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Crossroads
Witness: Burton L. Crawford
Type of Exhibit: Rebuttal Testimony
Sponsoring Party: KCP&L Greater Missouri Operations Company
Case No.: ER-2016-0156
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MISSOURI PUBLIC SERVICE COMMISSION

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CASE NO.: ER-2016-0156

Missouri Public
Service Commission

REBUTTAL TESTIMONY

OF

BURTON L. CRAWFORD

ON BEHALF OF

KCP&L GREATER MISSOURI OPERATIONS COMPANY

Kansas City, Missouri
August 2016

*** [REDACTED] *** Designates "Highly Confidential" Information.
Certain Schedules Attached To This Testimony Designated "(HC)"
Also Contain Highly Confidential Information.
All Such Information Should Be Treated Confidentially
Pursuant To 4 CSR 240-2.135.

REBUTTAL TESTIMONY

OF

BURTON L. CRAWFORD

Case No. ER-2016-0156

1 **Q: Are you the same Burton L. Crawford who submitted direct testimony on behalf of**
2 **KCP&L Greater Missouri Operations Company (“GMO” or “Company”) in this**
3 **proceeding?**

4 **A: Yes.**

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

6 **A: The purpose of my rebuttal testimony is to respond to fuel adjustment clause and**
7 **Crossroads Energy Center (“Crossroads”) related issues raised by the Office of Public**
8 **Counsel (“OPC”) and the fuel cost modeling performed by the MPSC Staff.**

9 **I. FUEL ADJUSTMENT CLAUSE**

10 **Q: OPC witness Lena Mantle has objected to the inclusion of certain costs and**
11 **revenues in the GMO fuel adjustment clause (“FAC”) in her Direct Testimony.**
12 **Which of these costs/revenues are you addressing?**

13 **A: I will address the Southwest Power Pool (“SPP”) related charges and credits for ancillary**
14 **services which she objected to on pages 21-22 of her Direct Testimony..**

15 **Q: What are ancillary services?**

16 **A: There are a number of ancillary services required to maintain reliability of the electric**
17 **system. The ancillary services included in GMO’s current FAC include spinning reserve,**
18 **non-spinning reserves and regulating reserves. These ancillary services are generally**
19 **provided by generators through the FERC-approved regional tariff that is administered by**

1 SPP. Spinning reserve is the capacity of an on-line generator that is not fully loaded to its
2 maximum output and can therefore be ramped up for events such as the unexpected loss
3 of another generator. Non-spinning reserve is capacity of a generator that is not on line,
4 but can be started quickly for events such as the unexpected loss of an on-line generator.

5 Regulating reserves is the capacity of an on-line generator that can be deployed to
6 meet the second-by-second changes in load, keeping generating output and electric
7 customer load in balance.

8 **Q: Does GMO purchase or sell ancillary services?**

9 A: On an ongoing basis, GMO both buys and sells ancillary services. This can occur both
10 on a day-ahead and real-time basis.

11 **Q: How are the prices for ancillary services determined?**

12 A: Along with offers to supply energy, SPP accepts offers from generators willing and able
13 to supply ancillary services. As part of minimizing the overall costs to reliably meet the
14 SPP region's energy needs, SPP co-optimizes the provision of energy and ancillary
15 services. In other words, SPP's market system determines how the available generating
16 resources should be deployed to minimize the total cost to provide ancillary services and
17 energy simultaneously.

18 **Q: How are the quantities of ancillary services determined?**

19 A: SPP has established the ancillary service requirements for SPP participants. Participants
20 are required to either provide the level of ancillary services specified or purchase them
21 through the SPP markets.

1 **Q: Why should SPP ancillary services be included in the FAC?**

2 A: The most straightforward reason for including SPP ancillary services in the FAC is that
3 these are short-term capacity products that are an element of purchased power costs. To
4 my knowledge, the inclusion of short-term capacity costs and revenues in the FAC has
5 never been questioned. In fact, Ms. Mantle agrees that "... capacity charges from short-
6 term (less than a year) bilateral contracts ..." (Mantle Direct, p. 8, l. 5-8) are an element
7 of purchased power that should be included in the FAC. This is why, in addition to
8 GMO, the FACs of Ameren UE, Empire, and KCP&L include these costs and revenues.

9 **II. CROSSROADS ENERGY CENTER**

10 **Q: OPC witness Lena Mantle has asked the Commission to find the assumption of the**
11 **Crossroads contract by GMO to be imprudent (Mantle Direct, p. 39, l. 19-20). Do**
12 **you agree?**

13 A: No. At the time the decision was made to add the Crossroads facility to GMO's
14 generating portfolio, it was the lowest cost alternative for GMO retail customers, and as
15 such was a prudent decision.

16 **Q: What is the basis for your conclusion that Crossroads was the lowest cost option for**
17 **GMO retail customers?**

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

1 Aquila received several responses to this RFP representing a range of options
2 from non-affiliated entities as well as self-build options. The self-build options included
3 base load, intermediate, and peaking capacity alternatives. After screening the options,
4 Aquila conducted a 20-year analysis to determine a preferred resource plan. This
5 analysis concluded that the Crossroads Energy Center would result in the lowest 20-year
6 net present value of revenue requirement (NPVRR). The results of this analysis and
7 selection of the preferred plan were presented to the Staff in October 2007. The
8 presentation is included with this testimony as Schedule BLC-7 (HC).

9 **Q: Did Aquila receive any non-affiliated offers for long-term capacity and energy**
10 **similar to the Crossroads facility?**

11 A: Yes. Aquila received an offer for four GE 7EA combustion turbines (CT), the same
12 number of GE 7EA CTs as installed at Crossroads.

13 **Q: How did the installed cost from the non-affiliated offer compare to the Crossroads**
14 **offer?**

15 A: The offer from the non-affiliated party was ** [REDACTED] ** excluding the cost for land,
16 water, transmission interconnection, step-up transformer, and several other items. The
17 Crossroads offer was for \$383/kW which included all costs.

18 **Q: Did Aquila consider and document the cost of having Aquila as the regulated**
19 **electrical corporation provide the goods or services for itself?**

20 A: Yes. The engineering group of Aquila submitted bids to the RFP for self-building a
21 variety of generating plant options, including one similar to Crossroads.

1 **Q: Did Aquila consider self-build options using market surplus equipment?**

2 A: Yes. A vendor offered surplus equipment. Self-building with this equipment was
3 considered. It was determined that the surplus equipment did not offer a significant price
4 difference over the new equipment from the manufacturer.

5 **Q: How did the cost of Crossroads compare to the self-build options?**

6 A: Crossroads was determined to be a lower cost option than self-building. The cost of the
7 self-build option came in at \$637 per kW installed cost for four GE 7EA CTs while the
8 offer price for Crossroads was \$383 per kW.

9 **Q: Has the Crossroads facility provided value to GMO customers?**

10 A: Absolutely. The facility provides firm capacity to meet GMO's reserve margin
11 obligations to SPP. Absent Crossroads, GMO would be required to add additional
12 generating capacity through either constructing new generation or purchasing capacity.

13 **Q: In addition to the 2007 study, what additional support for the prudence of
14 Crossroads is available?**

15 A: In the GMO rate case where the Crossroads asset was first allowed into rates in May
16 2011, No. ER-2010-0356, the Commission found "the decision to include Crossroads in
17 the generation fleet at an appropriate value was prudent with the exception of the
18 additional transmission expense, when other low-cost options were available." (Report
19 and Order, p. 91). The Commission continued to allow Crossroads to be included in rate
20 base in No. ER-2012-0175, decided in January 2013. Given that the facility has been
21 found by the Commission to be prudent in two prior rate cases, and has been reflected in
22 retail rates since 2011, OPC's request to find the assumption of the Crossroads contract
23 by GMO is both untimely and inappropriate.

1 **Q: OPC witness Lena Mantle claims that “Crossroads is imprudent because its**
2 **location, of more than 500 miles from GMO’s service territory and outside GMO’s**
3 **RTO, results in high transmission costs to provide capacity and energy to GMO’s**
4 **customers” (Mantle Direct, p. 20, l. 5-7). Is a generating plant’s location proof of**
5 **imprudence?**

6 **A:** Not in this instance. When the decision was made to add Crossroads to the GMO supply
7 portfolio, it was the lowest cost option, even when the cost of transmission was included.
8 Even with what is now a higher cost of transmission than was assumed when the
9 evaluation was completed in 2007, it would have still been the lowest cost option for
10 GMO customers. Given it was the lowest cost option and remains the lowest cost option
11 even when including transmission costs, it was a prudent decision. It should be noted
12 that the level of transmission costs requested in this current case are less than what was
13 assumed in the 2007 study. The 2007 study assumed \$12 million in annual transmission
14 expense. In the current case, GMO is seeking to recover the increased annual
15 transmission costs related to Entergy joining MISO in December 2013 of approximately
16 \$ 8.2 million.

17 **Q: Can you provide an example of where transmission expenses related to a generating**
18 **plant located outside of a utility’s RTO have been found prudent?**

19 **A:** Yes. Empire currently has a generating plant, Plum Point, located in MISO. Empire
20 pays for MISO transmission service just like GMO does for Crossroads. The
21 transmission costs for Plum Point and Crossroads are calculated under the same FERC-
22 approved MISO transmission tariff. Empire has been allowed to recover their MISO
23 transmission expenses while GMO has not.

1 **Q: OPC witness Lena Mantle claims that “GPE acted imprudently when it transferred**
2 **to GMO a resource located 500 miles from its service territory that no one else**
3 **would buy and requested cost recovery at book value from GMO’s customers**
4 **(Mantle Direct, p. 20, l. 13-15). Was GPE imprudent?**

5 **A:** No. Presumably if GPE was imprudent in 2008 when Crossroads was transferred to
6 GMO, there was some other prudent option to add needed capacity to the GMO supply
7 portfolio. Given that the decision was based on the analysis previously discussed, and
8 OPC has not explained what resource option GPE should have taken in 2008, there is no
9 basis to conclude that either GPE or GMO have been imprudent. Any other option for
10 adding capacity to the GMO supply portfolio would have cost more than adding
11 Crossroads. No one has demonstrated otherwise.

12 **III. FUEL MODEL**

13 **Q: Do you have any issues with the Staff’s determination of fuel costs and purchased**
14 **power expenses in the cost of service model?**

15 **A:** Yes. In the Staff’s fuel modeling for this case, they assumed heat rates for the some of
16 the base load coal units that were better than the historical actual operating heat rates of
17 those units. Also, an incorrect price of a purchased power contract was used. These
18 issues have been discussed with Staff. It is expected that they will be resolved prior to
19 the true-up.

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

21 **A:** Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of KCP&L Greater Missouri Operations)
Company's Request for Authority to Implement) Case No. ER-2016-0156
A General Rate Increase for Electric Service)

AFFIDAVIT OF BURTON L. CRAWFORD

STATE OF MISSOURI)
) ss
COUNTY OF JACKSON)

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

1. My name is Burton L. Crawford. I work in Kansas City, Missouri, and I am employed by Kansas City Power & Light Company as Director, Energy Resource Management.

2. Attached hereto and made a part hereof for all purposes is my Rebuttal Testimony on behalf of KCP&L Greater Missouri Operations Company consisting of seven (7) pages, having been prepared in written form for introduction into evidence in the above-captioned docket.

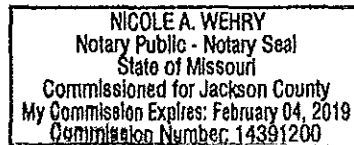
3. I have knowledge of the matters set forth therein. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded, including any attachments thereto, are true and accurate to the best of my knowledge, information and belief.

Burton L. Crawford
Burton L. Crawford

Subscribed and sworn before me this 15th day of August, 2016.

Nicole A. Wehry
Notary Public

My commission expires: Feb. 4 2019



SCHEDULE BLC-7

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