MPS system?

18 A. No. The units were originally purchased by an GMO (Aquila) affiliate,
19 Aquila Merchant in 2002 under an agreement signed in September 2001. Originally, the units
20 were to be installed at the Aries Generating Facility and called Aries II. Those plans were
21 cancelled in July 2002 during the period of the collapse of the merchant business that affected
22 Aquila Merchant especially hard. The Company started taking delivery of the units in

1 August 2002 and stored them at GMO's (Aquila's) regulated plant, Ralph Green Generating
2 Facility until they were moved in March 2005 to South Harper.

3 Q. How did GMO (Aquila) originally intend to use these three combustion
4 turbines?

5 A. GMO (Aquila) intended to install them at its Aries site and sell power from
6 them to MPS. It was expected that once Aries II went into service, MPS would enter into a
7 purchased power agreement between an GMO (Aquila) affiliate, Aquila Merchant and MPS.
8 The term for the agreement was to be for 15 years starting June 1, 2005, to coincide with the
9 expiration of the Aries agreement May 31, 2005. The expected return on investment for this
10 Aquila Merchant project was between ** _____ ** [source: Data Request
11 No. 58 in Case No.EO-2005-0156, Highly Confidential Schedule 5-5].

12 Q. When did GMO (Aquila) decide to use the combustion turbines for its
13 regulated operations, and to include their costs in rate base?

14 A. Staff was informed of this decision on January 27, 2004, in a meeting with
15 GMO (Aquila's) then Chief Executive Officer, Richard Green. At this meeting, Mr. Green
16 committed that the three turbines in storage would be deployed for the regulated electric
17 operations in Missouri.

18 These units were installed at South Harper and were declared commercial by
19 GMO (Aquila) on June 30, July 1, and July 14, 2005.

20 Q. Why do you believe GMO (Aquila) built South Harper?

21 A. GMO (Aquila) had the three combustion turbines in storage. While GMO
22 (Aquila's) MPS regulated operations needed the capacity, GMO (Aquila) attempted

1 unsuccessfully to sell these combustion turbines to unaffiliated entities. GMO (Aquila)
2 finally committed to installing these units for MPS in January 2004.

3 Absent having the three combustion turbines left over from GMO (Aquila's) merchant
4 business, Staff believes GMO (Aquila) would not have built any peaking capacity. Staff has
5 seen no evidence that indicates GMO (Aquila) had any intention of using the combustion
6 three turbines for MPS' operations. To the contrary, the documentation indicates just the
7 opposite-- that GMO (Aquila) made every attempt to sell the combustion turbines.

8 Q. When did GMO's then Aquila Networks-MPS operating division learn of the
9 three combustion turbines it installed at South Harper?

10 A. At the summer 2002 IRP meeting, MPS identified the need for capacity to
11 replace the Aries agreement that was expiring May 31, 2005. Staff indicated to MPS'
12 Resource Planning Group that three combustion turbines existed within GMO (Aquila's)
13 organization; and inquired if they would be considered to replace the Aries capacity.
14 The GMO (Aquila) personnel attending the meeting stated they were unaware of the existence
15 of these combustion turbines. At the summer of 2003 IRP meeting MPS' Resource Planning
16 Group personnel indicated that they were still unaware of the existence of these combustion
17 turbines and, therefore, could not model them. At that time, GMO (Aquila) was considering
18 only purchased power agreements for replacing the Aries capacity. At this 2003 meeting,
19 Staff made it clear that it knew GMO (Aquila) had the combustion turbines in storage, and
20 inquired why GMO (Aquila's) Resource Planning Group was not considering those
21 combustion turbines to meet MPS' capacity requirements in lieu of purchased power
22 agreements. MPS responded that it could only consider what it knew was available, and those
23 combustion turbines were not available for MPS' capacity requirements.

1 Q. Did GMO (Aquila) ever consider the three combustion turbines for meeting
2 MPS' capacity requirements?

3 A. Yes. When Aquila Merchant planned on installing these combustion turbines
4 at the Aries facility as a non-regulated merchant plant, GMO (Aquila) was negotiating with
5 itself (its affiliated company), Aquila Merchant, to enter into a 15-year purchased power
6 agreement with MPS. Highly Confidential Schedule 5 is a presentation made by
7 GMO (Aquila's) Capital Deployment Group entitled "Aries II - Peaking Power Facility" dated
8 March 5, 2002, identifies that these combustion turbines were to provide capacity to
9 MPS through 2020.

10 After GMO (Aquila's) merchant business collapsed in mid-2002, GMO (Aquila)
11 decided in July 2002 not to deploy the three combustion turbines at the Aries site. At this
12 point, these three combustion turbines were no longer considered for meeting MPS' capacity
13 needs. GMO (Aquila) finally decided in January 2004 to use this capacity for MPS, after no
14 other home was found for the three combustion turbines.

15 Q. When did GMO (Aquila) last consider a self-build option to meet its capacity
16 requirements?

17 A. GMO witness Mr. Crawford indicates in his rebuttal testimony at page 9 that
18 GMO (Aquila) considered self-build options in 2007. Also, GMO (Aquila's) Generation
19 Group submitted on February 20, 2006, a response to GMO (Aquila's) January 17, 2006,
20 request for proposal. This proposal included several different options for different combustion
21 turbines at a variety of locations. One of the proposed options was ** _____

22 _____ **.

1 This proposal was not pursued by GMO (Aquila). Instead GMO (Aquila) relied on purchased
2 power agreements to meet each peak summer's requirement from 2006 to 2008.

3 Prior to this response, GMO (Aquila's) Generation Group, on November 22, 2004,
4 submitted a response to GMO (Aquila's) October 15, 2004, request for proposal for capacity
5 year 2007 [Data Request No. 166, in Case No. ER-2005-436]. However, GMO (Aquila)
6 made no attempt to consider meeting MPS' capacity needs by purchasing any combustion
7 turbines. GMO (Aquila) did not contact combustion turbine manufactures for bids nor did it
8 attempt to negotiate a contract with any combustion turbine supplier. Consequently, GMO
9 (Aquila) was not in any position to seriously consider installing more generating assets.
10 GMO (Aquila) did not consider meeting its system load requirements by any means other
11 than purchasing the capacity.

12 Prior to early 2006, GMO (Aquila) did not consider several options that other utilities
13 have pursued, options such as: 1) seeking from combustion turbine manufactures new
14 combustion turbine sale offers; 2) requesting offers from combustion turbine manufacturers
15 for new equipment that has been released by the original buyer before delivery, which vendor
16 manufacturers discount; 3) pursuing the gray market for combustion turbines from non-
17 turbine manufactures; and 4) examining access to existing facilities Aquila owned and
18 ultimately sold to third party non-affiliates, such as AmerenUE.

19 **COSTS VALUATION OF CROSSROADS**

20 Q. GMO witness Mr. Crawford states at page 11 of his rebuttal testimony that
21 since the Company received offers for long-term capacity and energy options from
22 two non-affiliates that supported Crossroads being "determined to be the lowest cost option."

23 Do you agree with this assertion?

1 A. No. As stated previously, GMO conclusions are faulty because they examined
2 and compared the market prices for capacity, in particular, the self-build option during the
3 wrong time frame. The decision to replace the Aries capacity was in 2004 for installation by
4 summer of 2005. The March 19, 2007 GMO request for proposal was three years too late.
5 Any analysis that would need to be done to make cost determinations for Crossroads would
6 have had to use turbine pricing well before the 2007 time frame. Combustion turbine costs
7 have increased significantly since 2003 and 2004.

8 Q. Are the turbine costs at Crossroads overstated?

9 A. Yes. The value of Crossroads is substantially overstated because the four
10 combustion turbine installed at that facility were purchased at a time when turbine
11 manufactures were selling those units in sellers' market during very high prices.
12 GMO (Aquila) had many opportunities to acquire turbine capacity for installation in and
13 around its load center at greatly reduced prices compared to those for the Crossroads facility.
14 If the Commission allows Crossroads in rate base it should do so at a substantially reduced
15 amount than what GMO is requesting in this case.

16 The four Crossroads turbine are book valued at approximately ** ____ ** million
17 each, or a total of ** ____ _ ** million. Staff believes those values should be significantly
18 reduced in the range of ** _____ ** million each or total range of ** _____ **
19 million for inclusion in rate base based on sales and offers to other utilities made
20 by GMO (Aquila). This would reduce the increased costs of operating a plant facility that
21 has higher annual transmission costs, natural gas fuel costs, and transmission investment over
22 and above the levels that would have existed if GMO (Aquila) would have installed capacity
23 at existing plant sites such as South Harper.

1 In addition to the turbine values being over stated, the costs of the transmission plant
2 at Crossroads is higher than it would be if GMO (Aquila) would have installed the turbines at
3 an existing site such as South Harper. Staff believes that the there was a ** — ** million
4 amount that was estimated for transmission upgrades at the Aries site where those three
5 South Harper turbines were originally planned to be installed. Crossroads transmission is
6 substantially higher than this transmission upgrade estimate.

7 Staff believes that the annual transmission expenses will be higher for the Crossroads
8 units because of where they are located. If the turbines would have been installed in the
9 Kansas City area the transmission costs would be dramatically less.

10 Staff believes that the natural gas costs will be higher at Crossroads than it would be if
11 the capacity was located in the Kansas City area.

12

13 **COMBUSTION TURBINE COSTS**

14 Q. What is your basis for asserting combustion turbine prices have gone up since
15 the time that GMO should have made decision in 2004 to replace the 2005 Aries capacity
16 agreement?

17 A. In every case since the 2005 rate case Staff has reviewed pricing of combustion
18 turbines. Like previous GMO rate cases, Staff reviewed the industry publication
19 of *Gas Turbine World* for the publication years 2007-2008 and 2009. In the 2007-2008
20 GTW Handbook, *Gas Turbine World* reports that turbine prices increased 20 to 30 percent
21 over 2006 levels. At page 29 of this industry publication the following appears:

22 **Seeing dramatic increase in prices**

23 During the past 18 months we have seen power plant equipment
24 prices increase by as much as 20-30 percent over pre-2006
25

1 levels. Meanwhile delivery schedules have stretched out
2 to 16-18 months from 12 months or less, as growing demand
3 puts strain on available manufacturing capacity.
4

5 Special orders that require additional engineering can add seven
6 months of lead time.

7 The rise in equipment price levels since 2006 has been driven
8 by a worldwide increase in cost of materials, higher
9 manufacturing costs, and growing market demand.
10

11 Over the last few years, copper has more than tripled to \$3.40
12 per pound from around \$1, molybdenum six-fold to \$31 per
13 pound from around \$5, aluminum almost doubled to \$2,800 per
14 ton from \$1,500, and nickel almost quadrupled to \$31,000 per
15 ton form \$8,000.

16 Staff's review of the Gas Turbine World identified that General Electric's new model
17 that replaced the 7 EA model that is installed at Crossroads is valued at \$19.5 million in the
18 2007-2008 GTW Handbook and \$25.9 million in the 2009 GTW Handbook. This indicates
19 that prices in the 2007 and 2008 time period shows substantial increases over the time that
20 GMO (Aquila) should have installed turbines to meet the capacity needs of its customers back
21 in 2005.

22 Q. Were the General Electric 7 EA model combustion turbines valued less in the
23 2004 time period?

24 A. Yes. At a time GMO (Aquila) should of added capacity the General Electric
25 7EA models were significantly less than the Crossroads of 2001. *Gas Turbine World* reported
26 in its 2004-2005 Handbook that these units were selling for \$14.8 million. The 2003 price
27 was \$16.6 million and the 2000-2001 price was \$21 million. This compares to the actual
28 Crossroads book value of ** — ** million each. The volatility of the natural gas market
29 contributed to the decline in sales of gas-fired generation on top of a market decline caused by
30 the implosion of the merchant energy market during the 2002 to 2005 time period.

1 This would have been an ideal time to purchase capacity if a utility needed generation, which
2 GMO (Aquila) did.

3 In 2006, the price for the General Electric 7 EA (new model PG7121(EA)) had gone
4 up to \$19.2 million according to the 2006 Handbook.

5 The South Harper Siemens 501D5A units saw prices follow the same pattern going
6 from high at the start of the decade to significant price reductions during 2003 and 2004 time
7 frame. In the "2004-05 GTW Handout, published by *Gas Turbine World*, the price of
8 Siemens 501D5A was quoted at \$18.7 million. In the 2003 Handbook, the value
9 was \$19.9 million and the 2000-2001 Handbook had 5015DA priced out at \$25.5 million.
10 Based on the information, the market cost of these units has been trending downward during
11 the time Aquila would have been needed the five turbines to replace the Aries Agreement.

12 However, recently the 2006 Handbook identified a significant price increase for the
13 Siemens 501D5A (new model SGT6-3000E) to \$22.8 million per unit.

14 Q. Is the \$18.7 million amount for the Siemens 501D5A solely for the cost of the
15 turbine, or does it include related costs?

16 A. *Gas Turbine World* does surveys of the industry and contacts turbine
17 manufactures to determine its pricing information. Some of its data is for actual purchases
18 made by companies - regulated utilities and merchant companies alike. While there may be
19 added costs for these turbine prices because a utility may want specific features based on
20 individual needs like dual fuel source burning capability and fast-start capability, typically
21 these are prices what the industry relies on to trend costs of turbine equipment.

1 Q. What information, other than the \$69 million offer to KCPL for the
2 South Harper turbines, is Staff aware of bearing on the valuation of the three combustion
3 turbines GMO (Aquila) installed at the South Harper Facility?

4 A. GMO (Aquila) has made offers to sell turbines to third parties and has sold or
5 given up rights to several turbines over the past several years. Staff has reviewed documents
6 relating to these offers and sale transactions which identified the pricing of turbines from
7 2002 to present.

- 8 1) GMO (Aquila) had four General Electric model 7EA natural
9 gas-fired 75 megawatt turbines that it sold in 2003.
- 10 2) GMO (Aquila) sold to AmerenUE its Goose Creek and Raccoon
11 Creek Generating Facilities in 2006.
- 12 3) GMO (Aquila) had an offer from Rolls-Royce Power Company
13 to sell two Siemens 501 D5A natural gas-fired combustion
14 turbines.
- 15 4) Staff has seen offers made by turbine manufacturers to another
16 Missouri utility in the range identified in the *Gas Turbine*
17 *World*.

18 **GENERAL ELECTRIC 7 EAS**

19 Q. At what price did GMO's (Aquila's) affiliate sell its General Electric
20 combustion turbines?

21 A. Aquila Merchant sold three turbines with rated capacity of 75 megawatts each,
22 to two non-affiliates for ** ____ ** million or ** ____ ** million each and a third turbine
23 was sold for ** ____ ** million. All three turbines were sold substantially below the
24 original purchase price of ** ____ ** million [Data Request No. 77 in Case No.
25 EO-2005-0156]. The average price entities in 2003. Two were sold that Aquila Merchant
26 sold these three units was ** ____ ** million [** ____ ** million plus ** ____ **

1 million divided by three]. Using this average price, GMO (Aquila) would have had a far
2 better price at which to deploy these three General Electric turbines to meet its regulated
3 system requirements and greater megawatt capacity. These prices compare with the
4 Crossroads turbine values of ** — ** million per unit price for the same GE 7 EA model
5 that GMO is expecting to put into rate base in this case.

6 The total costs for the three General Electric turbines sold to third parties would be
7 ** — ** million with a total capacity of 225 megawatts, or ** — ** per
8 kilowatts, far below the three Siemens turbine costs used at South Harper. Two 501D5A
9 turbines are 210 megawatts of capacity compared to the 225 megawatts of capacity of three
10 General Electric 7EA turbines would have been retained by Aquila and installed at South
11 Harper, or another existing site. It would have been more cost effective to install the three
12 General Electric 7EAs having greater capacity than the two Siemens units. Staff, in pricing of
13 two additional turbines, chose to include the higher costs of the Siemens turbines to be
14 conservative in its costing of these units.

15 Q. Where were the purchasers of these combustion turbines located?

16 A. Two turbines were sold to a utility in Beatrice, Nebraska, and the third turbine
17 was sold to a utility in Colorado (Data Request No. 43 in Case No. EO-2005-0156).

18 Q. Did Aquila Merchant have any other General Electric combustion turbines?

19 A. Yes. Aquila Merchant originally purchased 18 General Electric 7 EAs, taking
20 delivery and deploying 10 turbines at two different site locations in Illinois (these turbines
21 will be discussed later). Four other turbines were deployed at the Crossroads Energy Center
22 located in Mississippi.

1 As noted above, three of the General Electric turbines were sold to Colorado and
2 Nebraska entities and a fourth turbine was release back to the manufacture, with GMO
3 (Aquila) losing the reservation (option) payments it had made to General Electric.

4 Q. Were there any offers made by GMO (Aquila) regarding the four General
5 Electric combustion turbines before execution of the contracts under which they were sold?

6 A. Yes. Like the Siemens turbines installed at South Harper, GMO (Aquila)
7 offered the General Electric turbines to other entities including KCPL.

8 Q. Did GMO (Aquila's) MPS or L&P divisions have an opportunity to acquire
9 any of these four General Electric 7 EAs combustion turbines?

10 A. No. GMO (Aquila) never considered using these turbines for its regulated
11 operations, even though MPS needed to replace the Aries agreement by June 2005.
12 GMO (Aquila) indicated that these turbines were sold in 2003, in advance of decision to
13 install turbines at South Harper. (Data Request No. 43, Case No. EO-2005-0156).

14 **SALE OF NATURAL GAS-FIRED COMBUSTION TURBINES AT**
15 **RACCOON CREEK AND GOOSE CREEK**

16 Q. Did GMO (Aquila) have generating facilities located outside of its service
17 territories?

18 A. Yes. Aquila Merchant built two generating facilities in Illinois, Raccoon
19 Creek and Goose Creek.

20 Q. Would you describe these facilities?

21 A. Aquila Merchant installed ten General Electric 7EAs, 75 megawatt turbines at
22 two locations in Illinois. Six 7EAs were installed at Goose Creek Energy Center having a
23 combined capacity of 510 megawatts. Four 7EAs were installed at Raccoon Creek Energy

1 Center having a combined capacity of 340 megawatts. GMO (Aquila) responded to an RFP
2 to supply turbine capacity issued by AmerenUE in the summer of 2005. GMO (Aquila)
3 disclosed to the Staff it had offered in August 2005 to sell them to AmerenUE in response to
4 Data Request No. 464 (Case ER-2005-0436).

5 Q. What were the terms of GMO (Aquila's) original offer?

6 A. GMO (Aquila) offered to sell both facilities (ten installed turbines) to
7 AmerenUE on the following terms.

8 ** _____
9 _____
10 _____
11 _____
12 _____
13 _____
14 _____
15 _____
16 _____ **

17 [Data Request No. 464 in ER-2005-0436; Highly Confidential
18 Schedule 13-4]

19 Q. Has the sale been completed?

20 A. Yes. On December 16, 2005, GMO (Aquila) entered into an asset purchase
21 and sale agreement with the final sale transaction completed in early 2006.

22 Q. Do you know if negotiations between the two parties changed the initial terms
23 of the offer?

24 A. Yes, it did. The final sell price for both Raccoon Creek and Goose Creek was
25 \$175 million for all the generating equipment, substation and transmission costs.

Surrebuttal Testimony of
Cary G. Featherstone

1 The total capacity of these two generating stations equal 850 megawatts resulting in an
2 installed capacity of \$205.88 per kilowatt (\$175 million divided by 850,000 kilowatts)
3 [source: Aquila's SEC Form 8-K filed December 16, 2006].

4 Q. Based on the original offer, what would the price be on a installed kilowatt
5 basis?

6 A. The installed kilowatt for Aquila's initial offer would be between
7 ** _____

8 _____ **. The final price paid for both facilities of \$175 million resulted in the
9 installed kilowatt would be \$233 per kilowatt [\$175 million dividend by 750,000 kilowatts of
10 installed capacity].

11 Q. Did GMO (Aquila) lose money on the sale of these units?

12 A. Yes. Because of the distressed nature of the merchant business at the time,
13 GMO (Aquila) incurred a pre-tax non-cash impairment charge of approximately \$93.6 million
14 for Goose Creek and \$65.9 million for Raccoon Creek, or a total after-tax loss
15 of \$99.7 million (\$58.5 million and \$41.2 million) [source: Aquila's SEC Form 8-K filed
16 December 16, 2006].

17 Q. Are the Raccoon Creek and Goose Creek facilities both fully operational
18 generating plants?

19 A. Yes. Both of these facilities are fully operating generating stations. They were
20 installed in 2003.

21 Q. Did GMO (Aquila's) MPS or L&P divisions have an opportunity to acquire
22 these facilities?

NP

Surrebuttal Testimony of
Cary G. Featherstone

1 A. No. GMO (Aquila's) position is that the units are located in Illinois and there
2 was not sufficient transmission path to get the power from those units to the MPS and
3 L&P systems.

4 Q. Could the combustion turbine units at these facilities be moved?

5 A. Yes. The turbines presently at South Harper were moved from the
6 Ralph Green Generating Facility where they were in storage. While these units were not
7 installed at Ralph Green, the units, with considerable effort, were moved to the South Harper
8 facility. Turbines, generators and related equipment are heavy pieces of machinery requiring
9 special transportation and hauling, but they are moved from the manufacturer and from
10 different locations. Moving such equipment in the electric utility industry is not particularly
11 unique. Indeed the Greenwood Generating Facility, which has four combustion turbines,
12 initially had a lease agreement that required GMO (Aquila) to move, at its expense, the
13 generating units at the end of the lease to a destination designated by the Greenwood owners.
14 Since the Greenwood Units were reacquired by GMO (Aquila) in 2000, the units were not
15 moved.

16 Q. Would the sale of the Raccoon Creek or Goose Creek facilities have any
17 impact on the Staff's estimate of the cost to GMO (Aquila) of additional combustion turbines
18 capable of generating about 210 megawatts?

19 A. Staff's estimate would not change as result of this sale transaction. But the
20 sale price on a cost per kilowatt identified above supports the conservative nature of Staff's
21 installed kilowatt costs identified in Mr. Hyneman's direct testimony. The installed cost for
22 Turbines 4 and 5 of \$304 per kilowatt is significantly higher than the final selling price of
23 \$205.88 per kilowatt costs for Raccoon Creek and Goose Creek facilities.

1 Initially, in the last case, Staff relied on the Aquila offer made to AmerenUE for
2 Raccoon Creek and Goose Creek facilities as a conservative estimate for Turbine 4 and 5
3 costs. Since the final price for these units were not finalized at the time of the direct filing in
4 the 2005 case, Staff used a \$275 kilowatt amount for 210,000 kilowatts compared to the
5 ** _____ ** per kilowatt offer price. Since added additional conservative nature to
6 the costs for Turbines 4 and 5 by taking another approach identifying the costs of the turbines
7 and construction costs resulting in even higher costs of \$304 per kilowatt. At the same time
8 the final costs to for the Raccoon Creek and Goose Creek facilities decreased to \$205.88 per
9 kilowatt resulting in almost a \$100 per kilowatt higher amount for the two additional
10 combustion turbines referred to as Turbines 4 and 5.

11 Q. Are the Raccoon Creek and Goose Creek installed costs paid by AmerenUE
12 lower than the installed costs of Crossroads?

13 A. Mr. Crawford identifies the installed costs of Crossroads at ** _____ ** per
14 kilowatt while the Raccoon Creek and Goose Creek installed cost is \$205 per kilowatt.

15 Q. Have there other generating facilities sold recently?

16 A. Yes. On January 10, 2007, it was announced that Public Service Enterprise
17 Group sold to American Electric Power, a relatively new natural gas-fired 1,096 megawatt
18 combined cycle power plant located in Lawrenceburg, Indiana. The selling price was
19 \$325 million resulting in a \$296.53 per kilowatt value, lower than the South Harper installed
20 costs of \$454.17 per kilowatt and the Turbines 4 and 5 installed costs of \$304.12 per kilowatt.

21 On January 16, 2007, it was announced by independent generator Mirant Corporation
22 that it was selling to LS Power six natural gas-fired plants, with total capacity of
23 3,619 megawatts for \$1.407 billion resulting in a cost of \$388.78 per kilowatt. These plants,

1 the 903 megawatt Zeeland plant in Michigan, the 613 megawatt West Georgia plant in
2 Georgia, the 469 megawatt Shady Hills plant in Florida, the 561 megawatt Sugar Creek and
3 the 546 megawatt Bosque plants in Indiana and the 527 megawatt Apex plant in Nevada, all
4 were included in the \$1.407 price paid to Mirant.

5 **ROLLS-ROYCE POWER VENTURES OFFER**

6 Q. Is the Staff aware of any other offers for sale of combustion turbines involving
7 GMO (Aquila)?

8 A. Yes. During the audit in Case No. EO-2005-0156, GMO (Aquila) provided
9 supporting information on the appraisals per the South Harper valuation issue (Data Request
10 No. 5 in Case No. EO-2005-0156). In material supplied by GMO (Aquila), the Staff learned
11 that on September 23, 2004, Rolls-Royce Power Ventures (Rolls-Royce) offered to sell
12 GMO (Aquila) two new Siemens 501D5A natural gas-fired turbines that were manufactured
13 in 2001 and placed in storage in Houston and Germany (Schedule 14). Both units were
14 offered for \$43 million, or \$21.5 million each. This initial price was less than the
15 South Harper turbines but, for comparison purposes, several adjustments to the price needed
16 to be added, such as transportation costs and Siemens Technical Field Assistance. Also, the
17 warranty had expired similar to the South Harper turbines and was estimated that would
18 increase both unit costs by total of \$2.240 million, the same as the warranty estimate for the
19 South Harper turbines—GMO (Aquila) ultimately opted not to re-purchase the warranty from
20 Siemens for the South Harper turbines. Another major expense would be converting the
21 combustion system for approximating \$5 million. Adding all the costs to the initial offer of
22 \$43 million did not make these units attractive to GMO (Aquila).

1 But it is noteworthy that while the Rolls-Royce offer was high in relation to the other
2 turbine information Staff reviewed, it does represent the only tangible evidence that
3 GMO (Aquila) had regarding its review of the actual turbine market for its regulated
4 operations. No other information has been brought to Staff's attention that would indicate
5 that (Aquila) actually pursued the acquisition of turbines for either of its MPS or L&P
6 divisions with the exception of South Harper during the 2003 and 2005 time frame.

7 **OTHER UTILITY OFFERS**

8 Q. Does Staff have experience with equipment supply agreements in the course of
9 performing its duties for the Commission?

10 A. Yes. Over the course of many years Staff has seen numerous contracts for
11 actual purchases of equipment. Staff has seen numerous bids or quotes for proposed
12 purchases of equipment. Without detailing the specifics, turbine costs have generally
13 declined during the period from early in the decade to the period of 2004 and 2005, at time
14 when GMO (Aquila) should have made the decision to install additional capacity over the
15 levels it did at South Harper. Now the turbine prices have gone back up. GMO is using the
16 higher priced turbines to justify its decision to rely on Crossroads-- a plant that has overstated
17 turbine costs, has high transmission costs and is located in Mississippi that has higher natural
18 gas costs. Turbine prices started to increase as the turbine market stabilizes from the fallout
19 of the collapse of the merchant market.

20 Q. Has Staff reviewed bids and offers for generating equipment?

21 A. Yes. At various times, in rate cases, construction audits, development of
22 regulatory plans or as part of the Commission's Chapter 22 resource planning process,

1 Staff has had opportunities to review request for proposals, offers and bids for generating
2 equipment, including turbine offers.

3 While this information on other utilities is confidential, the offers we have seen over
4 the past several years substantiate the general decline in the turbine market during the time
5 GMO (Aquila) needed to make decision to replace the Aries capacity agreement.
6 Specifically, during the time frame of 2003 and 2004, there were very attractive pricing for
7 turbine equipment. Other companies have been benefiting from this “buyers” market, but
8 GMO (Aquila) chose not to make the proper decisions. Consequently, GMO was faced with
9 need for capacity in 2008 and made decision to use a unit located in Mississippi that is poorly
10 situated to meet system load requirements in its service territory.

11 **COMBUSTION TURBINES HAVE EXPERIENCED A SIGNIFICANT**
12 **DECLINE IN VALUES**

13 Q. When did Aquila Merchant and Siemens negotiate for the three combustion
14 turbines that Aquila installed at the South Harper Facility?

15 A. In late 2000 through out summer 2001. The turbine contract between
16 Siemens and Aquila Merchant was signed September 2001 for an in service date of
17 June 2003. Aquila Merchant planned to have a purchased power agreement with
18 MPS for 15 years starting in June 2005.

19 Q. Was the combustion turbine market different in 2000 and 2001 than in
20 2003 and 2004 when (GMO) Aquila should have been planning for replacement of the power
21 it was taking under the Aries capacity agreement?

22 A. Yes. In 2000 and 2001, when Aquila Merchant negotiated for the
23 South Harper turbines, the power equipment industry was experiencing a sellers’ market.

1 Purchasers were paying premiums to reserve manufacturer's slots to place orders and
2 negotiate contract terms. During an interview David Kreimer, GMO (Aquila) former
3 Director of Engineering, indicated "that during the time Aquila Merchant was negotiating
4 with Siemens for the three combustion turbines it was a brutal sellers market for all forms of
5 generation." He stated "that it was the most brutal sellers' [market] that he experienced in the
6 30 years that he had been working in the industry at the time of the negotiations and when
7 Aquila Merchant entered into the agreement to purchase these combustion turbines."
8 Mr. Kreimer stated that "the sellers' market peaked around August 2002 and pricing for the
9 large F frame machines began to decline quickly....the sellers' market for the larger
10 [Siemens] F model combustion turbines started losing value first before the values for the
11 smaller Siemens 501D5a's and General Electric 7EA combustion turbine[s] started to
12 decline—the smaller combustion turbine's market value lasted longer" [Source: Data Request
13 No. 56.1 in Case No. EO-2005-0156, April 29, 2005 Kreimer interview].

14 Q. What is the size of the 1 F frame combustion turbines that Mr. Kreimer referred
15 to in his interview?

16 A. The F frame units are Siemens 501FD combustion turbines and are the range
17 of 150 to 160 megawatts in size. The Aries Combined Cycle Unit has two F frame
18 combustion turbines. The Siemens 501D5A combustion turbines GMO (Aquila) installed at
19 the South Harper Facility are 105 megawatts and the smaller General Electric 7EA
20 combustion turbines are the units at Crossroads, Raccoon Creek and Goose Creek. These are
21 nominally rated at 75 to 80 megawatts. [Source: Data Request No. 56.1, April 29, 2005
22 Kreimer interview]

1 Q. Was Mr. Kreimer involved in Aquila Merchant's purchase of the three
2 Siemens turbines from Siemens Westinghouse?

3 A. Yes. When GMO (Aquila) negotiated for and bought these units, Mr. Kreimer
4 was employed by Aquila Merchant. He was directly involved in the discussions between
5 Siemens Westinghouse and GMO (Aquila) regarding these combustion turbines. Mr. Kreimer
6 also was involved in the negotiations of a 1999 contract to purchase two Siemens
7 501F EconoPacs installed at the Aries facility near Mount Pleasant, Missouri to create the
8 combined-cycle unit.

9 Q. Why is the nature of the combustion turbine market that was occurring in
10 2000 and 2001, described as a brutal sellers' market, important now?

11 A. Combustion turbine prices declined after the 2001-2002 timeframe ending the
12 sellers' market in this country. The power equipment market was substantially impacted as
13 result of the collapse of the merchant power market and the utility industry's building of
14 natural gas-fired generation.

15 During this sellers market is when the Crossroads units were originally purchased by
16 Aquila Merchant. The values that GMO is requesting be included in rate base in this case are
17 the book values of the original purchased price made in the very high sellers' turbine market.
18 Therefore, the GMO recommended rate base amount in this case is higher than it should be if
19 GMO (Aquila) would have purchased the Aries replacement power at the time when the
20 turbine market collapsed during the 2003 and 2004 time period.

21 **ADVANTAGES OF UTILITY OWNING GENERATING ASSETS**

22 Q. What are the advantages of regulated utilities building, owning and operating
23 their own generating facilities?

1 A. Utilities are able to control the operations of the generating facilities if they
2 own and operate those assets. Utilities will not be subjected to the volatility of the market
3 place with cost increases related to purchased power if they operate their own generating
4 assets. Also, utilities are able to provide a much more reliable source of energy when the
5 regulated company has its generation under its authority. The regulated entity can operate the
6 unit in a prudent and economic manner and can maintain and make capital improvements to
7 prolong the life of this valuable asset.

8 Q. Are there advantages for regulated utilities to own generating facilities?

9 A. The control of generating facilities by utilities is considered very important.
10 Companies can better manage costs for maintenance and reliability of units if they own them. In
11 essence, by controlling the generating unit, the Company is much more in charge of its own
12 destiny. In an interview with Staff on November 14, 2003, Mr. Terry Hedrick, GMO (Aquila's)
13 Generation Services Manager and the Project Manager of South Harper he indicated that he
14 believed there were "significant advantages in both owning and operating the generation
15 equipment in developing maintenance expertise. If you control / own the equipment, he believes
16 that there are advantages in the areas of costs, manpower and staffing and dispatch flexibility."
17 (Data Request No. 616.1 in Case No. ER-2004-0034)

18 Q. Are there advantages to customers if regulated utilities own their generating
19 assets?

20 A. Yes. Generally, the costs (revenue requirements) are higher in the early years of
21 ownership. The capital costs of the plant investment require a return (return on investment) and
22 the utility is entitled to a recovery of the investment (return of investment). As the plant
23 investment is recovered through depreciation - the return of investment - the rate base return

1 required - return on the investment - decreases. At some point in the future, especially if the
2 plant lives are longer than expected, such as in the case of Aquila's Sibley generating units, the
3 customers will have the benefit of the plant while the rate base investment is very low.
4 The return on investment declines which causes the revenue requirements to decline
5 dramatically.

6 Q. Is GMO (Aquila) in a position to reap these advantages?

7 A. No. GMO (Aquila), by deciding not to build regulated generation for a period of
8 over 20 years since 1983 put its customers at risk because there is a substantial amount of
9 capacity that it is having to replace - at least 500 megawatts - since the Aries purchased power
10 agreement expired in May 2005. GMO (Aquila) made no commitment to build regulated
11 generation for over 20 years, unlike every other major electric utility that operates in this state,
12 and now faces the challenge of replacing the Aries capacity in large block of power, at least 500
13 megawatts. It has met part a good part of this capacity with South Harper.

14 Q. Did Aquila Merchant recognize the advantages of owning generating facilities?

15 A. Yes. Aquila Merchant acquired several generating assets during the 2000 and
16 2001 time frame including Aries. GMO (Aquila) believed that the forecast for power costs
17 would be increasing over time, made decisions to "lock in" the cost of owning its own
18 generation, so it could take advantage of the increasing market for power costs. In an
19 October 29, 2003, interview Mr. Max Sherman, a former Aquila Merchant employee and
20 Project Manager during the early development and construction phase of the Aries plant and
21 Crossroads, he discussed the need for generating units:

22 Aquila Merchant committed to purchase 12 or more combustion
23 turbines during this period (starting in 2000) to build
24 unregulated peakers to take advantage of the wholesale
25 marketplace (this was after the Aries construction decision had

1 been made and the plant was under construction). The reason
2 for Aquila Merchant's acquisition of the combustion turbines
3 was its belief that, **given expected future power market**
4 **conditions, it would be less expensive to produce power**
5 **from generating units you control than to have to buy power**
6 **in the marketplace.** Mr. Sherman indicated that the last place
7 a merchant company wanted to be was to have to supply power
8 through long-term contracts and be at the mercy of a volatile
9 power market and have to buy power to supply those
10 contracts....

11 [Data Request No. 549 in Case No. ER-2004-0034; emphasis added]

12 Non-regulated merchant companies would want their own generation so they would
13 not be at the mercy of power pricing "spikes." This was especially important if power had to
14 be delivered through contracts to third parties.

15 If the regulated entity that did not build and operate its own generating units believed
16 that power costs were going to increase, it would have to enter into purchased power
17 agreements priced at market-based rates. The non-regulated merchant company who
18 negotiated to deliver power to the regulated entity at the escalating market-based contracts
19 benefit if they own and operate their generation assets. In some cases the non-regulated
20 merchant may supply power by either generating or acquiring power through a purchase from
21 another party. The profitability of the non-regulated merchant will depend on the ability to
22 acquire or generate the power at a cost that would be below that which it would receive in
23 revenues. Since GMO (Aquila) believed there was going to be a significant rise in the power
24 market costs, the non-regulated subsidiary built and acquired generating assets to engage in
25 the open market for power.

26 Q. Would the same concern in a rising energy cost market favor regulated entities
27 owning generating assets?

Surrebuttal Testimony of
Cary G. Featherstone

1 A. Yes. The approach that Aquila Merchant pursued could also have been
2 followed by the regulated MPS division. For the exact reasons that Aquila Merchant believed
3 it was necessary to own the generating assets, MPS should have built and operated its own
4 generation. This was especially important when you take into consideration that the
5 Company believed that the power market costs were going to rise significantly over time.
6 The decision by GMO (Aquila) to allow the Aquila Merchant organization to build and
7 acquire generating assets and sell that power through the open market through purchased
8 power agreements like those entered into between the Aries partners and MPS resulted in the
9 situation where (Aquila's) regulated operations were subjected to the volatility of the market
10 for power costs. It is clear that Aquila Merchant believed that it could not enter into
11 long-term agreements and be subjected to the whims of the market place in supplying that
12 power, thus causing them to reach a decision to own the generating assets in order to supply
13 those power needs to their non-regulated customers. It should be just as clear that the
14 regulated entity, MPS, would also want to own generating assets in this same situation.

15 Q. Do know of any non-regulated merchant company that builds it own
16 generating facilities?

17 A. Yes. In a meeting with Calpine in the spring 2005, Staff asked Calpine if it
18 supplied electricity to its customers on a long-term basis using purchased power agreements.
19 Calpine indicated that it was in the business of owning and operating its generating facilities
20 and would not meet long-term power commitments to customers by purchasing the power.

21 Q. Are there advantages to the utility in owning and operating generating facilities
22 as regulated assets?

1 A. Yes. Regulated assets are typically put in rate base which, when the units are
2 completed and declared in service, are included in rates allowing the utility a reasonable
3 return on the investment and a recovery over the life of the generating asset through
4 depreciation expense. Thus, a utility is provided some reasonable assurance that the
5 investment in the regulated asset will be fully recovered from its retail electric customers.
6 This provides some reasonable assurance to investors that their asset will be protected through
7 the regulatory process by rate basing the asset. Utility customers benefit by being insulated
8 from rising costs for power during a time when those costs are expected to significantly
9 increase. The customers and the utility owners gain substantial advantages when a company
10 builds and places in service, generating facilities in its regulated operations.

11 Q. Are there also disadvantages in placing generating assets in the regulated
12 operations?

13 A. Yes. If there are rising power market costs, a company owning both regulated
14 and non-regulated entities would be at a relative disadvantage if it put the generating facilities
15 in its regulated operations, because it would not be able to shield the profits obtained from the
16 regulated entity. While the regulated entity would have an opportunity to sell the generating
17 capacity in the open market during the period of expected rising power costs, the profits from
18 these transactions are typically included in the ratemaking process. For as long as the
19 regulated entity can stay out of a rate case, the company will benefit from the increased sales.
20 However, when the regulated entity files for rate relief, the power sales would be considered
21 in the rate process. The decision to put generating assets in a regulated entity of a company
22 would cause the non-regulated entity to miss opportunities for profit making in the increased
23 power cost market. Assets that are in the regulated operations would be held to a typical

1 regulated return which would likely be less than those that would be received by non-
2 regulated entities engaging in profit taking from a rising power market. GMO (Aquila)
3 believed that it could receive greater returns on its investment dollars by having
4 a non-regulated entity, Aquila Merchant, own the generating facilities and selling the power
5 through purchased power agreements to entities like MPS in the open market through
6 market-based pricing. As the market reflected the increased power costs, the non-regulated
7 entity would also receive the increased revenues resulting in greater-than-regulated returns.

8 Q. Do you know of an example where GMO (Aquila) has been subjected to
9 increasing costs through market-based pricing?

10 A. Yes. In the 1970s, GMO (Aquila), then operating as Missouri Public Service
11 Company, built four combustion turbines at its Greenwood Generating Station.
12 Upon completion, the Company sold at book value to financial institutions, all four of the
13 combustion turbines, and received the capacity power through a 25-year lease for each of the
14 generating units. The lease did not allow for any residual value to be passed to the utility
15 entity that originally owned the generating units. Upon expiration of the lease, GMO (Aquila)
16 reacquired those four combustion turbines at an existing market-based price. In essence, the
17 Company has purchased the same asset twice. The cost to reacquire the assets at the current
18 market is very close to the original purchase price paid for the assets when they were new.
19 Thus, GMO (Aquila) bought 25-year-old generators and paid close to what the original
20 investment was back in the mid-1970s. Customers paid for 25 years lease payments which in
21 large part covered the fixed costs of the units with MPS having the responsibility for all
22 operating and maintenance costs along with any capital additions. MPS customers are now

1 paying in rates for the units which have a greater value than when they were new-- in essence
2 paying a second time for the units.

3 **EFFECTS OF GMO (AQUILA'S) DECISION NOT TO TREAT ARIES**
4 **AS A REGULATED GENERATING FACILITY**

5 Q. Did GMO (Aquila) ever consider building Aries as part of its regulated
6 operations?

7 A. Yes. In 1998, prior to the decision to build Aries by the non-regulated side of
8 GMO (Aquila), the regulated operations of MPS considered building a 500-megawatt
9 combined cycle unit on the same land that Aries is now on. Because of GMO (Aquila's), then
10 corporate policy to not build regulated generating units, GMO (Aquila) decided this unit
11 would be a non-regulated non-rate based EWG operating within MPSs service area,
12 with MPS regulated operations bidding on the capacity.

13 In the summer of 1998, at the time of the initial evaluations of the request for
14 proposals (RFP) for capacity for MPS, which were issued on May 22, 1998, the regulated
15 operations of GMO (Aquila) responded to its own RFP with a "build" proposal. This build
16 option to supply capacity and energy to MPS from a combined cycle unit operated by the
17 EWG was the low cost option at the time of the initial review phase of the RFP.

18 Q. Why didn't the regulated side of GMO (Aquila (MPS)) build the combined
19 cycle unit as an EWG?

20 A. The MPS regulated operations of GMO (Aquila) presented its proposal to
21 Robert K. Green, then Aquila President, who made the decision that the regulated side of its
22 operations would not build Aries. The material covered two different dates: 1) October 8,
23 1998, - Financial Analysis of Supply Options, and 2) October 28, 1998, - Updated Analysis of

1 Supply Options. The presentation material was provided to Staff in response to Data Request
2 No. 301 (Case No. ER-2004-0034) and is attached to this testimony as Highly Confidential
3 Surrebuttal Schedules 6 and 7.

4 Q. How did Staff learn of the process GMO (Aquila) used to determine who
5 would build Aries?

6 A. This was discussed with former GMO (Aquila) personnel who were involved
7 in not only the issuance and review of the RFP, but also as one of the bidders to the RFP to
8 supply capacity to MPS through the EWG. Staff conducted an interview with the individuals
9 who were directly involved in the issuance and review of the RFP and also in making the
10 decision to submit a bid to build a combined cycle unit to supply power to MPS as an EWG.

11 Q. How did the interview with the former Aquila personnel come about?

12 A. Staff indicated to GMO (Aquila) that it wanted to discuss the RFP process and
13 aspects of how MPS came to agree to purchase power from the Aries partners.
14 GMO (Aquila) contacted two individuals who were directly involved in these decisions and
15 provided them for an interview with Staff.

16 Q. Is it Staff's view that GMO (Aquila) should have given more consideration to
17 building Aries as a regulated unit?

18 A. Yes. Staff believes that had GMO (Aquila) built Aries as a regulated
19 generating station and rate based it in the traditional manner, GMO (Aquila's) likely would
20 not have the capacity problems it has today. Staff has had issues with GMO (Aquila's)
21 decision making regarding building generating units since GMO (Aquila's) 2001 rate case,
22 Case No. ER-2001-672. In each case since, Case Nos. ER-2004-0034, ER-2005-0436 and

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1 ER-2007-0004, Staff expressed its concerns on Aquila's decision not to build generation units
2 and proposed adjustments relating GMO (Aquila's) purchase power agreements.

3 Q. Had GMO (Aquila) examined building a combined cycle unit as a regulated
4 asset in the past?

5 A. Yes. In its 1992 Integrated Resource Plan dated February 1992, GMO
6 (Aquila) identified that its recommendation was to build ** _____
7 _____ ** for MPS.

8 [February 3, 1992 Integrated Resource Plan-Executive Summary, Item 6.]

9 Q. Did the regulated MPS develop the Aries project?

10 A. Yes. MPS throughout the late 1990s developed the 500 MW combined-cycle
11 unit that ultimately became the Aries Combined Cycle Generating Facility. The site for Aries
12 was land that was previously owned by Missouri Public Service Company, the predecessor to
13 UtiliCorp.

14 Q. Did MPS incur costs to develop the Aries site?

15 A. During the early and mid-1990's, the regulated MPS expended funds to
16 continue to study and develop the preliminary work that was necessary to prepare for
17 construction of this project. Ultimately, GMO (Aquila) corporate management determined
18 that the regulated MPS would not be permitted to build the Aries facility but rather its non-
19 regulated Aquila Merchant would develop this project. Aquila Merchant took over the Aries
20 project in the summer of 1998.

21 Q. When was the Aries capacity agreement signed with MPS?

22 A. MPS entered into this purchased power agreement with its affiliate,
23 Aquila Merchant, in February 1999.

1 Q. Did MPS prepare cost estimates for the Aries project?

2 A. Yes. In an interview with David Kreimer, he indicated that he spent a
3 substantial amount of his time during the winter and spring months of 1998 developing
4 preliminary cost data and studying the estimates for the 500 MW combined cycle unit that
5 ultimately became Aries.

6 Q. Were these cost estimates and studies provided to Aquila Merchant assisting in
7 building the Aries facility?

8 A. Yes. The regulated MPS did much of the preliminary work to get Aries project
9 to the construction stage.

10 Q. How did the Aries purchased power agreement come about?

11 A. In the spring of 1998, MPS issued a request for proposal (RFP) for its power
12 needs in the early years of this decade. It received responses in July 1998 offering to provide
13 MPS power needs through a variety of options from several different entities. As part of this
14 evaluation by MPS, it also examined the option of building and owning itself a 500 megawatt
15 combined cycle unit with a projected in-service date in 2001.

16 In August 1998, through MPS analysis as well as the independent analysis of Burns &
17 McDonnell, an engineering consulting firm, MPS determined that the least cost option for it was
18 to build the 500 megawatt combined cycle unit.

19 Q. Did MPS pursue building the 500 megawatt combined cycle unit?

20 A. Yes. However, GMO (Aquila), at some point, assigned the construction project
21 away from GMO (Aquila's) regulated MPS operations and transferred it to Aquila Power
22 Corporation, GMO (Aquila's) non-regulated operations later known as Aquila Merchant.

1 Initially, the regulated operations of MPS pursued building the Aries Combined
2 Cycle Unit as an unregulated EWG. The studies and analyses performed by personnel of the
3 regulated operations ultimately led to the conclusion that the 500 megawatt combined cycle unit
4 was the least cost option to meet the capacity needs of MPS starting in 2001. This was
5 confirmed by the independent engineering firm, Burns & McDonnell in an August 1998 report to
6 the Company.

7 In an August 24, 1998 study entitled “UtiliCorp United Inc. Missouri Public Service
8 1998-2003 Preliminary Energy Supply Plan,” the Company independently determined that the
9 construction of a 500 megawatt combined cycle unit was the least cost plan for MPS. Under the
10 Executive Summary Section 1, “Conclusions,” the following appears:

11 **Conclusions**

12 **Based on the 1998-2003 supply-side analysis, the least cost**
13 **plan for MPS consists of executing short term purchase**
14 **contacts to meet MPS capacity needs through the year 2000,**
15 **and the construction of a gas-fired 500 MW combined cycle**
16 **unit to meet all of MPS’ capacity needs in 2001-2003 time**
17 **frame and a majority of its needs thereafter.**

18 **The above supply provides the least cost means to meet the**
19 **MPS capacity and energy needs even though MPS’ has a**
20 **low annual load factor of <50% and an abundant supply of**
21 **low-cost energy supplied by its existing resource base which**
22 **is 64% coal-fired base load generating capacity.**

23 **The ability of combined cycle units to complete in the**
24 **regional energy market place enables these resources to**
25 **provide sufficient revenue to offset their higher capital cost.**

26 **1.5 Recommended Action Plan**

27 **As a result of the analysis outlined in this report, it is**
28 **recommended that UCU [(Aquila/UtiliCorp)]:**

29 **Negotiate extension of the existing lease agreements on the**
30 **Greenwood combustion turbines.**

1 **Secure short term capacity to meet MPS' capacity needs**
2 **thru 2000.**

3 **Pursue the construction of a 500 MW combined cycle unit**
4 **proposed with an in service date of June 1, 2001.**

5 [Source: Data Request No. 607 in ER-2004-0034—1998-2003
6 Preliminary Energy Supply Plan]

7 Q. Did GMO then operating as UtiliCorp, ever examine the option of MPS building
8 and owning the Aries Combined Cycle Unit as part of its regulated operations?

9 A. No. At no time during the 1998 time period, did GMO (Aquila) or MPS ever
10 consider this as an option. Staff is aware of numerous examples, in the last two MPS electric
11 cases (Case Nos. ER-2001-672 and ER-2004-0034) where GMO (Aquila) readily admitted that
12 at no time did it consider allowing the regulated operations of MPS to own or control generating
13 units as regulated plant. While the EWG option was pursued by MPS regulated operations, the
14 combined cycle unit was never planned to be part of the traditional regulated operations of MPS,
15 and GMO (Aquila) never planned for the unit to be included in rate base.

16 Q. Does Staff consider this a fatal flaw in the Company's analysis to meet the
17 capacity needs of its Missouri retail electric customers?

18 A. Yes. To not have even considered the option of building regulated generating
19 assets held by MPS to meet the capacity needs of GMO (Aquila's) Missouri regulated operations
20 is a failure on the GMO (Aquila's) part and constitutes imprudence. This decision by
21 GMO (Aquila) resulted in GMO (Aquila's) regulated Missouri operations being at the mercy of
22 purchased power agreements priced at market-based rates through May 31, 2005, when the Aries
23 agreement terminated. GMO (Aquila) continued to be subjected to market-based rates for the
24 power used by its Missouri regulated operations right up to acquisition by GPE in July 2008.

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1 Q. What was the effect of GMO (Aquila's) strategy to not build regulated generating
2 assets until recently?

3 A. GMO (Aquila) subjected its MPS and now, L&P operations, to purchased power
4 agreements priced at market-based rates. The market rates for purchased power during the
5 period of most of this decade has increased significantly over what they were in the late 1990s
6 when GMO (Aquila) entered into the Aries purchased power agreement.

7 Q. What is the basis for the Staff's belief that GMO (Aquila) did not consider
8 building regulated generation to meet its capacity needs in Missouri and, instead, committed to
9 building unregulated generation?

10 A. GMO (Aquila) freely admitted that it never considered building regulated
11 generating facilities to meet the capacity needs of its regulated utility operations in the state of
12 Missouri. Mr. DeBacker (page 9, line 9 DeBacker rebuttal) and Mr. Stamm (page 12,
13 line 18 Stamm rebuttal) both admit in their rebuttal testimonies filed in Case No. ER-2004-0034,
14 that this option was never considered by GMO (Aquila's) regulated operations. In Case No.
15 ER-2001-672, GMO (Aquila) provided response to Data Request No. 365 where it stated that
16 "the Company believes that the current regulatory climate does not warrant the business risks
17 associated with constructing and owning ratebased generating plants."

18 Also, in an interview with Mr. DeBacker and Mr. Robert Holzwarth (Vice-President and
19 General Manager of UtiliCorp Power Services (UPS)) held on October 28, 2003, Mr. DeBacker
20 stated that it was Aquila's corporate policy not to consider building regulated generating assets.
21 Mr. DeBacker indicated in the interview that "MPS did not intend to build and include in rate
22 base generating units to supply its power needs. Thus, Aquila (UtiliCorp) through its regulated

1 MPS division never considered building generating capacity as a regulated unit” [Data Request
2 No. 548 in Case No. ER-2004-0034).

3 Q. Did Aquila provide a reason for why it never entertained the option of building a
4 regulated power plant?

5 A. Yes. During the aforementioned interview with Mr. DeBacker and
6 Mr. Holzwarth, they indicated there was a corporate policy at GMO (Aquila) that no new
7 generation would be built as a regulated unit subject to rate basing. The following accurately
8 characterizes the information provided at the October 28, 2003 interviews on this topic of
9 corporate policy:

10 **The philosophy of “buy/not build” in regard to power**
11 **supply, taken in response to perceived electric industry**
12 **uncertainty, was an Aquila (UtiliCorp) corporate strategy in**
13 **place by 1998; it wasn’t just Mr. DeBacker’s and Mr.**
14 **Holzwarth’s belief at that time. The Aquila (UtiliCorp)**
15 **philosophy was consistent with MPS’ strategy in 1998. MPS**
16 **took the position to depend on purchased power for short-**
17 **term power needs, no construction of regulated power**
18 **plants. The Aquila (UtiliCorp) divisions in Colorado and**
19 **Kansas followed this same approach. Bob Green, Jim**
20 **Miller and Harvey Padawer communicated the “buy/not**
21 **build” strategy for the regulated entities. This strategy is**
22 **not set down in writing, to DeBacker’s and Holzwarth’s**
23 **knowledge, but was no secret within Aquila. Mr. Holzwarth**
24 **was present at one meeting where Bob Green expressed the**
25 **“buy/not build” philosophy. Among senior officers still with**
26 **Aquila, Rick Green, currently Chairman, President and**
27 **Chief Executive Officer could address this philosophy if**
28 **necessary.**

29 **Both Mr. DeBacker and Mr. Holzwarth indicated that**
30 **UtiliCorp was concerned about the future of retail**
31 **competition / retail access and was concerned about the**
32 **“stranded costs” relating to loss of customers to completion**
33 **from “customer choice”. The Company wanted to “stay**
34 **short in the market” (stay in market 3 to 5 years only).**
35 **The decision to “stay short” in the market was made by**
36 **UtiliCorp in 1996/1997 time frame. Mr. Holzwarth said,**
37 **“what would happen if you build big units (generating**

1 **units) and half your customers went away?” When asked if**
2 **either of them knew of any system (electric system) where**
3 **half the customers “went away” neither Mr. DeBacker nor**
4 **Mr. Holzwarth knew where this had occurred.**
5 **Mr. Holzwarth cited the competition that was occurring in**
6 **other states such as Pennsylvania, New Jersey, New York**
7 **and Illinois.**

8 **[October 28, 2003 interview with DeBacker and Holzwarth,**
9 **Data Request No. 548 in Case No. ER-2004-0034]**

10 The least cost option that MPS developed for meeting the capacity needs of (Aquila’s) Missouri
11 regulated utility operations was to build the Combined Cycle Unit as an EWG as part of the
12 regulated operations of the Company (Mr. DeBacker’s rebuttal testimony in Case No.
13 ER-2004-0034).

14 Mr. DeBacker indicated in the fall of 1998, the Company decided to create another
15 unregulated corporate entity under its Aquila Merchant subsidiary to build and own generating
16 assets such as the Aries Combined Cycle Unit (page 19 of DeBacker Rebuttal Testimony filed in
17 Case No. ER-2004-0034). While MPS, a regulated division of GMO (Aquila), had performed
18 the work required to determine the size and scope of the generating asset needed for the capacity
19 needs of GMO (Aquila’s) Missouri regulated operations, (October 28, 2003 DeBacker interview,
20 Data Request No. 548, in ER-2004-0034), (Aquila’s) upper management transferred that
21 function to the non-regulated operations of Aquila Merchant.

22 It is interesting to note that the regulated operations of the Company continued to
23 examine the EWG option as late as October 1998. A presentation made on October 8, 1998,
24 entitled “Financial Analysis of Supply Options” and another presentation made on October 28,
25 1998, entitled “Updated Analysis of Supply Options.” both of presentations were made by
26 GMO (Aquila’s) regulated operations presented the EWG option of building and owning the

1 500 megawatt combined cycle unit. As late as the end of October 1998, the regulated operations
2 of UtiliCorp were still pursuing the generation option that would later become the Aries Project.

3 However, the option of the regulated operations building the 500 megawatt combined
4 cycle unit was rejected by Aquila's upper management. Other than the statements made in the
5 interview with Mr. DeBacker and Mr. Holzwarth that the Company believed it would be difficult
6 to have the regulated operations build and own the Aries Combined Cycle Unit, the Staff has not
7 seen nor been provided any documentation that would identify the specific reasons why this
8 option was not agreed to by the Company's upper management. In the October 28, 2003,
9 interview, Mr. Holzwarth indicated that upper management decided that it would be too difficult
10 to have the regulated operations create the non-regulated function of building and owning the
11 Aries Unit. The following interview notes, reviewed by the interviewees, accurately describe
12 this:

13 **In 1998, the only economic analysis performed to assess**
14 **MPS' power options for the first years of the next century**
15 **were for a three-to-five year period only. Building plants**
16 **for MPS' rate base was not considered as an option, but**
17 **Holzwarth's group did consider building a generating plant**
18 **as an unregulated Exempt Wholesale Generator (EWG)**
19 **within MPS. Building a unit as part of an EWG was viewed**
20 **as superior to including a regulated unit in rate base**
21 **because there was less risk to Aquila of stranded costs if**
22 **retail access was allowed in Missouri. Plus, the EWG**
23 **proposal allowed MPS to better control costs and to**
24 **"control its own destiny" in regard to power supply, and**
25 **also allowed MPS the opportunity to profit on a non-**
26 **regulated basis in the wholesale marketplace through the**
27 **sale of energy as off-system sales. The analysis performed**
28 **by UtiliCorp for the EWG never assumed MPS to be a**
29 **customer of the MPS EWG unit beyond the original five-**
30 **year power supply proposal in the RFP. Mr. Holzwarth**
31 **stated that the MPS EWG option was presented at a**
32 **meeting attended by Bob Green, then UtiliCorp President,**
33 **and Harvey Padawer (maybe Jim Miller as well). The MPS**
34 **EWG option was rejected because of questions raised at the**

1 meeting the risk of a massive EWG operating failure when
2 taking into consideration MPS' relatively small size; how to
3 obtain generating economies of scale, since a separate
4 organization within MPS would have to be responsible for
5 the EWG unit; MPS' lack of familiarity with the combined-
6 cycle technology; and regulatory scrutiny of possible cross-
7 subsidies between MPS' regulated and non-regulated sides.
8 Mr. Holzwarth said some of the questions posed at this
9 meeting where he recommended that MPS (through UPS)
10 build non-regulated EWG generating unit were: How can
11 MPS operating people manage the EWG also? What would
12 be the "risk" to cash? Where would you get economies of
13 scale from a regulated operation running a non-regulated
14 EWG operation? Mr. Holzwarth stated he did not have
15 answers to these questions.

16 [Source: October 28, 2003 interview with Mr. DeBacker
17 and Mr. Holzwarth]

18 The decision was made to obtain power from other sources. Mr. DeBacker and
19 Mr. Holzwarth indicated that they were not aware of any records documenting the reasons for the
20 MPS EWG option rejection by Aquila's upper management.

21 Mr. Holzwarth stated that the ultimate decision would have
22 been made by Bob Green and/or Harvey Padawer; however,
23 the consensus opinion of senior management was that a
24 regulated power plant with its potential stranded cost issues
25 was not desirable. Mr. Holzwarth indicated he did not
26 make the decision; he only made the presentation
27 recommending that his group UtiliCorp Power Supply build
28 a generating unit as a non-regulated EWG.

29 [Source: October 28, 2003 interview with Mr. DeBacker
30 and Mr. Holzwarth,]

31 Q. Did Staff ask who made the decision not to build regulated generating units?

32 A. Yes. Staff submitted a data request asking the following:

33 1. Why was the decision made by Aquila (formerly
34 UtiliCorp United) not to build and operate Aries
35 Combined Cycle Unit as a "regulated" power plant
36 to be included in rate base? Include in your response
37 all reasons and rationales why this decision was
38 made.

1 **Response: Uncertainty surrounding the deregulation**
2 **of the electric power industry and the possibility of**
3 **incurring unrecoverable “stranded costs”. Avoiding**
4 **long term power supply commitments was viewed as**
5 **a means to effectively mitigate potential “stranded**
6 **costs” arising from potential retail generation choice.**

- 7 **2. Provide all supporting documentation relating to and**
8 **relied on upon in making this decision, including but**
9 **not limited to reports, analyses, studies, etc.**

10 **Response: Compliance with MPS Joint Agreement**
11 **with MPSC [Missouri Public Service Commission]**
12 **and Office of Public Counsel—approved by PSC in**
13 **Case No. EO-98-316 on 6/25/98.**

14 **Secondary Concern**

- 15 **1. Inexperience in operating large F-frame combustion**
16 **turbine generating units and uncertainty**
17 **surrounding the actual maintenance costs of these**
18 **machines.**

19 **[Data Request No. 302 in Case No. ER-2004-0034]**

20 This project then became assigned to Aquila Merchant and the Aries project was
21 developed as part of the merchant energy partners segment of that operation.

22 Q. Who at GMO (Aquila) made the decision to not to build regulated generating
23 assets to meet MPS capacity requirements?

24 A. As indicated above cited in the October 28, 2003 interview, Mr. Holzwarth said
25 Mr. Bob Green and Harvey Padawer made the decision not to build regulated generating assets.
26 In response to the Data Request No. 302 in Case No. ER-2004-0034 the Company identified the
27 following decision makers on that issue:

28 Bob Green-- Chief Operating Officer supervised by Rick Green

29 Jim Miller – Leader Business Segment UED (UtiliCorp Energy Delivery)

30 Harvey Padewar—Leader Business Segment UEG (UtiliCorp Energy Group)

1 In the October 28, 2003, Staff interview with Mr. DeBacker and Mr. Holzwarth, when
2 asked about who made the decision to build Aries as a nonregulated plant, according
3 to Staff notes of the interview reviewed by the interviewees, they stated:

4 **Were Bob Green, Harvey Padawer and Jim Miller involved**
5 **in meetings dealing with Aquila Merchant matters?**
6 **DeBacker and Holzwarth said Padawer would have been;**
7 **he was head of Aquila Merchant at the time and reported to**
8 **Mr. [Bob] Green. They supposed Bob Green would have**
9 **met with Aquila Merchant people; Bob Green as President**
10 **of Aquila (UtiliCorp) was over Aquila Merchant as well as**
11 **the regulated utility operations. Mr. DeBacker and Mr.**
12 **Holzwarth were not sure about Mr. Miller, Senior Vice**
13 **President of UtiliCorp Energy Delivery (UED) which was**
14 **responsible for the transmission and distributions system**
15 **(pipes and wires) of the regulated utilities.**

16 **[Data Request No. 548 in Case No. ER-2004-0034]**

17 Q. Who was Mr. Bob Green?

18 A. Until October 2002, Mr. Green was the President and Chief Executive Officer of
19 GMO (Aquila) and President of Aquila Merchant.

20 Q. Who is Mr. Harvey Padawer?

21 A. Mr. Padawer was head of Aquila Merchant at the time of the decision to build the
22 Aries Project. Aquila Merchant was engaged in the marketing of natural gas and electricity to
23 industrial and wholesale customers. During the time Mr. Padewar was in charge, Aquila
24 Merchant was starting its merchant energy function, of which the Aries unit was intended to play
25 a major part of that strategy.

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1 Q. Who is Jim Miller?

2 A. Mr. Miller was head of GMO (Aquila's) regulated operations, known as the
3 "pipes and wires" part of the business. He was in charge of UtiliCorp Energy Delivery, or the
4 regulated transmission and distribution operations of the Company.

5 Q. Have other utilities followed a different course than Aquila to meet their power
6 capacity needs since the mid to late 1990s?

7 A. Yes. As noted earlier, utilities such as Empire , KCPL and AmerenUE have all
8 embarked on building generating assets, and owning and controlling those generating assets as
9 part of their regulated operations. Staff supports this and has encouraged this practice by utilities
10 through the IRP process, as well as various applications that have appeared before the
11 Commission concerning restructuring and reorganizations of the various corporate entities.

12 In KCPL's application to restructure its corporate operations in Case No. EM-2001-464,
13 a critical element of Staff's concern and, ultimately, the resolution of that application filed with
14 the Commission, was the commitment for KCPL to continue to build and keep regulated
15 generating assets as part of its regulated operations.

16 Q. Would there ever be an advantage to a utility not building its own generating
17 units and relying on purchased power market pricing to serve its regulated customers?

18 A. Yes, to the extent that a company had both regulated and non-regulated entities
19 and the non-regulated entity owned and operated generating facilities that could sell power to
20 the regulated affiliated company. If the utility believed that the market pricing of power costs
21 was going to rise over time, the utility could build and own non-regulated generating facilities
22 and enter into purchased power agreements with regulated affiliated companies. There would
23 be a direct benefit to the company if the costs could be passed on to regulated customers

1 through rates. The increased power costs would benefit the owner of the generation because
2 they could raise the costs to the regulated entity through market-based rate contracts.
3 This arrangement would benefit the parent company that owned both the regulated utility and
4 the non-regulated generating affiliate because earnings to the parent company would increase.
5 In essence, the forecast of increasing power costs justified the building of the generating
6 facility by the non-regulated entity with the expectation that the increased pricing would be
7 reflected in newly negotiated power contracts. This, of course, assumes that the Company is
8 successful in passing the increase in costs to its regulated customers through purchased power
9 agreements similar to the one that Aquila entered into with the Aries partners.

10 Q. Why is this important since GMO (Aquila) no longer has an affiliate company
11 that is attempting to sell power to GMO (Aquila's) regulated companies?

12 A. While GMO (Aquila) does not have an affiliate selling it power, the aftermath
13 of the Aries decision still affected the Company's decision making right up to 2008. Aries
14 originally was owned by GMO (Aquila) exclusively until it sold 50% of its ownership
15 interests to Calpine. In 2004, GMO (Aquila) sold its entire interest in Aries to Calpine.
16 Not only did GMO (Aquila) lose a 585 megawatt combined cycle unit - a subject this
17 Commission is still having to deal with in finding a replacement to this power - but it lost very
18 valuable land rights. This facility was sized for additional generating units. In fact, the three
19 turbines installed at South Harper were originally planned to be installed at Aries as Aries II.
20 When GMO (Aquila) gave up its ownership interest in Aries, and going back even further
21 when it decided to get a partner for Aries, has caused the Company great hardship in its
22 capacity planning and meeting the energy needs of its customers.

1 As the Company has struggled with zoning and permitting issues at South Harper it is
2 easy to understand the value of existing sites that already had zoning approvals.

3 Q. Did Cass County provide zoning and permitting authority to GMO (Aquila)
4 to build Aries?

5 A. Yes. Aquila sought all the necessary zoning and permitting requirements in
6 building Aries.

7 Q. How has the Company's inattention to the Missouri-regulated operations of the
8 Company impacted those operations and its customers?

9 A. In every instance, the Staff knows about with regard to other Missouri utilities,
10 the companies have pursued meeting their customers' long-term capacity needs through
11 building and owning generating assets unless utilities obtain very favorable base load
12 generation pricing such as the two NPPD capacity agreements like GMO (Aquila) has.
13 Empire has a very favorable long-term base load agreement with a Kansas utility Westar
14 Energy. But other utilities for the most part want to own and control their generating assets.
15 GMO (Aquila) stands alone when they make year after year decisions to pursue purchase
16 power agreements with market-based rates. The decision by GMO (Aquila's) management to
17 embark on a non-regulated path to meet its capacity needs put the regulated operations
18 "behind the curve" in the sense of ownership of power production facilities. Empire as a
19 company, and Empire's customers, have enjoyed the benefits of the State Line Combined
20 Cycle since it went into production of electricity in June 2001. Empire and its customers will
21 have the benefit of that unit for many years to come. GMO (Aquila's) customers, however,
22 will not have the same opportunities for those benefits and will pay more in the long-run by
23 not building generation since 1983 with the exception of the South Harper facility.

1 Q. Will prudent ownership of generating assets produce the lowest overall cost?

2 A. Very likely. GMO (Aquila) produced a study for the January 2004
3 IRP analysis that concluded that building and owning five combustion turbines was the least
4 cost scenario for replacing the Aries capacity agreement in June 2005.

5 **CONCLUSIONS FOR CAPACITY PLANNING AND PEAKING**
6 **TURBINES**

7 Q. What are the conclusions that Staff has regarding the Company's building
8 generation?

9 A. GMO (Aquila) made the decision to not build regulated generating assets as a
10 corporate policy. During the IRP process, GMO (Aquila) never looked at building regulated
11 assets in a meaningful way except South Harper. GMO (Aquila) continued the no build
12 option right to current with the exception of its base load coal-fired Iatan 2 commitment.
13 GMO (Aquila) did not submit any RFPs to turbine manufacturers to get turbine pricing so that
14 it could do complete and thorough studies concerning the build vs. purchasing options until
15 late 2005, well after the time for decision concerning the replacement of the Aries Agreement.
16 GMO (Aquila) did not present any plans to build capacity for, even though it indicated that its
17 system needs capacity during the period from 2005 to current. Staff has proposed what it
18 believes is a conservative amount for the two additional turbines identified as Turbines 4 and
19 5. The turbines prices declined during the period that Aquila would have needed to place
20 orders for the units with an in-service date by June 2005. There would have been economies
21 of scale to building the five combustion turbines instead of three. GMO (Aquila's) IRP Plan
22 presented in January 2004 concluded that the least costs plan for the 2005 replacement of the

Surrebuttal Testimony of
Cary G. Featherstone

1 Aries Agreement was the building of five combustion turbines instead of three combustion
2 turbines.

3 Q. Does conclude your surrebuttal testimony?

4 A. Yes.

SCHEDULES 1 - 3

HAVE BEEN DEEMED

HIGHLY CONFIDENTIAL

IN THEIR ENTIRETY

AQUILA, INC.
AQUILA NETWORKS-MPS-INVESTOR (ELECTRIC)
CASE NO. EO-2005-0156
MISSOURI PUBLIC SERVICE COMMISSION
DATA REQUEST NO. MPSC-5

DATE OF REQUEST: December 10, 2004
DATE RECEIVED: December 10, 2004
DATE DUE: December 29, 2004
REQUESTOR: Phil Williams
BRIEF DISCRIPTION: Please provide all appraisals of the plant site and the value of the combustion turbines.

QUESTION:

Please provide all workpapers that support the appraisals of the plant site and the value of the combustion turbines to be sold and then be leased back for the proposed plant at Peculiar, Missouri.

RESPONSE: See files on attached CD

ATTACHMENT: CD with 17 files

ANSWERED BY: Robert Brune

SIGNATURE OF RESPONDENT

DATE: _____

Aquila CT Appraisal - Pricing Summary

Client No. 010144
 W/O No. 02-01362-01000
 Date 11/19/2004

	Original Cost	Replacement Cost	Aquila offer to sell to KCPL	Rolls Royce offer to sell to Aquila	SWPC offer to sell grey unit to Aquila	Penn Energy internet offer 1	Penn Energy internet offer 2	Utility Warehouse internet offer
CT								
qty	3	1	3	2	1	1	1	1
Cost	\$76,137,869	\$24,500,000	\$69,000,000	\$43,000,000	\$19,000,000	\$26,000,000	\$33,000,000	\$15,000,000
Adjustments								
Option Payment	(\$3,712,500)							
CO No. 1 (Exhaust Stacks)		(\$1,849,200)		(\$1,849,200)	(\$1,849,200)	(\$1,849,200)	(\$1,849,200)	
CO No. 1 (Other)								
Warranty	(\$2,240,000)	(\$2,240,000)	(\$2,240,000)		(\$2,240,000)			
Guarantees								
Prod Mods	(\$300,000)							
Rehabilitation	(\$600,000)							
TFA				\$2,350,000	\$2,350,000			\$2,350,000
Multi Unit Purchase		(\$1,000,000)						
Change to DLN				\$5,000,000	\$5,000,000			\$5,000,000
Transportation				\$1,200,000	\$1,200,000	\$1,200,000	\$1,200,000	\$1,200,000
Internal Labor	(\$39,399)							
Total Adjustments	(\$6,891,899)	(\$5,089,200)	(\$2,240,000)	\$6,700,800	\$4,460,800	(\$649,200)	(\$649,200)	\$8,550,000
CT Subtotal*	\$69,245,970	\$68,410,800	\$66,760,000	\$71,200,800	\$61,460,800	\$77,350,800	\$98,350,800	\$53,550,000
* adjusted for three units								
Transformers & Breakers								
Transformers								
qty	6	6		6	6	6	6	6
Cost	\$1,686,150	\$1,686,150		\$1,686,150	\$1,686,150	\$1,686,150	\$1,686,150	\$1,686,150
Adjustments								
Storage	(\$15,500)	(\$15,500)		(\$15,500)	(\$15,500)	(\$15,500)	(\$15,500)	(\$15,500)
Relestering	(\$28,305)	(\$28,305)		(\$28,305)	(\$28,305)	(\$28,305)	(\$28,305)	(\$28,305)
Additional Retainage	(\$1,045)	(\$1,045)		(\$1,045)	(\$1,045)	(\$1,045)	(\$1,045)	(\$1,045)
Transformer Subtotal	\$1,641,300	\$1,641,300		\$1,641,300	\$1,641,300	\$1,641,300	\$1,641,300	\$1,641,300
Breakers								
qty	3	3		3	3	3	3	3
Cost	\$765,570	\$765,570		\$765,570	\$765,570	\$765,570	\$765,570	\$765,570
Adjustments								
Bond	(\$7,500)	(\$7,500)		(\$7,500)	(\$7,500)	(\$7,500)	(\$7,500)	(\$7,500)
Storage	(\$13,320)	(\$13,320)		(\$13,320)	(\$13,320)	(\$13,320)	(\$13,320)	(\$13,320)
Breakers Subtotal	\$744,750	\$744,750		\$744,750	\$744,750	\$744,750	\$744,750	\$744,750
Procurement								
Cost	\$126,644	\$126,644		\$126,644	\$126,644	\$126,644	\$126,644	\$126,644
Adjustment								
B&M Services	(\$126,644)	(\$126,644)		(\$126,644)	(\$126,644)	(\$126,644)	(\$126,644)	(\$126,644)
Procurement Subtotal	\$0	\$0		\$0	\$0	\$0	\$0	\$0
Transformers & Breakers Subtotal	\$2,386,050	\$2,386,050		\$2,386,050	\$2,386,050	\$2,386,050	\$2,386,050	\$2,386,050
Total	\$71,632,020	\$70,796,850	\$66,760,000	\$73,586,850	\$63,946,850	\$79,736,850	\$100,736,850	\$55,936,050

SCHEDULES 5 - 7

HAVE BEEN DEEMED

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