Exhibit No.:
Issue: *Capacity Planning*
Witness: *Cary G. Featherstone*
Sponsoring Party: *MoPSC Staff*
Type of Exhibit: *Surrebuttal Testimony*
File No.: *ER-2010-0356*
Date Testimony Prepared: *January 12, 2011*

MISSOURI PUBLIC SERVICE COMMISSION

UTILITY SERVICES DIVISION

SURREBUTTAL TESTIMONY

OF

CARY G. FEATHERSTONE

KCP&L GREATER MISSOURI OPERATIONS COMPANY

FILE NO. ER-2010-0356

Jefferson City, Missouri
January, 2011

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

Staff Exhibit No GMO-217
Date 1/18/11 Reporter LMB
File No ER-2010-0356

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SURREBUTTAL TESTIMONY

OF

CARY G. FEATHERSTONE

KCP&L GREATER MISSOURI OPERATIONS COMPANY

FILE NO. ER-2010-0356

Q. Please state your name and business address.

A. Cary G. Featherstone, Fletcher Daniels State Office Building, 615 East 13th Street, Kansas City, Missouri.

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

A. I am a Regulatory Auditor with the Missouri Public Service Commission ("Commission").

Q. Are you the same Cary G. Featherstone who filed direct and rebuttal testimony in this proceeding?

A. Yes, I am. I, with Curt Wells, filed direct testimony in this case on November 17, 2010 sponsoring Staff's Cost Of Service Report ("COS Report") for KCP&L Greater Missouri Operations Company's ("GMO" or "Company") rate case filed on June 4, 2010. I also filed rebuttal testimony on December 15, 2010.

I also filed direct testimony on November 10, 2010, rebuttal testimony on December 8, 2010 and surrebuttal testimony on January 5, 2011 in the affiliated Kansas City Power & Light Company's ("KCPL") rate case filed by that company on June 4, 2010.

Q. What is the purpose of your surrebuttal testimony?

A. The purpose of this surrebuttal testimony is to address the inclusion of certain plant assets in the direct filing made by GMO for its MPS operating area. This plant relates to generating units known as Crossroads Energy Center ("Crossroads").

Staff of the Missouri Public Service Commission ("Staff") has not reflected in its case any of GMO's costs regarding Crossroads, but has instead included capacity for two combustion turbines identified as Prudent Turbines 4 and 5 at a site located in MPS's load center.

Specifically, I address the rebuttal testimony of GMO's witness Burton L. Crawford, Senior Manager, Energy Resource Management, concerning the inclusion of the costs of Crossroads in rate base by the Company. I respond to GMO witness Marvin L. Rollison, Vice President of Renewables and Gas Generation, rebuttal testimony regarding the ability of GMO to provide management oversight of the Crossroads facility. Finally, I respond to the rebuttal testimony of GMO witness WM. Edward Blunk, Supply Planning Manager, on the subject of natural gas prices for Crossroads.

I will also address GMO's witness Curtis D. Blanc concerning GMO's share of Iatan 2 allocation between MPS and L&P.

Q. How will you refer to the Company in this testimony?

A. At various places in this surrebuttal testimony when I discuss historical aspects of GMO capacity planning I will use the name GMO was using at the time—Aquila (Aquila, Inc.) during the period early 2002 to mid 2008 and UtiliCorp (UtiliCorp United, Inc.) before early 2002. I refer to the former operating divisions of Aquila-Aquila Networks-MPS and Aquila Networks-L&P, as MPS and L&P, respectively, when discussing GMO when it

was named Aquila, i.e., before it was acquired by Great Plains Energy Incorporation (Great Plains) on July 14, 2008.

EXECUTIVE SUMMARY

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

A. The following summarizes my testimony on this topic.

GMO presents in its rebuttal testimony what it believes is justification for its inclusion of Crossroads in its rate base for MPS in this filing. GMO believes that Crossroads is the lowest cost generation planning and, therefore, represents the best option that the Company had in the 2007 and 2008 time period to meet its system load requirements. Staff does not agree with this assessment. Staff has examined the capacity issue at GMO (Aquila) since 1999 and has concluded that the replacement of a major purchased power agreement that terminated in May 2005 has never been completely addressed by GMO (Aquila) until 2008, when the Company moved Crossroads from an unregulated affiliate into its regulated plant investment. Staff opposes the inclusion of the cost of Crossroads in rate base for MPS as it was not a least-cost planning decision and the plant is located in the state of Mississippi several hundred miles and over nine (9) hours from GMO's service territory.

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

In lieu of GMO's 315 megawatt South Harper facility and GMO's Crossroads facility, Staff proposes to include the costs of what it has described as the MPS facility. The MPS facility

is a 525 megawatt facility based on the costs Aquila prudently incurred in building its South Harper facility plus the costs of two additional 105 megawatt combustion turbines. Since the legal issues surrounding the South Harper facility are now resolved with the March 28, 2009 effective date of the Commission's Report and Order in Case No. EA-2009-0118, the MPS facility is now the South Harper facility plus two additional 105 megawatt combustion turbines. This position is addressed at pages 90 to 94 and pages 103 to 110 in the Staff Cost of Service Report, and rebuttal and surrebuttal testimonies of Staff witness Lena M. Mantle. This testimony supports that GMO (Aquila) should have built its own generation to meet its growing electric needs and should have been doing so since at least the late 1990s.

The South Harper facility is the first regulated generating capacity that GMO (Aquila) built since 1983. Between 1983 and 2005 GMO relied on purchased power agreements to meet the growing demand for electricity in its MPS service territory. Staff was put into the position of imputing the MPS facility to GMO because GMO (Aquila) did not build generating assets for MPS, or L&P, for a substantial period of years.

Unlike the costs of a six combustion turbine site with three installed 105 megawatt combustion turbines, which were based on Aquila's costs for South Harper facility as built in 2005, Staff did not have such a basis for the costs to acquire and build the two additional combustion turbines to value the two additional turbines referred to as Prudent Turbines 4 and 5 in this case (as well as the last three MPS rate cases - Case ER-2005-0436, Case No. ER-2007-0004 and Case No. ER-2009-0090). This is because Aquila did not adequately plan

and pursue building generating assets to meet its system load requirements. GMO (Aquila), with Calpine, built the Aries Combined Cycle Generating Station (Aries), a 585 megawatt power plant. That power plant went into service in early 2002. At that time, GMO, then known as UtiliCorp United, Inc., had a corporate policy not to build generating assets for its regulated utility operations. The Aries power plant was conceived, planned, designed, engineered and costs determined by GMO, but GMO turned the project over to its unregulated subsidiary Aquila Merchant Inc. (Aquila Merchant) to build.

GMO (Aquila) signed a five-year purchased power agreement with Aquila Merchant for supplying power from the Aries power plant needed by its MPS operations that ended May 31, 2005, (the Aries Agreement). Before it began imputing generating assets, Staff took the position in GMO's prior rate cases that the Aries Agreement was not an arms' length transaction, and made adjustments in each of those cases to exclude the full value of the capacity agreements between MPS and its affiliate, Aquila Merchant.

Planning for the expiration of the May 31, 2005, Aries Agreement, MPS developed a least cost plan in early 2004 to meet MPS' capacity needs for the summer of 2005. This capacity plan, the least cost plan, was to build five (5) turbines having a total capacity of 525 megawatts. However, in the summer of 2005 Aquila MPS installed only three combustion turbines totaling 315 megawatts at its South Harper site designed for six such combustion turbines, following what it referred to as its "preferred plan." The remaining capacity to replace Aries was to be met by power from purchased power agreements. South Harper was the subject of extensive litigation. Originally, the three turbines GMO (Aquila) installed at South Harper were held in storage from 2002 to 2005 after GMO (Aquila) no longer planned for them to be used by GMO's non-regulated subsidiary, Aquila Merchant,

who had planned to install them at its then owned Aries generating site, as Aries II. GMO (Aquila) unsuccessfully attempted to sell these turbines before storing them long term. Rather than building additional capacity, GMO (Aquila) subjected itself to the volatile market conditions of the energy power markets. After installing the combustion turbines at South Harper in 2005, GMO (Aquila) continued to rely on short-term purchased power agreements for the remaining capacity necessary for it to meet its system load requirements year-after-year. GMO (Aquila) did so until the decision by GMO (Aquila) to transfer Crossroads from its non-regulated affiliate Aquila Merchant to MPS in August 2008, after it was acquired by Great Plains Energy Incorporated (Great Plains).

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

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

substantially reduced amount compared to what GMO is requesting in this case. This is discussed in my direct testimony.

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

In addition to the turbine values being overstated, the cost of the transmission plant at Crossroads is higher than it would be if GMO (Aquila) had installed the turbines at an existing site, a site such as South Harper. Staff believes that the there was a ** __ ** million amount that was estimated for transmission upgrades at the Aries site where those three South Harper turbines were originally planned to be installed. Crossroads transmission is substantially higher than this transmission upgrade estimate.

The annual transmission expenses are higher for the Crossroads units because of where they are located. If the turbines would have been installed in the Kansas City area the transmission costs would be dramatically less.

Staff believes that natural gas costs are generally higher at Crossroads than they would be if the capacity was located in the Kansas City area.

Staff also believes it is more difficult to provide the kind of management oversight of the Crossroads plant by virtue of its location in Clarkdale, Mississippi, over 500 miles from Kansas City.

To put succinctly, Crossroads is the wrong plant—built as a merchant plant, built at the wrong place—Mississippi and built at the wrong time—in 2002 with high costs.

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CROSSROADS ENERGY CENTER GENERATING UNITS

Q. What is Crossroads Energy Center?

A. Crossroads Energy Center is a four unit 75-megawatt natural gas combustion turbine generating site with a total capacity of 300 megawatts located at near Clarksdale, Mississippi. These four units are General Electric model 7 EAs and were built in 2002 as a merchant plant for the former Aquila Merchant Services Inc. (Aquila Merchant), a wholly-owned subsidiary of Aquila, Inc. (Aquila) and an affiliate of GMO.

Q. Mr. Crawford states at page 3 of his rebuttal testimony that "Staff claims to rely on an analysis conducted by the Company" in February 2004. Is this correct?

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

The RFP process that GMO wants to ignore from the 2004 time period is the same RFP process GMO used in 2007 that it now embraces to support its view that Crossroads is the most economic decision. While there is nothing wrong with the 2007 RFP process that

GMO conducted to determine its future capacity planning needs, this analysis just is not the one that would address GMO's (Aquila) earlier capacity needs in the 2005 time frame. The actual decision needed to be made in 2004 because of the May 2005 expiration of the Aries 500 megawatt purchased power agreement. GMO used the right analysis, just at the wrong time.

Q. Mr. Crawford also refers to a 2010 study at page 9 of his rebuttal testimony. What is this study?

A. In the 2009 GMO rate case, the Company agreed to perform a study regarding GMO's capacity requirements. Mr. Crawford indicates in his rebuttal this analysis was completed in April 2010, at which time GMO supplied the results to Staff. This analysis appears as a schedule to Mr. Crawford's rebuttal as Schedule BLC2010-10 (HC). As discussed in his rebuttal testimony the study was performed in carrying out part of the Non-unanimous Stipulation and Agreement in Case No. ER-2009-0090.

Just as with the 2007 analysis performed by GMO, the 2010 study found Crossroads was the least cost. However, just as with the 2007 analysis, the 2010 analysis uses a time frame that was much too late to properly evaluate the replacement of the Aries generation in 2005. There was nothing wrong with the 2010 study, other than it is also based at the wrong time.

Q. Did Staff rely on GMO's (Aquila) 2004 least cost plan approach in previous GMO (Aquila) rate cases?

A. Yes. After the completion of the Aries capacity agreement, GMO (Aquila) constructed three combustion turbines at its South Harper facility. This facility was originally sized to accommodate up to six combustion turbines of at least the size of the Siemens model

501 D, each having 105 megawatts of capacity. Installation of the three combustion turbines totaling 315 megawatts of capacity was completed in June and July of 2005. Staff supported the use of the cost of these units in rate base in the 2005 rate case. However, the South Harper site was subject to significant legal challenges resulting in the Commission to have to rule on GMO's authority to construct South Harper and these units three separate times. Therefore, Staff used the costs of South Harper as a surrogate, or proxy, in GMO's (Aquila) 2005 (Case No. ER-2005-0436) and 2007 (Case No. ER-2007-0004) rate cases. After the legal challenges were completed, Staff used the South Harper costs in GMO's 2009 rate case- Case No. ER-2009-0090. In addition to the three combustion turbines, Staff included the capacity for two more combustion turbines of the same size, 105 megawatts totaling 210 megawatts.

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

A. It is my understanding that the legal issues surrounding the South Harper facility were resolved with the March 28, 2009 effective date of the Commission's Report and Order in Case No. EA-2009-0118. Staff considered the South Harper facility to be in rate base in GMO's 2009 rate case. In addition to South Harper generation Staff continues to support the two additional 105 megawatt combustion turbines addressed at pages 90 to 94 and pages 103 to 110 in the Staff Cost of Service Report filed on November 17, 2010, and rebuttal and surrebuttal testimonies of Staff witnesses Lena M. Mantle.

THE FORMER AQUILA'S CAPACITY PLANNING AND ADDITIONAL PEAKING TURBINES

Q. Mr. Crawford states, at page 8 of his rebuttal testimony, that GMO "concluded that the Crossroads Energy Center would result in the lowest 20-year NPVRR." Does Staff agree that this is the lowest cost generation that GMO should have considered?

A. No. GMO proposes to include Crossroads, a generating unit built in 2002 as a merchant plant, in its rate base in this case.

Q. Does Staff believe the costs of Crossroads are in GMO's rate base?

A. No. The Company proposed to include this unit in rate base in its 2009 rate case, but Staff also opposed this treatment in the last rate case. That case was settled with no specific ratemaking treatment addressed for Crossroads.

Q. Why does Staff believe Crossroads is not GMO's least cost option?

A. Staff believes that the time period of 2007 that GMO is relying on to evaluate the costs of this generating capacity is misplaced, and well past the time when this capacity was needed by the Company. The time that is relevant to the evaluation of least cost capacity planning for Aquila is the time period of 2004 when the Company had to make decisions regarding its replacement of the 500 megawatt Aries purchased power agreement that expired May 31, 2005. This agreement was originally with an affiliate of Aquila who owned and built Aries with its partner, Calpine. Aquila signed a five-year purchased power agreement with Aquila Merchant for MPS in 1998 for the period summer of 2000 to May 2005.

Upon termination of the 500 megawatt Aries purchased power agreement, Aquila committed to replacing part of its capacity shortfall with three combustion turbines that an Aquila affiliate had in storage - the combustion turbines it installed at South Harper. In January 2004, Aquila informed Staff that it was going to use these combustion turbines to

partially replace the 500 megawatts of capacity it had been obtaining from the Aries station in order to meet its capacity needs during the summer of 2005 peak season. At the time, Staff questioned Aquila why it was only installing three combustion turbines, when the Company's own analysis showed the least costs planning to replace the 500 megawatt Aries PPA (purchase power agreement) was to install five combustion turbines. In 2004, Aquila explained that it only had three combustion turbines to install and it also thought there were attractive short-term purchased power agreements available for the summer of 2006 which was the summer after the South Harper units were to become operational.

Q. Did Staff accept this explanation by Aquila?

A. No. Staff continued to express its concerns it had previously communicated to Aquila many times that Staff believed the best approach for the Company was to pursue the installation of three combustion turbines that were eventually installed at South Harper and to build additional generating capacity making up the shortfall. Staff expected Aquila to build five combustion turbines making up approximately 525 megawatts of capacity which would have more than adequate to replace Aries 500 megawatts of capacity.

Q. Did Aquila ever have an opportunity to purchase Aries after its unregulated affiliate sold its interest to Calpine?

A. Yes. Aquila bid for this generating facility on December 4, 2006, but was not the successful bidder.

Q. Would you briefly describe both the Aries and Iatan 2 power plants?

A. Yes. Aries is a 585 megawatt combined cycle facility, and would have more than met MPS' system load requirements for 2007 and beyond, possibly through 2010 when Aquila's share of the Iatan 2 Generating facility was expected become available. Iatan 2 is a

coal-fired generating plant recently completed by Kansas City Power & Light Company (KCPL) and, in which GMO (Aquila) has an 18 percent ownership share.

Q. Did Calpine's sale of Aries in 2006 influence Aquila's decision to build new capacity?

A. Yes. Because Aquila did not need peaking capacity in addition to the 585-megawatt Aries combined cycle facility—an intermediate capacity plant, it would not commit to building combustion turbines before Calpine sold Aries.

Staff believes that Aquila's decision in 1998 to build Aries as merchant plant caused the problems with its capacity planning that is the basis for the issue today. Aries was previously owned by Aquila as a non-regulated unit. Aquila sold a 50% share of Aries in late 1999 to Calpine. Had Aquila built this plant as a regulated facility, there would not be the capacity issues that have plagued the Company over the past several years. With ownership and control of the Aries capacity, Aquila would not have been subjected to the capacity market year after year.

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

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

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

A. Since GMO has taken the position through Mr. Crawford's rebuttal testimony that Crossroads is the most economical capacity generation available to the Company, it is essential to any assessment of the Crossroads facility to understand that it is GMO's actions in

the past were as it appears on the surface this rate base decision looks good in the 2007 study referenced in Mr. Crawford's rebuttal.

Staff believes, however, that the relevant time period is when the Aries contract ended in 2005, not two years later in 2007 or five years later in 2010. The costs of combustion turbine acquisition and installation in 2005 are substantially different than in the 2007, 2008 or 2009 time periods. For the Aries capacity replacement to have occurred by May 2005, Aquila would have had to have purchased the turbine equipment by 2004. The combustion turbine market in 2004 was completely different than the market during 2007 and 2008 when GMO made its analysis and concluded that Crossroads was the least cost decision. Prices in the 2004 turbine market were much lower than in the 2001 turbine market when Aquila originally purchased the turbines installed at Crossroads. Thus, the book Crossroads turbine values are higher compared to what they would be if they, or comparable turbines, were purchased in 2004.

Q. Upon what did GMO base its decision that Crossroads was its least cost capacity decision in 2007 and 2008?

A. GMO witness Mr. Crawford generally describes on page eight (8) of his rebuttal testimony the process GMO went through to determine that Crossroads was the best decision for the Company. GMO received responses from a request for proposal (RFP) for purchased power agreements and self-build options. The self-build options contained prices for turbines and equipment priced at 2007 costs. These costs would have significantly increased compared to when Aquila should have evaluated the capacity addition back in 2004. To suggest that Crossroads is an economic decision as GMO indicates in Mr. Crawford's rebuttal testimony is simply wrong.

Q. Are the transmission costs higher for Crossroads?

A. Yes. Mr. Crawford agrees in his rebuttal testimony at page 10 that the transmission costs are higher for Crossroads compared to a plant located in GMO's area.

Q. Did Aquila ever look at other generating units outside its service territory?

A. Yes. Aquila Merchant once owned two non-regulated generating facilities called Raccoon Creek and Goose Creek. These units were sold to Ameren Missouri in early 2006 as distressed property. Staff inquired of Aquila why these units were not considered for its regulated operations in Missouri. Aquila maintained it could not get sufficient transmission back to MPS load center and it was too costly to transport the power back. In a June 26, 2003 Resource Planning presentation, Aquila identified companies submitting responses to RFP's but they were rejected primarily because they were located in Illinois which Aquila believed had transmission issues.

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

A. No. The comparison that GMO (Aquila) made prior to being acquired by Great Plains was based on the wrong time period. GMO (Aquila) examined the costs in 2007 based on 2007 costs, but that was three years after the analysis should have been done. By 2007, the cost of combustion turbines had increased substantially causing Aquila to make the wrong decision on the costs of Crossroads. The analysis that was done used inflated turbine costs over those that the Company could have received had it pursued the self-build option in 2004 as opposed to 2008. More important, GMO (Aquila) likely would have never

considered adding a power plant located in Mississippi to its generating fleet to meet its Missouri load requirements, unless the costs were substantially lower than any other option. Having a power plant several hundred miles from the Company's load center presents logistic problems for operations and maintenance and, in particular, substantial costs to transport the power back to GMO's customers. Clearly, it is beneficial to have the generating fleet close to where the electricity is going to be used.

Had KCPL or GMO ever suggested to consider the Crossroads facility, Staff would have wanted to know the magnitude of the additional costs that would be involved in managing the plant facility and the substantial costs relating to the transmission of the power back to the load center. Those are costs that are incurred as long as the plant is needed for system load requirements.

Q. At page 3 of Mr. Crawford's rebuttal testimony, he identifies the February 2004 meeting where Aquila presented the least cost plan to Staff. Did you attend meetings between Aquila and Staff regarding Aquila's decision to build South Harper?

A. Yes. On January 27, 2004, Staff met with several Aquila personnel, including Mr. Richard C. Green, then Aquila's Chairman, Chief Executive Officer and President. During that meeting Aquila, based on its 2004 resource plan, committed to install three combustion turbines by June 2005. GMO had these units in storage at its Ralph Green plant located at Pleasant Hill, Missouri. Within a couple of weeks, GMO had a second meeting on February 9, 2004 with Staff and Public Counsel at GMO's 6-month Integrated Resource Planning (IRP) presentation to provide the results of its review of its capacity needs. At this meeting Aquila provided its analyses of its least cost and preferred plans. Staff questioned Aquila about its analysis of the Preferred Plan to only install three combustion turbines. Staff

expressed its concerns with Aquila's past capacity planning effort and took strong exception with its decision not to build more generating assets, particularly since Aquila's analysis justified building more combustion turbines as its "least cost" plan.

Q. Did Aquila only evaluate its preferred plan?

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

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

Q. When did Aquila begin planning to replace the power it was taking under the Aries Agreement?

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

From the time Aquila signed the Aries agreement in February 1999, it started considering replacing the Aries capacity, but only with purchased power agreements. Even though the combustion turbines that are presently installed at the South Harper facility had been in storage since beginning August 2002, it was not until the January 2004 meeting that Aquila committed to building a generating plant. In fact, just prior to the January meeting, Staff discussed the capacity planning matter as part of the 2004 rate case and Aquila had not made any plans to use the combustion turbines that were in storage. It was not until Staff pushed for these turbines to be used to meet Aquila's capacity requirements for the expiring Aries capacity in June 2005 did the Company commit to install the three combustion turbines at the site now known as South Harper.

Q. How did Aquila meet its capacity requirements after the summer of 2005 when South Harper was completed?

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

Q. Does Staff believe that Aquila's capacity planning was prudent?

A. No. Staff has been very critical of Aquila's approach to addressing its capacity needs for its system. Examples of the former Aquila decision making:

- Having a corporate policy not to build regulated generation evidenced by not having built generation since 1983, except for South Harper in 2005 which effects the regulated operations to this day. GMO had not added any capacity until the completion of Iatan 2 in this case, with the exception Crossroads in August 2008.

- In 1997 attempted to move all generating assets to an Exempt Wholesale Generator (EWG), Case No. EM-97-395. Application was withdrawn after opposition by Staff.

- MPS Resource planning in 1992 determined need for a combined cycle unit by 2000 for MPS yet Aquila's corporate decision made to build unit as a

non-regulated merchant plant (Aries) after regulated operations did most of the preliminary work for the development of the project.

- MPS purchased power agreement from 2001 to 2005 from a non-regulated Aquila affiliate (the Aries Combined Cycle Agreement).

- In 2004, Aquila sold its 50% share of Aries giving its partner ** _____ _____ ** to take unit over.

- Aquila attempts unsuccessfully to re-acquire Aries in December 2006.

- Despite having a known certain date to replace the Aries Agreement by June 2005, Aquila did not timely plan for the replacement of this capacity. Until January 2004, did not seriously consider building generation instead looking at another purchased power agreement from an affiliate (Aries II).

- Aquila attempts to sell at steep discounts three turbines which were to be installed at Aries as Aries II in 2002. Units were placed in storage. While units were for sale, at no time were the units ever considered or offered to MPS to meet its growing capacity needs before January 2004. In January 2004 Aquila made decision to replace Aries Capacity Agreement with three combustion turbines it had left over from its merchant business. These units had been in storage since 2002 during which the units' warranty expired. Units were eventually installed at the South Harper facility in June and July 2005.

- South Harper legal issues caused by having to move forward on project to get units in service by June 2005 to replace Aries Agreement. Since Aquila already had possession of units since 2002, appropriate planning could have taken place much earlier than it did providing ample time to get necessary community support.

- Aquila had many combustion turbines, three of which were new units, in its asset portfolio that it sold at distressed values resulting in hundreds of millions of dollars of impairment charge losses that the Company did not consider to use for its regulated operations despite MPS' need to for capacity. (Raccoon Creek (340 megawatts) and Goose Creek (510 megawatts) sold to Union Electric Company d/b/a AmerenUE, now d/b/a Ameren Missouri, in 2005 with sale completed in early 2006 and three other General Electric 7 EAs combustion turbines sold to non-investor owned utilities in Nebraska).

- In 2000 Aquila re-acquired MPS' four combustion turbines at Greenwood which it had built starting in 1975 and sold under a sale lease back which had a provision where the Company could acquire the units at the end of the lease at the existing market value. Aquila re-acquired the units at greater than the original purchase price even though the units were 25 years old. The units were reacquired by a Aquila non-regulated MPS affiliate with a

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corporate decision that MPS entered into a 15-year purchased power agreement. This agreement was ultimately terminated and the units were moved back in the regulated operations of MPS. The 25-year old units are now in rate base at a greater amount than what they were originally purchased for in 1975 and 1976. Customers will have in essence paid for these units twice- once through the lease payments which were included in rates and now again in rate base. If the units had been rate based from the mid-1970s the units would have been close if not fully depreciated except for additions occurring over the operating life of the assets.

The foregoing demonstrates that Aquila has not had appropriate and effective decision-making regarding its resource plans or its resource planning process. These events and circumstances are not the actions of a typical utility this Commission regulates. When Great Plains acquired GMO, it inherited the many problems and the long-term issues with the former Aquila capacity planning.

ADVANTAGES OF UTILITY OWNING GENERATING ASSETS

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

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

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

A. The control of generating facilities by utilities is considered very important. Companies can better manage costs for maintenance and reliability of units if they own them. In

essence, by controlling the generating unit, the Company is much more in charge of its own destiny. In an interview with Staff on November 14, 2003, Mr. Terry Hedrick, then Aquila's Generation Services Manager and the Project Manager of South Harper and now KCPL's Manager of Plant Engineering, indicated that he believed there were "significant advantages in both owning and operating the generation equipment in developing maintenance expertise. If you control / own the equipment, he believes that there are advantages in the areas of costs, manpower and staffing and dispatch flexibility." (Data Request No. 616.1 in Case No. ER-2004-0034)

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

A. Yes. Generally, the costs (revenue requirements) are higher in the early years of ownership. The capital costs of the plant investment require a return (return on investment) and the utility is entitled to a recovery of the investment (return of investment). As the plant investment is recovered through depreciation – (the return of investment) - the rate base return required – (return on the investment) - decreases. At some point in the future, especially if the plant operates longer than expected, such as in the case of GMO's Sibley generating units, the customers will have the benefit of the plant while the rate base investment is very low. The return on investment declines which causes the revenue requirements to decline dramatically through ownership.

Q. Is GMO in a position to reap these advantages?

A. No. GMO operating as Aquila, by deciding not to build regulated generation for a period of over 20 years since 1983 put its customers at risk because there was a substantial amount of capacity that it had to replace - at least 500 megawatts - since the Aries purchased

power agreement expired in May 2005. Aquila made no commitment to build regulated generation for over 20 years, unlike every other major electric utility that operates in this state, and faced the challenge of replacing the Aries capacity in large block of power, at least 500 megawatts. It met part of this capacity with South Harper—315 megawatts but did not make the right decision to replace the entire 500 megawatts with owned assets.

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

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

> Aquila Merchant committed to purchase 12 or more combustion turbines during this period (starting in 2000) to build unregulated peakers to take advantage of the wholesale marketplace (this was after the Aries construction decision had been made and the plant was under construction). The reason for Aquila Merchant's acquisition of the combustion turbines was its belief that, **given expected future power market conditions, it would be less expensive to produce power from generating units you control than to have to buy power in the marketplace.** Mr. Sherman indicated that the last place a merchant company wanted to be was to have to supply power through long-term contracts and be at the mercy of a volatile power market and have to buy power to supply those contracts....
>
> [Data Request No. 549 in Case No. ER-2004-0034; emphasis added]

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

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

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

A. Yes. The approach that Aquila Merchant pursued could also have been followed by the regulated MPS division. For the exact reasons that Aquila Merchant believed it was necessary to own the generating assets, MPS should have built and operated its own generation. This was especially important when you take into consideration that the Company believed that the power market costs were going to rise significantly over time, as it did in 2001 through 2005. The decision by Aquila to allow the Aquila Merchant organization to build and acquire generating assets and sell that power through the open market through purchased power agreements like those entered into between the Aries partners and MPS resulted in the situation where Aquila's regulated operations were subjected to the volatility of the market for power costs. It is clear that Aquila Merchant believed that it could not enter

into long-term agreements and be subjected to the whims of the market place in supplying that power, thus causing them to reach a decision to own the generating assets in order to supply those power needs to their non-regulated customers. It should be just as clear that the regulated entity, MPS, would also want to own generating assets in this same situation.

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

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

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

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

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

A. Yes. If there are rising power market costs, a company owning both regulated and non-regulated entities would be at a relative disadvantage if it put the generating facilities in its regulated operations, because it would not be able to shield the profits obtained from the regulated entity. This is the situation MPS found itself in 2000 through 2005 with Aquila Merchant's ownership of Aries and ultimately with the planned second purchased power agreement contemplated with Aries II. But the power market collapsed as did Aquila's non-regulated operations so Aquila made the decision to get out of the merchant business before this agreement ever was finalized. While the regulated entity would have an opportunity to sell the energy from the generating capacity in the open market during the period of expected rising power costs, the profits from these transactions are typically included in the ratemaking process. For as long as the regulated entity can stay out of a rate case, the company will benefit from the increased sales. However, when the regulated entity files for rate relief, the power sales would be considered in the rate process.

The decision to put generating assets in a regulated entity of a company would cause the non-regulated entity to miss opportunities for profit making in the increased power market. Assets that are in the regulated operations would be held to a typical regulated return which would likely be less than those that would be received by non-regulated entities engaging in profit taking from a rising power market. Aquila believed that it could receive greater returns on its investment dollars by having a non-regulated entity, Aquila Merchant, own the generating facilities and selling the power through purchased power agreements to entities like MPS in the open market through market-based pricing. As the market reflected

the increased power costs, the non-regulated entity would also receive the increased revenues resulting in greater-than-regulated returns.

Q. Is there an example where Aquila was subjected to increasing costs because it failed to secure the ownership of generating assets?

A. Yes. In 1975, Aquila, then operating as Missouri Public Service Company, purchased and built four combustion turbines at its Greenwood Generating Station which GMO still operates. Upon completion of the construction before the units went into service, the Company sold at book value to financial institutions, all four of the combustion turbines, and received the capacity power through a 25-year lease for each of the generating units. The lease did not allow for any residual value to be passed to the utility entity that originally owned the generating units. Upon expiration of the lease, Aquila reacquired those four combustion turbines at an existing market-based price. In essence, the Company purchased the same asset twice. The cost to reacquire the assets at the current market was very close to the original purchase price paid for the assets when they were new. Thus, Aquila bought 25-year-old generators and paid close to what the original investment was back in the mid-1970s. Customers paid for 25 years lease payments which covered the fixed costs of the units with MPS having the responsibility for all operating and maintenance costs along with any capital additions. MPS customers are currently paying in rates for the units which have a greater value than when they were new-- in essence paying a second time for the units. The benefits of ownership are not being realized for the Greenwood units because of this sale/lease back arrangement.

EFFECTS OF AQUILA'S DECISION NOT TO TREAT ARIES AS A REGULATED GENERATING FACILITY

Q. Did Aquila ever consider building Aries as part of its regulated operations?

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

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

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

A. The MPS regulated operations of Aquila presented its proposal to Robert K. Green, then Aquila President, who made the decision that the regulated side of its operations would not build Aries. The material covered two different dates: 1) October 8, 1998, - Financial Analysis of Supply Options, and 2) October 28, 1998, - Updated Analysis of Supply Options. The presentation material was provided to Staff in response to Data Request No. 301 (Case No. ER-2004-0034) and is attached to this testimony as Highly Confidential Surrebuttal Schedules 3 and 4.

Q. How did Staff learn of the process Aquila used to determine who would build Aries?

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

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

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

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

A. Yes. Staff believes that had Aquila built Aries as a regulated generating station and rate based it in the traditional manner, Aquila likely would not have the capacity issues it has today. Staff has had issues with Aquila's decision making regarding building generating units since Aquila's 2001 rate case, Case No. ER-2001-672. In each rate case since the 2001 through the last Aquila rate case, Case Nos. ER-2004-0034, ER-2005-0436, and ER-2007-0004, Staff expressed its concerns on the Company's decision not to build generation units and relying on purchase power agreements to meet capacity. Now with the acquisition by Great Plains, GMO continues to have issues with the capacity decisions of the former Aquila—now with Crossroads.

Q. Had Aquila examined building a combined cycle unit as a regulated asset in the past?

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

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

Q. Did the regulated MPS develop the Aries project?

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

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

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

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

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

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

A. Yes. In an interview with David Kreimer, he indicated that he spent a substantial amount of his time during the winter and spring months of 1998 developing

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preliminary cost data and studying the estimates for the 500 MW combined cycle unit that ultimately became Aries.

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

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

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

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

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

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

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

Initially, the regulated operations of MPS pursued building the Aries Combined Cycle Unit as an unregulated EWG. The studies and analyses performed by personnel of the regulated operations ultimately led to the conclusion that the 500 megawatt combined cycle unit was the

least cost option to meet the capacity needs of MPS starting in 2001. This was confirmed by the independent engineering firm, Burns & McDonnell in an August 1998 report to the Company.

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

> **Conclusions**
>
> Based on the 1998-2003 supply-side analysis, the least cost plan for MPS consists of executing short term purchase contacts to meet MPS capacity needs through the year 2000, and the construction of a gas-fired 500 MW combined cycle unit to meet all of MPS' capacity needs in 2001-2003 time frame and a majority of its needs thereafter.
>
> The above supply provides the least cost means to meet the MPS capacity and energy needs even though MPS' has a low annual load factor of <50% and an abundant supply of low-cost energy supplied by its existing resource base which is 64% coal-fired base load generating capacity.
>
> The ability of combined cycle units to complete in the regional energy market place enables these resources to provide sufficient revenue to offset their higher capital cost.
>
> 1.5 Recommended Action Plan
>
> As a result of the analysis outlined in this report, it is recommended that UCU [(Aquila/UtiliCorp)]:
>
> Negotiate extension of the existing lease agreements on the Greenwood combustion turbines.
>
> Secure short term capacity to meet MPS' capacity needs thru 2000.
>
> Pursue the construction of a 500 MW combined cycle unit proposed with an in service date of June 1, 2001.
>
> [Source: Data Request No. 607 in ER-2004-0034—1998-2003 Preliminary Energy Supply Plan]

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

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

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

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

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

A. Aquila subjected its MPS and now, L&P operations, to purchased power agreements priced at market-based rates. The market rates for purchased power during the

period of most of this decade has increased significantly over what they were in the late 1990s when Aquila entered into the Aries purchased power agreement.

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

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

Also, in an interview with Mr. DeBacker and Mr. Robert Holzwarth (Vice-President and General Manager of UtiliCorp Power Services (UPS)) held on October 28, 2003, Mr. DeBacker stated that it was Aquila's corporate policy not to consider building regulated generating assets. Mr. DeBacker indicated in the interview that "MPS did not intend to build and include in rate base generating units to supply its power needs. Thus, Aquila (UtiliCorp) through its regulated MPS division never considered building generating capacity as a regulated unit" [Data Request No. 548 in Case No. ER-2004-0034).

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

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

> The philosophy of "buy/not build" in regard to power supply, taken in response to perceived electric industry uncertainty, was an Aquila (UtiliCorp) corporate strategy in place by 1998; **it wasn't just Mr. DeBacker's and Mr. Holzwarth's belief at that time.** The Aquila (UtiliCorp) philosophy was consistent with MPS' strategy in 1998. MPS took the position to depend on purchased power for short-term power needs, no construction of regulated power plants. **The Aquila (UtiliCorp) divisions in Colorado and Kansas followed this same approach.** Bob Green, Jim Miller and Harvey Padawer communicated the "buy/not build" strategy for the regulated entities. This strategy is not set down in writing, to DeBacker's and Holzwarth's knowledge, but was no secret within Aquila. Mr. Holzwarth was present at one meeting where Bob Green expressed the "buy/not build" philosophy. **Among senior officers still with Aquila, Rick Green, currently Chairman, President and Chief Executive Officer could address this philosophy if necessary.**
>
> Both Mr. DeBacker and Mr. Holzwarth indicated that UtiliCorp was concerned about the future of retail competition / retail access and was concerned about the "stranded costs" relating to loss of customers to completion from "customer choice". The Company wanted to "stay short in the market" (stay in market 3 to 5 years only). The decision to "stay short" in the market was made by UtiliCorp in 1996/1997 time frame. Mr. Holzwarth said, "what would happen if you build big units (generating units) and half your customers went away?" When asked if either of them knew of any system (electric system) where half the customers "went away" neither Mr. DeBacker nor Mr. Holzwarth knew where this had occurred. Mr. Holzwarth cited the competition that was occurring in other states such as Pennsylvania, New Jersey, New York and Illinois.
>
> [October 28, 2003 interview with DeBacker and Holzwarth, Data Request No. 548 in Case No. ER-2004-0034; emphasis added]

The least cost option that MPS developed for meeting the capacity needs of (Aquila's) Missouri regulated utility operations was to build the Combined Cycle Unit as an EWG as part of the

regulated operations of the Company (Mr. DeBacker's rebuttal testimony in Case No. ER-2004-0034).

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

It is interesting to note that the regulated operations of the Company continued to examine the EWG option as late as October 1998. A presentation made on October 8, 1998, entitled "Financial Analysis of Supply Options" and another presentation made on October 28, 1998, entitled "Updated Analysis of Supply Options." both of presentations were made by Aquila's regulated operations presented the EWG option of building and owning the 500 megawatt combined cycle unit. As late as the end of October 1998, the regulated operations of UtiliCorp were still pursuing the generation option that would later become the Aries Project.

However, the option of the regulated operations building the 500 megawatt combined cycle unit was rejected by Aquila's upper management. Other than the statements made in the interview with Mr. DeBacker and Mr. Holzwarth that the Company believed it would be difficult to have the regulated operations build and own the Aries Combined Cycle Unit, the Staff has not seen nor been provided any documentation that would identify the specific reasons why this option was not agreed to by the Company's upper management. In the October 28, 2003,

interview, Mr. Holzwarth indicated that upper management decided that it would be too difficult to have the regulated operations create the non-regulated function of building and owning the Aries Unit. The following interview notes, reviewed by the interviewees, accurately describe this:

> In 1998, the only economic analysis performed to assess MPS' power options for the first years of the next century were for a three-to-five year period only. **Building plants for MPS' rate base was not considered as an option, but Holzwarth's group did consider building a generating plant as an unregulated Exempt Wholesale Generator (EWG) within MPS.** Building a unit as part of an EWG was viewed as superior to including a regulated unit in rate base because there was less risk to Aquila of stranded costs if retail access was allowed in Missouri. Plus, the EWG proposal allowed MPS to better control costs and to "control its own destiny" in regard to power supply, and also allowed MPS the opportunity to profit on a non-regulated basis in the wholesale marketplace through the sale of energy as off-system sales. The analysis performed by UtiliCorp for the EWG never assumed MPS to be a customer of the MPS EWG unit beyond the original five-year power supply proposal in the RFP. Mr. Holzwarth stated that the MPS EWG option was presented at a meeting attended by Bob Green, then UtiliCorp President, and Harvey Padawer (maybe Jim Miller as well). The MPS EWG option was rejected because of questions raised at the meeting the risk of a massive EWG operating failure when taking into consideration MPS' relatively small size; how to obtain generating economies of scale, since a separate organization within MPS would have to be responsible for the EWG unit; MPS' lack of familiarity with the combined-cycle technology; and regulatory scrutiny of possible cross-subsidies between MPS' regulated and non-regulated sides. Mr. Holzwarth said some of the questions posed at this meeting where he recommended that MPS (through UPS) build non-regulated EWG generating unit were: How can MPS operating people manage the EWG also? What would be the "risk" to cash? Where would you get economies of scale from a regulated operation running a non-regulated EWG operation? Mr. Holzwarth stated he did not have answers to these questions.
>
> [Source: October 28, 2003 interview with Mr. DeBacker and Mr. Holzwarth; emphasis added]

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

> Mr. Holzwarth stated that the ultimate decision would have been made by Bob Green and/or Harvey Padawer; however, the consensus opinion of senior management was that a regulated power plant with its potential stranded cost issues was not desirable. Mr. Holzwarth indicated he did not make the decision; he only made the presentation recommending that his group UtiliCorp Power Supply build a generating unit as a non-regulated EWG.
>
> [Source: October 28, 2003 interview with Mr. DeBacker and Mr. Holzwarth,]

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

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

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

   Response: Uncertainty surrounding the deregulation of the electric power industry and the possibility of incurring unrecoverable "stranded costs". Avoiding long term power supply commitments was viewed as a means to effectively mitigate potential "stranded costs" arising from potential retail generation choice.

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

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

Secondary Concern

1. Inexperience in operating large F-frame combustion turbine generating units and uncertainty surrounding the actual maintenance costs of these machines.
   [Data Request No. 302 in Case No. ER-2004-0034]

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

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

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

> Bob Green - Chief Operating Officer supervised by Rick Green
>
> Jim Miller - Leader Business Segment UED (UtiliCorp Energy Delivery)
>
> Harvey Padewar - Leader Business Segment UEG (UtiliCorp Energy Group)

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

> Were Bob Green, Harvey Padawer and Jim Miller involved in meetings dealing with Aquila Merchant matters? DeBacker and Holzwarth said Padawer would have been; he was head of Aquila Merchant at the time and reported to Mr. [Bob] Green. They supposed Bob Green would have met with Aquila Merchant people; Bob Green as President of Aquila (UtiliCorp) was over Aquila Merchant as well as the regulated utility operations. Mr. DeBacker and Mr. Holzwarth were not sure about Mr. Miller, Senior Vice President of UtiliCorp Energy Delivery (UED) which was responsible for the transmission and distributions system (pipes and wires) of the regulated utilities.
>
> [Data Request No. 548 in Case No. ER-2004-0034]

Q. Who was Mr. Bob Green?

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

Q. Who is Mr. Harvey Padawer?

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

Q. Who is Jim Miller?

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

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

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

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

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

A. Yes, to the extent that a company had both regulated and non-regulated entities and the non-regulated entity owned and operated generating facilities that could sell power to the regulated affiliated company. If the utility believed that the market pricing of power costs was going to rise over time, the utility could build and own non-regulated generating facilities and enter into purchased power agreements with regulated affiliated companies. There would be a direct benefit to the company if the costs could be passed on to regulated customers through rates. The increased power costs would benefit the owner of the generation because they could raise the costs to the regulated entity through market-based rate contracts. This arrangement would benefit the parent company that owned both the regulated utility and the non-regulated generating affiliate because earnings to the parent company would increase. In essence, the forecast of increasing power costs justified the building of the generating facility by the non-regulated entity with the expectation that the increased pricing would be reflected in newly negotiated power contracts. This, of course, assumes that the Company is successful in passing the increase in costs to its regulated customers through purchased power agreements similar to the one that Aquila entered into with the Aries partners.

Q. Why is this important since GMO no longer has an affiliate company that is attempting to sell power to its regulated companies?

A. While GMO does not have an affiliate selling it power, the aftermath of the Aries decision still affects the Company's decision making right up to 2008. Aries originally was owned by Aquila exclusively until it sold 50% of its ownership interests to Calpine. In 2004, Aquila sold its entire interest in Aries to Calpine. Not only did Aquila lose a 585 megawatt combined cycle unit - a subject this Commission is still having to deal with in finding a replacement to this power - but it lost very valuable land, transmission and natural

gas pipeline rights. This facility was sized for additional generating units. In fact, the three turbines installed at South Harper were originally planned to be installed at Aries as Aries II. When Aquila gave up its ownership interest in Aries, and going back even further when it decided to get a partner for Aries, has caused the Company great hardship in its capacity planning and meeting the energy needs of its customers.

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

Q. Did Cass County provide zoning and permitting authority to Aquila to build Aries?

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

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

A. In every instance, the Staff knows about with regard to other Missouri utilities, the companies have pursued meeting their customers' long-term capacity needs through building and owning generating assets unless utilities obtain very favorable base load generation pricing such as the two NPPD capacity agreements like GMO has. Empire had a very favorable long-term base load agreement with a Kansas utility Westar Energy. But other utilities for the most part want to own and control their generating assets. Aquila stood alone when it made decisions year after year to pursue purchase power agreements with market-based rates. The decision by Aquila's management to embark on a non-regulated path to meet its capacity needs put the regulated operations "behind the curve" in the sense of ownership of power production facilities. Empire as a company, and Empire's customers,

have enjoyed the benefits of the State Line Combined Cycle since it went into production of electricity in June 2001. Empire and its customers will have the benefit of that unit for many years to come. GMO's customers, however, will not have the same opportunities for those benefits and will pay more in the long-run by not building generation since 1983 with the exception of the South Harper facility, and now Iatan 2.

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

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

KCP&L GREATER MISSOURI OPERATIONS' MANAGEMENT OF CROSSROADS

Q. Mr. Rollison discusses the management oversight of Crossroads in his rebuttal testimony. Is it common to have a generating plant located such a distance from where the electricity is used?

A. No. Utilities site power plants in and around their load centers—close to where the electricity is needed.

Q. Mr. Rollison discusses the oversight of Crossroads by GMO indicating it makes site visits to Mississippi. How close is Clarksdale to GMO?

A. Crossroads is located over 525 miles from Great Plains corporate headquarters in downtown Kansas City, Missouri. According to Mapquest a trip to Clarksdale, Mississippi from Great Plains offices' takes 9 hours- one way (see Schedule 5). It is difficult to understand how GMO can provide the necessary management oversight of one its power plant investments with the facilities located so far away. While it is not impossible to manage a

production facility so far from home it is extremely difficult and certainly not the ideal situation for GMO.

Q. Was Crossroads designed to be a regulated power plant?

A. No. At the time Crossroads was place in service in 2002 by Aquila Merchant the facility was intended on being operated as a merchant plant selling power into a non-regulated environment. Up till the acquisition of Aquila by Great Plains, Crossroads was only used as a merchant plant selling power through long- and short-term capacity contracts.

Q. Is Crossroads the only merchant plant Aquila Merchant invested in?

A. No. Aquila Merchant also built two other separate natural gas-fired facilities in Illinois called Raccoon Creek and Goose Creek as merchant plants. These two power plant sites were sold to Ameren in 2005 at highly discounted values as distressed properties as Aquila was selling off its non-regulated operations. This sale transaction was discussed in my direct testimony at pages 49 to 54.

CROSSROADS NATURAL GAS COSTS

Q. GMO witness Blunk discusses in his rebuttal testimony natural gas costs for Crossroads. Has Crossroads had higher natural gas costs in the past?

A. Historically Crossroads based on its Mississippi location has experienced higher natural costs when compared to natural gas prices and costs in the mid-west region. GMO gets its natural gas in the area known as Midcontinent region of the United States—a location where natural gas prices tend to be lower than most of the other parts of the country and in the Gulf region—Mississippi. The Midcontinent region includes portions of Texas, Oklahoma and Kansas. The natural gas prices of the Midcontinent region has been significantly lower in the past compared to the prices at the Henry Hub area in Louisiana. In

the past there were basis adjustments made the price of natural gas when comparing regional prices differences resulting with the Henry Hub prices being higher. These basis adjustments have been as high as over $1 per mmbtu. Currently, there is a small difference, but it is unlikely that will remain the case over time. While the natural gas costs are comparable today between Kansas City area and the area where Crossroads purchases its natural gas, historically, natural gas has been higher for the Crossroads plant compared to South Harper of the Greenwood Generating Facility, GMO other large combustion turbine facility.

Q. What are the comparisons in natural gas costs between these units?

A. The following table compares Crossroads natural gas costs with both South Harper and Greenwood:

Generating Unit		2008		2009		2010 through November
	mmbtu	Per mmbtu	mmbtu	Per mmbtu	mmbtu	Per mmbtu
South Harper						
mmbtu	1,267,064		609,228		688,741	
commodity		** **		** **		** **
Commodity with variable transportation		** **		** **		** **
Commodity with all transportation		** **		** **		** **
Greenwood						
mmbtu	333,734		437,199		423,042	
commodity		** **		** **		** **
Commodity with variable transportation		** **		** **		** **
Commodity with all transportation		** **		** **		** **
Crossroads						
mmbtu	121,736		121,326		306,454	
commodity		** **		** **		** **
Commodity with variable transportation		** **		** **		** **
Commodity with all transportation		** **		** **		** **

Source: Data Request No. 70

NP

While South Harper has higher total natural gas costs if the firm transportation costs are included than Crossroads the last two years for 2009 and 2010 (through November), Greenwood has significantly lower costs. Also, noteworthy is that Greenwood had significantly more use despite not having firm transportation for natural gas delivery.

Equally important, the lower natural gas prices at Crossroads is off-set by the higher transmission costs to transport the power back to Kansas City to serve GMO's customers.

ALLOCATION OF IATAN 2 BETWEEN MPS AND L&P

Q. GMO witness Blanc states at page 9 of his rebuttal testimony that "Staff makes the unsubstantiated claim that KCPL 'would not have considered GMO as a potential partner' so it is somehow appropriate to favor L&P for getting GMO's toe in the door" relating to the Iatan 2 ownership. Do you have any information concerning KCPL being reluctant to have GMO as a partner in the Iatan 2 project?

A. Yes. I was involved with the "collaborative process" regarding the Regulatory Plan referenced in Mr. Blanc's rebuttal testimony. I was also involved in the discussions concerning the Iatan 2 project and how that unit related to the Iatan 1 partners - KCPL, GMO and The Empire District Electric Company (Empire). Early in the process it was apparent that KCPL was reluctant to include either of its two Iatan 1 partners in the Iatan 2 project. Staff had discussions with KCPL and emphasized its belief that both GMO and Empire had certain rights to participate in the Iatan 2 project by virtue of their joint ownership of Iatan 1 with KCPL. KCPL separately met with both GMO and Empire independently to discuss their potential to be partners in the Iatan 2 project.

Q. When KCPL was having these discussions with GMO and Empire, did either GMO or Empire contact Staff?

A. Yes. Staff not only had ongoing discussions with KCPL regarding the Iatan 2 project, but it also engaged in discussions about the project with both Empire and GMO.

Q. When did these discussions take place?

A. They occurred in the 2004 and 2005 time period. GMO and Empire participated in the KCPL work shops that culminated in KCPL's Regulatory Plan. During this period, Staff monitored the discussions, and ultimately the progress of the negotiations between the three Iatan 1 partners for participation in ownership in Iatan 2. Ultimately, KCPL agreed to include GMO and Empire as partners in Iatan 2, based on the same ownership share percentages they had in Iatan 1—GMO 18% and Empire 12% .

Q. Did either Empire or GMO contact you directly regarding their discussions with KCPL for ownership in the Iatan 2 project?

A. Sometime during the "collaborative process," but prior to the final agreement including Empire as a partner of Iatan 2, Brad Beecher, Vice President of Empire, contacted me and another Staff member, Steve Traxler, at our Kansas City offices to discuss the progress of Empire's meetings with KCPL. Empire expressed concern at that time that KCPL was showing a reluctance to include Empire and GMO in the Iatan 2 project and, in particular, talks were not going as well as they had hoped.

During its regulatory plan meetings GMO (Aquila) also discussed with Staff its belief that KCPL did not want GMO to be a partner in Iatan 2 because of GMO's financial condition.

During Staff's discussions with Empire and GMO regarding the possibility of their own regulatory plans, each independently stated they believed KCPL's initial desire was to have a larger share of Iatan 2 by excluding them as owners and, instead of having them as partners, enter into purchased power agreements with GMO and Empire, its two Iatan 1 partners. Ultimately, it worked out that Empire and GMO became partners in Iatan 2 on the same percentage of ownership basis these entities had in Iatan 1.

Q. Did KCPL ever express to Staff concern about having Aquila as a partner in the Iatan 2 project?

A. Yes. KCPL expressed concern regarding Aquila's financial condition to Staff during its regulatory plan meetings. During one of these meetings, Chris Giles, then KCPL's Vice President, indicated KCPL was reluctant to have GMO as a partner since its credit ratings were not investment grade.

Q. Did GMO ever approach Staff regarding its involvement in the Iatan 2 project after the ownership agreement between KCPL, GMO, Empire and others was finalized?

A. Yes. Sometime during Aquila's 2005 rate case, Max Sherman, an Aquila Vice President at the time, expressed his and the Company's appreciation for Staff's involvement in monitoring the ongoing negotiations of the Iatan 2 partnership agreement. Mr. Sherman indicated that without Staff's oversight he didn't believe Aquila would have been included as a partner in the Iatan 2 project.

Q. Were the discussions Staff had with the three Iatan 1 partners the basis for the statement made by Staff witness Lena M. Mantle in her testimony regarding the ownership rights issue.

A. Yes.

CONCLUSIONS FOR CAPACITY PLANNING AND PEAKING TURBINES

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

A. GMO (Aquila) made the decision to not build regulated generating assets as a corporate policy and as a consequence did not build generating assets from 1983 until the completion of South Harper in 2005. During the late 1990's up through 2008 IRP process, GMO (Aquila) never looked at building regulated assets in any meaningful way except South Harper. GMO (Aquila) continued the no build option right to current with the exception of its base load coal-fired Iatan 2 commitment made in 2005. GMO (Aquila) did not submit any RFPs to turbine manufacturers to get turbine pricing so that it could do complete and thorough studies concerning the build vs. purchasing options until late 2005, well after the time for decision concerning the replacement of the Aries Agreement. GMO (Aquila) did not present any plans to build capacity for, even though it indicated that its system needs capacity during the period from 2005 to current. Staff has proposed what it believes is a conservative amount for the two additional turbines identified as Turbines 4 and 5. The turbines prices declined during the period that Aquila would have needed to place orders for the units with an in-service date by June 2005. There would have been economies of scale to building the five combustion turbines instead of three. GMO (Aquila's) IRP Plan presented in January 2004 concluded that the least costs plan for the 2005 replacement of the

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

Q. Does this conclude your surrebuttal testimony?

A. Yes.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of the Application of KCP&L Greater Missouri Operations Company for Approval to Make Certain Changes in its Charges for Electric Service	))))	File No. ER-2010-0356

AFFIDAVIT OF CARY G. FEATHERSTONE

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

Cary G. Featherstone, of lawful age, on his oath states: that he has participated in the preparation of the foregoing Surrebuttal Testimony in question and answer form, consisting of 49 pages to be presented in the above case; that the answers in the foregoing Surrebuttal Testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true and correct to the best of his knowledge and belief.

Cary G. Featherstone

Subscribed and sworn to before me this 12th day of January, 2011.

Notary Public

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 08, 2012
Commission Number: 08412071

SCHEDULES 1 THROUGH 4

HAVE BEEN DEEMED

HIGHLY CONFIDENTIAL

IN THEIR ENTIRETY

mapquest

Trip to:
Clarksdale, MS
525.88 miles
8 hours 51 minutes

Notes

		Miles Per Section	Miles Driven
	1200 Main St Kansas City, MO 64105-2122		
	1. Start out going SOUTH on MAIN ST toward W 13TH ST.	**Go 0.3 MI**	0.3 mi
	2. Turn LEFT onto TRUMAN RD S. *TRUMAN RD S Is just past TRUMAN RD N*	**Go 0.2 MI**	0.4 mi
	3. Keep LEFT at the fork to continue on TRUMAN RD S.	**Go 0.04 MI**	0.5 mi
RAMP	4. Take the I-70 E ramp.	**Go 0.1 MI**	0.6 mi
EAST 670	5. Merge onto I-670 E / I-70-ALT E.	**Go 0.2 MI**	0.8 mi
2M EXIT	6. Merge onto US-71 S via EXIT 2M.	**Go 37.7 MI**	38.5 mi
EXIT	7. Take the MO-7 S exit toward CLINTON.	**Go 0.2 MI**	38.7 mi
SOUTH 7	8. Turn LEFT onto MO-7 S. *If you reach US-71 S you've gone about 0.1 miles too far*	**Go 39.2 MI**	77.9 mi
SOUTH 13	9. MO-7 S becomes MO-13 S.	**Go 84.5 MI**	162.4 mi
EAST 44	10. Merge onto I-44 E via the ramp on the LEFT toward I-44 E / ROLLA. *If you reach MO-13 N you've gone a little too far*	**Go 4.5 MI**	166.9 mi
82A EXIT SOUTH 65	11. Merge onto US-65 S / SCHOOLCRAFT FWY via EXIT 82A toward BRANSON.	**Go 8.7 MI**	175.6 mi

12. Merge onto US-60 E toward CABOOL.	Go 82.3 MI	257.9 mi
13. US-60 E becomes US-63 S (Crossing into ARKANSAS).	Go 61.7 MI	319.6 mi
14. Turn LEFT onto US-412 / US-62 / US-63. *US-412 is just past US-63*	Go 1.6 MI	321.2 mi
15. Turn LEFT onto US-63 / US-63-BR / US-412 / US-62 / AR-175. Continue to follow US-63 W.	Go 105.4 MI	426.6 mi
16. Merge onto I-55 S via EXIT 1A toward MEMPHIS (Crossing into TENNESSEE).	Go 28.3 MI	454.9 mi
17. Merge onto US-61 S via EXIT 7 toward VICKSBURG (Crossing into MISSISSIPPI).	Go 66.8 MI	521.7 mi
18. Turn SLIGHT RIGHT onto MS-161. *MS-161 is 0.1 miles past RODGERS RD*	Go 3.4 MI	525.2 mi
19. Turn RIGHT onto DESOTO AVE. *DESOTO AVE is just past MISSISSIPPI AVE*	Go 0.4 MI	525.6 mi
20. Turn LEFT onto MARTIN LUTHER KING / 4TH ST. *MARTIN LUTHER KING is just past 5TH ST*	Go 0.2 MI	525.8 mi
21. Turn RIGHT onto W TALLAHATCHIE ST. *W TALLAHATCHIE ST is just past E TALLAHATCHIE ST*	Go 0.09 MI	525.9 mi
22. W TALLAHATCHIE ST becomes EDWARDS ALY.	Go 0.02 MI	525.9 mi
23. Welcome to CLARKSDALE, MS. *If you reach ISSAQUENA AVE you've gone a little too far*	Go 0.01 MI	525.9 mi
Clarksdale, MS	525.9 mi	525.9 mi

Total Travel Estimate: **525.88 miles - about 8 hours 51 minutes.**