Exhibit No.:	
Issues:	Electric Generation Infrastructure Improvements; Estimated Generation Plant Retirement Dates
Witness:	Garry L. Randolph
Sponsoring Party:	Union Electric
Type of Exhibit:	Rebuttal Testimony
Case No.:	EC-2002-1
Date Testimony Prepared:	May 10, 2002

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. EC-2002-1

REBUTTAL TESTIMONY

OF

GARRY L. RANDOLPH

ON

BEHALF OF

UNION ELECTRIC COMPANY
d/b/a AmerenUE

Exhibit No. 133 NP
Date 7/11/02 Case No. EC-2002-1
Reporter ni

St. Louis, Missouri
May, 2002

**** Denotes Proprietary Information ****

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REBUTTAL TESTIMONY

OF

GARRY L. RANDOLPH

CASE NO. EC-2002-1

I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Garry L. Randolph. My business address is AmerenUE, P. O. Box 620, M/C CA-460, Fulton, Missouri 65251.

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

A. I am Senior Vice President – Generation and Chief Nuclear Officer of AmerenUE.

Q. Please describe AmerenUE.

A. Union Electric Company does business as AmerenUE ("AmerenUE"). AmerenUE is a subsidiary of Ameren Corporation which provides electric and gas service to customers in Missouri. AmerenUE has generation, transmission and distribution capability to support its electric customers, as well as distribution capabilities to support its gas customers.

Q. Please describe your education.

A. I earned a bachelor's degree in Electrical Engineering in 1970 and master's degree in Electrical Engineering in 1971. Both degrees were awarded by the University of Missouri-Columbia.

Q. Please describe your qualifications.

A. I was employed by the United States Navy from 1971 to 1977. While serving in the United States Navy, I served onboard the USS Daniel Boone, a nuclear powered fleet ballistic missile submarine, and as a department head at Nuclear Power School. I left the United States Navy as a Lieutenant (O-3).

I accepted employment as an engineer in the Nuclear Operation department for Callaway Plant with Union Electric Company in 1977. I was promoted to various positions that included responsibilities associated with construction completion and startup testing of Callaway. Subsequently, I was promoted to Manager, Callaway Plant in 1986. In 1987, I was promoted to General Manager, Nuclear Operations. In 1991, I was elected Vice President, Nuclear Operations and then in 1997 I assumed additional duties as Vice President, Nuclear and Chief Nuclear Officer. In October 2000, my title was changed to Senior Vice President and Chief Nuclear Officer until my present position as Senior Vice President - Generation and Chief Nuclear Officer in October 2001.

Q. Please describe your duties and responsibilities as Senior Vice President - Generation and Chief Nuclear Officer.

A. I am responsible for the generation assets of AmerenUE. This includes their safe, reliable and efficient operation.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to explain the need for electric generation infrastructure improvements in Missouri. More specifically I will address the need for increased generation capacity and improved electric generation reliability in Missouri. I

will also discuss AmerenUE's role in continuing to provide its customers with reliable, low cost power now and into the 21st Century. Finally, I will address the estimated retirement dates for AmerenUE's generation plants utilized in the development of the Company's proposed depreciation rates, set forth in the rebuttal testimony of William M. Stout. As part of my testimony, I have prepared an **Executive Summary** attached hereto as Appendix A.

Q. Please summarize the conclusions reached in your testimony.

A. The following are among the significant conclusions reached in my testimony:

1. There is a definite need for generation capacity additions in Missouri and throughout the nation in order to maintain the reliability of the electric power supply. From an economic and assured availability viewpoint these needed additions must, at least in part, come from AmerenUE and Missouri's other electric utilities. Nearby states have taken action to obtain similar results.
2. AmerenUE has made and will continue to make extensive investments in the reliability of its electric generation capacity. These maintenance costs and capital expenditures are escalating due to the aging of AmerenUE's generation fleet, environmental regulations and increased security concerns after September 11th. AmerenUE intends to invest $1.74 billion in generation infrastructure improvements and additions through 2006. In addition, the Company will see an increase in security costs,

directly related to the terrorist attacks of at least $2.3 million per year as part of ongoing operating expenses, as well as incremental one-time capital expenditures of at least $6.4 million.

3. Adequate provisions must be made for the eventual retirement of AmerenUE's generating plants. The estimated retirement dates for those plants utilized in the depreciation calculations sponsored by Mr. Stout in this case were developed by Company operations personnel working in concert with Mr. Stout. The estimated retirement dates are reasonable based on my knowledge of the condition and operation of these plants.

4. AmerenUE is committed to provide a low cost, secure and reliable supply of electricity to its customers. All stakeholders' needs must be balanced while providing AmerenUE with sufficient financial resources to reach its goal.

II. ELECTRIC GENERATION INFRASTRUCTURE IMPROVEMENTS

Q. Please describe the current situation related to electricity production in the United States.

A. Electricity powers our everyday lives. An adequate supply of electricity is essential to continue the electronic age lifestyle and the standard of living to which we all have become accustomed. Hardly imaginable a generation ago, today's world depends on electricity to power a vast array of electronic devices in homes and offices and even on

the factory floor. Computers, the internet and robotics are just a few recent innovations that we have become dependent upon. These modern day marvels along with more traditional needs have increased the importance of a secure, reliable source of electricity in the 21st Century. The consequences of a loss of power to our customers due to the lack of generation availability or an interruption in our transmission and distribution network are far greater in the 21st Century than in our recent past. Therefore, it is even more important to have adequate generation capacity and for that generation to be highly reliable once in service.

Q. Does the United States have an adequate supply of electric generation to meet its energy needs now and in the future?

A. The recent shortages, skyrocketing, volatile prices and utility financial instability in California have raised concerns. The California "crisis" also spread into much of the western part of the country. New England, New York City and Texas also narrowly escaped power disruptions in the summer of 2001. Although a disaster in electricity supply was avoided this year, these events have cast doubt on the country's ability to provide enough electricity to meet the needs of its citizens. The National Energy Policy Report released by the Bush Administration in May 2001 stated, "Over the next few years, if the demand for electricity continues to grow as predicted, and if we fail to implement a comprehensive energy plan that recognizes the need to increase capacity, we can expect our electricity shortage problems to grow. The result will be higher costs and lower reliability." The Report calls for an additional 393,000 MW of new generating capacity by 2020. That translates into more than one new plant each week over the next twenty years. This is certainly a monumental challenge for the

electric industry. Without a doubt, all stakeholders in the process of providing an adequate supply of electricity must act responsibly to ensure the nation will enjoy a future that minimizes concerns about the reliability of the electricity supply.

Q. After a couple decades of stability, why are we suddenly confronting an "energy crisis" again?

A. In much of the nation, facilities for generation, transmission and distribution of electricity and natural gas have not kept pace with increased demand. Three basic reasons are behind this lack of expansion. First, deregulation has created vast new opportunities for non-utility energy marketers, while discouraging investment in new facilities by traditional regulated utilities. Second, strict environmental regulations have discouraged building new power plants, while encouraging the plants that are built to be fueled by natural gas. Finally, local opposition to building new power plants and transmission lines—the NIMBY (not in my backyard) syndrome—has limited available sites for new facilities and delayed construction of planned facilities.

Q. How will Missouri's wait-and-see mode on restructuring affect future electric generation and transmission expansion?

A. The pace of restructuring in the electric industry has slowed considerably after the experience in California. There is a lot to learn from California's experience and consequently, Missouri is not pursuing restructuring at this time. AmerenUE proposes to complement the wait-and-see mode Missouri has adopted by working within the current regulated utility framework. AmerenUE's vision is to achieve "performance leadership and growth in the energy business" supported by the strategy to "provide high quality utility service by prudently investing in the regulated utility business". This means we

intend to meet our customers' 21st Century energy needs in the generating, transmitting and distributing of electrical energy.

Q. Why is generation development critical to Missouri?

A. The U.S. Department of Energy (DOE) estimates demand for power in this country will continue to grow by almost 2 percent per year over the next 20 years. In addition, an aging generation infrastructure will require replacement facilities in the future and continual improvements to existing, older plants.

Missouri-based companies are not adding enough new generating capacity to keep pace with growing demand. Information presented to Governor Holden's Energy Policy Task Force on June 15, 2001 is included in my testimony as Schedule 1. Schedule 1 shows the reserve margin in 2001 for "owned capacity" of Missouri's investor-owned utilities was only 0.7%. This is based on generation capacity of 14,125 MW and a forecasted peak of 14,021 MW in 2001. The same calculation using the forecast for 2005 shows load will exceed "owned capacity" and results in a reserve margin of -3.7%. In fact, it was necessary for AmerenUE to purchase power in 2001 and 2002 to satisfy customer demand.

The process at AmerenUE for purchasing power is discussed in detail in the rebuttal testimony of Richard A. Voytas. Missouri's investor-owned utilities are becoming increasingly dependent on power purchases from other suppliers to sustain a reserve margin of 18% or greater, which is typically required by regional reliability councils. The rebuttal testimony of AmerenUE witness Voytas also provides background on establishing a proper reserve margin for AmerenUE.

Q. What are the implications for Missouri?

A. Missouri may be on a path to becoming a net importer, rather than an exporter, of electricity. That's the same path followed by California for many years. No one wants to see Missouri end up where California is today. Furthermore, construction of generation plants in Missouri means jobs in Missouri that are not exported to other states. A generation plant has a significant positive impact on the state and local economy by not only creating jobs but also additional tax revenues for state and local use. Additionally, the increased assurance of electrical power assists in attracting industry, business and residents to Missouri.

Q. What is the outlook for capacity additions in Missouri?

A. Schedule 2 of my testimony shows actual capacity additions in 2001 and announced capacity additions proposed for Missouri through 2003. A 29% increase in existing generation will be achieved if all announced projects are built.

However, less than one quarter of this new generation can be attributed to Missouri's utilities. Most of the new generation additions are the announced projects of independent power producers. Therein lies a potential problem in Missouri's energy future. Announced projects are frequently abandoned before construction begins. Economic and market forces play a critical role in determining a project's future. Furthermore, a generation plant in Missouri operated by an independent power producer is under no obligation to make the output of the plant available to Missouri electricity consumers. In fact, the output may be tied up in long term contracts for exclusive sale to out of state customers.

Q. What is the alternative to relying on these independent power producers' plans?

A. By encouraging its regulated utilities to build generation, Missouri can be assured of adequate and reliable energy supply built in Missouri for Missouri customers. From the perspective of consumers and businesses this is a desirable result. Further, Missouri energy prices can be better insulated from "whatever the traffic will bear" pricing of independent power producers in the wholesale energy markets. The long run benefit of additional electric capacity built within the utility is reliable supply at a reasonable, regulated price. Missouri's electric customers can only be assured access to low cost, reliable electricity if Missouri's investor owned utilities are self-sufficient.

Q. How do energy efficiency, conservation and alternative energy sources affect Missouri's energy future?

A. Energy efficiency, conservation and alternative energy sources can also continue to play a role in Missouri's energy future. However, none of these sources alone or in combination are sufficient, economically or practically, to offset the expected need for additional generation. Historically, efficiency and conservation have tempered demand growth but they are insufficient to make a much more significant contribution over the long run. The power produced from renewable energy sources has always been a welcome addition to Missouri's generation portfolio. Unfortunately, these renewable sources lack the economics and technology to play more than a relatively small role in Missouri's foreseeable energy future.

AmerenUE continues to rely on renewable sources for generation as demonstrated by nearly 800 MW of generation capacity at its hydro facilities. At its

Sioux plant in West Alton, AmerenUE employs used tires as an alternative fuel source. More than 46,000 tons of tires were consumed in generating electricity at the Sioux plant in the last two years.

Q. How can Missouri encourage development of new generation to increase electrical power supply self-sufficiency by in-state utilities?

A. The best approach is to properly balance all stakeholders' present and future needs. In balancing stakeholders' needs, regulators must be willing to include in rates all costs related to electrical infrastructure investment for future electric power reliability. Investors must have the confidence their investment will receive fair treatment in the short and long term. Customers must have the confidence that their energy needs will be met.

Q. What type of incentives have neighboring states established to ensure an adequate and reliable electricity supply for their citizens?

A. Although we believe that a healthy rate of return, which can be provided by this Commission, is the most direct approach to provide for an adequate and reliable electricity supply, other states have accomplished this objective through legislative initiatives.

In Kansas, legislation was enacted on May 31, 2001 that allows electric generation facilities and transmission lines to be placed in rate base before being placed in service. The legislation exempts generation facilities from state imposed property tax levies and electric transmission lines from all property taxes, and grants discretionary authority to remove generation facilities from locally imposed property taxes. In support of the legislation Sen. Stan Clark, R-Oakley said: "We don't want to put our citizens at

the same risk California put its citizens. What is important," he said, "is grasping the social responsibility of setting up an energy structure that secures future electric generation in Kansas." Governor Bill Graves in his statement said: "Our consumption of energy continues to increase, so we need to increase our options for satisfying the demands."

Iowa legislation was enacted on July 3, 2001 that requires the Iowa Utilities Board to specify before plant construction begins the ratemaking principles it will apply to the new units. It allows the Iowa Utilities Board to provide a higher return than the utility currently receives on its existing assets in order to encourage new construction. This action allows utilities to know how their various costs will be incorporated into electricity rates prior to their investment in new plants. Governor Tom Vilsack applauded the bill's passage as "a significant first step for addressing Iowa's energy needs"

Illinois also enacted legislation and it became effective on June 23, 2001. The $3.5 billion legislative package was designed to provide tax breaks and financial incentives to power plant developers and provides "fast-track" permitting of new mine-mouth power plants. The new law establishes $1.7 billion revenue bond authorization for new generation and $300 million authorization for transmission system improvements. It also provides the Governor's Energy Cabinet with responsibility for siting new generation facilities, implementing environmental regulations and streamlining the permitting process.

In June 2001, Wisconsin adopted a 2001 Energy Policy. The policy recommends steps to assure 6,300 MW of additional electric capacity for the state and

plans to quickly increase transmission capacity to ensure reliability. It recommends an assessment of state agency rules on energy policies. Governor Scott McCallum in the Wisconsin 2001 Energy Policy Report said, "The issues facing the energy industry are not the same as they were in previous years. Strategies and policies that were successful in the past will not necessarily work today." Along similar lines Wisconsin Energy Corporation (WEC) has received nearly unanimous support for its "Power the Future" program to build additional generation in the state. The WEC plan calls for a rate of return on the investment over the life of the plants to be negotiated before construction.

Q. Why are these states taking such actions?

A. These states are taking actions to encourage the expansion of electric generation and transmission system infrastructure within their borders. These actions are being pursued to maintain the reliability of the electric power supply to provide a stable foundation for continued economic prosperity and growth in the various states. Again, I believe these needs can be appropriately addressed by this Commission by assuring the Company a fair rate of return over an extended time frame. The alternative regulation proposal set forth in Mr. Baxter's rebuttal testimony would achieve this objective.

Q. Please summarize the critical electrical energy issues facing Missouri.

A. Without a change to the status quo, Missouri is facing shrinking owned capacity reserve margins at investor-owned utilities, an increased reliance on power purchases from other suppliers, reduced electric power import capability due to transmission constraints and generation capacity additions that lag neighboring states. Due to a lack of self-sufficiency in electric energy generation by the in-state utilities, the economic growth and electric energy supply for Missouri is at higher risk.

Q. Please elaborate on the higher risk that reliable, low-cost electric energy will not be available in the future for customers in the state of Missouri.

A. Aside from the issues associated with capacity constraints in electric generation and transmission, there are several issues that our industry is facing or will face in the near future. These issues include: increased reliance on natural gas as a fuel source, plant reliability, future clean air regulations and the impact of the terrorist attacks on September 11th.

The increased reliance on natural gas makes Missouri more vulnerable to natural gas shortages and subsequent market price volatility, which could be unacceptable to AmerenUE's customers.

Considering plant reliability, the complexity of a power plant is such that one cannot be expected to operate at 100% of the time without failure. This fact, coupled with transmission constraints, looms as a high impediment to the reliability demanded in the 21st Century. Thin reserve margins exacerbate this situation.

Unknowns in the future include potential new clean air regulations that will undoubtedly adversely impact operating costs and capital costs, and result in parasitic capacity losses. These regulations will adversely impact our ability to meet the 21st Century requirements of our customers.

The September 11th attacks also have had an impact on our ability to continue to provide low-cost, reliable power. AmerenUE's additional security expenses, above the level of those costs prior to September 11th, will be at least $2.3 million per year as part of its ongoing operations. AmerenUE's incremental capital expenditures associated with the terrorist attacks will be at least $6.4 million.

Q. Are these expenses and capital costs included in the cost of service calculation currently being sponsored by Company witness Gary Weiss?

A. No, these costs were not included in Mr. Weiss' analysis because they have been or will be incurred outside of the test year established by the Commission for this case. However, in my opinion, these costs should be included in any rates the Commission approves in this proceeding. It is perfectly appropriate for the Commission to consider post-test year costs to ensure that AmerenUE is made whole for the costs of protecting its system from terrorist attack.

Q. Are the amounts you have quantified the only extra security costs that AmerenUE has incurred and will incur in the wake of the September 11th attacks?

A. No. My calculation does not include one-time expenses incurred in the immediate aftermath of the attacks. For example, the Company incurred $93,000 of costs for additional security guards in the month following September 11. In addition, my calculation of costs excluded the significant amount of costs that the Company expects to bear in the future, but which have not been precisely quantified. For example, as a "top-to-bottom" review of security requirements for the Nuclear Regulatory Commission continues, additional operating and capital costs will more than likely be required for the Callaway plant.

Q. Turning to another subject, how does AmerenUE plan to meet future generation needs?

A. In addition to utilizing existing generation, AmerenUE intends to meet future generation needs with the purchase of power and energy at market prices, the

addition of new AmerenUE generation capacity, the upgrade of existing facilities or some combination thereof.

Q. Please describe AmerenUE's planned generation upgrades and additions in more detail.

A. AmerenUE will be adding 585 MW of generation capability through upgrades and additions by 2006. Units at the Callaway, Labadie, Rush Island, Osage, Keokuk, Sioux, Meramec and Venice generating facilities are scheduled for upgrades totaling 345 MW. Gas-fired combustion turbine generators are currently under construction at Venice and Peno Creek. When completed in June 2002, these units will add 240 MW to AmerenUE's generating capability. These generation additions (Venice and Peno Creek) will require a capital investment of approximately $137 million. Additional capital investment at Venice will be required in the coming years to replace the generating capacity of the units being retired.

Q. What are your plans to maintain or increase the reliability of existing plants?

A. Reliability of the existing plants can be maintained or increased by proper predictive, preventive and corrective maintenance coupled with component replacement when required. Typically, as units age they require additional maintenance costs. Our plants' ages are shown in Schedule 3 of my testimony. We have a fleet of plants that has an average age of 38 years, excluding the hydro units with in-service dates back to 1913. We are convinced that AmerenUE's plants can be reliable, even at their age, if they are properly maintained and if appropriate capital investments are made. In support of this philosophy, we have spent or plan to spend approximately $4.1 billion in maintenance

costs and capital expenditures for our generation facilities in the ten-year period from 1997 through 2006. A summary of these investments in generation reliability is contained in Schedule 4 of my testimony. This demonstrates our commitment to provide low cost, reliable power to our customers. The pursuit of this philosophy requires adequate financial resources to assure maintenance is pursued and capital investments are made to support plant reliability.

Q. What is AmerenUE's anticipated level of expenditures on generation infrastructure in 2002 and beyond?

A. AmerenUE intends to invest $1.74 billion in generation infrastructure improvements and additions from 2002 through 2006, as shown under the Capital Costs heading on Schedule 4. This amount includes the anticipated costs associated with increasing the reliability of existing plants, generation upgrades and new generation These investments are critical to our mission of providing low cost, reliable power to our customers. However, as explained more fully in the rebuttal testimony of Warner L. Baxter, the Staff's proposed rate reduction would substantially impair the Company's ability to make these needed investments.

III. ESTIMATED GENERATION PLANT RETIREMENT DATA

Q. Does AmerenUE plan to retire any units in its aging generation fleet in the near future?

A. Yes. AmerenUE recently reached a decision to retire the Venice facility before June 2004. Due to the recency of this decision, the additional investment in infrastructure which will be necessary due to the retirement is not included in the

$1.74 billion set forth above, and it is not included in the testimony of the other Company witnesses that address infrastructure issues.

Q. Why is the Venice facility being retired?

A. The facility is being retired after a recent in-depth analysis revealed that retirement is the most prudent course of action from the perspective of safety, reliability and economics. The facility has been in operation for more than 50 years. It operates on technology developed in an era before the rapid advances of computer driven technology of the last three to four decades. Despite significant maintenance expenditures, the facility has deteriorated over its long life. This deterioration causes a higher incidence of equipment failures which results in the facility being less reliable in providing electric power when called upon. The facility has poor fuel efficiency in comparison to more modern generating units. In addition, the facility utilized construction techniques and materials, including asbestos, that are inconsistent with today's accepted standards and regulations. Also, the Venice facility has reached a point where the maintenance costs and capital expenditures needed to continue safe, reliable operation exceed the economic value to be gained from the investment. Retirement of the facility and the replacement of its generating capacity through other means is justified based on the analysis of these and other variables.

Q. Does the analysis performed in conjunction with the decision to retire the Venice facility lead to any conclusion about the retirement of other AmerenUE generating facilities in the future?

A. Yes, the useful life of any generating facility is determined by the interaction of a host of variables. A single one of these variables considered in a vacuum

cannot accurately forecast the life span of a facility. The variables, although consistent in many ways, also possess unique characteristics that prohibit over-generalization about facilities and their operating lives. Moreover, the variables, which include such things as technology improvements and regulatory requirements, are ever changing over time. As a consequence, although average life expectancies based on historical observations and experiences can provide long range estimates of retirement dates, a determination of the exact timing of the retirement of a particular facility can only be made after consideration of the unique circumstances of that facility relatively close to the time of its anticipated retirement date.

Q. When are AmerenUE's other generating facilities scheduled for retirement?

A. AmerenUE Generation has conducted a review of all of the AmerenUE generating facilities' retirement dates. This review considered experiences, observations, investment plans and unique circumstances associated with the specific generating facilities being considered, coupled with the uncertainty of future regulatory changes, technology advancements and market reliability. This review has resulted in the estimated retirement dates shown in my attached Schedule 5. These same retirement dates were used by Company witness William M. Stout in his testimony concerning the appropriate depreciation rates for the Company. I consider these estimates to be reasonable for long-range planning and accounting purposes. The continued consideration of the unique circumstances of each facility over time will serve to refine the estimates when warranted and be the final determinant of the precise timing of each generation facility retirement.

Q. What should be considered in making the final determination to retire a generation facility?

A. The Venice analysis provides a general guideline for determining the retirement of facilities. Retirement decisions must rely on a fact-specific consideration of interrelated issues involving safety, reliability, efficiency, technology, regulations and economics in the appropriate timeframe. The role of each variable in the final retirement decision can vary based upon the unique circumstances of each facility under consideration.

Q. Is it prudent to make decisions about retiring generating facilities without consideration of these variables?

A. Absolutely not. The reliance on historical averages alone to determine the useful life of a facility, as suggested by Staff Witness Jolie L. Mathis in her direct testimony, can provide inaccurate and misleading results. The reasoned analysis performed by the Company can more accurately predict the timing of the retirement of a facility. Based on input from AmerenUE's Generation function, Mr. Stout more appropriately considered variables including historical trends, equipment types, technological obsolescence, regulatory change, as well as other changes. In the end, consideration of the unique circumstances of each facility as the estimated retirement date approaches will be the final determinant for a retirement.

Q. Is there a relationship between maintenance expenses and capital expenditures, and the useful life of a generating facility?

A. Yes, timely maintenance expense and capital expenditures must continue in order for a generating facility to be operated safely, reliably and with economic

efficiency. Certainly, expenditures of this type aid in preventing the premature aging of a facility and they are necessary if AmerenUE's generating facilities are to continue to operate reliably over the remainder of their useful lives. However, the useful lives of these facilities cannot be prolonged indefinitely regardless of any practical level of expenditures. In fact, the level of capital investments for these generating facilities are among the variables that contribute to the unique circumstances that will ultimately determine the retirement of a particular facility.

Q. Are the costs associated with the 2001 Callaway refueling an example of the increasing cost of maintenance of AmerenUE's aging generation fleet?

A. Yes. The costs incurred in April and May 2001 associated with the refueling and maintenance of the Callaway nuclear facility are in excess of the refueling costs incurred in prior years. The 2001 Callaway refueling and maintenance cost level is a specific example which demonstrates that as units age they require additional maintenance. Generally, one can assume present maintenance costs would be a base level of expense with future outage expenses increasing due to aging of the facility. In some cases, maintenance costs may be partially offset in future outages with significant capital investments. These investments at Callaway demonstrate AmerenUE's commitment to maintain the reliability of its aging generation fleet.

Q. Please elaborate on the capital investments needed to support plant reliability.

A. In the generation business of AmerenUE we have identified capital investments needed to replace various components in our existing plants. Our capital

budgets also include new plant additions. The total capital budget for AmerenUE generation is, in millions, $322 in 2002, $269 in 2003, $378 in 2004 and $579 in 2005.

These costs include items such as replacement of steam generators, control systems, condenser tubes, and low pressure turbine rotors for the Callaway Plant. At other AmerenUE generating units, component replacements include condenser tubes, feedwater heaters, high-pressure and intermediate pressure turbine rotors and coal mills. Also included are other items, such as generator rewinds and installation of distributed controls systems. Underlying issues that cause us to replace components include obsolescence, performance degradation, aging, etc. Some of these components being replaced will not only increase the reliability of the unit but will also increase the unit's generating capacity. Schedule 6 of my testimony provides a list of some of the upgrades through 2006, the corresponding cost, and the capacity impact. The total cumulative impact of these upgrades on AmerenUE's generation capacity is the addition of 345 MW of capacity. Schedule 7 of my testimony provides a list of major expenditures on plant upgrades that will not result in an associated increase in generation capacity. These investments are required simply to maintain the reliability of the units. Schedules 6 and 7 as well as Schedule 4 of my rebuttal testimony are consistent with the testimony regarding plant upgrades and additions contained in the rebuttal testimony of Company witnesses Warner L. Baxter and Craig D. Nelson.

Q. What should Missouri do to ensure the reliability of its energy supply for the 21st Century?

A. While many of the factors included in an analysis of generation planning are not within Missouri's control, such as the price of fuel, developments within power

markets, and actions taken by neighboring states, this state can take action to improve its energy outlook. These actions complement Missouri's wait-and-see attitude toward restructuring by utilizing the current regulatory framework to further energy related goals.

We believe it is necessary for AmerenUE to increase its generation capacity through a combination of building plants and increasing the generation capacity of its existing plants. In the short-run, that means we will need to be a strong, healthy, financially viable company so that we can access capital markets to provide the capital needed for these projects. We also believe regulatory authorities should allow full cost recovery for the needed capacity. These actions would significantly alleviate reliability concerns and mitigate exposure to price volatility. Also, we strongly urge consideration of a mechanism to provide AmerenUE with both regulatory certainty concerning cost recovery and a reasonable rate of return on its investment. Although it is important to focus on new capacity, it is at least as important to assure existing plants are aggressively maintained to maximize reliability. Consequently, adequate cost recovery for maintenance cost is required, as well as financial support for capital investment in existing plants. This also requires a focus on providing regulatory certainty for cost recovery and a reasonable rate of return on investment.

Q. Can these actions be facilitated through the traditional regulatory process?

A. The traditional regulatory process that served us in the past is not in sync with the reality of today. Opening of wholesale power markets by the federal government has created challenges that we must address in Missouri. Without a

transmission system capable of moving power around the region, increased generation in other states will not relieve Missouri's generation concerns.

To encourage generation and transmission development, Missouri must have the appropriate legislative, regulatory and market structure—one that allows for recovery of the required capital costs and a reasonable return on investment associated with this development. The regulatory certainty and timely recovery of costs is now the expectation in the investment community. In their absence, Missouri will not have the generation and transmission the state needs to prosper and grow. The Alternative Regulation Plan proposed by the Company in this case will provide that certainty which will help to ensure that Missouri energy needs will be met.

Q. What are the consequences if new capacity additions are not made by AmerenUE?

A. The consequences are dependent on many variables that are outside the control of AmerenUE and the State of Missouri. Those items include but are not limited to non-regulated suppliers agreeing to supply electrical power, pricing of the electrical power based on what the market will bear, availability of transmission capacity to transfer the power to AmerenUE's system and transmission pricing uncertainty. This essentially puts AmerenUE's customer in a deregulated marketplace for additional load growth with increased reliability risk. These consequences are not what AmerenUE envisions as meeting the needs of the 21st Century for Missouri's electric customers.

Q. Does this conclude your testimony?

A. Yes.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

The Staff of the Missouri Public Service Commission, Complainant,	)	
vs.	)	Case No. EC-2002-1
Union Electric Company, d/b/a AmerenUE, Respondent.	)	

AFFIDAVIT OF GARRY L. RANDOLPH

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

Garry L.Randolph, being first duly sworn on his oath, states:

1. My name is Garry L.Randolph. I work in St. Louis, Missouri and Fulton, Missouri and I am employed by Ameren as Senior Vice President Generation and Chief Nuclear Officer .

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 23 pages, Appendix A and Schedules 1 through 7, 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.

Garry L. Randolph

Subscribed and sworn to before me this 1st day of May, 2002.

Notary Public

My commission expires: 4-1-06

MARY HOYT
Notary Public - Notary Seal
STATE OF MISSOURI
Jefferson County
My Commission Expires: April 1, 2006

EXECUTIVE SUMMARY

Garry L. Randolph

Senior Vice-President – Generation and Chief Nuclear Officer at AmerenUE

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AmerenUE intends to invest $1.74 billion in generation infrastructure improvements and additions through 2006. This investment is vital to the State of Missouri. However, the Staff's rate proposal puts the investment in serious jeopardy. If the largest electric utility in the state cannot economically finance and invest in new generation as well as in upgrades and maintenance to existing generation, the state faces the prospect of becoming a net importer of electric energy--the path recently followed by California. Missouri electric customers can only be assured of access to low cost, reliable electricity if Missouri's investor owned utilities are provided with regulatory certainty concerning cost recovery and a reasonable rate of return on their investment.

AmerenUE has made, and will continue to make, extensive investments in its electric generating assets. Its generation fleet, however, is aging and the company faces escalating maintenance costs and capital expenditures, as well as potential new environmental regulations and increased security costs after September 11th. Increased security costs alone are adding at least $2.3 million per year in ongoing operating expenditures, as well as incremental capital expenditures of at least $6.4 million.

In order to maintain the reliability of their electric power supply, neighboring states are taking actions to encourage the expansion of the electric generation and transmission system infrastructure within their borders. They realize its importance in

providing a stable foundation for continued economic prosperity and growth within their borders. The Alternative Regulation Plan proposed by the Company in this case will provide the regulatory certainty and reasonable rate of return that will help ensure that Missouri energy needs will be met.

The estimated retirement dates for AmerenUE's generating plants, used by Mr. Stout in his testimony concerning the depreciation issue, were developed by AmerenUE operations personnel working in concert with Mr. Stout. The estimated retirement dates are reasonable based on my knowledge of the condition and operation of these plants. Each plant was reviewed using the Company's experience, observations, investment plans and the unique circumstances associated with the specific generating facility. These factors were considered along with the uncertainties of future regulatory changes, technology advancements and market reliability. The reliance on historical averages alone to determine the useful life of a facility, as suggest by the Staff, can provide inaccurate and misleading results. Rather, the consideration of historical trends, equipment types, technological obsolescence, regulatory change and the unique circumstances of each facility are much more likely to result in more realistic estimated retirement dates.

MO IOUs* Capacity Reserves

*** IOU - Investor Owned Utility (AmerenUE, KCPL, Empire, & UtiliCorp)**

	2001	*2002*	*2003*	*2004*	*2005*
Existing Capacity					
Generation	14,125	14,249	14,442	14,460	14,460
Net Purchases	2,082	1,660	1,668	1,677	776
Capacity Available	**16,207**	**15,909**	**16,110**	**16,137**	**15,236**
Forecasted Peaks with DSM	14,021	14,249	14,446	14,709	14,991
Required Reserves	2,023	2,451	2,482	2,524	2,570
Capacity Required	**16,044**	**16,700**	**16,928**	**17,233**	**17,561**
Excess (Shortage) Capacity	**163**	**(791)**	**(818)**	**(1,096)**	**(2,325)**

Note - Figures do not reflect existing capacity owned by non-regulated affiliates of Missouri utilities except when this capacity is contractually committed to serving regulated load.

Source: Energy Policy Task Force Presentation June15, 2001
By Ryan Kind - Chief Energy Economist, Missouri Office of Public Counsel

Schedule 1

New generating capacity projects (MW) in Missouri

Year	Non-utility	Utility	Total	% of Existing
2001 Actual	1,416	890	2,306	14%
2002-3 Announced	2,370	242	2,612	15%
Total	3,786	1,132	4,918	29%

Source: RPI NEWGen database with updates based on published public information.

Schedule 2

AmerenUE
Generation Fleet

Plant		Year Commercial	Age (years)
Keokuk Units 1-15	-	1913	88
Osage Units 1-8	-	1928	73
Venice Unit 3	-	1943	58
Unit 4	-	1948	53
Unit 5	-	1950	51
Unit 6	-	1950	51
Meramec Unit 1	-	1953	48
Unit 2	-	1954	47
Unit 3	-	1959	42
Unit 4	-	1961	40
Taum Sauk Units 1-2-		1963	38
Sioux Unit 1	-	1967	34
Unit 2	-	1968	33
Labadie Unit 1	-	1970	31
Unit 2	-	1971	30
Unit 3	-	1972	29
Unit 4	-	1973	28
Rush Island Unit 1	-	1976	25
Unit 2	-	1977	24
Callaway Unit 1	-	1985	16
Fleet Average Age (excluding hydro)			38

Schedule 3

AmerenUE
Generation Maintenance Expense and Capital Costs
1997 through 2006
(Actual through December 2001)

Year	Maintenance Expense	Capital Costs	Total
1997	$149,332,177	$82,949,269	$232,281,446
1998	$149,929,696	$74,283,348	$224,213,044
1999	$167,905,573	$96,939,257	$264,844,830
2000	$159,970,810	$155,156,000	$315,126,810
2001	$171,743,600	$410,421,000	$582,164,600
2002	$140,027,800	$321,587,000	$461,614,800
2003	$151,106,000	$269,028,000	$420,134,000
2004	$152,974,600	$377,714,000	$530,688,600
2005	$158,293,700	$578,823,000	$737,116,700
2006	$147,045,200	$191,109,000	$338,154,200
Total	$1,548,329,156	$2,558,009,874	$4,106,339,030

Schedule 4

AmerenUE
Electric Plant Retirement

Facility	Estimated Retirement Year
Meramec	2016
Sioux	2018
Venice	2004
Labadie	2023
Rush Island	2027
Callaway	2024
Osage	2036
Keokuk	2028
Taum Sauk	2040

Schedule 5

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Schedule 6 has been deemed Proprietary in its entirety.

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Schedule 6

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Schedule 7 has been deemed Proprietary in its entirety.

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Schedule 7