Exhibit No.:

Issues: **Demand-Side Resources**

Witness: Randy S. Gross MO PSC Staff

Sponsoring Party: Type of Exhibit: Rebuttal Testimony

File No.: EO-2011-0271

Date Testimony Prepared: October 28, 2011

MISSOURI PUBLIC SERVICE COMMISSION **REGULATORY REVIEW DIVISION**

REBUTTAL TESTIMONY

OF

RANDY S. GROSS

UNION ELECTRIC COMPANY d/b/a AMEREN MISSOURI FILE NO. EO-2011-0271

Jefferson City, Missouri October 2011

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Union Electric Company's) 2011 Utility Resource Filing Pursuant to) 4 CSR 240 - Chapter 22)	File No. EO-2011-0271
AFFIDAVIT OF RANDY S. GROSS	
STATE OF MISSOURI)) ss COUNTY OF COLE)	
Randy S. Gross, of lawful age, on his oath states: that he has participated in the preparation of the following Rebuttal Testimony in question and answer form, consisting of	
	Randy S. Gross
Subscribed and sworn to before me this $\frac{27}{4}$ day of October, 2011.	
SUSAN L. SUNDERMEYER Notary Public - Notary Seal State of Missouri Commissioned for Callaway County My Commission Expires: October 03, 2014 Commission Number: 10942086	usan Lundermeyer Notary Public

REBUTTAL TESTIMONY

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RANDY S. GROSS

UNION ELECTRIC COMPANY d/b/a AMEREN MISSOURI

FILE NO. EO-2011-0271

- Q. Please state your name and business address.
- A. My name is Randy S. Gross, and my business address is Missouri Public Service Commission, P. O. Box 360, Jefferson City, Missouri 65102.
 - Q. What is your present position at the Missouri Public Service Commission?
 - A. I am an Engineer in the Energy Unit of the Regulatory Review Division.
- Q. Are you the same Randy S. Gross that contributed to Staff's Report on Electric Utility Resource Planning Compliance Filing ("Report") filed on June 23, 2011, in this case?
 - A. Yes, I am.
 - Q. Would you please summarize the purpose of your rebuttal testimony?
- A. I address certain responses of Union Electric Company d/b/a Ameren Missouri ("Ameren Missouri" or "Company") to the deficiencies and concerns identified by Staff filed by Ameren Missouri on September 15, 2011¹ related to its analysis of demand-side resources described in its 4 CSR 240-22 Electric Utility Resource Planning compliance filing² ("Resource Plan Filing").
 - Q. What did Staff identify as Deficiency 1?

¹ Ameren Missouri Response, Case No. ER-2011-0271, item 78

² Electric Utility Resource Filing of Union Electric Company d/b/a Ameren Missouri, File No. EO-2011-0271, item 3

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A. Staff's identified Deficiency 1 is that Ameren Missouri did not perform costeffectiveness screening for a modified Rider L program or for potential customer education programs provided by third party providers such as OPOWER.³

- Q. Did Ameren Missouri address this identified deficiency in its September 15, 2011, response?
- A. Yes. Ameren Missouri acknowledged that it did not perform a cost effectiveness screening for the OPOWER customer education program.⁴
- Q. What justification does Ameren Missouri provide for not performing a costeffectiveness screening for the OPOWER program?
- A. Ameren Missouri states that "Since the Opower program was not identified pursuant to 4 CSR 240-22.050(1),⁵ it cannot be subjected to a cost-effectiveness evaluation."⁶
- Q. Does Staff agree with Ameren Missouri's justification for not evaluating OPOWER or a similar program?
- No. 4 CSR 240-22.050(1) requires the electric utility to identify a wide menu A. of end-use measures to screen. Ameren Missouri's justification that it did not screen the OPOWER program because it wasn't identified by Ameren Missouri pursuant to 4 CSR 240-22.050(1) does not address Ameren Missouri's failure to include OPOWER. It just identifies that Ameren Missouri was also deficient in the menu of identified end-use measure it developed pursuant to 4 CSR 240-22.050(1).
- Q. Was the OPOWER program known by and available to Ameren Missouri prior to this Resource Plan Filing?

³ Staff Report, Case No. EO-2011-0271, item 65, page 19.

⁴ Ameren Missouri Response, Case No. ER-2011-0271, item 78, pages 22 and 23.

⁵ All references to 4 CSR 240-22.050 in this testimony are to the version that was in effect when Ameren Missouri filed in February 2011.

⁶ Ameren Missouri Response, Case No. ER-2011-0271, item 78, page 23.

A. Yes. Ameren Missouri acknowledges that Ameren Missouri's affiliate electric distribution company, Ameren Illinois, is implementing a pilot program with OPOWER in 2011.⁷ In addition, as stated in Staff's report, OPOWER provided a presentation during Staff's Smart Grid Workshop that Ameren Missouri attended on June 28, 2010, that was submitted in File No. EW-2009-0292.⁸ Ameren Missouri was aware of this program prior to its Resource Plan Filing and therefore should have identified it as one of the end-use measures pursuant to 4 CSR 240-22.050(1) and performed a cost-effectiveness screening pursuant to 4 CSR 240-22.050(3).

- Q. Does Ameren Missouri provide any other justification for not performing a cost-effectiveness screening for the OPOWER program?
- A. Ameren Missouri states that "The OPower Program is in its infancy. Little is known about the performance of the program over a reasonable period of years. Behavior change is especially difficult to model because over time what now may be considered a change in typical behavior might eventually become the norm."
- Q. Does Staff agree with this justification for not evaluating the OPOWER program?
- A. No. Even if Staff were to agree that the OPOWER program is in its infancy, every demand-side program is at some point in time in its infancy. The development of utility specific information regarding a particular program comes from pilot programs. Ameren Missouri has previously utilized pilot programs to harvest input data used for developing programs.

⁷ Ameren Missouri Response, Case No. ER-2011-0271, item 78, page 23.

⁸ Sandeep Menon OPOWER presentation, File No. EW-2009-0292, item 102.

⁹ Ameren Missouri Response, Case No. ER-2011-0271, item 78, page 23.

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Q. Was OPOWER in its infancy when Ameren was screening demand-side programs?

A. No, as I previously explained it was not. In addition, there are documented results for OPOWER programs of other utilities that have been independently verified. OPOWER claims that over 85% of report recipients take significant action that results in demand reductions of up to 3.5%, a 20% increase for other Energy Efficiency programs and more than 200 Gigawatt Hours (GWh) savings for 2010.¹⁰ OPOWER indicates these results have been verified by leading industry analysts and non-profit organizations, including the American Council for an Energy-Efficient Economy (ACEEE), The Brattle Group, Navigant Consulting, Power Systems Engineering, KEMA, Environmental Defense Fund (EDF), as well as by established academics from several leading institutions and also claims to be working with over 57 utilities in more than 10 million households nationwide.¹¹

- Q. Does 4 CSR 240-22 require screening of customer education programs?
- A. The version of 4 CSR 240-22 this matter is filed under does not explicitly require screening of customer education programs. However, it does require in 4 CSR 240-22.050(6) that the utility develop a set of potential demand-side programs that are designed to deliver an appropriate selection of end-use measures to each market segment. Customer education is an important part of all demand-side programs because it provides pertinent information to a customer so they can make intelligent choices regarding their energy usage.
- Q. Does Ameren Missouri provide any personalized customer education to its customers?

¹⁰ Sandeep Menon OPOWER presentation, File No. EW-2009-0292, item 102.

OPOWER website; http://opower.com/

A. Yes, it does. Once a year Ameren Missouri sends each of its residential customers a personal energy report that contains information about a customer's electric energy usage and ways to reduce energy consumption. Ameren Missouri also provides an online tool called the "Energy Advisor". In a June 2, 2011 press release, Richard Mark, senior vice president of Ameren Missouri Customer Operations stated "Ameren Missouri is not only focused on providing the energy that powers people's lives and Missouri's economy, but our employees are also prepared to offer guidance when customers need it to make informed choices about their energy usage. Programs such as OPOWER take this type of customer education to a higher level by applying behavioral science to optimize the program results.

- Q. Do you have a recommendation for the Commission?
- A. Yes. I recommend that the Commission find Ameren Missouri in non-compliance with 4 CSR 240-22 and order Ameren Missouri to analyze a customer education program such as OPOWER for its next annual update.
 - Q. Does this conclude your rebuttal testimony?
 - A. Yes, it does.

¹² http://www.ameren.com/sites/aue/MyHome/ResEfficiency/Pages/PERFAQs.aspx

¹³ http://www.ameren.com/sites/aea/Pages/Home.aspx

¹⁴ http://ameren.mediaroom.com/index.php?s=43&item=943

¹⁵ Sandeep Menon OPOWER presentation, File No. EW-2009-0292, item 102.