

Exhibit No.:
Issues: Fuel Cost Volatility; Fuel
Adjustment Clause
Witness: Robert K. Neff
Sponsoring Party: Union Electric Company
Type of Exhibit: Rebuttal Testimony
Case No.: ER-2007-0002
Date Testimony Prepared: February 5, 2007

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. ER-2007-0002

REBUTTAL TESTIMONY

OF

ROBERT K. NEFF

ON

BEHALF OF

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

**St. Louis, Missouri
February, 2007**

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1 **REBUTTAL TESTIMONY**

2 **OF**

3 **ROBERT K. NEFF**

4 **CASE NO. ER-2007-0002**

5 **I. INTRODUCTION.**

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

7 A. My name is Robert Neff. My business address is One Ameren Plaza, 1901
8 Chouteau Avenue, St. Louis, Missouri 63166-6149.

9 **Q. Are you the same Robert Neff that filed Direct Testimony in this proceeding?**

10 A. Yes, I am.

11 **Q. What is the purpose of your Rebuttal Testimony in this proceeding?**

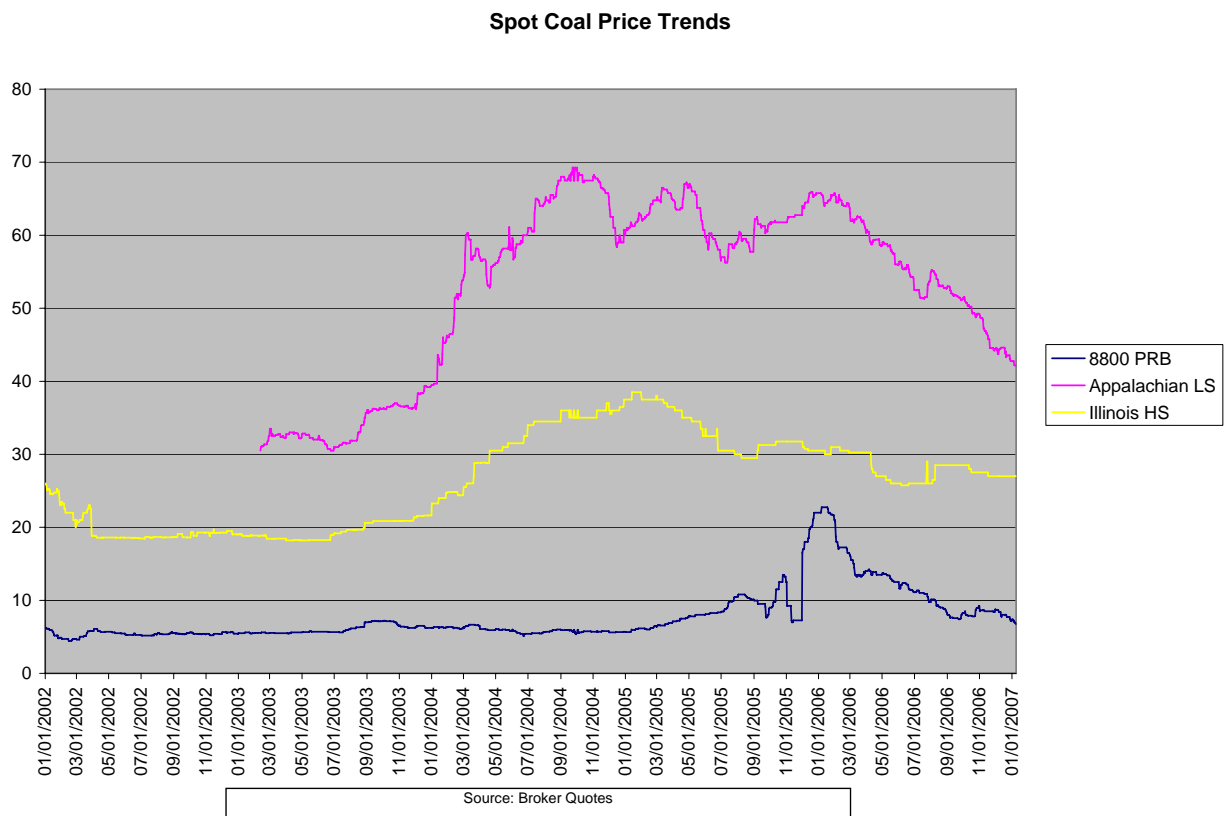
12 A. The purpose of my testimony is to clarify certain components of AmerenUE's
13 fuel costs, provide evidence concerning the volatility of coal and transportation pricing, and to
14 further explain the need for a Fuel Adjustment Clause for AmerenUE.

15 **II. DISCUSSION OF FUEL PRICE VOLATILITY.**

16 **Q. Several witnesses, particularly witnesses Brosch and Binz, have claimed that**
17 **a Fuel Adjustment Clause is unnecessary because the price of AmerenUE's primary fuel,**
18 **coal, is not sufficiently volatile to warrant an adjustment mechanism. Do you agree with**
19 **their views?**

20 A. No. The last several years have seen tremendous volatility in most of the major
21 energy commodity markets, and coal was no exception. I have included some charts below to
22 illustrate the volatility in the energy markets. The first chart, Spot Coal Price Trends, shows the
23 historical spot price in dollars per ton of three common types of coal. AmerenUE uses primarily
24 Powder River Basin (Wyoming) (PRB) coal, which is shown as the bottom (blue) line of the

chart. It is clear that beginning in 2005, the price has been very volatile, with erratic swings and the price tripling within a six-month timeframe. Powder River Basin 8800 Btu coal went from \$6 per ton in mid-2005 to \$14 per ton at the end of 2005 and then spiked to \$22 per ton in January 2006. The PRB market has since traded down to around \$9 per ton. AmerenUE also burns Illinois coal, primarily at its Sioux plant. The price of Illinois coal is depicted as the middle (yellow) line on the chart, and shows that the price of Illinois coal almost doubled over a one and one-half year period. Illinois coal went from \$20 per ton in early 2003 to over \$38 per ton before falling back to around \$27 per ton today.



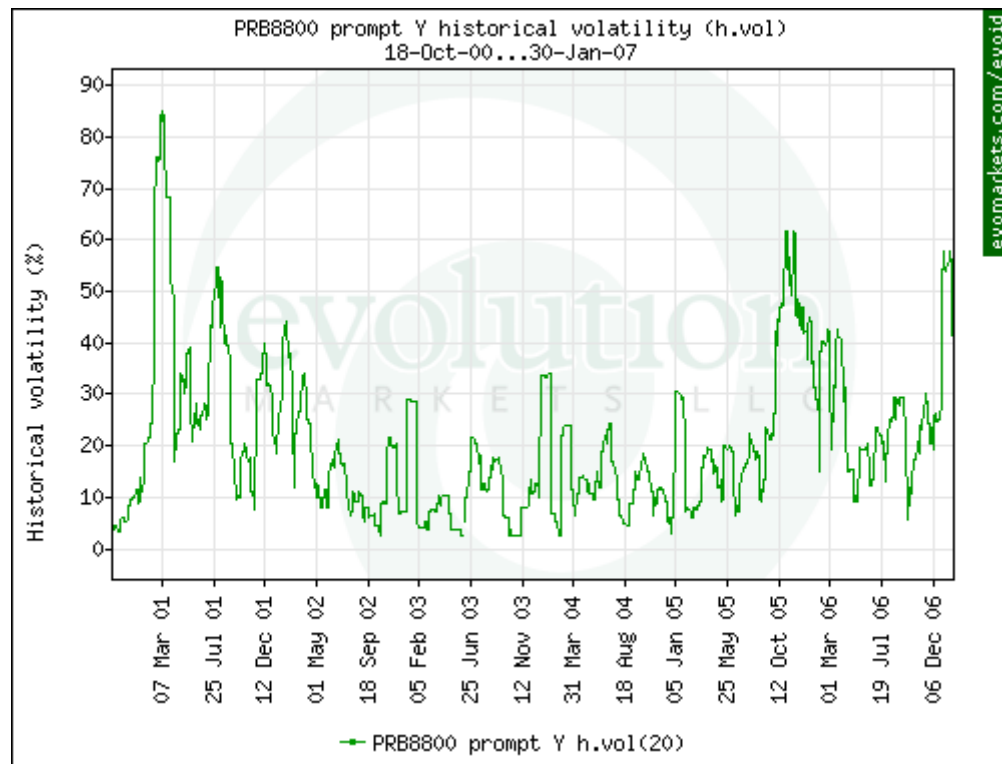
Q. Is there a calculation which can be performed to quantify the amount of volatility in historical commodity pricing?

A. Yes. The volatility of historical prices can be calculated and is measured as a percent. It is a mathematical calculation that measures the likelihood that prices will change over

a given period of time. The higher the volatility percentage, the more likely that prices will change.

Q. Has this volatility calculation been prepared for Powder River Basin coal?

A. Yes. A chart showing the volatility of PRB 8800 Btu coal is shown below.



Q. What does this chart indicate about the volatility of PRB coal?

A. This chart indicates that the volatility of PRB coal is often high, and erratic as well, varying routinely by 20% to 30% over just a few months. Since 2001, the volatility has spiked above 30% twelve times, reaching above 50% four times, and over 80% one time. These spikes in volatility are a function of the increased volatility in all the energy markets and PRB coal is no exception.

Q. Natural gas and oil are other fuels used in AmerenUE's power plants. What is the history and volatility of natural gas and oil prices?

A. The price history of natural gas and oil is shown in the charts below. It is clear that natural gas pricing, like coal, is very erratic, increasing by doubling or tripling within a few months and decreasing just as fast. A volatility chart for natural gas is shown just below the natural gas price. Since 2001, gas has remained in a volatility range of 50% to 90%, and, like coal, has reached levels above 80% volatility one time since 2001. These markets are quick to react to events such as hurricanes in the Gulf of Mexico, where a large part of our nation's crude oil and natural gas is produced. When these markets increase in volatility, the volatility of the other related energy markets tends to increase as well.

The price history and volatility of crude oil and heating oil are shown in the charts following the natural gas price and gas price volatility charts. Oil prices are also erratic, with a volatility range since 2001 that ranges from 25% to 50%.

Natural Gas Price and Volatility



1

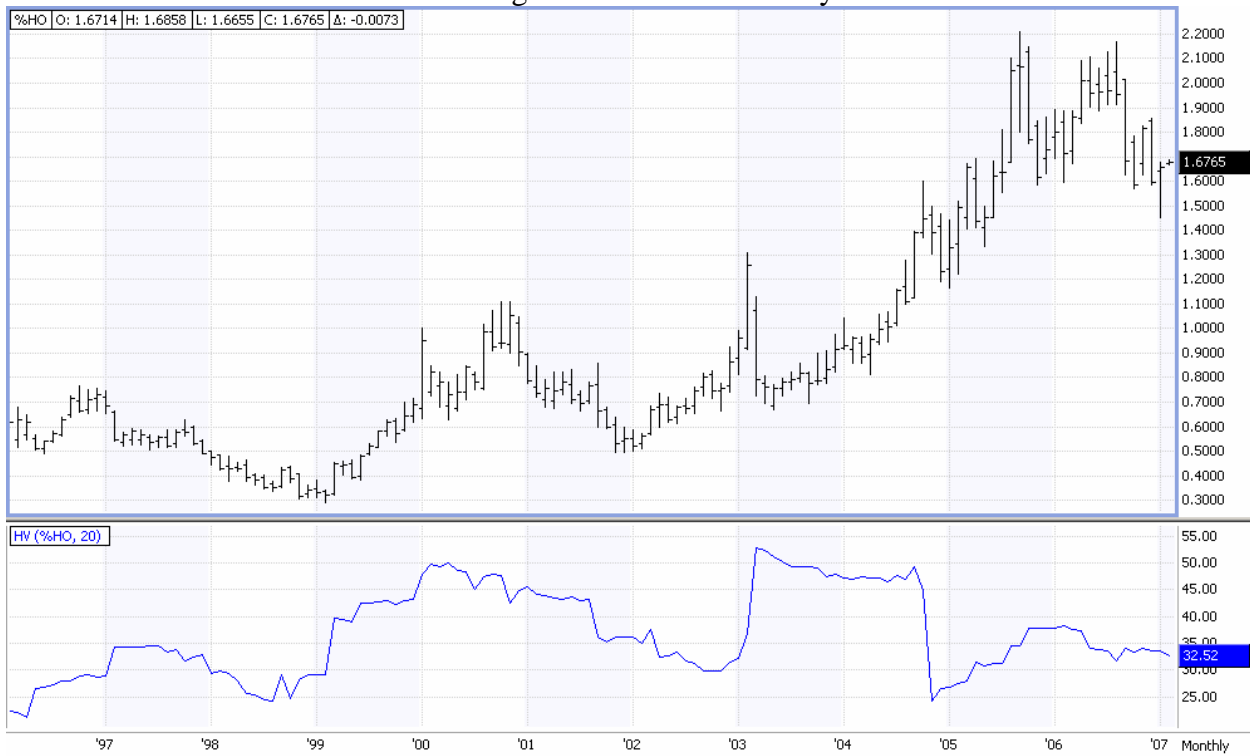
Crude Oil Price and Volatility



2

3

Heating Oil Price and Volatility



4

5

1 **Q. What do these energy commodity charts show for coal, gas, and oil?**

2 A. The charts indicate that coal prices have been about as volatile as heating oil and
3 crude oil, but less volatile than natural gas. They also show that volatility in energy has been
4 high, especially over the last five years. Finally, the charts show that the price volatility of these
5 energy markets is somewhat related.

6 **Q. What are the causes of the volatility in coal pricing?**

7 A. There are many factors that contribute to the run up in prices and subsequent
8 fluctuations. Typical jump cycles in commodity markets are based on unforeseen events in
9 supply and demand, and correlation between changes in other related energy commodity
10 markets. National and international changes in markets and resulting changes in supply and
11 demand balance also factor into price changes. China has been a large factor in the world
12 demand imbalance for coal in recent years. China's economic growth absorbed coal and steel,
13 driving coal prices up in all markets. Other factors contributing to coal price fluctuations include
14 dwindling eastern reserves, constricted rail service nationwide, flooding and hurricanes,
15 bankruptcies, production outages, permitting, bonding and insurance issues, and increased utility
16 demand resulting from the rebounding economy. Also during this same period we saw a
17 dramatic rise in the prices of crude oil, natural gas, and other energy commodities that are related
18 to the price of coal.

19 **Q. Will coal prices continue to fluctuate over the next several years?**

20 A. The issues that caused the market spike over the last several years have not gone
21 away. Rail capacity remains a long-term problem, increases and decreases in mine capacity will
22 continue, and infrastructure needs will all have an effect on coal prices. Increased demand from
23 new base load electric generating facilities, coal to gas conversion, and coal to liquid conversion
24 will all affect the market. Issues with competing energy commodities such as gas pipelines,

1 natural gas storage facilities, refineries, and liquefied natural gas (LNG) terminals will also affect
2 the value of coal. These uncertainties make the likelihood of continued volatility and rapidly
3 fluctuating prices very real.

4 **Q. How does AmerenUE mitigate the risk of coal price volatility?**

5 A. As explained in my Direct Testimony on pages 16 and 17, ** _____

6 _____
7 _____
8 _____
9 _____
10 _____
11 _____
12 _____
13 _____
14 _____
15 _____
16 _____ **

17 **Q. Does the coal hedging strategy as described above eliminate the need for a**
18 **Fuel Adjustment Clause?**

19 A. No. While the hedging strategy does dampen the effects of coal price volatility, it
20 certainly does not eliminate fluctuations in AmerenUE's fuel costs. As presented on page 5 of
21 my Direct Testimony, ** _____

22 _____
23 _____
24 _____

_____** Because fuel costs comprise a sizeable portion of AmerenUE's generating expenses, even small fluctuations in costs on a percentage basis can create large dollar impacts on the Company's costs.

III. DISCUSSION OF TRANSPORTATION COSTS.

Q. More than half of AmerenUE's fuel costs are for transportation expense.

Are transportation costs volatile or stable?

A. Rail transportation rates have been quite volatile. AmerenUE's base transportation rate increases on new contracts in effect **_____** ranged from **_____** and the total rate increases (including fuel surcharge and other adders) ranged from **_____**

Q. Are these types of variations in increases typical in the industry?

A. While contract information of other utilities is confidential, AmerenUE's rate increases and the variation of increases appear typical based on information that is available. According to data on the Burlington Northern Santa Fe (BNSF) website, the following information on base rates under their semi-confidential BNSF 90068 Pricing Authority for Powder River Basin origins in the Gillette area showed:

1. Where rates have been provided for a destination since January 2003, the average increase has been **_____**

2. Where rates have been provided for a destination since only August 2004, the average increase has been **_____**

3. Where rates have been provided for a destination since only January 2005, the average increase has been **_____**

4. Where rates have been provided for a destination since only January 2006, the average increase has been **_____**

1 Overall, the average rate increase has been ** _____

2 _____ ** The range of the rate increases was ** _____ **

3 **Q. Does the Union Pacific Railroad (Union Pacific) have similar variation in**
4 **base rate increases?**

5 A. While Union Pacific has increased rates out of the PRB by varying amounts, data
6 is somewhat limited because of Union Pacific's self-imposed embargo on issuing new rates out
7 of the PRB. This embargo was placed when the well-publicized PRB track problems occurred in
8 2005.

9 **Q. The variations referred to above were fluctuations in transportation**
10 **base rates. Are there additional transportation cost components that could add volatility to**
11 **transportation costs?**

12 A. Yes. Both the Union Pacific and BNSF impose diesel fuel surcharges on
13 top of the base rates to allow them to recover the changes in the cost of diesel fuel. As shown in
14 the oil charts above, oil volatility is significant.

15 **Q. What is the magnitude of the possible variation of diesel fuel**
16 **surcharges for AmerenUE under transportation contracts in effect January 1, 2007?**

17 A. Based on the range of the On-Highway Diesel Index since 2004, the range
18 is ** _____
19 _____ **

20 **Q. You have presented large variations in prices which have occurred**
21 **over the past several years and can occur again in the coal and transportation markets.**
22 **Are these variations under AmerenUE's control?**

23 A. No. The energy commodity and transportation markets are large markets
24 subject to the forces of supply and demand. There are many market participants who collectively

determine the direction of prices through their actions. AmerenUE is one of these many participants with little ability to control the direction or magnitude of price movements. While AmerenUE attempts to manage the impact of the markets through hedging, the markets are not under AmerenUE's control.

IV. FUTURE FUEL COSTS.

Q. Does AmerenUE expect variation in fuel costs in the future?

A. Yes. AmerenUE will see significant increases in fuel costs in 2008 and again in 2009.

Q. Has AmerenUE made estimates of the amount of coal and transportation cost increases expected in 2008 and 2009?

A. Yes. Coal costs are expected to rise by **_____** in 2008 and **_____** in 2009. Similarly, transportation costs will increase by **_____** in 2008 and **_____** in 2009. Together, these increases will total **_____** in 2008 and **_____** in 2009, or **_____** over two years.

Q. Are these increases estimates or are they known and measurable?

A. These increases are largely known and measurable. Approximately **_____** of the coal and **_____** of the transportation is under contract for 2008 and 2009.

Q. How will AmerenUE recover these large variations in fuel costs if the FAC is not approved?

A. Frequent rate cases will be necessary to seek recovery of variations in fuel costs if the Commission does not approve a Fuel Adjustment Clause for AmerenUE.

Q. Does this conclude your Rebuttal Testimony?

A. Yes, it does.

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**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 Natural Gas)
Service Provided to Customers in the)
Company's Missouri Service Area.)

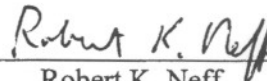
Case No. ER-2007-0002

AFFIDAVIT OF ROBERT K. NEFF

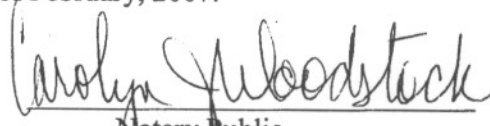
STATE OF MISSOURI)
)**ss**
CITY OF ST. LOUIS)

Robert K. Neff, being first duly sworn on his oath, states:

1. My name is Robert K. Neff. I work in the City of St. Louis, Missouri, and I am employed by Ameren Energy Fuels and Services Company as Vice President.
2. Attached hereto and made a part hereof for all purposes is my Rebuttal Testimony on behalf of Union Electric Company d/b/a AmerenUE consisting of 10 pages, which has 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.


Robert K. Neff

Subscribed and sworn to before me this 5th day of February, 2007.


Notary Public

My commission expires: May 19, 2008

