

Exhibit No.:  
Issues: LED Street Lighting  
Witness: Hojong Kang  
Sponsoring Party: MO PSC Staff  
Type of Exhibit: Rebuttal Testimony  
File No.: ER-2012-0166  
Date Testimony Prepared: September 7, 2012

**MISSOURI PUBLIC SERVICE COMMISSION**

**REGULATORY REVIEW DIVISION**

**SURREBUTTAL TESTIMONY**

**OF**

**HOJONG KANG**

**UNION ELECTRIC COMPANY**

**d/b/a**

**Ameren Missouri**

**FILE NO. ER-2012-0166**

*Jefferson City, Missouri*  
*September 2012*



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5   **HOJONG KANG**  
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7   **UNION ELECTRIC COMPANY**  
8   **d/b/a**  
9   **AMEREN MISSOURI**  
10  
11   **FILE NO. ER-2012-0166**  
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14           Q.    Please state your name and business address.

15           A.    My name is Hojong Kang, and my business address is Missouri Public Service  
16 Commission, P. O. Box 360, Jefferson City, Missouri 65102.

17           Q.    What is your present position at the Missouri Public Service Commission?

18           A.    I am a Regulatory Economist in the Energy Unit of the Regulatory Review  
19 Division.

20           Q.    Are you the same Hojong Kang that contributed to Staff's Revenue  
21 Requirement Cost-of-Service Report filed on July 6, 2012, and Staff's rebuttal testimony on  
22 August 14, 2012?

23           A.    Yes, I am.

24           Q.    Would you please summarize the purpose of your surrebuttal testimony?

25           A.    I continue to provide an update related to Union Electric Company d/b/a  
26 Ameren Missouri's ("Ameren Missouri's") compliance with the Commission's order in Case  
27 No. ER-2011-0028 concerning Light Emitting Diode ("LED") street lighting tariff provisions.

28           Q.    What did the Commission order concerning LED street lighting tariff  
29 provisions in Case No. ER-2011-0028?

1           A.     In its July 13, 2011 *Report and Order*, “...the Commission agreed with Staff  
2 that LED street lighting is an exciting technology that should be examined and implemented if  
3 appropriate.<sup>1</sup>” The Commission directed “...Ameren Missouri to either file an LED street  
4 lighting tariff by July 31, 2012, or to provide a status report to Staff by that date, indicating  
5 when it will be able to file such a tariff.<sup>2</sup>” Further, the Commission emphasized that  
6 “...Ameren Missouri does not have to file a tariff until it is appropriate to do so. If its further  
7 study of the potential of LED street lighting reveals that such lighting will not be a benefit to  
8 its customers, Ameren Missouri may inform the Staff of that conclusion in its status report.<sup>3</sup>”

9           Q.     Did Ameren Missouri file a LED street lighting tariff by July 31, 2012?

10          A.     No, it did not. The Company provided a short “*Report to Staff*” on July 31,  
11 2012, that is attached to my rebuttal testimony as Schedule HJK-R1. In its *Report to Staff*,  
12 Ameren Missouri stated that it expects the Electric Power Research Institute (“EPRI”) to  
13 publish its nationwide LED street lighting pilot program report in September 2012, which  
14 included testing of eleven (11) LED street lights in the city of Ballwin, Missouri. Ameren  
15 Missouri also stated that it “...has not determined it is appropriate to offer a LED tariff at this  
16 time. There are still a plethora of issues that the Company must resolve before a [LED] tariff  
17 can be offered.<sup>4</sup>” Ameren Missouri’s list of issues includes regulatory framework issues,  
18 initial costs, operation issues, procurement issues, lighting types, and cost-effectiveness.

19          Q.     Did Ameren Missouri describe what it views as the regulatory framework  
20 issues?

21          A.     No, it did not. Staff issued its Data Request No. 0476 and requested, in part:

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<sup>1</sup> File No. ER-2011-0028, *Report and Order*, p. 94.

<sup>2</sup> *Id.*

<sup>3</sup> *Id.*

<sup>4</sup> Rebuttal Testimony Schedule HJK-R1, *Report to Staff*, p. 1.

1 b. The complete list of regulatory framework issues that Ameren Missouri and  
2 the Commission still have to address; and c. Ameren Missouri's plan for  
3 addressing the complete list of regulatory framework issues that Ameren  
4 Missouri and the Commission still have to address.

5  
6 In its response to Staff's data request, the Company stated:

7 B. A complete list of regulatory framework issues has not been developed.  
8 C. Ameren Missouri is still conducting analysis to address all items above. A  
9 specific plan does not exist.

10  
11 Q. Please describe the LED street lighting research project Ameren Missouri is  
12 currently involved in.

13 A. As mentioned above, Ameren Missouri is collaborating with EPRI and other  
14 utilities to test and evaluate the potential of currently available LED lighting through EPRI's  
15 National Demonstration Project, which includes nine (9) national sites with twelve (12) LED  
16 lights normally installed per site. However, Ameren Missouri installed eleven (11) LED  
17 lights in Ballwin, Missouri. This project started in the summer of 2009 and ended in the  
18 fourth quarter of 2011. As a project participant, Ameren Missouri is interfacing with EPRI  
19 for data collection in metering and photometric measurement of the LED lighting. EPRI will  
20 provide a final report in September 2012. This research with EPRI is Ameren Missouri's only  
21 LED street lighting research.

22 Q. Does Staff know of any other LED street lighting research projects involving  
23 other Missouri utilities?

24 A. Yes. Kansas City Power & Light ("KCPL") and KCP&L Greater Missouri  
25 Operations ("GMO") have several LED pilot programs in their service territories. KCPL and  
26 GMO participated in not only the EPRI project, which Ameren Missouri has, but also its own  
27 pilot program and the project with the Mid-America Regional Council ("MARC").  
28 Furthermore, KCPL and GMO cooperate with the city of Kansas City, Missouri, and other

1 cities to install municipal LED street lights. With these pilot projects, KCPL and GMO have  
2 installed more than 2,200 LED street lights and are expected to install more than 4,000 high  
3 efficiency street lights in total by December, 2012.

4 The Empire District Electric (“Empire”) has a LED street lighting pilot program in  
5 Branson, Missouri.

6 Q. Does Staff have a recommendation for the Commission regarding Ameren  
7 Missouri’s response to the Commission’s order regarding LED street lighting?

8 A. Yes. The Commission’s *Report and Order* in Case No. ER-2011-0028 found  
9 that “Ameren Missouri is not as enthusiastic about the future of LED lighting” as Staff. Staff  
10 has concerns that this may create delays in Ameren Missouri’s analysis and implementation of  
11 a LED lighting tariff. Staff recommends that the Commission order Ameren Missouri to: 1)  
12 complete its evaluation of all issues<sup>5</sup> the Company identified in its *Report to Staff* not later than  
13 January 31, 2013 and 2) file either a compliance LED lighting tariff, or a status report as to  
14 when it anticipates filing such tariff, not later than March 31, 2013. Staff is not  
15 recommending that Ameren Missouri offer a LED street lighting demand-side program unless  
16 Ameren Missouri’s analysis shows that a LED street lighting demand-side program would be  
17 cost-effective. Staff further recommends that Ameren Missouri file a proposed tariff sheet(s)  
18 that would provide LED street lighting services at cost plus the return authorized by the  
19 Commission to its customers.

20 Q. Does this conclude your rebuttal testimony?

21 A. Yes, it does.

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<sup>5</sup> Rebuttal Testimony Schedule HJK-R1, *Report to Staff*, p. 1.