Exhibit No.: Issue: Fuel Expense Witness: John P. Cassidy Sponsoring Party: MoPSC Staff Type of Exhibit: Rebuttal Testimony Case No.: ER-2007-0002 Date Testimony Prepared: February 5, 2007

## **MISSOURI PUBLIC SERVICE COMMISSION**

## **UTILITY SERVICES DIVISION**

## **REBUTTAL TESTIMONY**

### OF

**JOHN P. CASSIDY** 

## UNION ELECTRIC COMPANY d/b/a AMERENUE

## CASE NO. ER-2007-0002

Jefferson City, Missouri February 2007

\*\*<u>Denotes Highly Confidential Information</u>\*\*



#### BEFORE THE PUBLIC SERVICE COMMISSION

#### **OF THE STATE OF MISSOURI**

In the Matter of Union Electric Company d/b/a ) AmerenUE for Authority to File Tariffs Increasing ) Rates for Electric Service Provided to Customers in ) the Company's Missouri Service Area. ) Case No. ER-2007-0002

#### AFFIDAVIT OF JOHN P. CASSIDY

STATE OF MISSOURI ) ) ss. COUNTY OF COLE )

John P. Cassidy, of lawful age, on his oath states: that he has participated in the preparation of the foregoing Rebuttal Testimony in question and answer form, consisting of  $\cancel{7}$  pages to be presented in the above case; that the answers in the foregoing Rebuttal Testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true and correct to the best of his knowledge and belief.

John P. Cassidy

Subscribed and sworn to before me this 200 day of

Notary Public

TONI M. CHARLTON Notary Public - State of Missouri My Commission Expires December 28, 2008 Cole County Commission #04474301



1	<b>REBUTTAL TESTIMONY</b>
2	OF
3	JOHN P. CASSIDY
4	UNION ELECTRIC COMPANY d/b/a
5	AMERENUE
6	CASE NO. ER-2007-0002
7	EXECUTIVE SUMMARY 1
8	AMERENUE GENERATION MIX
9	ESTIMATED INCREASES IN COAL COST
10	ESTIMATED INCREASE IN NUCLEAR FUEL
11	NATURAL GAS AND FUEL OIL
12	SUMMARY

1		REBUTTAL TESTIMONY
2		OF
3		JOHN P. CASSIDY
4		UNION ELECTRIC COMPANY
5		d/b/a AMERENUE
6		CASE NO. ER-2007-0002
7	Q.	Please state your name and business address.
8	А.	John P. Cassidy, 9900 Page Avenue, Suite 103, Overland, Missouri 63132.
9	Q.	By whom are you employed and in what capacity?
10	А.	I am employed by the Missouri Public Service Commission (Commission) as a
11	Regulatory A	uditor.
12	Q.	Are you the same John P. Cassidy who filed direct testimony in this case on
13	December 15	, 2006?
14	А.	Yes.
15	EXECUTIV	E SUMMARY
16	Q.	Please give a brief summary of your Rebuttal Testimony.
17	А.	My Rebuttal Testimony will provide an estimate of future total increases in
18	coal commo	lity and transportation costs that Union Electric Company d/b/a AmerenUE
19	(AmerenUE o	or Company) is expected to incur during 2008 and 2009. This testimony will
20	also provide	an estimate of the future increases in nuclear fuel cost that AmerenUE is
21	expected to i	ncur through 2009. These calculations have been referred to by Staff witness
22	Warren Wood	I in his Rebuttal Testimony filed as part of this rate proceeding.

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### **AMERENUE GENERATION MIX**

Q. What was AmerenUE's overall generation mix for the 12 months ending
June 30, 2006 as well as for the twelve months ending December 31, 2006?

A. The following table summarizes AmerenUE's actual net generation (gross
generation less station use) by groupings of primary fuel source for the test year ending
June 30, 2006, as well as for the 12 months ending December 31, 2006:

7		Net MWH		Net MWH	
8	Primary	Generation	6/30/06	Generation	12/31/06
9	<u>Fuel Source</u>	<u>6/30/2006</u>	<u>% of Total</u>	<u>12/31/2006</u>	<u>% of Total</u>
10	Nuclear	8,079,309	16.5%	10,116,660	19.9%
11	Coal	39,458,584	80.6%	39,375,535	77.4%
12	CTG Gas/Oil	451,481	0.9%	409,889	0.8%
13	Hydro/Pump	958,832	<u>2.0%</u>	<u>955,563</u>	<u>1.9%</u>
14	Total	48,948,206	100%	50,857,647	100%

AmerenUE also purchases power to meet native load and to make interchange sales.
The following table summarizes AmerenUE's actual net generation including the amount of
purchased power for both the test year June 30, 2006 and the twelve months ending
December 31, 2006:

19 20		Purchases & Net MWH		Purchases & Net MWH	
21	Primary	Generation	6/30/06	Generation	12/31/06
22	<b>Fuel Source</b>	<u>6/30/2006</u>	<u>% of Total</u>	<u>12/31/2006</u>	<u>% of Total</u>
23	Nuclear	8,079,309	15.1%	10,116,660	19.1%
24	Coal	39,458,584	73.5%	39,375,535	74.1%
25	CTG Gas/Oil	451,481	0.8%	409,889	0.8%
26	Hydro/Pump	958,832	1.8%	955,563	1.8%
27	Purchased Power	4,706,599	<u>8.8%</u>	<u>2,252,920</u>	<u>4.2%</u>
28	Total	53,654,805	100%	53,110,567	100%

29 Both of these charts demonstrate that the majority of AmerenUE's actual net generation is

30 provided through its use of nuclear and coal fired plants.

- Q. What was the generation mix that the Staff determined for AmerenUE as part
   of its direct testimony filing on December 15, 2006?
- 3

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A. Through the use of its production cost model the Staff calculated the following generation mix:

5 **Purchases &** 6 Net MWH 7 **Primary** Generation 8 % of Total **Fuel Source** Staff Model 9 Nuclear 9,322,491 17.2% 10 71.0% Coal 38,407,371 11 CTG Gas/Oil 295,669 0.5% 1,237,388 12 Hvdro/Pump 2.3% <u>9.0</u>% Purchased Power 13 4,888,270 14 Total 54,151,189 100%

The Staff's production cost model included Electric Energy, Inc. (EEInc.) supplied
power based upon AmerenUE's 40% ownership interest as well as Taum Sauk as being fully
available to AmerenUE excluding the effect of the reservoir breach.

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## ESTIMATED INCREASES IN COAL COST

19 Q. Does AmerenUE expect that its cost of coal will continue to increase beyond
20 2007?

A. Yes. Based on contracts currently in place, AmerenUE will pay more for its
coal supply in 2008 than it did in 2007. Likewise, similar increases are expected to occur
again in 2009.

Q. Please quantify what level of increases AmerenUE faces with regard to its
sources of coal supply.

A. In its response to Staff Data Request No. 505, the Company provided a calculation of the expected level of increased coal and related freight costs that it will incur

1	over the next two years. Based on the calculations that were provided in that data request
2	response, the Company estimates that it will incur an increase in coal commodity and
3	transportation costs of approximately ** ** during 2008 above what it will
4	incur during 2007. Additionally the Company estimates that during 2009 it will incur an
5	increase related to coal cost of approximately ** ** above what it will incur
6	during 2008.
7	Q. Is the timing of the commodity coal and transportation increases that is
8	quantified above, known at this time?
9	A. Yes. These coal and related transportation increases are contractually
10	scheduled to begin on ** **.
11	ESTIMATED INCREASE IN NUCLEAR FUEL
10	Q. Are any increases in AmerenUE's nuclear fuel costs expected in the future?
12	Q. The any mercases in Amerchold's nuclear fuer costs expected in the future.
12	<ul><li>A. Yes. In the response to Staff Data Request No. 501, the Company stated that</li></ul>
13	A. Yes. In the response to Staff Data Request No. 501, the Company stated that
13 14	A. Yes. In the response to Staff Data Request No. 501, the Company stated that **
13 14 15	A. Yes. In the response to Staff Data Request No. 501, the Company stated that **
13 14 15 16	A. Yes. In the response to Staff Data Request No. 501, the Company stated that **
13 14 15 16 17	A. Yes. In the response to Staff Data Request No. 501, the Company stated that **
<ol> <li>13</li> <li>14</li> <li>15</li> <li>16</li> <li>17</li> <li>18</li> </ol>	A. Yes. In the response to Staff Data Request No. 501, the Company stated that  **

1	fuel costs (excluding spent fuel, decommissioning and dismantling and Westinghouse Credits)
2	through the end of 2009:
3 4 5 6 7 8	**
9	Q. Does the Company expect any additional increases in nuclear fuel costs
10	subsequent to the May 2007 increase?
11	A. **
12	
13	
14	
	**
15	**
15 16	NATURAL GAS AND FUEL OIL
16	NATURAL GAS AND FUEL OIL
16 17	NATURAL GAS AND FUEL OIL Q. What impact will natural gas and fuel oil costs have on the Company's future
16 17 18	NATURAL GAS AND FUEL OIL Q. What impact will natural gas and fuel oil costs have on the Company's future expense levels?
16 17 18 19	NATURAL GAS AND FUEL OIL         Q.       What impact will natural gas and fuel oil costs have on the Company's future expense levels?         A.       The Staff has not attempted to quantify the impact of any future expected
16 17 18 19 20	NATURAL GAS AND FUEL OIL         Q.       What impact will natural gas and fuel oil costs have on the Company's future expense levels?         A.       The Staff has not attempted to quantify the impact of any future expected increases or decreases in natural gas and fuel oil costs related to the AmerenUE's operations.
16 17 18 19 20 21	NATURAL GAS AND FUEL OIL         Q.       What impact will natural gas and fuel oil costs have on the Company's future expense levels?         A.       The Staff has not attempted to quantify the impact of any future expected increases or decreases in natural gas and fuel oil costs related to the AmerenUE's operations.         The Staff would note that during the test year AmerenUE's use of natural gas and oil fired
<ol> <li>16</li> <li>17</li> <li>18</li> <li>19</li> <li>20</li> <li>21</li> <li>22</li> </ol>	NATURAL GAS AND FUEL OIL         Q.       What impact will natural gas and fuel oil costs have on the Company's future expense levels?         A.       The Staff has not attempted to quantify the impact of any future expected increases or decreases in natural gas and fuel oil costs related to the AmerenUE's operations.         The Staff would note that during the test year AmerenUE's use of natural gas and oil fired facilities accounted for less than 1% of its total generation mix. Any change in natural gas

Q. What coal, coal freight and nuclear fuel prices will be included as part of the
 rate case true-up procedure for this rate case?

A. The Staff intends to include all contract coal and related transportation prices in effect as of the cut-off date, January 1, 2007, agreed to by the parties to this case. The Staff also plans to include the updated nuclear fuel costs as reported in response to Staff Data Request No. 60 through the end of December 31, 2006. Through this true-up process, all known and measurable increases in coal and freight costs as well as nuclear fuel price increases, which will be reflected in expense by AmerenUE at January 1, 2007 will be fully included in Staff's cost of service calculation.

Q. Based on the Staff's level of total annualized fuel and purchase power expense,
what percentage of increase do the estimated coal and nuclear fuel expenses represent?



1	**		
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6			
7	**		
8	SUMMARY		
9	Q. Please summarize your Rebuttal Testimony.		
10	A. For 2008 and 2009 the estimated coal and nuclear fuel expense increases are		
11	approximately **** and **** respectively. Again, the Staff would note that		
12	during the test year AmerenUE's use of natural gas and oil fired facilities accounted for less		
13	than 1% of its total generation mix.		
14	Q. Is the frequency of the increases in coal and nuclear fuel expense similar to		
15	increases associated with other significant expense items included in the cost of service?		
16	A. Yes. Much like annual wage increases that occur on known specific dates in		
17	the future, AmerenUE will incur annual increases in its fuel expense for coal and related		
18	freight cost at known specific dates in the future. Nuclear fuel expense increases occur over a		
19	longer interval, once every eighteen months, when AmerenUE performs a refueling of its		
20	Callaway plant.		
21	Q. Does this conclude your Rebuttal Testimony?		
22	A. Yes.		