

Exhibit No.:
Issue: LTS Tariff
Witness: Wilbon L. Cooper
Type of Exhibit: Direct Testimony
Sponsoring Party: Union Electric Company
Case No.: EA-2005-0180
Date Testimony Prepared: December 20, 2004

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. EA-2005-0180

DIRECT TESTIMONY

OF

WILBON L. COOPER

ON BEHALF OF

**UNION ELECTRIC COMPANY
d/b/a AmerenUE**

**St. Louis, Missouri
December, 2004**

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

Application of Union Electric Company)
for a Certificate of Public Convenience and)
Necessity authorizing it to construct, install,)
own, operate, control, manage and maintain)
electric plant, as defined in § 386.020(14), RSMo.)
to provide electric service in a portion of)
New Madrid, County, Missouri, as an)
extension of its existing certificated area)

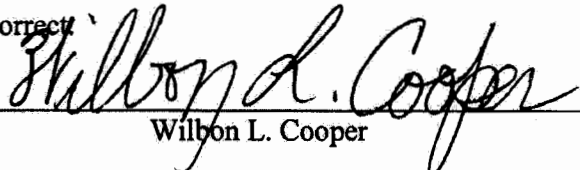
Case No. EA-2005-0180

AFFIDAVIT OF WILBON L. COOPER

STATE OF MISSOURI)
) ss
CITY OF ST. LOUIS)

Wilbon L. Cooper, being first duly sworn on his oath, states:

1. My name is Wilbon L. Cooper. I work in St. Louis, Missouri, and I am employed by Ameren Services Company as Manager, Rate Engineering and Analysis.
2. Attached hereto and made a part hereof for all purposes is my Direct Testimony on behalf of Union Electric Company d/b/a AmerenUE consisting of 10 pages, Appendix A, and Schedules WLC-1 through WLC-3, all of which have been prepared in written form for introduction into evidence in the above-referenced docket.
3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct.



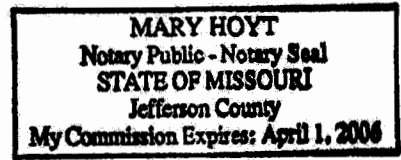
Wilbon L. Cooper

Subscribed and sworn to before me this 20th day of December, 2004.



Notary Public

My commission expires: 4-1-2006



1 **DIRECT TESTIMONY**

2 **OF**

3 **WILBON L. COOPER**

4 **CASE NO. EA-2005-0180**

5 **Q. Please state your name and business address.**

6 A. My name is Wilbon L. Cooper. My business address is One Ameren Plaza,
7 1901 Chouteau Avenue, St. Louis, Missouri 63103.

8 **Q. By whom and in what capacity are you employed?**

9 A. I am employed by Ameren Services Company as Manager of the Rate
10 Engineering and Analysis Department of Regulatory Policy and Planning. In this capacity, I
11 provide rate engineering and analysis services to Union Electric Company d/b/a AmerenUE,
12 (referred to herein as “Company” or “AmerenUE”).

13 **Q. What is your educational background, work experience and duties of your**
14 **position?**

15 A. This information is summarized in Appendix A, which is attached to this
16 testimony.

17 **Q. What was your responsibility in the preparation of this case?**

18 A. My primary responsibility relates to the development and design of the Large
19 Transmission Service (“LTS”) tariff submitted for approval as part of the Application filed in
20 this case and which is attached hereto as Schedule WLC-1.

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

1 A. Yes. In addition to Appendix A mentioned above, I am sponsoring Schedules 1
2 through 3 which are attached hereto.

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

4 A. Schedule WLC-1 consists of eight (8) tariff sheets which reflect tariffs to be
5 added to the Company’s Schedule 5 – Schedule of Rates for Electric Service that are being
6 proposed by the Company for approval by the Commission in this proceeding. Such tariffs
7 would also add a description of a certain geographic area to the Company’s Service Area
8 Descriptions and update the table of contents, such sheets are also included in part of Schedule
9 WLC-1.

10 **Q. Please identify Schedule WLC-2.**

11 A. Schedule WLC-2 shows the development of the rates contained within the LTS
12 tariff and also the annual cents per kilowatt hour realization of this rate on a hypothetical
13 customer.

14 **Q. Please identify Schedule WLC-3.**

15 A. Schedule WLC-3 illustrates the effects of the billing of the same hypothetical
16 customer on Schedule WLC-2, under the Company’s existing Service Classification No 11(M)
17 Large Primary Service (“LPS”) rates.

18 **Q. Please define the term “rate design.”**

19 A. The term “rate design” refers both to the process of establishing the individual
20 and specific charges (e.g. monthly customer charges, cents per kilowatt-hour, and dollars per
21 kilowatt) as well as to the actual structure of an individual class rate. The rate design or structure
22 of a given rate class may range in complexity from the simple structure of a monthly customer
23 charge and a flat per kWh charge, as within the Company’s Residential Rate, to the more

1 complex set of customer, energy, and demand charges for large industrial/commercial customers,
2 as within the Company's LPS rate. In all instances, however, the charges within a specific rate
3 are established such that the application of these individual charges to the total annual or test
4 year customer class usage will result in the collection of that part of the Company's total annual
5 revenue requirement, or cost of service, that is to be collected from customers in each of the
6 Company's rate classes, as determined by the Commission.

7 **Q. What were the Company's principal objectives in the design and**
8 **development of the proposed LTS rate?**

9 A. The Company's principal objectives were as follows: a) to structure and design
10 the LTS rate so that it is as close as practicable to the Company's existing LPS rate: and b) for
11 the application of this rate, as designed, to produce an annual cents per kilowatt-hour realization
12 equivalent to the realization that would have been experienced if the customer taking service
13 under the new LTS rate had been taking service under the existing LPS rate, taking into
14 consideration, however, certain unique characteristics of the customer and the service it would
15 take under the new LTS rate, which I address in more detail below.

16 **Q. Considering a) and b) above, why couldn't one have achieved the same result**
17 **by simply serving Large Transmission Service customers under the existing LPS rate?**

18 A. Because, as I generally noted earlier, there are very unique service characteristics
19 for customers qualifying for the LTS rate that would produce inequities for the LTS customer if
20 we strictly applied the existing LPS rate. The LTS rate was therefore developed to address those
21 inequities.

22 **Q. Please explain.**

1 A. To be eligible for service under the LTS classification, the customer must satisfy
2 all the conditions listed in section 6, Rate Application, as provided for in Schedule WLC-1.
3 These conditions include: 1) minimum of three (3) million megawatt hours of annual energy
4 consumption, 2) a ninety-eight percent (98%) annual load factor, 3) the customer must be
5 responsible for arranging and paying for transmission service necessary to deliver power and
6 energy over the transmission facilities of a third party, if necessary, and 4) the customer must not
7 require use of the Company’s distribution system. The LTS tariff also includes an adjustment for
8 energy line losses which will be provided by the Company (but paid for by the customer to
9 Company, as reflected in the Energy Line Loss Rate section of Schedule WLC-1). While the
10 LPS rate structure equitably addresses conditions 1) and 2) above, it does not equitably address
11 conditions 3) and 4) above, and it also fails to address the necessary adjustment for energy line
12 losses.

13 **Q. Please explain the inequity of a strict application of the existing LPS tariff to**
14 **a customer required to be responsible for arrangement and payment of transmission**
15 **service necessary to deliver power and energy over the transmission facilities of a third**
16 **party and, also, who totally avoids use of the Company’s distribution system?**

17 A. The rate and applicable riders for the existing LPS tariff were designed to reflect,
18 among other things, that all customers served are within the Company’s control area and that the
19 Company has full responsibility for providing transmission and distribution service regardless of
20 the voltage level at which the customer receives service from the Company (e.g., 12 kV, 34 kV,
21 69 kV, or 138 kV or higher). Neither of those facts is true for customers who would qualify for
22 the new LTS tariff (currently Noranda Aluminum, Inc. (“Noranda”)), as those customers would
23 not be within the Company’s control area and those customers would not receive transmission or

1 distribution services from the Company. In addition, energy line losses are significantly
2 different for LTS customers as opposed to LPS customers. As a result, the logical conclusion is
3 that a strict application of the same LPS rate to customers with service characteristics consistent
4 with those outlined in the proposed LTS tariff would be inappropriate. Thus, there should an
5 adjustment of the charges to customers taking service under the new LTS rate.

6 **Q. Have you performed an analysis of the adjustments to the existing LPS tariff**
7 **that are necessary to more equitably reflect service under the proposed LTS tariff?**

8 A. Yes. The worksheet depicting that analysis is attached hereto as Schedule WLC-2.

9 **Q. What assumptions were made regarding the calculations in Schedule WLC-**
10 **2?**

11 A. The following assumptions on load, system utilization, and metering
12 characteristics that are consistent with the tariff requirements contained within the proposed LTS
13 tariff were used to develop adjustments to the rates contained within the LPS tariff: 1) a customer
14 is metered at 138 kilovolts or higher; and 2) the customer does not use the Company's
15 distribution system. The first set of adjustments or changes to SC No. 11(M) (the LPS rate) are
16 associated with the SC No.12 (M) (the LTS rate) customer's total avoidance of use of the
17 Company's distribution system.

18 **Q. Please explain Schedule WLC-2?**

19 A. Schedule WLC-2 contains two sets of adjustments. The first set of adjustments
20 are associated with the fact that customers who qualify for service under the new LTS tariff
21 avoid use of the Company's distribution system. Those adjustments are reflected in the "Less
22 Rider RDC (1)" rows (Lines 5 and 13 of Schedule WLC-2). The second set of adjustments is
23 associated with the lower than average energy and demand losses of an LTS customer versus an

1 LPS customer. Those adjustments are reflected in the “Less loss adj. (5.55%-1.38%)” rows
2 (Lines 7 and 15 on Schedule WLC-2).

3 **Q. Please explain the basis for both sets of adjustments.**

4 A. The Company’s existing tariffs contain a Rider RDC – Reserve Distribution
5 Capacity Rider. Rider RDC contains charges to be billed to customers who receive reserve
6 capacity on the Company’s distribution system. Considering that the Rider RDC monthly
7 demand charges were developed for reserve distribution facilities, it was logical that these same
8 charges could be used as an offset to the existing LPS rate that includes costs associated with use
9 of the Company’s distribution system. Thus, the monthly charges contained within the LTS
10 tariff were reduced by an amount equal to the Rider RDC charges (Lines 5 and 13). Similar
11 adjustments are needed to reflect differences in energy line losses for LTS customers versus LPS
12 customers. Data from the Company’s most recent class cost of service study reflects an average
13 energy and demand loss factor of 5.55% for customers under the LPS tariff. The Company’s
14 Energy Delivery personnel determined that the average energy and demand loss factor for an
15 LTS customer would be only 1.38%. As a result, demand and energy charges under the LPS
16 tariff were reduced by 4.17% (5.55-1.38) (Lines 7 and 15 of Schedule WLC-2). The resultant
17 energy and demand charges under the proposed LTS tariff are shown on Lines 8 and 16 of
18 Schedule WLC-2.

19 **Q. Were there any other adjustments required to the current LPS tariff to reflect**
20 **the unique nature of an LTS customer?**

21 A. Yes, because the LTS customer (in this case, Noranda) is metered at a voltage
22 (161 kilovolts) higher than the standard primary service voltage (i.e., 12/13.8 kilovolts) of an
23 LPS customer, adjustments of meter readings provided for under the Company’s Rider C –

1 Adjustments of Meter Readings For Metering At A Voltage Not Provided For In A Rate
2 Schedule (Line 24) were required. I would note that this adjustment would be necessary
3 regardless of whether the customer would be billed under the LPS or the LTS tariff as it reflects
4 lower transformation losses associated with metering at a higher than standard primary service
5 voltage.

6 **Q. Does the proposed LTS rate as shown on Schedule WLC-2 produce an**
7 **annual realization equal to the annual realization if the same customer was billed under the**
8 **current LPS rate?**

9 A. No. If one assumes that the existing LPS rates which were set by the Commission
10 are just and reasonable, then one wouldn't expect it to produce the same realization because the
11 existing LPS rates contain components relating to use of distribution facilities and energy line
12 losses that, as discussed earlier, do not exist for an LTS customer. While the LTS customer may
13 have certain load characteristics (e.g., high voltage service and high load factor) comparable to
14 an LPS customer, they are very dissimilar in terms of utilization of distribution assets and
15 average losses which leads to the conclusion that the LTS customer should benefit from lower
16 rates.

17 **Q. If the above statement is true, why is the Company proposing an Annual**
18 **Contribution Factor (“ACF”) for LTS customers that produces current revenues that**
19 **equate to the revenues that would be produced by a strict application of the existing LPS**
20 **rate?**

21 A. The Company's Application in this case seeks to incorporate an area that contains
22 a customer that would qualify for service under the LTS tariff. An entire Cost of Service Study
23 (“COSS”) and comprehensive rate design will not be done except in connection with the

1 Company's next rate proceeding. Therefore, we have a unique situation for which we cannot at
2 this time effectively develop a more specific rate. The Company will be filing both a Missouri
3 retail electric jurisdiction and a class COSS in January 2006. However, Noranda needs the LTS
4 tariff in place by June 1, 2005. Therefore, to ensure that the revenues received from Noranda
5 will be as much as would have been received based on the just and reasonable rates last set by
6 the Commission (for an LPS customer, a rate of 3.25 cents per kwh), the Company is using the
7 ACF to, in effect, treat Noranda from a current revenue standpoint as if Noranda was a new LPS
8 customer, but the Company is taking into account, in designing the new LTS tariff, the equitable
9 adjustments that should be recognized to account for those cost elements (or lack of them) that
10 do not exist for serving Noranda.

11 **Q. Please describe the ACF in more detail.**

12 A. The ACF is provided for in the "Annual Contribution Factor" section of Schedule
13 WLC-1 and is reflected on Line 21 of Schedule WLC-3. As shown on Schedule WLC-3, the
14 ACF is calculated based on application of the LPS rate to a LTS customer. The Company's
15 standard demand and energy rates are adjusted for Rider B – Discounts Applicable For Service
16 To Substations Owned By Customer In Lieu of Company Ownership (Lines 5 and 12 of
17 Schedule WLC-3) and, also, the previously mentioned Rider C (Line 22). As provided for in the
18 Annual Contribution Factor section Schedule WLC-1, the positive difference between the ACF
19 and a LTS customer's annual net base billing cents per kilowatt-hour realization will be
20 multiplied by a LTS customer's annual kilowatt hours and the resulting amount shall be due and
21 payable to the Company.

22 **Q. What effect will approval of the LTS tariff have in this case?**

1 A. It will allow the Company to serve Noranda according to the rates, terms, and
2 conditions reflected in the LTS tariff until such time as the Commission orders any changes in
3 those rates, terms, and conditions, which conceivably could be the Company's next rate
4 proceeding or thereafter. As I view the situation today, I believe the structure of the LTS tariff
5 would be appropriate in the next rate proceeding but certainly the components of the LTS tariff
6 will be reviewed in the next and in subsequent rate proceedings and ultimately the Commission
7 will determine the just and reasonable rate for LTS and for that matter all of the Company's
8 customers consistent with their service characteristics. I would think that the lack of distribution
9 and transmission service and the differences in energy line losses for an LTS customer, as it is
10 today, would be relevant considerations when later reviewing the continued appropriateness of
11 the LTS tariff.

12 **Q. Mr. Cooper, what other changes or modifications were made to the**
13 **Company's existing LPS tariff to reflect the unique electrical characteristics of service to**
14 **an LTS customer?**

15 A. There were two other minor changes to the existing LPS tariff provisions, as
16 follows: 1) language governing the application of Power Factor charges was modified to reflect
17 the possibility that LTS customers may have special arrangements with their third party
18 transmission suppliers for satisfactory power factor levels; and 2) language governing the
19 Company's charges for the provision of energy losses to the customer's third party transmission
20 provider. This language is contained in the "Energy Line Loss Rate" section of Schedule WLC-
21 1, whereby all such energy is billed at a rate equal to 3.25 cents per/ kWh. Such losses are
22 covered by the Company simply increasing its generation output and, as a result, should be billed
23 at the ACF rate. Finally, because of the size of the customer's load and potentially its location,

1 the LTS tariff includes certain critical credit requirements designed to protect AmerenUE and its
2 ratepayers, as discussed by Mr. Craig Nelson in his testimony.

3 **Q. Does this conclude your direct testimony?**

4 **A. Yes, it does.**

QUALIFICATIONS OF WILBON L. COOPER

My name is Wilbon L. Cooper and I reside in St. Louis, Missouri.

My educational background consists of a Bachelor of Science degree in Electrical Engineering (BSEE) from the University of Missouri-Rolla.

I was employed as an Assistant Engineer in the Rate Engineering Department of Union Electric in June 1980. My work included assignments relating to the general analyses and administration of various aspects of Union Electric's electric, gas, and steam rates. In October 1989 I was appointed Supervising Engineer – Rate Analysis, in the Rate Engineering Department of Corporate Planning at Ameren Services Company. In the latter position I was responsible for meeting the analytical requirements of the Company's retail gas and electric rates and wholesale electric rates, including load research and various cost of service and rate design studies, as assigned. I was appointed to my present position of Manager of Rate Engineering in March 2003.

I currently have responsibility for the general policies and practices associated with the day-to-day administration and design of Union Electric's electric and gas rate tariffs, riders and rules and regulations tariffs on file with the Missouri Public Service Commission and the Illinois Commerce Commission, and in the participation in various proceedings before these regulatory agencies. In addition, Rate Engineering is responsible for conducting class cost of service and rate design studies and the participation in other projects of a general corporate nature, as requested by the Director of Regulatory Policy and Planning.

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

APPLYING TO

MISSOURI SERVICE AREA

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

Rate Based on Monthly Meter Readings

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

Customer Charge	\$210.00	per month
Demand Charge	\$11.816	per kW of Billing Demand
Energy Charge	\$0.02242	per kWh
Reactive Charge	\$0.24	per kVar

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

Customer Charge	\$210.00	per month
Demand Charge	\$4.504	per kW of Billing Demand
Energy Charge	\$0.01974	per kWh
Reactive Charge	\$0.24	per kVar

Optional Time-of-Day Adjustments

Additional Customer Charge \$14.00 per month

Energy Adjustment - per kWh	On-Peak Hours (1)	Off-Peak Hours (1)
Summer kWh (June-September Billing Periods)	+\$0.0045	-\$0.0025
Winter kWh (October-May Billing Periods)	+\$0.0020	-\$0.0011

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

*Indicates Change

DATE OF ISSUE _____ DATE EFFECTIVE June 1, 2005

ISSUED BY G. L. Rainwater Chairman, President & CEO St. Louis, Missouri
 NAME OF OFFICER TITLE ADDRESS
 Schedule WLC-1
 Page 1 of 10

MO. P. S. C. SCHEDULE NO. 5OriginalSHEET NO. 68.1CANCELLING MO. P.S.C. SCHEDULE NO. 5

SHEET NO. _____

APPLYING TO _____

MISSOURI SERVICE AREA

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

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 \$0.0325 per kWh after appropriate Rider C adjustment of meter readings.

Annual Contribution Factor. Customer shall pay an Annual Contribution Factor to Company, calculated as follows:

The Annual Contribution Factor (ACF) shall be calculated as of the date of the completion of each successive 12-month billing period, commencing with the first annual anniversary date of service to Customer under the rate. In the event the ACF is eliminated or discontinued prior to the said anniversary date, no Customer payment is required.

The ACF shall be calculated so as to provide Company an annual net bundled kilowatt-hour realization to Company of \$0.0325/kWh, after appropriate Rider C adjustments to Customer's monthly kilowatt-hour and kilowatt meter readings. All energy and compensation due as a result of the Energy Line Loss and Reactive Charge provisions herein, if any, shall be excluded in the calculation of the ACF. The ACF shall be eliminated effective upon a Missouri Public Service Commission ("MoPSC") order in a Complaint case, rate case proceeding, or any other regulatory proceeding where Company's rates for its bundled Service Classifications are changed.

1. **Transmission Service Requirements.** Company's obligation to provide service under this rate 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.

DATE OF ISSUE _____

DATE EFFECTIVE _____

June 1, 2005

ISSUED BY _____

G. L. RainwaterChairman, President & CEOSt. Louis, Missouri

NAME OF OFFICER

TITLE

ADDRESS

Schedule WLC-1

Page 2 of 10

MO. P. S. C. SCHEDULE NO. 5Original SHEET NO. 68.2CANCELLING MO. P.S.C. SCHEDULE NO. 5

SHEET NO. _____

APPLYING TO _____

MISSOURI SERVICE AREA

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

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 rate 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: 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), in which case Company may pursue other remedies available in law or equity, including a declaration that the agreement is in default.

DATE OF ISSUE _____ DATE EFFECTIVE June 1, 2005

ISSUED BY G. L. Rainwater Chairman, President & CEO St. Louis, Missouri **WLC-1**
 NAME OF OFFICER TITLE ADDRESS **Page 3 of 10**

MO. P. S. C. SCHEDULE NO. 5OriginalSHEET NO. 68.3CANCELLING MO. P.S.C. SCHEDULE NO. 5

SHEET NO. _____

APPLYING 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 rate 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 rate 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.** This rate shall be applicable, at Customer's request, to any Customer that 1) consumed 3 million MWh in the preceding 12 months, or can demonstrate to the Company's satisfaction that it will consume said amount in the next 12 months if historical data are unavailable, 2) can demonstrate to Company's satisfaction that such energy was routinely consumed at a load factor of 98% or higher or that Customer will, in the ordinary course of its operations, operate at a similar load factor, 3) arranges and pays for transmission service necessary for the delivery of electricity over the transmission facilities of a third party, 4) does not require use of Company's distribution system, excepting Company's metering equipment, for service to Customer, and 5) meets all other required terms and conditions of the rate.

DATE OF ISSUE _____

DATE EFFECTIVE _____

June 1, 2005

ISSUED BY _____

G. L. Rainwater Chairman, President & CEO

NAME OF OFFICER

TITLE

St. Louis, Missouri

ADDRESS

Schedule WLC-1
Page 4 of 10

MO. P. S. C. SCHEDULE NO. 5Original SHEET NO. 68.4CANCELLING MO. P.S.C. SCHEDULE NO. 5

SHEET NO. _____

APPLYING TO _____

MISSOURI SERVICE AREA

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

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.
9. **Billing Demand.** The billing demand in any month will 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 rate 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:

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

DATE OF ISSUE _____

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June 1, 2005

ISSUED BY _____

G. L. Rainwater Chairman, President & CEO
 NAME OF OFFICER TITLE

St. Louis, Missouri
 ADDRESS

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. **Optional Time of Day ("TOD") Service.** Applicable at Customer's option for all Large Transmission Service usage, subject to the following provisions:
 - a. Customer will be transferred to this TOD rate option effective with TOD meter installation and transferred from this TOD rate option to the applicable non-TOD rate after the meter is removed.
 - b. A Customer electing this TOD option shall remain on the option for a minimum period of 12 months *provided however*, that Customer may discontinue this option within the first 90 days following election subject to the continued payment of the TOD Customer Charge, in lieu of any other customer charge, for the full 12-month term of this option.
 - c. Any Customer canceling this TOD option may not thereafter resume billing under said option for a period of one year following the last billing period on the TOD option.

DATE OF ISSUE _____ DATE EFFECTIVE June 1, 2005

ISSUED BY G. L. Rainwater Chairman, President & CEO St. Louis, Missouri
NAME OF OFFICER TITLE ADDRESS

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

Original

SHEET NO. 68.6

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

SHEET NO. _____

APPLYING TO _____

MISSOURI SERVICE AREA

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

- 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 rate.

DATE OF ISSUE _____

DATE EFFECTIVE June 1, 2005

ISSUED BY G. L. Rainwater Chairman, President & CEO
NAME OF OFFICER TITLE

St. Louis, Missouri
ADDRESS

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

7th Revised

SHEET NO. 69

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

6th Revised

SHEET NO. 69

APPLYING TO

MISSOURI SERVICE AREA

* The following sheets are reserved for future use in Missouri:

Sheet No. 70 through Sheet No. 97.8, inclusive.

*Indicates Change.

DATE OF ISSUE _____

DATE EFFECTIVE June 1, 2005

ISSUED BY G. L. Rainwater
NAME OF OFFICER

Chairman, President & CEO
TITLE

St. Louis, Missouri
ADDRESS

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO. P. S. C. SCHEDULE NO. 5 3rd Revised SHEET NO. 26.15

CANCELLING MO. P.S.C. SCHEDULE NO. 5 2nd Revised SHEET NO. 26.15

APPLYING TO MISSOURI SERVICE AREA

MORGAN COUNTY (cont'd.)

<u>TOWNSHIP</u>	<u>RANGE</u>	<u>SECTIONS/U.S.SURVEYS</u>
45 North	19 West	7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36

NEW MADRID COUNTY

<u>TOWNSHIP</u>	<u>RANGE</u>	<u>SECTIONS/U.S.SURVEYS</u>
20 North	10 East	1, 2, 3, 10, 11
20 North	11 East	1, 2, 3, 4
20 North	12 East	3, 4, 5, 6, 8, 9, 10
20 North	13 East	4, 5, 6
21 North	10 East	13, 14, 15, 22, 23, 24, 25, 26, 27, 34, 35, 36, <u>Δ11, 12</u>
21 North	11 East	7, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36
21 North	12 East	13, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 36
21 North	13 East	1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 14, 15, 16, 17, 18, 19, 20, 21, 22, 28, 29, 30, 31, 32, 33
22 North	11 East	1, 11, 12, 13, 14, 24
22 North	12 East	1, 2, 6, 7, 8, 18
22 North	13 East	1, 2, 3, 4, 10, 11, 12, 13, 14, 15, 22, 23, 24, 25, 26, 27, 33, 34, 35, 36, Surveys 28, 1106
*22 North	14 East	6, 7, 18, 19, 29, 30, 31, 32 Surveys 172, 710, 698, 700, 1106, 1107, 1108, 1101
23 North	10 East	23, 24, 25, 26, 35, 36
23 North	11 East	22, 23, 24, 25, 26, 27, 31, 34, 36
23 North	12 East	19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36

ΔIn the underscored Sections/U.S. Surveys above, Company's right and obligation to serve in New Madrid County is limited by the terms of the Territorial Agreement between Company and Ozark Border Electric Cooperative approved in Case No.EO-99-599.

*Indicates Change

DATE OF ISSUE _____ DATE EFFECTIVE June 1, 2005

ISSUED BY G. L. Rainwater Chairman, President & CEO St. Louis, Missouri
 NAME OF OFFICER TITLE ADDRESS
 Schedule WLC-1
 Page 9 of 10

P. S. C. MO., ILL. C. C., IA. ST. C. C. SCHEDULE NO. 5 27th Revised SHEET NO. 27

CANCELLING SCHEDULE NO. 5 26th Revised SHEET NO. 27

APPLYING TO MISSOURI SERVICE AREA

TABLE OF CONTENTS

RATES

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Small General Service	2 (M)	32
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Street & Outdoor Area Lighting - Company-Owned	5 (M)	39
Street & Outdoor Area Lighting - Customer-Owned	6 (M)	45
Large Primary Service	11 (M)	67.1
*Large Transmission Service	12 (M)	68
 <u>Rates of Limited Application</u>		
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*Indicates Addition

DATE OF ISSUE _____ DATE EFFECTIVE June 1, 2005

ISSUED BY G. L. Rainwater Chairman, President & CEO St. Louis, Missouri **Schedule WLC-1**
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**UNION ELECTRIC COMPANY
DEVELOPMENT OF SERVICE CLASSIFICATION NO. LTS RATES**

<u>Line No.</u>		<u>Customer Charge</u>	<u>Demand Charge</u>	<u>Energy Charge</u>
1			<u>Summer (Jun-Sept)</u>	
2				
3				
4	Service Classification 11(M)	\$ 210.00	\$ 13.970	\$ 0.0234
5	Less Rider RDC(1)	n/a	\$ 1.640	-
6	Sub total	<u>\$ 210.00</u>	<u>\$ 12.330</u>	<u>\$ 0.0234</u>
7	Less loss adj. (5.55%-1.38%)	n/a	\$ 0.514	<u>\$ 0.00098</u>
8	Service Classification 12(M)	\$ 210.00	\$ 11.816	\$ 0.02242
9				
10				
11			<u>Winter (Oct. -May)</u>	
12	Service Classification 11(M)	\$ 210.00	\$ 6.340	\$ 0.0206
13	Less Rider RDC(1)	\$ -	\$ 1.640	-
14	Sub total	<u>\$ 210.00</u>	<u>\$ 4.700</u>	<u>\$ 0.02060</u>
15	Less loss adj(5.55%-1.38%)	n/a	<u>\$ 0.196</u>	<u>\$ 0.00086</u>
16	Service Classification 12(M)	\$ 210.00	\$ 4.504	\$ 0.01974
17				
18			<u>Annual Weighted Rates and</u>	
19			<u>Cents per kWh @ Approx. 99% Load Factor</u>	
20				
21				
22	Summer/Winter Weighting	\$ 210.00	\$ 6.94	\$ 0.0206
23	Cents/kWh @ 99%Load Factor (2)	3.023		
24	Cents/kWh @ 99% Load Factor (2)(3)	3.002		
25				
26	(1) Weighted Average of Rider RDC Charges			
27	(2) - Excludes the Impact of Customer Charge			
28	(3) - Metered Units Before Rider C Adjustment <LINE 21 x (1 - 0.0068)>			

UNION ELECTRIC COMPANY

PRICING OF HYPOTHETICAL LTS LOAD ON LPS RATE

**Line
No.**

1			<u>Summer (Jun-Sept)</u>	
2		Customer	Demand	Energy
3		<u>Charge</u>	<u>Charge</u>	<u>Charge</u>
4	Service Classification LPS	\$ 210.00	\$ 13.97	\$ 0.0234
5	Less Rider B	<u>n/a</u>	<u>\$ 0.95</u>	<u>\$ -</u>
6	Sub total	\$ 210.00	\$ 13.02	\$ 0.0234
7		n/a		
8				
9				
10			<u>Winter (Oct. -May)</u>	
11	Service Classification LPS	\$ 210.00	\$ 6.34	\$ 0.0206
12	Less Rider B	<u>\$ -</u>	<u>\$ 0.95</u>	<u>\$ -</u>
13	Sub total	\$ 210.00	\$ 5.39	\$ 0.0206
14				
15				
16		<u>Annual Weighted Rates and</u>		
17		<u>Cents per kWh @ Approx. 99% Load Factor</u>		
18		Customer	Demand	Energy
19		<u>Charge</u>	<u>Charge</u>	<u>Charge</u>
20	Summer/Winter Weighting	\$ 210.00	\$ 7.93	\$ 0.0215
21	Cents/kWh @ 99%Load Factor (1)	3.250		
22	Cents/kWh @ 99% Load Factor (1)(2)	3.228		
23				
24	(1) - Excludes the Impact of Customer Charge			
25	(2) - Metered Units Before Rider C Adjustment <LINE 21 x (1 - 0.0068)>			
26				
27				
28				

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing was served via e-mail, to the following parties on the 20th day of December, 2004.

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