

225

Exhibit No.:  
Issues: Fuel and Purchased Power  
Witness: David C. Roos  
Sponsoring Party: MO PSC Staff  
Type of Exhibit: Surrebuttal Testimony  
File No.: ER-2011-0028  
Date Testimony Prepared: April 15, 2011

**MISSOURI PUBLIC SERVICE COMMISSION**

**UTILITY OPERATIONS DIVISION**

**SURREBUTTAL TESTIMONY**

**OF**

**DAVID C. ROOS**

**UNION ELECTRIC COMPANY**

**d/b/a Ameren Missouri**

**FILE NO. ER-2011-0028**

*Jefferson City, Missouri*

*April 2011*

*Staff* Exhibit No. 225  
Date 4/24/11 Reporter JMB  
File No. ER-2011-0028

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

In the Matter of Union Electric Company )  
d/b/a AmerenUE's Tariff to Increase its )  
Annual Revenues for Electric Service )

File No. ER-2011-0028

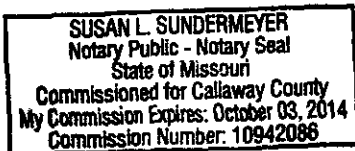
**AFFIDAVIT OF DAVID C. ROOS**

STATE OF MISSOURI     )  
  ) ss  
COUNTY OF COLE     )

David C. Roos, of lawful age, on his oath states: that he has participated in the preparation of the following Surrebuttal Testimony in question and answer form, consisting of 5 pages of Surrebuttal Testimony to be presented in the above case, that the answers in the following Surrebuttal Testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true to the best of his knowledge and belief.

  
\_\_\_\_\_  
David C. Roos

Subscribed and sworn to before me this 15<sup>th</sup> day of April, 2011.



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

1 **SURREBUTTAL TESTIMONY**  
2

3 **OF**  
4

5 **DAVID C. ROOS**  
6

7 **UNION ELECTRIC COMPANY**  
8 **d/b/a Ameren Missouri**  
9

10 **FILE NO. ER-2011-0028**  
11

12 Q. Please state your name and business address?

13 A. David C. Roos, P.O. Box 360, Jefferson City, Missouri, 65102.

14 Q. Are you the same David C. Roos who contributed to the Missouri Public  
15 Service Commission Staff Rate Design and Class Cost-of-Service Report (Staff CCOS  
16 Report) filed on February 10, 2011?

17 A. Yes.

18 Q. What is the purpose of this testimony?

19 A. I respond to the rebuttal testimonies of Union Electric Company d/b/a Ameren  
20 Missouri (Ameren Missouri or Company) witnesses Lynn M. Barnes and Steven M. Wills and  
21 provide Staff's revised exemplar tariff sheets for Ameren Missouri's Rider Fuel Adjustment  
22 Clause (FAC).

23 Q. Do you agree with Mr. Wills' statement on page 19, lines 1 and 2 that "The  
24 tariff change should clearly indicate that only the *retail* portion of the Company's Midwest  
25 Independent Transmission System Operator (MISO) load node should become the basis for  
26 these calculations" where "these calculations are the Net Base Fuel Cost (NBFC) rates and the  
27 energy of the accumulation and recovery periods"?

28 A. Staff agrees with this statement with respect to the accumulation and recovery  
29 periods energy. However, Staff is neither in agreement nor disagreement with this statement

Surrebuttal Testimony of  
David C. Roos

1 with regard to the NBFC rates. Using only the retail portion of the Company's MISO load  
2 excludes the load to serve municipalities. Staff's position is that the tariff definitions and  
3 tariff calculations must be consistent with the inputs to the fuel model that is used to develop  
4 the fuel costs used to calculate the NBFC rates. If the municipal loads are included in the  
5 loads used to develop fuel costs and costs are allocated to the municipal loads, then the entire  
6 Ameren Missouri load (retail plus municipal) at the MISO load node should be used to  
7 calculate the NBFC rates.

8 Using fuel costs that include the cost of serving the municipals' load and using only  
9 the retail load to calculate the NBFC rates would result in NBFC rates that were too high.  
10 Similarly, excluding the fuel and purchased power costs of serving the municipals while using  
11 the Ameren Missouri retail and municipal load at the MISO load node would result in NBFC  
12 rates that were too low. Therefore, it is Staff's recommendation to the Commission that Rider  
13 FAC definitions, language, and formulas be consistent with fuel modeling assumptions and  
14 inputs used to calculate the NBFC factor.

15 Q. Do you agree with Mr. Wills' statement on page 23, lines 16 through 18 that  
16 "Factor 'NBFC' can be defined using the existing definition but with one change that is, the  
17 phrase 'at the generation level' must be replaced with 'based on the retail kWh from the net  
18 output calculation in the true-up fuel run.'?"

19 A. Staff agrees that the phrase "at the generation level" must be replaced. Staff's  
20 concern with replacing the phrase "at the generation level" with "based on the retail kWh  
21 from the net output calculation in the true-up fuel run" is again, a matter of consistency. If  
22 fuel costs generated by the fuel model include costs of serving the municipals, and is used to  
23 calculate the NBFC rates, then the kWhs used to calculate the NBFC rates should also include

Surrebuttal Testimony of  
David C. Roos

1 the kWhs of the municipal loads. It is Staff's recommendation to the Commission that Rider  
2 FAC definitions, language, and formulas be consistent with fuel modeling assumptions and  
3 inputs used to calculate the NBFC rates.

4 Q. What is Staff's response to Mr. Wills' suggestion to change to the definitions  
5 of "Factor  $S_{AP}$ ", and "Factor  $S_{RP}$ " on page 23, lines 2 through 14?

6 A. Staff's concern is that the definition of these factors are consistent with the  
7 modeling methodology used to calculate the NBFC rates and the definition of the NBFC rates.  
8 It is Staff's recommendation to the Commission that Rider FAC definitions, language, and  
9 formulas be consistent with fuel modeling assumptions and inputs used to calculate the NBFC  
10 rates. In addition, Staff recommends that the word "Supplied" used in the definition of  
11 "Factor  $S_{AP}$ " be deleted, since this load will be the settled load at the Company's MISO CP  
12 node not kWh supplied at that node.

13 Q. What is Staff's response to Mr. Wills' suggestion to change to the voltage  
14 level adjustment factors to: 1.0557, 1.0234, and 0.9906?

15 A. Staff has reviewed Mr. Wills' work papers regarding several different loss  
16 factors calculated in this case for use in weather normalization calculations and Rider FAC  
17 level adjustment factors. Staff recommends that the Commission adopt the FAC Rider  
18 voltage level adjustment factors to: 1.0557, 1.0234, and 0.9906 for secondary, primary, and  
19 transmission level voltages, respectively, in this case. These values are based on a two year  
20 load weighted average of the MISO losses.

21 Q. Ameren Missouri witness Lynn M. Barnes provided exemplar tariff sheets  
22 attached to her rebuttal testimony. Does Staff have a position on these exemplar tariff sheets?

Surrebuttal Testimony of  
David C. Roos

1           A.     Staff has reviewed these exemplar tariff sheets and notes that there are many  
2 changes to the tariff sheet that the Company and Staff both agree should be made. There also  
3 are changes to the tariff sheet that the Company proposes that the Staff neither supports nor  
4 opposes but counsels consistency in definitions, language, and formulas.

5           There are two changes to the tariff sheets that the Company and Staff do not agree on:

- 6           1.     The percentage of the sharing mechanism. (This issue is discussed in  
7                   Staff Witness Lena M. Mantle's surrebuttal testimony); and
- 8           2.     The additional language that Ameren Missouri has inserted at the end  
9                   of the True-Up of FAC section of the rider.

10          Staff has attached updated exemplar tariff sheets (DCR-1) reflecting Staff's position.

11          Q.     What language did Ameren Missouri witness Ms. Barnes insert at the end of  
12 the True-Up of FAC section?

13          A.     Ms. Barnes inserted: “, plus amounts necessary to correct over- and under-  
14 collections due to errors made in calculating adjustments to the  $FPA_C$  rate that impacted the  
15 Recovery Period.”

16          Q.     Why does Staff object to this language?

17          A.     The Fuel and Purchased Power Adjustment ( $FPA_C$ ) is the sum of FPAs for the  
18 current ( $FPA_{(RP)}$ ) and prior 2 FPAs ( $FPA_{(RP-1)}$  and  $FPA_{(RP-2)}$ ) In addition, the value of each  
19  $FPA_{(RP)}$  is dependent on the value of the NBFC rates and each  $FPA_{(RP)}$  is adjusted for  
20 under/over recovery from prior periods. These three facts mean that each succeeding  $FPA_C$  is  
21 linked to all previous  $FPA_C$ 's. The additional text suggested by Ameren Missouri would  
22 allow it to claim an adjustment during any true-up for any perceived discrepancy in  
23 calculating FPAs, (including fuel costs, MISO charges and NBFC rates) that occurred since  
24 March 1, 2009, regardless of rate case proceedings that set the factors. The purpose of the

Surrebuttal Testimony of  
David C. Roos

1 true-up is to compare the FAC billed during a recovery period to the amount that was to be  
2 collected in that recovery period. Adding the wording suggested by Ms. Barnes would open  
3 the true-up filings to "fix" all types of "errors".

4           Since Staff only has 30 days to review a true-up filing, adding this language could  
5 result in a delay in returning/billing the difference between what was to be collected and what  
6 was actually billed in the accumulation period.

7           Q.     Does this conclude your surrebuttal testimony?

8           A.     Yes, it does.

**UNION ELECTRIC COMPANY**

**ELECTRIC SERVICE**

MO.P.S.C. SCHEDULE NO. 5 2<sup>nd</sup> Revised ~~Original~~ SHEET NO. 98.115

CANCELLING MO.P.S.C. SCHEDULE NO. \_\_\_\_\_ 1<sup>st</sup> Revised SHEET NO. 98.1

APPLYING TO MISSOURI SERVICE AREA

**RIDER FAC**

**FUEL AND PURCHASED POWER ADJUSTMENT CLAUSE**

**Applicable To Service Provided On The Effective Date Of This Tariff And Thereafter**

**APPLICABILITY**

This rider is applicable to kilowatt-hours (kWh) of energy supplied to customers served by the Company under Service Classification Nos. 1(M), 2(M), 3(M), 4(M), 5(M), 6(M), 7(M), 8(M), 11(M), and 12(M).

Costs passed through this Fuel and Purchased Power Adjustment Clause (FAC) reflect differences between actual fuel and purchased power costs, including transportation, net of Off-System Sales Revenues (OSSR) (i.e., Actual Net Fuel Costs) and Net Base Fuel Costs (factor NBFC, as defined below), calculated and recovered as provided for herein.

The Accumulation Periods and Recovery Periods are as set forth in the following table:

<u>Accumulation Period (AP)</u>	<u>Filing Date</u>	<u>Recovery Period (RP)</u>
February through May	By August 1	October through <del>May</del> <u>September</u>
June through September	By December 1	February through <del>September</del> <u>January</u>
October through January	By April 1	June through <del>January</del> <u>May</u>

Accumulation Period (AP) means the historical calendar months during which fuel and purchased power costs, including transportation, net of OSSR for all kWh of energy supplied to Missouri retail customers are determined.

Recovery Period (RP) means the billing months as set forth in the above table during which the difference between the Actual Net Fuel Costs during an Accumulation Period and NBFC are applied to and recovered through retail customer billings on a per kWh basis, as adjusted for service voltage level.

The Company will make a Fuel and Purchased Power Adjustment (FPA) filing by each Filing Date. The new FPA rates for which the filing is made will be applicable starting with the Recovery Period that begins following the Filing Date. All FPA filings shall be accompanied by detailed workpapers supporting the filing in an electronic format with all formulas intact.

**FPA DETERMINATION**

~~Eighty five~~ Ninety five percent (~~85~~95%) of the difference between Actual Net Fuel Costs and NBFC for all kWh of energy supplied to Missouri retail customers during the respective Accumulation Periods shall be reflected as an FPA<sub>c</sub> credit or debit, stated as a separate line item on the customer's bill and will be calculated according to the following formulas.

For the FPA filing made by each Filing Date, the FPA<sub>c</sub> rate, applicable starting with the Recovery Period following the applicable Filing Date, to recover fuel and purchased power costs, including transportation, net of OSSR, to the extent they vary from Net Base Fuel Costs (NBFC), as defined below, during the recently-completed Accumulation Period is calculated as:

DATE OF ISSUE September 3, 2010 DATE EFFECTIVE October 3, 2010

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



MO.P.S.C. SCHEDULE NO. 52<sup>nd</sup> RevisedSHEET NO. 98.216

CANCELLING MO.P.S.C. SCHEDULE NO. \_\_\_\_\_

1<sup>st</sup> RevisedSHEET NO. 98.2

APPLYING TO

MISSOURI SERVICE AREARIDER FACFUEL AND PURCHASED POWER ADJUSTMENT CLAUSE (CONT'D.)

Applicable To Service Provided On The Effective Date Of This Tariff And Thereafter

$$FPA_{(RP)} = [[(CF+CPP-OSSR-TS-S-W) - (NBFC \times S_{AP})] \times \underline{85.95\%} + I + R - N] / S_{RP}$$

The FPA rate, which will be multiplied by the voltage level adjustment factors set forth below, applicable starting with the following Recovery Period is calculated as:

$$FPA_C = FPA_{(RP)} + FPA_{(RP-1)} + FPA_{(RP-2)}$$

where:

FPA<sub>C</sub> = Fuel and Purchased Power Adjustment rate applicable starting with the Recovery Period following the applicable Filing Date.

FPA<sub>RP</sub> = FPA Recovery Period rate component calculated to recover under/over collection during the Accumulation Period that ended prior to the applicable Filing Date.

FPA<sub>(RP-1)</sub> = FPA Recovery Period rate component from prior FPA<sub>RP</sub> calculation, if any.

FPA<sub>(RP-2)</sub> = FPA Recovery Period rate component from FPA<sub>RP</sub> calculation prior to FPA<sub>(RP-1)</sub>, if any.

CF = Fuel costs incurred to support sales to all retail customers and Off-System Sales allocated to Missouri retail electric operations, including transportation, associated with the Company's generating plants. These costs consist of the following:

a) For fossil fuel or hydroelectric plants:

(i) the following costs reflected in Federal Energy Regulatory Commission (FERC) Account Number 501: coal commodity, applicable taxes, gas, alternative fuels, fuel additives, Btu adjustments assessed by coal suppliers, quality adjustments related to the sulfur content of coal assessed by coal suppliers, ~~costs and revenues for SO<sub>2</sub> and NO<sub>x</sub> emission allowances~~, railroad transportation, switching and demurrage charges, railcar repair and inspection costs, railcar depreciation, railcar lease costs, similar costs associated with other applicable modes of transportation, fuel hedging costs (for purposes of factor CF, hedging is defined as realized losses and costs minus realized gains associated with mitigating volatility in the Company's cost of fuel and purchased power, including but not limited to, the Company's use of futures, options and over-the-counter derivatives including, without limitation, futures contracts, puts, calls, caps, floors, collars, and swaps), hedging costs associated with SO<sub>2</sub> and fuel oil

DATE OF ISSUE September 3, 2010DATE EFFECTIVE October 3, 2010ISSUED BY Warner L. Baxter  
NAME OF OFFICERPresident & CEO  
TITLESt. Louis, Missouri  
ADDRESS

Schedule DCR 1 - 2

MO.P.S.C. SCHEDULE NO. 5 2<sup>nd</sup> Revised ~~Original~~ SHEET NO. 98.317

CANCELLING MO.P.S.C. SCHEDULE NO. \_\_\_\_\_ 1<sup>st</sup> Revised SHEET NO. 98.3

APPLYING TO MISSOURI SERVICE AREA

RIDER FAC

FUEL AND PURCHASED POWER ADJUSTMENT CLAUSE (CONT'D.)

Applicable To Service Provided On The Effective Date Of This Tariff And Thereafter

adjustments included in commodity and transportation costs, broker commissions and fees associated with price hedges, oil costs, ash disposal revenues and expenses, and revenues and expenses resulting from fuel and transportation portfolio optimization activities; and

(ii) the following costs reflected in FERC Account Number 547: natural gas generation costs related to commodity, oil, transportation, storage, capacity reservation charges, fuel losses, hedging costs, and revenues and expenses resulting from fuel and transportation portfolio optimization activities; and

(iii) costs and revenues for SO<sub>2</sub> and NO<sub>x</sub> emission allowances;

b) Costs in FERC Account Number 518 (Nuclear Fuel Expense).

CPP = Costs of purchased power reflected in FERC Account Numbers 555, 565, and 575, excluding MISO administrative fees arising under MISO Schedules 10, 16, 17, and 24, and excluding capacity charges for contracts with terms in excess of one (1) year, incurred to support sales to all Missouri retail customers and Off-System Sales allocated to Missouri retail electric operations. Also included in factor "CPP" are insurance premiums in FERC Account Number 924 for replacement power insurance ~~(other than relating to the Taum Sauk Plant)~~ to the extent those premiums are not reflected in base rates. Changes in replacement power insurance premiums ~~(other than those relating to the Taum Sauk Plant)~~ from the level reflected in base rates shall increase or decrease purchased power costs. Additionally, costs of purchased power will be reduced by expected replacement power insurance recoveries ~~(other than those relating to the Taum Sauk Plant)~~ qualifying as assets under Generally Accepted Accounting Principles. ~~Notwithstanding the foregoing, concurrently with the date the "TS" factor is eliminated as provided for in this tariff, the premiums and recoveries relating to replacement power insurance coverage for the Taum Sauk Plant shall be included in this CPP Factor.~~

OSSR = Revenues from Off-System Sales allocated to Missouri electric operations.

Off-System Sales shall include all sales transactions (including MISO revenues in FERC Account Number 447), excluding Missouri retail sales and long-term full and partial requirements sales to Missouri municipalities, that are associated with (1) AmerenUE Missouri jurisdictional generating units, (2) power purchases made to serve Missouri retail load, and (3) any related transmission.

DATE OF ISSUE September 3, 2010 DATE EFFECTIVE October 3, 2010

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

MO.P.S.C. SCHEDULE NO. 5 2<sup>nd</sup> Revised ~~Original~~ SHEET NO. 98.410CANCELLING MO.P.S.C. SCHEDULE NO. \_\_\_\_\_ 1<sup>st</sup> Revised SHEET NO. 98.4

APPLYING TO

MISSOURI SERVICE AREARIDER FACFUEL AND PURCHASED POWER ADJUSTMENT CLAUSE (CONT'D.)Applicable To Service Provided On The Effective Date Of This Tariff And ThereafterAdjustment For Reduction of Service Classification 12(M) Billing Determinants:

Should the level of monthly billing determinants under Service Classification 12(M) fall below the level of normalized 12(M) monthly billing determinants as established in Case No. ER-2010-0036 an adjustment to OSSR shall be made in accordance with the following levels:

- a) A reduction of less than 40,000,000 kWh in a given month  
- No adjustment will be made to OSSR.
- b) A reduction of 40,000,000 kWh or greater in a given month  
- All Off-System Sales revenues derived from all kWh of energy sold off-system due to the entire reduction shall be excluded from OSSR.

~~TS - The Accumulation Period value of Taum Sauk. This factor will be used to reduce actual fuel costs to reflect the value of Taum Sauk, and will be credited in EPA filings (of which there are three each year as shown in the table above), until the next rate case or, if sooner, until Taum Sauk is placed back in service. This value is \$26.8 million annually, one third of which (i.e., \$8.93 million) will be applied to each Accumulation Period.~~

~~S - The Accumulation Period value of Blackbox Settlement Amount of \$3 million annually, which shall expire on September 1, 2010. One third of the annual value (\$1 million) shall be applied to each Accumulation Period. For the Accumulation Period during which the factor expires, the factor shall be prorated according to the number of days during which it was effective during that Accumulation Period.~~

W = \$300,000 per month for the months, July 1, 2010 through, June 30, 2011. This factor "W" expires on June 30, 2011.

N = The positive amount by which, over the course of the Accumulation Period, (a) revenues derived from the off-system sale of power made possible as a result of reductions in the level of 12(M) sales (as addressed in the definition of OSSR above) exceeds (b) the reduction of 12(M) revenues compared to normalized 12(M) revenues as determined in Case No. ER-2010-0036.

I = Interest applicable to (i) the difference between Actual Net Fuel Costs (adjusted for ~~Taum Sauk, factor "S", and factor "W"~~) and NBFC for all kWh of energy supplied to Missouri retail customers during an Accumulation Period until those costs have been recovered; (ii) refunds due to prudence reviews (a portion of factor R, below); and (iii) all under- or over-recovery

DATE OF ISSUE September 3, 2010 DATE EFFECTIVE October 3, 2010ISSUED BY Warner L. Baxter President & CEO St. Louis, Missouri

NAME OF OFFICER

TITLE

ADDRESS

Schedule DCR 1 - 4

**UNION ELECTRIC COMPANY**

**ELECTRIC SERVICE**

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

~~2<sup>nd</sup> Revised~~ Original

SHEET NO. 98.519

CANCELLING MO.P.S.C. SCHEDULE NO. \_\_\_\_\_

1<sup>st</sup> Revised

SHEET NO. 98.5

APPLYING TO

**MISSOURI SERVICE AREA**

**RIDER FAC**

**FUEL AND PURCHASED POWER ADJUSTMENT CLAUSE (CONT'D.)**

**Applicable To Service Provided On The Effective Date Of This Tariff And Thereafter**

balances created through operation of this FAC, as determined in the true-up filings provided for herein (a portion of factor R, below). Interest shall be calculated monthly at a rate equal to the weighted average interest rate paid on the Company's short-term debt, applied to the month-end balance of items (i) through (iii) in the preceding sentence.

R = Under/over recovery (if any) from currently active and prior Recovery Periods as determined for the FAC true-up adjustments, and modifications due to adjustments ordered by the Commission ~~(other than the adjustment for Taum Sauk as already reflected in the TS factor)~~, as a result of required prudence reviews or other disallowances and reconciliations, with interest as defined in item I.

S<sub>AP</sub> = ~~Actual~~ Supplied kWh during the Accumulation Period that ended prior to the applicable Filing Date, at the MISO Ammo.UE load node ~~generation level~~, plus the kWh reductions up to the kWh of energy sold off-system associated with the 12(M) OSSR adjustment above.

S<sub>RP</sub> = Applicable Recovery Period estimated kWh, at the MISO Ammo.UE load node ~~generation level~~, subject to the FPA<sub>RP</sub> to be billed.

NBFC = Net Base Fuel Costs are the net costs determined by the Commission's order as the normalized test year value ~~(and reflecting an adjustment for Taum Sauk, consistent with the term TS)~~ for the sum of allowable fuel costs (consistent with the term CF), plus cost of purchased power (consistent with the term CPP), less revenues from off-system sales (consistent with the term OSSR), less an adjustment ~~(consistent with the terms "S" and "W")~~, expressed in cents per kWh, at the MISO Ammo.UE load node ~~generation level~~, as included in the Company's retail rates. The NBFC rate applicable to June through September calendar months ("Summer NBFC Rate") is ~~1.2361.330~~ 1.2361.330 cents per kWh. The NBFC rate applicable to October through May calendar months ("Winter NBFC Rate") is ~~1.0441.203~~ 1.0441.203 cents per kWh.

To determine the FPA rates applicable to the individual Service Classifications, the FPA<sub>C</sub> rate determined in accordance with the foregoing will be multiplied by the following voltage level adjustment factors:

Secondary Voltage Service	<u>1.05571.0789</u>
Primary Voltage Service	<u>1.02341.0459</u>
Large Transmission Voltage Service	<u>0.099061.0124</u>

The FPA rates applicable to the individual Service Classifications shall be rounded to the nearest 0.001 cents, to be charged on a cents/kWh basis for each applicable kWh billed.

DATE OF ISSUE September 3, 2010

DATE EFFECTIVE October 3, 2010

ISSUED BY Warner L. Baxter  
NAME OF OFFICER

President & CEO  
TITLE

St. Louis, Missouri  
ADDRESS

MO.P.S.C. SCHEDULE NO. 5 2<sup>nd</sup> Revised ~~Original~~ SHEET NO. 98.620  
 CANCELLING MO.P.S.C. SCHEDULE NO. \_\_\_\_\_ 1<sup>st</sup> Revised SHEET NO. 98.6

APPLYING TO MISSOURI SERVICE AREA

RIDER FAC

FUEL AND PURCHASED POWER ADJUSTMENT CLAUSE (CONT'D.)

Applicable To Service Provided On The Effective Date Of This Tariff And Thereafter

TRUE-UP OF FAC

After completion of each Recovery Period, the Company will make a true-up filing in conjunction with an adjustment to its FAC, ~~where applicable.~~ ~~The true-up filings shall be made on the first Filing Date that occurs at least two (2) months after completion of each Recovery Period.~~ The true-up filing shall be made on the same day as the filing made to adjust its FAC. Any true-up adjustments or refunds shall be reflected in item R above, and shall include interest calculated as provided for in item I above.

The true-up adjustments shall be the difference between the revenues billed and the revenues authorized for collection during the Recovery Period.

GENERAL RATE CASE/PRUDENCE REVIEWS

The following shall apply to this Fuel and Purchased Power Adjustment Clause, in accordance with Section 386.266.4, RSMo. and applicable Missouri Public Service Commission Rules governing rate adjustment mechanisms established under Section 386.266, RSMo:

The Company shall file a general rate case with the effective date of new rates to be no later than four years after the effective date of a Missouri Public Service Commission order implementing or continuing this Fuel and Purchased Power Adjustment Clause. The four-year period referenced above shall not include any periods in which the Company is prohibited from collecting any charges under this Fuel and Purchased Power Adjustment Clause, or any period for which charges hereunder must be fully refunded. In the event a court determines that this Fuel and Purchased Power Adjustment Clause is unlawful and all moneys collected hereunder are fully refunded, the Company shall be relieved of the obligation under this Fuel and Purchased Power Adjustment Clause to file such a rate case.

Prudence reviews of the costs subject to this Fuel and Purchased Power Adjustment Clause shall occur no less frequently than every eighteen months, and any such costs which are determined by the Missouri Public Service Commission to have been imprudently incurred or incurred in violation of the terms of this rider shall be returned to customers with interest at a rate equal to the weighted average interest rate paid on the Company's short-term debt.

DATE OF ISSUE September 3, 2010 DATE EFFECTIVE October 3, 2010  
 ISSUED BY Warner L. Baxter President & CEO St. Louis, Missouri  
 NAME OF OFFICER TITLE ADDRESS  
 Schedule DCR 1 - 6

**UNION ELECTRIC COMPANY**

**ELECTRIC SERVICE**

MO.P.S.C. SCHEDULE NO. 5 2nd Revised SHEET NO. 98.714  
 CANCELLING MO.P.S.C. SCHEDULE NO. 5 1st Revised SHEET NO. 98.714

APPLYING TO MISSOURI SERVICE AREA

<b>RIDER FAC</b>		
<b>FUEL AND PURCHASED POWER ADJUSTMENT CLAUSE (CONT'D.)</b>		
<del>(Applicable for the billing months beginning October 2010 and thereafter)</del>		
<u>Applicable To Service Provided On The Effective Date Of This Tariff And Thereafter</u>		
*Calculation of Current FPA <sub>C</sub> Rate:		
Accumulation Period Ending:		<del>September 30, 2011</del> 2010
1. Total Energy Cost (CF+CPP-OSSR-TS-S-W)		\$249,802,845
2. Base Energy Cost	-	\$183,733,223
2.1 NBFC (\$/kWh)	x	\$0.01198
2.2 Accumulation Period Sales kWh (S <sub>AP</sub> )		<del>15,338,492,326</del>
3. First Subtotal (1.-2.)		\$66,069,622
4. Customer Responsibility	x	<del>858958</del>
5. Second Subtotal		\$62,766,141
6. Adjustment for Interest plus Under / Over recovery for Prior Periods less Factor N: (I + R - N)	±	\$410,353
7. Third Subtotal		\$63,176,494
8. Estimated Recovery Period Sales kWh (S <sub>RP</sub> )	÷	<del>41,068,370,000</del>
9. FPA <sub>RP</sub>		\$0.00154
10. FPA <sub>RP-1</sub>	+	\$0.00176
11. FPA <sub>RP-2</sub>	+	\$0.00114
12. FPA <sub>C</sub> (without Voltage Level Adjustment)		\$0.00444
13. Voltage Level Adjustment Factor		
13.1 Secondary	x	<del>1.05571,0789</del>
13.2 Primary	x	<del>1.02341,0459</del>
13.3 Large Transmission	x	<del>0.99061,0124</del>
14. FPA <sub>C</sub> (with voltage level adjustment)		
14.1 Secondary		\$0.00479
14.2 Primary		\$0.00464
14.3 Large Transmission		\$0.00450

\* Indicates Change.

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