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Issue(s): Fuel Adjustment Clause –
Nuclear Fuel Costs
Witness: Randall J. Irwin
Sponsoring Party: Union Electric Company
Type of Exhibit: FAC Rebuttal Testimony
Case No.: ER-2010-0036
Date Testimony Prepared: February 26, 2010

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April 22, 2010
Missouri Public
Service Commission

MISSOURI PUBLIC SERVICE COMMISSION

Case No. ER-2010-0036

FUEL ADJUSTMENT CLAUSE REBUTTAL TESTIMONY

OF

RANDALL J. IRWIN

ON

BEHALF OF

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

****DENOTES HIGHLY CONFIDENTIAL INFORMATION****

St. Louis, Missouri
February 26, 2010

UE Exhibit No. 128NP
Date 3-22-10 Reporter YF
File No. YF

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1 **FUEL ADJUSTMENT CLAUSE REBUTTAL TESTIMONY**

2 **OF**

3 **RANDALL J. IRWIN**

4
5 **CASE NO. ER-2010-0036**

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

7 A. My name is Randall J. Irwin. My business address is One Ameren Plaza,
8 1901 Chouteau Avenue, St. Louis, MO 63103.

9 **Q. Are you the same Randall J. Irwin who filed rebuttal testimony in this**
10 **case on February 11, 2010 relating to nuclear fuel costs, and who also filed direct**
11 **testimony in Case Number ER-2008-0318?**

12 A. Yes, I am.

13 **Q. What is the purpose of your rebuttal testimony relating to AmerenUE's**
14 **fuel adjustment clause in this case?**

15 A. The purpose of my rebuttal testimony is to respond to testimony filed by other
16 parties on February 22, 2009, in response to the Commission's February 17, 2010 **Order**
17 **Directing Parties To Submit Testimony Concerning the Appropriateness of**
18 **AmerenUE's Current Fuel Adjustment Clause (Order).** I will discuss AmerenUE's cost
19 exposure to the nuclear fuel markets and the reasons why continuation of AmerenUE's fuel
20 adjustment clause (FAC) in substantially its current form is still needed to protect AmerenUE
21 from the uncertainties of the nuclear fuel markets. Attached to this testimony as Schedule
22 RJI-FR1 is my direct testimony from the Company's last rate case. While some of the
23 numbers in that testimony are now out-of-date, the substance of the points I made remains

1 valid and is relevant to the Commission's Order and the direct testimonies filed by other
2 parties on February 22, 2010.

3 **Q. In direct testimony submitted in the prior case, Case No. ER-2008-0318,**
4 **you discussed volatility in the nuclear fuel markets, particularly the uranium market,**
5 **and the general continued increase in nuclear fuel costs. Is that discussion still valid?**

6 A. Yes, most definitely. As stated in that testimony, the then-current spot price
7 of uranium was approximately \$80/lb. Since 2008, uranium prices have decreased sharply
8 and are now in the low \$40/lb. range. Spot prices are forecast to again increase as new
9 demand enters the marketplace. The massive expansion of nuclear power plants in China
10 and India will place significant demand upon uranium supplies. The timing of such increase
11 is uncertain, although China has already begun a significant buying program. This new
12 demand creates uncertainty (volatility) in the uranium market. The uranium market is
13 worldwide, and is affected by such factors as worldwide growth of nuclear power,
14 government disposition of fuel inventories, exchange rates, and international economics.

15 **Q. Does the Company have any control over these markets?**

16 A. No. The Company has no influence over these volatile markets as they
17 remain beyond the control of management.

18 **Q. What has been the trend in nuclear fuel costs since your direct testimony**
19 **in Case No. ER-2008-0318 was filed?**

20 A. Nuclear fuel costs are expected to continue to increase. This is reflected in
21 the table below:

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Consistent with the expectations as presented in 2008, annual nuclear fuel costs are still

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forecast to increase. It should be noted that the current annual cost values are about **__

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__** than as predicted two years ago.

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Q. Is a similar trend also evident in the total cost of a nuclear fuel reload? ²

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A. Yes. Table 2 below provides the expected costs for the 2010 and 2011

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nuclear fuel reloads, specific to the cases identified.

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The cost of reloads is expected to continue to increase. However, the increase is now

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forecast to be less than that indicated in 2008.

¹ The Case No. ER-2008-0318 figures are those forecasted during that case. The Case No. ER-2010-0036 figure for 2010 is the nuclear fuel costs for 2010, and the 2011 and 2012 figures reflect the Company's current forecast of nuclear fuel costs in each of those years as of this time.

² Table 2 includes the cost of the uranium, conversion, enrichment and fabrication, i.e., the total reload procurement costs.

1 **Q. Are there other sources of uncertainty in addition to those of the uranium**
2 **market?**

3 A. Yes. In addition to uranium, enrichment services is a major component of
4 overall nuclear fuel costs. Since early 2008, the spot market price for enrichment services
5 has increased from about \$145/SWU to almost \$165/SWU currently. The resurgence of
6 nuclear power is also creating increased demand in the enrichment market. New nuclear
7 facilities are being built and increased prices are reflective of the needs for such new
8 construction. A portion of AmerenUE's contracts for enrichment supply contain a price
9 component related to market indicators. As volatility in the market occurs, the prices paid
10 for enrichment are affected. Even contracts with a base escalated price mechanism can be
11 impacted as base price adjustments can occur based on changes in market parameters.

12 Another source of uncertainty is the status of fees paid to the Department of
13 Energy (DOE) for Decommissioning and Decontamination (D&D) of government
14 enrichment facilities. In the past, AmerenUE made annual payments of almost \$2 million to
15 DOE for these charges. The requirement for those payments has currently expired.
16 However, recent U.S. government budget planning is proposing a reinstatement of such
17 D&D payments. It is not known whether, and in what amount, any such payments will be
18 approved.

19 **Q. Has the Commission's approval of an FAC for AmerenUE in the prior**
20 **rate case changed the manner in which the Company purchases nuclear fuel?**

21 A. No. Procurement of nuclear fuel, and the management of price and supply
22 risk, has not changed and is still in accordance with AmerenUE's Risk Management Policy.
23 Also, procurements continue to be overseen by a Risk Management Steering Committee

1 which is comprised of senior level management. Our nuclear fuel procurement methods have
2 remained essentially unchanged since the implementation of the FAC. We continue to do the
3 best job we can to procure nuclear fuel for the Callaway Plant, at appropriate prices,
4 consistent with prudent management of the risks associated with procuring nuclear fuel.

5 **Q. Does this conclude your rebuttal testimony?**

6 **A. Yes, it does.**

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

| | |
|---|-----------------------------|
| In the Matter of Union Electric Company d/b/a |) Case No. ER-2010-0036 |
| AmerenUE's Tariffs to Increase its Annual |) Tracking No. YE-2010-0054 |
| Revenues for Electric Service. |) Tracking No. YE-2010-0055 |

AFFIDAVIT OF RANDALL J. IRWIN

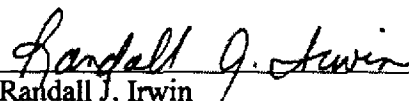
STATE OF MISSOURI)
) ss
CITY OF ST. LOUIS)

Randall J. Irwin, being first duly sworn on his oath, states:

1. My name is Randall J. Irwin. I work in the City of St. Louis, Missouri, and I am employed by Union Electric Company d/b/a AmerenUE as Supervising Engineer, Fuel Cycle Management in Nuclear Generation.

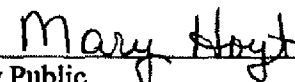
2. Attached hereto and made a part hereof for all purposes is my Additional Rebuttal Testimony on AmerenUE's Fuel Adjustment Clause on behalf of Union Electric Company d/b/a AmerenUE consisting of 5 pages and Schedule RJ1-FR-1, all of which have been prepared in written form for introduction into evidence 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.



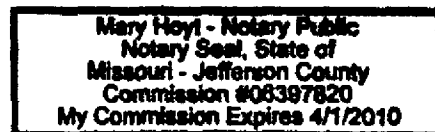
Randall J. Irwin

Subscribed and sworn to before me this 26th day of February, 2010.



Notary Public

My commission expires: 4-1-2010



MISSOURI PUBLIC SERVICE COMMISSION

Case No. ER-2010-0036

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SCHEDULE RJI-FR1 IS DEEMED HIGHLY CONFIDENTIAL