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Service Commission

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Witness: Guy C. Gilbert, PE, RG
Sponsoring Party: MoPSC Staff
Type of Exhibit: Rebuttal Testimony
Case No.: ER-2007-0002
Date Testimony Prepared: January 31, 2007

**MISSOURI PUBLIC SERVICE COMMISSION
UTILITY SERVICES DIVISION**

REBUTTAL TESTIMONY

OF

GUY C. GILBERT, PE, RG

UNION ELECTRIC COMPANY d/b/a

AMERENUE

CASE NO. ER-2007-0002

Jefferson City, Missouri
January 2007

Staff Exhibit No. 211
Case No(s) ER-2007-0002
Date 3/29/07 Rptr gl

EXHIBIT

211

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

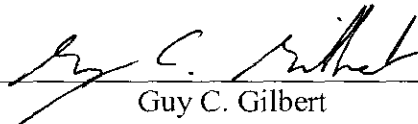
In the Matter of Union Electric Company d/b/a)
AmerenUE for Authority to File Tariffs Increasing)
Rates for Electric Service Provided to Customers in)
the Company's Missouri Service Area.)

Case Nos. ER-2007-0002

AFFIDAVIT OF GUY C. GILBERT

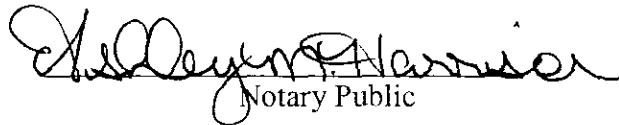
STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

Guy C. Gilbert, 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 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.



Guy C. Gilbert

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



Notary Public



ASHLEY M. HARRISON
My Commission Expires
August 31, 2010
Cole County
Commission #0689887B

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TABLE OF CONTENTS
REBUTTAL TESTIMONY
OF
GUY C. GILBERT, PE, RG
UNION ELECTRIC COMPANY d/b/a
AMERENUE
CASE NO. ER-2007-0002

EXECUTIVE SUMMARY1
LIFESPAN2
DISMANTLEMENT COSTS.....4
ADDITIONAL ADJUSTMENTS TO THE COMPUTATION OF DEPRECIATION RATES....4

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23

REBUTTAL TESTIMONY
OF
GUY C. GILBERT, PE, RG
UNION ELECTRIC COMPANY d/b/a
AMERENUE
CASE NO. ER-2007-0002

- Q. Would you please state your name and business address?
- A. Guy C. Gilbert, 200 Madison Street, Jefferson City, Missouri, 65102.
- Q. By whom are you employed and in what capacity?
- A. I am employed by the Missouri Public Service Commission (PSC or Commission) as a Utility Regulatory Engineer II in the Engineering and Management Services Department.
- Q. Would you please describe your work experience and educational background?
- A. A copy of my work and educational experience is provided at the end of this testimony as Schedule GCG 2.
- Q. Have you previously testified before the Commission?
- A. Yes. The cases in which I have filed testimony before the Commission are listed in Schedule GCG I attached to this testimony.

EXECUTIVE SUMMARY

- Q. Please state the purpose of your testimony?
- A. The purpose of my rebuttal testimony is to offer the Staff's position in response to the Company's filed direct testimony regarding policy issues addressed by the Company's witnesses that are in disagreement with what the Commission has previously

1 | expressed. The Commission recently gave direction in Case No. ER-2004-0570 regarding the
2 | parameters that should be part of the computation of depreciation for utilities. The parameters
3 | delineated by the Commission are value of an asset, average service life and net salvage. The
4 | Commission further stated why lifespan and terminal net salvage estimates were not
5 | appropriate variables to be included in the depreciation computation.

6 | Mr. John F. Wiedmayer, disagrees with the Commission's previous order and seeks to
7 | introduce an additional amount to the asset's value that he calls a "true-up provision for
8 | monitoring the book accumulated depreciation." Mr. William M. Stout, disagrees with the
9 | Commission's previous order and seeks to introduce a lifespan constraint to the computation
10 | of depreciation rates and includes over \$519 million additional dollars for the terminal net
11 | salvage with inflation. Use of lifespan minimizes the time ratepayers have to return the
12 | Company's investment and net salvage. Thomas L. LaGuardia, provides the method and
13 | estimates for the terminal net salvage.

14 | Q. What is the difference between the Company and Staff's positions?

15 | A. The difference between the Staff and the Company's depreciation annual
16 | accrual is in the present case is approximately \$85 million. The Company believes it needs
17 | \$85 million more depreciation expense included in rates than Staff has determined.

18 | **LIFESPAN**

19 | Q. What retirement date is AmerenUE proposing for all its hydroelectric
20 | generating plant?

21 | A. 2036.

22 | Q. What retirement date is AmerenUE proposing for all its non-nuclear steam
23 | generating plant?

1 A. 2026. It is the company's assumption for the determination of depreciation in
2 this case that all the steam production units will be retired in that year, 2026. This is one of
3 the variables that the Company has added to its computation of depreciation for production
4 plant accounts. For purposes of this rate case, it limits the period of time the Company has to
5 receive a return of all the investment it has in steam and hydraulic production plant. This
6 accelerates the need for a return of the invested dollars and dismantlement dollars on behalf of
7 ratepayers from ratepayers.

8 Q. How did the Company make this determination of final retirement date?

9 A. In his filed direct testimony Mr. Stout states at page 13, lines 9 through 19:

10 Q. How is the final retirement date estimated?

11 A. The final retirement date is estimated based on informed judgment
12 incorporating the outlook of management and a consideration of both
13 the life spans of retired stations and units and the estimates of others for
14 units currently in service.

15 Q. Does the final retirement date represent a date certain for the
16 retirement of the plant?

17 A. No, it does not. The final retirement date represents the midpoint of
18 a range of dates during which the retirement of the plant is expected to
19 occur. Until the plant is within about five years of retirement, it is not
20 possible to forecast the exact year of retirement. However, it is possible
21 to identify a relatively narrow range of dates during which the facility
22 will be retired.

23 Q. What are the total number of megawatts and their percentage of production by
24 production type that AmerenUE has?

25	Coal-fired Steam	= 5,400 Mw	55%
26	Nuclear Steam	= 1,190 Mw	12%
27	Gas Combustion Turbines (Other)	= 2,526 Mw	25%
28	Hydro Plants	= 800 Mw	8%
29	Total	= 9,916 Mw	

1 Q. Is it reasonable to expect that AmerenUE will replace the vast majority, if not
2 all, of its generating capacity in the next twenty years?

3 A. That would be unprecedented for an electric utility company of AmerenUE's
4 size.

5 **DISMANTLEMENT COSTS**

6 Q. Is AmerenUE receiving dismantlement costs?

7 A. Yes, the Company receives net salvage amounts through out the life of the
8 plant that are based on interim retirements this is accrued as a percentage annually of the
9 entire plant value. For example a negative three percent net salvage for a plant life of
10 35 years would return more than 100% of the original plant cost. AmerenUE projects its coal
11 plants will last approximately 50 years. Based on this 50 year life the negative 3 percent net
12 salvage would provide 150% of the plants original cost back to the Company. The Company
13 also receives 100% of the original cost and interim additions as represented by the average
14 service life component of the depreciation rate.

15 **ADDITIONAL ADJUSTMENTS TO THE COMPUTATION OF DEPRECIATION**
16 **RATES**

17 Q. Does the Company propose additional amounts, methods and techniques to the
18 computation of the depreciation rates based upon estimated amounts resulting from estimated
19 amounts?

20 A. The Company uses the estimated lifespan and the estimated dismantlement
21 cost to determine an estimated reserve for depreciation. Because of the addition of estimated
22 dismantlement costs and a limited time frame due to an assumed date of retirement and
23 dismantlement of the power plants, the accumulated reserve for depreciation appears to be

1 less adequate than would be the result without the estimated additional costs and time
2 constraints. Without the addition of these estimates, the accumulated reserve for depreciation
3 would appear to be more adequate and in the Staff's opinion, more appropriate.

4 Q. How does the Company derive this estimated adjustment for the depreciation
5 reserve?

6 A. The actuarial analysis uses the same data sets, algorithms and software as Staff
7 used yielding results that are interpreted by the depreciation analyst, resulting in an estimated
8 average service life for that particular group or account of assets. This interpretation is aided
9 by engineering judgment, and selection and interpretation of a survivor curve. The Staff's
10 analysis regarding depreciable life ends here. The Company however, takes this estimated
11 average service life and estimates a remaining life that is used to adjust the period over which
12 the future depreciation amount and accruals will need to be made based upon the time
13 available before everything in the account is retired. In the case of power production accounts
14 this average service life is artificially truncated or simply cut-off. For coal fired power plants
15 the cut-off is 2026.

16 Q. Does the Company make this additional adjustment for all depreciated plant
17 accounts?

18 A. Yes, for the steam, nuclear, and hydro accounts the period is called the
19 lifespan. For the other production and all other accounts this period is called the remaining
20 life.

21 Q. What is the result of these additional estimated amounts and periods?

22 A. It constrains and limits the amount of time that the ratepayers have available to
23 return the investment made by the Company for service to the ratepayer, as if at some date

1 certain time in the future the Company will be exiting the business of providing electric
2 service.

3 Q. Are there any other estimated adjustments that the Company seeks to make
4 regarding depreciation?

5 A. Yes. The Company would like to redistribute the accrued reserves for
6 depreciation between the distribution accounts and the general plant accounts.

7 Q. Does the Staff agree with the Company's recommended redistribution of the
8 reserve?

9 A. No. While the distribution account currently appears to have an excess of
10 depreciation reserve accruals, recent multiple storm damage estimates would argue otherwise.
11 This is an example of engineering judgment used in the determination of depreciation rates.
12 The storm damage has resulted in tens of millions of dollars of unexpected retirements in the
13 distribution accounts. The apparent tens of millions of dollars of damage to the AmerenUE
14 distribution system may consume the over accrual in these distribution accounts. It is also
15 possible that the Company will receive substantial insurance reimbursements for these
16 damages, in which case a redistribution of reserves may be contemplated.

17 Furthermore, the Company states that it is under accrued in the general plant accounts
18 and explains how a lack of timeliness has caused the Company this perceived loss. The
19 Company's witness has detailed a perceived lose in reserve accrual of some \$42 million since
20 1983 for Personal Computers alone.

21 According to Mr. Wiedmeyer's Schedule JFW-E1, schedule 2 at page III-13, the
22 original cost at December 31, 2005, the total original cost of all Personal Computers is
23 \$1,310,097.52 (\$1.3 million). The entire Office Furniture and Equipment at that date is
24 \$40,849,467.42 of which \$39,127,355.95 is booked as Office Furniture and Equipment with

1 the remainder in Mainframe Computers and Personal Computers. The current total book
2 reserve per this schedule for this account is stated as being \$25,090,984.

3 Q. How does the Company propose to address the estimated inadequacy of the
4 reserve for depreciation?

5 A. By the addition of the various described estimated dismantlement costs,
6 estimated life spans, estimated remaining life adjustments and estimated depreciation reserve
7 imbalance adjustments amounts.

8 Q. Does the Staff believe there is an estimated inadequacy of the reserve for
9 depreciation?

10 A. No, Staff believes the reserve to currently be over accrued by over \$920
11 million. As part of the last rate proceeding settlement a negative amortization of \$20 million
12 dollars was put in place in an effort to slow this over accrual.

13 Q. Has the theoretical reserve over accrual of \$920 million been addressed in this
14 case?

15 A. Yes, Staff witness Jolie L. Mathis has recommended in her direct testimony
16 filed in this case, that no action be taken regarding the reserve over accrual of \$920 million,
17 but that Staff continue to monitor it. The reason being that Staff witness Mathis
18 recommended depreciation rates should be corrective to the depreciation reserve over accrual
19 on a going forward basis.

20 Q. Does this conclude your prepared rebuttal testimony?

21 A. Yes, it does.

CASE PARTICIPATION
GUY C. GILBERT, MS, PE, RG

Date Filed	Issue	Case Number	Exhibit	Case Name
17-Jun-94	Modernization	TO-93-309		Farber Telephone
17-Nov-95	Certificate (Sewer) - Case dismissed	SA-94-54		Osage County Water (sewer)
01-Oct-94	Certificate	GA-94-127		Southern MO Gas Co
12-Oct-94	Transfer of assets	GM-94-252		Missouri Public Service
30-Aug-94	HB 360 & extr. ret.	TAO 992		Holway Telephone
30-Aug-94	Extraordinary retirement amortization	TAO 993		New Florence Telephone
03-Jan-95	Waiver from Rule	GO-95-104		Fidelity Natural Gas
11-Jul-95	Purchase of GTE exchanges	TM-95-134		Ozark Telephone
11-Jul-95	Purchase of GTE exchanges	TM-95-135		BPS Telephone
11-Jul-95	Purchase of GTE exchanges	TM-95-142		Modern Telecommunications
19-Sep-95	General rate case	WR-95-145		St. Louis County Water
11-Jul-95	Purchase of GTE exchanges	TM-95-163		Cass County Telephone
22-Mar-96	Certificate	SA-96-40		Taneycomo Highlands (Sewer)
14-Feb-96	Certificate	SA-96-91		S.T. Ventures (Sewer)
09-May-96	Certificate (Water & Sewer)	WA-96-96		Emerald Pointe Utilities
24-Sep-96	Certificate	GA-96-264		Ozark Natural Gas
31-Jul-96	General rate case (Water)	WR-96-407		Taney County
16-Jan-96	Depreciation rates & amortization	TAO 998		Fidelity Telephone
16-Jan-96	Depreciation rates & amortization	TAO 999		Bourbeuse Telephone
31-Jan-96	Depreciation rates	TAO 1001		Northeast Missouri Rural Tel
15-Nov-96	Variance from prior order	GO-97-30		Southern Missouri Gas
12-Dec-96	HB360 rates	TAO 1004		Kingdom Telephone

31-Jan-97	Extraordinary retirement of COE	TAO 1005			Iamo Telephone
3/28/97	Depreciation of Plant	EC97362	Direct		UtiliCorp United Inc. d/b/a MO Public Service
3/28/97	Depreciation of Plant	EO97144	Direct		UtiliCorp United Inc. d/b/a MO Public Service
9/16/97	Depreciation of Plant	ER97394	Direct		Missouri Public Service, A Division of UtiliCorp United Inc.
9/30/97	Sale of Plant	GM97435	Rebuttal		Missouri Public Service, A Division of UtiliCorp United Inc.
10/17/97	Depreciation of Plant	ER97394	Rebuttal		UtiliCorp United Inc. d/b/a MO Public Service
11/21/97	Amortization of accounts, Depreciation, Depreciation Recommendations	ER97394	Surrebuttal		UtiliCorp United Inc. d/b/a MO Public Service
5/15/98	Depreciation	GA98227	Rebuttal		Ozark Natural Gas Company, Inc.
10/8/98	Depreciation of Plant	EC98573	Direct		St. Joseph Light and Power Company
11/30/98	Depreciation of Plant	WA97410	Rebuttal		George Hoesch
5/13/99	Depreciation of Plant	ER99247	Direct		St. Joseph Light & Power Company
5/13/99	Depreciation of Plant	EC98573	Direct		St. Joseph Light & Power Company
8/8/2000	Depreciation of Plant	GR2000512	Direct		Union Electric Company d/b/a AmerenUE

GUY C. GILBERT, MS, PE, RG

PROFESSIONAL EXPERIENCE

Linn State Technical College

Chair, Civil / Construction Engineering Management Technology Department

Director, Material and Safety Institute

2000 - 2004

Department Chair and faculty instructor for courses in civil engineering technology, construction methods and techniques, surveying, engineering economics, materials, material testing, estimating, scheduling and project management.

Direct and manage activities of the Material and Safety Institute that provides resources and training for business and industry in the areas of quarry/materials acceptance certification as mandated by the Federal Highway Administration and OSHA/MSHA safety training.

State of Missouri, Public Service Commission

Utility Regulatory Engineer I, 1994 -2000, 2004-present

Prepare depreciation studies, cost studies, valuations and engineering analysis of utility assets. Conduct special projects in conjunction with the FCC and the FERC.

State of Illinois, Department of Energy and Natural Resources

Project Engineer 1991 - 1994

Managed Clean Coal Technology Demonstration projects; often in concert with U.S.DOE projects. Represented Illinois in over \$1.1 billion of projects ranging from pre-combustion technologies to combustion and post combustion technologies. Performed cost benefit analysis of the environmental and economic impacts and procured benefits to the state.

CW3M Company, Inc.

Consulting Project Engineer 1993 -1994 (part time contract)

Conducted geotechnical evaluation of leaking underground storage tank sites. Designed equipment for containment and treatment of contaminated ground water.

Illinois Commerce Commission

Management Analyst 1988 - 1991

Managed consultant conducted comprehensive management audits of operational aspects of public utilities. Assessed least cost planning programs of public utilities and provided recommendations on risk assessment and cost estimating of various externalities. Have reviewed and provided recommendations to utilities within the management function areas of Operations, Operations Planning, Power Production (fossil and nuclear), Fuels Management (fossil and nuclear), Transmission and Distribution (electric and gas), Engineering and

Construction (electric, gas, and telephone), Gas Supply, Network Operations Planning, Network Operations and Information Services.

*Freeman United Coal Mining Company (General Dynamics)
Assistant to the Superintendent 1982 - 1987*

Produced annual mining plans and budget for 2+ million ton per year underground mining facility. Assessed geologic aspects of the mine environment to optimize safety and productivity. Prepared economic feasibility studies and justification for new and alternative capital expenditures. Developed and implemented microcomputer based on site operations information systems encompassing maintenance, materials, manpower, and costs. Administered UMWA-BCOA Labor Agreement: grievance procedures, attendance control and benefits programs. Special projects involving production methods, structures, ventilation, and materials engineering. Provided certification of operating compliance with Federal and State regulations as required.

*Peabody Coal Company
Coal Miner, UMWA 1976-1980*

EDUCATION:

Bachelor of Science Economics, University of Missouri-Rolla
Bachelor of Science Mining Engineering, University of Missouri-Rolla
National Science Foundation Research Grant participant (NSF GY 9841)
Master of Science, Career & Technology Education, Central Missouri State University
Graduate Speaker, Central Missouri State University
Outstanding Graduate Student Leadership Award, Central Missouri State University

Advisory Board Member, Economics & Finance Department, University of Missouri-Rolla
Facilities and Planning Committee for construction of Calvary Lutheran High School
School Board Member Trinity Lutheran Grade School

Continuing Education

Management Analyst Training
Basic Depreciation Concepts
Models Used In Life and Salvage Studies
Forecasting Life and Salvage
Advanced Topics in Analysis and Forecasting
Business and Technical Writing
Communicating Effectively
Auditing in Telecommunications
Introduction to EDP Auditing
Network Certification
Asbestos Training for Maintenance Employees, #40 CFR 763.92(a)(2)(i thru iv)
Red Cross First Aid Adult/AED/Child/Infant CPR Instructor, Expired

Redirecting Employee Performance
Basic Supervision
Humboldt Radiation Safety Training Class

CERTIFICATIONS:

by United States Department of Labor

Noise Level Testing
Dust Sampling
Dust Sampling Equipment Calibration
Electricity Low/Medium/High Voltage, Expired
Dam and Refuse Impoundment Inspector
Dam and Refuse Impoundment Inspection Instructor
OSHA Safety Instructor (10 & 30 Hour), Expired

by State of Missouri

State Board of Geologist Registration, member
Registered Professional Engineer, No. EN 026908
Registered Professional Geologist, No. RG 0976
SAVE/SEMA Structural Inspector I
Vocational Teaching Certificate, No. 0238934
Department of Transportation, Trainer Certified Materials Technician Level 1
Department of Transportation, Trainer Certified Level 2 Aggregate
Department of Transportation, Trainer Certified Level 2 Soils
Department of Transportation, Trainer Certified Level 2 Concrete
Department of Transportation, Trainer Certified Profilograph

by State of Illinois

Mine Manager, No. 6634
Mine Examiner, No. 10324
Electrical Hoisting Engineer, No. 2427
Sewage Treatment Plant Operator, Class K
Industrial Wastewater Treatment Works Operator, Class K
State of Illinois Mine Rescue Team, Springfield Station, No. 2
Certified Benchman for Mine Rescue Equipment
Emergency Medical Technician-Ambulance, Expired

Demonstration Projects

- Energy & Environmental Research Corporation - Hennepin Station (GR-SI)
- Energy & Environmental Research Corporation - City Water Light and Power
- Pircon-Peck Process - Western Illinois University
- Combustion Engineering - Integrated Gasification Combined Cycle (IGCC) - City Water, Light and Power Springfield

- Southern Illinois University Refurbishment Repowering Project
- Tecogen's Development and Testing of a Commercial Scale Coal-Fired Combustion System - Illinois Coal Development Park
- TCS Incorporated's Micronized Coal System at Rochelle Municipal Utilities
- IGT - Kerr-McGee MildGas
- Radian's Characterization of Disposed Wastes from Advanced Coal Combustion Residues

Investigations

- NovaCon Sorbent: U.S. DOE and EERC
- Sargent & Lundy Combustion 2000:
- Tecogen: moving bed copper oxide flue gas cleaning process
- Air Purification's RotorFilter Technology:
- Tampa Electric Company: Use of Illinois high sulfur coal

Management Audits

Central Illinois Light Company, Peoria, Illinois
Commonwealth Edison, Chicago, Illinois
GTE Telephone Company, Dallas, Texas
GTE Data Systems, Tampa Florida