

**BEFORE THE PUBLIC SERVICE COMMISSION**

In the matter of Union Electric Company     )	
d/b/a AmerenUE's Tariff Sheets Filed to     )	Case No. ET-2009-
Implement a new Residential Lighting and    )	Tariff No. JE-2009-0691
Appliance Program.                             )	

**STAFF RECOMMENDATION TO APPROVE TARIFF SHEETS IF  
AMERENUE ACCEPTS CONDITIONS**

Comes now the Staff of the Missouri Public Service Commission and for its recommendation states:

1. On March 25, 2009 Union Electric Company d/b/a AmerenUE ("AmerenUE") filed seven (7) proposed tariff sheets designed to initiate a Residential Energy Efficiency Program section of its tariff by adding a new pilot Residential Lighting and Appliance Program. Each tariff sheet bears an effective date of April 24, 2009.

2. To allow more time for Staff and other stakeholders to discuss the proposed Residential Lighting and Appliance Program with AmerenUE, on April 9, 2009 and again on May 1, 2009, AmerenUE extended the effective date of the tariff sheets to May 15, 2009 and to May 22, 2009, respectively.

3. AmerenUE's proposed Residential Lighting and Appliance Program is intended to reduce energy consumption in residential lighting and appliance products by encouraging selection of ENERGY STAR products through market transformation (i.e., a strategy that promotes the manufacture and purchase of energy efficient products and services resulting in lasting structural and behavioral changes in the marketplace and increased adoption of energy efficient technologies).

4. In the attached Memorandum (Appendix A), the Missouri Public Service Commission Energy Department Staff recommends that, if AmerenUE accepts the conditions following:

- In addition to annual reports and a final report, AmerenUE shall quarterly provide comprehensive quantitative and qualitative reports for the Program to Staff, OPC, DNR and any other interested stakeholders that track the progress of implementation and evaluation of the Program beginning with the first quarter following program implementation.
- Program evaluation, measurement, verification and reporting shall be done separately for the St. Louis metro area, for rural areas and for the Program in total.
- At the end of the Program term, AmerenUE shall share the Program final report with all stakeholders and with all electric utilities (including cooperatives and municipals) in Missouri.
- Should AmerenUE decide to continue the Program beyond its current term of September 30, 2011, AmerenUE shall invite all other electric utilities (including co-operatives, municipals, and investor-owned electric utilities) and other stakeholders in Missouri to meet and evaluate the opportunity for and interest in a statewide Residential ENERGY STAR Lighting and Appliance Program. This condition recognizes that statewide and regional utility collaborations for residential ENERGY STAR lighting and appliance market transformation programs have a history of success in many parts of the United States.

the Commission issue an Order with those conditions that approves the following proposed tariff sheets, as filed on March 25, 2009, to go into effect on May 22, 2009, the currently proposed effective date:

Filed	Canceling
17th Revised Sheet No. 125	16th Revised Sheet No. 125
Original Sheet No. 236	
Original Sheet No. 237	
Original Sheet No. 238	
Original Sheet No. 239	
Original Sheet No. 240	
Original Sheet No. 241	

5. AmerenUE currently lacks residential energy efficiency programs. As the Staff explains in Appendix A, the Staff proposes the foregoing conditions due to several concerns it

has with AmerenUE's proposed Residential Lighting and Appliance Program. Those concerns are that: (1) the proposed program has a high level of risk for AmerenUE's ratepayers, (2) national market transformation efforts for ENERGY STAR products have been underway since 1992 and are expected to accelerate absent AmerenUE's proposed program, (3) the proposed program has relatively low direct benefit to AmerenUE's residential ratepayers, (4) it will be difficult to quantify benefits from the proposed program, and (5) the proposed program is a large and expensive pilot program.

5. The Staff has verified that AmerenUE has filed its annual report and is not delinquent on any assessment. Staff is not aware of any other matter before the Commission that affects or is affected by this filing.

6. The Staff expressly reserves the right to make a prudence determination regarding the implementation of this program in future rate cases if AmerenUE requests recovery of the costs of the program.

WHEREFORE, the Staff recommends that the Commission issue an order that, if AmerenUE accepts the conditions following:

- In addition to annual reports and a final report, AmerenUE will quarterly provide comprehensive quantitative and qualitative reports for the Program to Staff, OPC, DNR and any other interested stakeholders that track the progress of implementation and evaluation of the Program beginning with the first quarter following program implementation.
- Program EM&V and reporting will be done separately for the St. Louis metro area, for rural areas and for the Program in total.
- At the end of the Program term, AmerenUE will share the Program final report with all stakeholders and with all electric utilities (including cooperatives and municipals) in Missouri.
- Should AmerenUE decide to continue the Program beyond its current term of September 30, 2011, AmerenUE will invite all other electric utilities (including cooperatives and municipals) and other stakeholders in Missouri to meet and evaluate the opportunity for

and interest in a statewide Residential ENERGY STAR Lighting and Appliance Program. This condition recognizes that statewide and regional utility collaborations for residential ENERGY STAR lighting and appliance market transformation programs have a history of success in many parts of the United States.

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Original Sheet No. 241	

Respectfully submitted,

/s/ Nathan Williams

Nathan Williams  
Deputy General Counsel  
Missouri Bar No. 35512

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### **Certificate of Service**

I hereby certify that copies of the foregoing have been mailed, hand-delivered, or transmitted by facsimile or electronically mailed to all counsel of record this 12<sup>th</sup> day of May 2009.

/s/ Nathan Williams

# MEMORANDUM

To: Missouri Public Service Commission Official Case File  
Tariff No. JE-2009-0691  
Union Electric Company d/b/a AmerenUE

From: John Rogers, Energy Department – Resource Analysis Manager

/s/ Lena M. Mantle 05/12/09

Lena M. Mantle

Energy Department/Date

/s/ Nathan Williams 05/12/09

Nathan Williams

General Counsel's Office/Date

Subject: Staff analysis of and recommendation for approval of tariff sheets for Residential Energy Efficiency Program, subject to specified conditions being accepted by AmerenUE – Effective May 22, 2009

Date: May 12, 2009

## Recommendation:

Staff recommends that the Commission approve the tariff sheets subject to certain conditions set out by Staff in this memo. Staff has concerns with this program as listed in this memo but is recommending approval to enable AmerenUE to offer a demand-side program that may impact the energy usage of its residential customers. Staff believes there will be numerous lessons learned from this program and the program can be monitored for effectiveness. Staff reserves the right to make a prudence determination regarding the implementation of this program in future rate cases where AmerenUE will request recovery of the costs of the program.

## Summary:

On March 25, 2009 Union Electric Company d/b/a AmerenUE (“AmerenUE”) filed in Tariff Tracking No. JE-2009-0691 its original tariff sheets listed below to include a new Residential Lighting and Appliance Program (Program).

### Filed

17th Revised Sheet No. 125

Original Sheet No. 236

Original Sheet No. 237

Original Sheet No. 238

Original Sheet No. 239

Original Sheet No. 240

Original Sheet No. 241

### Canceling

16th Revised Sheet No. 125

The tariff sheets filed on March 25, 2009 bore an effective date of April 24, 2009. On April 9, 2009 and on May 1, 2009 AmerenUE filed to extend the effective date of the tariff sheets to May

15, 2009 and to May 22, 2009, respectively. Both extensions were made to allow more time for discussion of the Program among AmerenUE, Staff and other stakeholders.

Staff has had four meetings with AmerenUE to discuss the Program. AmerenUE has consistently expressed confidence in the Program and the Program delivery team. However, Staff has a number of concerns regarding the Program. Taking these concerns into consideration along with AmerenUE's lack of residential energy efficiency programs and AmerenUE's confidence in the Program, Staff is recommending that the tariff sheets be approved with several conditions for the Program. The recommended conditions are in the Conclusion section of this memo.

#### Background:

On March 25, 2009 AmerenUE filed in Tariff Tracking No. JE-2009-0691 original tariff sheets to include a new Residential Lighting and Appliance Program. The Program as described in this tariff filing was not evaluated as part of AmerenUE's last Chapter 22 electric resource plan filing. Staff and OPC first became aware of the Program on February 24, 2009 when AmerenUE provided a presentation concerning the Program's overview, data collection and reporting to Staff and to OPC. From a presentation dated in November 2008 on AmerenUE's website, it is clear that AmerenUE had been planning to file such a program for some time before notifying the Staff. On March 27, 2009, AmerenUE conducted a second meeting with Staff and OPC regarding the Program. On March 31, 2009, AmerenUE provided an additional presentation concerning the Program and its evaluation plans to Staff, OPC, DNR and other interested entities. On May 1, 2009, AmerenUE again met with Staff and OPC to provide additional information and to address concerns regarding the Program.

The Program is intended to reduce energy consumption in residential lighting and appliance products used by AmerenUE customers by encouraging selection of ENERGY STAR products through market transformation (i.e., a strategy that promotes the manufacture and purchase of energy efficient products and services resulting in lasting structural and behavioral changes in the marketplace and increased adoption of energy efficient technologies). The Program will be administered by Lockheed-Martin (LM). Program evaluation, measurement and verification (EM&V) will be independently performed and reported by Cadmus Group, Inc. (Cadmus). LM and Cadmus have performed these roles in the past for numerous utility demand-side management programs.

LM will introduce the Program to manufacturers and retail distributors of ENERGY STAR products with the objective of having Program contracts with approximately 400 Program partners: manufacturers and retail distributors of ENERGY STAR products who participate in the Program. The Program term ends September 30, 2011, and the Program has a total budget of \$13.7 million. LM estimates that the Program's Total Resource Cost Test (TRC)<sup>1</sup> is 2.92, which means that the expected net present value of Program benefits are nearly three time greater than the expected net present value of Program costs. The Program's TRC is higher than the TRC for

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<sup>1</sup> A TRC greater than one (1) is considered to be cost effective for the utility.

any of the nine residential demand-side management programs in the preferred plan in AmerenUE's last resource plan filing.

The Program filed is similar to a demand-side management program included in AmerenUE's latest filed preferred resource plan (Case No. EO-2007-0409) in that the objective of both is to achieve energy and demand savings through an increased use of ENERGY STAR lighting products (e. g., compact florescent lights (CFLs)) and ENERGY STAR home appliances by AmerenUE's customers. However, the Program is primarily a market transformation program with limited AmerenUE customer incentives (price buy downs/mark downs), while the program in AmerenUE's latest filed preferred resource plan is primarily a customer incentive program with rebates to AmerenUE customers for program products purchased and limited promotional and marketing incentives for manufacturers and retail distributors. The ENERGY STAR lighting and appliance program in AmerenUE's last resource plan filing had a program launch window of August through November 2008.

During the four meetings regarding the Program, Staff expressed its concerns about the Program design and EM&V process. AmerenUE has worked hard to help Staff and other stakeholders understand the program and to address the concerns being expressed. AmerenUE has consistently expressed a very strong desire to implement the Program, as well as a confidence that this is the right program for the times.

Analysis:

**The Program has a high level of risk for ratepayers.**

ENERGY STAR market transformation programs have existed for more than ten years. However, all of the ENERGY STAR market transformation programs have included a collaborative of utilities and have all had a program footprint at a state-wide level or a regional level in order to share risk and minimize "free riders" (purchasers of program products who: 1) are not customers of utilities funding the program or 2) would have purchased the products in absence of the program). LM does have experience with state-wide and regional ENERGY STAR market transformation programs. AmerenUE has stated that this is the first time an ENERGY STAR market transformation program will be attempted by one utility in a portion of one state. And, thus, there will be no sharing of risk with other utilities. AmerenUE's service territory is intertwined with nearby electric co-operatives, municipal electric utilities and investor-owned electric utilities (in Missouri and neighboring states) which increases the likelihood of a large number of "free riders" for the Program. AmerenUE has no data currently on the market share of ENERGY STAR lighting products and appliances in the AmerenUE service territory and does not plan to develop this market share data until the fall of 2009. Thus, AmerenUE has neither quantified the need for the Program specific to the AmerenUE's territory nor the potential benefits to AmerenUE expected from the Program. An ENERGY STAR market transformation program was not screened for cost effectiveness in AmerenUE's last resource plan filing.



Finally, as specifically addressed below, the delivery process for the Program is complicated, and the Program results will be difficult to evaluate, measure and verify when compared to traditional customer rebate energy efficiency programs.

In the description of its risk analysis conducted as a part of its last electric resource plan filing, AmerenUE describes the risk of a manufacturer and/or major retail participation program such as the one AmerenUE is proposing in this tariff filing. At page 47 of AmerenUE's February 5, 2008 resource plan filing made to comply with 4 CSR 240-22.070, Risk Analysis and Strategy Selection, Volume II in Case No. EO-2007-0409, the description of AmerenUE's residential lighting and appliance program included in AmerenUE's preferred plan has the following statement:

Given the initial size of the program, scale is insufficient to generate significant manufacturer or major retailer participation (such as through in-store instant rebates or product price buy-downs). The primary delivery strategy will be direct consumer rebates, supported by outreach to retailers (special in-store events, etc).

At page 24 of the referenced document, AmerenUE further states:

... programs intended principally to effect a market transformation typically have very different designs, embody more program elements, require greater investment per unit of energy saved and are more difficult to evaluate, particularly over short periods than resource acquisition programs

At page 26 of the referenced document, AmerenUE states the following as a way to manage some of the risk associated with market transformation programs:

... where risks are closely associated with being able to influence a mass market, risk can be mitigated to some extent by moving the program focus upstream to retailers, distributors or manufacturers where greater control over performance can be exercised.

In the time between when AmerenUE filed its last electric resource plan in Case No. EO-2007-0409 and the filing of this tariff, AmerenUE hired LM to refine the design and administer its residential programs. AmerenUE has told Staff that it took many discussions with LM for it to agree on this particular program design.

**National market transformation efforts for ENERGY STAR products have been underway since 1992 and are expected to accelerate with or without the Program.**

The ENERGY STAR program was started in 1992 and is a joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy. Through its partnerships with more than 15,000 private and public sector organizations throughout the United States, ENERGY STAR delivers technical information and tools that organizations and consumers can

use to choose energy efficient solutions. Over 70 percent of consumers are aware of the ENERGY STAR brand (per the ENERGY STAR web site). Founded in 1991, The Consortium for Energy Efficiency (of which AmerenUE is a member) is a non-profit collaborative of utilities extending over 27 states and two provinces that promotes energy efficiency through a variety of avenues including efforts to encourage lighting and appliance manufacturers to meet or exceed ENERGY STAR efficiency standards. Staff believes the ENERGY STAR brand is well established and recognized.

In addition, there is a high likelihood that the federal government will soon pass legislation that requires newly manufactured home appliances to meet higher energy efficiency standards. The federal Clean Energy Act of 2007 effectively banned incandescent light bulbs by January 2014. Such legislation will reduce the need for and effectiveness of market transformation for ENERGY STAR lighting and appliances.

**The Program budget has relatively low direct benefits for AmerenUE residential customers.**

<u>Program Budget Item</u>	<u>Amount</u>	<u>Percentage</u>
AmerenUE Administration (1)	\$ 2,005,860	14.6%
LM Program Administration (2)	\$ 5,585,000	40.8%
Marketing and Education	\$ 1,869,585	13.7%
Partner Incentives (3)	\$ 571,310	4.2%
Customer Incentives (4)	\$ 3,664,416	26.8%
Total Budget	\$13,696,171	

- (1) Program's portion of total "below the line" AmerenUE Residential Portfolio Costs including EM&V (Cadmus) costs, education, information, and administrative costs.
- (2) Total time and materials per LM contract including web development, media planning and production, marketing consulting and database system development and administration.
- (3) For market share incentives and 50/50 sharing of special promotions.
- (4) For manufacturer buy downs and retail distributor mark downs.

About 27 percent (27%) of the Program's total costs are for direct incentives for customers (buy/mark down of prices), which the retailers and manufacturers may or may not choose to pass on to AmerenUE customers, assuming there are no "free riders." By contrast, the residential lighting and appliance program in AmerenUE's last electric resource plan filing included about 53 percent (53%) of program total costs for direct incentives for customers.

**Program benefits will be difficult to quantify.**

By their very nature, energy efficiency market transformation program benefits are difficult to quantify, because there is no way to directly identify the incremental sales of lights and appliances as a result of the program above the level of natural sales that would occur absent the program. Cadmus plans to attempt to do this through a market-based evaluation approach which

will track and compare the growth in the sale of ENERGY STAR lighting products and appliances within AmerenUE's service territory over the course of the Program to the growth in sales of similar products observed in "control states" (such as Georgia) where utilities are not operating any energy efficiency programs. This theoretical approach is the only way Cadmus, or anyone else, can determine an estimate of the Program's benefits. Staff is concerned that there may be many economic factors/driving forces which may vary significantly between the AmerenUE service territory and the "control state" and that this will make it very difficult to make an apples-to-apples comparison through the planned market-based evaluation approach.

Cadmus plans to use "in-store intercepts" of purchasers to determine the percentage of sales at participating stores that are made by "free riders." Staff is concerned about the adequacy of the number and location of "in-store intercepts" to properly identify the percentage of "free riders" in light of the fact that AmerenUE's service territory is intertwined with many adjoining or nearby electric co-operatives, municipal electric utilities and investor-owned electric utilities in Missouri and neighboring states.

In addition Staff is concerned about the evaluation of the Program. In the presentation on March 31, 2009, Cadmus told Staff that while they had evaluated similar programs before, none were like the one AmerenUE is proposing.

**The Program may be a large and expensive pilot program.**

AmerenUE will be breaking new ground with the Program, since this will be the first time one utility will attempt this market transformation program in a portion of one state. During the four meetings with Staff and others to discuss the Program, AmerenUE has openly stated that there is much uncertainty surrounding the Program and that such uncertainty will likely require frequent review and adjustment to the Program design. The Program budget is approximately one-third of the total budget for the Residential Energy Efficiency Portfolio.

Because the Program budget is relatively large and because of the expectation that there will be periodic changes to the Program design, Staff has expressed its belief that the Program is a large and expensive pilot program. AmerenUE has responded that it does not believe the Program should be viewed as a pilot since there is much experience with similar statewide and/or regional programs.

**Conclusion:**

Although the Program has relatively high risk and uncertainty, Staff does recognize the potential for significant Program benefits and the need for AmerenUE to begin implementing new residential demand-side management programs. Staff believes that AmerenUE should be allowed to implement the Program subject to the following conditions:

- In addition to annual reports and a final report, AmerenUE shall quarterly provide comprehensive quantitative and qualitative reports for the Program to Staff, OPC, DNR and any other interested stakeholders that track the progress of implementation and

evaluation of the Program beginning with the first quarter following program implementation.

- Program EM&V and reporting shall be done separately for the St. Louis metro area, for rural areas and for the Program in total.
- At the end of the Program term, AmerenUE shall share the Program final report with all stakeholders and with all electric utilities (including cooperatives and municipals) in Missouri.
- Should AmerenUE decide to continue the Program beyond its current term of September 30, 2011, AmerenUE shall invite all other electric utilities (including co-operatives, municipals, and investor-owned electric utilities) and other stakeholders in Missouri to meet and evaluate the opportunity for and interest in a statewide Residential ENERGY STAR Lighting and Appliance Program. This condition recognizes that statewide and regional utility collaborations for residential ENERGY STAR lighting and appliance market transformation programs have a history of success in many parts of the United States.

Recommendation:

Staff recommends that the Commission approve the tariff sheets and that AmerenUE be ordered to comply with the conditions listed above.

AmerenUE is not delinquent in filing its Annual Report and the Staff is not aware of any other matter before the Commission that affects or is affected by this filing.

**BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MISSOURI**

In the matter of Union Electric Company  
d/b/a AmerenUE's Tariff Sheets Filed to  
Implement a new Residential Lighting  
and Appliance Program.

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Case No. ET-2009-  
Tariff No. JE-2009-0691

**AFFIDAVIT OF JOHN ROGERS**

STATE OF MISSOURI     )  
                                  ) ss  
COUNTY OF COLE     )

John Rogers, of lawful age, on oath states: that he participated in the preparation of the foregoing Staff Recommendation in memorandum form, to be presented in the above case; that the information in the Staff Recommendation was provided to him; that he has knowledge of the matters set forth in such Staff Recommendation; and that such matters are true to the best of his knowledge and belief.

  
\_\_\_\_\_  
John Rogers

Subscribed and sworn to before me this 12<sup>th</sup> day of May, 2009.

  
\_\_\_\_\_  
Notary Public



SUSAN L. SUNDERMEYER  
My Commission Expires  
September 21, 2010  
Callaway County  
Commission #06942086