Exhibit No.: Issue: Capacity; Transmission Expense Witness: Burton L. Crawford Type of Exhibit: Rebuttal Testimony Sponsoring Party: KCP&L Greater Missouri Operations Company Case No.: ER-2009-0090 Date Testimony Prepared: March 13, 2009

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO.: ER-2009-0090

REBUTTAL TESTIMONY

OF

BURTON L. CRAWFORD

ON BEHALF OF

KCP&L GREATER MISSOURI OPERATIONS COMPANY

Kansas City, Missouri March 2009

"** Designates "Highly Confidential" Information Has Been Removed. Certain Schedules Attached to This Testimony Designated "HC" Also Contain "Highly Confidential" Information and Have Been Removed. Pursuant to 4 CSR 240-2.135.

REBUTTAL TESTIMONY

OF

BURTON L. CRAWFORD

Case No. ER-2009-0090

1	Q:	Please state your name and business address.	
2	A:	My name is Burton L. Crawford. My business address is 1201 Walnut, Kansas City,	
3		Missouri 64106.	
4	Q:	By whom and in what capacity are you employed?	
5	A:	I am employed by Kansas City Power & Light Company ("KCP&L") as Manager,	
6		Energy Resource Management.	
7	Q:	What are your responsibilities?	
8	A:	My responsibilities include managing the Energy Resource Management ("ERM")	
9		Department. Activities of ERM include resource planning, wholesale energy purchase	
10		and sales evaluations, and capital project evaluations.	
11	Q:	Please describe your education, experience and employment history.	
12	A:	I hold a Master of Business Administration from Rockhurst College and a Bachelor of	
13		Science in Mechanical Engineering from the University of Missouri. Within KCP&L, I	
14		have served in various areas including regulatory, economic research, and power	
15		engineering starting in 1988.	

O:

Have you previously testified in a proceeding at the Missouri Public Service Commission ("Commission") or before any other utility regulatory agency?

A: Yes, I have. I provided testimony in KCP&L's 2007 general rate proceeding, Case No.
ER-2007-0291. I also provided testimony in Case No. EO-2006-0142, which pertained
to KCP&L's application to join Southwest Power Pool, Inc. ("SPP"), a Regional
Transmission Organization. I also provided testimony in Case No. ER-2006-0314,
KCP&L's 2006 general rate case, which began the implementation of the Company's
regulatory plan approved by the Commission in 2005.

9 Q:

What is the purpose of your Rebuttal Testimony?

10 A: The purpose of my Rebuttal Testimony is to respond to Commission Staff's ("Staff") 11 Direct Filing in regards to the non-existent combustion turbines ("CTs") and a non-12 existent purchased power agreement ("PPA") that the Staff included in their Direct 13 Filing. I will also respond to Staff's removal of the Crossroads Energy Center from the 14 KCP&L Greater Missouri Operations Company ("GMO" or "the Company")-MPS rate 15 base. Lastly, I will respond to the recommendation by Greg Meyer, representing Ag 16 Processing, Inc., Sedalia Industrial Energy Users Association and Wal-Mart Stores, Inc., regarding his proposal to reflect any transmission cost savings to the Company resulting 17 18 from its future participation in SPP as a network service customer.

19 Q: What non-existent turbines has the Commission Staff included in their Direct 20 Filing?

A: Staff claims that GMO should have built and had available five 105 MW CTs by the
summer of 2005. Since GMO built three 105 MW CTs at South Harper by the summer

of 2005, and not five as Staff preferred, Staff has imputed the cost of two additional 105
 MW CTs.

3 Q: Why has Staff recommended these two additional CTs be imputed in the cost of 4 service?

Per Staff's Cost of Service report filed in this case, Staff has included these two 5 A: 6 additional non-existent CTs for GMO's "failure to replace the capacity it was obtaining from the Aries PPA, which expired on May 31, 2005 in a manner that would result in the 7 lowest long-term revenue requirement for MPS ratepayers" (Staff COS Report, p.91). 8 Staff's Cost of Service report also points out that Staff developed and maintained this 9 10 position in GMO's last two rate cases, Case No. ER-2005-0436 and Case No. ER-2007-0004. In Case No. ER-2007-0004, Staff witness Lena Mantle's response to the question 11 of why Staff is proposing five CTs was, "Aquila identified five (5) 105 MW CTs as the 12 13 least cost way to meet its resource needs at the time. Even so, Aquila chose to build only three (3) 105 MW CTs at its South Harper site and entered into short-term purchased 14 power agreements for its remaining capacity needs" (Direct, p.8 lines 2-5). 15

16 Q: Is there any other testimony on why Staff has proposed including these non-existing
17 CTs in their Direct Filing?

A: Yes. Also in Case No. ER-2007-0004, Staff witness Charles R. Hyneman's response to
the question of why Staff's proposal included these two CTs was "The reason for the
Staff's adjustment is to remedy Aquila's failure to replace the capacity it was obtaining
from the Aires PPA, which expired on May 31, 2005, in a manner that will result in the
lowest long-term revenue requirement for MPS' ratepayers" (Direct, p. 25, lines 1-3). In
this same case, Staff witness Cary G. Featherstone's response to the question of why

Staff attempted to quantify the costs of installing two additional turbines was, "Staff took
the position in the last Aquila rate case that it would impute two turbines consistent with
a 2004 IRP analysis performed by the Company's Resource Planning Group. Aquila's
2004 IRP concluded that the least cost approach in meeting its capacity needs for the
expiring Aries agreement was a facility consisting of five peaking turbines..."
(Surrebuttal, p.37, lines 13-17).

7 Q: Did Staff conduct its own analysis that demonstrates why they believe GMO should 8 have built 5 CTs?

9 A: No. Staff has not conducted its own analysis.

10 Q: What analysis has Staff relied on to reach the conclusion that five CTs would result 11 in the lowest cost revenue requirement for MPS ratepayers?

- A: Staff relied on analysis conducted by the Company. In February 2004, GMO presented
 an analysis to Staff that in part compared the 20-year net present value of revenue
 requirements ("NPVRR") for 12 different resource plans. In terms of the NPVRR, the
 lowest cost plan under base natural gas price assumptions was to build five, 105 MW
 CTs. The second lowest cost plan was to build three, 105 MW CTs and enter into a 200
 MW system participation-based purchased power contract. The system participation
 contract included some base load capacity.
- 19 Q: Has the Commission ever ruled on the issue of five CTs vs. three CTs?
- 20 A: No. The Commission has never ruled on this issue.
- Q: Has the Company ever agreed to Staff's position that five CTs should have been the
 preferred plan?

1	A:	No. The Company has consistently held that the preferred plan was to build three CTs
2		and enter into a PPA that included some level of base load capacity.
3	Q:	Did GMO select the five CT plan as its preferred resource plan?
4	A:	No.
5	Q:	Which plan did the Company select as their preferred resource plan?
6	A:	GMO selected the three CT, 200 MW system participation plan as its preferred resource
7		plan.
8	Q:	Why didn't the company select the 5 CT plan as its preferred resource plan even
9		though it indicated the lowest NPVRR?
10	A:	GMO concluded that it would be prudent to diversify its supply portfolio additions.
11	Q:	Please explain what you mean by "diversify its supply portfolio".
12	A:	In this case, GMO concluded that it would be prudent to spread the execution and
13		operating risks from the resource additions between building CTs and adding a PPA that
14		contained some level of base load capacity. This would reduce the Company's
15		dependence on any one fuel source. It would also ensure that the additional capacity
16		would include some base load supply.
17	Q:	Has the Commission been concerned with the Company's level of base load
18		generation?
19	A:	Yes. Commissioner Gaw in his dissenting opinion in Case No. ER-2005-0436 stated
20		that, "the MPS territory relies too heavily on gas generation". Commissioner Clayton
21		in his concurring opinion in Case No. ER-2005-0436 notes, "Lastly, this case represents
22		another example of why utilities should not be reliant on natural gas for power generation
23		for significant amounts of its portfolio".

1 Q: Does the plan preferred by Staff address base load generation in the short term?

2 A: No. It is based entirely on gas-fired, peaking resources.

3 Q: Did the Company's February 2004 analysis include an assessment of the risks
4 associated with the natural gas market?

5 A: Yes.

6 Q: What risks did it indicate?

7 A: While the 5 CT plan had the lowest NPVRR under the base gas price forecast
8 assumptions, it was not the lowest NPVRR plan under the high gas price forecast
9 assumption. The Company's selected preferred plan performed better than the 5 CT plan
10 under the high natural gas price assumptions, demonstrating the value of a more
11 diversified portfolio.

12 Q: Can it be prudent to select a preferred plan that on a projected basis does not result 13 in the lowest NPVRR?

14 A: Yes. There are situations where selection of a plan other than the plan with the lowest 15 NPVRR is prudent.

16 Q: Please explain.

In evaluating alternative resource plans, it is important to analyze the plans' performance 17 A: under a variety of future uncertainties. These future uncertainties include the cost of 18 As a result of evaluating alternative resource plans under future 19 natural gas. uncertainties, it can be prudent to select a preferred plan that is not necessarily the lowest 20 cost plan from an NPVRR perspective, as it may reduce the risks associated with these 21 future uncertainties. The Company's preferred plan reduced the risks associated with 22 23 natural gas prices.

1	Q:	Is it standard practice to consider uncertainties when evaluating alternative	
2		resource plans?	
3	A:	Yes. It is important to balance the risks associated with future uncertainties with	
4		minimizing the cost of a preferred plan. Not only is this standard practice, but the	
5		Commission's rules on electric utility planning (4 CSR 240-22) require it to ensure that	
6		the public interest is adequately served.	
7	Q:	Did the Company balance the risk and costs associated with the preferred resource	
8		plan?	
9	A:	Yes. In order to limit gas price exposure, the Company selected the second lowest cost	
10		plan as its preferred plan.	
11	Q:	Did the Company fully implement its preferred plan as presented to the Staff in	
12		February 2004?	
13	A:	Not entirely. The Company did complete the three 105 MW CTs for the summer of	
14		2005. However, subsequent to the February 2004 presentation, the Company was not	
15		able to complete the planned 200 MW system participation contract, but did enter a 9-	
16		year 75 MW base load contract with the Nebraska Public Power District ("NPPD").	
17	Q:	Has Staff offered any opinion on the 75 MW contract with NPPD?	
18	A:	Yes. In ER-2007-0004, Staff witness Cary G. Featherstone described the contract as a	
19		"very favorable" base load contract (Surrebuttal, p. 89, line 3). In ER-2005-0436 Staff	
20		witness Lena Mantle states that "Aquila had found a very good 75 MW contract with	
21		Nebraska Public Power District" (Direct, p. 6, lines 3-4).	
22	Q:	So while Staff has imputed the cost of two CTs for what they believed should have	
23		been GMO's preferred plan, they have ignored the fact that GMO executed on a	

1		portion of their preferred plan that Staff has found "very favorable" and "very
2		good"?
3	A:	Yes. Staff appears to overlook the fact that GMO entered into a very favorable base load
4		contract as part of GMO's preferred plan, that negated the need for at least 75 MW of
5		Staff's imputed CTs.
6	Q:	Have GMO's customers benefited from this contract with NPPD?
7	A:	Yes. The benefits of this low cost energy have benefited MPS retail customers.
8	Q:	Are there any other issues with Staff's Cost of Service report related to supply
9		resources?
10	A:	Yes. Staff has imputed a 100 MW capacity purchase contract, while removing the costs
11		associated with the Crossroads Energy Center.
12	Q:	Is this 100 MW imputed capacity purchase contract reasonable?
13	A:	No.
14	Q:	Please explain.
15	A:	Along with 210 MW of non-existent CTs, Staff has included a 100 MW non-existent
16		purchased capacity contract. These resources are essentially a replacement of the 305
17		MW from the Crossroads Energy Center included in the Company's filing. The
18		Company has determined that the Crossroads Energy Center is the lowest cost alternative
19		for meeting GMO's resource needs. While Staff has built their case for imputing the cost
20		of CTs that Staff would have chosen as "more prudent" (Mantle Surrebuttal, ER-2007-
21		0004, p.4, Line 21), they are now attempting to block the rate base addition of existing
22		CTs with a non-existent purchased capacity agreement.
23	Q:	Why is the addition of the Crossroads Energy Center a prudent choice for GMO?

A: In March 2007, GMO issued an RFP for supply resources. The RFP was very broad,
seeking renewable resources, conventional peaking, base load, and intermediate capacity
and energy. In addition, the RFP requested a variety of proposal types including equity
participation, EPC (engineering, procurement and construction), generating equipment
only and PPAs (purchased power agreements).

6 GMO received several responses to this RFP representing a range of options from 7 non-affiliated entities as well as self-build options. The self-build options included many 8 base load, intermediate, and base load capacity alternatives. After screening the options, 9 GMO conducted a 20-year analysis to determine a preferred resource plan. This analysis 10 concluded that the Crossroads Energy Center would result in the lowest 20-year NPVRR, 11 including the cost of transmission service. The results of this analysis and selection of 12 the preferred plan were presented to the Staff in October 2007. The presentation is 13 included with this testimony as Schedule BLC-1 (HC).

14 Q: Has Crossroads met the in-service requirements to be included in the MPS
15 regulated rate base?

16 A: Yes. These tests were conducted in August, 2008. Mike Taylor, Dave Elliot, and Shawn
17 Lange from the MPSC Staff witnessed the testing.

18 Q: Is Staff's position filed in their Cost of Service Report consistent with their past
19 philosophy concerning purchased power agreements?

A: No. The Staff has been critical of the Company's reliance on purchased power
 agreements for several years, but yet they impute a 100 MW capacity contract even
 though the Company has demonstrated that the Crossroads Energy Center is projected to

1		be the lowest cost ownership alternative from a NPVRR perspective while meeting the		
2		Company's capacity needs.		
3		AFFILIATE TRANSACTION RULES		
4	Q:	Are there any other issues related to Crossroads that you would like to address?		
5	A:	Yes. In the Staff's Cost of Service Report, Staff states that they did not include the		
6		Crossroads facility due to affiliate transaction concerns (COS Report, p. 89).		
7	Q:	What are Missouri's affiliate transaction rules?		
8	A:	Missouri's affiliate transaction rules are found at 4 CSR 240-20.015. These rules are		
9		intended to prevent regulated utilities from subsidizing their non-regulated operations.		
10		These rules address the financial standards and the evidentiary standards applicable to		
11		Missouri utilities that participate in transactions with an affiliated entity.		
12	Q:	What are the affiliate transaction financial standards that govern an acquisition by		
13		a regulated utility?		
14	A:	The financial standard can be found at 4 CSR 240-20.015(2)(A). This rule states in part:		
15		(A) A regulated electric corporation shall not provide a financial advantage to an		
16		affiliated entity. For purposes of this rule, a regulated electrical corporation shall be		
17		deemed to provide a financial advantage to an affiliate if-		
18		1. It compensates an affiliated entity for goods or services above the lesser of-		
19		A. The fair market price; or		
20		B. The fully distributed cost to the regulated electrical corporation to		
21		provide the goods or services for itself;		
22	Q:	What are the affiliate transaction evidentiary standards to be met by an acquisition		
23		by the regulated utility?		

1 A: The financial standards can be found at 4 CSR 240-20.015(3). This rule states in part:

- (A) When a regulated electrical corporation purchases information, assets, goods or
 services from an affiliated entity, the regulated electrical corporation shall either
 obtain competitive bids for such information, assets, goods or services or demonstrate
 why competitive bids were neither necessary nor appropriate.
- 6 (B) In transactions that either involve the purchase or receipt of information, assets, goods 7 or services by a regulated electric corporation from an affiliated entity, the regulated 8 electrical corporation shall document both the fair market price of such information, 9 assets, goods and services and the fully distributed cost to the regulated electrical 10 corporation to produce the information, assets, goods or services for itself.

11 Q: How is fair market value to be determined?

12 A: The regulated utility determines fair market value by obtaining competitive bids for the
13 type of service or asset it seeks to acquire for itself.

14 Q: Is the non-regulated affiliate required to obtain bids to sell itself or its services to 15 others in order to determine fair market value?

- 16 A: No. The purpose of seeking competitive bids is to identify other supply options available
 17 to the regulated utility, not other customers or buyers for the non-regulated affiliate.
- 18 Q: Did GMO obtain competitive bids for long term capacity and energy?
- 19 A: Yes. On March 19, 2007 GMO issued a request for proposals ("RFP") seeking long-term
- 20 capacity and energy. Two non-affiliates offered long-term capacity and energy options.
- 21 Crossroads was determined to be the lowest cost option. Therefore, the cost of
- 22 Crossroads is not greater than the fair market value of other available options.

1	Q:	Did GMO receive any non-affiliated offers for long-term capacity and energy	gу
2		similar to the Crossroads facility?	

- 3 A: Yes. GMO received an offer for four GE 7EA CTs, the same number of GE 7EA CTs as
 4 installed at Crossroads.
- 5 Q: How did the installed cost from the non-affiliated offer compare to the Crossroads 6 offer?
- 10 Q: Did GMO document the fully distributed cost to the regulated electrical corporation
 11 to provide the goods or services for itself?
- 12 A: Yes. The engineering group of GMO submitted bids to the RFP for self-building a
 13 variety of generating plant options, including one similar to Crossroads.
- 14 Q: Did GMO consider self-build options using market surplus equipment ("gray
 15 market")?
- 16 A: Yes. A vendor offered gray market equipment. Self-building with this equipment was
 17 considered. It was determined that gray market equipment did not offer a significant
 18 price difference over the new equipment from the manufacturer.
- 19 Q: How did the cost of Crossroads compare to the self-build options?
- A: Crossroads was determined to be a lower cost option than self-building. Therefore the
 cost of Crossroads is not greater than the fully distributed cost to the regulated electrical
 corporation to provide the goods or services for itself. The cost of the self-build option

came in at the state of the sta

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Q: To the extent that the transfer of Crossroads to the regulated utility falls under the affiliate transaction rules, has GMO complied with the rules?

Whether and how the affiliate transaction rules apply in this circumstance is a legal issue 5 A: for the Commission to resolve. However, assuming the Commission determines the rules 6 do apply here, GMO has complied with the rules' intended purpose. GMO obtained 7 competitive bids to determine the fair market value of long-term capacity and energy. 8 9 GMO documented the cost to provide long-term capacity and energy for itself. GMO's 10 analysis shows that the cost of acquiring Crossroads is less than the fair market value of available alternatives and less than the cost of the regulated utility providing the capacity 11 12 and energy for itself.

13 Q: What other indication does the Company have concerning the fair market value of 14 the Crossroads facility?

A: In order to determine the fair value for financial statement reporting in accordance with
Financial Accounting Standards ("SFAS") 141, Business Combinations, Great Plains
Energy ("GPE") retained the services of Pricewaterhousecoopers ("PwC"). In PwC's
November 3, 2008 report to GPE, PwC's fair value estimate for Crossroads was **
19
Image: **. This is above the \$116 million net book value that GMO proposes to include
in rate base.

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1		TRANSMISSION EXPENSE SAVINGS
2	Q:	Does the Company agree with the transmission adjustments that Mr. Greg Meyer
3		has proposed in his Direct Testimony?
4	A:	No.
5	Q:	Please explain the proposed adjustments to transmission expense.
6	A:	Mr. Meyer has proposed to reflect any transmission cost savings to the Company
7		resulting from its future participation in SPP as a network service customer.
8	Q:	Why is the Company in disagreement with this proposed adjustment?
9	A:	Since the Company is not yet an SPP network service customer, there are no savings in
10		transmission expense. The Company does not yet have the FERC authorization
11		necessary to begin network service under SPP. It is therefore speculative to assume that
12		the Company would realize any such savings, that is, any such savings are not known and
13		measurable at this time.
14		In addition, Mr. Meyer points to the possible savings in Crossroads related
15		transmission costs once the Company is an SPP network service customer. While it is
16		correct that the company will very likely see significant transmission costs savings when
17		taking SPP network service for the Crossroads facility, these savings will likely not be
18		achieved until 2011 when the SPP transmission service for Crossroads starts.
19	Q:	Does that conclude your testimony?
20	A:	Yes, it does.

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BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

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In the Matter of the Application of Aquila, Inc. dba KCP&L Greater Missouri Operations Company to Modify Its Electric Tariffs to Effectuate a Rate Increase)

Case No. ER-2009-0090

AFFIDAVIT OF BURTON L. CRAWFORD

STATE OF MISSOURI)) ss COUNTY OF JACKSON)

Burton L. Crawford, being first duly sworn on his oath, states:

My name is Burton L. Crawford. I work in Kansas City, Missouri, and I am 1.

employed by Kansas City Power & Light Company as Manager, Energy Resource Management.

Attached hereto and made a part hereof for all purposes is my Rebuttal Testimony 2. on behalf of KCP&L Greater Missouri Operations Company consisting of <u>Houckeen</u> (14) pages and Schedule(s) \underline{BLC} - \ through _____, all of which having been prepared in written form for introduction into evidence in the above-captioned docket.

I have knowledge of the matters set forth therein. I hereby swear and affirm that 3. my answers contained in the attached testimony to the questions therein propounded, including any attachments thereto, are true and accurate to the best of my knowledge, information and belief.

1201)

Burton L. Crawford

Subscribed and sworn before me this $\frac{B^{++}}{B^{++}}$ day of	f March 2009.
	ry Public
My commission expires: <u>Fub 4 2011</u>	"NOTARY SEAL " Nicole A. Wehry, Notary Public Jackson County, State of Missouri My Commission Expires 2/4/2011 Commission Number 07391200

SCHEDULE BLC-1

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