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Tariff)
Witness: Wilbon L. Cooper
Sponsoring Party: Union Electric Company
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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. INTRODUCTION**

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.

3 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.

11 I have previously submitted testimony before the regulatory commissions
12 of Missouri, Illinois, and Iowa.

13 **II. PURPOSE AND SUMMARY OF TESTIMONY**

14 **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
16 the Company's electric retail rate classes; b) the development and results of a class cost
17 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
19 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
21 as part of this case; and e) a miscellaneous tariff revision to the Company's Rules and
22 Regulations - Billing Practices.

1 **Q. Have you prepared or have there been prepared under your direction**
2 **and supervision a series of schedules for presentation to the Commission in this**
3 **proceeding?**

4 A. Yes. I have prepared nine schedules. The first four, discussed
5 immediately below, provide a summary of the rate increase requested in this case. I
6 discuss the remaining schedules throughout my direct testimony.

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

8 A. Schedule WLC-E1 consists of nineteen (19) tariff sheets, which reflect the
9 non-LTS revised rates and miscellaneous tariff revisions, and Schedule WLC-E2 consists
10 of seven (7) tariff sheets which reflect the revised Service Classification 12(M) or LTS
11 tariff being proposed by the Company for approval by the Commission in this
12 proceeding. These tariffs, taken as a whole, would provide an increase in the Company's
13 net Missouri jurisdictional normalized test year revenue of approximately \$402.5 million,
14 or approximately 18%, over the annualized test year¹ revenue that would be realized
15 from the tariffs which are effective at the time of filing.

16 **Q. Please identify Schedule WLC-E3.**

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

¹ 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.

1 **Q. Please identify Schedule WLC-E4.**

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

5 **III. CLASS COST OF SERVICE STUDY**

6 A. **Class Cost of Service Concepts and Operating System Components**

7 **Q. Please explain what is meant by "class cost of service."**

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

1 **Q. How are the results of a class cost of service study used by the**
2 **Company?**

3 A. These study results are typically used to develop the target level of annual
4 revenue that the Company should recover from each customer class, through the
5 application of the rates or charges within the Company tariffs under which the various
6 customer classes are being served.

7 **Q. Please explain your use of the term “rate design.”**

8 A. The term “rate design” refers both to the process of establishing the
9 specific charges (e.g. monthly customer charges, dollars per kilowatt of demand and/or
10 cents per kilowatt-hour energy charges) for each customer class, as well as to the actual
11 structure of an individual class rate. The rate design, or structure, of a given class rate
12 may range in complexity from a simple structure consisting of a monthly customer
13 charge and a flat charge per kilowatt-hour (such as the Company’s summer Residential
14 rate), to a more complex set of customer, demand, energy and reactive charges (such as
15 the Company’s SPS, LPS and LTS rates). In all instances, however, the charges within a
16 specific rate classification are established such that the application of these individual
17 charges to the total annual customer class electrical usage will result in the collection of
18 the targeted annual revenue requirement of each of the Company’s retail rate classes.

19 **Q. As background for additional discussion on the class cost of service**
20 **study the Company is sponsoring in this case, please provide a general description**
21 **of the various facilities utilized by the Company in producing and delivering**
22 **electricity to its customers.**

1 A. Schedule WLC-E5 of my testimony is a simplified diagram illustrative of
2 the AmerenUE electric system, showing how power flows from the generating station
3 and is then transmitted and distributed to the home of a residential customer. Other
4 customers receiving service at higher voltage levels are also served from various points
5 on the same system.

6 **Q. Please describe, in more detail, how the Company's system operates.**

7 A. As illustrated in Schedule WLC-E5, electrical power is produced at the
8 Company's generating stations at voltage levels ranging from 11,000 to 23,750 volts. To
9 achieve transmission operating economies, this voltage is raised, or stepped up, by power
10 transformers at the generating station sites to voltages generally ranging from 138,000 to
11 345,000 volts for transmission to the Company's bulk substations that are strategically
12 located throughout its service area.

13 **Q. What is the function of the Company's bulk substations?**

14 A. Bulk substations receive electrical power at transmission voltage levels.
15 They then lower, or step-down, this power to transmission or distribution voltages
16 generally ranging from 138,000 volts to 34,500 or 69,000 volts. Such power is then
17 distributed over the Company's 34,500 or 69,000 volt distribution lines to distribution
18 substations located throughout the Company's service area.

19 **Q. What function do distribution substations perform?**

20 A. Distribution substations, which are far more numerous than bulk
21 substations, provide a further reduction in the electrical power voltage to a range of 4,160
22 to 13,800 volts within various portions of the Company's service area. The power is then

1 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.

3 **Q. After electrical power at 4,160 to 13,800 volts is delivered to a point at**
4 **or near a customer's premises, do any further reductions in voltage take place?**

5 A. Yes, in most instances. While approximately 650 of the Company's
6 largest industrial and commercial customers in Missouri take service at the 4,160 to
7 13,800 volt range or higher, the majority of the Company's customers are served at lower
8 voltages, ranging from 120 to 480 volts. The lower voltages are achieved through the use
9 of numerous line transformers located at or near the customer's premises. This low
10 voltage electrical power from the line transformer is delivered to a customer's premises
11 over low voltage lines referred to as "secondary" and "service" lines.

12 **Q. What voltages are utilized in providing electric service to residential**
13 **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.

16 **Q. What voltages are utilized to serve non-residential customers?**

17 A. Non-residential customers on the Company's SGS or LGS rates are served
18 at voltages from 120 to 480 volts due to the wide variety of electrical consuming devices
19 utilized by such customers. Customers in the latter voltage range are often referred to as
20 "secondary" voltage customers. Other larger non-residential customers receiving service
21 at 4,160 to 13,800 volts are referred to as "primary" voltage customers. The Company
22 also serves approximately 50 customers in Missouri at voltages above the 13,800 volt
23 level. These are referred to as "high voltage" or Rider B customers. Additionally, the

1 Company serves its only current LTS customer at 161 kilovolts (“kV”) via a unique
2 transmission service arrangement.

3 **Q. In your description of the AmerenUE generation, transmission and**
4 **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**

10 **Q. Please describe the components of costs and revenues that are**
11 **contained in the class cost of service study that the Company is filing in this case.**

12 A. A traditional cost of service study incorporates the aggregate jurisdictional
13 (Missouri or Federal Energy Regulatory Commission (“FERC”)) accounting and
14 financial data normally submitted to a regulatory commission by a utility in support of a
15 request for an adjustment in its overall rate levels. Such a study is required to determine
16 the level of revenues necessary for the Company to recover its operating and maintenance
17 expenses, depreciation applicable to its investment in utility plant, property taxes, income
18 and other taxes, and provide a fair rate of return to the Company's investors, through its
19 rates. The Company's class cost of service study allocates, or distributes, these total
20 jurisdictional costs to the various customer classes in a cost based manner that fairly and
21 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 Regulatory Accounting group the starting point for the class cost of**
3 **service study 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 continuation and refinement of the Missouri jurisdictional cost of service study
6 discussed in 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 service 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 jurisdictional 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 classifying the various elements of cost into their customer-related, energy-related and
14 demand-related 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 incurred 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 consider 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 service 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,

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

10 **Q. What are energy-related costs?**

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

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

16 A. Demand-related costs are rate base investment and related operating
17 expenses associated with the facilities necessary to supply a customer's service
18 requirements during periods of maximum, or peak, levels of power consumption each
19 month. During such peak periods, this usage is expressed in terms of the customer's
20 maximum power consumption, commonly referred to as kilowatts of demand. As so
21 defined, demand-related costs include those costs in excess of the aforementioned
22 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.

3 **B. Cost Allocations**

4 **Q. After the Company's costs are categorized into one of these three**
5 **classifications, how are they allocated to the various rate classes?**

6 A. Customer-related costs are normally allocated on the basis of the number
7 of customers associated with each rate class. In some instances involving non-residential
8 customer multiple metering installations, weighting factors may also be used. In
9 addition, where specific costs can be identified as being attributable to one or more
10 specific customer classes, such as credit and collection expenses, a direct assignment of
11 such costs will be made.

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

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

1 the Midwest Independent Transmission System Operator, Inc. ("MISO"), per the MISO's
2 Attachment O Rate Formulae in the Open Access Transmission, Energy and Operating
3 Reserve Markets Tariff on file at the Federal Energy Regulatory Commission ("FERC").
4 Demand-related production costs are allocated on the basis of the Average & Excess
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 Peak Responsibility – Costs are allocated on the basis of the relative customer
15 class demands at the time of occurrence of the company's system peak during the
16 period of study (referred to as the "coincident peak" or "CP" method). One or
17 more system peak hours, or a number of monthly or seasonal system peaks, are
18 normally used in applying the CP methodology.

19 Non-Coincident Peak – Costs are allocated on the basis of the maximum peak
20 demand of each customer class at any time during the study period, without
21 regard to the time of occurrence or magnitude of the company's coincident system
22 peaks (referred to as the "NCP" method). As with the CP method, the NCP
23 methodology can employ one or more customer class peaks in its application.

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

11 **Q. Which cost allocation methodology is the Company using for**
12 **production plant in its class cost of service study in this case?**

13 A. The Company is utilizing the 4 NCP version of the Average and Excess
14 demand methodology for allocating production plant in this case.

15 **Q. What were the considerations associated with the Company's election**
16 **to utilize the A&E demand allocation methodology for production plant in this**
17 **case?**

18 A. Two major factors associated with generation capacity planning prompted
19 the use of the A&E demand cost allocation methodology. Generally, system peak
20 demands and, to a somewhat lesser extent, excess customer demands, are the motivating
21 factors which influence the amount of capacity the Company must add to its generation
22 system to provide for its customers' maximum demands. However, the type of capacity
23 (base, intermediate or peaking) which the Company must add is not dictated by

1 maximum customer demand alone, but also by the annual energy, or kilowatt-hours,
2 which will be required to be generated by such capacity, i.e., the generation unit's
3 utilization factor. A cost allocation methodology that gives weight to both a) class peak
4 demands and b) class energy consumption (average demands) is required to properly
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.

11 **Q. Is there also quantitative support for the Company's selection of the**
12 **4 NCP version of the A&E demand allocation methodology for production plant?**

13 A. Yes. The 4 NCP version of the A&E methodology, which uses the four
14 maximum non-coincident monthly peak demands for each customer class during the test
15 year, was selected due to the fact that 15 of the 20 maximum 4 NCP monthly demands
16 for the Company's major customer classes occurred during the Company's summer peak
17 demand months of June-September. The use of the 4 NCP demand option, rather than a
18 lesser number of monthly NCP demands, also prevents the demand allocator for any
19 customer class from being unduly influenced by any extreme demand in a given month.

20 **Q. After the determination of customer, energy and demand allocation**
21 **factors for the various components of the Company's costs, what was the next step**
22 **in the completion of the Company's class cost of service study?**

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

13 **C. Study Results**

14 **Q. Referring now to the results of the Company's class cost of service**
15 **study performed by Mr. Warwick in this case, please identify Schedule WLC-E6.**

16 A. Schedule WLC-E6 (which is the same as Mr. Warwick's Schedule
17 WMW-E1) summarizes the results of the Company's class cost of service study,
18 indicating the rate of return on rate base currently being earned on the service being
19 provided to the Company's major retail customer classes. As indicated earlier, the basic
20 starting point for this study was the Missouri jurisdictional cost of service study.

21 **Q. What general conclusions can be drawn from the information**
22 **contained in Schedule WLC-E6?**

1 A. The Residential, Large Primary and Large Transmission Service classes
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**

6 **Q. Please identify Schedule WLC-E7.**

7 A. Schedule WLC-E7 summarizes the class revenue requirements necessary
8 to give the Company an opportunity, based upon test year figures with the pro forma
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.

13 **Q. Why are the equal rates of return for all customer classes, embedded**
14 **in this study, an appropriate starting point when designing electric utility rates?**

15 A. There are several reasons why equal class rates of return are an
16 appropriate starting point in the consideration of rate design. First and foremost is the
17 consideration of equity and fairness to all electric customers. Purely from a cost
18 perspective and ignoring all other factors, to overcharge one customer class in order to
19 subsidize another class is not supportable.

20 A second important consideration in support of equal class rates of return
21 is the goal of encouraging cost effective utilization of electricity by customers. To make
22 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.

3 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
10 other relevant factors, the response is yes. However, the results of Mr. Warwick’s study
11 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 Primary Service	6%
Large Primary Service	17%
Large Transmission Service	14%

12

13 **Q. Is the Company proposing that these cost based class revenue**
14 **requirements be utilized in developing class rates in the case?**

1 A. No, the Company is proposing a departure from class revenue
2 requirements or rate design being established solely on the basis of equal class rates of
3 return as shown in its class cost of service study.

4 **Q. Why is the Company proposing to vary from the cost based revenue**
5 **requirements?**

6 A. The Company recognizes that factors other than cost of service are
7 relevant to determining class revenue requirements. These factors may include, but are
8 not limited to, revenue stability, rate stability, effectiveness in yielding total revenue
9 requirements, public acceptance, and value of service.

10 **Q. What is the Company's proposal for allocating the revenue increase**
11 **requested in this case?**

12 A. The Company is proposing to allocate the revenue increase requested in
13 this case on an equal percentage of present revenue basis that is somewhat consistent with
14 the Commission approved non-unanimous Stipulation and Agreement Concerning Class
15 Cost of Service and Certain Rate Design Issues ("Stipulation and Agreement") in the
16 Company's most recently completed rate case (Case No. ER-2008-0318). This
17 Stipulation and Agreement was signed by representatives from the Office of Public
18 Counsel, Missouri Energy Group, Missouri Industrial Energy Consumers, Noranda
19 Aluminum, and The Commercial Group and contained a formulaic method (Attachment 1
20 to Stipulation and Agreement), attached hereto as Schedule WLC-E8, to allocate the
21 revenue increase to the Company's customer classes in that case. The Staff of the
22 Missouri Public Service Commission was the only party to oppose the Stipulation and
23 Agreement. It should be noted that the Stipulation and Agreement included language that

1 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.

4 While the above-referenced Stipulation and Agreement is not binding in
5 this proceeding, the Company believes that it is reasonable to propose that the revenue
6 increase in this case be allocated consistently with the Stipulation and Agreement's
7 treatment of an increase in the last case above \$150 million. Support for such
8 reasonableness lies in: 1) class cost of service based revenue requirements in this case
9 being fairly consistent with those in Case No. ER-2008-0318; 2) the short amount of time
10 since the Stipulation and Agreement; and 3) the Commission's approval of the
11 Stipulation and Agreement.

12 **Q. Please explain the Company's proposal to allocate the revenue**
13 **increase in this case fairly consistently with the Stipulation and Agreement in Case**
14 **No. ER-2008-0318.**

15 A. The Stipulation and Agreement contained four steps for allocating the
16 revenue change depending on the level of change (i.e., overall increase up to \$80 million,
17 overall increase equal to or above \$80 million up to \$150 million (2 steps), and overall
18 increase greater than \$150 million). As noted in the Commission order, this Stipulation
19 and Agreement only resulted in a slight redistribution of revenue among the classes.

20 **Q. Did the Commission's order in Case No. ER-2008-0318 contain any**
21 **language to support establishing class revenue requirements based on factors other**
22 **than class cost of service results?**

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

8 (2) Small General Service Rate Design. The Customer Charge was
9 the initial rate component developed. Mr. Warwick's class cost of service study
10 produced a weighted customer charge of \$21.05 for customers in this class. The
11 current level is \$8.03 per month for single phase service and \$16.71 for three
12 phase service. The Company has limited this charge to \$11 for single phase
13 service and \$22 for three phase service in its proposed Small General Service
14 Rate. The remaining energy charges of the Small General Service Rate were
15 increased to achieve the annual revenue target or across the board increase for this
16 class.

17 (3) Restoration of Certain Prior Uniform Features of the Company's non –
18 Residential, Commercial and Industrial Customer classes. The following rate
19 design features are being proposed to restore or maintain certain uniform features
20 of the Company's rate design that were in effect prior to Case No. ER-2008-0318.
21 Remaining rate designs for these Service Classifications will be discussed later.

22 (a) The customer charges on the SPS, LPS, and LTS rate schedules are
23 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**

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

3 A. First, it should be noted that the combination of proposed customer and
4 energy charges for each of these respective classes produces the overall percentage
5 increase being requested in this case (i.e. 17.95%) for each. Second, as discussed in the
6 testimony of Company witness Stephen M. Kidwell, AmerenUE has embarked on an
7 aggressive energy efficiency and demand response effort to give customers more control
8 over their energy usage and to lower their bills via reduced consumption. Therefore, the
9 Company is proposing material increases in customer charges and corresponding
10 reductions in the percentage of revenue derived from volumetric or consumption charges
11 for these classes. This proposal reflects cost causation principles (i.e. moves customer
12 charges closer to class cost of service study results), helps to mitigate the negative
13 financial impact on the Company associated with decreased volumetric or energy use,
14 and, at the same time, does not discourage energy efficiency. Shifting more of the class'
15 revenue requirement to monthly customer charges helps to remove some of the financial
16 disincentive for utilities to embark on an energy efficiency campaign and, also, affords
17 the utility a more reasonable opportunity to earn its authorized rate of return.
18 Approximately 91% and 94%, respectively, of the present test year revenues of these
19 classes are collected via current energy or volumetric charges with the remaining 9% and
20 6% respectively being collected via customer charges. The proposed customer charges
21 would increase the customer charge contribution to total revenues for the Residential and
22 Small General Service classes to 11% and 8%, respectively.

V. SERVICE CLASSIFICATION 12(M)
(LTS (NORANDA)) TARIFF CHANGES

Q. Earlier you mentioned certain proposed Rate Schedule LTS tariff (Attached as Schedule WLC-E2) changes to address uncertainty or volatility of the load of this customer class. Please explain.

A. As detailed in the direct testimony of AmerenUE witness Ronald C. Zdellar, on Wednesday January 28, 2009, an extraordinary and devastating ice storm occurred in Southeast Missouri and caused severe damage to the transmission lines through which the only customer served under this tariff—Noranda Aluminum, Inc. (“Noranda”)—receives service.² Consequently, an unprecedented and significant loss of the Company’s retail load and the revenues associated therewith has occurred for a period of time that cannot at this time be determined. It should also be noted that Noranda’s revenues constitute approximately six percent of the Company’s total base rate revenues, and that no other single customer even approaches having such a material impact on the Company’s revenue requirement.

Q. How is the Company proposing to address this issue and the possibility that Noranda’s load could be significantly reduced or lost in the future?

A. We are proposing changes to the Rate Schedule LTS tariff that are designed to provide the Company with retail revenues from Noranda equal to those assumed in the revenue requirement in this case, no more and no less.

Q. What level of revenues from Noranda is being included in the revenue requirement in this case?

² 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.

11 **Q. Do the proposed changes to Rate Schedule LTS address revenues lost**
12 **by the Company as a result of the reduction in Noranda's load caused by the**
13 **January ice storm?**

14 A. No. The Rate Schedule LTS tariff changes address the risk of load
15 fluctuations at Noranda on a prospective basis only. The Company has not included any
16 lost Noranda revenues in the revenue requirement in this case.

17 **Q. How does including Noranda at full load in the revenue requirement**
18 **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

1 MW), but Noranda has been ramping up its production since then. If the Company set its
2 revenue requirement based upon lower Noranda load, and if Noranda then increased its
3 load after rates are set in this case, other customers would be bearing a higher portion of
4 the Company's fixed costs through their rates while the Company would receive a higher
5 level of revenues from Noranda than had been included in the revenue requirement
6 calculation. The approach outlined herein takes away the upside that would have existed
7 for the Company, and thus does not enable the Company to receive more revenues from
8 Noranda under full load than assumed in the revenue requirement to be set in this case.
9 This is an appropriate and symmetrical approach given the changes to the Rate Schedule
10 LTS tariff discussed below.

11 **Q. How does including Noranda at full load in the revenue requirement**
12 **affect the Company?**

13 A. Absent changing the Rate Schedule LTS tariff the Company is proposing,
14 it would put the Company at significant risk of suffering a substantial revenue shortfall
15 after rates are set in this case, like the revenue shortfall we experienced following the
16 devastating ice storm I mentioned earlier, should Noranda in fact not operate at full load.
17 The Company would experience this revenue shortfall while customers would continue to
18 benefit from both an allocation of a lower level of fixed costs as well as more off-system
19 sales revenues made possible by Noranda's reduced load, a portion of which would flow
20 back to customers through the FAC. Under the approach outlined herein, the Company
21 would in most scenarios not be at risk for this significant revenue loss, but as noted
22 earlier, would also receive no more revenues from Noranda than it was assumed it would
23 receive when rates in this case were set. This provides a more reasonable opportunity for

1 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.

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

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

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

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

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

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

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

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

1 **Q. How does this structure impact Noranda?**

2 A. If Noranda consumes at the load assumed in the revenue requirement (or
3 higher), it has no impact on Noranda; Noranda will simply pay its bill based upon its
4 consumption. If Noranda consumes at less than the load assumed in the revenue
5 requirement, Noranda will still pay its minimum monthly bill, but Noranda will receive
6 revenues, from energy sales made possible by its lower consumption, to pay its minimum
7 bill. Moreover, during any period when energy prices received from those energy sales is
8 greater than Noranda's retail rate, Noranda has upside potential to obtain credits that
9 exceed what it owes AmerenUE. This structure is symmetrical in that Noranda could
10 also receive credits that are less than what it owes to AmerenUE (if energy prices are
11 lower than Noranda's retail rate). Thus Noranda has both the upside and the downside
12 respecting energy prices.

13 **Q. Can't Noranda just shut down its operations and bet on higher energy**
14 **prices?**

15 A. No. The revised Rate Schedule LTS tariff requires Noranda to consume at
16 no less than 25% of its normal load. If it fails to do so, Noranda receives no credit, the
17 proceeds from energy sales made due to reduced Noranda consumption to the extent
18 necessary to pay the minimum monthly billing amount are retained by the Company, and
19 all remaining energy sales proceeds flow through the Company's fuel adjustment clause
20 as off-system sales, meaning other customers would receive 95% of the benefit of those
21 additional energy sales.

22 **Q. Does the Company remain at risk if Noranda does not or cannot pay**
23 **the minimum monthly billing amount?**

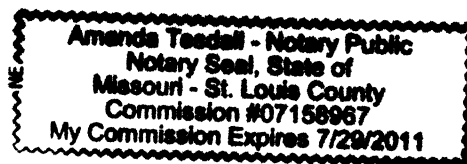
1 A. In certain circumstances, yes. If Noranda cannot pay the minimum
2 monthly bill amount (due to insolvency, bankruptcy, or if it ceases to exist) and if energy
3 prices are lower than Noranda's retail rate under the Rate Schedule LTS tariff, then
4 energy sales enabled by Noranda's lower (or non-existent) load will not provide
5 sufficient revenues to cover the minimum monthly billing amount. In those
6 circumstances, the Company is at risk of suffering a revenue shortfall, while other
7 customers remain unaffected.

8 **Q. Is there any scenario under the Company's proposed LTS tariff that**
9 **would yield revenues from the Noranda in excess of the amount assumed in the**
10 **revenue requirement for this case?**

11 A. Yes. This condition would only exist where the Noranda's load is greater
12 than the load assumed in setting the revenue requirement in this case. However, this
13 condition would be true under the existing Rate Schedule LTS rate design as well, and is
14 not a function of the take-or-pay structure proposed now. In all other cases where
15 Noranda's load is equal to or lower than the amount assumed in setting the revenue
16 requirement, the Company will not receive revenues in excess of those assumed in the
17 revenue requirement. This approach ensures that the Company has no upside opportunity
18 from the take-or-pay provisions of this tariff, but rather, as indicated above, simply has a
19 more reasonable opportunity to earn the rate of return authorized in this case, and avoid
20 catastrophic loss of revenues.

21 **Q. Is it at all likely that revenues from Noranda greater than those**
22 **assumed in the revenue requirement would be achieved under the Company's**
23 **proposal?**

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



UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 5

38th Revised

SHEET NO. 28CANCELLING MO.P.S.C. SCHEDULE NO. 5

37th Revised

SHEET NO. 28

APPLYING TO

MISSOURI SERVICE AREASERVICE CLASSIFICATION NO. 1(M)RESIDENTIAL SERVICE RATE* Rate Based on Monthly Meter ReadingsSummer Rate (Applicable during 4 monthly billing periods of June through September)

Customer Charge - per month \$10.00

Energy Charge - per kWh 10.00¢

Winter Rate (Applicable during 8 monthly billing periods of October through May)

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

Customer Charge - per month \$20.00

Energy Charge - per kWh (1)

Summer (June-September billing periods)

All On Peak kWh 14.53¢

All Off Peak kWh 5.96¢

Winter (October-May billing periods)

All On Peak kWh 8.58¢

All Off Peak kWh 4.24¢

(1) On-peak and Off-peak hours applicable herein shall be as specified in Rider I, paragraph A.

Fuel and Purchased Power Adjustment (Rider FAC). Applicable to all metered kilowatt-hours (kWh) of energy.**Environmental Cost Recovery Mechanism (Rider ECRM). Applicable to all metered kilowatt-hours (kWh) of energy.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.Term of Use. Initial period one (1) year, terminable thereafter on three (3) days' notice.Tax Adjustment. Any license, franchise, gross receipts, occupation or similar charge or tax levied by any taxing authority on the amounts billed hereunder will be so designated and added as a separate item to bills rendered to customers under the jurisdiction of the taxing authority.

* Indicates Change. ** Indicates Addition.

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UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 526th RevisedSHEET NO. 32CANCELLING MO.P.S.C. SCHEDULE NO. 525th RevisedSHEET NO. 32

APPLYING TO

MISSOURI SERVICE AREASERVICE CLASSIFICATION NO. 2(M)SMALL GENERAL SERVICE RATE* Rate Based on Monthly Meter Readings

Summer Rate (Applicable during 4 monthly billing periods of June through September)

Customer Charge - per month	
Single Phase Service	\$11.00
Three Phase Service	\$22.00
Energy Charge - per kWh	9.59¢

Winter Rate (Applicable during 8 monthly billing periods of October through May)

Customer Charge - per month	
Single Phase Service	\$11.00
Three Phase Service	\$22.00
Energy Charge - per kWh	
Base Use	7.15¢
Seasonal Use(1)	4.11¢

- (1) The winter seasonal energy use shall be all kWh in excess of 1,000 kWh per month and in excess of the lesser of a) the kWh use during the preceding May billing period, or b) October billing period, or c) the maximum monthly kWh use during any preceding summer month.

Optional Time-of-Day Rate

Customer Charge - per month	
Single Phase Service	\$23.00
Three Phase Service	\$45.00
Energy Charge - per kWh (2)	
Summer (June-September billing periods)	
All On Peak kWh	14.23¢
All Off Peak kWh	5.79¢
Winter (October-May billing periods)	
All On Peak kWh	9.36¢
All Off Peak kWh	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 (Rider FAC). Applicable to all metered kilowatt-hours (kWh) of energy.

****Environmental Cost Recovery Mechanism (Rider ECRM).** Applicable to all metered kilowatt-hours (kWh) of energy.

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MO.P.S.C. SCHEDULE NO. 5 29th Revised SHEET NO. 34CANCELLING MO.P.S.C. SCHEDULE NO. 5 28th Revised SHEET NO. 34APPLYING TO MISSOURI SERVICE AREASERVICE CLASSIFICATION NO. 3 (M)LARGE GENERAL SERVICE RATE* Rate Based on Monthly Meter ReadingsSummer Rate (Applicable during 4 monthly billing periods of June through September)

Customer Charge - per month	\$85.23
Energy Charge - per kWh	
First 150 kWh per kW of Billing Demand	9.54¢
Next 200 kWh per kW of Billing Demand	7.18¢
All Over 350 kWh per kW of Billing Demand	4.84¢
Demand Charge - per kW of Total Billing Demand	\$4.46

Winter Rate (Applicable during 8 monthly billing periods of October through May)

Customer Charge - per month	\$85.23
Base Energy Charge - per kWh	
First 150 kWh per kW of Base Demand	6.00¢
Next 200 kWh per kW of Base Demand	4.46¢
All Over 350 kWh per kW of Base Demand	3.51¢
Seasonal Energy Charge - Seasonal kWh	3.51¢
Demand Charge - per kW of Total Billing Demand	\$1.65

Optional Time-of-Day Adjustments

Additional Customer Charge - per Month	\$18.00 per month	
Energy Adjustment - per kWh	On-Peak Hours (1)	Off-Peak Hours (1)
Summer kWh (June-September billing periods)	+1.13¢	-0.64¢
Winter kWh (October-May billing periods)	+0.34¢	-0.19¢

(1) On-peak and off-peak hours applicable herein shall be as specified in Rider I, paragraph A.

Fuel and Purchased Power Adjustment (Rider FAC). Applicable to all metered kilowatt-hours (kWh) of energy.**Environmental Cost Recovery Mechanism (Rider ECRM). Applicable to all metered kilowatt-hours (kWh) of energy.

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MO.P.S.C. SCHEDULE NO. 536th RevisedSHEET NO. 37CANCELLING MO.P.S.C. SCHEDULE NO. 535th RevisedSHEET NO. 37

APPLYING TO

MISSOURI SERVICE AREASERVICE CLASSIFICATION NO. 4 (M)SMALL PRIMARY SERVICE RATE* Rate Based on Monthly Meter Readings

Summer Rate (Applicable during 4 monthly billing periods of June through September)

Customer Charge - per month	\$276.00
Energy Charge - per kWh	
First 150 kWh per kW of Billing Demand	9.22¢
Next 200 kWh per kW of Billing Demand	6.95¢
All Over 350 kWh per kW of Billing Demand	4.67¢
Demand Charge - per kW of Total Billing Demand	\$3.68
Reactive Charge - per kVar	32.00¢

Winter Rate (Applicable during 8 monthly billing periods of October through May)

Customer Charge - per month	\$276.00
Base Energy Charge - per kWh	
First 150 kWh per kW of Base Demand	5.80¢
Next 200 kWh per kW of Base Demand	4.32¢
All Over 350 kWh per kW of Base Demand	3.39¢
Seasonal Energy Charge - Seasonal kWh	3.39¢
Demand Charge - per kW of Total Billing Demand	\$1.34
Reactive Charge - per kVar	32.00¢

Optional Time-of-Day Adjustments

Additional Customer Charge - per Month	\$18.00 per month	
Energy Adjustment - per kWh	On-Peak Hours (1)	Off-Peak Hours (1)
Summer kWh (June-September billing periods)	+0.83¢	-0.46¢
Winter kWh (October-May billing periods)	+0.31¢	-0.17¢

(1) On-peak and off-peak hours applicable herein shall be as specified within this service classification.

Fuel and Purchased Power Adjustment (Rider FAC). Applicable to all metered kilowatt-hours (kWh) of energy.

**Environmental Cost Recovery Mechanism (Rider ECRM). Applicable to all metered kilowatt-hours (kWh) of energy.

*Indicates Change. **Indicates Addition.

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MO.P.S.C.SCHEDULE NO. 5

27th Revised

SHEET NO. 39CANCELLING MO.P.S.C. SCHEDULE NO. 5

26th Revised

SHEET NO. 39

APPLYING TO

MISSOURI SERVICE AREASERVICE CLASSIFICATION NO. 5(M)STREET AND OUTDOOR AREA LIGHTING - COMPANY-OWNED*Rate per Unit per MonthLamp and Fixture

- A. Standard horizontal burning, enclosed luminaire on existing wood pole:

High Pressure Sodium

<u>Lumens</u>	<u>Rate</u>
9,500	\$10.13
25,500	\$14.64
50,000	\$26.09

Mercury Vapor (1)

<u>Lumens</u>	<u>Rate</u>
6,800	\$10.13
20,000	\$14.64
54,000	\$26.09
108,000	\$52.21

- B. Standard side mounted, hood with open bottom glassware on existing wood pole:

High Pressure Sodium

<u>Lumens</u>	<u>Rate</u>
9,500	\$8.96

Mercury Vapor (1)

<u>Lumens</u>	<u>Rate</u>
3,300	\$8.20
6,800	\$8.96

- C. Standard post-top luminaire including standard 17-foot post:

High Pressure Sodium

<u>Lumens</u>	<u>Rate</u>
9,500	\$18.77

Mercury Vapor (1)

<u>Lumens</u>	<u>Rate</u>
3,300	\$17.74
6,800	\$18.77

- D. Pole-mounted, direction flood luminaire; limited to installations accessible to Company basket truck:

High Pressure Sodium

<u>Lumens</u>	<u>Rate</u>
25,500	\$18.58
50,000	\$29.38

Metal Halide

<u>Lumens</u>	<u>Rate</u>
34,000	\$18.58
100,000	\$58.74

Mercury Vapor (1)

<u>Lumens</u>	<u>Rate</u>
20,000	\$18.58
54,000	\$29.38

- (1) Mercury Vapor lamps and fixtures are limited to customers served under contracts initiated prior to September 27, 1988. Company will continue to maintain these lamps and fixtures so long as parts are economically available.

*Indicates Change.

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ELECTRIC SERVICE

MO.P.S.C.SCHEDULE NO. 526th RevisedSHEET NO. 40CANCELLING MO.P.S.C. SCHEDULE NO. 525th RevisedSHEET NO. 40

APPLYING TO

MISSOURI SERVICE AREA

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:

	<u>Monthly Rate</u>
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 In and Under Dirt	8.33¢ per foot
All Other Underground Cable Installations	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:

<u>Lamp and Fixture</u>	<u>Per Unit Monthly Rate</u>
1,000 Lumens	\$ 9.71
2,500 "	13.10
4,000 "	15.12
6,000 "	16.78
10,000 "	22.79

*Indicates Change.

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UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C.SCHEDULE NO. 5 31st Revised SHEET NO. 41CANCELLING MO.P.S.C. SCHEDULE NO. 5 30th Revised SHEET NO. 41APPLYING TO MISSOURI SERVICE AREA

SERVICE CLASSIFICATION NO. 5(M)
STREET AND OUTDOOR AREA LIGHTING - COMPANY-OWNED (Cont'd.)

- G. Former Subsidiary Company lighting units provided under contracts initiated prior to April 9, 1986, which facilities will only be maintained by Company so long as parts are available in Company's present stock:

<u>Lamp and Fixture</u>	<u>*Per Unit Monthly Rate</u>
11,000 Lumens, Mercury Vapor, Post-Top	\$18.77
11,000 Lumens, Mercury Vapor, Open Bottom	8.96
11,000 Lumens, Mercury Vapor, Horizontal Enclosed	10.13
42,000 Lumens, Mercury Vapor, Horizontal Enclosed	26.09
5,800 Lumens, H.P. Sodium, Open Bottom	8.20
16,000 Lumens, H.P. Sodium, Horizontal Enclosed	10.13
34,200 Lumens, H.P. Sodium, Directional (2)	18.58
140,000 Lumens, H.P. Sodium, Directional	58.74
20,000 Lumens, Metal Halide, Directional	18.58

- (2) This lamp represents a mercury vapor fixture with H.P. Sodium lamp.

Term of Contract. Minimum term of three (3) years where only standard facilities are installed; ten (10) years where post-top luminaires are installed.

Discount for Franchised Municipal Customers. A 10% discount will be applied to bills rendered for lighting facilities served under the above rates and currently contracted for by municipalities with whom the Company has an ordinance granted electric franchise as of September 27, 1988. The above discount shall only apply for the duration of said franchise. Thereafter, the above discount shall apply only when the following two conditions are met: 1) any initial or subsequent ordinance granted electric franchise must be for a minimum term of twenty (20) years and 2) Company must have a contract for all lighting facilities for municipal lighting service provided by Company in effect.

Tax Adjustment. Any license, franchise, gross receipts, occupation or similar charge or tax levied by any taxing authority on the amounts billed hereunder will be so designated and added as a separate item to bills rendered to customers under the jurisdiction of the taxing authority.

*Indicates Change.

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UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C.SCHEDULE NO. 5

1st Revised

SHEET NO. 41.1CANCELLING MO.P.S.C. SCHEDULE NO. 5

Original

SHEET NO. 41.1

APPLYING TO

MISSOURI SERVICE AREASERVICE CLASSIFICATION NO. 5(M)STREET AND OUTDOOR AREA LIGHTING - COMPANY-OWNED (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:

<u>Lamp Size</u> <u>(Lumens)</u>	<u>Rating</u> <u>(Watts)</u>	<u>Billing</u> <u>Month</u>	<u>Burning</u> <u>Hours</u>
<u>H. P. Sodium</u>			
5,800	70	January	408
9,500	120	February	347
16,000	202	March	346
25,500	307	April	301
34,200	360	May	279
50,000	482	June	255
140,000	1000	July	272
		August	298
		September	322
<u>Mercury Vapor</u>			
3,300	127	October	368
6,800	207	November	387
11,000	294	December	417
20,000	455		
42,000	700		
54,000	1080		
108,000	2160		
<u>Metal Halide</u>			
20,000	294		
34,000	450		
100,000	1100		
<u>Incandescent</u>			
1,000	103		
2,500	202		
4,000	327		
6,000	448		
10,000	690		

*Indicates Change.

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UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 5

17th Revised

SHEET NO. 45CANCELLING MO.P.S.C. SCHEDULE NO. 5

16th Revised

SHEET NO. 45

APPLYING TO

MISSOURI SERVICE AREASERVICE CLASSIFICATION NO. 6(M)STREET AND OUTDOOR AREA LIGHTING - CUSTOMER-OWNED*Monthly Rate For Metered Service

Customer Charge Per Meter

\$6.10 per month

Energy Charge

4.12¢ per kWh

*Rate Per Unit Per Month For Unmetered Service

Customer Charge per account

\$6.10 per month

H.P. SodiumEnergy & Maintenance (1)Energy Only (2)

9,500 Lumens, Standard

\$ 3.28

\$ 1.59

16,000 Lumens, Standard

N/A

2.70

25,500 Lumens, Standard

5.71

4.07

50,000 Lumens, Standard

8.23

6.38

Metal Halide

5,500 Lumens, Standard

\$ 4.74

N/A

12,900 Lumens, Standard

5.67

N/A

Mercury Vapor

(3)

3,300 Lumens, Standard

\$ 3.28

\$ 1.69

6,800 Lumens, Standard

4.27

2.74

11,000 Lumens, Standard

5.77

3.89

20,000 Lumens, Standard

7.66

6.02

42,000 Lumens, Standard

N/A

10.01

54,000 Lumens, Standard

16.35

14.31

- (1) Company will furnish electric energy, furnish and replace lamps, wash lamps and luminaires, and adjust and replace control mechanisms, as required.
- (2) Limited to lamps served under contracts initiated prior to September 27, 1988.
- (3) Maintenance of lamps and fixtures limited to customers served under contracts prior to November 15, 1991.
N/A--Not Available.

Term of Contract. One (1) year, terminable thereafter on three (3) days' notice.

Discount For Franchised Municipal Customers. A 10% discount will be applied to bills rendered for lighting facilities served under the above rates and currently contracted for by municipalities with whom the Company has an ordinance granted electric franchise as of September 27, 1988. The above discount shall only apply for the duration of said franchise. Thereafter, the above discount shall apply only when the following two conditions are met: 1) any initial or subsequent ordinance granted electric franchise must be for a minimum term of twenty (20) years and 2) Company must have a contract for all lighting facilities for municipal lighting service provided by Company in effect.

*Indicates Change.

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UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 5 1st Revised SHEET NO. 45.1CANCELLING MO.P.S.C. SCHEDULE NO. 5 Original SHEET NO. 45.1APPLYING TO MISSOURI SERVICE AREASERVICE CLASSIFICATION NO. 6(M)STREET AND OUTDOOR AREA LIGHTING - CUSTOMER-OWNED (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:

<u>Lamp Size</u> <u>(Lumens)</u>	<u>Rating</u> <u>(Watts)</u>	<u>Billing</u> <u>Month</u>	<u>Burning</u> <u>Hours</u>
<u>H. P. Sodium</u>			
9,500	120	January	408
16,000	202	February	347
25,500	307	March	346
50,000	482	April	301
		May	279
		June	255
<u>Mercury Vapor</u>			
3,300	127	July	272
6,800	207	August	298
11,000	294	September	322
20,000	455	October	368
42,000	700	November	387
54,000	1080	December	417
<u>Metal Halide</u>			
5,500	122		
12,900	206		

Tax Adjustment. Any license, franchise, gross receipts, occupation or similar charge or tax levied by any taxing authority on the amounts billed hereunder will be so designated and added as a separate item to bills rendered to customers under the jurisdiction of the taxing authority.

*Indicates Change.

DATE OF ISSUE July 24, 2009 DATE EFFECTIVE August 23, 2009ISSUED BY Warner L. Baxter President & CEO St. Louis, Missouri
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UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 5

27th Revised

SHEET NO. 50CANCELLING MO.P.S.C. SCHEDULE NO. 5

26th Revised

SHEET NO. 50

APPLYING TO

MISSOURI SERVICE AREASERVICE CLASSIFICATION NO. 7(M)MUNICIPAL STREET LIGHTING - INCANDESCENTRATE OF LIMITED APPLICATION* Rate per Lamp per Month

	<u>Incandescent</u>				
	<u>1,000</u>	<u>2,500</u>	<u>4,000</u>	<u>6,000</u>	<u>10,000</u>
	<u>Lumen</u>	<u>Lumen</u>	<u>Lumen</u>	<u>Lumen</u>	<u>Lumen</u>
<u>Wood Pole Rates</u>	\$4.14	\$6.30	\$8.59	\$11.42	\$15.63

Ornamental Pole. Add \$6.79 per month per pole to above Wood Pole charges.* Circuit Charge per Month

Underground, in and under dirt, per ft.	8.59¢
Underground, all other, per ft.	16.36¢

(In lieu of a monthly circuit charge, customer may elect to pay to Company at the time of installation the estimated excess installed cost of underground over overhead circuit.)

* Customer-Owned Street Lighting Facilities. Where customer furnishes, installs and owns all street lighting facilities, service will be supplied as follows:

For Metered Service:

Customer Charge per Meter \$14.20 per month

- 1) Secondary Service 4.14¢ per kWh
- 2) Primary Service - Rider C shall be applied.

Customer shall install suitable switching and protective equipment, meter loop, space and mounting facilities for Company metering devices.

Tax Adjustment. Any license, franchise, gross receipts, occupation or similar charge or tax levied by any taxing authority on the amounts billed hereunder will be so designated and added as a separate item to bills rendered to customers under the jurisdiction of the taxing authority.

Payments. Bills are due and payable within ten (10) days from date of bill.

Term of Contract. Ten (10) years. Customer, if not legally authorized to contract for all of an initial or succeeding ten-year contract term at one time, may sign an agreement for the maximum period for which it is legally authorized to contract, and said agreement will continue in force thereafter for successive one-year periods unless terminated by either party by written notice given not less than sixty (60) days prior to any annual termination date.

*Indicates Change.

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UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 5 1st Revised SHEET NO. 50.1CANCELLING MO.P.S.C. SCHEDULE NO. 5 Original SHEET NO. 50.1APPLYING TO 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:

<u>Lamp Size</u> <u>(Lumens)</u>	<u>Rating</u> <u>(Watts)</u>	<u>Billing</u> <u>Month</u>	<u>Burning</u> <u>Hours</u>
<u>Incandescent</u>		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.

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UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 5 20th Revised SHEET NO. 55CANCELLING MO.P.S.C. SCHEDULE NO. 5 19th Revised SHEET NO. 55APPLYING TO CITY OF ST. LOUIS AND ST. LOUIS COUNTY, MISSOURI

SERVICE CLASSIFICATION NO. 8(M)
PRIVATE ORNAMENTAL STREET LIGHTING RATES
RATE OF LIMITED APPLICATION

*Rate per Lamp per MonthLumen Rating of Series Lamps

<u>1000</u>	<u>2500</u>	<u>4000</u>
\$10.91	\$13.10	\$15.39

*Circuit Charge per Month

Underground, in and under dirt, per ft. 8.59¢

Underground, all other, per ft. 16.36¢

(In lieu of a monthly circuit charge, customer may elect to pay to Company at the time of installation the estimated excess installed cost of underground over overhead circuit.)

*Customer-Owned Street Lighting Facilities. Where customer furnishes, installs and owns all street lighting facilities, service will be supplied as follows:

For Metered Service:

Customer Charge per Meter

\$14.20 per month

1) Secondary Service

4.14¢ per kWh

2) Primary Service - Rider C shall be applied.

Customer shall install suitable switching and protective equipment, meter loop, space and mounting facilities for Company metering devices.

Tax Adjustment. Any license, franchise, gross receipts, occupations or similar charge or tax levied by any taxing authority on the amounts billed hereunder will be so designated and added as a separate item to bills rendered to customers under the jurisdiction of the taxing authority.

Payments. Bills are due and payable within ten (10) days from date of bill.

Term of Contract. Ten (10) years.

*Indicates Change.

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ISSUED BY <u>Warner L. Baxter</u>	<u>President & CEO</u>	<u>St. Louis, Missouri</u>
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UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 5 1st Revised SHEET NO. 55.1CANCELLING MO.P.S.C. SCHEDULE NO. 5 Original SHEET NO. 55.1APPLYING TO CITY OF ST. LOUIS AND ST. LOUIS COUNTY, MISSOURI

SERVICE CLASSIFICATION NO. 8(M)
PRIVATE ORNAMENTAL STREET LIGHTING RATES
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:

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

*Indicates Change.

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UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 5 13th Revised SHEET NO. 67.1CANCELLING MO.P.S.C.SCHEDULE NO. 5 12th Revised SHEET NO. 67.1APPLYING TO MISSOURI SERVICE AREASERVICE CLASSIFICATION NO. 11(M)LARGE PRIMARY SERVICE RATE* Rate Based on Monthly Meter ReadingsSummer Rate (Applicable during 4 monthly billing periods of June through September)

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 8 monthly billing periods of October through May)

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¢

Optional Time-of-Day Adjustments

Additional Customer Charge - per month \$18.00 per month

Energy Adjustment - per kWh	On-Peak Hours(1)	Off-Peak Hours(1)
Summer kWh(June-September billing periods)	+0.59¢	-0.33¢
Winter kWh(October-May billing periods)	+0.27¢	-0.14¢

(1) On-peak and off-peak hours applicable herein shall be as specified within this service classification.

Fuel and Purchased Power Adjustment (Rider FAC). Applicable to all metered kilowatt-hours (kWh) of energy.**Environmental Cost Recovery Mechanism (Rider ECRM). Applicable to all metered kilowatt-hours (kWh) of energy.Payments. Bills are due and payable within ten (10) days from date of bill.Term of Use. One (1) year, terminable thereafter on three (3) days' notice.Tax Adjustment. Any license, franchise, gross receipts, occupation or similar charge or tax levied by any taxing authority on the amounts billed hereunder will be so designated and added as a separate item to bills rendered to customers under the jurisdiction of the taxing authority.

*Indicates Change. **Indicates Addition.

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UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 5

8th Revised

SHEET NO. 67.4CANCELLING MO.P.S.C. SCHEDULE NO. 5

7th Revised

SHEET NO. 67.4

APPLYING TO

MISSOURI SERVICE AREAMISCELLANEOUS CHARGESA. Reconnection Charges per Connection Point

Sheet No. 106, Par. B-3 (Annually Recurring Service)	\$30.00
Sheet No. 184, Par. I (Reconnection of Service)	30.00

*B. Supplementary Service Minimum Monthly Charges

Sheet No. 103, Par. C-3

<u>Charges applicable during 4 monthly billing periods of June through September</u>	<u>Primary Service Rate</u>
--	-----------------------------

Customer Charge per month, plus	\$276.00
All kW @	\$18.25

<u>Charges applicable during 8 monthly billing periods of October through May</u>	<u>Primary Service Rate</u>
---	-----------------------------

Customer Charge per month, plus	\$276.00
All kW @	\$8.29

C. Service Call Charge. Customer's reporting service problems may be charged a \$50.00 fee for a service call, if it is determined the problem is within the customer's electrical system.

Tax Adjustment. Any license, franchise, gross receipts, occupation or similar charge or tax levied by any taxing authority on the amounts billed hereunder will be so designated and added as a separate item to bills rendered to customers under the jurisdiction of the taxing authority.

*Indicates Change.

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UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 519th RevisedSHEET NO. 98CANCELLING MO.P.S.C. SCHEDULE NO. 518th RevisedSHEET NO. 98

APPLYING TO

MISSOURI SERVICE AREATABLE OF CONTENTSRIDERS

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

*Indicates Addition.

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MO.P.S.C. SCHEDULE NO. 520th RevisedSHEET NO. 99CANCELLING MO.P.S.C. SCHEDULE NO. 519th RevisedSHEET NO. 99

APPLYING TO

MISSOURI SERVICE AREARider BDISCOUNTS APPLICABLE FOR SERVICE TO SUBSTATIONS OWNED
BY CUSTOMER IN LIEU OF COMPANY OWNERSHIP

Where a Customer served under rate schedules 4(M) or 11 (M) takes delivery of power and energy at a delivery voltage of 34kV or higher, Company will allow discounts from its applicable rate schedule as follows:

- *1. A monthly credit of \$1.06/kW of billing demand for customers taking service at 34.5 or 69kV
- *2. A monthly credit of \$1.25/kW of billing demand for customers taking service at 115kV or higher

*Indicates Change.

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MO.P.S.C. SCHEDULE NO. 57th RevisedSHEET NO. 170CANCELLING MO.P.S.C. SCHEDULE NO. 56th RevisedSHEET NO. 170

APPLYING TO

MISSOURI SERVICE AREAGENERAL RULES AND REGULATIONSV. BILLING PRACTICES

- b. In the event of an undercharge, an adjustment shall be made for the entire period that the undercharge can be shown to have existed not to exceed twelve (12) monthly billing periods calculated from the date of discovery inquiry or actual notification of the Company, whichever was first;
 - c. Where, upon test, an error in measurement is found to be within the limits prescribed by Commission rules, no billing adjustment will be made;
 - d. When evidence of obstruction is found, or there are misrepresentations of the use of service by the customer, the Company will calculate the billing adjustment period in accordance with the applicable statute of limitations for the prosecution of such claim after determining the probable period during which such condition existed from all related and available information; and
 - e. In any event, no billing adjustment will be made where the full amount of the adjustment is less than one dollar (\$1) and no interest shall be paid or collected on any billing adjustment provided for herein.
 - *f. No corrections to metering data for meter error shall extend beyond the in-service date of the meter discovered to be in error, nor shall any correction be required to extend beyond the date upon which the current customer first occupied the premises at which the error is discovered.
2. Non-Residential - For all non-residential billing errors, the Company will determine from all related and available information the probable period during which the error condition existed and shall make billing adjustments for the estimated period involved as follows:
- a. No billing adjustment will be made where the dollar amount of the adjustment is less than \$15.00. No interest shall be paid or collected on any billing adjustment provided for herein.
 - b. Where upon test an average meter error is found to be greater than 2 percent a billing adjustment will be made to compensate customer where the meter reads fast, and to compensate Company where the meter reads slow. However,

*Indicates Addition.

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UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO. P. S. C. SCHEDULE NO. 5 13th Revised SHEET NO. 68CANCELLING MO. P.S.C. SCHEDULE NO. 5 12th Revised SHEET NO. 68APPLYING TO MISSOURI SERVICE AREASERVICE CLASSIFICATION NO. 12(M)
LARGE TRANSMISSION SERVICE RATE

*Summer Rate (Applicable during four (4) monthly billing periods of June through September)

Customer Charge - per month	\$276.00
Demand Charge - per kW of Billing Demand	\$15.03
Energy Charge - per kWh	2.852¢
Reactive Charge - per kVar	32.000¢

*Winter Rate (Applicable during eight (8) monthly billing periods of October through May)

Customer Charge - per month	\$276.00
Demand Charge - per kW of Billing Demand	\$5.73
Energy Charge - per kWh	2.511¢
Reactive Charge - per kVar	32.000¢

Fuel and Purchased Power Adjustment (Rider FAC). Applicable to all metered kilowatt-hours (kWh) of energy.

**Environmental Cost Recovery Mechanism (Rider ECRM). Applicable to all metered kilowatt-hours (kWh) of energy.

*Energy Line Loss Rate. Compensation for Customer's energy line losses from use of the transmission system(s) outside Company's control area shall be in the form of energy solely supplied by Company to the transmission owner(s) and compensated by payment at a monthly rate of \$0.0386 per kWh after appropriate Rider C adjustment of meter readings.

* Indicates Change. ** Indicates Addition.

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NAME OF OFFICER TITLE ADDRESS

MO. P. S. C. SCHEDULE NO. 5 4th Revised SHEET NO. 68.1CANCELLING MO. P.S.C. SCHEDULE NO. 5 3rd Revised SHEET NO. 68.1APPLYING TO MISSOURI SERVICE AREA

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

1. Transmission Service Requirements. Company's obligation to provide service under this service classification is conditioned upon receipt of approval from the appropriate Regional Transmission Organization ("RTO") to incorporate customer's load within Company's Network Integration Transmission Service agreement without the obligation or requirement that Company construct, upgrade, or improve any existing or new transmission plant or facilities.

Customer shall be responsible for securing firm transmission service throughout the Contract Term outside of Company's control area at no cost or charge to Company (except for Energy Line Losses), if necessary, and customer agrees to indemnify and hold Company harmless from all such costs or charges imposed or billed. In any event, customer shall be responsible for all costs and charges imposed or billed to Company from an RTO that are based on the fact that customer's load is not directly connected to Company's system (e.g. Through and Out rates imposed by the Midwest Independent System Operator, Inc.)

2. Credit Requirements. A customer taking service under this service classification shall agree to the following special credit terms and conditions, in addition to those that may be required pursuant to Company's rules, regulations, rates or tariffs. In addition to and without limiting Company's other rights and remedies in law and at equity, Company, upon request and in its sole discretion, may demand of customer a security deposit in the form of cash, letter of credit or surety bond, equal to two times (2x) the highest monthly utility bill from the prior 12-month period, upon the occurrence of any of the following:
- a. an assignment to customer or customer's parent of a long-term public debt rating by Moody's that falls below the rating of Baa3;
 - b. an assignment to customer or customer's parent of a long-term public debt rating by Standard & Poor's that falls below the rating of BBB-;
 - c. a significant change in ownership, as determined by Company, including but not limited to a change in ownership or possession of the assets of customer;
 - d. the assessment of two (2) late payment charges within any 12 month rolling period; or
 - e. Customer makes an assignment for the benefit of creditors, or otherwise becomes bankrupt or insolvent (however evidenced).

* Indicates Change.

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NAME OF OFFICER TITLE ADDRESS

MO. P. S. C. SCHEDULE NO. 5 1st Revised SHEET NO. 68.2CANCELLING MO. P.S.C. SCHEDULE NO. 5 Original SHEET NO. 68.2APPLYING TO MISSOURI SERVICE AREA

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

3. **Payments.** Bills are due and payable within ten (10) days from date of bill.
4. **Contract Term.** A Customer taking service under this service classification shall agree to an initial Contract Term of 15 years. The Contract Term shall be extended in one-year increments unless or until the contract is terminated at the end of the Contract Term or any annual extension thereof by a written notice of termination given by either party or received not later than five years prior to the date of termination. During the Contract Term, a customer taking service under this service classification agrees that Company shall be the exclusive supplier of power and energy to customer's premises, and waives any right or entitlement by virtue of any law, including but not limited to Section 91.026 RSMo as it now exists or as amended from time to time, statute, rule, regulation, or tariff, to purchase, acquire or take delivery of power and energy from any other person or entity.
5. **Tax Adjustment.** Any license, franchise, gross receipts, occupation or similar charge or tax levied by any taxing authority on the amounts billed hereunder will be so designated and added as a separate item to bills rendered to customers under the jurisdiction of the taxing authority.
6. **Rate Application.** The rates specified in this service classification shall be applicable to any customer that satisfies all of the following: 1) meets the Rate Application conditions of the Large Primary Service rate, 2) if necessary, arranges and pays for transmission service for the delivery of electricity over the transmission facilities of a third party, 3) does not require use of Company's distribution system or distribution arrangements that are provided by Company at Company's cost, excepting Company's metering equipment, for service to customer, and 4) meets all other required terms and conditions of this service classification.
7. **Character of Service Supplied.** Company will supply a standard three-phase alternating current transmission service voltage. The appropriate adjustments under Rider C will apply; however, there will be no adjustments under Rider B.
8. **Demand Meters.** Company will be responsible for the demand meters which have been installed for the measurement of demands.

* Indicates Change.

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

MO. P. S. C. SCHEDULE NO. 5 1st Revised SHEET NO. 68.3CANCELLING MO. P.S.C. SCHEDULE NO. 5 Original SHEET NO. 68.3APPLYING TO MISSOURI SERVICE AREA

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

9. **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:

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

* Indicates Change.

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

MO. P. S. C. SCHEDULE NO. 5 1st Revised SHEET NO. 68.4CANCELLING MO. P.S.C. SCHEDULE NO. 5 Original SHEET NO. 68.4APPLYING TO MISSOURI 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, 2009 DATE EFFECTIVE August 23, 2009ISSUED BY Warner L. Baxter President & CEO St. Louis, Missouri
NAME OF OFFICER TITLE ADDRESS

MO. P. S. C. SCHEDULE NO. 5 1st Revised SHEET NO. 68.5CANCELLING MO. P.S.C. SCHEDULE NO. 5 Original SHEET NO. 68.5APPLYING 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.
- d. Notwithstanding the provisions of 11.a and 11.b above: Where a customer taking service under this service classification fails to demonstrate 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.

* Indicates Change.

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

MO. P. S. C. SCHEDULE NO. 5 1st Revised SHEET NO. 68.6CANCELLING MO. P.S.C. SCHEDULE NO. 5 Original SHEET NO. 68.6APPLYING TO MISSOURI SERVICE AREA

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

- e. Where a customer entirely ceases taking service under this service classification for any reason (including due to plant shut down, bankruptcy, dissolution, or otherwise), the provisions of 11.a through 11.c shall continue to apply to customer's billing quantities under 9.a) above until the occurrence of the first of the following two events: (i) the effective date of new rates resulting from a general rate proceeding for the Company that is concluded after customer ceases taking service under this service classification, or (ii) until the end of the initial Contract Term (June 1, 2020).
- f. To the extent not all of the data necessary to determine the Net Monthly Credit for a billing month exists at the time a monthly bill is sent to customer, the Company will estimate the sums necessary to calculate the expected Net Monthly Credit (if any). Later bills shall be adjusted to reflect any changes in the previously billed amounts once actual data is available.
12. **General Rules and Regulations.** In addition to the above specific rules and regulations, all of Company's General Rules and Regulations shall apply to the supply of service under this service classification.

* Indicates Change.

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

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

<u>Customer Class</u>	<u>Current Base Revenue</u>	<u>Proposed Base Revenue</u>	<u>Required Revenue Adjustment</u>	<u>% Change</u>
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>\$ 36,862</u>	<u>\$ 5,610</u>	<u>17.95%</u>
Total	\$ 2,236,847	\$ 2,638,314	\$ 401,467 (1)	17.95%

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

(2) - 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

<u>kWh</u>	<u>AVERAGE MONTHLY BILL</u>
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

<u>kWh</u>	<u>AVERAGE MONTHLY BILL</u>
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 SERVICE

kWh	AVERAGE MONTHLY BILL
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	\$420.17
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	\$1,057.23
14,000	\$1,136.87
15,000	\$1,216.50
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

<u>kW</u>	<u>kWh/kW</u>	<u>kWh</u>	<u>AVERAGE MONTHLY BILL</u>
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	\$52,218.56
	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

<u>kW</u>	<u>kWh/kW</u>	<u>kWh</u>	<u>AVERAGE MONTHLY BILL</u>
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	\$57,572.67
	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	1,500,000	\$86,221.00
	600	1,800,000	\$97,671.00

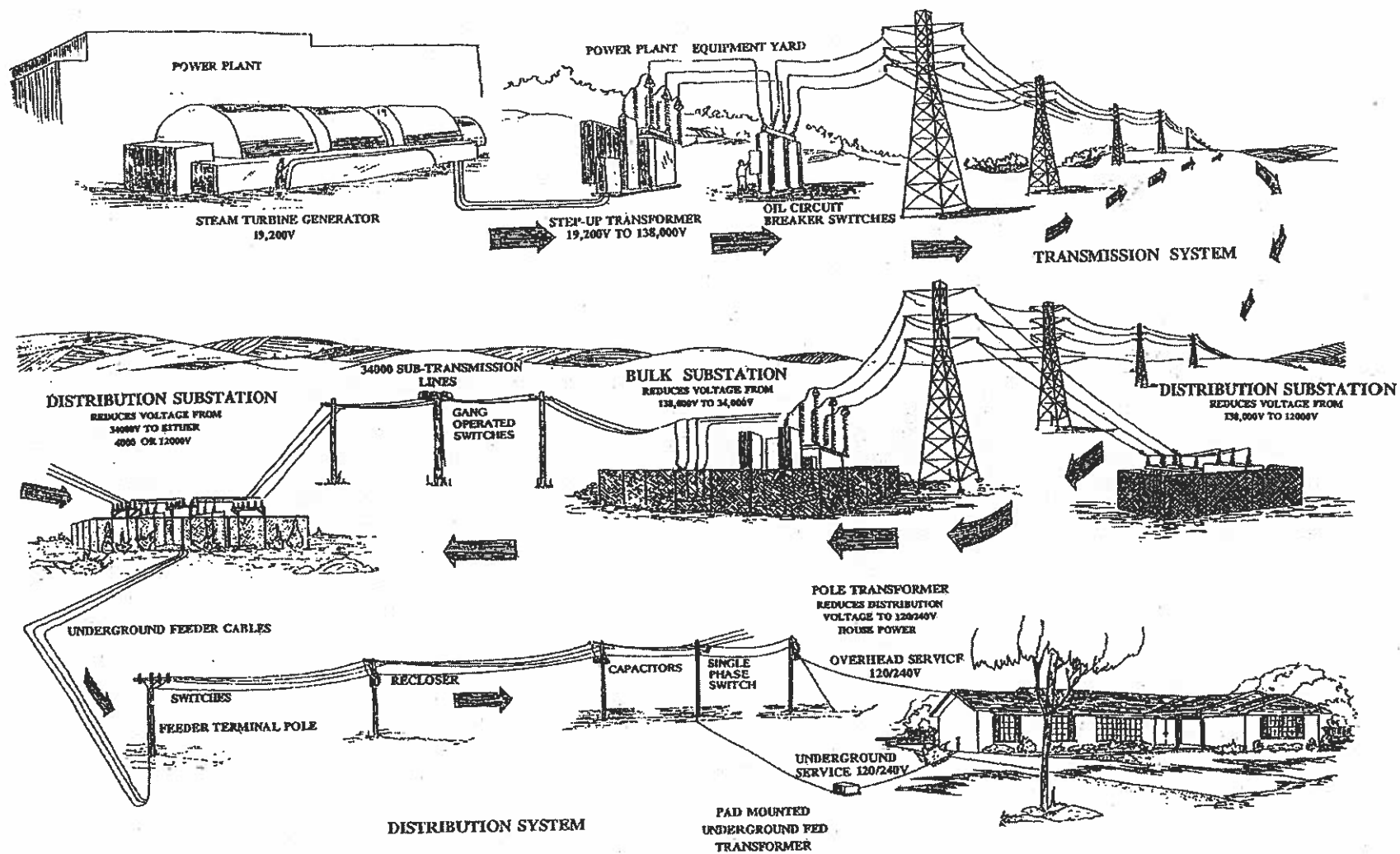
MISSOURI
LARGE PRIMARY SERVICE CLASSIFICATION NO. 11(M)
TYPICAL MONTHLY BILLS - EXCLUDING TAXES

	<u>kW</u>	<u>kWh/kW</u>	<u>kWh</u>	<u>AVERAGE MONTHLY BILL</u>
*	4,000	300	1,200,000	\$92,126.00
		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
	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
		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
	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	\$1,003,276.00
		400	20,000,000	\$1,144,109.33
		500	25,000,000	\$1,284,942.67
		600	30,000,000	\$1,425,776.00

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

	kW	kWh/kW	kWh	AVERAGE MONTHLY BILL
*	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	\$167,316.00
		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)

		<u>MISSOURI</u>	<u>RESIDENTIAL</u>	<u>SMALL GEN SERV</u>	<u>LARGE G.S. / SMALL PRIMARY</u>	<u>LARGE PRIMARY</u>	<u>LARGE TRANS</u>
1	BASE REVENUE	\$ 2,205,595	\$ 977,137	\$ 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	\$ 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	\$ 2,606,876	\$ 1,171,615	\$ 295,172	\$ 775,843	\$ 202,616	\$ 161,630
7							
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	\$ 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	\$ 1,649	\$ 1,147
13	FEDERAL EXCISE TAX	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
14	REVENUE TAXES	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
15							
16	TOTAL OPERATING EXPENSES	\$ 2,493,665	\$ 1,190,469	\$ 264,817	\$ 682,160	\$ 197,260	\$ 158,958
17							
18	NET OPERATING INCOME	\$ 113,211	\$ (18,854)	\$ 30,355	\$ 93,683	\$ 5,357	\$ 2,671
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	\$ 5,527,036	\$ 2,952,110	\$ 630,347	\$ 1,382,986	\$ 341,538	\$ 220,055
22							
23	NET PLANT IN SERVICE	\$ 7,058,172	\$ 3,744,018	\$ 800,800	\$ 1,777,764	\$ 449,490	\$ 286,099
24							
25	MATERIALS & SUPPLIES - FUEL	\$ 313,702	\$ 116,134	\$ 30,610	\$ 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)	\$ (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)	\$ (87,776)	\$ (56,160)
30							
31	TOTAL NET ORIGINAL COST RATE BASE	\$ 6,001,444	\$ 3,139,066	\$ 673,544	\$ 1,531,917	\$ 394,870	\$ 262,048
32							
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

<u>TITLE: SUMMARY EQUAL ROR (\$000's)</u>	<u>MISSOURI</u>	<u>RESIDENTIAL</u>	<u>SMALL GEN SERV</u>	<u>LARGE G.S. / SMALL PRIMARY</u>	<u>LARGE PRIMARY</u>	<u>LARGE 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	\$ 181,434
7						
8 TOTAL PROD., T&D, CUSTOMER, AND A&G EXP.	\$ 1,794,748	\$ 814,358	\$ 185,300	\$ 509,084	\$ 154,049	\$ 131,956
9 TOTAL DEPR. AND AMMOR. EXPENSES	\$ 376,408	\$ 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	\$ 1,649	\$ 1,147
13 FEDERAL EXCISE TAX	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
14 REVENUE TAXES	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
15						
16 TOTAL OPERATING EXPENSES	\$ 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	\$ 5,527,036	\$ 2,952,110	\$ 630,347	\$ 1,382,986	\$ 341,538	\$ 220,055
22						
23 NET PLANT IN SERVICE	\$ 7,058,172	\$ 3,744,018	\$ 800,800	\$ 1,777,764	\$ 449,490	\$ 286,099
24						
25 MATERIALS & SUPPLIES - FUEL	\$ 313,702	\$ 116,134	\$ 30,610	\$ 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)	\$ (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)	\$ (87,776)	\$ (56,160)
30						
31 TOTAL NET ORIGINAL COST RATE BASE	\$ 6,001,444	\$ 3,139,066	\$ 673,544	\$ 1,531,917	\$ 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%							
		RES	SGS	LGS/SPS	LPS	LTS	LGT and MSD	Total			
Current Revenue*		\$ 899,853,445	\$ 240,965,161	\$ 626,871,784	\$ 159,481,067	\$ 130,706,920	\$ 28,672,361	\$ 2,086,550,738			
		43%	12%	30%	8%	6%	1.37%	100%			
Increase at 80M		\$ 34,501,090	\$ 9,238,794	\$ 24,034,758	\$ 6,114,630	\$ 5,011,406	\$ 1,099,321	\$ 80,000,000			
		3.83%	3.83%	3.83%	3.83%	3.83%	3.83%	3.83%			
Additional % Adj to Current Revenue		0.30%	-0.31%	-0.31%							
Additional \$ Adj to Current Revenue		2,699,560	(749,565)	(1,949,996)				-			
Combined Increase		37,200,651	8,489,229	22,084,763							
Combined Increase %		4.13%	3.52%	3.52%							
System Average Increase		3.83%									
relative to sys avg.		\$ 34,501,090	\$ 9,238,794	\$ 24,034,758	\$ 6,114,630	\$ 5,011,406	\$ 1,099,321			(0)	
		2,699,560	(749,565)	(1,949,996)	-	-	-				
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	\$ 568,027	\$ 40,000,000		
		0.5	\$ 52,328,053	\$ 14,012,546	\$ 36,453,692	\$ 9,274,103	\$ 6,264,258	\$ 1,667,348	\$ 120,000,000		
			5.82%	5.82%	5.82%	5.82%	4.79%	5.82%	5.75%		
Additional % Adj to Current Revenue		0.30%	-0.31%	-0.31%							
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%									
relative to sys avg.		\$ 51,751,636	\$ 13,858,191	\$ 36,052,137	\$ 9,171,945	\$ 7,517,110	\$ 1,648,981			(0)	
		2,699,560	(435,161)	(1,132,073)	102,159	(1,252,852)	18,367				
Increase at 150M =		Incremental 80M	\$ 34,501,090	\$ 9,238,794	\$ 24,034,758	\$ 6,114,630	\$ 5,011,406	\$ 1,099,321	\$ 80,000,000		
		+ Incremental 70M	\$ 31,197,185	\$ 8,354,066	\$ 21,733,133	\$ 5,529,078	\$ 2,192,490	\$ 994,047	\$ 70,000,000		
		0.875	\$ 65,698,275	\$ 17,592,860	\$ 45,767,892	\$ 11,643,708	\$ 7,203,897	\$ 2,093,368	\$ 150,000,000		
			7.30%	7.30%	7.30%	7.30%	5.51%	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		67,389,105	17,123,381	44,546,541							
Combined Increase %		7.49%	7.11%	7.11%							
System Average Increase		7.19%									
relative to sys avg.		\$ 64,689,544	\$ 17,322,739	\$ 45,065,172	\$ 11,464,931	\$ 9,396,387	\$ 2,061,227			(0)	
		2,699,560	(199,358)	(518,631)	178,777	(2,192,490)	32,142				
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	\$ 8,625,273	\$ 2,309,699	\$ 6,008,690	\$ 1,528,657	\$ 1,252,852	\$ 274,830	\$ 20,000,000		
		0.96%	\$ 74,323,548	\$ 19,902,558	\$ 51,776,581	\$ 13,172,366	\$ 8,456,748	\$ 2,368,199	\$ 170,000,000		
			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%									
relative to sys avg.		\$ 73,314,817	\$ 19,632,438	\$ 51,073,861	\$ 12,993,588	\$ 10,649,238	\$ 2,336,057			0	
		2,699,560	(199,358)	(518,631)	178,777	(2,192,490)	32,142				

* Per Company supplied true-up revenue workpaper

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

<u>Customer Class</u>	<u>Proposed Base Revenue</u>
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	<u>\$ 36,862</u>
Total	\$ 2,638,314