

Exhibit No.:
Issues: Callaway O&M Expense
Witness: Alan M. Rutz
Sponsoring Party: Union Electric Company
Type of Exhibit: Rebuttal Testimony
Case No.: ER-2007-0002
Date Testimony Prepared: January 31, 2007

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. ER-2007-0002

REBUTTAL TESTIMONY

OF

ALAN M. RUTZ

ON

BEHALF OF

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

**St. Louis, Missouri
January, 2007**

REBUTTAL TESTIMONY

OF

ALAN M. RUTZ

CASE NO. ER-2007-0002

Q. Please state your name and business address.

A. My name is Alan M. Rutz. My business address is Callaway Nuclear Power
P.O. Box 620, Fulton, Missouri 65251.

Q. By whom are you employed and in what capacity?

A. I am employed by AmerenUE as General Supervisor Budget/Cost
 ment in the Nuclear Division.

Q. Please summarize your Educational Background and work experience.

A. I earned a B.S. in Engineering Management from the University of Missouri
a in 1972.

My relevant work experience includes employment with Daniel International from 1979 to 1984, during construction of the Callaway Nuclear Power Plant, as a Cost Estimator, a Planner, and Supervisor of Planning and Scheduling. In 1985, I was employed by the Union Electric Company as an Engineer in their Nuclear Services Department. I was promoted to Supervising Engineer –Nuclear Services that same year. The primary responsibilities of this position included budget development, cost management, and cost control for the Nuclear Division. In February, 2003 I was given overall responsibility for the Nuclear Division budgeting and cost management, and the position was re-titled General Manager/Budget/Cost Management.

1 **Q. Have you previously filed Direct Testimony in this proceeding?**

2 A. No.

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

4 A. With reference to the testimony of Mr. John P. Cassidy of the Commission
5 Staff, the purpose of this testimony is to provide updated information on the Callaway
6 Nuclear Plant's Refuel 14 refueling and maintenance costs. In this testimony, I demonstrate
7 that Mr. Cassidy's inclusion of just \$21.5 million for these costs fails to reflect a normalized
8 level of such costs. The refueling outage cost figures discussed in this testimony include
9 contractor, consultant, material and rental costs commonly referred to as non-labor costs.
10 Direct labor and associated outage overtime costs are not included in refueling outage cost
11 totals.

12 The refuel outage started on September 17, 2005 and finished on November
13 19, 2005, a total of 64 days. Refuel 14 was a unique refueling outage in that the primary
14 focus of the outage was on two major capital projects, Steam Generator Replacement and
15 Turbine Rotor Replacement with a significant portion of training and support cost going to
16 these capital projects. In addition, all work in the plant reactor building was turned over to
17 the contractor for Steam Generator Replacement after the fuel was offloaded. This turnover
18 occurred after the first 10 days of the 64 day outage. Some major maintenance work that
19 would normally have been performed in the reactor building during Refuel 14 is scheduled to
20 be worked in Refuel 15 in April, 2007. Deferral of this maintenance work, charging support
21 costs to capital projects and other management decisions led to the lowest cost refueling
22 outage since Refuel 8 in 1998. This is without consideration of the normal escalation of
23 costs that would have occurred during that 6 ½ year period.

1 **Q. What maintenance projects were deferred, or not performed, in Refuel 14**
2 **that will be worked in Refuel 15, and what is estimated cost of these projects?**

3	A. Steam Generator Tube Inspections	\$4,950,000
4	Reactor Vessel (RV) Cold Leg In-Service Inspections (ISI)	\$695,000
5	Removal of RV Lower Internals for RV ISI	<u>\$81,000</u>
6	Total	\$5,726,000

7 **Q. New steam generators were installed in Refuel 14. Why are tube**
8 **inspections still required?**

9 A. Callaway is required by the Nuclear Regulatory Commission (NRC) to
10 perform the steam generator tube inspections the first refueling outage following installation
11 of the new steam generators. These requirements are documented in Callaway Plant
12 Technical Specifications. Identification of wear or other indications on the steam generator
13 tubing could lead to inspections in subsequent refueling outages. Prairie Island Nuclear
14 Station installed new steam generators by the same manufacturer six months before
15 Callaway. They found tubing indications during their first inspection that required tube
16 plugging and will be performing tube inspections in subsequent refueling outages.

17 **Q. Why is Reactor Vessel (RV) Cold Leg In-Service Inspections (ISI)**
18 **included as a project deferred from Refuel 14 to Refuel 15?**

19 A. An in-service inspection (ISI) of the Reactor Vessel was performed during
20 Refuel 13 that identified indications in one of the welds on the "C" Cold Leg of the Reactor
21 Vessel. Callaway committed to a follow-up inspection with the NRC to be performed in
22 Refuel 14. A request to defer the inspection until Refuel 15 was submitted to the NRC when

1 it was determined that this inspection could not be performed without significantly extending
2 to duration of Refuel 14. This request to defer the ISI inspection was granted by the NRC.

3 **Q. Did other management decisions help lower the overall cost of Refuel 14?**

4 A. Yes. There was a decision to use personnel from Ameren's General
5 Construction and Outage Management group in lieu of contractor personnel to perform part
6 of the maintenance work during Refuel 14. This group was formed to support plant outages
7 and general construction work for Ameren's fossil plants. There were no fossil plant outages
8 scheduled for the same time period as the Callaway refueling outage and Callaway
9 management made a request for outage support from this group. This was the first time
10 Callaway has used personnel from the General Construction and Outage Management group.
11 General Construction and Outage Management provided a total of 76,200 work hours and
12 \$3,265,000 in direct labor costs supporting Refuel 14. These costs are less than the cost for
13 the equivalent number of contractor personnel. Callaway will be required to hire contractor
14 personnel to perform these maintenance activities in future outages which will add a
15 minimum of \$3 million to the outage cost.

16 **Q. Based on the testimony provided above what would a fair amount be for**
17 **refueling and maintenance cost associated with Callaway Plant refueling outages?**

18 A. The cost of refueling outages can vary significantly based on the duration of
19 the outage, the availability of Ameren personnel to perform normal maintenance work, and
20 contractor cost for major maintenance and inspection projects performed during the outage.
21 This is evidenced by the cost of Refuel 12 (34 days in 2002) at \$22.6 million, Refuel 13 (64
22 days in 2004) at \$40.1 million and Refuel 14 (64 days in 2005) at \$21.5 million. The average
23 cost for refueling outage during this five year period (July 1, 2001 to June 30, 2006) was

1 \$28.1 million. Coincidentally, the budgeted cost of Refuel 15 (35 days in 2007), which
2 includes the projects listed above, is \$28.1 million. Based on the average cost of the previous
3 three refueling outages, \$28.1 million would be a fair outage cost to include in AmerenUE's
4 revenue requirement.

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 AmerenUE for Authority to File)
Tariffs Increasing Rates for Electric)
Service Provided to Customers in the)
Company's Missouri Service Area.)

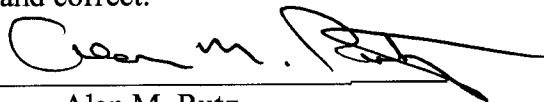
Case No. ER-2007-0002

AFFIDAVIT OF ALAN M. RUTZ

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

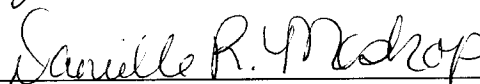
Alan M. Rutz being first duly sworn on his oath, states:

1. My name is Alan M. Rutz. I work in Fulton, Missouri and I am employed by AmerenUE General Supervisor Budget/Cost Management in the Nuclear Division.
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 5 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.



Alan M. Rutz

Subscribed and sworn to before me this 31st day of January, 2007.



Notary Public

My commission expires: July 21, 2009

Danielle R. Moskop
Notary Public - Notary Seal
STATE OF MISSOURI
St. Louis County
My Commission Expires: July 21, 2009
Commission # 05745027