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MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. GR-99-315

SUPPLEMENTAL DIRECT TESTIMONY

OF

WILLIAM M. STOUT, P.E.

ON

BEHALF OF

LACLEDE GAS COMPANY
AND
UNION ELECTRIC COMPANY
d/b/a AmerenUE

St. Louis, Missouri
August 2004

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CASE NO. GR-99-315

I. QUALIFICATIONS

Q. Please state your name and business address.

A. My name is William M. Stout. My business address is 207 Senate Avenue, Camp Hill, Pennsylvania.

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

A. I am President of the Valuation and Rate Division of Gannett Fleming, Inc.

Q. Please describe the Valuation and Rate Division.

A. The Valuation and Rate Division of Gannett Fleming, Inc. provides consulting services to public utilities and railroads. The Gannett Fleming affiliated companies employ nearly 1,900 people in 53 offices throughout the United States and Canada.

The Valuation and Rate Division has a long history of client services encompassing valuations; depreciation studies; revenue requirement, cost allocation and rate design studies; analyses of accounting systems; and acquisition and feasibility studies. Software developed by my firm and related to the conduct of depreciation studies is licensed to utility companies and commissions including the Missouri Public Service Commission (the "Commission") and Union Electric Company d/b/a Ameren UE (AmerenUE).

Q. Please describe your educational and employment background.

A. I have a Bachelor of Science degree in Management Engineering from Rensselaer Polytechnic Institute and completed the "Fundamentals of Life Estimation," "Forecasting Service Life," and "Making and Administering [Depreciation] Policy" programs conducted by the Center for Depreciation Studies at Western Michigan University. I am also a registered professional engineer in the Commonwealth of Pennsylvania, a member of the National and Pennsylvania Societies of Professional Engineers, the Institute of Industrial Engineers, the American Gas Association (AGA), and the Society of Depreciation Professionals (SDP) and a former member of the Accounting Services Committee of AGA and a past president of SDP.

While attending Rensselaer, I was employed by the Valuation Division of Gannett Fleming Corddry and Carpenter, Inc., during the summers of 1970, 1971, and 1972. My principal assignments related to valuation studies and computer programming.

After my graduation in June 1973, I was employed by the Valuation Division as a Valuation Engineer. The scope of my depreciation activities has included assembly of basic data, statistical service life analyses utilizing the retirement rate and simulated plant record methods, field surveys, estimation of service life and salvage, calculation of annual and accrued depreciation, and preparation of reports presenting the results of the studies.

The scope of my cost of service activities has included the selection of customers to be demand-metered, the analysis of recorded customer demands, the development of cost allocation factors, the allocation of costs, the analysis of customers' consumption, the application of present and proposed rates to the consumption analysis, the design of rate

structures, and the preparation of reports presenting the results of the studies.

Since January 1978, I have testified in support of the studies conducted under my direct supervision. In January 1980, I was assigned to the position of Manager of Depreciation and Cost Allocation Studies conducted by the Valuation Division. In June 1982, I became a Vice President. I became a Senior Vice President in 1991 and attained my current position of President in 1994.

Q. Do your professional activities also include teaching in continuing professional educational programs?

A. Yes, they do. In 1985 I became a member of the faculty of Depreciation Programs, Inc. (DPI), lecturing on "Forecasting Service Life," "Fundamentals of Salvage Analysis," and "Managing a Depreciation Study". DPI offered the premier series of programs in depreciation and, over the course of 33 years, was attended by thousands of personnel from utility companies, commissions and consultants. I was privileged to have as fellow instructors and colleagues the country's foremost depreciation authorities, including Robley Winfrey, Jean Hempstead, Chet Fitch, Harold Cowles, and Frank Wolf. I was an instructor in these programs for 15 years. I also have been an instructor at the annual Introduction to Public Utility Accounting and Advanced Public Utility Accounting seminars sponsored by the AGA and the Edison Electric Institute and the seminars presented by the SDP at its Annual Meeting. My students at both the DPI and SDP programs have included Staff members of the Missouri Public Service Commission.

Q. Have you previously testified on the subject of depreciation?

A. Yes. I have testified before the Missouri Public Service Commission, the Pennsylvania Public Utility Commission, the Georgia Public Service Commission, the

Public Service Commission of Indiana, the New York Public Service Commission, the New Hampshire Public Utilities Commission, the Alaska Public Utilities Commission, the Texas Public Utility Commission, the Public Utilities Commission of the State of Colorado, the California Public Utilities Commission, the Federal Energy Regulatory Commission, the National Energy Board of Canada, the Canadian Radio-Television and Telecommunications Commission, the Alberta Energy & Utilities Board, the Newfoundland Board of Commissioners of Public Utilities, and the United States Tax Court on the subject of depreciation.

Q. How many depreciation studies have you performed during your career and for what types of companies?

A. I have conducted several hundred depreciation studies during my over 30-year career for gas, electric, water, wastewater, telephone, and railroad companies.

II. SUMMARY

Q. What is the purpose of your testimony in this proceeding?

A. My testimony provides additional evidence related to the appropriate treatment of net salvage. On behalf of Laclede Gas Company (Laclede) and AmerenUE, I recommend that the Commission continue its use of the standard approach to straight line whole life depreciation by including an accrual for net salvage during the life of utility plant, as proposed by Laclede and supported by AmerenUE, rather than the allowance proposed by Staff that effectively allows in rates only the costs based on historical net salvage experience.

Q. What are your conclusions regarding the appropriate treatment of net salvage?

A. Annual depreciation accrual rates and amounts that include a provision for net salvage related to current plant in service are reasonable and in accord with sound ratemaking principles. Depreciation is the loss in service value and service value is the difference between original cost and net salvage value. Thus, net salvage should be a part of the standard straight-line whole life depreciation accrual.

Net salvage costs should be recovered from customers served by the plant that requires the ultimate expenditure of such net salvage costs. The use of the standard approach, i.e., straight-line whole life accrual over the life of the asset, accomplishes this equity. Staff's proposal, which essentially "expenses" net salvage by allowing the average net salvage costs incurred in the last 3 to 10 years, does not. Such expensing of net salvage actually results in higher revenue requirements over the life of the plant. The standard straight-line whole life accrual of such costs during the life of plant actually results in lower total revenue requirements.

It is appropriate for the net salvage accrual to exceed recent net salvage cost during a period of system growth and prior to reaching a steady state for the plant. As retirements continue to be made of the group of plant presently in service, the net salvage costs for this plant will exceed the net salvage accruals for this plant.

Nearly all public utility commissions use the straight-line whole life or remaining life accrual of net salvage during the life of the asset. As a result, the Commission should find that the standard approach, i.e., ratable recovery of net salvage during the life of the plant, is equitable for Laclede and its customers as well as for other Missouri utilities and

their customers.

Q. What are the bases for your conclusion regarding the appropriate treatment of net salvage?

A. My conclusion that the accrual for net salvage proposed by Laclede is appropriate is based on (1) its consistency with the Commission's Uniform System of Accounts (USOA), (2) its consistency with depreciation theory as explained in authoritative texts on the subject, (3) its consistency with the opinion of the most authoritative experts in the field of depreciation, (4) a thorough review of the evidence submitted in this proceeding, (5) the equitable treatment of current and future customers, (6) the past precedent of the Commission and other regulatory bodies in the United States, and (7) the negative financial impacts on the utility and customers of Staff's proposal.

The standard approach of accruing for net salvage, as proposed by Laclede and supported by AmerenUE, is consistent with past precedent, the USOA, depreciation theory as set forth in authoritative texts, and the opinion of the country's most authoritative depreciation experts. Such accruals also equitably treat current and future customers. Staff has proposed a radical departure from this standard approach. This proposal effectively eliminates net salvage from the depreciation rate formula and is in conflict with the manner in which nearly all utility depreciation is determined in the United States. This ill-conceived approach proposed by Staff is not consistent with the book and ratemaking treatment afforded Laclede by the Commission throughout its history, the USOA adopted by the Commission, depreciation theory as explained by experts and authoritative texts, and principles of customer equity. Further, the significant

reduction in cash flow that results will have a negative impact on investors' view of Laclede, AmerenUE and other Missouri utilities, increasing the cost of financing capital to the detriment of the customers of Laclede and other Missouri utilities.

The standard treatment of net salvage for book and ratemaking purposes did not develop by happenstance. The standard accrual for net salvage during the life of plant appropriately charges customers for a cost related to the plant they are using and in proportion to their use, i.e., number of years served.

III. DEPRECIATION CONCEPTS

Q. Please describe what you mean by the term "depreciation".

A. "Depreciation", as defined in the USOA, refers to the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of gas plant in the course of service from causes which are known to be in current operation and against which the utility is not protected by insurance. Among the causes to be given consideration are wear and tear, decay, action of the elements, inadequacy, obsolescence, changes in the art, changes in demand, the requirements of public authorities, and, in the case of natural gas companies, the exhaustion of natural resources. Depreciation accrual rates are used to allocate, for accounting and ratemaking purposes, the service values of assets over their service lives. As a result, each year of service and each generation of customers are charged with the portion of the asset that it or they consume or use.

Q. You referred to depreciation as the "loss in service value" in your definition. What is service value?

A. Service value, as defined in the Uniform System of Accounts, is "the

difference between original cost and net salvage value of gas plant."[1]

Q. Does the Uniform System of Accounts also define what it means by "net salvage value"?

A. Yes, it does. "'Net salvage value' means the salvage value of property retired less the cost of removal."[2] It is positive if the salvage value exceeds removal costs, and negative (i.e., a net *cost*) if removal costs exceed salvage value.

Q. Does the Uniform System of Accounts prescribe a method of Depreciation Accounting?

A. Yes. Both the electric and gas Uniform Systems of Accounts include General Instruction 11, Accounting to be on accrual basis, which states "The utility is required to keep its accounts on the accrual basis." Further, General Instruction 22, Depreciation Accounting, of the electric system states "Utilities must use a method of depreciation that allocates in a systematic and rational manner the **service value** of depreciable property over the service life of the property" (Emphasis added).

Q. What is the accrual basis of accounting?

A. Under the accrual basis of accounting, transactions are counted when the order is made, the item is delivered, or the services occur, regardless of when the money for them is actually received or paid. The accrual basis recognizes economic events regardless of when the cash transaction occurs. Thus, in the context of net salvage costs, such costs are recognized when the service is rendered, i.e., during each year of an asset's service life, rather than when the costs are incurred.

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[1] 18 CFR Part 101 Uniform System of Accounts Prescribed for Public Utilities and Licensees Subject to the Provisions of the Federal Power Act. Definition 36.

[2] *Ibid.* Definition 19.

Q. Based on the definitions and instructions in the Uniform System of Accounts, what do you conclude that it requires regarding net salvage?

A. The USOA requires that net salvage, as a component of service value, must be allocated or accrued over the service life of the property in a systematic and rational manner.

Q. Do authoritative texts on depreciation support your conclusion that net salvage should be accrued during the life of the related plant?

A. Yes, they do. Every authoritative text on the subject of depreciation supports the ratable accrual of net salvage during the life of the related property. For example, Public Utility Depreciation Practices, published in 1996 by the National Association of Regulatory Utility Commissioners (NARUC) states:

> Closely associated with this reasoning are the accounting principle that revenues be matched with costs and the regulatory principle that utility customers who benefit from the consumption of plant pay for the cost of that plant, no more, no less. The application of the latter principle also requires that the estimated cost of removal of plant be recovered over its life.[3]

Depreciation Systems, a text referred to by Staff witness Paul Adam frequently during his cross-examination, states the concept in this manner:

> The matching principle specifies that all costs incurred to produce a service should be matched against the revenue produced. Estimated future costs of retiring of an asset currently in service must be accrued and allocated as part of the current expenses.[4]

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[3] Public Utility Depreciation Practices, Page 157, published by the National Association of Regulatory Utility Commissioners. 1996.

[4] Depreciation Systems, Wolf, Frank K. and W. Chester Fitch. Page 7. Iowa State University Press. 1994.

IV. REVIEW OF THE EVIDENCE

Q. In his direct testimony, what has Staff witness Mr. Paul W. Adam proposed as a ratemaking allowance for net salvage?

A. Mr. Adam has proposed (and Staff has continued to propose) a radical change in the basis for determining the Company's allowance for net salvage. On page 7 of his direct testimony (exhibit 92), he states "...the net salvage component of the Depreciation Rate equation should recover the current actual net salvage amounts...." Also, on page 8, lines 9 through 11, he concludes "The customer should be paying only the current negative net salvage of interim retirements, as salvage events change, adjustments will be ordered by the Commission in future cases." In effect, Mr. Adam proposes that net salvage be removed from the calculation of depreciation and treated as an operating expense to be collected from customers based on the utility's average net salvage costs incurred in recent years. Mr. Adam's reference to "current negative net salvage" is a misnomer because the net salvage costs he refers to as "current" are in fact not current, but rather, are historical averages of costs that occurred during a 3, 4, 5 or 10 year prior period.

Q. What is your basis for saying that Mr. Adam's proposal removes net salvage from the calculation of depreciation expense?

A. Mr. Adam has taken the results of the traditional analyses of net salvage and modified those results in a manner that produces an allowance for net salvage that approximates past net salvage levels. For example, as shown in his workpapers, Exhibit No. 124, Mr. Adam took the average ratio of net salvage to original cost retired for Account 376.10, Steel Mains, for the period 1992 to 1996, that is 0.4328, and multiplied it by a factor that reduces this ratio to 0.0745. He then rounded this supposed net salvage ratio to 0.07 and used it in the straight-line whole life depreciation rate formula. In the

depreciation rate formula, the portion of the accrual rate that is related to net salvage is the net salvage ratio divided by the average life. Using the supposed net salvage ratio of 0.07 and the life of 83 years that was approved for this account in Laclede's 1998 rate case results in an accrual rate related to net salvage of 0.084 percent. When this rate is applied to the plant balance shown in Mr. Adam's workpapers of $128,650,333 an allowance of $108,066 results. This amount approximates the actual average net salvage cost for the period 1992-1996 of $112,677 also shown in the workpapers. Mr. Adam has simply gone through a circular algebraic exercise to develop a net salvage ratio for use in the standard formula that produces an allowance for net salvage equal to the past level of net salvage costs. Thus, Staff's proposal for net salvage is effectively allowing in rates only the average cost of the recent[5] experience. His testimony makes it clear that this is his intent, as do subsequent rate proceedings in which Mr. Adam and other Staff witnesses have no longer used the algebraic subterfuge and simply proposed a separate allowance for net salvage based on the average of past experience. Such allowances are not consistent with sound depreciation and ratemaking principles as they do not provide for a systematic and rational allocation of the net salvage related to plant in service during its service life. Instead, they provide only an allowance for net salvage *related to plant that has already been retired* (and for which net salvage had already been paid for under the standard approach by past customers).

Q. Have Staff members of the Commission presented similar proposals in other rate proceedings in recent years?

A. Yes, they have. Staff has consistently presented this radical departure from the standard approach in many recent proceedings. Further, Staff no longer endeavors to mask

[5] Recent is a relative term, since the historical averages used may be several years old.

its proposal as being part of the depreciation accrual rate, but has proposed separate treatment of net salvage costs as an operating expense that is no longer recorded to the depreciation reserve.

Q. What treatment of net salvage has Laclede proposed?

A. Laclede proposed, consistent with sound ratemaking principles, authoritative texts, and the Uniform System of Accounts, a continuation of the standard incorporation of net salvage related to *plant in service*, not plant *out of service*, in the determination of depreciation. The standard approach has been used by this Commission in establishing Laclede's ratemaking allowances for depreciation for many decades. The standard approach allocates net salvage costs ratably over the life of plant to the customers served by the plant. This approach is equitable and conforms to the definition of depreciation as the loss in service value, where service value is the difference between original cost and net salvage.

V. CUSTOMER EQUITY

Q. You stated that it is more appropriate and equitable to recognize net salvage costs during the life of the related plant. Please explain.

A. The net salvage cost of an item of plant is a part of its service value and, therefore, it is a part of the item's cost of providing service. The cost of the item providing service should be allocated to the customers that receive the service. Thus, an allocable portion of the net salvage cost should be recovered each year from the customers receiving the value of the service rendered by the item of plant in the same way that an allocable portion of the item's original cost is allocated to such customers each year. This approach is equitable in that customers are responsible for the costs of plant that provide service to

them. This is a sound ratemaking principle.

In contrast, Staff's approach to net salvage allocates this entire element of an item's cost of service to customers that either did not receive service from the item or, if the customer has received service from the utility for a number of years, received only a portion of the item's service value. This is not equitable and violates the principle that customers should pay the costs of the plant that provides service to them Although Mr. Adam indicated in his rebuttal testimony that the intergenerational problem was addressed by his proposed rates, he later recanted during cross-examination. (Transcript page 896).

Q. Please illustrate this principle as it applies to net salvage costs with a simple example.

A. Consider a single customer, Customer A, served by a service line that does not provide service to other customers. The original cost of the service is $4,500 and it is installed when the customer is added to the system. The estimated life of the service is 45 years and the estimated net salvage is negative 30 percent. The annual depreciation expense to be recovered from this customer using the standard straight-line whole life accrual of net salvage is $130 per year ($4,500 x 1.30 / 45 years). The annual depreciation expense to be recovered from this customer using the expensing of net salvage approach is $100 per year ($4,500 / 45 years) since there is no net salvage experience.

In year 30, Customer A moves out and another customer, Customer B, moves into the residence served by this service. During the 30 years, a total of $3,900 ($130 x 30 years) was collected from Customer A under the standard approach, i.e., the straight line whole life accrual of net salvage. Only $3,000 ($100 x 30 years) would be collected under Staff's approach.

At the end of year 45, the service is replaced at a total cost of $5,850, $1,350 to remove the old service and $4,500 to install the new service (I have excluded inflation from the example to promote a better understanding of the principle). Under the standard approach, the depreciation expense in year 46 would continue at $130 ($4,500 x 1.30 / 45 years). Under the Staff's approach, the sum of the depreciation and net salvage expense would be $1,450 ($4,500 / 45 years + $1,350) in year 46 and then decline once again to $100 ($4,500 / 45 years) in years 47 and later. Alternatively, if a five-year average was used rather than immediate expensing, the depreciation expenses would be $370 ($4,500/45 years + $1,350/5) in years 46 through 50 and then decline once again to $100 in years 51 and later.

At the end of year 60, after 30 years as a customer, Customer B moves out of the residence. The total depreciation expense collected from this customer during years 31 through 60 under the standard approach of accruing for net salvage is $3,900 ($130 x 30 years), the same as was collected from Customer A for a similar amount of service. However, the total amount of depreciation and net salvage expense collected from Customer B using Staff's approach is $4,350 ($100 x 30 years + $1,350), significantly more than the $3,000 collected from Customer A.

This illustrates the *inequity*, i.e., customers paying different amounts for the same service, of Staff's proposed approach. The example also confirms the *equity*, i.e., customers paying the same amount for the same service, and the sound ratemaking policy embodied in the standard straight-line whole life accrual method of net salvage that is used by nearly all regulatory bodies.

Q. Does this simple example really apply over time given the existence of inflation and service being provided to over 600,000 customers, not one customer?

A. Yes, it does. Although the addition of customers and the introduction of inflation into the simple example described above make it complex, the principle that it illustrates remains the same. The real system is only the summation of many, many instances that are identical to the illustration.

Q. On page 8, lines 9 through 11, of his direct testimony (Exhibit 92), Mr. Adam states that "The customer should be paying only the current net salvage of interim retirements because, as salvage events change, adjustments will be ordered by the Commission in future cases." Do you agree?

A. No, I do not. The amount of net salvage that should be included in the annual cost of service is a portion of the net salvage related to the current plant in service as a result of allocating these costs to each year of service rendered by such plant. The amount should not reflect only the historic net salvage costs incurred over a prior period. Those historical net salvage costs are related to plant that previously rendered service.

Further, Mr. Adam's implication that his system will work because "as salvage events change, adjustments will be ordered by the Commission in future cases" is simply wrong. Net salvage costs have been increasing for many years in both the gas and electric industries. This is attributable to the growth in plant, inflation, and increasing environmental requirements. Mr. Adam recognized these general forces and resulting trend in discussing removal costs at page 914 of the transcript in this proceeding. *Given this trend, an allowance based on the past five or ten years will on average always be less than the experience during which the so-determined rates are in effect going forward.* Although

the allowance can be updated periodically in rate proceedings, it will on average always lag the net salvage being experienced while it is in effect.

Schedule WMS-1 attached to my testimony illustrates this lag. The graph presents the annual net salvage costs experienced by AmerenUE during the period 1971 through 2000. I used these net salvage costs in my analyses of net salvage in AmerenUE's 2002 rate proceeding, in which Staff proposed to use a 10-year average of historical net salvage costs. As is evident from a review of the chart, the annual amounts of net salvage vary significantly from year to year. The use of these annual amounts for ratemaking would produce rate volatility. However, although using longer periods such as the ten-year average plotted on the chart reduces this volatility, it results in allowances under Staff's approach that are continually less than the amounts currently being experienced. The red shading in Schedule WMS-1 indicates the under recovered amounts resulting from this approach.

This under-recovery will be most dramatic as an equipment type is phased out in favor of new and improved assets, which occurs too infrequently to be "averaged out" under Staff's approach. Such occurrences will not only result in insufficient collection from customers, but also create a spike in rates. Thus, Staff's proposal not only creates an inequity between generations of customers, but effectively insures that Laclede and other utilities will never fully recover their net salvage costs, and will result in periodic rate spikes during periods of significant retirement.

Allocating net salvage costs during the life of the related plant is more appropriate and equitable and is in accord with sound ratemaking policies, the Uniform System of Accounts, and authoritative texts. Delaying collection of net salvage costs until they are

incurred results in a charge to customers for plant from which they did not receive service and, as a result of the delay in recovery, also results in a higher revenue requirement related to net salvage.

Q. Please explain your last statement regarding the impact on revenue requirements related to net salvage.

A. The total revenue requirements that result from the approach proposed by Staff are greater than the total revenue requirements that result from accruing for net salvage during the life of the related asset. Although a comparison of the current revenue requirements under the standard approach to net salvage and the current revenue requirements under the Staff's approach may indicate that the standard approach's accrual is almost always higher than the allowed net salvage costs under Staff's approach, over time the revenue requirements will be less under the standard approach of accruing net salvage cost over the life of the asset.

The reason for these lower revenue requirements under the standard approach is the impact of the net salvage accruals on rate base. That is, as net salvage accruals are recorded to the depreciation reserve, the balance in the reserve increases and reduces subsequent determinations of rate base in comparison to Staff's approach. That is, through the reduction in rate base, a return is provided to the customer for the amount by which previous net salvage accruals have exceeded net salvage costs. The rate of return provided on this net amount, based on current practice, is the rate of return authorized by the Commission for the utility. This is fair and significantly greater than the rate of 3 percent specified by Section 4 CSR 240-10.020 of the Commission's Rules.

Q. What are the bases for your conclusion related to the revenue requirement impacts of the alternative net salvage proposals?

A. The bases for my conclusion are my years of involvement in ratemaking and a comparison of revenue requirements for the two approaches prepared by me. Schedule WMS-2 presents this comparison of the revenue requirements that result from the standard approach of accruing for net salvage and those that result from Staff's approach. In the example, a single asset has an original cost of $1,000,000, a life of 20 years, and a net salvage cost of $200,000. The annual depreciation under the standard approach is $60,000 (($1,000,000 + $200,000)/20 years) per year and is shown in column 3 in the upper portion of the tabulation. Under the Staff approach, the annual depreciation is only $50,000 ($1,000,000/20 years) as shown in the same column on the lower portion of the tabulation. The other elements of revenue requirement are the return and taxes that are dependent on rate base, the rate of return and the income tax rate. The rate base, or net plant, is presented in column 6 and is the original cost in column 4 less the accumulated depreciation in column 5. The accumulated depreciation is the summation of the annual depreciation amounts up to the year in question. The amount of return and taxes in column 7 is the rate base multiplied by the rate of return plus the income tax rate for the equity portion of the return. The revenue requirement factor applied to rate base for these elements is 0.131524. The sum of the annual depreciation in column 3 and the return and income tax in column 7 is the resulting total revenue requirement as shown in column 8. A comparison of the amounts in column 8 in the upper portion of the tabulation, the standard approach, to those in the lower portion of the tabulation, Staff's approach, indicates that, under Staff's approach, the revenue requirement amount is greater in total and exceeds the

revenue requirement under the standard approach in years 8 through 20, representing nearly two-thirds of the life of the asset. If we assume that we are dealing with an asset placed in service in 1999, the revenue requirements would be *less under the standard approach* in 2006 and in every year thereafter.

Q. Staff's position regarding Laclede, as expressed by Mr. Adam, that "the customer should be paying only the current net salvage..." appears to derive from Mr. Adam's observation that "the Company was collecting more from their customers than the actual cost of the current negative net salvage." Why does the net salvage accrual exceed the net salvage cost at this time?

A. The net salvage accrual exceeds the net salvage cost because of system growth and maturity. The accrual for net salvage is related to the current plant in service. The current plant in service for Laclede includes over 8,000 miles of distribution mains and serves over 600,000 customers. The size of the system has doubled in the past 50 years. The growth in the number of customers is shown in Schedule WMS-3-1 attached. This is the real growth. The combination of real and inflationary growth, as measured by the increase in gross utility plant, has been 17 times and also is shown on the schedule. This historic growth in utility plant will be mirrored by the future growth in net salvage costs as both the amount of plant retired and the price level increase. A similar presentation showing the number of customers and gross utility plant for AmerenUE is set forth in Schedule WMS-3-2.

As a result of this growth and inflation, as well as the growth in years prior to 1950, Laclede's system has not reached a steady state (nor has AmerenUE's for that matter). Each year the amount of plant added exceeds the amount of plant retired. Because this has

occurred over a long period of time and continues to do so, the amount of plant retired is not equal to the plant balance divided by the average life. It is only when the plant reaches this steady state position that the annual net salvage accrual would equal the annual net salvage cost for the total plant in service.

Another way of looking at this model is to recognize that the plant being retired served fewer customers during its life than the plant that is currently in service. The current net salvage cost should have been recovered during the life of the plant to which it relates. The amount of net salvage accrued, and presumably collected from customers, for this retired plant was based on the plant that was in service during its life. This amount of plant was sufficient to serve, on average, 50,000, 100,000 or perhaps 200,000 customers. Neither the past net salvage accruals, nor the current net salvage cost, were based on the plant necessary to serve 600,000 customers. Thus, neither will compare to the current net salvage accrual computed for plant that is necessary to serve this larger customer base.

Q. Will the net salvage cost for plant presently in service ever exceed the net salvage accrual for plant presently in service?

A. Yes, it will. As the plant presently in service ages and retirements related to such plant increase, the net salvage costs related to these retirements will be greater than the net salvage accruals on the surviving balance. Ultimately, the cumulative net salvage accruals and the cumulative net salvage costs will equal one another.

I have illustrated the pattern of future net salvage accruals and net salvage costs related to Account 380, Services – Plastic and Copper, in Schedule WMS-4-1. This schedule is predicated on the current survivor curve estimate and the unadjusted estimate of net salvage for this account. Periodic studies of both during the remaining life of the plant,

along with appropriate true-ups, will insure that the same pattern and balance occurs in actuality. Schedule WMS-4-2 provides a similar presentation that I prepared for AmerenUE's Account 365, Overhead Conductors and Devices that also demonstrates that net salvage costs will be greater than net salvage accruals and the total of each will be the same over the entire life cycle of the plant in service.

Q. Should the fact that current net salvage accruals exceed current net salvage costs raise concerns that the Company will over recover its expenditures?

A. No, it should not. First, as I have demonstrated, over the life of the assets the net salvage accruals and net salvage costs will balance. Second, the current total cost of service for recovery of capital expenditures, both plant in service and negative net salvage, is less than the current total expenditures for additions and net salvage costs. As demonstrated by Schedule WMS-5-1, a chart comparing distribution plant construction expenditures and depreciation expense, Laclede's expenditures for additions and net salvage costs are more than twice the level of the depreciation expense. Schedule WMS-5-2, a chart comparing the distribution plant construction expenditures and depreciation expense for AmerenUE, also shows that infrastructure investments are greater than actual depreciation accruals (This chart also shows that Staff's proposed depreciation rates in AmerenUE's last rate case would have resulted in a significant gap between the cash required for infrastructure investment and the cash provided through depreciation allowances). The same growth that causes the net salvage accruals to exceed current net salvage costs also causes the plant additions to exceed the depreciation expense for the recovery of original cost. If Staff wants to insure that Laclede and other utilities recover only the costs they spend, Staff also should propose that utilities expense the plant

additions. Third, net salvage accruals are recorded to the depreciation reserve in a manner that enables the monitoring of the total recovery so that such recovery does not exceed the total costs. Further, recovery in advance of cost incurrence reduces rate base and revenue requirements. Thus, the system is designed to be in balance and there are explicit safeguards such as the rate base treatment of depreciation reserve and amortization of reserve variances that insure this balance will occur in a fashion that is fair and equitable to different generations of customers as well as the utilities.

VI. ESTIMATION OF NET SALVAGE

Q. Mr. Adam and other Staff members in subsequent proceedings raise concerns about the uncertainty of estimates of net salvage. Do you share their concern?

A. No, I do not. It is well recognized that setting depreciation rates requires estimates for both the service life and net salvage values. The estimation of net salvage is based on well-accepted techniques for developing historical indications of net salvage percents; considerations of the age of retirements, historically as compared to the future; consideration of historical changes in price level as compared to the future; and the estimates of net salvage used by other utilities. Estimates based on historical indications are generally very conservative in comparison to my expectation of future net salvage percents because of the total change in price level that will occur between the placement and retirement of today's plant in service as compared to the change in price level that occurred between the placement and retirement of plant that already has been retired and is reflected in the analyses. The greater change in price level is not the result of a greater rate of inflation. Rather, it is based on the longer period of time that the plant will be in

service, thereby allowing for a greater change in price level at either inflation rates comparable to those that have been experienced or at even lesser rates.

Q. What historical data are analyzed for the purpose of estimating net salvage?

A. The data consist of the entries made by utilities to record retirements, cost of removal and gross salvage.

Q. What method is used to analyze these net salvage data?

A. The net salvage data are analyzed by expressing the net salvage and its two components, cost of removal and gross salvage, as percents of the original cost retired on annual and moving average bases. The use of averages smooths the annual fluctuations and assists in identifying underlying trends. Analyses of Laclede's data are presented in Schedules 1 and 2 attached to the surrebuttal testimony of Laclede witness Richard A. Kottemann, Jr. (Exhibit 25) and Exhibit No. 124, the workpapers of Mr. Adam.

Q. Please describe the manner in which the analyses of net salvage are used to estimate net salvage percents.

A. The results of the net salvage analyses provide indications of historical net salvage levels. The judgments of net salvage incorporate these historical indications and other considerations as I have already described. Mr. Adam's unadjusted net salvage percents as shown in his workpapers represent the results of the typical process.

Q. Does the use of such historical percents assume that history will repeat itself over the remaining life of the surviving assets?

A. No, it does not. The use of estimates of net salvage that approximate the

historical indications, as represented by the net salvage costs divided by the original cost retired, does not represent an assumption that history will exactly repeat itself over a period of decades in the future. Instead, use of these historical indications of net salvage as a percent of the original cost retired actually assumes that there will be substantial improvements in technology, comparable or lesser environmental regulations and a significant reduction in inflation in order for these percents to be realized.

Q. How does use of net salvage percents that are comparable to the historical indications assume these events?

A. The net salvage percents, that is the net salvage costs divided by the original costs of the assets that have been retired and expressed as percents, are related to the retirement of plant that on average is significantly younger than the average service life of the plant in service, on an original cost dollar weighted basis. For example, the average age of retirements of steel distribution mains during the period 1972 through 1998 was 23.4 years. This amount is less than one-third of the average life of 83 years estimated for this account.

The average net salvage percent related to these retirements, made on average at age 23.4, was negative 38 percent. That is, after 23.4 years in service, the plant was retired and the cost to remove the plant, as a result of inflation, technological changes and other factors, was 38 percent of the cost to install the same plant.

The future retirements of the total current steel distribution mains in service will have an average age that actually exceeds the average life. Thus, future retirements will be of plant that has been in service nearly four times as long as the plant retired during the period 1972-1998. For retirements at such ages to experience net salvage that is 38 percent

of the cost to install, there will have to be a reduction in the rate of inflation adjusted for technological improvements. If the rate of inflation adjusted for technological improvements that occurred between the installation and retirement of plant retired during the period 1972-1998 occurred over a period that is four times as long, the net salvage cost would be much greater as a percent of the original cost of the plant retired.

Q. What is the implication of the assumption that the future rate of inflation adjusted for technological improvements will be less than the historical rate?

A. The implication of this assumption is that the net salvage accruals derived from net salvage percents comparable to the historical indications most certainly will be inadequate to recover the total net salvage costs over the entire life cycle of the plant currently in service.

Q. You noted that setting depreciation rates requires estimates for both the service life and the net salvage value of depreciable property. Is there less certainty in the estimates of net salvage than there is in the estimates of service life?

A. No, there is not, and both depreciation parameters are estimated using the same set of utility records in the supporting analyses. The significant difference between the ages of historical retirements that are the primary bases for the net salvage estimates and the ages of future retirements, along with the impact of inflation, insure that estimates of net salvage costs based on historical indications will almost certainly be equaled or exceeded when the net salvage costs are incurred. In contrast, we know that the actual ages at retirement will vary somewhat from the survivor curves that are estimated. Nevertheless, it is reasonable to use the average service life from the curve for depreciation purposes. Since there is somewhat greater certainty in the net salvage estimate given the conservative nature

of the estimate, I conclude that it also is reasonable to use such estimates of net salvage for depreciation purposes.

VII. MISSOURI AND OTHER COMMISSION PRECEDENT

Q. Are you familiar with the recent orders of the Missouri Public Service Commission related to the treatment of net salvage?

A. Yes, I am. I have reviewed the Commission's previous orders and the testimony in this proceeding, Case No. GR-99-315, Laclede Gas Company; participated as a witness in Case No. WR-2000-844, St. Louis County Water Company; and reviewed the Commission's order in Case No. ER-2001-299, Empire District Electric. I also participated as a witness in Case No. EC-2002-1, Union Electric Company, in which the parties reached a settlement.

Q. What is your understanding of the Commission's policy regarding the treatment of net salvage?

A. My understanding of the Commission's policy is based on the following statement from page 18 of the Report and Order in Case No. WR-2000-844:

> Under the circumstances faced by the Company, including its need for cash flow to address its infrastructure issues, the Commission concludes that using the whole life method and including estimated net salvage is in the public interest. The whole life method collects net salvage cost ratably over the life of plant by customers served by the plant. This approach is equitable based on the circumstances of this case .
>
> . . .
>
> The Commission's holding that the Company's use of the whole life method of determining depreciation rates is based on the record in this case, and on the circumstances in which the Company finds itself. The whole life method is not appropriate for all types of property, for all utilities, and in all situations. In a situation in which a utility has a type of asset that is at or very near the end of its service life, that is not likely to be replaced, and for which the cost of removal is high and likely to move higher, another approach may be appropriate. (Emphasis added.)

Q. Should the need for cash flow to meet infrastructure issues be a requirement for a utility to use the standard straight line whole life method incorporating the accrual for net salvage?

A. No, in my opinion, it should not. Utilities should be permitted to use the standard approach regardless of their cash flow needs. Although there are cash flow benefits to the use of the standard approach that will make it easier for utilities to invest in infrastructure improvements, its merits rest on the systematic and rational allocation of the net salvage for an asset to the periods during which the asset provides benefits to customers. This is good regulatory accounting and sound ratemaking practice.

Q. If a utility has an asset that is at or very near the end of its service life, that is not likely to be replaced, and for which the cost of removal is high and likely to move higher should it be precluded from using the standard approach?

A. No, it should not. If anything, faced with such a circumstance, it is far better to deal with it prior to the retirement of the asset than after it has been retired. By dealing with it as soon as possible (most preferably when the asset is placed in service), the cost of removal can be allocated to customers that are using the asset rather than waiting and collecting it from customers who did not use it.

Q. What is the policy of other regulatory commissions regarding the treatment of net salvage?

A. Virtually all other regulatory commissions use the standard straight line whole life or remaining life methods of depreciation incorporating accruals for net salvage costs during the life of the related asset.

VIII. RECOMMENDATION

Q. Please summarize your testimony related to net salvage.

A. Depreciation is the loss in service value and service value is the difference between original cost and net salvage value. Thus, net salvage should be a part of the straight line whole life depreciation accrual.

Net salvage costs associated with plant should be allocated to customers served by that plant. The standard approach's use of a straight line whole life accrual over the life of the asset accomplishes this equity. Staff's approach to net salvage does not. Staff's approach actually results in higher revenue requirements over the life of the plant. In contrast, the standard approach of accruing such costs during the life of plant results in lower total revenue requirements.

It is appropriate for the net salvage accrual to exceed the current net salvage cost during a period of system growth and prior to reaching a steady state for the plant. As retirements continue to be made of the plant presently in service, the net salvage costs for this plant will exceed the net salvage accruals for this plant.

The estimates of net salvage percents used in developing the net salvage accrual are very reasonable and likely understate the future net salvage costs that will occur.

For good reasons, virtually all other regulatory commissions use the standard straight line whole life or remaining life accrual of net salvage during the life of the asset. As a result, I recommend that this Commission should also find that the standard straight line whole life method with ratable recovery of net salvage during the life of the plant is equitable for Laclede and its customers.

Q. Have you conducted any comparisons of the depreciation rates and the Staff's proposals for Missouri utilities to test their reasonableness?

A. Yes, I have. I compared the composite depreciation rates for Laclede's total gas plant to the corresponding composite depreciation rates for the other investor-owned gas utilities in the United States. A chart presenting the results of these comparisons, along with Laclede's past and present composite rates are set forth in Schedule WMS-6-1.

Laclede's annual depreciation rates prior to the initial Report and Order in this proceeding resulted in composite rates for total plant that approximate the median of the composite rates of other investor-owned gas utilities. In contrast, the subsequent composite rates based on Staff's approach to depreciation place Laclede in the bottom 25th percentile for total plant. Staff's proposal in GR-2002-356 is even further below the mainstream and would have made an even greater outlier of Laclede's depreciation rates.

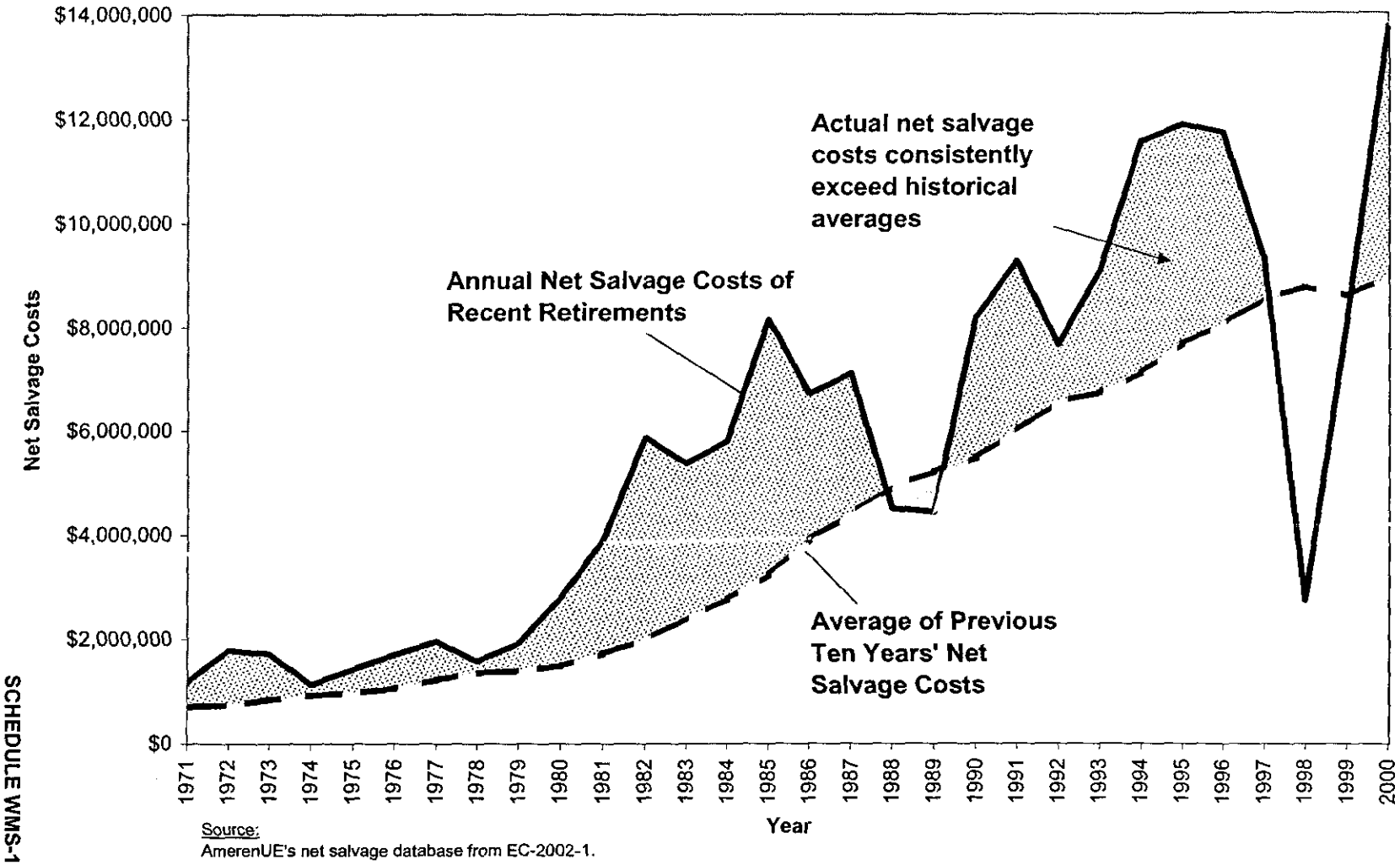
I performed a similar comparison for AmerenUE in Case No. EC-2002-1. Attached as Schedule WMS-6-2 is the chart benchmarking Staff's proposed depreciation rates for AmerenUE's distribution plant. Here again, the depreciation rates that incorporate accruals for net salvage are within the mainstream of other utilities depreciation rates. The depreciation rates proposed by Staff are off the radar screen.

These comparisons demonstrate that the annual depreciation rates proposed by Staff and the approach to net salvage that they embody are unreasonable and should not be adopted.

Q. Does this conclude your supplemental direct testimony?

A. Yes, it does.

Schedule WMS-1
AmerenUE's Net Salvage Costs for Recent Retirements vs. Historical Averages



Source:
AmerenUE's net salvage database from EC-2002-1.

SCHEDULE WMS-1

Schedule WMS-2
Revenue Requirement Impact of Single Asset Based on Depreciation With Negative Net Salvage (Standard) And Without Negative Net Salvage (Staff)

Assumptions:
$1,000,000 Investment with a 20 year life and Negative Net Salvage of $200,000.
Return on Rate Base 9.25%, 50% equity, and Composite Income Tax Rate 38.2%.

Standard Approach

Year [1]		Service Value [2]	Annual Depreciation [3]	Plant In Service [4]	Accumulated Depr. Reserve [5]	Net Plant [6]	Return & Income Tax [7]	Total Revenue Requirement [8]	
1999	1	$ 1,200,000	$ 60,000	$ 1,000,000	$ 60,000	$ 940,000	$ 120,360	$ 180,360	
2000	2	1,200,000	60,000	1,000,000	120,000	880,000	112,677	172,677	
2001	3	1,200,000	60,000	1,000,000	180,000	820,000	104,994	164,994	
2002	4	1,200,000	60,000	1,000,000	240,000	760,000	97,312	157,312	
2003	5	1,200,000	60,000	1,000,000	300,000	700,000	89,629	149,629	
2004	6	1,200,000	60,000	1,000,000	360,000	640,000	81,947	141,947	
2005	7	1,200,000	60,000	1,000,000	420,000	580,000	74,264	134,264	
2006	8	1,200,000	60,000	1,000,000	480,000	520,000	66,582	126,582	**
2007	9	1,200,000	60,000	1,000,000	540,000	460,000	58,899	118,899	
2008	10	1,200,000	60,000	1,000,000	600,000	400,000	51,217	111,217	
2009	11	1,200,000	60,000	1,000,000	660,000	340,000	43,534	103,534	
2010	12	1,200,000	60,000	1,000,000	720,000	280,000	35,852	95,852	
2011	13	1,200,000	60,000	1,000,000	780,000	220,000	28,169	88,169	
2012	14	1,200,000	60,000	1,000,000	840,000	160,000	20,487	80,487	
2013	15	1,200,000	60,000	1,000,000	900,000	100,000	12,804	72,804	
2014	16	1,200,000	60,000	1,000,000	960,000	40,000	5,122	65,122	
2015	17	1,200,000	60,000	1,000,000	1,020,000	(20,000)	(2,561)	57,439	
2016	18	1,200,000	60,000	1,000,000	1,080,000	(80,000)	(10,243)	49,757	
2017	19	1,200,000	60,000	1,000,000	1,140,000	(140,000)	(17,926)	42,074	
2018	20	1,200,000	60,000	1,000,000	1,200,000	(200,000)	(25,608)	34,392	
Total			$ 1,200,000				$ 947,511	$ 2,147,511	*

Staff Approach

Year [1]		Service Value [2]	Annual Depreciation [3]	Plant In Service [4]	Accumulated Depr. Reserve [5]	Net Plant [6]	Return & Income Tax [7]	Total Revenue Requirement [8]	
1999	1	$ 1,000,000	$ 50,000	$ 1,000,000	$ 50,000	$ 950,000	$ 121,640	$ 171,640	
2000	2	1,000,000	50,000	1,000,000	100,000	900,000	115,238	165,238	
2001	3	1,000,000	50,000	1,000,000	150,000	850,000	108,836	158,836	
2002	4	1,000,000	50,000	1,000,000	200,000	800,000	102,434	152,434	
2003	5	1,000,000	50,000	1,000,000	250,000	750,000	96,032	146,032	
2004	6	1,000,000	50,000	1,000,000	300,000	700,000	89,629	139,629	
2005	7	1,000,000	50,000	1,000,000	350,000	650,000	83,227	133,227	
2006	8	1,000,000	50,000	1,000,000	400,000	600,000	76,825	126,825	**
2007	9	1,000,000	50,000	1,000,000	450,000	550,000	70,423	120,423	
2008	10	1,000,000	50,000	1,000,000	500,000	500,000	64,021	114,021	
2009	11	1,000,000	50,000	1,000,000	550,000	450,000	57,619	107,619	
2010	12	1,000,000	50,000	1,000,000	600,000	400,000	51,217	101,217	
2011	13	1,000,000	50,000	1,000,000	650,000	350,000	44,815	94,815	
2012	14	1,000,000	50,000	1,000,000	700,000	300,000	38,413	88,413	
2013	15	1,000,000	50,000	1,000,000	750,000	250,000	32,011	82,011	
2014	16	1,000,000	50,000	1,000,000	800,000	200,000	25,608	75,608	
2015	17	1,000,000	50,000	1,000,000	850,000	150,000	19,206	69,206	
2016	18	1,000,000	50,000	1,000,000	900,000	100,000	12,804	62,804	
2017	19	1,000,000	50,000	1,000,000	950,000	50,000	6,402	56,402	
2018	20	1,000,000	50,000	1,000,000	1,000,000	-	-	50,000	
2019	21	-	200,000	-	-	-	-	200,000	
Total			$ 1,200,000				$ 1,216,400	$ 2,416,400	*

*** Staff's approach leads to higher overall revenues collected from customers.**

**** Staff's approach leads to higher rates in only eight years even though annual depreciation expenses under Staff's approach are always lower than under the Standard approach.**

Schedule WMS-3-1
Laclede Gas Total Plant Value and Residential Customers

Year Ending	Plant Value		Number of Residential Customers	
	Amount	% of 2003 Amount	Amount	% of 2003 Amount
1950	$ 59,232,000	6%	299,525	51%
1955	91,413,000	9%	337,098	57%
1960	138,264,000	13%	363,245	61%
1965	189,266,000	18%	401,992	68%
1970	249,013,000	24%	465,101	79%
1975	306,991,000	30%	491,234	83%
1980	377,152,000	37%	507,109	86%
1985	455,875,000	44%	518,692	88%
1990	572,210,000	56%	545,344	92%
1995	745,629,000	72%	566,421	96%
2000	915,998,000	89%	586,783	99%
2003	1,030,665,000	100%	590,785	100%

Source:
Laclede Gas.

Schedule WMS-3-2
AmerenUE Electric Distribution Plant Value and Residential Customers

Year Ending	Plant Value		Number of Residential Customers	
	Amount	% of 2003 Amount	Amount	% of 2003 Amount
1950	$ 29,669,343	1%	433,563	41%
1955	160,540,641	5%	498,131	47%
1960	255,653,682	8%	544,864	52%
1965	348,830,229	11%	591,070	56%
1970	460,626,569	14%	636,165	60%
1975	592,172,528	18%	671,780	64%
1980	774,505,250	24%	709,386	67%
1985	1,315,948,047	41%	901,777	85%
1990	1,878,005,858	58%	957,102	91%
1995	2,391,828,442	74%	991,791	94%
2000	2,909,500,400	90%	1,027,803	97%
2003	3,227,100,869	100%	1,056,643	100%

Source:
AmerenUE.

Schedule WMS-4-1
Comparison of Future Estimated Net Salvage Costs and Net Salvage Accrual
During the Period 1999 Through 2080 for Account 380, Services - Plastic and Copper
Laclede Gas

Year	Retirements	Ending Balance	Estimated Net Salvage Costs	Cumulative Est. Net Salvage	Net Salvage Accrual	Cumulative Net Salvage Accrual
PREVIOUS THEORETICAL NET SALVAGE ACTIVITY						(56,137,183)
1999	1,337,035.52	233,658,818.48	(1,243,443)	(1,243,443)	(4,938,698)	(61,075,881)
2000	1,434,463.27	232,224,355.21	(1,334,051)	(2,577,494)	(4,908,378)	(65,984,259)
2001	1,537,198.49	230,687,156.72	(1,429,595)	(4,007,089)	(4,875,888)	(70,860,147)
2002	1,645,242.56	229,041,914.16	(1,530,076)	(5,537,165)	(4,841,113)	(75,701,260)
2003	1,758,431.30	227,283,482.86	(1,635,341)	(7,172,506)	(4,803,946)	(80,505,206)
2004	1,876,727.03	225,406,755.83	(1,745,356)	(8,917,862)	(4,764,279)	(85,269,485)
2005	2,000,071.77	223,406,684.06	(1,860,067)	(10,777,929)	(4,722,005)	(89,991,490)
2006	2,128,231.77	221,278,452.29	(1,979,256)	(12,757,185)	(4,677,022)	(94,668,512)
2007	2,260,766.93	219,017,685.36	(2,102,513)	(14,859,698)	(4,629,237)	(99,297,749)
2008	2,397,526.70	216,620,158.66	(2,229,700)	(17,089,398)	(4,578,562)	(103,876,311)
2009	2,538,201.97	214,081,956.69	(2,360,528)	(19,449,926)	(4,524,914)	(108,401,225)
2010	2,682,208.24	211,399,748.45	(2,494,454)	(21,944,380)	(4,468,222)	(112,869,447)
2011	2,829,052.43	208,570,696.02	(2,631,019)	(24,575,399)	(4,408,426)	(117,277,873)
2012	2,978,389.41	205,592,306.61	(2,769,902)	(27,345,301)	(4,345,474)	(121,623,347)
2013	3,129,796.09	202,462,510.52	(2,910,710)	(30,256,011)	(4,279,321)	(125,902,668)
2014	3,282,357.30	199,180,153.22	(3,052,592)	(33,308,603)	(4,209,944)	(130,112,612)
2015	3,435,753.02	195,744,400.20	(3,195,250)	(36,503,853)	(4,137,325)	(134,249,937)
2016	3,589,538.45	192,154,861.75	(3,338,271)	(39,842,124)	(4,061,455)	(138,311,392)
2017	3,743,144.06	188,411,717.69	(3,481,124)	(43,323,248)	(3,982,339)	(142,293,731)
2018	3,895,646.58	184,516,071.11	(3,622,951)	(46,946,199)	(3,899,999)	(146,193,730)
2019	4,046,839.50	180,469,231.61	(3,763,561)	(50,709,760)	(3,814,463)	(150,008,193)
2020	4,196,246.99	176,272,984.62	(3,902,510)	(54,612,270)	(3,725,770)	(153,733,963)
2021	4,342,939.68	171,930,044.94	(4,038,934)	(58,651,204)	(3,633,976)	(157,367,939)
2022	4,486,306.87	167,443,738.07	(4,172,265)	(62,823,469)	(3,539,152)	(160,907,091)
2023	4,625,858.60	162,817,879.47	(4,302,048)	(67,125,517)	(3,441,378)	(164,348,469)
2024	4,761,007.60	158,056,871.87	(4,427,737)	(71,553,254)	(3,340,748)	(167,689,217)
2025	4,890,288.83	153,166,583.04	(4,547,969)	(76,101,223)	(3,237,385)	(170,926,602)
2026	5,013,268.24	148,153,314.80	(4,662,339)	(80,763,562)	(3,131,422)	(174,058,024)
2027	5,129,008.29	143,024,306.51	(4,769,978)	(85,533,540)	(3,023,014)	(177,081,038)
2028	5,236,471.92	137,787,834.59	(4,869,919)	(90,403,459)	(2,912,334)	(179,993,372)
2029	5,333,905.62	132,453,928.97	(4,960,532)	(95,363,991)	(2,799,594)	(182,792,966)
2030	5,420,730.49	127,033,198.48	(5,041,279)	(100,405,270)	(2,685,020)	(185,477,986)
2031	5,495,685.76	121,537,512.72	(5,110,988)	(105,516,258)	(2,568,861)	(188,046,847)
2032	5,557,108.28	115,980,404.44	(5,168,111)	(110,684,369)	(2,451,404)	(190,498,251)
2033	5,603,622.53	110,376,781.91	(5,211,369)	(115,895,738)	(2,332,964)	(192,831,215)
2034	5,634,288.86	104,742,493.05	(5,239,889)	(121,135,627)	(2,213,875)	(195,045,090)
2035	5,647,901.26	99,094,591.79	(5,252,548)	(126,388,175)	(2,094,499)	(197,139,589)
2036	5,642,369.37	93,452,222.42	(5,247,404)	(131,635,579)	(1,975,240)	(199,114,829)
2037	5,617,183.83	87,835,038.59	(5,223,981)	(136,859,560)	(1,856,513)	(200,971,342)
2038	5,571,416.97	82,263,621.62	(5,181,418)	(142,040,978)	(1,738,754)	(202,710,096)
2039	5,504,210.94	76,759,410.68	(5,118,916)	(147,159,894)	(1,622,415)	(204,332,511)
2040	5,414,409.83	71,345,000.85	(5,035,401)	(152,195,295)	(1,507,974)	(205,840,485)
2041	5,302,572.89	66,042,427.96	(4,931,393)	(157,126,688)	(1,395,897)	(207,236,382)
2042	5,168,801.21	60,873,626.75	(4,806,985)	(161,933,673)	(1,286,647)	(208,523,029)
2043	5,013,317.13	55,860,309.62	(4,662,385)	(166,596,058)	(1,180,684)	(209,703,713)
2044	4,837,142.03	51,023,167.59	(4,498,542)	(171,094,600)	(1,078,444)	(210,782,157)
2045	4,641,884.82	46,381,282.77	(4,316,953)	(175,411,553)	(980,332)	(211,762,489)
2046	4,429,205.97	41,952,076.80	(4,119,162)	(179,530,715)	(886,714)	(212,649,203)
2047	4,201,277.68	37,750,799.12	(3,907,188)	(183,437,903)	(797,915)	(213,447,118)
2048	3,960,826.67	33,789,972.45	(3,683,569)	(187,121,472)	(714,197)	(214,161,315)
2049	3,710,680.56	30,079,291.89	(3,450,933)	(190,572,405)	(635,767)	(214,797,082)
2050	3,453,911.18	26,625,380.71	(3,212,137)	(193,784,542)	(562,764)	(215,359,846)
2051	3,194,421.42	23,430,959.29	(2,970,812)	(196,755,354)	(495,245)	(215,855,091)
2052	2,934,916.10	20,496,043.19	(2,729,472)	(199,484,826)	(433,212)	(216,288,303)
2053	2,678,407.24	17,817,635.95	(2,490,919)	(201,975,745)	(376,600)	(216,664,903)
2054	2,428,291.47	15,389,344.48	(2,258,311)	(204,234,056)	(325,275)	(216,990,178)
2055	2,187,187.57	13,202,156.91	(2,034,084)	(206,268,140)	(279,046)	(217,269,224)

Schedule WMS-4-1
Comparison of Future Estimated Net Salvage Costs and Net Salvage Accrual
During the Period 1999 Through 2080 for Account 380, Services - Plastic and Copper
Laclede Gas

Year	Retirements	Ending Balance	Estimated Net Salvage Costs	Cumulative Est. Net Salvage	Net Salvage Accrual	Cumulative Net Salvage Accrual
2056	1,956,465.25	11,245,691.66	(1,819,513)	(208,087,653)	(237,693)	(217,506,917)
2057	1,737,679.10	9,508,012.56	(1,616,042)	(209,703,695)	(200,965)	(217,707,882)
2058	1,533,178.44	7,974,834.12	(1,425,856)	(211,129,551)	(168,559)	(217,876,441)
2059	1,342,775.46	6,632,058.66	(1,248,781)	(212,378,332)	(140,178)	(218,016,619)
2060	1,166,653.71	5,465,404.95	(1,084,988)	(213,463,320)	(115,519)	(218,132,138)
2061	1,005,071.99	4,460,332.96	(934,717)	(214,398,037)	(94,275)	(218,226,413)
2062	858,891.71	3,601,441.25	(798,769)	(215,196,806)	(76,121)	(218,302,534)
2063	726,798.90	2,874,642.35	(675,923)	(215,872,729)	(60,759)	(218,363,293)
2064	608,474.96	2,266,167.39	(565,882)	(216,438,611)	(47,899)	(218,411,192)
2065	504,057.65	1,762,109.74	(468,774)	(216,907,385)	(37,245)	(218,448,437)
2066	413,004.03	1,349,105.71	(384,094)	(217,291,479)	(28,515)	(218,476,952)
2067	334,143.43	1,014,962.28	(310,753)	(217,602,232)	(21,453)	(218,498,405)
2068	266,632.05	748,330.23	(247,968)	(217,850,200)	(15,817)	(218,514,222)
2069	210,136.27	538,193.96	(195,427)	(218,045,627)	(11,375)	(218,525,597)
2070	162,929.64	375,264.32	(151,525)	(218,197,152)	(7,932)	(218,533,529)
2071	123,698.36	251,565.96	(115,039)	(218,312,191)	(5,317)	(218,538,846)
2072	91,306.68	160,259.28	(84,915)	(218,397,106)	(3,387)	(218,542,233)
2073	64,939.68	95,319.60	(60,394)	(218,457,500)	(2,015)	(218,544,248)
2074	43,559.44	51,760.16	(40,510)	(218,498,010)	(1,094)	(218,545,342)
2075	26,938.78	24,821.38	(25,053)	(218,523,063)	(525)	(218,545,867)
2076	14,927.20	9,894.18	(13,882)	(218,536,945)	(209)	(218,546,076)
2077	7,019.51	2,874.67	(6,528)	(218,543,473)	(61)	(218,546,137)
2078	2,448.76	425.91	(2,277)	(218,545,750)	(9)	(218,546,146)
2079	421.26	4.65	(392)	(218,546,142)	0	(218,546,146)
2080	4.65	0	(4)	(218,546,146)	0	(218,546,146)

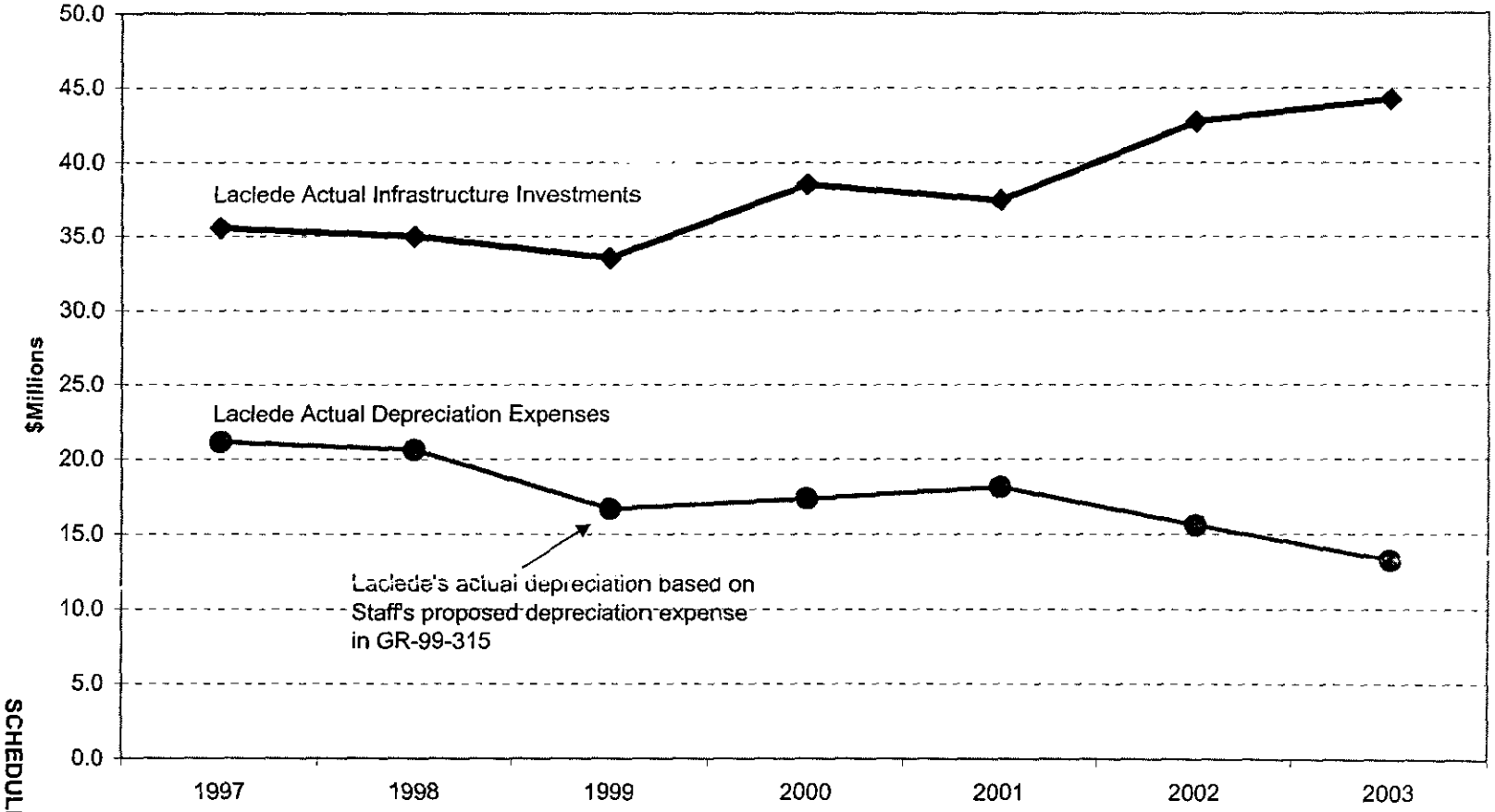
Schedule WMS-4-2
Comparison of Future Estimated Net Salvage Costs and Net Salvage Accrual
During the Period 2001 Through 2094 for Account 365, Overhead Conductors & Devices
AmerenUE

Year	Retirements	Ending Balance	Estimated Net Salvage Costs	Cumulative Est. Net Salvage	Net Salvage Accrual	Cumulative Net Salvage Accrual
Previous Theoretical Net Salvage Activity						(67,746,212)
2001	5,983,584.56	577,082,237.44	(2,991,792)	(2,991,792)	(6,139,173)	(73,885,385)
2002	6,109,003.71	570,973,233.73	(3,054,502)	(6,046,294)	(6,074,183)	(79,959,568)
2003	6,234,507.42	564,738,726.31	(3,117,254)	(9,163,548)	(6,007,859)	(85,967,427)
2004	6,360,111.85	558,378,614.46	(3,180,056)	(12,343,604)	(5,940,198)	(91,907,625)
2005	6,485,792.19	551,892,822.27	(3,242,896)	(15,586,500)	(5,871,200)	(97,778,825)
2006	6,611,481.04	545,281,341.23	(3,305,741)	(18,892,241)	(5,800,865)	(103,579,690)
2007	6,737,165.03	538,544,176.20	(3,368,583)	(22,260,824)	(5,729,193)	(109,308,883)
2008	6,862,966.55	531,681,209.65	(3,431,483)	(25,692,307)	(5,656,183)	(114,965,066)
2009	6,988,733.63	524,692,476.02	(3,494,367)	(29,186,674)	(5,581,835)	(120,546,901)
2010	7,114,469.15	517,578,006.87	(3,557,235)	(32,743,909)	(5,506,149)	(126,053,050)
2011	7,240,222.46	510,337,784.41	(3,620,111)	(36,364,020)	(5,429,125)	(131,482,175)
2012	7,366,018.54	502,971,765.87	(3,683,009)	(40,047,029)	(5,350,763)	(136,832,938)
2013	7,491,845.68	495,479,920.19	(3,745,923)	(43,792,952)	(5,271,063)	(142,104,001)
2014	7,617,592.49	487,862,327.70	(3,808,796)	(47,601,748)	(5,190,025)	(147,294,026)
2015	7,743,158.16	480,119,169.54	(3,871,579)	(51,473,327)	(5,107,651)	(152,401,677)
2016	7,868,407.09	472,250,762.45	(3,934,204)	(55,407,531)	(5,023,944)	(157,425,621)
2017	7,992,910.88	464,257,851.57	(3,996,455)	(59,403,986)	(4,938,913)	(162,364,534)
2018	8,116,426.92	456,141,424.65	(4,058,213)	(63,462,199)	(4,852,568)	(167,217,102)
2019	8,238,615.60	447,902,809.05	(4,119,308)	(67,581,507)	(4,764,924)	(171,982,026)
2020	8,359,101.08	439,543,707.97	(4,179,551)	(71,761,058)	(4,675,997)	(176,658,023)
2021	8,477,372.72	431,066,335.25	(4,238,686)	(75,999,744)	(4,585,812)	(181,243,835)
2022	8,592,788.14	422,473,547.11	(4,296,394)	(80,296,138)	(4,494,399)	(185,738,234)
2023	8,704,983.62	413,768,563.49	(4,352,492)	(84,648,630)	(4,401,793)	(190,140,027)
2024	8,813,497.59	404,955,065.90	(4,406,749)	(89,055,379)	(4,308,033)	(194,448,060)
2025	8,917,588.83	396,037,477.07	(4,458,794)	(93,514,173)	(4,213,165)	(198,661,225)
2026	9,016,946.88	387,020,530.19	(4,508,473)	(98,022,646)	(4,117,240)	(202,778,465)
2027	9,110,955.47	377,909,574.72	(4,555,478)	(102,578,124)	(4,020,315)	(206,798,780)
2028	9,198,952.80	368,710,621.92	(4,599,476)	(107,177,600)	(3,922,453)	(210,721,233)
2029	9,280,378.77	359,430,243.15	(4,640,189)	(111,817,789)	(3,823,726)	(214,544,959)
2030	9,354,609.25	350,075,633.90	(4,677,305)	(116,495,094)	(3,724,209)	(218,269,168)
2031	9,421,187.58	340,654,446.32	(4,710,594)	(121,205,688)	(3,623,983)	(221,893,151)
2032	9,479,811.79	331,174,634.53	(4,739,906)	(125,945,594)	(3,523,134)	(225,416,285)
2033	9,529,892.45	321,644,742.08	(4,764,946)	(130,710,540)	(3,421,753)	(228,838,038)
2034	9,570,956.97	312,073,785.11	(4,785,478)	(135,496,018)	(3,319,934)	(232,157,972)
2035	9,602,653.10	302,471,132.01	(4,801,327)	(140,297,345)	(3,217,778)	(235,375,750)
2036	9,624,789.10	292,846,342.91	(4,812,395)	(145,109,740)	(3,115,387)	(238,491,137)
2037	9,636,855.23	283,209,487.68	(4,818,428)	(149,928,168)	(3,012,867)	(241,504,004)
2038	9,638,204.28	273,571,283.40	(4,819,102)	(154,747,270)	(2,910,333)	(244,414,337)
2039	9,628,462.28	263,942,821.12	(4,814,231)	(159,561,501)	(2,807,902)	(247,222,239)
2040	9,607,233.25	254,335,587.87	(4,803,617)	(164,365,118)	(2,705,698)	(249,927,937)
2041	9,574,124.45	244,761,463.42	(4,787,062)	(169,152,180)	(2,603,845)	(252,531,782)
2042	9,529,219.15	235,232,244.27	(4,764,610)	(173,916,790)	(2,502,471)	(255,034,253)
2043	9,472,831.92	225,759,412.35	(4,736,416)	(178,653,206)	(2,401,696)	(257,435,949)
2044	9,405,072.91	216,354,339.44	(4,702,536)	(183,355,742)	(2,301,642)	(259,737,591)
2045	9,325,697.89	207,028,641.55	(4,662,849)	(188,018,591)	(2,202,432)	(261,940,023)
2046	9,234,663.60	197,793,977.95	(4,617,332)	(192,635,923)	(2,104,191)	(264,044,214)
2047	9,131,555.27	188,662,422.68	(4,565,778)	(197,201,701)	(2,007,047)	(266,051,261)
2048	9,016,052.70	179,646,369.98	(4,508,026)	(201,709,727)	(1,911,132)	(267,962,393)
2049	8,888,326.89	170,758,043.09	(4,444,163)	(206,153,890)	(1,816,575)	(269,778,968)
2050	8,749,194.60	162,008,848.49	(4,374,597)	(210,528,487)	(1,723,498)	(271,502,466)
2051	8,599,226.45	153,409,622.04	(4,299,613)	(214,828,100)	(1,632,017)	(273,134,483)
2052	8,438,246.00	144,971,376.04	(4,219,123)	(219,047,223)	(1,542,249)	(274,676,732)
2053	8,266,133.12	136,705,242.92	(4,133,067)	(223,180,290)	(1,454,311)	(276,131,043)

Schedule WMS-4-2
Comparison of Future Estimated Net Salvage Costs and Net Salvage Accrual
During the Period 2001 Through 2094 for Account 365, Overhead Conductors & Devices
AmerenUE

Year	Retirements	Ending Balance	Estimated Net Salvage Costs	Cumulative Est. Net Salvage	Net Salvage Accrual	Cumulative Net Salvage Accrual
2054	8,083,123.81	128,622,119.11	(4,041,562)	(227,221,852)	(1,368,320)	(277,499,363)
2055	7,889,355.73	120,732,763.38	(3,944,678)	(231,166,530)	(1,284,391)	(278,783,754)
2056	7,685,006.62	113,047,756.76	(3,842,503)	(235,009,033)	(1,202,636)	(279,986,390)
2057	7,470,226.49	105,577,530.27	(3,735,113)	(238,744,146)	(1,123,165)	(281,109,555)
2058	7,245,034.97	98,332,495.30	(3,622,517)	(242,366,663)	(1,046,090)	(282,155,645)
2059	7,009,873.07	91,322,622.23	(3,504,937)	(245,871,600)	(971,517)	(283,127,162)
2060	6,766,007.77	84,556,614.46	(3,383,004)	(249,254,604)	(899,538)	(284,026,700)
2061	6,514,745.30	78,041,869.16	(3,257,373)	(252,511,977)	(830,233)	(284,856,933)
2062	6,256,423.82	71,785,445.34	(3,128,212)	(255,640,189)	(763,675)	(285,620,608)
2063	5,991,382.43	65,794,062.91	(2,995,691)	(258,635,880)	(699,937)	(286,320,545)
2064	5,720,825.49	60,073,237.42	(2,860,413)	(261,496,293)	(639,077)	(286,959,622)
2065	5,445,307.17	54,627,930.25	(2,722,654)	(264,218,947)	(581,148)	(287,540,770)
2066	5,165,611.62	49,462,318.63	(2,582,806)	(266,801,753)	(526,195)	(288,066,965)
2067	4,882,759.04	44,579,559.59	(2,441,380)	(269,243,133)	(474,251)	(288,541,216)
2068	4,597,996.62	39,981,562.97	(2,298,998)	(271,542,131)	(425,336)	(288,966,552)
2069	4,312,891.48	35,668,671.49	(2,156,446)	(273,698,577)	(379,454)	(289,346,006)
2070	4,027,635.71	31,641,035.78	(2,013,818)	(275,712,395)	(336,607)	(289,682,613)
2071	3,742,982.46	27,898,053.32	(1,871,491)	(277,583,886)	(296,788)	(289,979,401)
2072	3,460,711.43	24,437,341.89	(1,730,356)	(279,314,242)	(259,972)	(290,239,373)
2073	3,181,947.11	21,255,394.78	(1,590,974)	(280,905,216)	(226,121)	(290,465,494)
2074	2,908,203.02	18,347,191.76	(1,454,102)	(282,359,318)	(195,183)	(290,660,677)
2075	2,641,349.42	15,705,842.34	(1,320,675)	(283,679,993)	(167,083)	(290,827,760)
2076	2,382,731.91	13,323,110.43	(1,191,366)	(284,871,359)	(141,735)	(290,969,495)
2077	2,133,638.71	11,189,471.72	(1,066,819)	(285,938,178)	(119,037)	(291,088,532)
2078	1,894,649.24	9,294,822.48	(947,325)	(286,885,503)	(98,881)	(291,187,413)
2079	1,666,304.82	7,628,517.66	(833,152)	(287,718,655)	(81,154)	(291,268,567)
2080	1,450,135.87	6,178,381.79	(725,068)	(288,443,723)	(65,727)	(291,334,294)
2081	1,247,911.48	4,930,470.31	(623,956)	(289,067,679)	(52,452)	(291,386,746)
2082	1,060,632.23	3,869,838.08	(530,316)	(289,597,995)	(41,168)	(291,427,914)
2083	889,839.15	2,979,998.93	(444,920)	(290,042,915)	(31,702)	(291,459,616)
2084	737,258.43	2,242,740.50	(368,629)	(290,411,544)	(23,859)	(291,483,475)
2085	601,584.09	1,641,156.41	(300,792)	(290,712,336)	(17,459)	(291,500,934)
2086	480,449.89	1,160,706.52	(240,225)	(290,952,561)	(12,348)	(291,513,282)
2087	374,468.44	786,238.08	(187,234)	(291,139,795)	(8,364)	(291,521,646)
2088	283,762.12	502,475.96	(141,881)	(291,281,676)	(5,345)	(291,526,991)
2089	205,586.45	296,887.51	(102,794)	(291,384,470)	(3,158)	(291,530,149)
2090	139,146.72	157,740.79	(69,573)	(291,454,043)	(1,678)	(291,531,827)
2091	85,716.04	72,024.75	(42,858)	(291,496,901)	(766)	(291,532,593)
2092	46,734.03	25,290.72	(23,367)	(291,520,268)	(269)	(291,532,862)
2093	20,470.43	4,820.29	(10,235)	(291,530,503)	(51)	(291,532,913)
2094	4,820.29	0	(2,410)	(291,532,913)	0	(291,532,913)

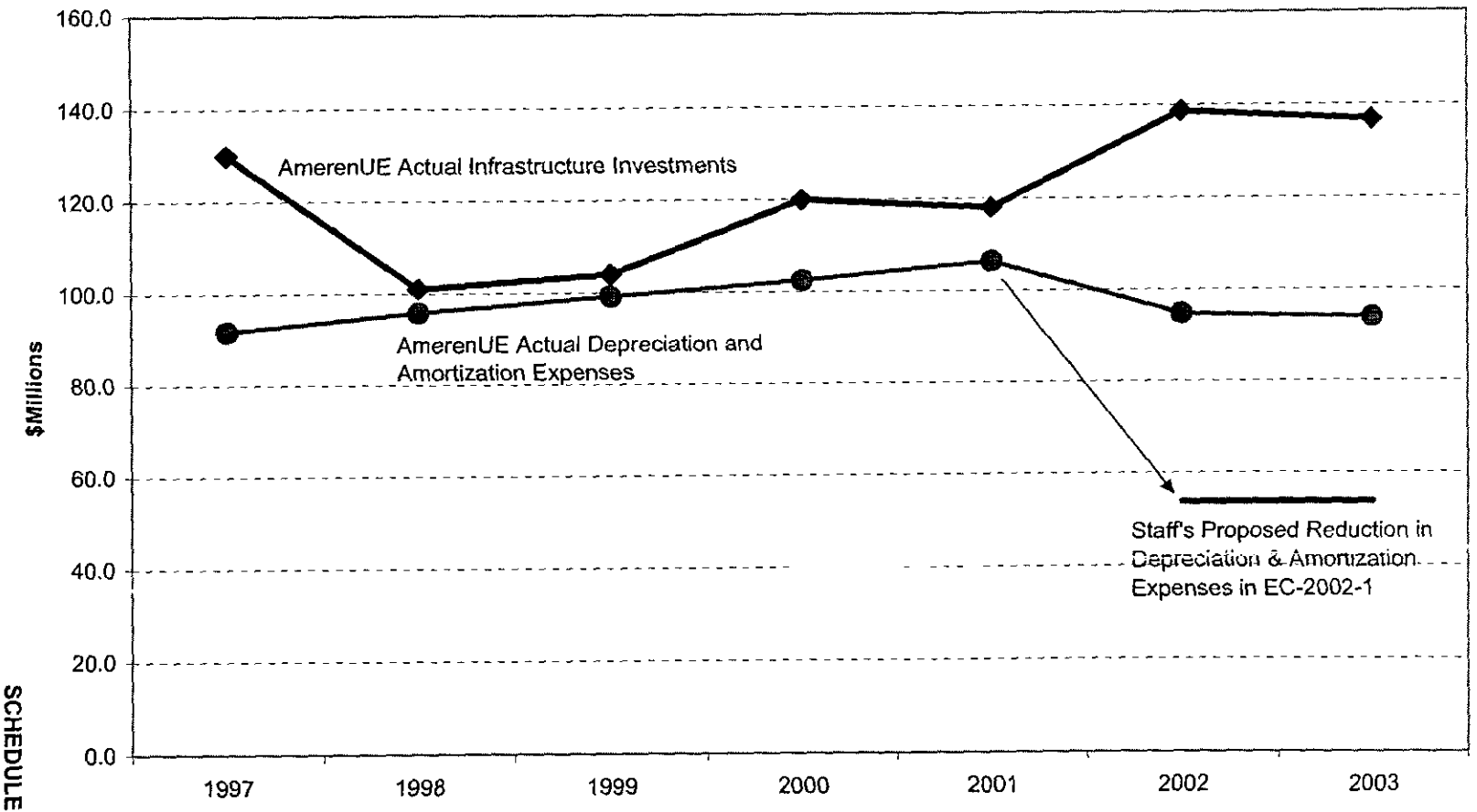
Schedule WMS-5-1
Laclede Infrastructure Investment vs. Depreciation Expense
Gas Distribution Plant



Sources and Notes:
Laclede Actual Depreciation Expense and Infrastructure Investments 1997 - 2003: Laclede Gas. Data reflect natural gas distribution plant only, and depreciation expense does not include amortization. Infrastructure investments reflect gross additions to natural gas distribution plant.

SCHEDULE WMS-5-1

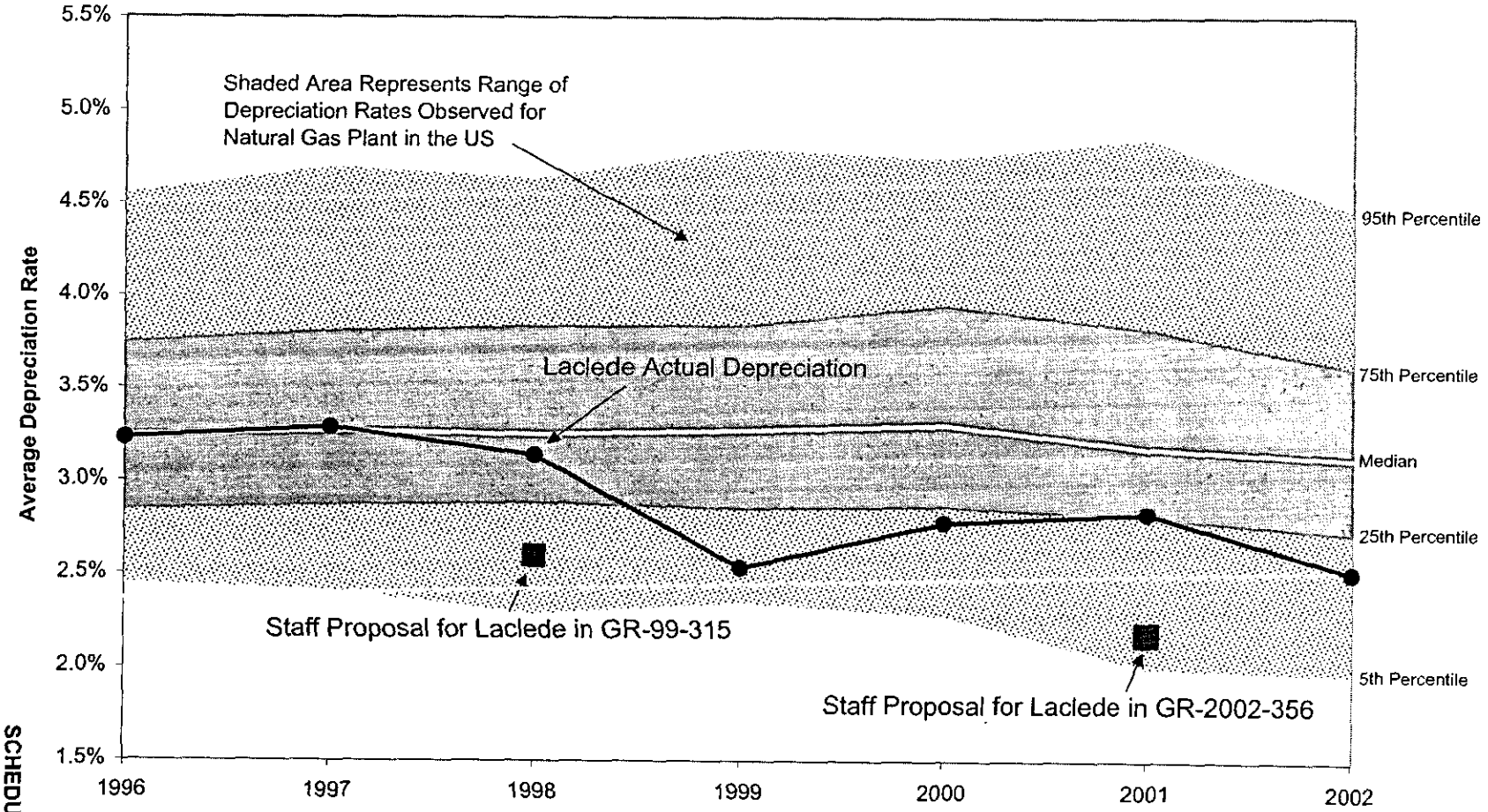
Schedule WMS-5-2
AmerenUE Infrastructure Investment vs. Depreciation & Amortization Expense
Electric Distribution Plant



Sources and Notes:
AmerenUE Actual Depreciation Expense 1997 - 2002: UDI / Platts. 2003: Ferc Form 1.
All Other Data: AmerenUE.
All infrastructure investments and depreciation expenses include Illinois and Iowa electric distribution plant.

SCHEDULE WMS-5-2

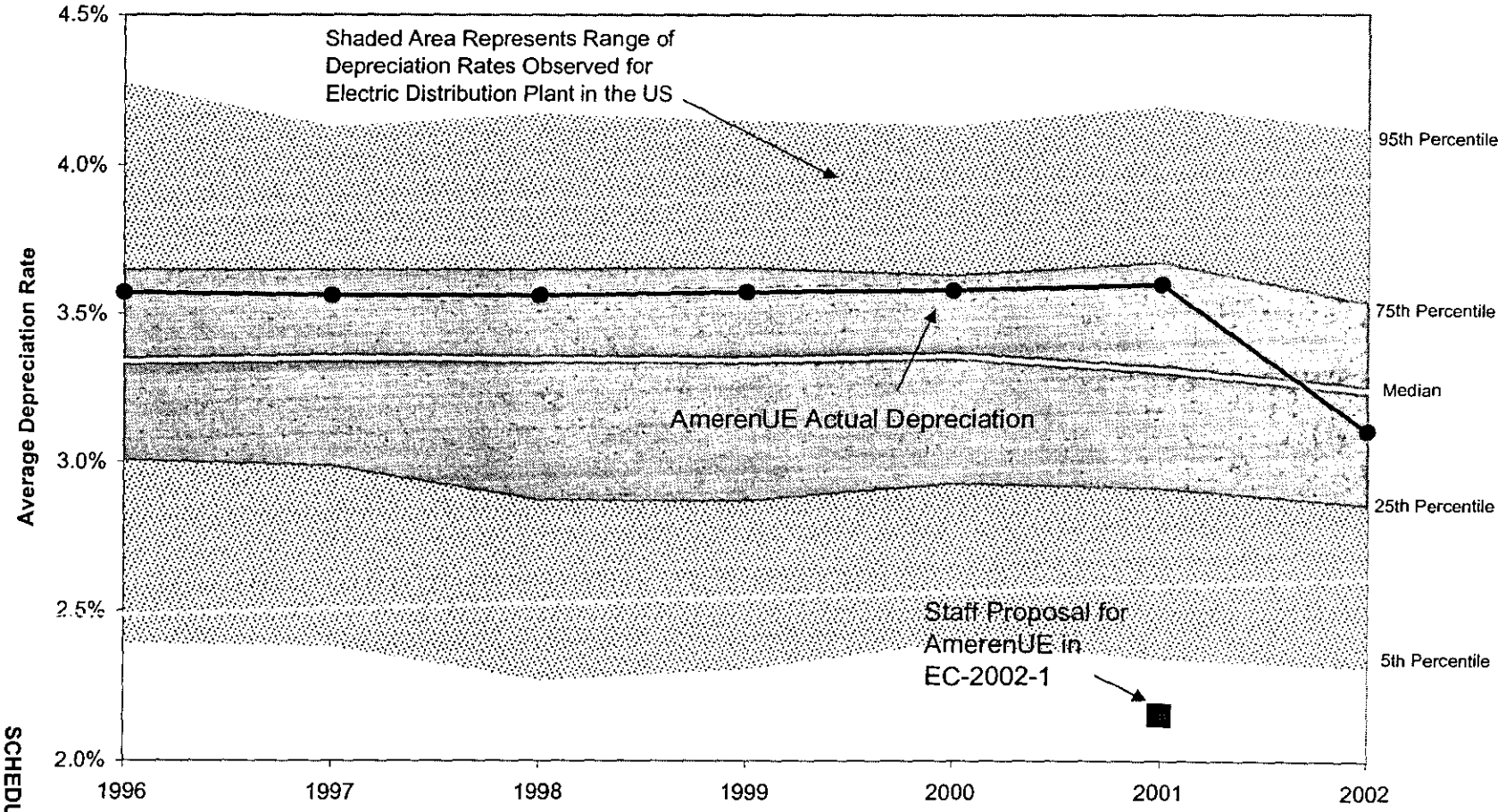
Schedule WMS-6-1
Average Depreciation Rate for Investor-Owned Gas Utilities in the US
(Total Gas Plant)



Sources and Notes:
Depreciation and amortization rate statistics and actual Laclede data based on Platts database for total plant.
Average Depreciation Rate calculated as (Depreciation and Amortization Expenses / Gross Plant Value).
Staff proposal for Laclede in GR-99-315: Paul Adam's Schedule 1.1.
Staff proposal for Laclede in GR-2002-356: Staff Schedule 7.

SCHEDULE WMS-6-1

Schedule WMS-6-2
Average Depreciation Rate for Investor-Owned Electric Utilities in the US
(Electric Distribution Plant)



Sources and Notes:
Depreciation and amortization rates and AmerenUE actual based on UDI and Platts databases for electric distribution plant.
Average Depreciation Rate calculated as (Depreciation and Amortization Expenses / Gross Plant Value).
Staff proposal: Staff Schedule 5.

SCHEDULE WMS-6-2

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Laclede Gas Company's Tariff to Revise Natural Gas Rate Schedules.	)))	Case No. GR-99-315

AFFIDAVIT

COMMONWEALTH OF PENNSYLVANIA	)	
	)	SS.
COUNTY OF CUMBERLAND	)	

William M. Stout, of lawful age, being first duly sworn, deposes and states:

1. My name is William M. Stout. My business address is 207 Senate Avenue, Camp Hill, Pennsylvania; and I am President of the Valuation and Rate Division of Gannett Fleming, Inc.

2. Attached hereto and made a part hereof for all purposes is my supplemental direct testimony.

3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct to the best of my knowledge and belief.

William M. Stout

Subscribed and sworn to before me this 20th day of August, 2004.

Mary C. Hoff

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Mary O. Hoff, Notary Public
East Pennsboro Twp., Cumberland County
My Commission Expires June 2, 2007
Member, Pennsylvania Association Of Notaries