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**EXHIBIT**  
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*Exhibit No:*  
*Issues:* Nuclear Fuel Costs and  
Coal-Fired Power Plant Maintenance  
*Witness:* Roberta A. Grissum  
*Type of Exhibit:* Surrebuttal Testimony  
*Case No:* ER-2010-0036  
*Date Testimony Prepared:* March 5, 2010

**MISSOURI PUBLIC SERVICE COMMISSION**  
**UTILITY SERVICES DIVISION**

**SURREBUTTAL TESTIMONY**  
**OF**  
**ROBERTA A. GRISSUM**

**UNION ELECTRIC COMPANY,**  
**d/b/a AMERENUE**

**CASE NO. ER-2010-0036**

Jefferson City, Missouri  
March 5, 2010

~~Staff~~ Exhibit No. 224  
Date 3-15-10 Reporter ER-2010-0036  
File No. ER-2010-0036

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2  
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**TABLE OF CONTENTS OF  
SURREBUTTAL TESTIMONY  
OF  
ROBERTA A. GRISSUM  
UNION ELECTRIC COMPANY,  
d/b/a AMERENUE  
CASE NO. ER-2010-0026**

**EXECUTIVE SUMMARY .....1**

**NUCLEAR FUEL PRICE .....1**

**COAL-FIRED POWER PLANT MAINTENANCE.....4**

## 1

2

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4

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8

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12

## 13

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1 Staff in the amount of 9.57 cents per MMBtu related to the nuclear fuel cost for spent fuel. The  
2 sum of these two components is 64.44 cents per MMBtu.

3 Q. How did Staff determine AmerenUE's nuclear fuel price it is proposing in this  
4 proceeding?

5 A. Staff used an 11-month average cost based upon costs from the actual nuclear fuel  
6 AmerenUE burned for the period beginning after the most current nuclear fuel reload in  
7 October 2008 through and ending September 30, 2009 as provided by AmerenUE in its response  
8 to Staff Data Request No. 65. Staff also included costs associated with the disposal of spent  
9 nuclear fuel based upon an 11-month average. It is the Staff's intention to re-examine the  
10 nuclear fuel costs as part of its true-up audit and adjust it to reflect the average cost based upon  
11 costs resulting from nuclear fuel actually burned through January 31, 2010, the true-up cut-off  
12 date, as provided by AmerenUE in its updated response to Staff Data Request No. 65.

13 Q. Should Staff make any adjustment in its proposed nuclear fuel cost based upon  
14 Mr. Irwin's rebuttal testimony?

15 A. No. As Mr. Irwin indicates in his rebuttal testimony on Page 5, Lines 8 – 9,  
16 "The Company and Staff are using the best information available (as of January 31, 2010)  
17 regarding other fuel costs and power prices, in order to rebase the fuel costs as accurately as  
18 possible." The true-up date established in this proceeding is January 31, 2010. Mr. Irwin is  
19 proposing to selectively use a cost that reflects nuclear fuel burned after the refueling that will  
20 occur in May of 2010, while all other items in AmerenUE's cost of service reflect events that have  
21 occurred by, but not after, the true-up cut-off date of January 31, 2010.

22 Q. Will AmerenUE have an opportunity to recover fuel costs not included in its  
23 non-FAC rates set in this case before its next general electric rate case?

1           A.     Probably. Presently AmerenUE has a Fuel Adjustment Clause which this  
2 Commission authorized in Case No. ER-2008-0318. If the Commission extends that Fuel  
3 Adjustment Clause or modifies it, but leaves it substantially the same, then AmerenUE would be  
4 able to recoup changes in its fuel costs, including these nuclear fuel cost changes, through its  
5 Fuel Adjustment Clause.

6           Q.     Should nuclear fuel costs be reflected in AmerenUE's cost of service in the same  
7 manner as its coal costs are reflected, simply because the nuclear fuel cost is known and the  
8 nuclear fuel rod assemblies have been delivered to the Callaway Plant?

9           A.     No. Nuclear fuel costs cannot be reflected in AmerenUE's cost of service in the  
10 same manner as it's coal costs. Coal deliveries reflecting the new contract prices that took effect  
11 on January 1, 2010, will begin in January 2010. Therefore, the price increase has occurred, is  
12 known and measurable and the coal is available to be burned in the Company's power plants by  
13 the true-up cut-off date for this rate case. Nuclear fuel price increases have occurred.  
14 The Company can estimate the nuclear fuel cost based on modeling. However, as Mr. Irwin  
15 stated in his direct testimony in Case No. ER-2008-0318: "The nuclear fuel price is based upon  
16 the amortization of the initial costs of the fuel assemblies contained in the Callaway reactor".

17                 As such, the nuclear fuel price AmerenUE witness Irwin proposes to include in  
18 this proceeding has not and will not occur until after the new fuel rod assemblies have been  
19 loaded into the Callaway reactor during refueling and the Callaway unit is placed back in-service  
20 sometime in June 2010. Until the Callaway is brought back into service following the reload, it  
21 cannot generate electricity that reflects the new nuclear fuel price. This is approximately four  
22 months after the true-up cut-off date of January 31, 2010 agreed to in this proceeding.

**COAL-FIRED POWER PLANT MAINTENANCE**

Q. Does Mr. Birk accurately characterize the methodology Staff used to determine the normalized level of maintenance costs it used for AmerenUE's coal-fired generating units?

A. Yes. Staff proposed a normalized level of maintenance costs in the amount of \$101,140,014 for AmerenUE's coal-fired generating units based upon a three-year average of actual expenses for the 36 months ending March 31, 2009. This resulted in Staff proposing a negative adjustment in the amount of (\$17,826,730). The following chart provides a three-year history of AmerenUE's actual coal-fired generating unit maintenance costs, based upon AmerenUE's response to Staff Data Request No. 51 as part of the current case and also to Staff Data Request No. 145 as part of AmerenUE's previous electric rate case, Case No. ER-2008-0318:

	<u>Expenditures</u>
12 months Ending 3/31/2007	\$ 94,375,424
12 months Ending 3/31/2008	\$ 91,077,874
12 months Ending 3/31/2009	\$118,966,744
Staff's Three Year Average	\$101,140,014

In addition, AmerenUE told Staff it incurred a total of \$96,538,598 in actual maintenance costs during the calendar year ending 2009.

Q. Has AmerenUE made any changes in its coal-fired generating units' maintenance cycles?

A. Yes. Company made a decision in calendar year 2003 to move from a historic 18-24 month interval for planned outages to a three to four years cycle, depending on the unit.

Q. How did this change in maintenance cycles impact Staff's decision to utilize a three-year average of actual expenses to normalize maintenance costs for AmerenUE's coal-fired generating units?

1           A.     Staff views the time frame 2003-2005 as a period of transition for AmerenUE  
2 with regard to the change in its planned outage cycles, a period that included planned outages  
3 occurring on the old 18-24 month interval, as well as planned outages occurring on the newly  
4 extended three-four year intervals. Therefore, Staff believes the period April 1, 2006 through  
5 March 31, 2009 to be a period that is more reflective of the planned outages that will occur under  
6 the newly extended planned outage cycles on a going forward basis.

7                     Mr. Birk confirms this on Page 14 at lines 7 through 9, of his rebuttal testimony  
8 where he states:

9                     In approximately 2003, the Company determined that it could likely  
10 maintain a high level of equivalent availability at its coal-fired units while  
11 also extending the interval between major planned outages from an  
12 historic 18-24 month interval to intervals of three to four years, depending  
13 on the unit (the cyclone units at the Sioux Plant require more frequent  
14 planned outages). As the Company continued to study the issue, it  
15 determined that it could extend those intervals even further like most of  
16 the industry was doing, to approximately six years between planned  
17 outages. Lengthening these outage cycles allowed us to maintain a high  
18 level of equivalent availability on the fossil units while absorbing a  
19 significant portion of the material and labor cost increases we were seeing  
20 associated with overhaul work throughout the last five years."

21           Q.     What is the significance of the statements found in Mr. Birk's rebuttal testimony  
22 on Page 14 at Lines 14 through 23, where he states as follows:

23                     [T]he Company was taking fewer planned outages while it moved to these  
24 longer, approximately six-year planned outage intervals (six plus years at  
25 Labadie and Rush Island, four plus years at Meramec, and three plus years  
26 at Sioux). Thus, fewer major planned outages occurred than would  
27 normally be expected (two in 2005, two limited overhauls in 2006, and  
28 just one in 2007 with no major overhauls on any of the Labadie units  
29 during this time). In contrast, during the test year for this case (April 2008  
30 to March 2009), two major overhauls occurred, one on Labadie Unit 1  
31 (88 days) and the other on Sioux Unit 1 (66 days) and two mini overhauls  
32 were completed on Meramec Unit 4 and Rush Island Unit 2.

33           A.     Mr. Birk states that AmerenUE decreased the number of planned outages during  
34 the transitional period by moving planned outage intervals to "six plus years at Labadie and

1 Rush Island, four years at Meramec and three plus years at Sioux.” Mr. Birk also states that the  
2 outages that occurred in 2005 through 2007 are fewer than the major planned outages that would  
3 normally have occurred during this timeframe. However, AmerenUE’s decision to decrease the  
4 number of planned outages in 2005 through 2007 led to an above normal increase in  
5 maintenance cost during the April 1, 2008 through March 31, 2009 test year. This invalidates  
6 Mr. Birk’s assertion on Page 16 at Lines 4 through 5 of his rebuttal testimony that the level of  
7 coal-fired generating units’ maintenance that occurred during the test year is “clearly the proper  
8 level of expenditures that should be included in the Company’s cost of service and no  
9 normalization should take place”.

10 Q. Mr. Birk indicates the expected level of coal-fired generating units maintenance  
11 costs for calendar year 2010 will be approximately \$117.5 million. Do you believe this should  
12 be considered in determining the appropriate level of coal-fired generating unit maintenance  
13 costs for this proceeding?

14 A. No. Mr. Birk states on Page 14 beginning on Line 23 and ending on Page 15 at  
15 Line 3 that, “Indeed, we did not perform any major outages in 2009 due to severe  
16 liquidity/credit concerns which forced us to defer outages that had been planned (and that were  
17 needed to put the units on the longer planned outage cycles discussed above).” This is evident  
18 by the fact that AmerenUE’s maintenance costs decreased from approximately \$119 million  
19 during the test year to approximately \$96.5 million during the calendar year ending 2009.

20 Mr. Birk’s statements indicate that some of the maintenance scheduled for 2010  
21 would have been performed in 2009, absent the severe liquidity/credit concerns. Instead,  
22 maintenance, again delayed due to Company controlled decisions, are being moved from 2009  
23 and placed in 2010, thus creating an above normal level of maintenance cost in 2010. It is



1 | apparent that planned outages are at AmerenUE's discretion, and the timing of these outages can  
2 | be changed depending on, among other things, current financial conditions.

3 |           The amount of coal-fired generating unit maintenance costs Mr. Birk identifies as  
4 | AmerenUE's 2010 budget amount should be discounted because AmerenUE has total control  
5 | and discretion to change, delay or forgo any coal-fired generating unit maintenance scheduled for  
6 | 2010, should financial or other conditions change during the year, as it did in 2009.

7 |           Q.     Please summarize your testimony on power plant maintenance.

8 |           A.     Historic data and Mr. Birk's statements indicate that planned outages, which are  
9 | at AmerenUE's discretion, were delayed in the years prior to the test year and again during the  
10 | calendar year ending 2009. As a result, the level of power plant maintenance for the coal-fired  
11 | generating units during the test year is above normal and the budgeted level for 2010 is also  
12 | above normal. As a result, the test year should be adjusted to reflect the average cost during the  
13 | 36 months ending March 31, 2009.

14 |           Q.     Does this conclude your surrebuttal testimony?

15 |           A.     Yes, it does.

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

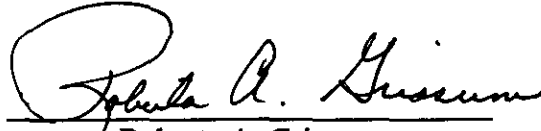
In the Matter of Union Electric Company )  
d/b/a AmerenUE's Tariffs to Increase its )  
Annual Revenues for Electric Service. )

Case No. ER-2010-0036

**AFFIDAVIT OF ROBERTA A. GRISSUM**


STATE OF MISSOURI     )  
                                  )     ss.  
COUNTY OF COLE     )

Roberta A. Grissum, of lawful age, on her oath states: that she has participated in the preparation of the foregoing Surrebuttal Testimony in question and answer form, consisting of 7 pages to be presented in the above case; that the answers in the foregoing Surrebuttal Testimony were given by her; that she has knowledge of the matters set forth in such answers; and that such matters are true and correct to the best of her knowledge and belief.

  
Roberta A. Grissum

Subscribed and sworn to before me this 5<sup>th</sup> day of March, 2010.

D. SUZIE MANKIN  
Notary Public - Notary Seal  
State of Missouri  
Commissioned for Cole County  
My Commission Expires: December 08, 2012  
Commission Number: 08412071

  
Notary Public