Exhibit No.: 1-34

Issues: Rate Design /

Billing Units; Rate Schedule 12 (M) (LTS

Tariff)

Witness: Wilbon L. Cooper
Sponsoring Party: Union Electric Company
Type of Exhibit: Direct Testimony
Case No.: ER-2010-23
Date Testimony Prepared: July 24, 2009

#### MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. ER-2010-

**DIRECT TESTIMONY** 

OF

WILBON L. COOPER

ON

BEHALF OF

UNION ELECTRIC COMPANY d/b/a AmerenUE

> St. Louis, Missouri July, 2009

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1	DIRECT TESTIMONY
2	OF
3	WILBON L. COOPER
4	CASE NO. ER-2010
5	I. <u>INTRODUCTION</u>
6	Q. Please state your name and business address.
7	A. My name is Wilbon L. Cooper. My business address is One Ameren
8	Plaza, 1901 Chouteau Avenue, St. Louis, Missouri 63103.
9	Q. By whom are you employed and in what capacity?
10	A. I am employed by Union Electric Company d/b/a AmerenUE
11	("AmerenUE" or the "Company") as the Manager of the Rates and Tariff Department.
12	Q. Please describe your educational background and employment
13	experience.
14	A. I have a Bachelor of Science degree in Electrical Engineering from the
15	University of Missouri-Rolla.
16	I was employed as an Assistant Engineer in the Rate Engineering
17	Department of Union Electric in June 1980. My work included assignments relating to
18	the general analyses and administration of various aspects of Union Electric's electric
19	gas, and steam rates. In October 1989, I was appointed Supervising Engineer - Rate
20	Analysis, in the Rate Engineering Department of Corporate Planning at Ameren Services
21	Company. In this position, I was responsible for meeting the analytical requirements for
22	the Company's retail gas and electric rates and wholesale electric rates, including load

- 1 research and various cost of service and rate design studies, as assigned. I was appointed
- 2 to my present position of Manager of Rates and Tariffs in March 2003.
- I currently have responsibility for the general policies and practices
- 4 associated with the day-to-day administration and design of AmerenUE's electric and gas
- 5 rate tariffs, riders and rules and regulations tariffs on file with the Missouri Public
- 6 Service Commission ("Commission") and in the participation in various proceedings
- 7 before this regulatory agency. In addition, Rates and Tariffs is responsible for
- 8 conducting class cost of service and rate design studies and the participation in other
- 9 projects of a general corporate nature, as requested by Stephen M. Kidwell, Vice
- 10 President Regulatory Affairs and Energy Efficiency.
- I have previously submitted testimony before the regulatory commissions
- 12 of Missouri, Illinois, and Iowa.

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#### II. PURPOSE AND SUMMARY OF TESTIMONY

- Q. What is the purpose of your direct testimony in this proceeding?
- 15 A. My direct testimony discusses: a) the revenue increase being proposed for
- the Company's electric retail rate classes; b) the development and results of a class cost
- of service study being submitted in connection with the direct testimony of AmerenUE
- 18 witness William M. Warwick as part of this case; c) the design and development of the
- individual class rates; d) a tariff revision to the 12(M) (Large Transmission Service, or
- 20 "LTS") service classification (under which Noranda Aluminum, Inc. takes service) filed
- as part of this case; and e) a miscellaneous tariff revision to the Company's Rules and
- 22 Regulations Billing Practices.

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- Q. Have you prepared or have there been prepared under your direction and supervision a series of schedules for presentation to the Commission in this proceeding?
- A. Yes. I have prepared nine schedules. The first four, discussed immediately below, provide a summary of the rate increase requested in this case. I discuss the remaining schedules throughout my direct testimony.

#### 7 Q. Please identify Schedules WLC-E1 and WLC-E2.

A. Schedule WLC-E1 consists of nineteen (19) tariff sheets, which reflect the non-LTS revised rates and miscellaneous tariff revisions, and Schedule WLC-E2 consists of seven (7) tariff sheets which reflect the revised Service Classification 12(M) or LTS tariff being proposed by the Company for approval by the Commission in this proceeding. These tariffs, taken as a whole, would provide an increase in the Company's net Missouri jurisdictional normalized test year revenue of approximately \$402.5 million, or approximately 18%, over the annualized test year<sup>1</sup> revenue that would be realized from the tariffs which are effective at the time of filing.

#### Q. Please identify Schedule WLC-E3.

A. Schedule WLC-E3 shows the distribution of the proposed net revenue increase to the Company's various proposed rate service classifications, resulting from the rates contained in the proposed tariffs in Schedules WLC-E1 and WLC-E2, excluding gross receipts taxes levied on customer billings by the various municipalities within the Company's service area.

<sup>&</sup>lt;sup>1</sup> The test year in this case is the 12 months ending March 31, 2009, with certain pro forma adjustments discussed in the direct testimony of AmerenUE witness Gary S. Weiss, including as adjusted for customer growth through February 28, 2010.

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- 1 Q. Please identify Schedule WLC-E4.
- A. Schedule WLC-E4 illustrates the effects of the proposed rates in the tariffs in Schedules WLC-E1 and WLC-E2 upon typical monthly bills of customers served under the Company's rate service classifications.

#### III. CLASS COST OF SERVICE STUDY

- A. Class Cost of Service Concepts and Operating System Components
- Q. Please explain what is meant by "class cost of service."
- A. The Company currently provides service to its customers in a number of rate classifications that are designated for residential or non-residential service. The nonresidential customer group is differentiated by customer size and the voltage level at which the Company provides service. The current customer classes are Residential, Small General Service ("SGS") and Large General Service ("LGS") (all of which have their service delivered at a low secondary voltage level); Small Primary Service ("SPS") and Large Primary Service ("LPS") (delivery at a high voltage level); Large Transmission Service ("LTS") (delivery at a "transmission" voltage level) and Lighting Service (both area and street lighting). A class cost of service study provides a basis for allocating and/or assigning the Company's total jurisdictional cost of providing electric service to these various customer classes in a manner that reflects cost causation. The results of a class cost of service study with equalized rates of return are often referred to as "class revenue requirements." Mr. Warwick conducted a class cost of service study for this case, under my supervision, and he is sponsoring that study in direct testimony filed in this proceeding.

- 1 Q. How are the results of a class cost of service study used by the 2 Company?
- A. These study results are typically used to develop the target level of annual revenue that the Company should recover from each customer class, through the application of the rates or charges within the Company tariffs under which the various customer classes are being served.
  - Q. Please explain your use of the term "rate design."
  - A. The term "rate design" refers both to the process of establishing the specific charges (e.g. monthly customer charges, dollars per kilowatt of demand and/or cents per kilowatt-hour energy charges) for each customer class, as well as to the actual structure of an individual class rate. The rate design, or structure, of a given class rate may range in complexity from a simple structure consisting of a monthly customer charge and a flat charge per kilowatt-hour (such as the Company's summer Residential rate), to a more complex set of customer, demand, energy and reactive charges (such as the Company's SPS, LPS and LTS rates). In all instances, however, the charges within a specific rate classification are established such that the application of these individual charges to the total annual customer class electrical usage will result in the collection of the targeted annual revenue requirement of each of the Company's retail rate classes.
  - Q. As background for additional discussion on the class cost of service study the Company is sponsoring in this case, please provide a general description of the various facilities utilized by the Company in producing and delivering electricity to its customers.

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- A. Schedule WLC-E5 of my testimony is a simplified diagram illustrative of the AmerenUE electric system, showing how power flows from the generating station and is then transmitted and distributed to the home of a residential customer. Other customers receiving service at higher voltage levels are also served from various points on the same system.
- 6 Q. Please describe, in more detail, how the Company's system operates.
- A. As illustrated in Schedule WLC-E5, electrical power is produced at the Company's generating stations at voltage levels ranging from 11,000 to 23,750 volts. To achieve transmission operating economies, this voltage is raised, or stepped up, by power transformers at the generating station sites to voltages generally ranging from 138,000 to 345,000 volts for transmission to the Company's bulk substations that are strategically located throughout its service area.
  - Q. What is the function of the Company's bulk substations?
- A. Bulk substations receive electrical power at transmission voltage levels.

  They then lower, or step-down, this power to transmission or distribution voltages

  generally ranging from 138,000 volts to 34,500 or 69,000 volts. Such power is then

  distributed over the Company's 34,500 or 69,000 volt distribution lines to distribution

  substations located throughout the Company's service area.
  - Q. What function do distribution substations perform?
  - A. Distribution substations, which are far more numerous than bulk substations, provide a further reduction in the electrical power voltage to a range of 4,160 to 13,800 volts within various portions of the Company's service area. The power is then

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- distributed over the Company's 4,160 to 13,800 volt distribution lines to points at or near
- 2 the premises of the Company's customers.
- Q. After electrical power at 4,160 to 13,800 volts is delivered to a point at or near a customer's premises, do any further reductions in voltage take place?
  - A. Yes, in most instances. While approximately 650 of the Company's largest industrial and commercial customers in Missouri take service at the 4,160 to 13,800 volt range or higher, the majority of the Company's customers are served at lower voltages, ranging from 120 to 480 volts. The lower voltages are achieved through the use of numerous line transformers located at or near the customer's premises. This low voltage electrical power from the line transformer is delivered to a customer's premises over low voltage lines referred to as "secondary" and "service" lines.
- Q. What voltages are utilized in providing electric service to residential customers?
- 14 A. Residential customers are served at either 120 or 240 volts depending 15 upon the customer's service entrance panel size and connected appliances.
- Q. What voltages are utilized to serve non-residential customers?
- A. Non-residential customers on the Company's SGS or LGS rates are served at voltages from 120 to 480 volts due to the wide variety of electrical consuming devices utilized by such customers. Customers in the latter voltage range are often referred to as "secondary" voltage customers. Other larger non-residential customers receiving service at 4,160 to 13,800 volts are referred to as "primary" voltage customers. The Company also serves approximately 50 customers in Missouri at voltages above the 13,800 volt level. These are referred to as "high voltage" or Rider B customers. Additionally, the

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- 1 Company serves its only current LTS customer at 161 kilovolts ("kV") via a unique
- 2 transmission service arrangement.
  - Q. In your description of the AmerenUE generation, transmission and distribution system are you using the term "lines" in a general sense?
- 5 A. Yes. Those "lines" may be overhead conductors or underground cables.
- 6 Overhead "lines" include all poles, towers, insulators, crossarms and all other hardware
- 7 associated with such installations. Underground "lines" include direct buried cable, as
- 8 well as that installed in single or multi-duct conduit, and other associated hardware.
- 9 B. Costs and Revenues in Class Cost of Service Study
  - Q. Please describe the components of costs and revenues that are contained in the class cost of service study that the Company is filing in this case.
  - A. A traditional cost of service study incorporates the aggregate jurisdictional (Missouri or Federal Energy Regulatory Commission ("FERC")) accounting and financial data normally submitted to a regulatory commission by a utility in support of a request for an adjustment in its overall rate levels. Such a study is required to determine the level of revenues necessary for the Company to recover its operating and maintenance expenses, depreciation applicable to its investment in utility plant, property taxes, income and other taxes, and provide a fair rate of return to the Company's investors, through its rates. The Company's class cost of service study allocates, or distributes, these total jurisdictional costs to the various customer classes in a cost based manner that fairly and equitably reflects the cost of the service being provided to each customer class.

1	Q.	Was a Missouri jurisdictional cost of service study performed by the
2	Company's	s Regulatory Accounting group the starting point for the class cost of
3	service stu	dy performed and sponsored by Mr. Warwick?
4	A.	Yes, it was. As I indicated above, the Company's class cost of service
5	study is a c	ontinuation and refinement of the Missouri jurisdictional cost of service study
6	discussed i	n the direct testimony of Mr. Weiss, resulting in a determination of the costs
7	incurred in	providing electric service to each of the Company's customer classes.
8	Q.	What categories of cost were examined in the development of the class
9	cost of ser	vice study being sponsored by Mr. Warwick in this case?
10	A.	A detailed analysis was made of all elements of the Company's Missouri
11	jurisdiction	al rate base investment and expenses during the test year for the purpose of
12	allocating	such items to the Company's present customer classes. This analysis consisted
13	of classifyi	ng the various elements of cost into their customer-related, energy-related and
14	demand-re	lated cost categories.
15	Q.	Why are the Company's costs classified into these three categories?
16	A.	It is generally accepted within the industry that each of these categories is
17	a cost incu	rred by the Company as a result of different cost causation factors and, hence,
18	should be	allocated among the various customer classes by different methodologies
19	which cons	sider such cost causation.
20	Q.	What are customer-related costs?
21	A.	Customer-related costs are the minimum costs necessary to just make
22	electric ser	vice available to the customer, regardless of the extent to which such service is
23	utilized.	Examples of such costs include monthly meter reading, billing, postage,

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customer accounting and customer service expenses, as well as a portion of the costs associated with the required investment in a meter, the service line, the transformer and other distribution system facilities. The customer components of the distribution system are those costs necessary to simply make service available to a customer, without the consideration of the amount of the customer's electrical use. The January 1992 edition of the Electric Utility Cost Allocation Manual, published by the National Association of Regulatory Utility Commissioners ("NARUC"), references both customer-related and demand-related cost components for all distribution plant and operating expense accounts other than for substations and street lighting.

#### Q. What are energy-related costs?

A. Energy-related costs are those costs related directly to the customer's consumption of electrical energy (kilowatt-hours) and consist primarily of fuel, fuel handling, and a portion of production plant maintenance expenses.

# Q. What are demand-related costs, which are the third category of costs to which you referred?

A. Demand-related costs are rate base investment and related operating expenses associated with the facilities necessary to supply a customer's service requirements during periods of maximum, or peak, levels of power consumption each month. During such peak periods, this usage is expressed in terms of the customer's maximum power consumption, commonly referred to as kilowatts of demand. As so defined, demand-related costs include those costs in excess of the aforementioned customer and energy-related costs. The major portion of demand-related costs consists of

1 generation and transmission plant and the non-customer-related portion of distribution

2 plant.

#### B. Cost Allocations

- Q. After the Company's costs are categorized into one of these three classifications, how are they allocated to the various rate classes?
  - A. Customer-related costs are normally allocated on the basis of the number of customers associated with each rate class. In some instances involving non-residential customer multiple metering installations, weighting factors may also be used. In addition, where specific costs can be identified as being attributable to one or more specific customer classes, such as credit and collection expenses, a direct assignment of such costs will be made.

Energy-related costs are allocated to the customer classes on the basis of their respective energy (kilowatt-hour) requirements at the generation level of the Company's system, which includes applicable system energy losses. The use of this common point on the Company's system to allocate such costs ensures that each customer class will be assigned the appropriate portion of the Company's total incurred variable fuel and purchased power costs.

Demand-related distribution costs are allocated to customer classes using one or more allocation factors based upon customer class coincident, class non-coincident or individual customer non-coincident kilowatt demands. Demand-related transmission costs are allocated to customer classes on a 12 coincident peak ("CP") basis, as that methodology is consistent with the method utilized to assign cost responsibility of the demands of the Ameren operating companies and all of the other utilities participating in

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- Wilbon L. Cooper the Midwest Independent Transmission System Operator, Inc. ("MISO"), per the MISO's ] Attachment O Rate Formulae in the Open Access Transmission, Energy and Operating 2 Reserve Markets Tariff on file at the Federal Energy Regulatory Commission ("FERC"). 3 Demand-related production costs are allocated on the basis of the Average & Excess 4 5 ("A&E") Demand Method referenced in the NARUC cost allocation manual. As not all 6 customers have demand meters, customer class and individual customer kilowatt demand 7 data is obtained from the Company's ongoing load research program. 8 Q. As generation (production) plant consists of more than half of the 9 Company's total plant investment, please summarize the most common cost 10 allocation methodologies employed within the electric utility industry for the 11 allocation of generation plant. 12 A. The most common and generally accepted methodologies used for the 13 allocation of generation plant can be grouped into the following three categories: 14 15
  - Peak Responsibility Costs are allocated on the basis of the relative customer class demands at the time of occurrence of the company's system peak during the period of study (referred to as the "coincident peak" or "CP" method). One or more system peak hours, or a number of monthly or seasonal system peaks, are normally used in applying the CP methodology.
  - Non-Coincident Peak Costs are allocated on the basis of the maximum peak demand of each customer class at any time during the study period, without regard to the time of occurrence or magnitude of the company's coincident system peaks (referred to as the "NCP" method). As with the CP method, the NCP methodology can employ one or more customer class peaks in its application.

Average and Excess - Costs are allocated based upon a weighting of average class
demand throughout the year (kilowatt-hours ÷ 8,760 hours) and class "excess"
demand(s). The excess demand(s) used in this determination are the class NCP
demand(s) in excess of the average class demand during the study period. As
with the CP and NCP methodologies, this method can also employ the use of one
or more customer class NCP demands to determine class excess demands.
Average class demands are weighted by the Company's annual system load factor
("LF") (LF = average demand ÷ peak demand) and excess class demands are
weighted by the complement of the load factor $(1.0 - LF)$ in the development of
cost allocation factors using this methodology.

- Q. Which cost allocation methodology is the Company using for production plant in its class cost of service study in this case?
- A. The Company is utilizing the 4 NCP version of the Average and Excess demand methodology for allocating production plant in this case.
- Q. What were the considerations associated with the Company's election to utilize the A&E demand allocation methodology for production plant in this case?
- A. Two major factors associated with generation capacity planning prompted the use of the A&E demand cost allocation methodology. Generally, system peak demands and, to a somewhat lesser extent, excess customer demands, are the motivating factors which influence the <u>amount</u> of capacity the Company must add to its generation system to provide for its customers' maximum demands. However, the <u>type</u> of capacity (base, intermediate or peaking) which the Company must add is not dictated by

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- maximum customer demand alone, but also by the annual energy, or kilowatt-hours, ŀ which will be required to be generated by such capacity, i.e., the generation unit's 2 3 utilization factor. A cost allocation methodology that gives weight to both a) class peak demands and b) class energy consumption (average demands) is required to properly 4 5 address both of the above considerations associated with capacity planning. The A&E 6 methodology gives weight to both of these considerations by its inclusion of both average 7 class demands, which are kilowatt-hours divided by total hours in the year (8,760) and 8 the excess NCP demands of each class. As indicated earlier, the Company's A&E cost 9 allocation study used both the 4 NCP and average class demands in the determination of 10 class excess demands.
  - Q. Is there also quantitative support for the Company's selection of the 4 NCP version of the A&E demand allocation methodology for production plant?
  - A. Yes. The 4 NCP version of the A&E methodology, which uses the four maximum non-coincident monthly peak demands for each customer class during the test year, was selected due to the fact that 15 of the 20 maximum 4 NCP monthly demands for the Company's major customer classes occurred during the Company's summer peak demand months of June-September. The use of the 4 NCP demand option, rather than a lesser number of monthly NCP demands, also prevents the demand allocator for any customer class from being unduly influenced by any extreme demand in a given month.
  - Q. After the determination of customer, energy and demand allocation factors for the various components of the Company's costs, what was the next step in the completion of the Company's class cost of service study?

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A. The next step was to apply the allocation factors developed for each class to each component of rate base investment and each of the elements of expense specified in the jurisdictional cost of service study. The aggregation of such cost allocations indicates the total annual costs, or annual revenue requirement, at equalized rates of return associated with serving a particular customer class. The operating revenues of each customer class minus its total operating expenses provide the resulting net operating income for each class. This net operating income divided by the rate base allocated to each class will indicate the percentage rate of return being earned by the Company from a particular customer class. This application of allocation factors to Missouri jurisdictional costs, the aggregation of the total annual cost to each of the customer classes and a summary of the results of the Company's class cost of service study are described in detail in Mr. Warwick's direct testimony.

#### C. Study Results

- Q. Referring now to the results of the Company's class cost of service study performed by Mr. Warwick in this case, please identify Schedule WLC-E6.
- A. Schedule WLC-E6 (which is the same as Mr. Warwick's Schedule WMW-E1) summarizes the results of the Company's class cost of service study, indicating the rate of return on rate base currently being earned on the service being provided to the Company's major retail customer classes. As indicated earlier, the basic starting point for this study was the Missouri jurisdictional cost of service study.
- Q. What general conclusions can be drawn from the information contained in Schedule WLC-E6?

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- The Residential, Large Primary and Large Transmission Service classes 1 A. 2 are providing a below average rate of return, while all other classes are providing above 3 average rates of return. Overall, as is suggested by the filing of this case, the Company is
- 4 earning an inadequate return on its rate base.

#### 5 D. Class Revenue Proposals

- Please identify Schedule WLC-E7. Q.
- 7 A. Schedule WLC-E7 summarizes the class revenue requirements necessary to give the Company an opportunity, based upon test year figures with the pro forma 8 9 adjustments made by Mr. Weiss, to achieve an equal rate of return from its customer 10 classes. This information was developed from the cost of service data contained in 11 Schedules WMW-E1 and WMW-E2 of Mr. Warwick's direct testimony, and is based 12 upon the Company's proposed level of Missouri retail revenues.
  - Q. Why are the equal rates of return for all customer classes, embedded in this study, an appropriate starting point when designing electric utility rates?
  - A. There are several reasons why equal class rates of return are an appropriate starting point in the consideration of rate design. First and foremost is the consideration of equity and fairness to all electric customers. Purely from a cost perspective and ignoring all other factors, to overcharge one customer class in order to subsidize another class is not supportable.
- 20 A second important consideration in support of equal class rates of return is the goal of encouraging cost effective utilization of electricity by customers. To make appropriate decisions regarding the most efficient and effective use of electricity, as well

- 1 as the acquisition of electrical consuming equipment, customers require correct and
- 2 appropriate price signals from the Company's electric rates.
- A third consideration is that of competition. Cost-based electric rates
- 4 permit the Company to compete effectively with alternative fuels, co-generation and
- 5 other electric utilities for new commercial and industrial customers.
- 6 Q. Once the annual "cost-based" revenue requirements are developed by
- 7 this process for all of our customer classes, would the design of specific rates for
- 8 each class be the next and final step in the overall rate development process?
- 9 A. If one was to base class rates solely on class cost of service and ignore
- other relevant factors, the response is yes. However, the results of Mr. Warwick's study
- produced the following revenue increase by customer class:

Customer Class	Cost of Service Increase
Residential Service	29%
Small General Service	11%
Large General and Small	6%
Primary Service	
Large Primary Service	17%
Large Transmission Service	14%

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Q. Is the Company proposing that these cost based class revenue

requirements be utilized in developing class rates in the case?

- A. No, the Company is proposing a departure from class revenue requirements or rate design being established solely on the basis of equal class rates of return as shown in its class cost of service study.
- Q. Why is the Company proposing to vary from the cost based revenue requirements?
- A. The Company recognizes that factors other than cost of service are relevant to determining class revenue requirements. These factors may include, but are not limited to, revenue stability, rate stability, effectiveness in yielding total revenue requirements, public acceptance, and value of service.
  - Q. What is the Company's proposal for allocating the revenue increase requested in this case?
  - A. The Company is proposing to allocate the revenue increase requested in this case on an equal percentage of present revenue basis that is somewhat consistent with the Commission approved non-unanimous Stipulation and Agreement Concerning Class Cost of Service and Certain Rate Design Issues ("Stipulation and Agreement") in the Company's most recently completed rate case (Case No. ER-2008-0318). This Stipulation and Agreement was signed by representatives from the Office of Public Counsel, Missouri Energy Group, Missouri Industrial Energy Consumers, Noranda Aluminum, and The Commercial Group and contained a formulaic method (Attachment 1 to Stipulation and Agreement), attached hereto as Schedule WLC-E8, to allocate the revenue increase to the Company's customer classes in that case. The Staff of the Missouri Public Service Commission was the only party to oppose the Stipulation and Agreement. It should be noted that the Stipulation and Agreement included language that

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Stipulation and Agreement.

- any increase above \$150 million would be spread as equal percentage of present revenues
- 2 from each rate class, while the Company in this case is simply proposing to spread all of
- 3 the increase sought to all rate classes on an equal percentage basis.
- While the above-referenced Stipulation and Agreement is not binding in this proceeding, the Company believes that it is reasonable to propose that the revenue increase in this case be allocated consistently with the Stipulation and Agreement's treatment of an increase in the last case above \$150 million. Support for such reasonableness lies in: 1) class cost of service based revenue requirements in this case being fairly consistent with those in Case No. ER-2008-0318; 2) the short amount of time since the Stipulation and Agreement; and 3) the Commission's approval of the
  - Q. Please explain the Company's proposal to allocate the revenue increase in this case fairly consistently with the Stipulation and Agreement in Case No. ER-2008-0318.
  - A. The Stipulation and Agreement contained four steps for allocating the revenue change depending on the level of change (i.e., overall increase up to \$80 million, overall increase equal to or above \$80 million up to \$150 million (2 steps), and overall increase greater than \$150 million). As noted in the Commission order, this Stipulation and Agreement only resulted in a slight redistribution of revenue among the classes.
- Q. Did the Commission's order in Case No. ER-2008-0318 contain any language to support establishing class revenue requirements based on factors other than class cost of service results?

A.

1	A. Yes. At page 121 the order states, "The completion of a class cost of
2	service study does not end the rate design process. The Commission is not required to
3	precisely set rates to match the indicated class cost of service. Instead, the Commission
4	has a great deal of discretion to set just and reasonable rates, and can take into account
5	other factors, such as public acceptance, rate stability and revenue stability in setting
6	rates."
7	Q. Please identify Schedule WLC-E9,
8	A. Schedule WLC-E9 summarizes the proposed class revenue requirements
9	necessary to give the Company an opportunity, based upon test year figures, to achieve
10	its jurisdictional rate of return.
11	Q. What was the source of the billing unit data used in the design of the
12	Company's proposed rates?
13	A. AmerenUE witness James R. Pozzo is providing direct testimony
14	discussing the billing unit data used in the design of the proposed rates. The data
15	contained in Schedules JRP-E1 through JRP-E6 of Mr. Pozzo's direct testimony in this
16	case was used as a resource for the individual class billing units. They are based upon the
17	Company's weather normalized sales, as adjusted to reflect expectations of LTS billing
18	data, during the test year in this case as discussed in the direct testimony of AmerenUE
19	witness Steven M. Wills.
20	IV. <u>CLASS RATES</u>
21	Q. Please describe the Company's specific rate design proposal in this
22	case.

The Company's rate design proposal in this case is as follows:

- (1) Residential Rate Design. The Customer Charge was the initial rate component developed. Mr. Warwick's class cost of service study produced a customer charge of approximately \$20 per month. Although the customer charge has not been revised from its current level of \$7.25 per month since March 2000, the Company has limited this charge to \$10.00 in its proposed Residential Rate. The remaining energy charges of the Residential Rate were increased to achieve the annual revenue target or across the board increase for this class.

  (2) Small General Service Rate Design. The Customer Charge was
  - the initial rate component developed. Mr. Warwick's class cost of service study produced a weighted customer charge of \$21,05 for customers in this class. The current level is \$8.03 per month for single phase service and \$16.71 for three phase service. The Company has limited this charge to \$11 for single phase service and \$22 for three phase service in its proposed Small General Service Rate. The remaining energy charges of the Small General Service Rate were increased to achieve the annual revenue target or across the board increase for this class.
  - (3) Restoration of Certain Prior Uniform Features of the Company's non Residential, Commercial and Industrial Customer classes. The following rate design features are being proposed to restore or maintain certain uniform features of the Company's rate design that were in effect prior to Case No. ER-2008-0318. Remaining rate designs for these Service Classifications will be discussed later.
    - (a) The customer charges on the SPS, LPS, and LTS rate schedules are proposed to be the same.

1	(b) The rates (\$ per kW) for Rider B voltage credits are proposed to be
2	the same under all applicable rate schedules.
3	(c) The rate (\$ per billed kVar) associated with the Reactive Charge is
4	proposed to be the same under all applicable rate schedules.
5	(d) The rate (\$ per month) associated with the Time-of-Day meter
6	charge is proposed to be the same under all applicable rate schedules.
7	(4) Large General Service and Small Primary Service Rate Design.
8	The demand and energy charges on the LGS and SPS rate schedules were
9	increased uniformly to achieve the annual revenue requirement of these classes
10	after uniformity adjustments, as prescribed in (3) above were made.
11	(5) Large Primary Service Rate Design. The demand and energy
12	charges on the LPS rate schedule were increased uniformly to achieve the annual
13	revenue requirement of this class after uniformity adjustments, as prescribed in
14	(3) above were made.
15	(6) Large Transmission Service Rate Design. The demand and energy
16	charges on the LTS rate schedule were increased uniformly to achieve the annual
17	revenue requirement of this class after uniformity adjustments, as prescribed in
18	(3) above were made. Additionally, certain changes are being proposed to the
19	tariff of this Service Classification to address the uncertainty or volatility of
20	billing parameters, as addressed later in my direct testimony.
21	Q. Proposed monthly customer charges for both the Residential and
22	Small General Service Classifications reflect percentage increases materially beyond

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the across the board percentage increase level proposed for these classes. Please explain.

A. First, it should be noted that the combination of proposed customer and energy charges for each of these respective classes produces the overall percentage increase being requested in this case (i.e. 17.95%) for each. Second, as discussed in the testimony of Company witness Stephen M. Kidwell, AmerenUE has embarked on an aggressive energy efficiency and demand response effort to give customers more control over their energy usage and to lower their bills via reduced consumption. Therefore, the Company is proposing material increases in customer charges and corresponding reductions in the percentage of revenue derived from volumetric or consumption charges for these classes. This proposal reflects cost causation principles (i.e. moves customer charges closer to class cost of service study results), helps to mitigate the negative financial impact on the Company associated with decreased volumetric or energy use, and, at the same time, does not discourage energy efficiency. Shifting more of the class' revenue requirement to monthly customer charges helps to remove some of the financial disincentive for utilities to embark on an energy efficiency campaign and, also, affords the utility a more reasonable opportunity to earn its authorized rate of return. Approximately 91% and 94%, respectively, of the present test year revenues of these classes are collected via current energy or volumetric charges with the remaining 9% and 6% respectively being collected via customer charges. The proposed customer charges would increase the customer charge contribution to total revenues for the Residential and Small General Service classes to 11% and 8%, respectively.

1 2	V. SERVICE CLASSIFICTION 12(M) (LTS (NORANDA)) TARIFF CHANGES
3 4	Q. Earlier you mentioned certain proposed Rate Schedule LTS tariff
5	(Attached as Schedule WLC-E2) changes to address uncertainty or volatility of the
6	load of this customer class. Please explain.
7	A. As detailed in the direct testimony of AmerenUE witness Ronald C.
8	Zdellar, on Wednesday January 28, 2009, an extraordinary and devastating ice storm
9	occurred in Southeast Missouri and caused severe damage to the transmission lines
10	through which the only customer served under this tariff-Noranda Aluminum, Inc.
11	("Noranda")—receives service. <sup>2</sup> Consequently, an unprecedented and significant loss of
12	the Company's retail load and the revenues associated therewith has occurred for a period
13	of time that cannot at this time be determined. It should also be noted that Noranda's
14	revenues constitute approximately six percent of the Company's total base rate revenues
15	and that no other single customer even approaches having such a material impact on the
16	Company's revenue requirement.
17	Q. How is the Company proposing to address this issue and the
18	possibility that Noranda's load could be significantly reduced or lost in the future?
19	A. We are proposing changes to the Rate Schedule LTS tariff that are
20	designed to provide the Company with retail revenues from Noranda equal to those
21	assumed in the revenue requirement in this case, no more and no less.
22	Q. What level of revenues from Noranda is being included in the revenue
23	requirement in this case?

<sup>&</sup>lt;sup>2</sup> Those transmission lines are owned and operated by Associated Electric Cooperative, Inc. ("AECI"), and power is wheeled by AECI to Noranda under a separate transmission service arrangement between AECI and Noranda.

1	A. Mr. Weiss' retail jurisdictional cost of service study included Noranda at
2	its full, historical load (approximately 470 MW). This is based upon Noranda's public
3	disclosures about its expectations for returning to full production within approximately
4	one year after the ice storm (by early 2010). Since new rates from this case will likely
5	not take effect until early next summer, including Noranda at full load in the Company's
6	filing matches Noranda's expectation about its production at that time. I would note that
7	Noranda could encounter operational difficulties or other issues that prevent it from
8	returning to full load, or could return to full load but later encounter operational
9	difficulties or other issues that cause a reduction in load. This uncertainty is a key reason
10	why the Company is proposing changes to Rate Schedule LTS in this case.

- Q. Do the proposed changes to Rate Schedule LTS address revenues lost by the Company as a result of the reduction in Noranda's load caused by the January ice storm?
- A. No. The Rate Schedule LTS tariff changes address the risk of load fluctuations at Noranda on a prospective basis only. The Company has not included any lost Noranda revenues in the revenue requirement in this case.
- Q. How does including Noranda at full load in the revenue requirement affect other customers?
- 19 A. It means that Noranda is assigned a level of costs that equates to providing 20 it service at full load, i.e. a greater portion of the Company's cost of service is assigned to 21 Noranda (and away from other customer classes) than if the Company had, for example, 22 included Noranda at its lower load level as of the end of the test year (March 31, 2009). 23 Noranda's load as of the end of the test year was well below full load (approximately 200

- MW), but Noranda has been ramping up its production since then. If the Company set its revenue requirement based upon lower Noranda load, and if Noranda then increased its load after rates are set in this case, other customers would be bearing a higher portion of the Company's fixed costs through their rates while the Company would receive a higher level of revenues from Noranda than had been included in the revenue requirement calculation. The approach outlined herein takes away the upside that would have existed for the Company, and thus does not enable the Company to receive more revenues from Noranda under full load than assumed in the revenue requirement to be set in this case. This is an appropriate and symmetrical approach given the changes to the Rate Schedule LTS tariff discussed below.
  - Q. How does including Noranda at full load in the revenue requirement affect the Company?
  - A. Absent changing the Rate Schedule LTS tariff the Company is proposing, it would put the Company at significant risk of suffering a substantial revenue shortfall after rates are set in this case, like the revenue shortfall we experienced following the devastating ice storm I mentioned earlier, should Noranda in fact not operate at full load. The Company would experience this revenue shortfall while customers would continue to benefit from both an allocation of a lower level of fixed costs as well as more off-system sales revenues made possible by Noranda's reduced load, a portion of which would flow back to customers through the FAC. Under the approach outlined herein, the Company would in most scenarios not be at risk for this significant revenue loss, but as noted earlier, would also receive no more revenues from Noranda than it was assumed it would receive when rates in this case were set. This provides a more reasonable opportunity for

- the Company to earn its allowed rate of return, and ensures that other customers will be
- 2 unaffected by any variations in Noranda's load that may occur.

#### Q. Does uncertainty regarding Noranda's future load remain?

A. Absolutely. As of the time of filing this testimony, Noranda has still not returned to full load following the ice storm. Noranda's financial situation is apparently less than optimal, given its credit ratings and those of its parent company. It is my understanding that aluminum prices remain at very low levels compared to historical prices, as noted by Noranda in the Company's last rate case, and of course, there is always the possibility that some kind of catastrophe (another ice storm, earthquake, tornado, etc.) could reduce or eliminate Noranda's production in the future. Given the unique circumstance of having one retail customer connected to AmerenUE's system via a third party's transmission lines that represents fully six percent of the Company's retail revenues, this uncertainty must be addressed in the design of the Company's rates.

#### Q. How does the Company propose to address this uncertainty?

A. We propose to modify the existing Rate Schedule LTS tariff to implement a minimum billing or "take-or-pay" structure based upon the Noranda load assumed in the revenue requirement that is ultimately approved by the Commission in this case. (The Company's filing assumes full Noranda load will be reflected in the revenue requirement). In addition, we propose a mechanism that uses energy sales that could be made from any shortfall in Noranda's usage to first, make the Company whole if Noranda does not or cannot pay its minimum bill, and second, provide Noranda the ability to use revenues from energy sales made by the Company as a credit against Noranda's future minimum bill obligations to the Company.

#### Q. Please elaborate on how the proposed take-or-pay mechanism works.

A. Each month, Noranda will be billed at the greater of the amount due based upon its actual consumption or the amount it would owe had it consumed at the level assumed when rates were set in this case. This is called the "minimum monthly billing amount" in section 9 of the proposed tariff. To the extent Noranda's consumption in a given month is less than that assumed in this case (that difference is called the "Shortfall" in section 11.a of the proposed tariff), the Company will sell the MWhs comprising the Shortfall into the MISO energy markets and will credit Noranda's account for the net proceeds of the sale, according to the formula in the proposed tariff. Under the proposed mechanism, the Company will never receive more than the minimum monthly billing amount from Noranda.

#### Q. How does the take-or-pay structure affect other customers?

A. Other customers are in precisely the same position they would have been in had Noranda actually consumed at the amount of power that was assumed when rates were set. In other words, the revenue requirement assumes that a certain number of MWhs would be supplied to Noranda and not sold off-system, and as noted earlier, costs associated with serving Noranda at that load (fixed costs, fuel and purchased power) are also assigned to Noranda. With the take-or-pay structure, precisely the same result exists. Other customers pay no more and no less (through base rates or the fuel adjustment clause) than they would have paid if, in fact, Noranda were taking each month at the load that was assumed when rates were set. And, as noted, this approach produces revenues for the Company that are no more and no less than if Noranda, in fact, was taking each month at the load assumed when rates were set.

Q.	How	does	this	structure	impact	t Noranda?
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A. If Noranda consumes at the load assumed in the revenue requirement (or higher), it has no impact on Noranda; Noranda will simply pay its bill based upon its consumption. If Noranda consumes at less than the load assumed in the revenue requirement, Noranda will still pay its minimum monthly bill, but Noranda will receive revenues, from energy sales made possible by its lower consumption, to pay its minimum bill. Moreover, during any period when energy prices received from those energy sales is greater than Noranda's retail rate, Noranda has upside potential to obtain credits that exceed what it owes AmerenUE. This structure is symmetrical in that Noranda could also receive credits that are less than what it owes to AmerenUE (if energy prices are lower than Noranda's retail rate). Thus Noranda has both the upside and the downside respecting energy prices.

- Q. Can't Noranda just shut down its operations and bet on higher energy prices?
- A. No. The revised Rate Schedule LTS tariff requires Noranda to consume at no less than 25% of its normal load. If it fails to do so, Noranda receives no credit, the proceeds from energy sales made due to reduced Noranda consumption to the extent necessary to pay the minimum monthly billing amount are retained by the Company, and all remaining energy sales proceeds flow through the Company's fuel adjustment clause as off-system sales, meaning other customers would receive 95% of the benefit of those additional energy sales.
- Q. Does the Company remain at risk if Noranda does not or cannot pay the minimum monthly billing amount?

- A. In certain circumstances, yes. If Noranda cannot pay the minimum monthly bill amount (due to insolvency, bankruptcy, or if it ceases to exist) and if energy prices are lower than Noranda's retail rate under the Rate Schedule LTS tariff, then energy sales enabled by Noranda's lower (or non-existent) load will not provide sufficient revenues to cover the minimum monthly billing amount. In those circumstances, the Company is at risk of suffering a revenue shortfall, while other customers remain unaffected.
- Q. Is there any scenario under the Company's proposed LTS tariff that would yield revenues from the Noranda in excess of the amount assumed in the revenue requirement for this case?
  - A. Yes. This condition would only exist where the Noranda's load is greater than the load assumed in setting the revenue requirement in this case. However, this condition would be true under the existing Rate Schedule LTS rate design as well, and is not a function of the take-or-pay structure proposed now. In all other cases where Noranda's load is equal to or lower than the amount assumed in setting the revenue requirement, the Company will not receive revenues in excess of those assumed in the revenue requirement. This approach ensures that the Company has no upside opportunity from the take-or-pay provisions of this tariff, but rather, as indicated above, simply has a more reasonable opportunity to earn the rate of return authorized in this case, and avoid catastrophic loss of revenues.
  - Q. Is it at all likely that revenues from Noranda greater than those assumed in the revenue requirement would be achieved under the Company's proposal?

- 1 A. No. Because the Company is proposing that revenue requirement reflect
- 2 Noranda at full load, unless Noranda substantially expanded its plant capacity, it is very
- 3 unlikely that Noranda's consumption would be greater than that assumed in the revenue
- 4 requirement.
- 5 Q. Other than the minimum billing/take-or-pay provisions, is the
- 6 Company proposing any other changes to the Rate Schedule LTS tariff?
- A. Only one that is marginally substantive, that is, to remove the Optional
- 8 Time-of-Day Billing rates to ease administration of the take-or-pay billing provisions.
- 9 The Time-of-Day Billing rates have never been used since Rate Schedule LTS was first
- 10 adopted.

### VI. <u>OTHER TARIFF CHANGES</u>

- 12 Q. Please explain the Company's proposed revision to its Rules and
- 13 Regulations Section V.G. Billing Practices.
- 14 A. Currently, the residential billing adjustment tariff language does not
- 15 address corrections to metering data for meter error beyond the in-service date of the
- meter nor for predecessor customers, whereas the non-residential tariff language indicates
- 17 that no billing corrections will be made for either of these conditions. The Company is
- 18 proposing to add the non-residential language to the residential billing adjustment
- 19 section.
- 20 Q. Has the Company evaluated the impact of this proposed change on
- 21 the revenue requirement that is being requested in this case?
- A. No, it has not. However, the Company's experience has been that this
- 23 situation rarely occurs and, as a result, the impact would be minimal, if any.

Direct Testimony of Wilbon L. Cooper

- 1 Q. Does this conclude your direct testimony?
- 2 A. Yes, it does.

# BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

In the Matter of Union Electric Company d/b/a AmerenUE for Authority to File Tariffs Increasing Rates for Electric Service Provided to Customers in the Company's Missouri Service Area.	) Case No. ER-2010-				
AFFIDAVIT OF W	ILBON L. COOPER				
STATE OF MISSOURI ) ) ss					
CITY OF ST. LOUIS )					
Wilbon L. Cooper, being first duly sworn or	n his oath, states:				
1. My name is Wilbon L. Coope	er. I work in the City of St. Louis, Missouri,				
and I am employed by Union Electric Comp	any d/b/a AmerenUE as Manager, Rates and				
Tariffs.					
2. Attached hereto and made a p	part hereof for all purposes is my Direct				
Testimony on behalf of Union Electric Com	pany d/b/a AmerenUE consisting of <u>32</u>				
pages, Schedules WLC-EI — WLC-EAII of wh	ich have been prepared in written form for				
introduction into evidence in the above-refe	renced docket.				
3. I hereby swear and affirm that	at my answers contained in the attached				
testimony to the questions therein propounded are true and correct.					
Wilbon L. Cooper  Subscribed and sworn to before me this 24 day of July, 2009.  Quanda Tesdau					
Notary Public My commission expires:					
Amends Teadel - Notery Public Notery Seel, State of Missouri - St. Louis County Commission #07158967 My Commission Expires 7/29/2011					

	MO.P.S.C. SCHEDULE NO. 5	38th Revised	SHEET NO28			
	CANCELLING MO.P.S.C. SCHEDULE NO. 5	37th Revised	SHEET NO. 28			
APPLYING T	D MISSOURI SER	VICE AREA				
	SERVICE CLASSIFI	CATION NO. 1(M)				
	RESIDENTIAL S	SERVICE RATE				
* Rate	Based on Monthly Meter Readings					
ļ	Summer Rate (Applicable during 4 m periods of June throu					
	Customer Charge - per month		\$10.00			
	Energy Charge - per kWh		10.00¢			
	Winter Rate (Applicable during 8 mperiods of October the					
	Customer Charge - per month		\$10.00			
	Energy Charge - per kWh					
	First 750 kWh		7.10¢			
	Over 750 kWh		4.77¢			
	Optional Time-of-Day Rate					
l .	Customer Charge - per month		\$20.00			
ĺ	Energy Charge - per kWh (1)					
	Summer (June-September bil	ling periods)				
	All On Peak kWh		14.53¢			
1	All Off Peak kWh		5.96¢			
	Winter (October-May billin	g periods)				
	All On Peak kWh		8,58¢			
	All Off Peak kWh		4.24¢			
	(1) On-peak and Off-peak h specified in Rider I,	ours applicable herein sh paragraph A.	nall be as			
Fuel kilo	and Purchased Power Adjustment owatt-hours (kWh) of energy.	(Rider FAC). Applicable	to all metered			
	ironmental Cost Recovery Mechanism owatt-hours (kWh) of energy.	(Rider ECRM). Applicabl	e to all metered			
1	Payments. Bills are due and payable within ten (10) days from date of bill and become delinquent after twenty-one (21) days from date of bill.					
	n of Use. Initial period one (1) y	ear, terminable thereaf	iter on three (3)			
char be s	Adjustment. Any license, franchise ge or tax levied by any taxing authors designated and added as a separate jurisdiction of the taxing authority	ority on the amounts bill item to bills rendered	led hereunder will			
* Inc	dicates Change. ** Indicates Addition	n.				
l	<del></del>					
DATE OF IS	SUEJuly 24, 2009	DATE EFFECTIVE Aug	just 23, 2009			

SSUED BY	Warner L. Baxter	President & CEO	St. Louis, Missouri
_	NAME OF OFFICER	TITLE	ADDRESS

MO.P.S.C. SCHEDULE NO. 5					
CANCELLING MO.P.S.C. SCHEDULE NO. 5	25th RevisedSHEETNO32				
APPLYING TO MISSOURI SERV	TCE AREA				
SERVICE CLASSIFIC SMALL GENERAL S					
* Rate Based on Monthly Meter Readings					
Summer Rate (Applicable during 4 periods of June throu					
Customer Charge - per month					
Single Phase Servi	ice \$11.00				
Three Phase Service	ce \$22.00				
Energy Charge - per kWh	9.59¢				
<u>Winter Rate</u> {Applicable during periods of October					
Customer Charge - per month					
Single Phase Servi	ice \$11.00				
Three Phase Service	ce \$22.00				
Energy Charge - per kWh					
Base Use	7.15¢				
Seasonal Use(1)	4.11¢				
- "	y billing period, or b) October billing num monthly kWh use during any preceding				
Optional Time-of-Day Rate					
Customer Charge - per month					
Single Phase Serv	ice \$23.00				
Three Phase Servi	ce \$45.00				
Energy Charge - per kWh (2)					
Summer (June-September bill	- 1				
All On Peak kWh	14 . 23¢				
All Off Peak kWh	5.79¢				
Winter (October-May billing All On Peak kWh	9.36¢				
All Off Peak kWh	9.36¢ 4.30¢				
)					
(2) On-peak and Off-peak hours applicable herein shall be as specified in Rider I, paragraph A.					
Fuel and Purchased Power Adjustment (I kilowatt-hours (kWh) of energy.	Rider FAC). Applicable to all metered				
**Environmental Cost Recovery Mechanism ( kilowatt-hours (kWh) of energy.	Rider ECRM). Applicable to all metered				
*Indicates Change. **Indicates Addition.					
DATE OF ISSUE July 24, 2009	DATE EFFECTIVE August 23, 2009				

		<del></del>	
ISSUED BY	Warner L. Baxter	President & CEO	St. Louis, Missouri
	NAME OF OFFICER	TITLE	ADDRESS

MO.P.S.C. SC	HEDULE NO. 5_	29th Re	vised	_ \$HEET NO	34
CANCELLING MO.P.S.C. SCH	HEDULE NO5	28th_Re	vised	_ SHEET NO	34
APPLYING TO	MISSOURI SE	RVICE AREA			
		ICATION NO. 3 (M)			
* Rate Based on Monthl	y Meter Readings				
<u>Summer Rate</u>	(Applicable duri periods of June	ng 4 monthly bile through Septemb	•		
Customer Cha	arge - per month		\$8	5.23	
First 150 Next 200 All Over	ge - per kWh ) kWh per kW of B ) kWh per kW of B 350 kWh per kW o ge - per kW of To	Billing Demand of Billing Demand	đ	9.54¢ 7.18¢ 4.84¢	
<u>Winter Rate</u>	(Applicable duri	-	lling		
Customer Cha	arge - per month		\$8	5.23	
First 150 Next 200 All Over	Charge - per kwl 0 kwh per kw of 1 0 kwh per kw of 1 350 kwh per kw o ergy Charge - Se	Base Demand Base Demand of Base Demand		6.00¢ 4.46¢ 3.51¢ 3.51¢	
Demand Charg	ge - per kW of To	otal Billing Dem	and §	1.65	
Optional Time-of	-Day Adjustments				
Additional (	Customer Charge -	per Month	\$18.00 per	month	
Energy Adjus	stment - per kWh		On-Peak <u>Hours(1)</u>	Off-Peak <u>Hours(l)</u>	
•	June-September b October-May bill		+1.13¢ +0.34¢	-0.64¢ -0.19¢	
	and off-peak ho		erein shall	be as	
Fuel and Purchased P kilowatt-hours (kWh)		(Rider FAC). App	olicable to	all meter	ed
**Environmental Cost metered kilowatt-hou	Recovery Mechan rs (kWh) of energ	ism (Rider ECRI	M). Applica	ble to a	.11
*Indicates Change.	**Indicates Addi	tion.			

DATE OF ISSUE	July 24, 2009	DATE EFFECTIVE	August 23, 2009
ISSUED BY	Warner L. Baxter	President & CEO	St. Louis, Missouri
	NAME OF OFFICER	TITLE	ADDRESS

MO.P.S.C. SCHEDULE NO. 5	36th Re	vised	SHEET NO	37		
CANCELLING MO.P.S.C. SCHEDULE NO. 5	35th Re	vised	SHEET NO	37		
APPLYING TO MISSOURI S	ERVICE AREA					
SERVICE CLASSIFICATION NO. 4 (M) SMALL PRIMARY SERVICE RATE						
* Rate Based on Monthly Meter Reading	<u>s</u>					
	ring 4 monthly bi					
Customer Charge - per mont!	ı	\$2	276.00			
Energy Charge - per kWh First 150 kWh per kW of I Next 200 kWh per kW of I All Over 350 kWh per kW o	Billing Demand		9.22¢ 6.95¢ 4.67¢			
_	_					
Demand Charge - per kW of '	Total Billing Dem	and	\$3.68			
Reactive Charge - per kVar			32.00¢			
	ring 8 monthly bi tober through May					
Customer Charge - per mont	h	\$2	276.00			
Base Energy Charge - per k First 150 kWh per kW of 1 Next 200 kWh per kW of 1 All Over 350 kWh per kW of Seasonal Energy Charge - So	Base Demand Base Demand of Base Demand		5.80¢ 4.32¢ 3.39¢ 3.39¢			
Demand Charge - per kW of	Total Billing Dem	and	\$1.34			
Reactive Charge - per kVar			32.00¢			
Optional Time-of-Day Adjustment Additional Customer Charge		\$18.00 per	month			
Energy Adjustment - per kWl	n	On-Peak <u>Hours(1)</u>				
Summer kWh(June-September Winter kWh(October-May bil			-0.46¢			
(1) On-peak and off-peak specified within this			shall be	as		
Fuel and Purchased Power Adjustment kilowatt-hours (kWh) of energy.	(Rider FAC). App	plicable to	all meter	ed		
**Environmental Cost Recovery Mechani metered kilowatt-hours (kWh) of ene		Applicable	to all			
*Indicates Change. **Indicates Add	ition.					
DATE OF ISSUE July 24, 2009	DATE REFECTIVE	20	27 2000			

5/112 OF 1000C		DATE BIT CONVE	1149450 23, 2003
ISSUED BY	Warner L. Baxter	President & CEO	St. Louis, Missouri
	NAME OF OFFICER	TITLE	ADDRE\$S

Warner L. Baxter NAME OF OFFICER

ISSUED BY

#### **ELECTRIC SERVICE**

	MO.P.S	.C.SCHEDULE NO 5	<u></u>	27th Revise	<u>∍d</u> \$н	EET NO.	39
	CANCELLING MO.P.S	.C. SCHEDULE NO5	<u>_</u> _	26th Revise	edsн	EET NO.	39
LYING 1	го	MISSO	URI SERVICE	AREA			
				<del></del>			
		SERVICE C	CLASSIFICATI	ON NO. 5 (M)			
	STRI	EET AND OUTDOO	R AREA LIGH	TING - COMPANY	-OWNED		
*Rat	<u>e per Unit pe</u>	r Month					
	p and Fixture						
70	Otandard h	awiaambal bum	nina an-1.		. an assiste		
Α.	pole:	orizontal bur	ning, enci	osed luminaire	on exist	ing w	000
	_						
	<u>High Pressu</u>			Mercury Va			
	<u>Lumens</u>	Rate		Lumens	<u>Rate</u>		
	9,500 25,500	\$10.13 \$14.64		6,800 20,000	\$10.13		
	50,000	\$26.09		20,000 54,000	\$14.64 \$26.09		
	50,000	\$20.05		108,000	\$52.21		
				100,000	<b>430.2</b> 3		
В.	Standard si	de mounted, l	nood with c	pen bottom gla	assware on	exist	ing
	wood pole:						
	Mich Post	Q- 42		16	77 (1)		
	High Pressu			_ ·	Vapor (1)		
	<u>Lumens</u>	<u>Rate</u>		<u>Lumens</u>			
	9,500	<b>\$8.96</b>		3,300 6,800	•		
	3,300	<b>Q</b> 0.50		0,000	70.50		
C.	Standard po	st-top luminai	ire includi:	ng standard 17-	foot post:		
	<u> High Pressu</u>	re Sodium		Mercury	Vapor (1)		
	<u>Lumens</u>	<u>Rate</u>			<u>Rate</u>		
					\$17.74		
	9,500	\$18.77		6,800	\$18.77		
D.	Pole-mounte	d. direction	flood lum:	inaire; limite	d to inst	allati	ons
٠.		to Company bas			<u> </u>	411401	<b>0.1.</b> 0
		- 1					
	<u> High Pressu</u>	re Sodium	Metal Ha	alide M	Mercury Vapo	or (1)	_
	<u>Lumens</u>	<u>Rațe</u>	<u>Lumens</u>	<u>Rate</u>	<u>Lumens</u>	<u>Rate</u>	
	25,500	\$18.58	34,000	\$18.58	20,000	\$18.5	58
	50,000	\$29.38	100,000	\$58.74	54,000	\$29.3	38
	(7)			7.1.			
				es are limited			
				r to September			
				se lamps and f	extures so	long	as
	parts	are economical	TA MATIMET	e.			
*Ind	licates Change	÷.					
TE OF IS	SOUT T	ılv 24. 2009	<u> </u>	C	August 23.	2000	
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President & CEO

St. Louis, Missouri
ADDRESS

\*Indicates Change.

SERVICE CLASSIFICATION NO. 5 (M)  STREET AND OUTDOOR AREA LIGHTING - COMPANY-OWNED (Cont'd.)  * E. All poles and cable, where required to provide lighting service:  1. After September 27, 1988 the installation of all standard poles and cables shall be paid for in advance by customer, with all subsequent replacements of said facilities provided by Company.  2. Installations prior to September 27, 1988:    Monthly Rate	MO.P.S.C.SCHEDULE NO5_	26th Revised SHEET NO. 40
SERVICE CLASSIFICATION NO. 5 (M)  STREET AND OUTDOOR AREA LIGHTING - COMPANY-OWNED (Cont'd.)  * E. All poles and cable, where required to provide lighting service:  1. After September 27, 1988 the installation of all standard poles and cables shall be paid for in advance by customer, with all subsequent replacements of said facilities provided by Company.  2. Installations prior to September 27, 1988:    Monthly Rate	CANCELLING MO.P.S.C. SCHEDULE NO5_	25th Revised SHEET NO. 40
* E. All poles and cable, where required to provide lighting service:  1. After September 27, 1988 the installation of all standard poles and cables shall be paid for in advance by customer, with all subsequent replacements of said facilities provided by Company.  2. Installations prior to September 27, 1988:    Monthly Rate   Wood Pole   \$9.06 per pole	PPLYING TO MISSOURI	SERVICE AREA
1. After September 27, 1988 the installation of all standard poles and cables shall be paid for in advance by customer, with all subsequent replacements of said facilities provided by Company.  2. Installations prior to September 27, 1988:    Monthly Rate		
and cables shall be paid for in advance by customer, with all subsequent replacements of said facilities provided by Company.  2. Installations prior to September 27, 1988:    Monthly Rate	* E. All poles and cable, where r	equired to provide lighting service:
Wood Pole \$ 9.06 per pole  Ornamental Concrete Pole \$20.30 per pole  Steel Breakaway Pole \$61.06 per pole  Standard Two-Conductor Overhead Cable \$2.81 per span	and cables shall be pa	id for in advance by customer, with all
Wood Pole \$ 9.06 per pole  Ornamental Concrete Pole \$20.30 per pole  Steel Breakaway Pole \$61.06 per pole  Standard Two-Conductor Overhead Cable \$2.81 per span  Underground Cable Installed	2. Installations prior to S	September 27, 1988:
Steel Breakaway Pole \$61.06 per pole  Standard Two-Conductor  Overhead Cable \$2.81 per span  Underground Cable Installed	Wood Pole	<del></del>
Standard Two-Conductor Overhead Cable \$ 2.81 per span Underground Cable Installed	Ornamental Concrete Pole	\$20.30 per pole
Overhead Cable \$ 2.81 per span Underground Cable Installed	Steel Breakaway Pole	\$61.06 per pole
1		\$ 2.81 per span
	=	8.33¢ per foot
All Other Underground Cable Installations 15.86¢ per foot		15.86¢ per foot
* F. Incandescent lamps provided under contracts initiated prior to September 30, 1963, which facilities will not be maintained by Company after June 30, 1981:	September 30, 1963, which	facilities will not be maintained by
Per Unit	1,000 Lumens 2,500 " 4,000 " 6,000 "	Monthly Rate \$ 9.71 13.10 15.12 16.78

DATE OF ISSUE	July 24, 2009	DATE EFFECTIVE	August 23, 2009
ISSUED BY	Warner L. Baxter	President & CEO	St. Louis, Missouri
	NAME OF OFFICER	TITIF	ADDRESS

#### UNION ELECTRIC COMPANY

ISSUED BY Warner L. Baxter
NAME OF OFFICER

#### ELECTRIC SERVICE

JLE NO5_	31st Revi	seds	IEET NO.	41
ULE NO5	30th Revi	seds	EET NO.	41
MISSOURI SER	VICE AREA			
		<u> </u>		
ERVICE CLASSIFI	CATION NO. 5(M)			
		ED (Cont'd.)	 <del>-</del>	
. Company ligh	ting units provi	ided under	contrac	rte
_			_	
		****	Unit	
		= -		
	Post-Top			
<u>-</u>	<del>-</del>	•		
Mercury Vapor,	Horizontal Enclos	sed 1	0.13	
•				
_				
·				
	,11000101101	Δ,	5.50	
presents a mer	cury vapor fixtu	re with H.	P. Sodi	.um
	<del>-</del>			
red for lighti stracted for by ed electric fra only apply fo discount shall 1) any initi be for a mini	ng facilities semunicipalities we notice as of Septor the duration lapply only whe lal or subsequentimum term of twen	rved under vith whom the cember 27, 1 of said for the follows to ordinance	the abo e Compa 988. T ranchis owing t e grant	ove iny The
ed by Company	ll lighting faci: in effect.			2)
	ERVICE CLASSIFICOOR AREA LIGHT  Company light to April 9, 1 mpany so long  Mercury Vapor, Mercur	ERVICE CLASSIFICATION NO. 5(M)  OOOR AREA LIGHTING - COMPANY-OWN  Company lighting units provide April 9, 1986, which facing any so long as parts are avoided to April 9, 1986, which facing any so long as parts are avoided to April 9, 1986, which facing any so long as parts are avoided to April 9, 1986, which facing any so long as parts are avoided to April 9, 1986, which facing are avoided to April 9, 1986, w	ERVICE CLASSIFICATION NO. 5 (M)  OOR AREA LIGHTING - COMPANY-OWNED (Cont'd.)  O Company lighting units provided under to April 9, 1986, which facilities will mpany so long as parts are available in  *Per Monthl Mercury Vapor, Post-Top \$10  Mercury Vapor, Open Bottom Mercury Vapor, Horizontal Enclosed 10  Mercury Vapor, Horizontal Enclosed 20  Mer.P. Sodium, Open Bottom 10  M.P. Sodium, Horizontal Enclosed 10  M.P. Sodium, Directional 20  M.P. Sodium, Directional 50  Metal Halide, Directional 10  presents a mercury vapor fixture with H.D.  minum term of three (3) years where only ed; ten (10) years where post-top luminal and the control of the discount structed for by municipalities with whom the delectric franchise as of September 27, 1 only apply for the duration of said for discount shall apply only when the folio of the discount ordinance of the control of the control of the discount ordinance of the control of the control of the control of the discount of the control of the discount of the discount of the control of the c	*Per Unit Monthly Rate Mercury Vapor, Post-Top Mercury Vapor, Horizontal Enclosed Mercury Vapor, Horizontal Enclosed Mer. Sodium, Directional M.P. Sodium, Directional M.P. Sodium, Directional Metal Halide, Directional Metal Metal Customers Mercury vapor fixture with M.P. Sodies Metal Customers Metal Metal Metal Customers Metal Metal Customers Metal Metal Metal Customers Metal M

President & CEO

TITLE

St. Louis, Missouri ADDRESS

MO.P.S.C.SCHED	JLE NO5	1st Revised	SHEET NO. 41.1
CANCELLING MO.P.S.C. SCHED	ULE NO5 _	Original	SHEET NO. 41.1
APPLYING TO	MISSOURI S	ERVICE AREA	
		FICATION NO. 5 (M) HTING - COMPANY-OWNED (C	ont/d \
BIRDEL AND OOLD	OOK AKBA DIGI	TITING - COMPANT-OWNED (C	one a.,
*Fuel and Purchased Po	wer_Adjustme	nt (Rider FAC) and Env	vironmental Cost
		The kilowatt hours for	
		rvice Classification sha	
		FAC and Rider ECRM. The operating hours are of the control of the	
		termined from the manu:	
		f hours of operation for	
accordance with the fol			
1			
Lamp Size	Rating	Billing	Burning
(Lumens)	(Watts)	Month	Hours
H. P. Sodium		January	408
5,800	70	February	347
9,500	120	March	346
16,000	202	April	301
25,500	307	May	279
34,200 50,000	360 482	June	255 272
140,000	1000	July August	298
110,000	2000	September	322
Mercury Vapor	•	October	368
3,300	127	November	387
6,800	207	December	417
11,000	294 455		
42,000	700		
54,000	1080		
108,000	2160		
Metal Halide	204		
20,000 34,000	294 450		
100,000	1100		
Incandescent			
1,000	103		
2,500	202		
4,000 6,000	327 448		
10,000	690		
1	<del>-</del>		
1			
47793240407			
*Indicates Change.			

DATE OF ISSUE	July 24, 2009	DATE EFFECTIVE	August 23, 2009
ISSUED BY	Warner L. Baxter	President & CEO	St. Louis, Missouri
	NAME OF OFFICER	TITLE	ADDRESS

	WO.F.S.C. SC	HEDULE NO5	17th Re	visedSHEET NO
CANCEL	LLING MO.P.S.C. SC	HEDULE NO5	16th Re	visedSHEET NO
YING TO	<del></del>	MISSO	URI SERVICE AREA	
		SERVICE (	CLASSIFICATION NO. 6(M)	1
	STREET A		R AREA LIGHTING - CUSTO	_
*Monthly F	Rate For Met	tered Servi	ice	
	tomer Charge			\$6.10 per month
Ener	rgy Charge			4.12¢ per kWh
*Rate Per	Unit Per Mo	onth For Ur	nmetered Service	
	tomer Charge			\$6.10 per month
H.P. Sc	_	-		ance(1) Energy Only
9,5	500 Lumens,	Standard	\$ 3.28	\$ 1.59
16,0	000 Lumens,	Standard	N/A	2.70
25,5	500 Lumens,	Standard	5.71	4.07
50,0	000 Lumens,	Standard	8.23	6.38
<u>Metal E</u>	<u>Halide</u>			
5,5	500 Lumens,	Standard	\$ 4.74	N/A
12,9	900 Lumens,	Standard	5.67	N/A
	y Vapor		<u>(3)</u>	
	300 Lumens,		\$ 3.28	\$ 1.69
	800 Lumens,		4.27	2.74
	000 Lumens,		5.77	3.89
	000 Lumens,		7.66	6.02
	000 Lumens,		N/A	10.01
54,6	000 Lumens,	Standard	16.35	14.31
	co	ntrol mecha	lamps and luminaires, anisms, as required.	-
	(2) Li to (3) Ma	ntrol mecha mited to la September intenance o	anisms, as required. amps served under cont 27, 1988. of lamps and fixtures	racts initiated prior
	(2) Li to (3) Ma se	ntrol mecha mited to la September intenance o	anisms, as required. amps served under cont 27, 1988. of lamps and fixtures contracts prior to No	racts initiated prior
	(2) Li to (3) Ma se N/	ntrol mecha mited to la September intenance or rved under ANot Ava	anisms, as required. amps served under cont 27, 1988. of lamps and fixtures contracts prior to No	racts initiated prior limited to customers vember 15, 1991.
Term of Contice.	(2) Li to (3) Ma se N/	ntrol mecha mited to la September intenance or rved under ANot Ava	anisms, as required. amps served under cont. 27, 1988. of lamps and fixtures contracts prior to No. ilable.	racts initiated prior limited to customers vember 15, 1991.
notice.  Discount	co (2) Li to (3) Ma se N/ ontract. O	ntrol mecha mited to la September intenance or rved under ANot Ava ne (1) yea	anisms, as required.  amps served under cont.  27, 1988.  of lamps and fixtures contracts prior to No ilable.  r, terminable thereaft  cipal Customers. A	racts initiated prior limited to customers vember 15, 1991. er on three (3) days
notice. <u>Discount</u> applied t	(2) Li to (3) Ma se N/ ontract. O  For Franch	ntrol mecha mited to la September intenance of rved under ANot Ava ne (1) year nised Muni- ndered for	anisms, as required.  amps served under cont.  27, 1988.  of lamps and fixtures contracts prior to Noilable.  r, terminable thereaft  cipal Customers. A  lighting facilities s	racts initiated prior limited to customers vember 15, 1991. er on three (3) days 10% discount will erved under the abo
notice. <u>Discount</u> applied t  rates and	(2) Li to (3) Ma se N/ ontract. O  For Franch currently	ntrol mecha mited to la September intenance of rved under ANot Avan ne (1) year nised Muni- ndered for contracted	anisms, as required.  amps served under cont.  27, 1988.  of lamps and fixtures contracts prior to Noilable.  r, terminable thereaft  cipal Customers. A  lighting facilities s  for by municipalities	racts initiated prior limited to customers vember 15, 1991.  er on three (3) days  10% discount will verved under the above the with whom the Compa
notice.  Discount applied t rates and has an ore	(2) Li to (3) Ma se N/ ontract. O  For Franch o bills redurrently dinance gra	ntrol mechanited to land september intenance or rved under ANot Avane (1) year ised Munical for contracted nted elect.	anisms, as required.  amps served under cont.  27, 1988.  of lamps and fixtures contracts prior to No.  ilable.  r, terminable thereaft  cipal Customers. A  lighting facilities s  for by municipalities  ric franchise as of Se	racts initiated prior limited to customers vember 15, 1991.  er on three (3) days  10% discount will verved under the above the with whom the Compaptember 27, 1988.
Discount applied t rates and has an ore above dis	(2) Li to (3) Ma se N/ ontract. O  For Franch o bills redurrently dinance grasecount shall	ntrol mechanited to land september intenance of rved under ANot Avanue (1) year ised Munical for contracted nted election only against the second s	anisms, as required.  amps served under cont  27, 1988.  of lamps and fixtures  contracts prior to No  ilable.  r, terminable thereaft  cipal Customers. A  lighting facilities s  for by municipalities  ric franchise as of Se  pply for the duration	racts initiated prior limited to customers vember 15, 1991.  er on three (3) days  10% discount will verved under the above the with whom the Compa ptember 27, 1988.
Discount applied t rates and has an ora above dis	co (2) Li to (3) Ma se N/ ontract. O  For Franch o bills recurrently dinance gra scount shal r, the abor	ntrol mechanited to land September intenance of rved under ANot Avaine (1) year indered for contracted nted electionly appeared discounted undered area only appeared discounted undered discounted undered electionly appeared discounted undered discounted discounted discounted undered discounted discounted discounted discounted discounted discounted undered discounted undered discounted discounted undered discounted undered discounted discounted under discounted discou	anisms, as required.  amps served under cont.  27, 1988.  of lamps and fixtures  contracts prior to Novilable.  r, terminable thereaft  cipal Customers. A  lighting facilities s  for by municipalities  ric franchise as of Se  pply for the duration  t shall apply only wh	racts initiated prior limited to customers vember 15, 1991.  er on three (3) days 10% discount will erved under the about with whom the Competember 27, 1988.  In of said franching the the following
Discount applied t rates and has an ore above dis Thereafte	co (2) Li to (3) Ma se N/ ontract. O  For Franch o bills red currently dinance grad scount shall r, the abors are met:	ntrol mechanited to land September intenance of rved under ANot Avaine (1) years of the dered for contracted intended election only appreciated in any endiscounter of the discounter of the d	anisms, as required.  amps served under cont.  27, 1988.  of lamps and fixtures  contracts prior to Novilable.  r, terminable thereaft  cipal Customers. A  lighting facilities s  for by municipalities  ric franchise as of Septy for the duration  t shall apply only whereinitial or subseque	racts initiated prior limited to customers vember 15, 1991.  er on three (3) days  10% discount will erved under the above the with whom the Composite the ptember 27, 1988.  In of said franching on the following ont ordinance gran
Discount applied t rates and has an ore above dis Thereafte condition electric	co (2) Li to (3) Ma se N/ ontract. O  For Franch o bills red currently dinance grad scount shall r, the about s are met: franchise meton	ntrol mechanited to land September intenance or rved under ANot Avaine (1) year ised Munimbered for contracted nted electrical only appress to any aust be for	anisms, as required.  amps served under cont.  27, 1988.  of lamps and fixtures  contracts prior to No.  ilable.  r, terminable thereaft  cipal Customers. A  lighting facilities s  for by municipalities  ric franchise as of Se  pply for the duration  t shall apply only where initial or subseque  a minimum term of the	racts initiated prior limited to customers vember 15, 1991.  er on three (3) days  10% discount will verved under the above with whom the Composite ptember 27, 1988.  In of said franchisten the following ont ordinance gran wenty (20) years and
Discount applied t rates and has an ore above dis Thereafte condition electric Company m	co (2) Li to (3) Ma se N/ ontract. O  For Franch o bills redurrently dinance gradecount shall r, the about shall shall r, the about shall shal	ntrol mechanited to la September intenance or rved under ANot Avame (1) year ised Munical for contracted nted electrol only appreciate only any sust be for a contract	anisms, as required.  amps served under cont.  27, 1988.  of lamps and fixtures  contracts prior to No  ilable.  r, terminable thereaft  cipal Customers. A  lighting facilities s  for by municipalities  ric franchise as of Se  pply for the duration  t shall apply only whe  initial or subseque  a minimum term of the  for all lighting fa	racts initiated prior limited to customers vember 15, 1991.  er on three (3) days  10% discount will verved under the above with whom the Composite ptember 27, 1988.  In of said franchisten the following ont ordinance gran wenty (20) years and
Discount applied t rates and has an ore above dis Thereafte condition electric Company m	co (2) Li to (3) Ma se N/ ontract. O  For Franch o bills redurrently dinance gradecount shall r, the about shall shall r, the about shall shal	ntrol mechanited to la September intenance or rved under ANot Avame (1) year ised Munical for contracted nted electrol only appreciate only any sust be for a contract	anisms, as required.  amps served under cont.  27, 1988.  of lamps and fixtures  contracts prior to No.  ilable.  r, terminable thereaft  cipal Customers. A  lighting facilities s  for by municipalities  ric franchise as of Se  pply for the duration  t shall apply only where initial or subseque  a minimum term of the	racts initiated prior limited to customers vember 15, 1991.  er on three (3) days  10% discount will verved under the above with whom the Composite ptember 27, 1988.  In of said franchisten the following ont ordinance gran wenty (20) years and
Discount applied t rates and has an ore above dis Thereafte condition electric Company m	co (2) Li to (3) Ma se N/ ontract. O  For Franch o bills redurrently dinance gradecount shall r, the about shall shall r, the about shall shal	ntrol mechanited to la September intenance or rved under ANot Avame (1) year ised Munical for contracted nted electrol only appreciate only any sust be for a contract	anisms, as required.  amps served under cont.  27, 1988.  of lamps and fixtures  contracts prior to No  ilable.  r, terminable thereaft  cipal Customers. A  lighting facilities s  for by municipalities  ric franchise as of Se  pply for the duration  t shall apply only whe  initial or subseque  a minimum term of the  for all lighting fa	racts initiated prior limited to customers vember 15, 1991.  er on three (3) days  10% discount will verved under the above with whom the Composite ptember 27, 1988.  In of said franchisten the following ont ordinance gran wenty (20) years and
Discount applied t rates and has an ore above dis Thereafte condition electric Company m lighting	co (2) Li to (3) Ma se N/ ontract. O  For Franch o bills red currently dinance grad scount shall r, the about s are met: franchise moust have a service pro	ntrol mechanited to la September intenance or rved under ANot Avame (1) year ised Munical for contracted nted electrol only appreciate only any sust be for a contract	anisms, as required.  amps served under cont.  27, 1988.  of lamps and fixtures  contracts prior to No  ilable.  r, terminable thereaft  cipal Customers. A  lighting facilities s  for by municipalities  ric franchise as of Se  pply for the duration  t shall apply only whe  initial or subseque  a minimum term of the  for all lighting fa	racts initiated prior limited to customers vember 15, 1991.  er on three (3) days  10% discount will verved under the above with whom the Composite ptember 27, 1988.  In of said franchisten the following ont ordinance gran wenty (20) years and
Discount applied t rates and has an ore above dis Thereafte condition electric Company m	co (2) Li to (3) Ma se N/ ontract. O  For Franch o bills red currently dinance grad scount shall r, the about s are met: franchise moust have a service pro	ntrol mechanited to la September intenance or rved under ANot Avame (1) year ised Munical for contracted nted electrol only appreciate only any sust be for a contract	anisms, as required.  amps served under cont.  27, 1988.  of lamps and fixtures  contracts prior to No  ilable.  r, terminable thereaft  cipal Customers. A  lighting facilities s  for by municipalities  ric franchise as of Se  pply for the duration  t shall apply only whe  initial or subseque  a minimum term of the  for all lighting fa	racts initiated prior limited to customers vember 15, 1991.  er on three (3) days  10% discount will verved under the above with whom the Composite ptember 27, 1988.  In of said franchisten the following ont ordinance gran wenty (20) years and
Discount applied t rates and has an ore above dis Thereafte condition electric Company m lighting *Indicate	co (2) Li to (3) Ma se N/ ontract. O  For Franch o bills recurrently dinance grascount shal r, the abors are met: franchise must have a service pro s Change.	ntrol mechanited to la September intenance or red under ANot Avane (1) years and seed Munical Munical Education of the delection only approximate the form a contract wided by Contract wided by Contract wided by Contract wided by Contract and the contract a	anisms, as required.  amps served under cont.  27, 1988.  of lamps and fixtures  contracts prior to No  ilable.  r, terminable thereaft  cipal Customers. A  lighting facilities s  for by municipalities  ric franchise as of Se  oply for the duration  t shall apply only wh  initial or subseque  a minimum term of to  for all lighting fa  ompany in effect.	racts initiated prior limited to customers vember 15, 1991.  er on three (3) days  10% discount will verved under the above the with whom the Compatember 27, 1988.  In of said franchisten the following ont ordinance gran wenty (20) years and cilities for municipal
Discount applied t rates and has an ore above dis Thereafte condition electric Company m lighting *Indicate	co (2) Li to (3) Ma se N/ ontract. O  For Franch o bills red currently dinance grad scount shall r, the about s are met: franchise moust have a service pro	ntrol mechanited to land September intenance or red under ANot Available of the contracted inted electrol only appreciate of the contracted intended electrol only appreciate of the contracted intended by Contracted intended intende	anisms, as required.  amps served under cont.  27, 1988.  of lamps and fixtures  contracts prior to No  ilable.  r, terminable thereaft  cipal Customers. A  lighting facilities s  for by municipalities  ric franchise as of Se  oply for the duration  t shall apply only wh  initial or subseque  a minimum term of to  for all lighting fa  ompany in effect.	racts initiated prior limited to customers vember 15, 1991.  er on three (3) days  10% discount will verved under the above with whom the Composite ptember 27, 1988.  In of said franchisten the following ont ordinance gran wenty (20) years and

NION ELECTRIC COMPANY	ELECTRIC SE	ERVICE	
MO.P.S.C. SCHED	ULE NO5	1st Revised	SHEET NO. 45.
CANCELLING MO.P.S.C. SCHED	ULE NO5	Original	SHEET NO. 45.
PPLYING TO	MISSOURI SERV	ICE AREA	
<del>-</del>	ERVICE CLASSIFIC	CATION NO. 6(M) G - CUSTOMER-OWNED	(Contid )
SIREEI AND OUTDO	OR AREA DIGHTIM	3 - COSTONER-OWNED (	(COITE d.)
*Fuel_and_Purchased_Po	wer Adjustment	(Rider FAC) and En	nvironmental Cost
Recovery Mechanism (Ric			
provided under the term			
the provisions of Compa	any's Rider FAC	and Rider ECRM. T	The kilowatt hour
consumption of each 1	.amp, whose ope	erating hours are	determined by a
photoelectric control,	shall be deter	mined from the man	ufacturer's rated
wattage multiplied by			
accordance with the fol			· ·
		•	
Lamp Size	Rating	Billing	Burning
(Lumens)	(Watts)	Month	Hours
	<del></del>	<del></del> _	<del></del>
H. P. Sodium		January	408
9,500	120	February	347
16,000	202	March	346
25,500	307	April	301
50,000	482	May	279
		June	255
Mercury Vapor		July	272
3,300	127	August	298
6,800	207	September	322
11,000	294	October	368
20,000	455	November	387
42,000	700	December	417
54,000	1080		
Metal Halide			
5,500	122		
12,300	206		
12,900	206		
Tax Adjustment. Any li	.cense, franchise	e, gross receipts, o	occupation or
similar charge or tax l	evied by any tax	king authority on th	e amounts billed
hereunder will be so de			
rendered to customers u			
	J	_	•

DATE OF ISSUE	July 24, 2009	DATE EFFECTIVE	August 23, 2009
ISSUED BY	Warner L. Baxter	President & CEO	St. Louis, Missouri
<del></del>	NAME OF OFFICER	TITLE	ADDRESS

\*Indicates Change.

ISSUED BY Warner L. Baxter
NAME OF OFFICER

MO.P.S.C. SCHEDULE NO. 5	2	7th Revis	ed	SHEET NO.	50
CANCELLING MO.P.S.C. SCHEDULE NO. 5		6th Revis		SHEET NO.	50
<del></del>	SERVICE AREA				
SERVICE CLA MUNICIPAL STREET	SSIFICATION NO	. 7 (M) ICANDESCENT			
* Rate per Lamp per Month					
1,00  Lume Wood Pole Rates \$4.1	0 2,500 n <u>Lumen</u> 4 \$6.30	candescent 4,000 Lumen \$8.59	6,000 Lumen \$11.42	10,000 <u>Lumen</u> \$15.63	
Ornamental Pole. Add \$6.79 per month	per pole to a	anove wood	Poie char	ges.	
* Circuit Charge per Month Underground, in and under dirt, per for Underground, all other, per ft.  (In lieu of a monthly circuit charge time of installation the estimated overhead circuit.)	, customer may				
* <u>Customer-Owned Street Lighting Facility</u> owns all street lighting facilities,					and
For Metered Service: Customer Charge per Meter 1) Secondary Service 2) Primary Service - Rider C sh	nall be applied	4,1	0 per mont 4¢ per kWh		
Customer shall install suitab loop, space and mounting facili	_		_	-	ter
Tax Adjustment. Any license, franches charge or tax levied by any taxing a be so designated and added as a separthe jurisdiction of the taxing author	uthority on the	ne amounts	billed he	reunder w	ill
Payments. Bills are due and payable	within ten (10	) days from	m date of	bill.	
Term of Contract. Ten (10) years. Of for all of an initial or succeeding the agreement for the maximum period for and said agreement will continue periods unless terminated by either sixty (60) days prior to any annual the sixty (60) days prior the sixty (60) days (60) da	en-year contra which it is in force ther party by writ	ct term at legally au eafter for ten notice	one time, uthorized r success	may sign to contra ive one-y	an ct, ear
*Indicates Change,					
DATE OF ISSUE	0.15 5555	OTIVE	August (	2009	

President & CEO

St. Louis, Missouri ADDRESS

#### UNION ELECTRIC COMPANY

#### ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 5	1st Revised	SHEET NO.	50.1
CANCELLING MO.P.S.C. SCHEDULE NO5	Original	SHEET NO.	50.1

APPLYING TO M

## MISSOURI SERVICE AREA

# SERVICE CLASSIFICATION NO. 7 (M) MUNICIPAL STREET LIGHTING - INCANDESCENT RATE OF LIMITED APPLICATION (Cont'd.)

\*Fuel and Purchased Power Adjustment (Rider FAC) and Environmental Cost Recovery Mechanism (Rider ECRM). The kilowatt hours for lighting service provided under the terms of this Service Classification shall be subject to the provisions of Company's Rider FAC and Rider ECRM. The kilowatt hour consumption of each lamp, whose operating hours are determined by a photoelectric control, shall be determined from the manufacturer's rated wattage multiplied by the number of hours of operation for the month, in accordance with the following schedules:

Lamp Size	Rating	Billing	Burning
(Lumens)	(Watts)	Month	Hours
		<del></del>	
Incandescent		January	408
1,000	103	February	347
2,500	202	March	346
4,000	327	April	301
6,000	448	May	279
10,000	690	June	255
		July	272
		August	298
		September	322
		October	368
		November	387
		December	417

\*Indicates Change.

DATE OF ISSUE	July 24, 2009	DATE EFFECTIVE	August 23, 2009
ISSUED BY_	Warner L. Baxter	President & CEO	St. Louis, Missouri
	NAME OF OFFICER	TITLE	ADDRESS

#### UNION ELECTRIC COMPANY

ISSUED BY Warner L. Baxter
NAME OF OFFICER

## ELECTRIC SERVICE

	MO.P.S.C. SCHEDULE NO	š	,	20th_Revise	eđ	SHEET NO.	55
CANCE	ELLING MO.P.S.C. SCHEDULE NO.			19th Revise		SHEET NO.	
PPLYING TO	CITY OF ST. LOUIS A	AND ST.					
	SERVICE ( PRIVATE ORNAM RATE OI	ENTAL S		GHTING RATE	3 <u>8</u>		
Lumer 1000 \$10.9 *Circuit C Undergrou		9 , per f	τ.		8.59¢ 6.36¢		
(In lieu at the	of a monthly circuit time of installation and over overhead circ	charge,		r may elec	t to pa		
	Owned Street Lighting and owns all street less:						
Cust 1)	Metered Service: omer Charge per Meter Secondary Service Primary Service - Ride	er C sha	all be ap		_	per month per kWh	
	omer shall install s r loop, space and ces.						
similar o hereunder	stment. Any license charge or tax levied b will be so designa to customers under th	y any ted and	taxing au d added	ithority on as a sepa	the ar	mounts billem to bi	lled
<u>Payments</u> . bill.	. Bills are due and	payab:	le within	n ten (10)	days	from date	of
Term of C	Contract. Ten (10) ye	ars.					
*Indicate	es Change.						
· · · · · · · · · · · · · · · · · · ·	July 24, 2009		5 57	ECTIVE	Descript	00 000	

President & CEO

Schedule WLC-E1-13

St. Louis, Missouri ADDRESS

NION ELECT	RIC COMPANY	ELECTRIC SE	RVICE	
	MO.P.S.C. SCHEDI	ULE NO5	lst Revised	\$HEET NO 55 ,
CANCE	ELLING MO.P.S.C. SCHEDI	JLE NO5	Original	SHEET NO. 55.
PLYING TO	CITY OF ST.	LOUIS AND ST. L	OUIS COUNTY, MISSOUR	ːI
	PRIVAT		ATION NO. 8 (M) REET LIGHTING RATES LICATION (CONT.d.)	
Recovery provided the provi consumpti photoelec wattage m	Mechanism (Rid under the term sions of Compa on of each l tric control, nultiplied by t	er ECRM). The s of this Servic any's Rider FAC amp, whose ope shall be determ	(Rider FAC) and Enterth kilowatt hours for e Classification sha and Rider ECRM. The rating hours are contined from the manupours of operation for	lighting service all be subject to be kilowatt hour determined by a facturer's rated
accordanc	Lamp Size	Rating	Billing	Burning
	(Lumens)	(Watts)	Month	Hours
	Incandescent 1,000	103	January February	408 347
	2,500	202	March	346
	4,000	327	April	301
			May June	279 255
			July	272
			August	298
			September	322
			October	368
			November	387
			December	417
*Indicate	es Change.			

DATE OF ISSUE	Ju.	ly 24, 20	009 DA	TE EFFECTIVE	:Augus	t 23,	2009
ISSUED BY Wa	arner L.	Baxter	President	& CEO	St.	Louis,	Missouri
- <del></del> -	NAME OF OF	FICER	TITLE	E		ADDE	ESS

MO.P.S.C. SCHEDULE NO5	13th Re	vised	SHEET NO 67.1
CANCELLING MO.P.S.C.SCHEDULE NO5	12th_Re	vised	SHEET NO. 67.1
APPLYING TO MISSOURI SERV	ICE AREA		
SERVICE CLASSIFIC LARGE PRIMARY			
* Rate Based on Monthly Meter Readings			, i
Summer Rate (Applicable during periods of June th	-	•	
Customer Charge - per month		\$276.	00
Energy Charge - per kWh		3.	05¢
Demand Charge - per kW of Billing	Demand	\$18.	25
Reactive Charge ~ per kVar		32.	00¢
Winter Rate (Applicable during periods of October		ıg	
Customer Charge - per month		\$276.	00
Energy Charge - per kWh		2.	70¢
Demand Charge - per kW of Billing	Demand	\$8.	29
Reactive Charge - per kVar		32.	00¢
1			
Optional Time-of-Day Adjustments	onth.	¢10 00 mam	ma+
Additional Customer Charge - per m	юнси	\$18.00 per	MONCH
Energy Adjustment - per kWh		On-Peak Hours(1)	Off-Peak Hours(1)
Summer kWh(June-September billi: Winter kWh(October-May billing ;		+0.59¢ +0.27¢	-0.33¢ -0.14¢
(1) On-peak and off-peak hours app specified within this service		shall be,as	
Fuel and Purchased Power Adjustment (Ride kilowatt-hours (kWh) of energy.	r FAC). Applicab	le to all me	tered
**Environmental Cost Recovery Mechanism (Ri kilowatt-hours (kWh) of energy.	der ECRM). Appli	icable to all	l metered
Payments. Bills are due and payable with	in ten (10) days	from date o	of bill.
Term of Use. One (1) year, terminable th	ereafter on thre	e (3) days'	notice.
Tax Adjustment. Any license, franchise charge or tax levied by any taxing authority be so designated and added as a separate the jurisdiction of the taxing authority.	rity on the amou item to bills re	ınts billed l	nereunder will
*Indicates Change. **Indicates Addition.	·		
DATE OF ISSUE July 24, 2009	DATE EFFECTIVE	August	23, 2009

	MO.P.S.C. SCHEDULE NO. 5	8th	Revised	SHEET NO.	67.4
	CANCELLING MO.P.S.C.SCHEDULE NO5	7th	Revised	SHEET NO.	67.4
APPLYING TO	MISSOURI SER	VICE AREA			
	MISCELLANEC	OUS CHARGES			
Α.	Reconnection Charges per Connect	ion Point			
	Sheet No. 106, Par. B-3 (Annuall Sheet No. 184, Par. I (Reconnect			\$30.00 30.00	
*B.	Supplementary Service Minimum Mc	onthly Charge	<u>s</u>		
	Sheet No. 103, Par. C-3				
	Charges applicable during 4 mont billing periods of June through	-	Primary	Service Rate	
	Customer Charge per month, plus All kW @			\$276.00 \$18.25	
	Charges applicable during 8 mont billing periods of October throu	_	Primary	Service Rate	
	Customer Charge per month, plus All kW @			\$276.00 \$8.29	
C.	Service Call Charge. Customer charged a \$50.00 fee for a se problem is within the customer's	rvice call,	if it i		
simil herev	djustment. Any license, franc ar charge or tax levied by any t inder will be so designated and ered to customers under the juriso	axing author added as a	ity on the separat	he amounts bil e item to bi	led
}					
*Indi	cates Change.				
DATE OF ISS	UE July 24, 2009	DATE EFFECTIVE	Au	gust 23, 2009	

ISSUED BY Warner L. Baxter President & CEO St. Louis, Missouri
NAME OF OFFICER THE ADDRESS

MO.P.S.C. SCHEDULE NO5	19th Revised	SHEET NO	98
CANCELLING MO.P.S.C. SCHEDULE NO. 5	18th Revised	SHEET NO	98

MISSOURI SERVICE AREA APPLYING TO TABLE OF CONTENTS RIDERS SHEET RIDER NO. FUEL AND PURCHASED POWER ADJUSTMENT CLAUSE 98.1 FAC \*ECRM ENVIRONMENTAL COST RECOVERY MECHANISM 98.8 DISCOUNTS APPLICABLE FOR SERVICE TO SUBSTATIONS OWNED BY CUSTOMER IN LIEU OF COMPANY OWNERSHIP 99 ADJUSTMENTS OF METER READINGS FOR METERING AT A VOLTAGE NOT PROVIDED FOR IN RATE SCHEDULE 100 TEMPORARY SERVICE 101(M) SUPPLEMENTARY SERVICE 103 ANNUALLY RECURRING SERVICE WITH EXTENDED PERIODS OF SHUTDOWN 106 PROVIDING FOR CONNECTION BETWEEN UNITS OF A Н SINGLE ENTERPRISE SEPARATED BY PUBLIC PROPERTY 110(M) SECONDARY SERVICE - OFF-PEAK DEMAND PROVISIONS 113 PROVIDING FOR SUPPLY OF SERVICE TO A CUSTOMER J OCCUPYING CONTIGUOUS BUILDINGS 114 (M) VOLUNTARY CURTAILMENT RIDER 116 M OPTION BASED CURTAILMENT RIDER 116.3 RDC RESERVE DISTRIBUTION CAPACITY RIDER 117 ŰĞ MUNICIPAL UNDERGROUND COST RECOVERY RIDER 118 EDR ECONOMIC DEVELOPMENT RIDER 122.1 ECONOMIC DEVELOPMENT AND RETENTION RIDER EDRR 122.6 ERR ECONOMIC RE-DEVELOPMENT RIDER 122.8 \*Indicates Addition.

DATE OF ISSU	EJuly 24, 200	9 DATE EFFECTIVE	August 23, 2009
ISSUED BY	Warner L. Baxter	President & CEO	St. Louis, Missouri
	NAME OF OFFICER	TITLE	ADDRESS

		MO.P.S.C. SCHEDULE NO.	<del></del>	20th Revis	<del></del>	EET NO99
C	ANCELLIN	G MO.P.S.C. SCHEDULE NO.	<u> </u>	19th Revis	ed sh	EET NO 95
PLYING TO_		MISSO	URI SERVICE A	REA		
			Rider B			
	Ī	DISCOUNTS APPLICABLE BY CUSTOMER 1		TO SUBSTATION PANY OWNERSHI		
					<del></del>	
		a Customer served ery of power and end				
	Compan	ny will allow disc				
	follo	ws:				
	<b>*</b> 1.	A monthly credit	of \$1.06/kW (	of billing de	mand for o	customers
		taking service at :		_		
	*2.	A monthly credit	of \$1.25/kW o	of billing de	mand for o	customers
		taking service at				
*Indic	ates	Change.				
		7-1 04 0000				0000
		July 24, 2009		EFFECTIVE		2009
SUED BY	Warı	ner L. Baxter IAME OF OFFICER	President &	CEO	St. Louis	s, Missou DRESS

#### UNION ELECTRIC COMPANY

#### ELECTRIC SERVICE

	MO.P.S.C. SCHEDULE NO5	7th Revised	SHEET NO17
CANC	ELLING MO.P.S.C. SCHEDULE NO. 5	6th Revised	SHEET NO17
PLYING TO	MISSOURI SERV	ICE AREA	
	<u>GENERAL RULES A</u> <u>V. BILLING</u>		
	b. In the event of an unmade for the entire poshown to have existed billing periods calculinquiry or actual notion was first;	eriod that the undercond to exceed twelve ated from the date	charge can be (12) monthly of discovery
	c. Where, upon test, an experience within the limits probabiling adjustment will	escribed by Commission	
	d. When evidence of observations of the company will calcurate in accordance with the for the prosecution of probable period during all related and availab	he use of service by late the billing adju applicable statute of such claim after de which such condition	the customer, stment period of limitations etermining the
	e. In any event, no billin full amount of the adju and no interest shall be adjustment provided for	stment is less than or be paid or collected o	ne dollar (\$1)
	*f. No corrections to met extend beyond the in-s to be in error, nor s extend beyond the dat first occupied the discovered.	ervice date of the met hall any correction b e upon which the cur	ter discovered be required to crent customer
2.	Non-Residential - For all recompany will determine from information the probable condition existed and shall estimated period involved as	rom all related a period during whic make billing adjust	and available h the error
	a. No billing adjustment amount of the adjustme shall be paid or co provided for herein.	nt is less than \$15.00	0. No interest
	<ul> <li>Where upon test an a greater than 2 percent to compensate customer compensate Company whe</li> </ul>	: a billing adjustment where the meter reads	will be made s fast, and to
*Indicat	es Addition.		

MO. P. S. G.	SCHEDULE NO5	13th Revised	SHEET NO68
	SCHEDULE NO5	12th Revised	SHEET NO68
APPLYING TO	MISSOURI SERVICE A	REA	
	SERVICE CLASSIFICATION	NO. 12(M)	
	LARGE TRANSMISSION SER	VICE RATE	
*Summer Rate	(Applicable during fou periods of June thro		ling
Customer Ch	arge - per month	\$276.	00
Demand Char	ge - per kW of Billing De	mand \$15.	03
Energy Char	ge - per kWh	2.8	52¢
Reactive Ch	arge - per kVar	32.0	00¢
*Winter Rate	(Applicable during eig periods of October t		lling
Customer Ch	arge - per month	\$276.	00
Demand Char	ge ~ per kW of Billing De	mand \$5.	73
Energy Char	ge ~ per kWh	2.5	11¢
Reactive Ch	arge – per kVar	32.0	00¢
**Environmental Cost metered kilowatt-ho  *Energy Line Loss Ra from use of the tra be in the form of e owner(s) and comper	Power Adjustment (Rider For) of energy.  Recovery Mechanism (Rider Fours (kWh) of energy.  ate. Compensation for Customsmission system(s) outsidenergy solely supplied by insated by payment at a more Rider C adjustment of meters.	r ECRM). Applicab stomer's energy li ide Company's cont Company to the tr othly rate of \$0.0	le to all ine losses rol area shall ransmission
* Indicates Change.	** Indicates Addition.		

DATE OF ISS	DE	U9 DATE EFFE	CTIVEAugus	t 23, 2009	-
SSUED BY_	Warner L. Baxter	President & CEO	St.	Louis, Missouri	
	NAME OF OFFICER	TITLE		ADDRESS	_

CANCEL APPLYING TO	LING MO. P.S.C. S	CHEDULE NO. 5	4th Revised 3rd Revised	SHEET NO. <u>68.1</u>
		CHEDULE NO5	3rd Revised	
APPLYING TO				SHEET NO. <u>68.1</u>
		MISSOURI SER	VICE AREA	
	LAR	* SERVICE CLASSIF	ICATION NO. 12(M) ERVICE RATE (Cont'd.)	
1.	provide s upon rec Transmiss within C agreement construct	ervice under this eipt of approva ion Organization ( company's Network without the obl	irements. Company's service classification sal from the appropri "RTO") to incorporate or Integration Transmissigation or requirement rove any existing or new	is conditioned ate Regional ustomer's load sion Service that Company
	service to control a Line Loss hold Comp billed. I costs and are based connected	hroughout the Cont rea at no cost or es), if necessary, any harmless from n any event, custo charges imposed o on the fact that to Company's syst	le for securing firm tra ract Term outside of Com charge to Company (excep and customer agrees to i all such costs or charge mer shall be responsible or billed to Company from customer's load is not d em (e.g. Through and Outspendent System Operator,	mpany's of for Energy indemnify and es imposed or e for all in an RTO that directly in rates
2.	service c credit te required tariffs. rights an and in it deposit i equal to	lassification shal rms and conditions pursuant to Compan In addition to and remedies in law s sole discretion, n the form of cash two times (2x) the 12-month period,	tomer taking service und lagree to the following , in addition to those to y's rules, regulations, and without limiting Compa and at equity, Company, may demand of customer , letter of credit or su highest monthly utility upon the occurrence of a	special that may be rates or any's other upon request a security arety bond, bill from
	ter	<del>-</del>	omer or customer's parer ng by Moody's that falls	_
	ter		omer or customer's parering by Standard & Poor's	_
	Com	pany, including bu	in ownership, as determint not limited to a change on of the assets of cust	ge in
		assessment of two month rolling peri	o (2) late payment charge .od; or	es within any
	or		signment for the benefit bankrupt or insolvent (h	

DATE OF ISSUE July 24, 2009 DATE EFFECTIVE August 23, 2009

ISSUED BY Warner L. Baxter President & CEO St. Louis, Missouri
NAME OF OFFICER TITLE ADDRESS

#### LINION ELECTRIC COMPANY

#### **FLECTRIC SERVICE**

LARGE TRANSMISSION S  E.S. Bills are due at bill.  Et Term. A Customer fication shall agree The Contract Term or an an notice of terminater than five years the Contract Term, e classification agrives any right or enting but not limited or as amended from and energy from any justment. Any licen	Original SHEETNO 68  ERVICE AREA  SERVICE RATE (Cont'd.)  and payable within ten (10) days from  r taking service under this service e to an initial Contract Term of 15 shall be extended in one-year l the contract is terminated at the end ny annual extension thereof by a tion given by either party or received prior to the date of termination. a customer taking service under this rees that Company shall be the er and energy to customer's premises, ntitlement by virtue of any law, to Section 91.026 RSMo as it now time to time, statute, rule, purchase, acquire or take delivery of other person or entity.  nse, franchise, gross receipts, rge or tax levied by any taxing
* SERVICE CLASSIE LARGE TRANSMISSION SEED AND SE	SERVICE RATE (Cont'd.)  and payable within ten (10) days from  r taking service under this service e to an initial Contract Term of 15 shall be extended in one-year l the contract is terminated at the end ny annual extension thereof by a tion given by either party or received prior to the date of termination. a customer taking service under this rees that Company shall be the er and energy to customer's premises, ntitlement by virtue of any law, to Section 91.026 RSMo as it now time to time, statute, rule, purchase, acquire or take delivery of other person or entity.  nse, franchise, gross receipts,
LARGE TRANSMISSION S  E.S. Bills are due at bill.  Et Term. A Customer fication shall agree The Contract Term or an an notice of terminater than five years the Contract Term, e classification agrives any right or enting but not limited or as amended from and energy from any justment. Any licen	and payable within ten (10) days from  r taking service under this service e to an initial Contract Term of 15 shall be extended in one-year l the contract is terminated at the end ny annual extension thereof by a tion given by either party or received prior to the date of termination. a customer taking service under this rees that Company shall be the er and energy to customer's premises, ntitlement by virtue of any law, to Section 91.026 RSMo as it now time to time, statute, rule, purchase, acquire or take delivery of other person or entity.  nse, franchise, gross receipts,
Et Term. A Customer fication shall agree The Contract Term ents unless or until Contract Term or an notice of terminater than five years the Contract Term, e classification agrive supplier of powerives any right or enting but not limited or as amended from the cion, or tariff, to and energy from any justment. Any licen	r taking service under this service e to an initial Contract Term of 15 shall be extended in one-year 1 the contract is terminated at the ending annual extension thereof by a tion given by either party or received prior to the date of termination. a customer taking service under this rees that Company shall be the er and energy to customer's premises, nutitlement by virtue of any law, to Section 91.026 RSMo as it now time to time, statute, rule, purchase, acquire or take delivery of other person or entity.
Et Term. A Customer fication shall agree The Contract Term ents unless or until Contract Term or an notice of terminater than five years the Contract Term, e classification agrive supplier of powerives any right or enting but not limited or as amended from the cion, or tariff, to and energy from any justment. Any licen	r taking service under this service e to an initial Contract Term of 15 shall be extended in one-year 1 the contract is terminated at the ending annual extension thereof by a tion given by either party or received prior to the date of termination. a customer taking service under this rees that Company shall be the er and energy to customer's premises, nutitlement by virtue of any law, to Section 91.026 RSMo as it now time to time, statute, rule, purchase, acquire or take delivery of other person or entity.
The Contract Term ents unless or until Contract Term or an notice of terminater than five years the Contract Term, e classification agrive supplier of powerives any right or enting but not limited or as amended from the cion, or tariff, to and energy from any justment. Any licen	shall be extended in one-year I the contract is terminated at the end only annual extension thereof by a tion given by either party or received prior to the date of termination. a customer taking service under this rees that Company shall be the er and energy to customer's premises, notitlement by virtue of any law, to Section 91.026 RSMo as it now time to time, statute, rule, purchase, acquire or take delivery of other person or entity.
ity on the amounts b ded as a separate it	billed hereunder will be so designated tem to bills rendered to customers the taxing authority.
Eication shall be ap ies all of the follo ions of the Large Pr es and pays for tran icity over the trans s not require use of oution arrangements y's cost, excepting	tes specified in this service pplicable to any customer that owing: 1) meets the Rate Application rimary Service rate, 2) if necessary, nsmission service for the delivery of smission facilities of a third party, f Company's distribution system or that are provided by Company at Company's metering equipment, for 4) meets all other required terms and e classification.
phase alternating c	current transmission service voltage.  ts under Rider C will apply; however,  nts under Rider B.
	vill be responsible for the demand stalled for the measurement of demands.
	bution arrangements by's cost, excepting se to customer, and sions of this service ster of Service Suppophase alternating propriate adjustment will be no adjustment of Meters. Company we

DATE OF ISSUE July 24, 2009 DATE EFFECTIVE August 23, 2009

ISSUED BY Warner L. Baxter President & CEO St. Louis, Missouri

NAME OF OFFICER TITLE ADDRESS

#### **ELECTRIC SERVICE**

MO. P. S. C. SCHEDULE NO5	_		<u>lst Revise</u>	<u>d</u>	SHEET NO.	68.3
CANCELLING MO. P.S.C. SCHEDULE NO5	_		Original		SHEET NO.	68.3
APPLYING TO MISSOU	RI	SERVICE	AREA			

## \* SERVICE CLASSIFICATION NO. 12 (M) LARGE TRANSMISSION SERVICE RATE (Cont'd.)

Minimum Billing. Customer's minimum monthly billing amount owed to the Company in each billing month (which shall correspond to the calendar month) shall consist of the applicable Customer Charge, plus the Demand Charge, Energy Charge and Reactive Charge, as specified on Sheet No. 68, applied to the greater of: a) the kWhs used by the Company in the development of the Energy Charges and the kW and kVar used by the Company in the development of the Demand Charges and the Reactive Charge (including the energy line loss rate provided for above) or b) the billing units that would be applicable to the customer's facility for the billing month in the absence of part a) of this sentence. In exchange for customer's obligation to pay its minimum monthly billing amount, Company shall be obligated to tender a quantity of kWh each calendar month equal to the greater of part a) or b) in the immediately preceding sentence; provided, that if less than the quantity of kWh provided for in part a) is taken by customer in a month the provisions of section 11, below, shall apply.

The billing demand used to calculate the Demand Charge under b) shall be the highest demand established during peak hours or 50% of the highest demand established during off-peak hours, whichever is highest during the month, but in no event less than 5,000 kilowatts.

Peak hours and off-peak hours are defined as follows:

Peak hours: 10:00 A.M. to 10:00 P.M., Monday through Friday. Off-peak hours: All other hours including the entire 24 hours of the following days: New Year's Day, Independence Day, Thanksgiving Friday, Good Friday, Labor Day, Christmas Eve Day, Memorial Day, Thanksgiving Day, Christmas Day.

All times stated above apply to the local effective time.

10. Reactive Charge. The kVar charge specified in this service classification shall be applicable to the kilovars by which the customer's average metered kilovars exceed the customer's kilovars at an average power factor of 90% lagging during the billing period. Such average kilovar billing units shall be determined in accordance with the following formula:

$$kVar = \left(\frac{kVarh}{kWh} - 0.4843\right)(kW)$$

*	Indicates	Change.
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DATE OF ISSUE	July 24,	2009	DATE EFFECTIVE	August 23, 2009	
SSUED BY	Warner L. Baxter	President	& CEO	St. Louis, Missouri	
	NAME OF OFFICER	TITLE		ADDRESS	

#### UNION ELECTRIC COMPANY

#### **ELECTRIC SERVICE**

MO. P. S. C. SCHEDULE N	O. <u>5</u>		1st R	evised	SHEET NO	68.4
CANCELLING MO. P.S.C. SCHEDULE N	O. <u>5</u>		Oriq	inal	SHEET NO	68.4
APPLYING TO M	ISSOURI	SERVICE	AREA			

## \* SERVICE CLASSIFICATION NO. 12 (M) LARGE TRANSMISSION SERVICE RATE (Cont'd.)

where:

kVar = kilovar billing units

kVarh = metered kilovarhours

kWh = metered kilowatthours

kW = metered kilowatts

0.4843 = kilovar requirement at 90% lagging power factor. Where in Company's sole judgment application of the above formula would not be appropriate to a customer, an agreement between Company and customer for the costs or charges associated with reactive supply facilities may be substituted for said formula.

#### 11. Energy Sales - Customer Credit.

a. If customer's total metered energy consumption in a calendar month is less than the total kWh for that month that were used by the Company in the development of the Energy Charge applicable to that month (the Shortfall), customer will continue to owe the minimum monthly billing amount specified in Section 9, but, except as otherwise provided in Paragraph 11, the Company will credit customer's account in an amount equal to the "Net Monthly Credit" for that month, which is determined as follows:

Company will calculate a "Net Energy Price" for each hour in the calendar month when the kWh consumed by customer (Actual Hourly Usage) were less than the kWh in that same hour in the corresponding calendar month that were used by the Company in the development of the Energy Charge (the Base Hourly Usage). The Net Energy Price for a given hour shall be equal to (1) the hourly locational marginal price of the load zone "AMMO.UE" for that hour in the real time energy market operated by the Midwest Independent Transmission System Operator, Inc. (Midwest ISO), net of, (2) the Midwest ISO Real-Time RSG First Pass Distribution Rate for that hour. The per kWh weighted monthly average of the Net Energy Prices that were determined in the immediately preceding sentence for that calendar month, expressed on a per kWh basis, will then be multiplied by the Shortfall from that calendar month to determine the "Net Monthly Credit."

If the Company is not a participant in the Midwest ISO's energy markets, an equivalent real-time energy price (net of

\* Indicates Change.

DATE OF ISSUE _	July 24, 2	2009	DATE EFFECTIVE	August 2	3, 2009
SSUED BY	Warner L. Baxter	President	& CEO	StLou	is, Missouri
	NAME OF OFFICER	TITLE			ADDRESS

## UNION ELECTRIC COMPANY

## **ELECTRIC SERVICE**

	MO.P.S.C.SCHEDULE NO. 5
	S MO. P.S.C. SCHEDULE NO. 5 Original SHEET NO. 68.5
APPLYING TO	MISSOURI SERVICE AREA
	* SERVICE CLASSIFICATION NO. 12 (M) LARGE TRANSMISSION SERVICE RATE (Cont'd.)
	any RSG-type charges) in power markets to which the Company has reasonable access shall be used as the Net Energy Price to determine the Net Monthly Credit called for above.
b	Notwithstanding any term or condition of Rider FAC to the contrary, the sums credited to customer's account as provided for in 11.a above shall be recorded to Account No. 421, and the real time energy transactions and the associated Net Energy Credits shall not constitute Off-System Sales in factor OSSR in Rider FAC, and they shall not be reflected in any other component of determining rate adjustments under Rider FAC.
C	All right, title and interest in and to energy that is sold to generate the Net Monthly Credit is property of the Company and shall remain with the Company until the energy is actually sold to the buyer thereof. All right, title, and interest in and to the proceeds of energy that is sold to generate the Net Monthly Credit is property of the Company. If at the time a Net Monthly Credit is to be posted to customer's account customer has not paid its prior minimum monthly billings in full (even if customer is insolvent, bankrupt, dissolved or otherwise ceases to exist), the Company shall be entitled to retain that portion of the Net Monthly Credit (calculated as if customer were not insolvent, bankrupt, dissolved or otherwise not in existence) that is necessary to cover any such under-payment.
* Indicates	Notwithstanding the provisions of 11.a and 11.b above: Where a customer taking service under this service classification fails to demonstate a metered demand of at least 25 percent of the kWh used by the Company in the development of the Energy Charge in any given monthly billing period, then the Net Monthly Credit for that billing month, determined as provided for in 11.a above, shall be capped at an amount that is equal to the minimum monthly bill amount less the monthly bill amount that would be applicable to customer's facility for the billing month in the absence of part a) of Section 9. The positive difference between the credit calculated under 11.a and the capped credit amount calculated under this 11.d, if any, shall constitute Off-System Sales in factor OSSR in Rider FAC.
L	
DATE OF ISSUE	July 24, 2009 DATE EFFECTIVE August 23, 2009
ISSUED BY Warr	Ler L. Baxter President & CEO St. Louis, Missouri AME OF OFFICER THLE ADDRESS

	MO. P. S. C. SCHEDULE NO5	1st Revised	SHEET NO. 68.6
CANCE	ELLING MO. P.S.C. SCHEDULE NO5	Original	SHEET NO68.6_
APPLYING TO	MISSOURI SER	VICE AREA	
		CATION NO. 12 (M) ERVICE RATE (Cont'd.)	
	e. Where a customer entirel service classification for shut down, bankruptcy, do provisions of 11.a through customer's billing quant occurrence of the first effective date of new raproceeding for the Compaceases taking service undirection (ii) until the end of the 2020).	or any reason (including issolution, or otherwisting is a second including the second included in the following two eventes resulting from a geometrial that is concluded after this service classical is service classical included in the service	g due to plant e), the to apply to until the ents: (i) the neral rate ter customer fication, or
	f. To the extent not all of Net Monthly Credit for a monthly bill is sent to the sums necessary to ca Credit (if any). Later any changes in the previ is available.	billing month exists a customer, the Company w lculate the expected Ne bills shall be adjusted	t the time a fill estimate t Monthly to reflect
12.	General Rules and Regulation specific rules and regulation and Regulations shall apply service classification.	ons, all of Company's G	eneral Rules
* Trdica	tes Change.		
11,4164			

DATE OF ISSUE \_\_\_ July 24, 2009 DATE EFFECTIVE \_\_\_ August 23, 2009 Warner L. Baxter NAME OF OFFICER President & CEO St. Louis, Missouri ADDRESS ISSUED BY\_\_\_

# AmerenUE CASE NO, ER-2010PRESENT AND PROPOSED CLASS REVENUE REQUIREMENTS (\$000's)

Customer Class	 Current Base Revenue		Proposed Base Revenue	F	Required Revenue djustment	% Change
Residential	\$ 977,137	\$	1,152,521	\$	175,384	17.95%
Small General Service	\$ 251,620	\$	296,784	\$	45,164	17.95%
Large General Service	\$ 473,560	\$	558,558	\$	84,998	17.95%
Small Primary Service	\$ 191,368	\$	225,700	\$	34,332	17.94% (2)
Large Primary Service	\$ 172,754	\$	203,757	\$	31,003	17.95%
Large Transmission Service	\$ 139,156	\$	164,132	\$	24,976	17.95%
Lighting	\$ <u>31,252</u>	<u>\$</u>	<u>36,862</u>	<u>\$</u>	5,610	<u>17.95%</u>
Total	\$ 2,236,847	\$	2,638,314	\$	401,467 (1)	17,95%

<sup>(1) -</sup> Targeted increase from Company witness Mr. Gary Weiss testimony is \$401,533; however, rate rounding resulted in a shortfall of approximately \$66K.

<sup>(2) -</sup> This slight variance between 17.94% and 17.95% is also due to rate rounding.

## MISSOURI RESIDENTIAL SERVICE CLASSIFICATION NO. 1(M) TYPICAL MONTHLY BILLS - EXCLUDING TAXES

kWh	AVERAGE MONTHLY BILL
100	\$18.07
150	\$22.10
200	\$26.13
250	\$30.17
300	\$34.20
350	\$38.23
400	\$42.27
450	\$46.30
500	\$50.33
550	\$54.37
600	\$58.40
650	\$62.43
700	\$66.47
750	\$70.50
800	\$73.76
850	\$77.01
900	\$80.27
950	\$83.53
1000	\$86.79
1100	\$93.30
1200	\$99.81
1300	\$106.33
1400	\$112.84
1500	\$119.35
1600	\$125.87
1700	\$132.38
1800	\$138.89

# MISSOURI SMALL GENERAL SERVICE CLASSIFICATION NO. 2(M) TYPICAL MONTHLY BILLS - EXCLUDING TAXES SINGLE-PHASE SERVICE

	AVERAGE
kWh	MONTHLY BILL
<del> </del>	
0	\$11.00
50	\$14.99
100	\$18,96
300	\$34.89
400	\$42.85
500	\$50.82
600	\$58.78
700	\$66.74
800	\$74.71
900	\$82.67
1000	\$90.63
2,000	\$170.27
3,000	\$249,90
4,000	\$329,53
5,000	\$409.17
6,000	\$488.80
7,000	\$568.43
8,000	\$648.07
9,000	\$727.70
10,000	\$807.33
11,000	\$886,97
12,000	\$966.60
13,000	\$1,046.23
14,000	\$1,125.87
15,000	\$1,205.50
16,000	\$1,285.13
17,000	\$1,364.77
18,000	\$1,444.40
19,000	\$1,524.03
20,000	\$1,603.67
21,000	\$1,683.30

## MISSOURI

# SMALL GENERAL SERVICE CLASSIFICATION NO. 2(M) TYPICAL MONTHLY BILLS - EXCLUDING TAXES

THREE-PHASE SERVIC
--------------------

THICE THE	AVERAGE
	MONTHLY
kWh	BILL
<del></del>	
0	\$22.00
50	\$25.99
100	\$29.96
300	\$45.89
400	\$53.85
500	\$61.82
600	\$69.78
700	\$77.74
800	\$85.71
900	\$93.67
1000	\$101.63
2,000	\$181.27
3,000	\$260.90
4,000	\$340.53
5,000	<b>\$4</b> 20.17
0.000	<b>6400.00</b>
6,000	\$499.80
7,000	\$579.43
8,000	\$659.07
9,000	\$738.70
10,000	\$818.33
11,000	\$897.97
12,000	\$977.60
13,000	<b>\$1,057.23</b>
14,000	\$1,136.87
15,000	\$1,216.50
. = , 0 0 0	¥1,210,00
16,000	\$1,296.13
17,000	\$1,375.77
18,000	\$1,455.40
19,000	\$1,535.03
20,000	\$1,614.67
21.000	\$1.694.30

MISSOURI LARGE GENERAL SERVICE CLASSIFICATION NO. 3(M) TYPICAL MONTHLY BILLS - EXCLUDING TAXES

kW	kWh/kW	kWh	AVERAGE MONTHLY BILL
100	100	10,000	\$1,061.90
	200	20,000	\$1,689.23
	300	30,000	\$2,225.90
	400	40,000	\$2,691.90
	500	50,000	\$3,087.23
	600	60,000	\$3,482.56
	700	70,000	\$3,877.90
500	100	50,000	\$4,968.56
	200	100,000	\$8,105.23
	300	150,000	\$10,788.56
	400	200,000	\$13,118.56
	500	250,000	\$15,095.23
	600	300,000	\$17,071.90
	700	350,000	\$19,048.56
1000	100	100,000	\$9,851.90
	200	200,000	\$16,125.23
	300	300,000	\$21,491.90
	400	400,000	\$26,151.90
	500	500,000	\$30,105.23
	600	600,000	\$34,058.56
	700	700,000	\$38,011.90
2,000	100	200,000	\$19,618.56
	200	400,000	\$32,165.23
	300	600,000	\$42,898.56
	400	800,000	<b>\$5</b> 2,218.56
	500	1,000,000	\$60,125.23
	600	1,200,000	\$68,031.90
	700	1,400,000	\$75,938.56
3,000	100	300,000	\$29,385.23
	200	600,000	\$48,205.23
	300	900,000	\$64,305.23
	400	1,200,000	\$78,285.23
	500	1,500,000	\$90,145.23

MISSOURI SMALL PRIMARY SERVICE CLASSIFICATION NO. 4(M) TYPICAL MONTHLY BILLS - EXCLUDING TAXES

kW	kWh/kW	kWh	AVERAGE MONTHLY BILL
100	100	10,000	\$1,182.00
,,,,	200	20,000	\$1,788.83
	300	30,000	\$2,308.50
	400	40,000	\$2,759.17
	500	50,000	\$3,140.83
	600	60,000	\$3,522.50
	700	70,000	\$3,904.17
500	100	50,000	\$4,806.00
	200	100,000	\$7,840.17
	300	150,000	\$10,438.50
	400	200,000	\$12,691.83
	500	250,000	\$14,600.17
	600	300,000	\$16,508.50
	700	350,000	\$18,416.83
1000	100	100,000	\$9,336.00
	200	200,000	\$15,404.33
	300	300,000	\$20,601.00
	400	400,000	\$25,107.67
	500	500,000	\$28,924.33
	600	600,000	\$32,741.00
	700	700,000	\$36,557.67
2,000	100	200,000	\$18,396.00
	200	400,000	\$30,532.67
	300	600,000	\$40,926.00
	400	800,000	\$49,939.33
	500	1,000,000	<b>\$57</b> ,572 <i>.</i> 67
	600	1,200,000	\$65,206,00
	700	1,400,000	\$72,839.33
3,000	100	300,000	\$27,456.00
	200	600,000	\$45,661.00
	300	900,000	\$61,251.00
	400	1,200,000	\$74,771.00
	500 600	1,500,000	\$86,221.00 \$07.674.00
			40 13 7 MC 7-5 1 M 5

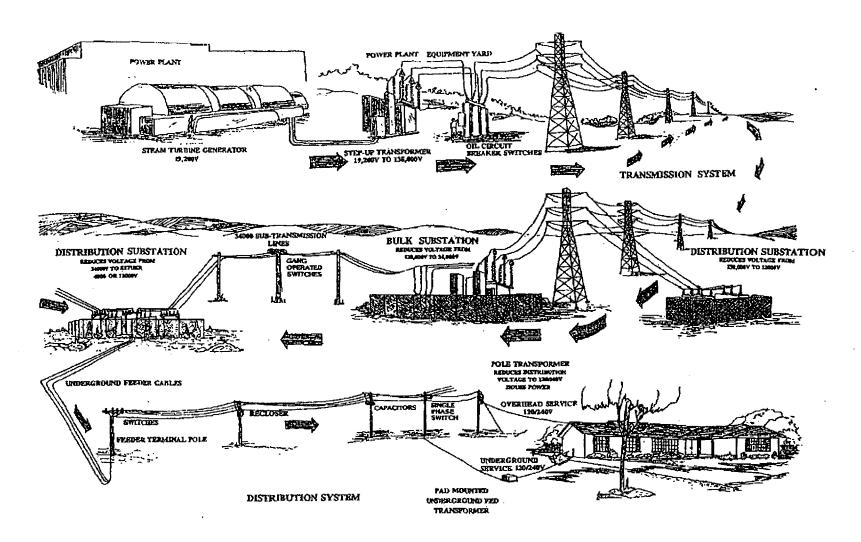
# MISSOURI LARGE PRIMARY SERVICE CLASSIFICATION NO. 11(M) TYPICAL MONTHLY BILLS - EXCLUDING TAXES

_	kW	kWh/kW	kWh	AVERAGE MONTHLY BILL
*	4,000	300	1,200,000	\$92,126.00
	4,000	400	1,600,000	\$103,392.67
		500	2,000,000	\$114,659.33
		600	2,400,000	\$125,926.00
		700	2,800,000	\$137,192.67
		700	2,000,000	Ψ101,132.01
	5,000	300	1,500,000	\$100,576.00
		400	2,000,000	\$114,659.33
		500	2,500,000	\$128,742.67
		600	3,000,000	\$142,826.00
		700	3,500,000	\$156,909.33
	10,000	300	3,000,000	\$200,876.00
	10,000	400	4,000,000	\$229,042.67
		500	5,000,000	\$257,209.33
		600	6,000,000	\$285,376.00
		700	7,000,000	\$313,542.67
		100	1,000,000	\$515,542.07
	20,000	300	6,000,000	\$401,476.00
		400	8,000,000	\$457,809.33
		500	10,000,000	\$514,142.67
		600	12,000,000	\$570,476.00
		700	14,000,000	\$626,809.33
	30,000	300	9,000,000	\$602,076.00
	,	400	12,000,000	\$686,576,00
		500	15,000,000	\$771,076.00
		600	18,000,000	\$855,576.00
		700	21,000,000	\$940,076.00
	50,000	300	15,000,000	¢1 002 276 00
	00,000	400	20,000,000	\$1,003,276.00 \$1,144,109.33
		500	25,000,000	· · ·
		600	30,000,000	\$1,284,942.67 \$1,425,776.00
		000	30,000,000	\$1,425,776.00

## MISSOURI LARGE TRANSMISSION SERVICE CLASSIFICATION NO. 12(M) TYPICAL MONTHLY BILLS - EXCLUDING TAXES

	<u>kW</u>	kWh/kW	kWh	AVERAGE MONTHLY BILL
*	4.000	300	1 200 200	#7F 000 00
	4,000	300	1,200,000	\$75,922.00
		400	1,600,000	\$86,420,67
		500	2,000,000	\$96,919.33
		600	2,400,000	\$107,418.00
		700	2,800,000	\$117,916.67
	5,000	300	1,500,000	\$83,796.00
		400	2,000,000	\$96,919.33
		500	2,500,000	\$110,042.67
		600	3,000,000	\$123,166.00
		700	3,500,000	\$136,289.33
	10,000	300	3,000,000	<b>\$16</b> 7,316.00
	·	400	4,000,000	\$193,562.67
		500	5,000,000	\$219,809.33
		600	6,000,000	\$246,056.00
		700	7,000,000	\$272,302.67
	20,000	300	6,000,000	\$334,356.00
	.,-	400	8,000,000	\$386,849.33
		500	10,000,000	\$439,342.67
		600	12,000,000	\$491,836.00
		700	14,000,000	\$544,329.33
	30,000	300	9,000,000	\$501,396.00
	•	400	12,000,000	\$580,136.00
		500	15,000,000	\$658,876.00
		600	18,000,000	\$737,616.00
		700	21,000,000	\$816,356.00
	50,000	300	15,000,000	\$835,476.00
	,	400	20,000,000	\$966,709.33
		500	25,000,000	\$1,097,942.67
		600	30 000 000	\$1,229,176.00

## GENERATING AND POWER DISTRIBUTION SYSTEM



Amerenue

MISSOURI ELECTRIC OPERATIONS

CLASS COST OF SERVICE ALLOCATION STUDY

TITLE:	SUMMARY RESULTS (\$000'S)		MISSOURI	RI	<u>ESIDENTIAL</u>	<u>©</u>	SMALL SEN SERV		ARGE G.S. / ALL PRIMARY	]	LARGE PRIMARY	LARGE <u>TRANS</u>
1	BASE REVENUE	\$	2,205,595	ş	977,137	ş	251,620	\$	664,928	\$	172,754	\$ 139,156
2	OTHER REVENUE	\$	60,511	\$	33,750	\$	5,971	\$	14,313	\$	3,703	\$ 2,773
3	LIGHTING REVENUE	\$	31,252	\$	16,347	ş	3,507	\$	7,977	\$	2,056	\$ 1,365
4	SYSTEM, OFF-SYS SALES & DISP OF ALLOW	\$	309,518	\$	144,381	\$	34,074	\$	88,625	\$	24,102	\$ 18,335
5	RATE REVENUE VARIANCE	\$	_	\$	-	\$	_	\$	_	\$	-	\$ -
6 7	TOTAL OPERATING REVENUE	\$	2,606,876	\$	1,171,615	ş	295,172	\$	775,843	\$	202,616	\$ 161,630
8	TOTAL PROD, T&D, CUST, AND A&G EXP	\$	1,794,748	\$	814,358	\$	185,300	\$	509,084	\$	154,049	\$ 131,956
9	TOTAL DEPR AND AMMORT EXPENSES	\$	376,408	Ş	207,004	\$	43,286	\$	90,948	\$	22,079	\$ 13,090
10	REAL ESTATE AND PROPERTY TAXES	\$	109,467	\$	58,247	\$	12,449	ş	27,491	\$	6,879	\$ 4,401
11	INCOME TAXES	\$	191,559	\$	100,195	\$	21,499	\$	48,897	\$	12,604	\$ 8,364
12	PAYROLL TAXES	\$	21,484	\$	10,665	\$	2,283	\$	5,739	\$	1,649	\$ 1,147
13	FEDERAL EXCISE TAX	\$	_	\$	_	\$	-	\$	_	\$	_	\$ -
14	REVENUE TAXES	\$		\$		ş		\$		\$		\$ 
15												
16 17	TOTAL OPERATING EXPENSES	\$	2,493,665	\$	1,190,469	\$	264,817	\$	682,160	\$	197,260	\$ 158,958
18 19	NET OPERATING INCOME	\$	113,211	\$	(18,854)	\$	30,355	\$	93,683	\$	5,357	\$ 2,671
20	GROSS PLANT IN SERVICE	\$	12,585,208	\$	6,696,128	<b>\$1</b>	l,431,148	\$	3,160,750	\$	791,028	\$ 506,154
21	RESERVES FOR DEPRECIATION	\$	5,527,036	\$	2,952,110	\$	630,347	\$	1,382,986	\$	341,538	\$ 220,055
22												
23 24	NET PLANT IN SERVICE	\$	7,058,172	\$	3,744,018	\$	800,800	\$	1,777,764	\$	449,490	\$ 286,099
25	MATERIALS & SUPPLIES - FUEL	\$	313,702	\$	116,134	\$	30,610	\$	101,040	\$	33,258	\$ 32,660
26	MATERIALS & SUPPLIES -LOCAL	ş	53,164	\$	35,194	\$	6,509	ş	9,662	\$	1,738	\$ 61
27	CASH WORKING CAPITAL	\$	(8,335)	\$	(3,782)	\$	(861)	\$	(2,364)	Ş	(715)	\$ (613)
28	CUSTOMER ADVANCES & DEPOSITS	\$	(18,455)	\$	(9,263)	ş	(4,665)	\$	(3,402)	ş	(1,125)	\$ -
29	ACCUMULATED DEFERRED INCOME TAXES	ş	(1,396,804)	\$	(743,235)	\$	(158,850)	Ş	(350,783)	\$	(87,776)	\$ (56,160)
30											1000	 <del></del>
31 32	TOTAL NET ORIGINAL COST RATE BASE	\$	6,001,444	\$	3,139,066	\$	673,544	\$	1,531,917	\$	394,870	\$ 262,048
33	RATE OF RETURN		1.886%		-0.601%		4.507%		6.115%		1.357%	1.019%

Amerenue
MISSOURI ELECTRIC OPERATIONS
CLASS COST OF SERVICE ALLOCATION STUDY

TITLE: SUMMARY EQUAL ROR (\$000's)		MISSOURI		<u>ESIDENTIAL</u>	!	SMALL GEN_SERV	LARGE G.S. / SMALL PRIMARY			LARGE PRIMARY	LARGE <u>TRANS</u>	
1 BASE REVENUE	\$	2,607,128	\$	1,265,229	\$	279,035	\$	702,637	\$	201,266	\$	158,961
2 OTHER REVENUE	\$	60,511	\$	33,750	\$	5,971	\$	14,313	\$	3,703	\$	2,773
3 LIGHTING REVENUE	\$	31,252	\$	16,347	\$	3,507	\$	7,977	\$	2,056	\$	1,365
4 SYSTEM, OFF-SYS SALES & DISP OF ALLOW	\$	309,518	\$	144,381	\$	34,074	\$	88,625	\$	24,102	\$	18,335
5 RATE REVENUE VARIANCE	\$		\$		\$		\$		\$		\$	
6 TOTAL OPERATING REVENUE	\$	3,008,409	\$	1,459,707	\$	322,587	\$	813,552	\$	231,128	ş	181,434
7				. ,		·		•		,		·
8 TOTAL PROD., T&D, CUSTOMER, AND A&G EXP.	\$	1,794,748	\$	814,358	\$	185,300	\$	509,084	ş	154,049	\$	131,956
9 TOTAL DEPR. AND AMMOR. EXPENSES	\$	376,408	Ş	207,004	\$	43,286	\$	90,948	\$	22,079	\$	13,090
10 REAL ESTATE AND PROPERTY TAXES	\$	109,467	\$	58,247	\$	12,449	\$	27,491	\$	6,879	\$	4,401
11 INCOME TAXES	\$	191,559	\$	100,195	\$	21,499	\$	48,897	\$	12,604	\$	8,364
12 PAYROLL TAXES	\$	21,484	\$	10,665	\$	2,283	\$	5,739	ş	1,649	\$	1,147
13 FEDERAL EXCISE TAX	\$	_	\$	_	\$	-	\$	-	\$	-	\$	-
14 REVENUE TAXES	\$		\$		\$		\$		\$		Ş	
15					_							
16 TOTAL OPERATING EXPENSES	Ş	2,493,665	\$	1,190,469	\$	264,817	\$	682,160	\$	197,260	\$	158,958
17												
18 NET OPERATING INCOME	\$	514,744	\$	269,238	\$	57,770	\$	131,392	\$	33,868	\$	22,476
19												
20 GROSS PLANT IN SERVICE	\$	12,585,208	\$	6,696,128	\$	1,431,148	\$	3,160,750	\$	791,028	\$	506,154
21 RESERVES FOR DEPRECIATION	\$	5,527 <u>,</u> 036	\$	2,952,110	\$	630,347	\$	1,382,986	ş	<u>341,538</u>	\$	220,055
22		<del></del>									_	
23 NET PLANT IN SERVICE	\$	7,058,172	\$	3,744,018	\$	800,800	\$	1,777,764	\$	449,490	ş	286,099
24		,										,
25 MATERIALS & SUPPLIES - FUEL	\$	313,702	\$	116,134	\$	30,610	Ş	101,040	\$	33,258	\$	32,660
26 MATERIALS & SUPPLIES -LOCAL	\$	53,164	\$	35,194	\$	6,509	\$	9,662	\$	1,738	\$	61
27 CASH WORKING CAPITAL	\$	(8,335)	\$	(3,782)	Ş	(861)	\$	(2,364)	\$	(715)	\$	(613)
28 CUSTOMER ADVANCES & DEPOSITS	\$	(18, 455)	\$	(9,263)	\$	(4,665)	\$	(3,402)	\$	(1, 125)	\$	_
29 ACCUMULATED DEFERRED INCOME TAXES	\$	(1, 396, 804)	\$	(743,235)	\$	(158,850)	\$	(350,783)	Ş	(87,776)	\$	(56, 160)
30	_											
31 TOTAL NET ORIGINAL COST RATE BASE	\$	6,001,444	\$	3,139,066	\$	673,544	\$	1,531,917	s	394,870	\$	262,048
32		, ,		,,	•	. , -			•	,	•	
33 RATE OF RETURN		8.577%		8.577%		8.577%		8.577%		8.577%		8.577%

Step 1) Up to \$80M increase all classes receive the system average increase

Step 2) Above a \$80M up to \$150 increase LTS receives 1/2 the average increase for the increment above \$80M

Step 3) At or above a \$80M up to \$150M increase RES increases an additional .3% to offset a reduction to SGS and LGS/LPS in proportion to SGS and LGS/LPS current revenues

Step 4) Above \$150M increase, the increment is spread as equal % of present revenues

## Share of SGS LGS/LPS Revenue 27.77% 72.23%

Current Revenue*		\$	RES 899,853,445 43%	\$	<u>SGS</u> 240,965,161 12%	\$	LGS/SPS 626,871,784 30%	\$	<u>LPS</u> 159,481,067 8%	\$	<u>LTS</u> 130,706,920 6%	<u>፲</u> ር \$	3T and MSD 28,672,361 1.37%	\$ 2	<u>Total</u> 2,086,550,738 100%
Increase at 80M		\$	34,501,090 3.83%	\$	9,238,794 3,83%	\$	24,034,758 3,83%	\$	6,714,630 <b>3.83%</b>	\$	5,011,406 <b>3,83%</b>	\$	1,099,321 3,83%	\$	80,000,000 3,83%
Additional % Adj to Current Revenue Additional \$ Adj to Current Revenue Combined Increase			0.30% 2,699,560 37,200,651		-0.31% (749,565) 8,489,229		-0.31% (1,949,996) 22,084,763								-
Combined Increase %			4.13%		3.52%		3.52%								
System Average Increase relative to sys avg.	3.83%	\$	34,501,090 <b>2,699,</b> 56 <b>0</b>	\$	9,238,794 <b>(749,565)</b>	s	24,034,758 (1,949,996)		6,114,630 -	\$	5,011,406 -	\$	1,099,321		(0)
Increase at 120M ±	Incremental 80M	\$	34,501,090		9,238,794	\$	24,034,758	\$	6,114,630	\$	5,011,406	\$	1,099,321	\$	80,000,000
+	Incremental 40M	\$	17,826,963		4,773,752		12,418,933		3,159,473		1,252,852	\$		\$	40,000,000
	0.5	\$	52,328,053 5.82%	5	14,012,546 5.82%	\$	36,453,692 5.62%	\$	9,274,103 <b>5.82%</b>	\$	6,264,258 4,79%	\$	1,667,348 5.82%	\$	120,000,000 5.75%
Additional % Adj to Current Revenue			0.30%		-0,31%		-0.31%		3.02%		4.73%		3.62%		5./ # 7A
Additional \$ Adj to Current Revenue			2,123,143		(589,516)		(1,533,627)								_
Combined Increase			54,451,196		13,423,030		34,920,065								
Combined Increase %			6.05%		5.57%		5.57%								
System Average Increase	5.75%	\$	51,751,636	\$	13,858,191	\$	36,052,137	\$	9,171,945	s	7,517,110	\$	1,648,981		
relative to sys avg.			2,699,560		(435,161)		(1,132,073)		102,159		(1,252,852)		18,367		{O}
(	l		7 ( 504 000		0.000.704		24 024 750		0.444.600	_	E 044 405	_	4 000 004		DO 000 B00
Increase at 150M =	Incremental 80M Incremental 70M	\$ \$	34,501,090 31,197,185	\$	9,238,794 8,354,066	\$ \$	24,034,758 21,733,133		6,114,630 5,529,078	5	5,011,406 2,192,490	\$	1,099,321 994,047		80,000,000 70,000,000
•	0.875	<u> </u>	65,698,275		17.592.860		45,767,892			š	7,203,897	\$	2,093,368	_	150,000,000
	0.070	•	7.30%	•	7.30%	-	7.30%	•	7.30%	•	5,61%	•	7.30%	•	7,19%
Additional % Adj to Current Revenue			0.30%		-0.31%		-0.31%								
Additional \$ Adj to Current Revenue			1,690,830		(469,479)		(1,221,351)								-
Combined increase			57,389,105		17,123,381		44,546,541								
Combined Increase %			7.49%		7.11%		7.11%								
System Average Increase	7.19%	\$	64,689,544	\$	17,322,739	\$	45,065,172	\$	11,464,931	\$	9,396,387	\$	2,061,227		
relative to sys avg.			2,699,560		(199,358)		(518,631)		178,777		(2,192,490)		32,142		(0)
Increase at 170M =	First 150M	\$	65,698,275	\$	17,592,860		45,767,892		11,643,708	\$	7,203,897		2,093,368		150,000,000
	Incremental 20M			5		S	6,008,590			\$		s 5	274,830		20,000,000
·	0.96%	<u> </u>		\$		<u> </u>		_	13,172,366	\$	8,456,748	\$		\$	170,000,000
	0.50%	•	8.26%	•	8.26%	•	8,26%	•	8,26%	•	6.47%	•	8.26%	•	8,15%
Additional % Adj to Current Revenue			0.30%		-0.31%		-0.31%								
Additional \$ Adj to Current Revenue			1,690,830		(469,479)		(1,221,351)								-
Combined Increase			76,014,377		19,433,080		50,555,231								
Combined Increase %			8.45%		8.06%		8.06%								
System Average Increase	8,15%	\$	73,314,817	5	19,632,438	\$	51,073,861	\$	12,993,588	\$	10,649,238	\$	2,336,057		
relative to sys avg.			2,699,560		(199,356)		(518,631)		178,777		(2,192,490)		32,142		C
			_		-		_								

<sup>\*</sup> Per Company supplied true-up revenue workpaper

# AmerenUE CASE NO. ER-2010PROPOSED CLASS REVENUE REQUIREMENTS (\$000's)

Customer Class	Proposed Base Revenue					
Residential	\$	1,152,521				
Small General Service	\$	296,784				
Large General Service	\$	558,558				
Small Primary Service	\$	225,700				
Large Primary Service	\$	203,757				
Large Transmission Service	\$	164,132				
Lighting	\$	36,862				
Total	\$	2.638.314				