## PUBLIC SERVICE COMMISSION OF KENTUCKY

# RECEMVED <br> DEC 232009 <br> PUBLIC SEAVICE COMMISSION 

## IN THE MATTER OF

GENERAL ADJUSTMENTS IN ELECTRIC RATES OF KENTUCKY POWER COMPANY

CASE NO. 2009-00459

DIRECT TESTIMONY<br>OF<br>HUGH E. MCCOY<br>ON BEHALF OF KENTUCKY POWER COMPANY

# DIRECT TESTIMONY OF HUGH E. MCCOY, ON BEHALE OF KENTUCKY POWER COMPANY BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY 

CASE NO. 2009-00459

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# DIRECT TESTIMONY OF <br> HUGH E. MCCOY, ON BEHALF OF <br> KENTUCKY POWER COMPANY BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY 

## I. Introduction

Q: PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.
A: My name is Hugh E. McCoy. My position is Director of Accounting Policy and Research for the American Electric Power Service Corporation (AEPSC), a wholly owned subsidiary of American Electric Power Company, Inc. (AEP). AEP is the parent company of Kentucky Power Company (Kentucky Power, KPCo or the Company). AEPSC supplies engineering, financing, accounting and similar planning and advisory services to AEP's eleven electric operating companies, including KPCo. My business address is 1 Riverside Plaza, Columbus, Ohio 43215.

## II. Background

## Q: PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND BUSINESS EXPERIENCE.

A: I graduated magna cum laude from West Virginia University in 1977, with a Bachelor of Science in Business Administration degree in Accounting.

From 1977 to 1981, I was employed by Peat, Marwick, Mitchell and Co., where I was promoted to Audit Supervising Senior. I have been a Certified Public Accountant since 1979 and a member of the American Institute of Certified Public Accountants since 1980.

Since 1981, I have been employed by AEPSC. I served from 1981 to early 1998 in Accounting Policy and Research, initially as a Treasury Staff Accountant and beginning in 1989 as a Senior Treasury Staff Accountant. In 1998, I was promoted to Manager of Utility Ledgers for AEP's operating companies in Ohio. In 2000, I was promoted to Assistant Controller of Non-Regulated Accounting. Following two years in that position and a one-year rotational assignment to Corporate Finance, I returned to Accounting Policy and Research in my current position in 2003.

## Q: WHAT ARE YOUR RESPONSIBILITIES AS DIRECTOR OF ACCOUNTING POLICY AND RESEARCH?

A: I am responsible for performing accounting research, recommending accounting policy and procedures, reporting on the financial effects of potential transactions, and developing accounting instructions for certain non-routine transactions and new accounting rules. In addition, I serve as AEP's primary internal advisor with regard to issues surrounding the accounting for employee benefits, including pensions and postretirement benefits.

## Q: TO WHOM DO YOU REPORT?

A: I report to John R. Huneck, AEPSC's Managing Director of Accounting Policy and Research.

## Q: HAVE YOU PREVIOUSLY TESTIFIED BEFORE ANY REGULATORY COMMISSIONS?

A: Yes, I have previously testified on pension and postretirement benefits before the Public Service Commission of Kentucky (the Commission) and before the Indiana Utility Regulatory Commission, the Louisiana Public Service Commission, the

Michigan Public Service Commission, the Public Utility Commission of Ohio, the Oklahoma Corporation Commission, the Tennessee Public Service Commission, the Public Utility Commission of Texas, the Virginia State Corporation Commission, the Public Service Commission of West Virginia, and the Federal Energy Regulatory Commission.

## III. Purpose of Testimony

Q: WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A: The purpose of my direct testimony is to address for the Company the amount of pension cost and postretirement benefit cost that the Company has included for ratemaking purposes. In addition, I will support the inclusion in rate base of additional pension cash contributions required to eliminate the shortfall between pension plan assets and the accumulated pension obligations calculated in accordance with generally accepted accounting principles.

## Q. ARE YOU SPONSORING ANY EXHIBITS IN THIS PROCEEDING?

A. Yes, I am sponsoring Exhibits HEM-1 through HEM-4. Exhibit HEM-1 is my schedule that compiles pension and postretirement benefit costs from the 2008 and 2009 actuarial reports included in Exhibit HEM-2 and Exhibit HEM-3, respectively, and computes pension and postretirement benefit costs for the twelve months ended September 30, 2009. Exhibit HEM-2 consists of the 2008 pension and postretirement benefit actuarial reports prepared by the Company's independent actuary, Towers Perrin, while Exhibit HEM-3 contains these actuarial reports for
2009. Exhibit HEM-4 is my schedule of the effect of additional pension contributions recorded as a prepaid pension asset in reducing 2009 pension cost.
Q. PLEASE DESCRIBE THE COMPANY'S PENSION PLANS.
A. The employees of the Company participate in the AEP defined benefit pension plan that is subject to the Employee Retirement Income Security Act of 1974 (ERISA) and various regulations under the Internal Revenue Code (IRC). The pension plan provides benefits based on either a cash balance design or, for employees who were plan participants on December 31, 2000, under a grandfathered design. The cash balance design provides participants with a notional account that provides annual credits based on compensation, age, and years of service, plus annual interest on the account balance. The grandfathered design provides a final average pay benefit that continues to grow for a ten-year transition period ending December 31, 2010. At retirement, grandfathered participants may choose either the grandfathered benefit or the cash balance benefit.

## Q. HOW IS PENSION COST DETERMINED?

A. The Company's pension cost is computed as part of an annual actuarial valuation performed by Towers Perrin, the Company's independent actuary, in accordance with generally accepted accounting principles under Financial Accounting Standards Board (FASB) Accounting Standards Codification 715-30, previously referred to as FASB Statement of Financial Accounting Standards No. 87, Employers' Accounting for Pensions (FAS 87), and when applicable FASB

Statement of Financial Accounting Standards No. 88, Employers' Accounting for Settlements and Curtailments of Defined Benefit Pension Plans and for Termination Benefits (FAS 88). As required by FAS 87, ERISA, and actuary professional standards, Towers Perrin performs the valuation using reasonable actuarial methods and assumptions, which are disclosed under Actuarial Assumptions and Methods in the Supplemental Information sections of the actuarial reports included in Exhibit HEM-2 and Exhibit HEM-3. These actuarial assumptions, which are consistent with the requirements of FAS 87, are discussed in more detail later in this testimony.

Most of the Company's pension benefit cost is computed directly based on the specific demographics of the Company's actual employees and retirees, so that assignment of a portion of total cost of the AEP plan is not necessary. However, investment return is assigned to the Company and its affiliates based on each company's directly computed liability versus the total plan liability, so that each entity receives its appropriate and equitable share of investment return. This method of determining the Company's pension cost is reasonable, fair, and equitable and results in no cross-subsidization of cost between the Company and its affiliates.

## Q. IS IT COMMON TO USE AN INDEPENDENT ACTUARY TO COMPUTE PENSION AND POSTRETIREMENT BENEFIT COST?

A. Yes. It is a routine, necessary and accepted business practice at AEP and in the electric utility industry generally to rely on the results of actuarial reports prepared
by an independent actuary to establish pension and postretirement benefit cost and funding amounts.
Q. HAS THE REFERENCE SYSTEM FOR GENERALLY ACCEPTED ACCOUNTING PRINCIPLES BEEN MODIFIED RECENTLY?
A. Yes. On July 1, 2009, the FASB reconfigured existing generally accepted accounting principles into a single authoritative source called the FASB Accounting Standards Codification (ASC). The ASC does not change existing generally accepted accounting principles but instead introduces a new structure organized in a searchable on-line research system of topics and sections that is intended to reduce the time and effort needed to research accounting rules. Although the ASC does not change the substance of the existing rules, it does introduce a new nomenclature to replace the previous statement references, such as FAS 87. As such, the pension accounting rules previously known as FAS 87 and FAS 88 are now located in FASB ASC 715-30, and FASB Statement of Financial Accounting Standards No. 106, Employers' Accounting for Postretirement Benefits Other Than Pensions, (FAS 106) postretirement benefit rules are now located in FASB ASC 715-60. Since the accounting rules themselves have not changed, I will frequently throughout my testimony refer to the accounting rules under generally accepted accounting principles by the previous reference system to which so many of us have grown accustomed.
Q. WHAT ARE THE COMPONENTS OF PENSION COST UNDER FAS 87?
A. FAS 87 pension cost includes the following components:

- Service cost, or the present value of benefits earned by employees for the current year.
- Interest cost on the projected benefit obligation (PBO). Interest accrues each year because the PBO is computed on a discounted, or present value, basis.
- Investment return expected on trust fund assets.
- Amortization of deferred costs, including:
- Actuarial gains and losses, or differences between actual and projected economic and demographic experience.
- Prior service cost, or fluctuations in the PBO caused by retroactive plan design changes.
- Transition asset or obligation, or the catch-up adjustment upon initial application of FAS 87.
Q. PLEASE DESCRIBE THE ASSUMPTIONS USED IN THE COMPANY'S FAS 87 ACTUARIAL REPORT.
A. FAS 87 actuarial assumptions fall into two categories: demographic assumptions and economic assumptions. These assumptions are annually reviewed with the independent actuary and adjusted as appropriate to ensure that they are reasonable, both individually and in aggregate, and that they accurately reflect expected future experience of the plan. These assumptions also apply to postretirement benefit cost under FAS 106.
Q. PLEASE DESCRIBE THE DEMOGRAPHIC ASSUMPTIONS USED IN THE ACTUARIAL STUDIES AND HOW THEY WERE DEVELOPED.
A. The demographic assumptions used to develop pension and postretirement benefit liabilities are mortality rates, employee withdrawal rates, expected retirement age, and assumptions regarding marital status and spouse's age. The assumptions regarding expected mortality and marital status are considered standard and are used by the majority of large companies for their FAS 87 and FAS 106 actuarial valuations. The employee turnover and retirement assumptions are based on studies of prior AEP demographic experience.


## Q. PLEASE DESCRIBE THE ECONOMIC ASSUMPTIONS AND HOW THEY WERE DEVELOPED.

A. The economic assumptions used to develop pension and postretirement benefit liabilities include discount rate selection, an assumption regarding the expected long-term rate of return on plan assets, and expected future growth of employee salaries. The discount rate is used to adjust for the time value of money, as most of each plan's expected benefit payments will not be paid for many years. In accordance with FAS 87 and FAS 106, the discount rate is chosen as of the Company's December 31 annual measurement date to be in line with high-quality corporate bond yields. The rate chosen is based on the matching of high quality bond spot rates to the annual projected benefit payments expected for the plans.

The long-term rate of return on assets is chosen based on a study of the mix of the assets funding the plan and the expected rate of return on each asset category. Lastly, the salary growth rate takes into account expected changes in compensation levels, including cost-of-living adjustments, merit increases, and promotions. This assumption also is based on prior AEP experience. All three of these economic
assumptions are the same or similar for the FAS 87 valuation and the FAS 106 valuation, except that the FAS 106 expected return on assets assumption takes into account the different effect of income taxes on postretirement benefit trust funds.
Q. DO THE ACTUARIAL ASSUMPTIONS AND METHODS DISCUSSED ABOVE PROVIDE A REASONABLE BASIS FOR DETERMINING THE
LEVEL OF PENSION COST TO BE INCLUDED IN COST OF SERVICE?
A. Yes. The actuarial assumptions and methods used for the pension valuation are reasonable both individually and in the aggregate. They are consistent with the requirements of generally accepted accounting principles as set forth in FAS 87 and actuarial industry standards.
Q. WHAT AMOUNT OF PENSION COST IS REFLECTED IN THE COMPANY'S FILING?
A. Exhibit HEM-1 shows the amount of the Company's actual FAS 87 pension cost for the 2008 and 2009 calendar years from each year's actuarial report. Exhibit HEM-1 also computes the Company's pension cost of $\$ 1,912,534$ for the twelve months ended September 2009 test year. However, the Company's filing includes the calendar year 2009 pension cost of $\$ 2,218,216$ since this updated amount is more representative of the cost to be incurred during the period that rates resulting from this proceeding will be in effect. As discussed below, FAS 88, which covers settlements, curtailments, and terminations, does not apply in 2008 and 2009.

The schedule on Exhibit HEM-1 accumulates separate columns for the amount of qualified cost and for the amount of non-qualified cost (also know as excess, supplemental, or SERP (Supplemental Employee Retirement Plan) cost),
since a separate actuarial report is prepared for each. Actuarial reports typically are prepared separately for the amount of pension benefits that may be included in a qualified pension trust fund under ERISA versus the excess or supplemental amount related to benefits beyond the statutory qualified plan limits on benefits and pay. This helps to avoid confusion about funding of qualified plans and provides the segregated information required by accounting and reporting rules. The distinction between qualified and non-qualified amounts has no bearing on the amount of costs that are reasonable and necessary to meet the Company's requirements to provide reasonable and adequate pensions for its employees. The qualified amount is simply the portion that is subject to ERISA requirements, protections and income tax incentives. The supplemental amount is the portion of an employee's pension benefit that exceeds the qualified plan limits on benefits and pay.

## Q. DOES THE SUPPLEMENTAL PENSION PLAN PROVIDE SEPARATE AND ADDITIONAL BENEFITS TO THE COMPANY'S EXECUTIVES?

A. No. The same pension benefit formula applies to all employees regardless of pay level. The supplemental plan simply replaces the portion of pension benefits that otherwise would be lost under the qualified plan limits. For example, the supplemental plan provides pension benefits for pay above 2009's $\$ 245,000$ qualified plan compensation limit, so that those pension benefits are not lost.
Q. DOES THE 2009 ACTUARIAL REPORT DETERMINE THE FINAL 2009 PENSION BENEFIT COST THAT WILL BE INCURRED BY THE COMPANY?
A. Yes. In accordance with generally accepted accounting principles as set forth in FAS 87, the final pension cost for 2009 recorded on the books for January through December 2009 is based on the April 2009 actuarial report. FAS 87 pension cost would be updated during a year only in the event that a FAS 88 pension settlement, curtailment, or termination occurred before the end of the year. No such settlement, curtailment, or termination has occurred or is expected. All of the underlying actual economic and demographic data included in the April 2009 actuarial report was complete, known and measurable as of December 31, 2008.

## Q. PLEASE EXPLAIN WHAT A PENSION SETTLEMENT, CURTAILMENT, OR TERMINATION IS AND WHY NONE IS EXPECTED IN 2009.

A. FAS 88 provides the required accounting under generally accepted accounting principles for the following items:

- Pension plan settlement, which is an irrevocable transaction that relieves the Company of its pension obligation. Examples include (a) making lump-sum payments to participants in exchange for their rights to receive pension plan benefits and (b) purchasing nonparticipating amuity contracts to cover vested benefits.
- Pension plan curtailment, which is a significant reduction in the expected years of future service of present employees before retirement, or elimination of the earning of pension benefits for a significant number of employees for some or all of their future service. Examples include (a) termination of employees' services earlier than expected and (b) termination or suspension of a plan so that employees do not earn additional benefits for future service.
- Termination benefits, which are special termination benefits offered only for a short period of time, or contractual termination benefits required only if a specific event occurs.

Significant lead-time is required for the planning of an event that would constitute a FAS 88 pension settlement, curtailment, or termination. The Company's management currently has no plans for such an event.

## Q. WHY IS PENSION COST HIGHER FOR THE CALENDAR YEAR 2009 THAN FOR THE TWELVE MONTHS ENDED SEPTEMBER 2009 TEST YEAR? <br> A. Pension cost for the Company increased in 2009 mainly because of increased amortization cost related to the lower than expected investment market return in 2008. Deferred investment actuarial losses are amortized to pension cost over 10 to 14 years. Pension cost for calendar year 2009 includes twelve months, rather than nine months through September, of deferred 2008 investment actuarial loss amortization.

Q. WHAT IS THE FUNDED POSITION OF THE COMPANY'S PENSION PLAN?
A. The funded position declined during 2008. At the end of 2005 and through 2007, the Company's qualified pension plan was a little more than fully funded in terms of the FAS 87 benefit obligation as a result of the substantial 2005 contributions that are discussed in more detail in Section VI of my testimony on rate base treatment of the pension prepayment asset. During 2008, the value of AEP's and most other large employers' pension trust fund investments declined substantially
due to decreases in domestic and international equity markets. As a result, the Company's qualified pension funds declined to approximately 75 percent funded at the end of 2008.

## V. Postretirement Benefit Cost

Q. PLEASE DESCRIBE THE COMPANY'S POSTRETIREMENT BENEFIT PLAN.
A. The employees of the Company participate in AEP's Non-UMWA Postretirement Benefit Plan, which provides medical and life insurance benefits to AEP employees who are not members of the United Mine Workers of America. AEP provides postretirement benefits, including subsidized medical and dental coverage, prescription drug coverage, and life insurance benefits, to employees who retiree directly from an AEP System company after attaining at least age 55 with at least ten years of service.

## Q. HOW IS POSTRETIREMENT BENEFIT COST DETERMINED?

A. The Company's postretirement benefit cost is computed as part of an annual actuarial valuation performed by Towers Perrin, the Company's independent actuary, in accordance with generally accepted accounting principles under the requirements of FASB ASC 715-60, or FAS 106 under the familiar previous accounting rule reference system. As required by FAS 106 and actuary industry standards, Towers Perrin performs the valuation using reasonable actuarial methods and assumptions, which are disclosed under Actuarial Assumptions and Methods in the supplemental information sections of the actuarial reports included in Exhibit

HEM-2and Exhibit HEM-3. These actuarial assumptions, which are consistent with the requirements of FAS 106, are discussed in more detail later in this testimony.

As is the case with the calculation of pension cost that I discussed above, most of the Company's postretirement benefit cost is computed directly based on the specific demographics of the Company's actual employees and retirees. However, investment return is assigned to the Company and its affiliates based on each company's directly computed liability versus the total AEP plan liability, so that each entity receives its appropriate and equitable share of investment return. This method of determining the Company's postretirement benefit cost is reasonable, fair and equitable and results in no cross-subsidization of cost between the Company and its affiliates.

## Q. WHAT ARE THE COMPONENTS OF POSTRETIREMENT BENEFIT COST?

A. FAS 106 postretirement benefit cost includes the same components as FAS 87 pension cost already discussed above, those being service cost, interest cost, investment return, and amortizations. Except for minor differences necessitated by the slightly different nature of pension benefits and postretirement benefits, the requirements of FAS 106 are very similar to those of FAS 87.

FAS 106 requires that employers such as the Company record the cost of postretirement benefits on an accrual basis during the working lives of employees. Under FAS 106, employers are required to accrue during employees' years of service a liability for the present value of their future benefits, so that an employer will have accrued the present value of the entire benefit cost by the employee's
retirement date. The FASB based the rule on its decision that postretirement benefits are a form of deferred compensation that should be recorded on an accrual basis as the benefits are earned, much like pensions.

## Q. PLEASE DESCRIBE THE ASSUMPTIONS USED IN THE FAS 106

 ACTUARIAL REPORT.A. FAS 106 actuarial assumptions fall into three categories: demographic assumptions, economic assumptions, and health care cost assumptions. These assumptions are reviewed with the independent actuary and adjusted annually to ensure that they are reasonable, both individually and in aggregate, and that they accurately reflect expected future experience of the plan. Demographic assumptions and economic assumptions also apply to pension cost under FAS 87.
Q. WHAT DEMOGRAPHIC AND ECONOMIC ASSUMPTIONS WERE USED IN THE POSTRETIREMENT BENEFIT ACTUARIAL STUDY AND HOW WERE THEY DEVELOPED?
A. My discussion above of the demographic and economic assumptions used to develop pension liabilities also applies to the assumptions used to develop postretirement benefit liabilities.
Q. PLEASE DESCRIBE HOW THE HEALTH CARE COST ASSUMPTIONS USED IN THE FAS 106 STUDY WERE DEVELOPED.
A. The health care trend rate for each future year is the expected annual rate of increase in the per capita health care charges submitted for reimbursement under the plan, before the effect of deductibles and co-payments. These rates are developed based on an analysis of the plan's design and experience, as well as medical cost
trend rate information available from the insurance industry and published surveys. These data take into account all appropriate components of medical inflation that might affect retiree medical costs, including pure costs of services, utilization, cost shifting, technological advances, growth and increase in malpractice insurance costs. The rates that are developed are then compared to the rates being used by other large organizations to make sure they are in line with assumptions being used for plans with similar benefits.
Q. DO THE ACTUARIAL ASSUMPTIONS AND METHODS DISCUSSED ABOVE PROVIDE A REASONABLE BASIS FOR DETERMINING THE LEVEL OF POSTRETIREMENT BENEFIT COST TO BE INCLUDED IN COST OF SERVICE?
A. Yes. The actuarial assumptions and methods used for the postretirement benefits valuation are reasonable both individually and in the aggregate. They are consistent with the requirements of generally accepted accounting principles as set forth in FAS 106 and actuarial industry standards.
Q. WHAT AMOUNT OF POSTRETIREMENT BENEFIT COST IS THE COMPANY REQUESTING?
A. Exhibit HEM-1 shows the amount of the Company's actual FAS 87 postretirement benefit cost for the 2008 and 2009 calendar years from each year's actuarial report. Exhibit HEM-1 also computes the Company's postretirement benefit cost of $\$ 2,828,744$ for the twelve months ended September 2009 test year. However, the Company's filing includes the calendar year 2009 postretirement benefit cost of
$\$ 3,232,186$ since this updated amount is more representative of the cost to be incurred during the period that rates resulting from this proceeding will be in effect.
Q. WHY IS POSTRETIREMENT BENEFIT COST HIGHER FOR THE CALENDAR YEAR 2009 THAN FOR THE TWELVE MONTHS ENDED SEPTEMBER 2009 TEST YEAR?
A. Postretirement benefit cost for the Company increased in 2009 mainly because of increased amortization cost related to the lower than expected investment market return in 2008. Deferred investment actuarial losses are amortized to postretirement benefit cost over about 12 years.

## VII. Rate Base Treatment of the Prepaid Pension Asset

Q. PLEASE EXPLAIN THE AMOUNT OF ADDITIONAL PENSION FUNDING THAT SHOULD BE INCLUDED IN RATE BASE.
A. In accordance with the provisions of generally accepted accounting principles under FAS 87, the Company has recorded as a prepaid pension asset additional cash pension contributions in excess of FAS 87 pension cost in the amount of $\$ 15,390,035$ as of September 30, 2009. This total prepaid pension asset amount is before the related accumulated deferred federal income taxes that serve to reduce the combined rate base effect.
Q. WHY DID THE COMPANY MAKE THESE ADDITIONAL PENSION CONTRIBUTIONS?
A. These additional cash contributions were made in 2005 to eliminate the funding shortfall that had developed over recent years between pension plan assets and the

FAS 87 benefit obligation. As a result of these additional contributions, the Company's qualified pension benefit obligation was fully funded at the end of 2005 and through 2007.
Q. IS THIS PREPAID PENSION BALANCE THAT THE COMPANY PROPOSES TO INCLUDE IN RATE BASE ENTIRELY SUPPORTED BY CASH CONTRIBUTIONS?
A. Yes, the prepaid pension amount to be included in rate base is entirely supported by actual cash contributions in excess of pension cost. Including this amount in rate base will allow ratemaking recognition of the Company's cost of funds on the additional cash contributions. Not included in the Company's request are non-cash accrual adjustments made under FASB Statement of Financial Accounting Standards No. 158, Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans (FAS 158), since such adjustments have no effect on the amount of the Company's cash pension investment or its FAS 87 pension cost.

## Q. DID ANY OF THESE ADDITIONAL PENSION CONTRIBUTIONS SERVE

 TO PRE-FUND THE COMPANY'S PENSION OBLIGATIONS IN ADVANCE?A. No. These additional contributions were made to address substantial underfunding that would have continued to exist if the contributions had not been made. They did not relate to anticipating or pre-funding future obligations but rather were made to catch-up funding to the current accumulated benefit obligation. These additional contributions also served to control future pension costs and to reduce future funding requirements that would otherwise need to be reflected in rates. In
furtherance of these objectives, the Company made substantial cash contributions in excess of the pension cost currently includible in operations and maintenance expense and cost of service. Including in rate base such pension contributions that will be expensed in future periods will allow ratemaking recognition of the Company's cost of funds for these prepaid contributions. This is appropriate because the Company's customers benefit from the existence of the appropriate pension funding and the lower pension expense that results from the Company having made these contributions. The additional pension contributions have been prudently incurred by the Company to provide service to its customers, are necessary for the provision of service, and constitute property that is used and useful in providing public service.
Q. PLEASE EXPLAIN WHY THE ADDITIONAL PENSION CONTRIBUTIONS WERE NECESSARY.
A. As explained above, pension cost included in cost of service for ratemaking purposes is based on generally accepted accounted principles as set forth in FAS 87 and, when applicable, FAS 88. However, pension contributions are based on separate ERISA requirements, so the amount of pension cost and the amount of pension cash contribution can often vary. FAS 87 requires that this difference be recorded on the balance sheet as a prepayment if contributions exceed cost or as a liability if cost exceeds contributions.

The Company's pension funding shortfall under FAS 87 grew substantially over the period 2000-2003 because of an unprecedented combination of factors that caused the difference between the accumulated pension benefit obligation and the
pension fund assets to grow substantially. First, a declining stock market produced pension fund investment returns for virtually all large employers that were negative for this three-year period, which reduced pension assets. Second, in response to concerns about the severe financial effects of the investment market decline, Congress passed interest rate relief legislation that deferred the full effect of the market decline on the amount of minimum required pension contributions, which delayed contributions that would have increased pension assets. Finally, the discount rate used to measure the present value of pension obligations was based on declining interest rates, which caused the discounted obligations to increase. The resulting decline in pension fund assets and the increase in pension obligations caused even previously well-funded pension plans such as the Company's to become significantly underfunded.

By 2005, the amount of underfunding had reached the point that it was neither prudent nor reasonable for the Company to rely on the shortfall reversing over time through normal market activity and ERISA-required cash contributions. Moreover, allowing the disparity between pension assets and the accumulated pension obligation to remain at the then current level, or risking possible further growth in the disparity, would have entailed making substantially increased future required pension funding contributions. Accordingly, the Company was presented with a situation in which it needed to take action by making additional contributions to bring the pension fund assets and the accumulated benefit obligation into alignment. Under these circumstances, the making of the additional contributions was clearly prudent and necessary.
Q. DO CUSTOMERS OF THE COMPANY BENEFIT FROM THE ADDITIONAL FUNDING OF THE PENSION PLAN?
A. Yes, customers benefit from the investment earnings on the additional fund assets. This has the effect of reducing future pension cost under generally accepted accounting principles in an amount that grows over time through compounding. As computed on Exhibit HEM-4, the additional pension contributions recorded as a prepaid pension asset reduced by approximately $\$ 1,565,000$ the 2009 pension cost that the Company would have had to recover from customers. In other words, had the Company not made the additional pension contributions, the Company's total amount of 2009 pension cost would have been approximately $\$ 3,783,571$ instead of \$2,218,216.
VII. Conclusion

Q: DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?
A: Yes, it does.

## AFFIDAVIT

Hugh E. McCoy, upon first being duly sworn, hereby makes oath that if the foregoing questions were propounded to him at a hearing before the Public Service Commission of Kentucky, he would give the answers recorded following each of said questions and that said answers are true.


State of Ohio ) )ss
County of Franklin )

Subscribed and sworn to before me, a Notary Public, by Hugh E. McCoy this 17 th day of december 2009.


Notary Public
My Commission Expires


PAULINE A LUTZ NOTARY PUBLIC STATE OFOHO MY COMM. EXP. 9-12-11

## Pension and Postretirement Benefit (OPEB) Cost

Kentucky Power Company


Exhibit HEM-2 includes the following 2008 AEP Actuarial Reports:

| - Exhibit HEM-2A | Qualified Pension |
| :--- | :--- |
| - Exhibit HEM-2B | Supplemental Pension |
| - Exhibit HEM-2C | Non-UMWA Postretirement |

# American Electric Power <br> Retirement Plun - East 

## Actuarial Valuation Report

Pension Cost for Fiscal Year Enoling December 31, 2003
Rmployer Coneriburions for Plan Year Beginnimg Jamumay 1, 2008

June 2008

This report is confidential and intended solely for the information and benefit of the immediate recipient thereof. It may not be distributed to a third party unless expressly allowed under the "Actuarial Certification, Reliances and Distribution" Section herein.

## TOWERS <br> PERRIN

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## Financiel Results

This report summarizes financial results for American Electric Power's (AEP) Retirement Plan for East Employees (East Retirement Plan) based on actuarial valuations as of January 1, 2008, and January 1, 2007.
Jamuary it, 2008 Janwary 1, 2007

## Pas 87 Pension Cost

| Amount | \$ | 35,634,598 |  | 35,449,208 |
| :---: | :---: | :---: | :---: | :---: |
| Percent of covered pay |  | 2.9\% |  | 3.1\% |
| FAS 87 Punded Position |  |  |  |  |
| Accumulated benefit obligation [ABO] | \$ | 2,947,433,034 |  | 2,855,230,126 |
| Projected benefit obligation [PBO] |  | 3,045,086,276 |  | 2,997,063,353 |
| Fair value of assets [FV] |  | 3,241,633,839 |  | 3,160,858,560 |
| Overfunded (underfunded) PBO |  | 196,547,563 |  | 163,795,207 |
| PBO funded percentage [FV $\div$ PBO] |  | 106.5\% |  | 105.5\% |
| Employer coneributions |  |  |  |  |
| Minimum required* | \$ | 0 | \$ | 0 |
| Percent of covered pay |  | 0.0\% |  | 0.0\% |
| Maximum deductible | \$ | 1,431,296,422 | \$ | 1,355,547,872 |
| Percent of covered pay |  | 117.6\% |  | 118.9\% |
| ERESA Fumded Position |  |  |  |  |
| Funding target | \$ | 2,980,645,668 | \$ | 2,891,127,456** |
| Net actuarial value of assets [AV] |  | 2,634,749,975 |  | N/A |
| Funding shortfall(excess assets) |  | 345,895,693 |  | N/A |
| Funding target attainment percentage |  | 108.3\% |  | 103.6\%** |
| Adjusted funding target attainment percentage ${ }^{* * *}$ |  | 108.3\% |  | 103.6\%** |
| Actuarial value of assets |  | 3,227,136,887 |  | 2,994,330,956 |
| Actuarial value of assets as a percentage of funding target |  | 108.3\% |  | 103.6\%** |

*Assumes credit balance is used to offset minimum required contribution.
** Results prior to 2008 are based on the plan's current liability.
*** Assets are not reduced by credit balance since above $92 \%$ transition percentage when credit balance is included.

## Discussion of Finamcial Results

The financial results of AEP's East Retirement Plan were affected by the following factors:

- The mortality table used for the calculation of the funding target was the 2008 IRS Applicable Mortality Table, reflecting final IRS regulations, which caused a small loss due to the mortality improvement.
- Investment returns during the prior year were higher than expected, which increased the funded percentage and decreased the pension cost.
- The bond yields on available high-quality bonds used in selecting the FAS 87 discount rate increased during the prior year, resulting in a higher FAS 87 discount rate, which decreased the pension cost.
* The plan experienced demographic losses primarily due to (i) fewer terminations and retirements than expected and (ii) more retirees from active status electing an annuity than expected. The effect of these losses increased the pension cost.
- For plan year 2008, AEP is required to make a minimum required contribution of $\$ 96,047,779$. However, this contribution will be satisfied by using the plan's credit balance.


## FAS 87 Pensibn Cost and Fundeal Position

The cost of the pension plan is determined in accordance with Financial Accounting Standard 87. The fiscal 2008 pension cost for the plan is $\$ 35,634,598$, or $2.9 \%$ of covered pay.

Under FAS 87, as amended by FAS 158, the projected benefit obligation (PBO) funded status of each pension plan at the plan's measurement date is required to be reported as an asset (for overfunded plans) or a liability (for underfunded plans). The PBO is the actuarial present value of benefits attributed to service rendered prior to the measurement date, measured using expected future pay increases for pay-related plans. The plan's overfunded (underfunded) PBO as of January 1,2008 , was $\$ 196,547,563$, based on a fair value of plan assets of $\$ 3,241,633,839$ and a PBO of $\$ 3,045,086,276$.
Fiscal year-end financial reporting and disclosures are prepared before detailed participant data and the full valuation results are available. Therefore, the December 31, 2007, postretirement benefit asset/(liability) was derived from the January 1, 2007, valuation results. The December 31, 2008, financial reporting information will be developed based on the results of the January 1, 2008, valuation, rolled forward to the end of the year and adjusted for the year-end discount rate and asset values, as well as significant changes in plan provisions and participant population.

## Change un Pensiom Gost and Overiknaled (Hinderfunded) PRo

The pension cost increased from $\$ 35,449,208$ in fiscal 2007 to $\$ 35,634,598$ in fiscal 2008 and the overfunded (underfunded) PBO increased from increased from $\$ 163,795,207$ to $\$ 196,547,563$, as set forth below:

|  |  | Pension Cosi | Funded Position |  |
| :---: | :---: | :---: | :---: | :---: |
| Prior year | \$ | 35,449,208 | \$ | 163,795,207 |
| Change due to: |  |  |  |  |
| - Expected based on prior valuation |  | $(17,339,858)$ |  | 1,146,989 |
| - Loss (gain) from noninvestment experience |  | 6,003,744 |  | $(34,185,815)$ |
| - Loss (gain) from asset experience |  | $(4,255,981)$ |  | 28,986,290 |
| - Assumption changes |  | 13,367,986 |  | 45,625,747 |
| * Plan amendments |  | 2,409,499 |  | $(8,820,855)$ |
| Current year | \$ | 35,634,598 | \$ | 196,547,563 |

## Hisfory or Pension cost and Pumded Position

The following charts show the history of the plan's pension cost and PBO funded position:
History of Pension Cost


Mistory of the Projected Benefit Obligation (PBO) Runded Status


## Hiscory of Pension cost and plo Funded Percentage

----.-.--Pension cost---.---

| Fiscal | Amount | Percent of <br> covered pay | PBO funded <br> percentage | Discount <br> rate |
| :--- | ---: | :---: | :---: | :---: |
| 2008 | $\$ 35,634,598$ | $2.9 \%$ | $106.5 \%$ | $6.00 \%$ |
| 2007 | $35,449,208$ | 3.1 | 105.5 | 5.75 |
| 2006 | $44,579,070$ | 4.1 | 98.3 | 5.50 |
| 2005 | $48,522,750$ | 4.4 | 80.8 | 5.50 |
| 2004 | $16,123,936$ | 1.5 | 87.2 | 6.25 |

## Employer Contributions and rerisa funaled Position

Under the Pension Protection Act of 2006 (PPA), the funded position is measured by comparing the actuarial value of assets, reduced by the plan's credit balance, with the funding target. The amount by which the funding target exceeds the net actuarial value of assets is the plan's funding shortfall. If the net actuarial value of assets exceeds the funding target, the difference is the plan's excess assets. The actuarial value of assets is an average of the fair market rate over a six-month period, adjusted for contributions and disbursements. The funding target is the present value of benefits accrued or earned as of the valuation date. The target normal cost is the present value of benefits expected to be earned during the plan year. Plans that do not meet certain funded status criteria are considered to be at-risk and are required to use specific actuarial assumptions, and in some cases additional loads, that will generally increase the funding target and target normal cost.
The plan's funding shortfall, excluding the credit balance, is $\$ 345,895,693$ as of January 1, 2008. The plan's actuarial value of assets, including the credit balance, is $108.3 \%$ of the funding target as of January 1, 2008. This percentage is based on an actuarial value of assets of $\$ 3,227,136,887$ and a funding target of \$2,980,645,668.

AEP's funding policy is to contribute an amount equal to the minimum required contribution under PPA. The minimum funding requirement under PPA is generally equal to the target normal cost plus amortization of the plan's funding shortfall and any funding waivers. For overfunded plans, the minimum funding requirement is reduced by the amount of the plan's excess assets. The minimum funding requirement for American Electric Power is $\$ 96,047,779$, or $7.9 \%$ of covered pay.
Plan sponsors that have in the past contributed more than the minimum may have a credit balance. Sponsors can elect to apply the plan's credit balance to offset the minimum funding requirement if certain other requirements are met. If AEP elects to fully apply its available credit balance, the remaining cash requirement is $\$ 0$.
The maximum deductible contribution under PPA is generally equal to $150 \%$ of the funding target, plus the target normal cost, plus an allowance for future pay or benefit increases, less the actuarial value of assets. For plans that are not at-risk, the deductible limit will not be less than the unfunded funding target plus the target normal cost, both determined as if the plan were at-risk. For all plans, the deductible limit will not be less than the minimum funding requirement. Pending issuance of Treasury/IRS guidance, the estimated maximum deductible contribution for the plan is $\$ 1,431,296,422$ or $117.6 \%$ of covered pay.

## History of rmployer Contributions and Fumded Position

The following charts show the history of employer contributions and the funding range for 2008, as well as the ERISA funded position.

## Mistory of Rmployer Contributions amd Current Year's Fumding Ramge



History ©f Fumaing Target: Funded Position


* Results prior to 2008 are based on the plan's current liability.


## History of 四mployer Contributions and relsa Funded Position and Current Year's Fumeding Range

-.--- Employer contributions -.-.--

| Year | Amount |  | Percent of covered pay | AVA asa\% of funding targei* | Effective interest rate* |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2008: |  |  |  |  |  |
| - Minimum** | \$ | 0 | 0.0\% | 108.3\% | 5.93\% |
| - Maximum |  | 1,431,296,422 | 117.6 |  |  |
| 2007 |  | 0 | 0.0 | 103.6 | 8.50 |
| 2006 |  | 0 | 0.0 | 96.7 | 8.50 |
| 2005 |  | 606,600,000 | 55.5 | 90.7 | 8.50 |
| 2004 |  | 16,123,936 | 1.5 | 99.6 | 8.50 |

* Results prior to 2008 are based on the plan's current liability.
** Remaining cash requirement assuming sponsor elects full use of available credit balance.


## Tilmuimg oi Contributioms

If a plan has a funding shortfall for the current plan year, quarterly contributions will be required in the following plan year. Because the plan has a funding shortfall, quarterly contributions for the 2009 plan year will be required but will not exceed $\$ 24,011,945$ per payment, based on this year's valuation results.
The minimum funding requirement for the 2008 plan year must be satisfied in quarterly installments, with a final payment due on or before September 15, 2009. This requirement may be satisfied through contributions and/or an election to apply available credit balance.
The minimum funding schedule, before reflecting any credit balance elections, is shown below:

April 15, 2008
July 15, 2008
October 15, 2008
\$ 17,315,498
17,315,498

January 15, 2009
September 15, 2009

17,315,498
17,315,498
32,396,502

Quarterly contributions for 2008 are based on the required contribution for 2007 or 2008 , whichever is more favorable.

## Bene

Under PPA, a plan may become subject to various benefit limitations if its funded status falls below certain thresholds. Plan amendments that increase benefits are prohibited if the effect of the amendment would be to reduce the adjusted funding target attainment percentage (AFTAP) below $80 \%$. Benefit accruals must cease and shutdown benefits are prohibited if the AFTAP falls below $60 \%$. To avoid these benefit limitations, a plan sponsor may either contribute certain additional amounts for the current plan year or provide security outside the plan.
Plans are prohibited from paying lump sums or other accelerated forms of distribution if the AFTAP is below $60 \%$, and only reduced amounts are allowed to be paid if the AFTAP is between $60 \%$ and $80 \%$.
The AFTAP for AEP's East Retirement Plan is $108.3 \%$ as of January 1, 2008.

## PBCC Remorting Requirements

For plan years beginning after 2006, PPA eliminated the PBGC participant notification requirements for plans that are required to pay a PBGC variable premium and have a funded percentage below a specified "gateway" percentage. For plan years begiming in 2008, all defined benefit plans subject to Title IV of ERISA are required to issue annual funding notices (due 120 days after the end of the plan year).
With respect to reporting years beginning before 2008, additional financial and actuarial information must be provided to the PBGC if, at the end of the year, all defined benefit plans within the controlled group have an unfunded vested liability of $\$ 50$ million or more using assumptions mandated by the PBGC.
As of January 1,2008 , unfunded vested liabilities for all defined benefit plans within the controlled group were less than $\$ 50$ million. Consequently, reporting of additional financial and actuarial information was not required.

For reporting years beginning after 2007, PPA changed the $\$ 50$ million threshold. A filing will now be required if the funding target attainment percentage (FTAP) at the end of the preceeding plan year is less than $80 \%$ for any plan in the contributing sponsor's controlled group. The FTAP for 2008 is $108.3 \%$ as of January 1, 2008.

## Basis for Malnation

## Reomomic Assumpitions

The discount rate for pension cost purposes is the rate at which the pension obligations could be effectively settled. This rate is developed from yields on available high-quality bonds and reflects the plan's expected cash flows. It is based on high-grade bond yields, after allowing for call and default risk. The duration of the plan is 9.43 years.
The assumed rate of return on assets and salary increase rate assumptions both reflect long-term expectations. The assumed rate of return on assets for pension cost purposes is the weighted average of expected asset returns. The salary increase rate is based on current expectations of future pay increases. The assumptions selected by AEP for pension cost purposes are:

|  | December 31, 2007 | December 31, 2006 |
| :--- | :---: | :---: |
| Discount rate | $6.00 \%$ | $5.75 \%$ |
| Rate of́ return on assets | $8.00 \%$ | $8.50 \%$ |
| Salary increase rate | Rates vary by | Rates vary by |
|  | age from $5.00 \%$ | age from $5.00 \%$ |
|  | to $11.50 \%$ | to $11.50 \%$ |

Assumptions used to determine statutory contribution limits must be reasonable taking into account the experience of the plan and reasonable expectations. However, certain assumptions (such as interest and mortality) are either prescribed by the IRS or are subject to IRS approval. The interest rates used to determine the funding target and target normal cost are based on a high-quality corporate bond yield curve. The assumptions for contribution purposes are:

|  | danuary 1, 2008 | Jamerary ${ }^{\text {of, 2007 }}$ |
| :--- | :---: | :---: |
| Effective interest rate | $5.93 \%$ | $5.78 \% 0^{* *}$ |
| Salary increase rate | Rates vary by | Rates vary by |
|  | age from $5.00 \%$ | age from $5.00 \%$ |
|  | to $11.50 \%$ | to $11.50 \%$ |

*Results prior to 2008 are based on the plan's current liability.

## Demographic Assumptionm

The cost of providing plan benefits depends on demographic factors such as retirement, mortality and turnover. With the exception of the IRS-required mortality basis used to calculate the funding target, demographic assumptions used in the valuation were selected to reflect the experience of the covered population and reasonable expectations. If actual experience is more favorable than assumed, future plan costs will be lower. Alternatively, if actual experience is less favorable than assumed, future plan costs will be higher.
The mortality basis used to calculate the funding target was changed to the RP2000 table with projections to 2015 for annuitants and 2023 for non-annuitants. For purposes other than the funding target, the mortality assumption was the same as that for determining the funding target. No other demographic assumptions have changed since the prior valuation.

## Chances in Benefits Valued

- Effective January 1, 2008, the qualified pension plans were amended to change the methodology for converting cash balance accounts to single life annuities.
- Increases in statutory pay and benefit limitations.


## Actuavial Gertitication, Reliances and Distrilbution

American Electric Power retained Towers Perrin to perform a valuation of its pension plan for the purpose of determining (1) its pension cost in accordance with FAS 87 and (2) the minimum required and maximum tax-deductible contributions in accordance with ERISA and allowed by the Internal Revenue Code. This valuation has been conducted in accordance with generally accepted actuarial principles and practices.
The consulting actuaries are members of the Society of Actuaries and other professional actuarial organizations and meet their "General Qualification Standard for Prescribed Statements of Actuarial Opinions" relating to pension plans.
In preparing the results presented in this report, we have relied upon information provided to us regarding plan provisions, plan participants and plan assets. While the scope of our engagement did not call for us to perform an audit or independent verification of this information, we have reviewed this information for reasonableness but have not audited it. The accuracy of the results presented in this report is dependent upon the accuracy and completeness of the underlying information.

The actuarial assumptions and the accounting policies and methods employed in the development of the pension cost have been selected by the plan sponsor, with the concurrence of Towers Perrin. FAS 87 requires that each significant assumption "individually represent the best estimate of a particular future event."

To the extent not prescribed by ERISA, the Internal Revenue Code, and regulatory guidance from the Treasury and the IRS, the funding methods (including asset valuation method, choice among prescribed interest rates and choice among prescribed mortality tables) employed in the development of the contribution limits have been selected by the plan sponsor, with the concurrence of Towers Perrin. To the extent not prescribed by ERISA, the Internal Revenue Code and regulatory guidance from the Treasury and the IRS, the actuarial assumptions employed in the development of the contribution limits have been selected by Towers Perrin, with the concurrence of the plan sponsor. Other than prescribed assumptions, ERISA and the Internal Revenue Code require the use of assumptions each of which is "reasonable (taking into account the experience of the plan and reasonable expectations), and ... which, in combination, offer the actuary's best estimate of anticipated experience under the plan."
The results shown in this report have been developed based on actuarial assumptions that are considered to be reasonable and within the "best-estimate range" as described by the Actuarial Standards of Practice. Other actuarial assumptions could also be considered to be reasonable and within the best-estimate range. Thus, reasonable results differing from those presented in this report could have been developed by selecting different points within the best-estimate ranges for various assumptions.
The information contained in this report was prepared for the internal use of American Electric Power and its auditors in connection with our actuarial valuation of the pension plan. It is neither intended nor necessarily suitable for other purposes. American Electric Power may also distribute this actuarial valuation report to the appropriate authorities who have the legal right to require American

Electric Power to provide them this report, in which case American Electric Power will use best efforts to notify Towers Perrin in advance of this distribution. Further distribution to, or use by, other parties of all or part of this report is expressly prohibited without Towers Perrin's prior written consent.


June 2008

## Towers Perrin



## Supplemental Information

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## Asset Values

## Asset Values ior Galculateng <br> Pension Cost and Fumded Position

Fair value (excludes contributions receivable):

- As of January 1, 2007
- Contributions
- Disbursements
- Investment return
- As of January 1, 2008
\$ 3,160,858,560
- Rate of return

Market-related value:

- As of January 1,2007
- As of January 1, 2008
\$ 3,002,105,003
- Rate of return

3,159,403,610

Asset Values hor Calculating
Employer Contributions
Market value, including contributions receivable:
$\Rightarrow$ As of January 1,2007

- Contributions
$\triangleright$ Disbursements
$\$ 3,160,858,560$
- Investment return
- As of January 1,2008
\$ 3,241,633,839
- Rate of return
8.9\%

Actuarial value:

- As of January 1, 2007
$\triangleright$ As of January 1,2008
\$ 2,994,330,956
- Rate of return $3,227,136,887$
- Rate of return (assuming mid-year cash Flow) for Schedule B of Form 5500
$14.7 \%$


## TOWERS

## Rasuc Result for Pension cose ano Punded Posieion

Fiscal 2008
Fiscal 2007

## Service Cost

## Amount

## Dhbigations

Accumulated benefit obligation [ABO]:

- Participants currently receiving benefits
- Deferred inactive participants
- Active participants

Total ABO
Obligation due to future salary increases
Projected benefit obligation [PBO]
Assers
Fair value [FV]
Unamortized investment losses (gains)

## Funded Position

Overfunded (underfunded) PBO
PBO funded percentage
Amounts Nos Yes Recoynized in Net Periodic Coss

Net actuarial loss (gain)
Prior service cost (credit)
Transition obligation (asset)
Total
$\$ \quad 77,681,804$
\$ 1,348,287,573
141,627,625
1,457,517,836
\$ 2,947,433,034
97,653,242
\$ 3,045,086,276

| $\$$ | $3,241,633,839$ <br> $(82,230,229)$ |
| :--- | ---: |
| $\$$ | $3,159,403,610$ |

\$ 196,547,563
106.5\%
\$ 392,665,849
27,488,501
$\square$
$\$ 420,154,350$
\$ 465,739,012
22,616,902
$\qquad$
\$ 488,355,914.

## Mey Economic Assumptions

Discount rate
Rate of return on assets
Salary increase rate

Fiscal 2008
6.00\%
8.00\%

Rates vary by age From 5.0\% to $11.5 \%$

Piscal 2007
5.75\%
8.50\%

Rates vary by age From 5.0\%
to $11.5 \%$

The results above may differ from the amounts disclosed in AEP's 2007 financial statements because disclosures are prepared before the corresponding valuation results are available.

## Pension Cose

## Fiscal 2008

Pension cost

## Service cost

Interest cost
Expected return on assets
Amortization:

- Transition obligation (asset)

|  | 0 |  | 0 |
| :---: | :---: | ---: | ---: |
|  | $4,830,372$ |  | $3,949,256$ |
|  | $15,878,106$ |  |  |
|  |  |  | $32,646,941$ |
| $\$$ | $35,634,598$ | $\$$ | $35,449,208$ |
|  | $2.9 \%$ |  | $3.1 \%$ |
| $\$$ | 2,214 | $\$$ | 2,329 |

## Chamge in Pension Cost

Pension cost for fiscal 2007
Change from fiscal 2007 to fiscal 2008:

- Expected based on prior valuation
- Loss (gain) from noninvestment experience
$\triangleright$ Loss (gain) from asset experience
- Assumption changes
- Plan amendments

Pension cost for fiscal 2008

## Fiscal 2007

- Prior service cost (credit)
- Net loss (gain)

Pension cost
Percent of covered pay
Per active participant
\$
2,214
\$ $35,449,208$
(17,339,858)
6,003,774
$(4,255,981)$
13,367,986
2,409,499
$\$ 35,634,598$

## Present Value of Accumulated Plan Benefits for FAS 35

## Actuarial Present Value of Accumulaiced Plan Renefits

Vested benefits:

| Participants currently receiving benefits | \$ | 1,172,701,006 | \$ | 1,129,447,583 |
| :---: | :---: | :---: | :---: | :---: |
| - Other participants |  | 1,319,181,845 |  | 1,156,868,592 |
| - Total vested benefits | \$ | 2,491,882,851 | \$ | 2,286,316,175 |
| Nonvested benefits |  | 39,946,477 |  | 58,499,175 |
| Total accumulated benefits | \$ | 2,528,829,328 | \$ | 2,344,815,350 |
| Market value of assets |  | 3,241,633,839 |  | 3,160,858,560 |
| Key Assumptions |  |  |  |  |
| Interest rate |  | 8.00\% |  | 8.50\% |
| Average retirement age |  | 60 |  | 60 |
| Mortality |  | 2008 IRS AMT |  | RP2000 |

## Change in Actuarial Present Value of accumulated Plan 家enefits

Actuarial present value of accumulated plan benefits as of January 1, 2007

Change from 2007 to 2008:

- Additional benefits accumulated (including the effect of noninvestment experience)
- Interest due to decrease in the discount period
\$ 2,344,815,350
- Benefits paid
- Assumption changes

83,324,164

- Plan amendments

Actuarial present value of accumulated plan benefits as of January 1, 2008

January 1, 2008
Jamuary 1,2007

2008 IRS AMT

RP2000

## Basic Results

|  | January 1,2008 |  | Jxmuary 112007 |  |
| :---: | :---: | :---: | :---: | :---: |
| Normal Cost and Liabilities |  |  |  |  |
| Normal cost | \$ | 96,047,779 | \$ | 56,172,575 |
| Funding target: |  |  |  |  |
| - Participants currently receiving benefits | \$ | 1,358,448,531 | \$ | 1,365,575,301 |
| - Deferred inactive participants |  | 139,739,680 |  | 146,235,280 |
| - Active participants |  | 1,482,457,457 |  | 1,379,316,875 |
| Total funding target | \$ | 2,980,645,668 | \$ | 2,891,127,456* |
| Assets |  |  |  |  |
| Market value | \$ | 3,241,633,839 | \$ | 3,160,858,560 |
| Unrecognized investment losses (gains) |  | $(14,496,952)$ |  | $(166,527,604)$ |
| Actuarial value | \$ | 3,227,136,887 | \$ | 2,994,330,956 |
| Credit ${ }^{\text {enelance }}$ |  |  |  |  |
| Funding standard carryover balance | \$ | 592,386,912 | \$ | 609,814,657 |
| Prefunding balance |  | 0 |  | N/A |
| Total credit balance | \$ | 592,386,912 | \$ | 609,814,657 |
| RRISA Punded Position |  |  |  |  |
| Net actuarial value of assets | \$ | 2,634,749,975 | \$ | N/A |
| Funding shortfall(excess assets) |  | 345,895,693 |  | N/A |
| Assets, including credit balance, as a percentage of funding target |  | 108.3\% |  | 103.6\%* |
| Key Economic Assumptions |  |  |  |  |
| Effective interest rate |  | 5.93\% |  | 5.78\%* |
| Salary increase rate |  | Rates vary by age from 5.0\% to $11.0 \%$ |  | Rates vary by age from $5.0 \%$ to $11.0 \%$ |

## POWERIN

## Whiminnum Required Empioyer Contribution

dansary 1, 2008
Himimum Required rmployer Contribution

| Target normal cost | \$ | 96,047,779 | \$ | N/A |
| :---: | :---: | :---: | :---: | :---: |
| Net shortfall amortization charge |  | 0 |  | N/A |
| Waiver amortization charge |  | 0 |  | N/A |
| Excess assets |  | 0 |  | N/A |
| Minimum funding requirement | \$ | 96,047,779 | \$ | N/A |
| Available credit balance |  | 592,386,912 |  | N/A |
| Remaining cash requirement (assuming sponsor elects full use of available credit balance) |  | 0 |  | N/A |
| Percent of covered pay |  | 0.00\% |  | N/A |
| Per active participant | \$ | 0 |  | N/A |

Additional details regarding the calculation of the minimum required employer contribution may be obtained from the Form 5500 Schedule SB filings and attachments.

| Schedule of Minimum Funding Requirements* | Fiscal 2008 |  | Fiscal 2007 |  |
| :---: | :---: | :---: | :---: | :---: |
| April 15, 2008 | \$ | 17,315,498 | \$ | 0 |
| July 15, 2008 |  | 17,315,498 |  | 0 |
| October 15, 2008 |  | 17,315,498 |  | 0 |
| January 15, 2008 |  | 17,315,498 |  | 0 |
| September 15, 2009 |  | 32,396,502 |  | 0 |

Quarterly contributions for the 2009 plan year will not exceed $\$ 24,011,945$ per payment, based on this year's valuation results.

* Before reflecting any credit balance elections for 2008.


## Basic Results for Maxivnim Deductiple Rmployer Contribution

|  | Sanuary 1,2008 |  | Sanuary 1, 2007 |  |
| :---: | :---: | :---: | :---: | :---: |
| Normal costs |  |  |  |  |
| Normal cost | \$ | 96,047,779 | \$ | 56,172,575* |
| Target normal cost as if at-risk (for plans not at-risk) |  | N/A |  | N/A |
| Biabilities |  |  |  |  |
| Funding target | \$ | 2,980,645,668 | \$ | 2,891,127,456* |
| Funding target reflecting future pay/benefit increases |  | 3,072,062,696 |  | N/A |
| Funding target as if at-risk (for plans not at-risk) |  | N/A |  | N/A |
| Assets |  |  |  |  |
| Markeí value | \$ | 3,241,633,839 | \$ | 3,160,858,560 |
| Unrecognized investment losses (gains) |  | (14,496,952) |  | (166,527,604) |
| Actuarial value | \$ | 3,227,136,887 | \$ | 2,994,330,956 |
| Wey Economic Assumptions |  |  |  |  |
| Effective interest rate |  | 5.93\% |  | 5.78\%* |
| Salary increase rate |  | Rates vary by age from 5.0\% to $11.0 \%$ |  | Rates vary by age from 5.0\% to $11.0 \%$ |
| * Results for fiscal 2007 are based on the plan's current liability. |  |  |  |  |

## 胸mimmm Deductible rnmployer Contribution

|  | January 1, 2008 |  | January 1, 2007 |  |
| :---: | :---: | :---: | :---: | :---: |
| Rasic Punding limit |  |  |  |  |
| Funding target | \$ | 2,980,645,668 | \$ | N/A |
| Target normal cost |  | 96,047,779 |  | N/A |
| Statutory cushion amount |  | 1,581,739,862 |  | N/A |
| Basic funding limit | \$ | 4,658,433,309 | \$ | N/A |
| At-Risk Funding limik |  |  |  |  |
| Funding target as if at-risk | \$ | N/A | \$ | N/A |
| Target normal cost as if at-risk |  | N/A |  | N/A |
| At-risk funding limit (for plans not at-risk) | \$ | N/A | \$ | N/A |
| Waximum Deductible Rmployer Contribution* |  |  |  |  |
| Maximum funding limit | \$ | 4,658,433,309 | \$ | N/A |
| Actuarial value of assets |  | 3,227,136,887 |  | N/A |
| Preliminary maximum contribution | \$ | 1,431,296,422 | \$ | N/A |
| Minimum funding requirement |  | 96,047,779 |  | N/A |
| Maximum deductible contribution |  | 1,431,296,4.22 |  | 1,355,547,872 |
| Percent of covered pay |  | 117.6\% |  | 118.8\% |
| Per active participant | \$ | 88,939 | \$ | 89,075 |

The maximum deductible contribution under PPA is generally equal to $1.50 \%$ of the funding target, plus the target normal cost, plus an allowance for future pay or benefit increases, less the actuarial value of assets. For plans that are not at-risk, the deductible limit will not be less than the unfunded funding target plus the target normal cost, both determined as if the plan were at risk. For all plans, the deductible limit will not be less than the minimum funding requirement. The preceding is pending issuance of Treasury/IRS guidance.
*Estimated

## Funded Status for Bencitit limitations

Fiscall 2002

## 图asic Results

| Funding target disregarding at-risk |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: |
| provisions | $\$$ | $2,980,645,668$ | $\$ 2,891,127,456$ |  |
| Actuarial value of assets |  | $3,227,136,837$ |  | $2,994,330,956$ |
| Credit balance | $592,386,912$ | $609,814,657$ |  |  |

Annuity purchases for non-highly compensated employees during
preceding two plan years

Funded Status
Funding target attainment percentag
Adjusted funding farget aftainment percentage 108.3\% 103.6\%

## 

Effective interest rate
0
0
103.6\%

* Results for fiscal 2007 are based on plan's current liability, actuarial value of assets limited to be within $10 \%$ of market value, and credit balance reduced by present value of any amount waived as of January $1,2007$.


## Actuariall Assumpetions and Methods

|  | Pension Cost |  | Contributions |
| :---: | :---: | :---: | :---: |
| Economie Assumptions |  |  |  |
| Discount rate |  | 6.00\% | N/A |
| Return on assets |  | 8.00\% | N/A |
| Funding interest rate basis: |  |  |  |
| - Applicable month |  | N/A | October 2007 |
| - Yield curve basis |  | N/A | Segment rates |
| - Transition from current liability rates |  | N/A | No |
| Funding interest rates: |  |  |  |
| - First segment rate (10-year rate) |  | N/A | 5.29\% |
| - Second segment rate (20-year rate) |  | N/A | 5.86\% |
| - Third segment rate ( 30 -year rate) |  | N/A | 6.40\% |
| - Effective interest rate |  | N/A | 5.93\% |
| Annual rates of increase |  |  |  |
| - Total compensation | Age | Rate | Rate |
|  | $<25$ | 11.50\% | 11.50\% |
|  | 25-34 | 9.50\% | 9.50\% |
|  | 35-44 | 6.50\% | 6.50\% |
|  | > 45 | 5.00\% | 5.00\% |
| - Cash balance crediting rate |  | 5.25\% | 5.50\% |
| - Lump sum conversion rate |  | 6.50\% | 6.50\% |
| - Fuiure Social Security wage bases |  | 4.00\% | 4.00\% |
| - Statutory limits on compensation and benefits |  | 3.00\% | N/A |

## TOWERS

## Demographic Assumptions

Pension Cost
Preretirement Healthy Mortality RP2000, projected to 2023
Postretirement Healthy Mortality RP2000, projected to 2015
Disabled Mortality
RP2000 disabled retiree, no projection

## Contributions

RP2000, projected to 2023
RP2000, projected to 2015
Post-1994 current liability disabled

Termination Rates varying by age and service:
Rate
Less than five
Age years of service
$<25$
25-30
30-35
35-40
$>40$
$12.50 \%$ $12.50 \%$ $12.50 \%$ $12.50 \%$ $12.50 \%$

Five or more years of service $10.00 \%$ 6.00\% $5.00 \%$ $3.50 \%$ $3.00 \%$

Retirement Rates varying by age; average retirement age 60:

| Age | Rate |
| :---: | :---: |
| $55-57$ | $7.5 \%$ |
| $58-60$ | $15.0 \%$ |
| $61-63$ | $35.0 \%$ |
| $64-65$ | $25.0 \%$ |
| $66-69$ | $20.0 \%$ |
| $70 \div$ | $100 \%$ |

Form of payment $75 \%$ lump sum; $25 \%$ annuity.
Percent married $80 \%$ of male paricipants; $70 \%$ of female participants.
Spouse ages Wives are assumed to be three years younger than husbands.
Valuation pay 2008 Base Salary Pay (Grandfathered) - estimated as 2007 Base Pay updated one year according to the salary increase assumption.

2008 Expanded Pay (Cash Balance) - sum of the following updated one year according to the salary increase assumption:
(i) 2007 base salary
(ii) A $12 \%$ increase for overtime eligible employees and a target bonus percent increase for incentive-eligible employees.

## Actuarial fethools

## Pension cost:

- Service cost and projected benefit obligation
- Market-related value of assets

Contributions

- Funding target and target normal cost
- Actuarial value of assets


## Eencfits Not Yalued

## $\rightarrow$

Projected unit credit.

The market value on the valuation date less the following percentages of prior years' investment gains and losses:

- $80 \%$ of the prior year
- $60 \%$ of the second prior year
- $40 \%$ of the third prior year
- $20 \%$ of the fourth prior year.

The investment gain or loss is calculated each year by:

- Rolling forward the prior year's fair value of assets with actual contributions, benefit payments and expected return on investments using the long-term yield assumption
- Comparing the actual fair value of assets to the expected value calculated above.

Present value of accrued benefits.

Average of the fair market value of assets on the valuation date and the six immediately preceding months, adjusted for contributions, benefit payments and administrative expenses. The average asset value must be within $10 \%$ of fair value, including contributing receivable.

All benefits were valued except:

- Any liabilities that may be reinstated in the event of reemployment
- The alternate benefit formula for members who did not elect to withdraw their contributions
- Any liabilities relating to member's unwithdrawn contributions
- Liabilities related to special benefits as a result of termination due to restructuring or downsizing.


## Change in Assumptions and Methods Since Prior Valuation

## Contributions

The discount rate for benefit obligations was changed from $5.75 \%$ to $6.00 \%$.
The mortality table used to value the benefit obligations was updated from RP2000 (no collar adjustment, no projection) to the RP2000 with projections to 2015 for annuitants and to 2023 for nonannuitants.

The funded interest rate was changed from $5.78 \%$ to the segment rates as of October 2007 (as provided under PPA).
The required mortality table used to value the funding target and target normal cost was updated to include one additional year of projected mortality improvements.

The actuarial cost method used to calculate the funding target and target normal cost was changed from unit credit to the present value of accrued benefits, as required by PPA.

## Data Sources

Towers Perrin used participant and asset data as of January 1, 2008, supplied by AEP. Data were reviewed for reasonableness and consistency, but no audit was performed. Assumptions or estimates were made by Towers Perrin actuaries when data were not available. We are not aware of any errors or omissions in the data that would have a significant effect on the results of our calculations.

## Participant Data

|  | January 11,2008 |  | January 1, 2007 |  |
| :---: | :---: | :---: | :---: | :---: |
| Active |  |  |  |  |
| Number |  | 16,093 |  | 15,218 |
| Average age |  | 46.5 |  | 47.0 |
| Average past service |  | 17.4 |  | 18.1 |
| Average future service |  | 10.0 |  | 9.9 |
| Covered pay: |  |  |  |  |
| - Total | \$ | 1,217,927,495 | \$ | 1,141,216,687 |
| - Average |  | 75,681 |  | 74,991 |
| Deferred lmactive |  |  |  |  |
| Number |  | 3,542 |  | 3,757 |
| Average age |  | 51.6 |  | 50.7 |
| Annual benefits: |  |  |  |  |
| - Total | \$ | 27,784,130 | \$ | 26,635,235 |
| - Average |  | 7,844 |  | 7,089 |
| Currently Receiving penefits |  |  |  |  |
| Number |  | 11,194 |  | 11,137 |
| Average age |  | 72.9 |  | 72.6 |
| Annual benefits: |  |  |  |  |
| - Total | \$ | 144,237,539 | \$ | 143,039,877 |
| - Average |  | 12,885 |  | 12,844 |
| Toral Participants lnchucled in Valuation |  |  |  |  |
| Number |  | 30,829 |  | 30,112 |

## Analysis of Inackive Participant Date

Deferted lmactive

| Age last birthday | Number | Annual benefit |  | Average annual <br> benefit |
| :--- | ---: | ---: | ---: | ---: |
| $<40$ | 124 | $\$$ | $1,212,705$ | $\$$ |
| $40-44$ | 359 | $2,273,967$ |  | 9,780 |
| $45-49$ | 776 | $5,207,015$ | 6,334 |  |
| $50-54$ | 1,071 | $8,844,438$ | 6,710 |  |
| $55-59$ | 814 | $7,164,317$ | 8,258 |  |
| $60-64$ | 361 | $2,794,366$ |  | 8,801 |
| $>64$ | 37 | 287,323 |  | 7,741 |
| Total | 3,542 | $\$$ | $27,784,130$ | $\$$ |

## Curremtly

## Benefits

|  |  |  |  | Average annual <br> benefit |
| :--- | ---: | ---: | ---: | ---: |
| Age last birthday | Number | Annual benefit |  | 3,702 |
| $<55$ | 94 | $\$$ | 347,991 | $\$$ |
| $55-59$ | 582 | $7,880,386$ |  | 13,540 |
| $60-64$ | 1,727 | $29,747,629$ | 17,225 |  |
| $65-69$ | 2,002 | $25,231,161$ |  | 12,603 |
| $70-74$ | 1,935 | $25,188,981$ |  | 13,018 |
| $75-79$ | 1,851 | $24,947,151$ |  | 13,748 |
| $>79$ | 3,003 | $30,894,241$ |  | 10,288 |
| Total | 11,194 | $\$$ | $144,237,539$ | $\$$ |

$$
\begin{aligned}
& \text { Age } \\
& \text { Nearest } \\
& \text { Birthday } \\
& 0-24 \\
& 25-29 \\
& 30-34 \\
& 35-39 \\
& 40-44 \\
& 45-49 \\
& 50-54 \\
& 55-59 \\
& 60-64 \\
& 65-69 \\
& \text { Over } 69 \\
& \text { Total }
\end{aligned}
$$

| Age | Completed Years of Service |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Nearest <br> Birthday |  | 0 | 1-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | Over 35 | Total |
| 0-24 | Number |  | 370 | 9 |  |  |  |  |  |  | 379 |
|  | Avg Pay |  | 46,425 | 51,256 |  |  |  |  |  |  | 46,540 |
| 25-29 | Number |  | 826 | 228 | 2 |  |  |  |  |  | 1,056 |
|  | Avg Pay |  | 54,236 | 58,621 | 52,269 |  |  |  |  |  | 55,179 |
| 30-34 | Number |  | 673 | 420 | 66 |  |  |  |  |  | 1,159 |
|  | Avg Pay |  | 58,493 | 69,316 | 76,120 |  |  |  |  |  | 63,419 |
| 35-39 | Number |  | 549 | 439 | 238 | 127 | 3 |  |  |  | 1,356 |
|  | Avg Pay |  | 63,189 | 75,862 | 78,007 | 82,265 | 68,418 |  |  |  | 71,691 |
| 40-44 | Number |  | 433 | 410 | 259 | 491 | 314 | 析 |  |  | 1,913 |
|  | Avg Pay |  | 66,158 | 76,993 | 78,020 | 82,086 | 82,675 | 71,424 |  |  | 76,902 |
| 45-49 | Number |  | 359 | 315 | 204 | 422 | 790 | 806 | 53 |  | 2,949 |
|  | Avg Pay |  | 67,057 | 83,582 | 72,897 | 78,207 | 84,747 | 81,098 | 74,841 |  | 79,538 |
| 50-54 | Number |  | 213 | 266 | 133 | 300 | 536 | 1,116 | 776 | 32 | 3,372 |
|  | Avg Pay |  | 69,737 | 81,962 | 74,432 | 74,966 | 80,755 | 84,176 | 83,183 | 75,801 | 81,034 |
| 55-59 | Number |  | 112 | 178 | 107 | 167 | 319 | 481 | 731 | 490 | 2,585 |
|  | Avg Pay |  | 73,162 | 77,875 | 72,335 | 71,444 | 79,543 | 80,521 | 85,783 | 85,863 | 81,475 |
| 60-64 | Number |  | 58 | 93 | 50 | 63 | 131 | 169 | 173 | 463 | 1,200 |
|  | Avg Pay |  | 88,306 | 74,296 | 74,336 | 65,864 | 77,411 | 82,248 | 78,094 | 84,009 | 80,287 |
| 65-69 | Number |  | 12 | 32 | 8 | 9 | 9 | 11 | 11 | 17 |  |
|  | Avg Pay |  | 64,077 | 74,762 | 64,996 | 80,705 | 87,407 | 78,779 | 89,900 | 75,556 | 76,461 |
| Over 69 | Nurnber |  | 5 | 5 | 2 | 1 | ${ }^{1}$ | 1 |  |  | 15 |
|  | Avg Pay |  | 84,759 | 79,250 | 47,300 | 45,724 | 71,299 | 65,006 |  |  | 73,112 |
| Total | Number |  | 3,610 | 2,395 | 1,069 | 1,580 | 2,103 | 2,590 | 1,744 | 1,002 | 16,093 |
|  | Avg Pay |  | 60,420 | 74,948 | 75,531 | 77,910 | 82,155 | 82,354 | 83,557 | 84,510 | 75,681 |
|  |  |  |  | Average Age $=46.5$ |  |  | Average Service $=17.4$ |  |  |  |  |

$$
\text { Total }
$$

## Reconcilituion of Participamt Data

|  | Active | Deferred <br> inactive | Currently <br> receiving <br> benefits | Total |
| :--- | ---: | ---: | ---: | ---: |
| Included in January 1,2007 <br> valuation | 15,218 | 3,757 | 11,137 | 30,112 |
| Change due to: | 1,610 | $(21)$ | 0 | 1,589 |
| - New hire and rehire | $(195)$ | 0 | 0 | $(195)$ |
| - Nonvested termination | $(93)$ | 93 | 0 | 0 |
| - Vested termination | $(212)$ | $(109)$ | 321 | 0 |
| - Retirement | 0 | 0 | 0 | 0 |
| - Disability | $(4)$ | $(25)$ | $(318)$ | $(347)$ |
| - Death without beneficiary | $(3)$ | $(3)$ | 6 | 0 |
| D Death with beneficiary | $(239)$ | $(195)$ | 0 | $(434)$ |
| - Cashout | 11 | 45 | 48 | 104 |
| - Miscellaneous | 875 | $(215)$ | 57 | 717 |
| - Net change |  | 16,093 | 3,542 | 11,194 |

## Pran Provisions

| 退置ective bate | May 1, 1955. Restated effective January 1, 2001. |
| :---: | :---: |
| Recent Amendmments | Effective as of January 1, 2008. |
| Govered Employees | Employees become Members of the Plan on the first day of the month following completion of one year of service. |
| Participation Date | Date of becoming a covered employee. |
| Definiotions |  |
| Grandfathered Employee | If on December 31, 2000, either: |
|  | - Participate in AEP System Retirement Plan, or <br> - In one-year waiting period for AEP System Retirement Plan participation. |
| Vesting Service | A period of time from employment date to termination date and, in general, includes periods of severance that are not in excess of 12 months. |
| Accredited Service | Elapsed time from date of hire (from benefit service stant date). |
| Final Average Pay | Average of the highest 36 -consecutive months of base pay out of the last 120 months of employment, subject to IRS limits. |
| Cash Balance Pay | Pay received during the year, including base pay, overtime, shift differential/Sunday premium pay and incentive pay, subject to IRS limits. |
| Covered Compensation Amount | The average of the Social Security taxable wage base during the 35 -year period including the year in which the participant retires, dies, becomes disabled or otherwise terminates employment. This monthly average is calculated to the next lower or equal whole dollar amount and is then rounded to nearest $\$ 50$. |
| Normal Retirement Date (NRD) | The first day of the calendar month whose first day is nearest the later of the member's $65^{\text {th }}$ birthday or the completion of five years of Vesting Service. |


| Cash Balance Account | Recordkeeping account to which annual interest credits and annual compensation credits is credited. The cash balance account is updated at the end of each plan year and is equal to: |
| :---: | :---: |
|  | Cash Balance Account as of the End of the Prior Plan Year Interest Credits $+$ Company Credíts |
| Cash Balance Benefit | Cash Balance Account converted to a monthly annuity. |
| Opening Balance | For those participating in or eligible for the AEP System Retirement Plan on December 31, 2000, opening balance is calculated as follows: |
|  | - Present value of monthly normal retirement benefit determined as of December 31, 2000, and payable at age 65 (or current age if older) <br> - Present value determined based on $5.78 \%$ interest and IRS regulated mortality (GAM83 Unisex) data for lump sums (postretirement only) |
|  | Plus |
|  | - Credit for early retirement subsidy for monthly payments beginning at age 62 (or current age if older) |
|  | Plus |
|  | © Transition credit based on age, service and pay received in 2000 (see "Company Credits" for credit percentages) |
|  | - Age and service based on completed whole years as of December 31, 2000. |
|  | For employees hired on or after January 1, 2001, opening balance is $\$ 0$. |
| Interest Credits | Interest credits are applied to beginning of year account balance on December 31 each year. |
|  | Based on the average 30-year Treasury Bond rate for November of the previous year. |
|  | Minimum of $4 \%$. |

TOWERS
PERRIN

## Company Credits

Monthly Grandfathered Benefif

Long-term Disability and Paid Leaves

Unpaid Leave

## Ellugibiliey for Remefits

Applied to account balance on December 31 or termination date if earlier.

Amount is a percentage of eligible pay received during the year, based on age plus years of Vesting Service (age and service in completed whole years as of December 31).

| Age Plus <br> Years of Service | Annual <br> Company Credit |
| :---: | :---: |
| Less than 30 | $3.0 \%$ |
| $30-39$ | $3.5 \%$ |
| $40-49$ | $4.5 \%$ |
| $50-59$ | $5.5 \%$ |
| $60-69$ | $7.0 \%$ |
| $70 \div$ | $8.5 \%$ |

Sum of $(1)+(2)+(3)$ :
(1) $1.1 \%$ of Final Average Pay $\times$ Accredited Service up to 35 years
(2) $0.5 \%$ of Final Average Pay Less Covered Compensation $x$ Accredited Service up to 35 years
(3) $1.33 \%$ of Final Average Pay $\times$ Accredited Service between 35 and 45 years.

Service continues to accrue and Final Average Pay grows through December 31, 2010.

Compensation equal to base rate of pay as of disability date. Vesting service continues.

No compensation for annual compensation credit. Vesting service continues.

All members at or after their Normal Retirement Date.

Normal Retirement

| Vested | All members who terminate employment after completion of three years of Vesting Service, or upon death. |
| :---: | :---: |
| Early Retirement | Any time after attainment of age 55 and completion of five years of vesting. |
| Disability | All members who are unable to work at own occupation solely because of sickness or injury for the first 24 months of disability. After 24 months of disability, the participant is eligible if unable to work at any gainful occupation for which the participant may be able, or may reasonably become qualified by education, training or experience, to perform. |
| Surviving Spouse | The surviving spouse of a Grandfathered Member who retired or is eligible to retire on Normal or Early Retirement and who was married to that spouse for the year preceding commencement and whose grandfathered benefit exceeds his or her Cash Balance Benefit. |
| Preretirement Death | Beneficiary of deceased member. |
|  |  |
| Normal Retirement | For Grandfathered Employees, the better of the monthly grandfathered benefit or the Cash Balance Benefit determined as of Normal Retirement Date. For all other employees, the Cash Balance Benefit determined as of Normal Retirement Date. |
| Early Retirement | For Grandfathered Employees, the better of: |
|  | (1) The monthly grandfathered refirement benefit reduced by $3 \%$ per year for each year commencement precedes age 62, and |
|  | (2) The Cash Balance Benefit determined as of the Early Retirement Date. |
|  | For all other employees, the Cash Balance Benefit determined as of the Early Retirement Date. |


| Deferred Vested Retirement | The accrued Normal Retirement Benefii (better of Cash Balance and Grandfathered Benefits, if eligible), payable at Normal Retirement Date or actuarially reduced and payable at any age. |
| :---: | :---: |
| Disability | The greater of (1) or (2): |
|  | (1) Accrued Grandfathered Retirement Benefit reduced as in the Early Retirement Benefit. If retirement occurs prior to age 55 , the benefit is further reduced actuarially from age 55. The Disability Retirement Benefir will reflect Accredited Service that accrued (at mosit recent rate of base earnings) to a member while receiving benefits under the Company's LTD plan. |
|  | (2) The Cash Balance Benefit with continued Company Credits while disabled. |
|  | Benefit (1) applies for Grandfathered Employees only. |
| Preretirement Death | Better of (1) or (2): |
|  | (1) The grandfathered monthly benefit as if the employee commenced a $60 \%$ qualified joint and survivor benefit at his earliest retirement date |
|  | (2) Annuity equivalent of Cash Balance account, or the cash balance account. |
|  | Benefit (1) applies for a Grandfathered Employee whose beneficiary is his or her spouse. |
| Surviving Spouse Benefits | A benefit payable for life equal to $30 \%$ of the single life annuity payable to the grandfathered member. The spouse's benefit is actuarially reduced for each year by which the spouse is more than ten years younger than the member. Payable to Grandfathered Employees only. |

The accrued Normal Retirement Benefii (better of Cash Balance and Grandfathered Benefits, if eligible), payable at Normal Retirement Date or actuarially reduced and payable at any age.

The greater of (1) or (2):
(1) Accrued Grandfathered Retirement Benefit reduced as in the Early Refirement Benefit. If retirement occurs prior to age 55 , the benefit is further reduced actuarially from age Acc Accredted Sen) to hat acorud (arosing under the Company's LTD plan.
(2) The Cash Balance Benefit with continued Company Credits while disabled.

Benefit (1) applies for Grandfathered Employees only.
Better of (1) or (2):
(1) The grandfathered monthly benefit as if the employee commenced a $60 \%$ qualified joint and survivor benefit at his earliest retirement date
(2) Annuity equivalent of Cash Balance accounti, or the cash balance account.

Benefit (1) applies for a Grandfathered Employee whose beneficiary is his or her spouse.

A benefit payable for life equal to $30 \%$ of the single life annuity payable to the grandfathered member. The spouse's benefit is actuarially reduced for each year by which the spouse is more Grandfathered Employees only.

TOMERS

## Form of Payment

- Grandfathered Employees
- Employees Hired on or After January 1, 2001

The following are available for Grandfathered Employees for both the Grandfathered Benefit and the Cash Balance Benefit:

- Full lump sum payment.

Combination of partial lump sum ( $25 \%, 50 \%$ or $75 \%$ of full lump sum) with remainder paid as a monthly benefit (see below).

- Monthly payment:
- Single life annuity.
- Optional joint annuities (spouse or other beneficiary).
- Available in $40 \%, 50 \%, 60 \%, 75 \%, 100 \%$.
-- Can elect pop-up and/or level income options.
- Automatic company-paid $30 \%$ surviving spouse annuity included in Grandfathered Benefit annuity if terminate on or after age 55 and married at least one year. Cash Balance Benefit is actuarially reduced for this feature.
The following are available for those hired on or after January 1, 2001:

目 Full lump sum payment.
目 Combination of partial lump sum ( $25 \%, 50 \%$ or $75 \%$ of full lump sum) with remainder paid as a monthly benefit (see below).
( Monthly payment:

- Single life annuity.
- Joint annuities (spouse or other beneficiary).
- Available in $50 \%, 75 \%, 100 \%$.


## Member Contributions

Prior to January 1, 1978, employee contributions were required as a condition of Membership. In May and June of 1981, Members were permitted an election to withdraw those contributions. Those who did not elect to withdraw have retirement benefits based on a formula that differs from the one appearing in this table. However, the number of nonelecting Members is so small that special plan provisions for that group have not been included in this summary.

## Benentis Not Valued

A small portion of the population made employee contributions to the plan. Because the amount of these contributions is not material to the plan, they are not part of the valuation.

Participants who were employees of Columbus Southern Power (CSP) at the time AEP acquired that company have a frozen benefit under the CSP beneffit formula at December 31, 1986. Benefits for these participants are the greater of an all-service AEP benefit and a twopart benefit consisting of the frozen CSP benefit plus an AEP benefit accrued from January 1 , 1987. Because this applies to a small portion of the population and the CSP frozen benefit is not often the greater benefit for these participants, this benefit is not valued.

## Future Plan Changes

No future plan changes were recognized in determining pension cost. Towers Perrin is not aware of any future plan changes that are required to be reflected.

## 

- Changes in the IRS pay cap and Section 415 limits.
- Methodology change for conversion of cash balance amounts into single life annuities.
AST RETIREMENT PLAN
SUMMARY OF PLAN PARTICIPANTS FOR THE ZODA VALUATION

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 N
crationEnvershop Inc．
Indiana Michigan Power Co－OEstribution
Indiana Michigan Power Co－GeneritionKentucky Power Co－Generaibs
Kentucky Power Co－Transmission
Kngsport Power Co Distrivuling
Kingport Power Co Transmission
UG Liquids Compeny．LLL．
LC．

AMERICAN ELECTRIC POWER RETIREMENT PLAN-EAST
FUNDED STATUS OF PRESENT VALUE OF ACCUMULATED PLANEENEFITS (FAS 35) AS OF JANUARY 1,2008








 ..... $\stackrel{5}{8}$$\stackrel{\stackrel{+}{\square}}{\stackrel{\rightharpoonup}{\square}}$
Number of
Ocforat

Vesled \% 品思| 3 |
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Locstion
AEP Encrgy Sevicres，inc
AEP Po Srv，inc．
AEP T\＆D Services，LLC
American Secric Power Sen
AEP T \＆D Services，LLLC
American Eecric Power Service Corporation Appolachilan Power CO －Distribution
Appalactian Power CO －Generation C3 Communicalions，Inc． Cardinal Operating Company
AEP Txxas Central Company－Distribution
AEP Texas Central Company－Gennration AEP Texas Ceniral Company－Nucler
 Columbus Soulthem Powrer Co－Transmistion
Conesville Coal Preparation Company Cook Coal Temminal
csw Energy，has．
 Kingsport Power Co－Disninsin
Kingsport Power $\mathrm{Co}_{0}$－Transmíssion
Mameo
Ohio Powar Co－Distribution
Ohio Power CO－Generation
Ohio Power Co－Generation
Ohio Powrer Co －Transmission
Public Servica Co or Okiahoma




 AEP Texas North Company－Distribulion


Cedar Coal Co
Central Coal Company Southern Otio Coal－Martinka Southem Ohio Coal－Melgs
Price River Coal
Houston Pipeline（HPL）


名名







Location
AEP Energy Services，Inc．


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ESTMATED 2014 NET PERIODIC PENSION COST

## Location <br> AEP Enerry Services，the． AEP Pro Snn，Inc． AEP T\＆D Services，tLC <br>   Cortinal Oporating Company AEP Texas Central Company－Distribution AEP Texas Central Company－Generation AEP Texas Cental Company－Nuclear AEP Texas Central Company－Transmission  Columbus Southem Powar Co－Transmission Canesvilipe Coal Preparaion Company  Emmood Enershop Ihc Indiana Michigan Power Co－Distibution Indiana Michigan Power C $C$－Gengration  Indiana Michlpan Power Co－Transmission Kentucky Power Co－Distbulion Konluciny Fowar $\mathrm{C}_{\mathrm{a}}$－Tansmission Kingspor Pover Co －Distribution Kingsport Power CD －Transmission

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\section*{Location <br>  <br> | Amencon Electric Poyrar Service Corporation |
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AEP Texas Central Company－Nuclear
AEP Texas CentraI Company－Tronsmission
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CSW Energy，Inc． <br> CSW Energy， $\operatorname{In}$

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Houston Pipaline（HPL）

# Americur Electric Power <br> East Excess Benefiit Plave 

# Actuarial Valuation Report <br> Pensidn Cost for Fiscal Year Ending December $31_{3} 2003$ 

Junte 2008

This report is confidential and intended solely for the information and benefit of the immediale recipient thereof. It may not be distributed to a third party unless expressly allowed under the "Actuarial Certification, Reliances and Distribution" Section herein.

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## Resic Results ior Pensiom cost

This report summarizes financial results for American Electric Power's (AEP) Excess Benefit Plan for East Employees based on actuarial valuations for fiscal years 2007 and 2008.
Seryice cose
Obligations
Accumulated benefí obligation [ABO]:

- Participants currently receiving benefit
- Deferred inactive participants
\$ 27,616,213
$\$ \quad 29,280,748$
damary 1, 2008
\$ 1,227,319
\$ 1,338,544
- Active participants

Total ABO
Obligation due to future salary increases
Projected benefit obligation [PBO]
Amounts Not Yet Recogmized in Red Periodic cost

Net actuarial loss (gain)
Prior service cost (credit)
Transition obligation (asset)
Total

## 

Discount rate
Salary increase rate

| \$ | $19,262,311$ | $\$$ | $22,172,440$ |
| :--- | ---: | :--- | ---: |
| $4,383,186$ |  | $5,616,041$ |  |
| 0 |  | 0 |  |
|  | $23,645,497$ | $\$$ | $27,788,481$ |

6.00\%

Rates vary by age from 5.0\% to 11.5\%
5.75\%

Rates vary by age from $5.0 \%$ to 11.5\%

## Punsion cost

Fiscall 2000

## Pension Cost

Service cost
Interest cost
Expected return on assets
Amortization:

- Transition obligation (asset)
- Prior service cost (credit)
- Net loss (gain)

Pension cost
Percent of covered pay

1,392,274
1,411,363
\$ $1,227,319$
2,983,461
0

0

| $1,392,274$ |  |
| ---: | ---: | ---: |
|  | $1,411,363$ | | $1,377,796$ |
| ---: |
| $7,014,417$ |
| $0.6 \%$ |$\quad \$$| $1,697,130$ |
| ---: |

## Change in Pension Cose

Pension cost for fiscal 2007
Change from fiscal 2007 to fiscal 2008:

- Expected based on prior valuation
- Loss (gain) from noninvestment experience
- Assumption changes
- Plan amendments

Pension cost for fiscal 2008
\$ 7,262,892
$(56,634)$
$(29,206)$ $(196,680)$
34,045
$\$ 7,014,417$

## Mebuarian assumptions anc rnethods

## Reonomic Assumptions

Discount rate
6.00\%

Annual rates of increase in:

- Total compensation

Rates varying by age

| Age | Rate |
| :--- | ---: |
| $<25$ | $11.50 \%$ |
| $25-34$ | $9.50 \%$ |
| $35-44$ | $6.50 \%$ |
| $>45$ | $5.00 \%$ |

- Cash balance crediting raie
5.25\%
- Lump sum conversion rate
6.50\%
- Future Social Security wage bases
4.00\%
- Indexed limits on compensation and benefits
$3.00 \%$


## Denmographic Assumpmions

Mortality
Termination
2008 IRS Applicable Mortality Tables
Rates varying by age and service

|  | Rate |  |
| :---: | :---: | :---: |
|  | Under five years | Five or more |
| Age | of service | years of service |
| $<25$ | $12.50 \%$ | $10.00 \%$ |
| $25-30$ | $12.50 \%$ | $6.00 \%$ |
| $30-35$ | $12.50 \%$ | $5.00 \%$ |
| $35-40$ | $12.50 \%$ | $3.50 \%$ |
| $>40$ | $12.50 \%$ | $3.00 \%$ |

Rates varying by age

| Age | Rate |
| :---: | :---: |
| $55-57$ | $7.5 \%$ |
| $58-60$ | $15.0 \%$ |
| $61-63$ | $35.0 \%$ |
| $64-65$ | $25.0 \%$ |
| $66-69$ | $20.0 \%$ |
| $70+$ | $100 \%$ |

Form of payment $\quad 75 \%$ lump sum; $25 \%$ annuity
Percent married $\quad 80 \%$ of male participants; $70 \%$ of female participants
Spouse ages Wives are assumed to be three years younger than husbands
Valuation pay2008 Base Salary Pay (Grandfathered) - estimated as the sum of thefollowing updated one year according to the salary increaseassumption:
(i) 2007 base salary
(ii) Target bonus percentage times 2007 base pay (if base pay was greater than IRC 401(a)(17) pay limit in prior year)
(iii) Executives who participate in an uncapped incentive plan will have incentive limited to $1 x$ base pay
2008 Expanded Pay (Cash Balance) - sum of the following updated one year according to the salary increase assumption:
(i) 2007 base salary
(ii) Target bonus percentage times 2007 base pay
(iii) Effective January 1, 2004, pay for all executives is limited to the greater of $2 x$ base pay or $\$ 1$ million

## Actuaria Methods

Service cost and projected benefit
obligation


Projected unit credit

All benefits described in the Plan Provisions section of this report were valued. Towers Perrin has reviewed the plan provisions with AEP and is not aware of any significant benefits required to be valued that were not.

## 

- The discount rate for benefit obligations was changed from $5.75 \%$ to $6.00 \%$.
* The mortality table used to value the benefit obligations was updated from RP2000, no collar adjusiment, no projection to the 2008 IRS Applicable Mortality Tables.


## Dater Sources

Towers Perin used participant data as of January 1,2008 , supplied by AEP. Data were reviewed for reasonableness and consistency, but no audit were performed. Assumptions or estimates were made by Towers Perrin actuaries when data was not available. We are not aware of any errors or omissions in the data that would have a significant effect on the results of our calculations.

## Participan Deate

Jentary 1,2008 Jankary 1,2007

## Active

| Number | 16,093 | 15,218 |
| :--- | ---: | ---: |
|  | 46.5 | 47.0 |

Average age 46.5
Average past service 17.4
Average future service 10.0
Covered pay:

| $>$ Total | $\$ 1,231,797,471$ | $\$$ | $1,156,361,605$ |
| :--- | ---: | ---: | ---: |
| - Average | 76,552 | 75,986 |  |

## Deferred lnactive

| Number | 0 | 0 |
| :--- | ---: | ---: |
| Average age | N/A | N/A |

Annual benefits:

| $\triangleright$ Total | N/A | N/A |
| :--- | :--- | :--- |
| $\triangleright$ Average | N/A | N/A |

## Currently Receiving Renefits

Number ..... 43 ..... 44
Average age ..... 69.4Annual benefits:

| - Total | $\$$ | $4,167,960$ | $\$$ | $4,224,859$ |
| :--- | ---: | ---: | ---: | ---: |
| $\triangleright$ | Average | 96,929 |  | 96,020 |

Total Participants lncludedin Valuration
Number ..... 16,136 ..... 15,262

## Plan Provisions

The East Excess Benefit Plan provides a benefit determined in accordance with the provisions of American Electric Power's East qualified defined benefit plan, without recognition of the statutory maximums on benefits and pay, less the benefit payable from the qualified plan. MICP awards are also included in the definition of pay for the grandfathered benefit for executives with base pay in excess of the IRS limit. Certain executives have contracts providing additional benefits.

Prior to 2004, all executives had their cash balance pay limited to $\$ 1,000,000$. In addition, pay was limited for executives in an uncapped incentive plan to two times base pay for both the final average pay formula and the cash balance formula. Base pay rate is determined at the earlier of year-end or date of termination.

Effective January 1, 2004, pay for all executives is limited to the greater of two times base pay or $\$ 1$ million for the cash balance formula only. The executives in the uncapped incentive plan continue to have two times pay limit apply to the final average pay formula.

## Future Plan Changes

No future plan changes were recognized in determining pension cost. Towers Perrin is not aware of any future plan changes that are required to be reflected.

## Changes in Benefits Valued Since Prior Year

- Changes in the IRS pay cap and Section 4.15 limits.
$\Delta$ Methodology change for conversion of cash balance accounts into single life annuities.


# Actuarial Certification, Reliance and Distribution 

American Electric Power retained Towers Perrin to perform a valuation of its pension plan for the purpose of determining its pension cost in accordance with FAS 87. This valuation has been conducted in accordance with generally accepted actuarial principles and practices.

The consulting actuaries are members of the Society of Actuaries and other professional actuarial organizations and meet their "General Qualification Standard for Prescribed Statements of Actuarial Opinions" relating to pension plans.

In preparing the results presented in this report, we have relied upon information provided to us regarding plan provisions, plan participants and plan assets. While the scope of our engagement did not call for us to perform an audit or independent verification of this information, we have reviewed this information for reasonableness but have not audited it. The accuracy of the results presented in this report is dependent upon the accuracy and completeness of the underlying information.

The actuarial assumptions and the accounting policies and methods employed in the development of the pension cost have been selected by the plan sponsor, with the concurrence of Towers Perrin. FAS 87 requires that each significant assumption "individually represent the best estimate of a particular future event."

The results shown in this report have been developed based on actuarial assumptions that are considered to be reasonable and within the "bestestimate range" as described by the Actuarial Standards of Practice. Other actuarial assumptions could also be considered to be reasonable and within the best-estimate range. Thus, reasonable results differing from those presented in this report could have been developed by selecting different points within the best-estimate ranges for various assumptions.

The information contained in this report was prepared for the internal use of American Electric Power and its auditors in connection with our actuarial valuation of the pension plan. It is neither intended nor necessarily suitable for other purposes. American Electric Power may also distribute this actuarial valuation report to the appropriate authorities who have the legal right to require American Electric Power to provide them this report, in which case American Electric Power will use best efforts to notify Towers Perrin in advance of this distribution. Further distribution to, or use by, other parties of all or part of this report is expressly prohibited without Towers Perrin's prior written consent.


Towers Perrin
June 2008






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Ongespart Power Co－Transmission

anlo Poyor CD －Distribution
 Pubis Senvico Co or oklahomz－Transmission




 Whaosing Fower Co－Distibulion
Wieding Powe： Co －Trancmission Cotar Coal Co
Conial Coss Company Southam Ohio Coal－Mertinkz
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# American Electric Power <br> Non-UMMWA Positretivemenent Plane 

Actuarial Maluation report<br><br>Employer Contributions for Plan year Beginming Janmary 1, 200

July 2008

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## TOWERS <br> PERRIN

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FAS 106 Postretirement Welfare Cost and Funded Position ..... MSS-6
Employer Contributions. ..... MS-9
Actuarial Certification, Reliances and Distribution. ..... MSS-10

## Fimancial Results

This report summarizes the financial results for American Electric Power's (AEP) Non-UMWA. Postretirement Plan based on actuarial valuations as of January 1, 2008, and January 1, 2007. Results for both years reflect changes resulting from the Medicare Prescription Drug, Improvement, and Modernization Act of 2003.

|  | danuary 1, 2008 | Jamuary 1, 2007 |
| :---: | :---: | :---: |
| FAS 106 Postretirement <br>  |  |  |
| Amount | \$ 72,086,194 | \$ 75,093,644 |
| Per active participant | 3,470 | 3,694 |
| FAS 106 Punded Posicion |  |  |
| Accumulated postretirement benefit obligation [APBO] | \$1,752,692,812 | \$1,724,319,958 |
| Fair value of assets [FV] | 1,396,961,869 | 1,306,780,351 |
| APBO funded percentage $[F V \div A P B O]$ | 79.7\% | 75.8\% |
| Prepaid (Accrued) Poseresifement |  |  |
| Benefit Cost | \$ $(67,407)$ | \$ (1,743,362) |
| Employer Compributions |  |  |
| Funding policy - contributions to retiree VEBAs and 401(h) accounts | \$ 84,400,833 ${ }^{*}$ | \$ 81,350,175 |
| Prior nondeductible contributions | 95,586,325 | 123,878,760 |
| Deductible contributions | 2,580,000 (est.) | 109,642,610 (act.) |
| "Includes estimated 2007 RDS payment of contribution from additional 2006 RDS pay | 590,000 as well as es t. | ted $\$ 3,724,639$ |

## TOUERS

## Discussion oir Finameial Resules

The financial results of AEP's Non-UMWA Postretirement Plan for the current year were affected by the following factors:

- Long-term corporate bond yields increased during the prior year, resulting in a higher FAS 106 discount rate, which decreased the postretirement welfare cost.
- Claims experience was generally more favorable than expected. Additionally, AEP increased participant cost-sharing levels for prescription drug coverage effective January l, 2008. These created an actuarial gain and reduced postretirement welfare cost.
$\Delta$ Fewer employees terminated than expected, which created an actuarial loss and increased postretirement welfare cost.
- The mortality basis used to calculate the obligations was changed to the RP2000 table with projections to 2015 for annuitants (postretirement) and 2023 for nonannuitants (preretirement). This change increased postretirement welfare costs.


## -

## Recnomie Assumperions

The discount rate for postretirement welfare cost purposes is the rate at which the postretirement welfare obligation could be effectively settled. This rate is developed from yields on available high-quality bonds and reflects the plan's expected cash flows. The duration of AEP's postretirement welfare plan is 12.8 years. The following benchmark bond yields illustrate the change in the markets during 2007:

|  | December 31,2007 | December 31,20006 |
| :--- | ---: | ---: |
| 30-year Treasury | $4.45 \%$ | $4.68 \%$ |
| Merill Lynch 10+ year high quality | $6.18 \%$ | $5.85 \%$ |
| Moody's Aa | $5.80 \%$ | $5.72 \%$ |

The assumed rate of return on assets for postretirement welfare cost purposes is the weighted average of expected long-term asset returns, net of taxes. The salary increase rate is a long-term rate based on current expectations of future pay increases. The assumptions selected by AEP for postretirement welfare cost purposes are:

|  | danuary il, 2008 | January 1, 2007 |
| :---: | :---: | :---: |
| Discount rate for obligations | 6.20\% | 5.85\% |
| Rate of return on assets | weighted return | $\begin{array}{r} 8.00 \% \\ \text { weighted return } \end{array}$ |
| Salary increase rate | Rates varying by age from $5.00 \%$ to $11.50 \%$ | Rates varying by age from $5.00 \%$ to $11.50 \%$ |

TOMERS

Assumptions used to determine the statutory contribution limits must be reasonable taking into account the experience of the plan and reasonable expectations. The discount rate used to determine normal cost and actuarial accrued liability is based on the long-term expected return on assets, net of taxes. The assumptions for contribution purposes are:

December 3n, 200 December 31, 2007
Discount rate for normal cost and actuarial accrued liability:

VEBA

- Life insurance
7.59\%
7.59\%
- Union medical
7.59\%
7.59\%
- Nonunion medical
7.21\%
7.21\%

401(h)
Salary increase rate
8.78\%
8.78\%

Rates varying by age Rates varying by age from $5.00 \%$ to $11.50 \%$ from $5.00 \%$ to $11.50 \%$

## Health Care Cose Trend Rate Assumptions

The health care cost trend assumptions used in the valuation are:

|  | Janusary 1, 2008 | Januery 1,2007 |
| :--- | :---: | ---: |
| 2007 trend | N/A | $7.50 \%$ |
| 2008 trend | $7.00 \%$ | $7.00 \%$ |
| Ultimate trend | $5.00 \%$ | $5.00 \%$ |
| Year ultimate reached | 2012 | 2012 |

## (2) ernograplaic Assumptions

The cost of providing plan benefits depends on demographic factors such as retirement, mortality, turnover and plan participation. Demographic assumptions used in the valuation were selected to reflect the experience of the covered population and reasonable expectations. If actual experience is more favorable than assumed, plan costs will be lower. Alternatively, if actual experience is less favorable than assumed, future plan costs will be increased.

AEP has updated its mortality assumptions to reflect The Pension Protection Act of 2006 (PPA).

## Assets

In the year ended December 31,2007, the plan's portfolio achieved a $8.2 \%$ investment return (net of expenses and taxes), while the capital markets performed as follows:

| Large equities [S\&P 500] | 5.49\% |
| :---: | :---: |
| Intermediate/small equities [Russell 2500] | 1.38\% |
| Non-U.S. equities [EAFE] | 11.17\% |
| Bonds <br> [Lehman Brothers Aggregate] | 6.97\% |
| Cash equivalents [Citi 3-Month T-Bill] | 4.74\% |

## Plan Changes

There have been no significant changes in plan provisions since the previous year.


## 

Postretirement welfare cost is the amount recognized in AEP's financial statement as the cost of postretirement welfare plans and is determined in accordance with Financial Accounting Standard No. 106. The fiscal 2008 postretirement welfare cost for the plan is $\$ 72,086,194$ or $\$ 3,470$ per active participant.
Funded position, on a FAS 106 basis, is measured by comparing the fair value of assets with the accumulated postretirement benefit obligation (APBO). The APBO is the portion of the total present value of projected benefits allocated to prior years as of the measurement date.
The plan's funded percentage is $79.7 \%$ as of January 1,2008 , based on the fair value of assets of $\$ 1,396,961,869$ and an APBO of $\$ 1,752,692,812$.

## Change in Poseretiremem Welfare cost

The postretirement welfare cost decreased from $\$ 75,093,644$ in fiscal 2007 to $\$ 72,086,194$ in fiscal 2008 because:

- Expected changes based on prior year's assumptions, methods, plan provisions and contributions decreased the postretirement welfare cost $\$ 3,500,358$.
- Noninvestment experience increased the postretirement welfare $\operatorname{cosit} \$ 7,190,443$, primarily due to fewer terminations than expected.
- The fair value of plan assets were lower than expected, which increased the postretirement welfare cost $\$ 1,907,737$.
- Assumption changes decreased the postretirement welfare cost $\$ 2,827,727$. The discount rate was increased from $5.85 \%$ to $6.20 \%$. In addition, the mortality table was updated to a version of RP2000 with improved mortality projection.
- Changes in per capita claims costs decreased the postretirement welfare cost \$5,777,545. Much of this was due to lower prescription drug costs, as AEP increased the cost-sharing levels for participants.

The net decrease in postretirement welfare cost is $\$ 3,007,450$ or $4.0 \%$ from the prior year.

## TOWERS

## History of Postretirement Melfare cost and Funded position

The following charts show the history of the plan's postretirement welfare cost and funded position.

## Postreairement Melfare Cose



Ascumulatecl Postretirement enent Obigation Fumeded Percemtage


## History of postretirement Melfare cost ano $A P B(F$ maded Percentage

-     - Postretirement Welfare Cost - ( $\$$ in millions)

| Fiscal | APBO funded |  |  |
| :--- | :---: | ---: | :---: |
| year | Amount | percentage | Discount rate |
| 2008 | $\$ 72.1$ | $79.7 \%$ | $6.20 \%$ |
| 2007 | 75.1 | $75.8 \%$ | $5.85 \%$ |
| 2006 | 87.8 | $67.6 \%$ | $5.65 \%$ |
| 2005 | 101.2 | $62.1 \%$ | $5.80 \%$ |
| 2004 | 132.4 | $52.4 \%$ | $6.25 \%$ |

## 屈mployer Contributions

Employer contributions are the amount paid by the company to provide for postretirement benefits, net of participant cash contributions. Participants are required to contribute toward the cost of the plan. Employer contributions are used to fund the cost of benefits in excess of participant contributions.

The company's funding policy is to contribute the FAS 106 cost for the Non-UMWA Postretirement Plan as well as the RDS payments expected to be received during the year. In 2008, AEP will receive an additional $\$ 4,338,000$ in 2006 RDS payments that have not been issued as of December 31, 2007. For 2008 the contribution under the funding policy is $\$ 84,400,833$, which includes the estimated 2007 RDS of $\$ 8,590,000$ and the additional estimated 2006 RDS of $\$ 3,724,639$.

The $\$ 72,086,191$ contribution of the FAS 106 cost is projected to be made through contributions at the beginning of each month to AEP's VEBAs and $401(\mathrm{~h})$ accounts as follows:

2008 Employer Contribution Schedule

| Month | Nonunlon | Unfor | Nonunion | Unlon | Insuranco | West | East | Totas |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| January | \$4,688,672 | \$0 | 5125,000 | \$15,000 | \$800,000 | So | so | 35,628,672 |
| February | 4,688,672 | 0 | 125,000 | 15,000 | 800,000 | 0 | 0 | 5,628,672 |
| March | 4,688,672 | 0 | 125,000 | 15,000 | 800,000 | 0 | 0 | 5,628,672 |
| April | 5,928,666 | 0 | 125,000 | 15,000 | 0 | 0 | 0 | 6,068,666 |
| May | 5,928,666 | 0 | 125,000 | 15,000 | 0 | 0 | 0 | 6,068,666 |
| June | 6,011,835 | 0 | 125,000 | 15,000 | 0 | 0 | 0 | 6,151,835 |
| July | 6,011,835 | 0 | 125,000 | 15,000 | 0 | 0 | 0 | 6,151,835 |
| Augusi | 6,011,835 | 0 | 125,000 | 15,000 | 0 | 0 | 0 | 5,151,835 |
| September | 6,011,835 | 0 | 125,000 | 15,000 | 0 | 0 | 0 | 6,151,835 |
| October | 6,011,835 | 0 | 125,000 | 15,000 | 0 | 0 | 0 | 6,151,835 |
| November | 6,011,834 | 0 | 125,000 | 15,000 | 0 | 0 | 0 | 6,151,834 |
| December | 6,011,834 | $\underline{\square}$ | 125,000 | 15,000 | 9 | 0 | 0 | 5,151,834 |
| Total | \$68,006,191 | \$0 | \$1,500,000 | \$180,000 | \$2,400,000 | $\$ 0$ | \$0 | \$72,086,191 |

## Notes:

- Total of amounts shown above being contributed equals actual 2008 non-UMWA postrelirement welfare cost.
- In addition to the amounts show above. AEP will contribute both the 2007 Retiree Drug Subsidy (estimated to be S8.6 millon) and the balance of the 2006 Retiree Drug Subsidy (approximately $\$ 3.7$ millon) to the Medical nonunion VEBA (CWRF1745362) after recelving these payments from CMS.


## $\rightarrow 2$

## Actuarial certifications Reliance s and Distuibuciou

American Electric Power retained Towers Perrin to perform a valuation of its postretirement welfare benefit plans for the purpose of determining (1) the value of benefit obligations and its postretirement welfare cost in accordance with FAS 106 and (2) the maximum tax-deductible contribution allowed by the Internal Revenue Code. This valuation has been conducted in accordance with generally accepted actuarial principles and practices.

The consulting actuaries are members of the Society of Actuaries and other professional actuarial organizations and meet their "General Qualification Standard for Public Statements of Actuarial Opinion" relating to postretirement welfare plans.

In preparing the results presented in this report, we have relied upon information provided to us regarding plan provisions, plan participants and plan assets. While the scope of our engagement did not call for us to perform an audit or independent verification of this information, we have reviewed this information for reasonableness but have not audited it. The accuracy of the results presented in this report is dependent upon the accuracy and completeness of the underlying information.

The actuarial assumptions and the accounting policies and methods employed in the development of the postretirement welfare cost have been selected by the plan sponsor, with the concurrence of Towers Perrin. FAS 106 requires that each significant assumption "individually represent the best estimate of a particular future event." The actuarial assumptions and methods employed in the development of the contribution limits have been selected by Towers Perrin, with the concurrence of the plan sponsor. The Internal Revenue Code requires the use of assumptions each of which is reasonable (taking into account the experience of the plan and reasonable expectations) and which, in combination, offer the actuary's best estimate of anticipated experience under the plan.
The results shown in this report have been developed based on actuarial assumptions that are considered to be reasonable and within the "best-estimate range" as described by the Actuarial Standards of Practice. Other actuarial assumptions could also be considered to be reasonable and within the best-estimate range. Thus, reasonable results differing from those presented in this report could have been developed by selecting different points within the best-estimate ranges for various assumptions.

The information contained in this report was prepared for the internal use of American Electric Power and its auditors in connection with our actuarial valuation of the postretirement welfare plan. It is neither intended nor necessarily suitable for other purposes. American Electric Power may also distribute this actuarial valuation report to the appropriate authorities who have the legal right to require American Electric Power to provide them with this report, in which case American Electric Power will use best efforts to notify Towers Perrin in advance of this distribution. Further distribution to, or use by, other parties of all or part of this report is expressly prohibited without Towers Perrin's prior written consent.


Martin P. Franzinger, ASA, MAAA
Towers Perrin
July 2008


## Supplementul Informoition

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## Basic Results for Postretirement Mol are Cost

January 1,2008 Jamuary 1,2007

## Service Cost

Total

$$
\begin{array}{llll}
\$ & 41,190,146 & \$ 1,772,811
\end{array}
$$

## Accumatlated Postretirement

## Benefit Obligation [APBOI

Medical:

- Current retirees
- Other participants fully eligible for benefits
- Other active participants
- Total

Life Insurance:

- Current retirees
\$ 175,914,759
\$ 187,376,396
- Other participants fully eligible for benefits

101,821
84,797

- Other active participants
- Total

96,717,418
105,190,676

Dental:

- Current retirees
- Other patticipants fully eligible for benefits
- Other active participants
- Total

Total:

- Current retirees
- Other participants fully eligible for benefits
- Other active participants
\$ 272,733,998
\$ 292,651,869
\$ 15,683,421
\$ 15,097,497
3,494

3,597

| $2,864,812$ |
| ---: |

\$ 18,551,727
\$ 18,416,571

- Total
$\$ 907,882,755$
\$ 873,735,200
302,831
270,440
850,314,318
$\$ 1,724,319,958$
Jamurary 1, 2008 Janenary 1,2007
Assets
Fair value [FV]
FAS 106 Funded Position
Unfunded APBO [APBO - FV]
APBO funded percentage $[F V \div$ APBO]$\$ 1,396,961,869$$\$ 1,306,780,351$
$\$ 355,730,943$ ..... \$ 417,539,607
$79.7 \%$ ..... 75.8\%
Rey Economic Assumptions
Discount rate ..... 6.20\% ..... 5.85\%
8.00\% ..... 8.00\%
Health care cost trend rate:
- Firstyear ..... 7.00\% ..... 7.50\%
5.00\% ..... 5.00\%
2012 ..... 2012
Fiscal 2007
(Gevelopment of Propaid (Rccrued) 
Prepaid (accrued) postretirement beneffcost, beginning of year$\$(1,743,362)$
Changes during fiscal 2007:
- Income (cost) recognized$(75,093,64.4)$
- Curtailment/settlement $\cos t$ ..... 0
- Acquisition/divestitures during 2007 ..... 0
- Employer contributions ..... 76,769,599
- AdjustmentPrepaid (accrued) postretirement benefitcosí, end of year

|  | fandary 1,2008 | Hantuary 1, 2007 |
| :---: | :---: | :---: |
| Amomes Not Yet Recognized irn Ner Periodic Cost |  |  |
| Unrecognized net actuarial loss (gain) | 261,336,950 | 295,424,668 |
| Unrecognized prior service cost (credit) | 3,923,390 | 4,357,825 |
| Unrecognized transition obligation (asset) | 90,403,196 | 116,013,752 |
| Total | \$ 355,663,536 | \$ 415,796,245 |

TOWERS

## 

| Service cost | \$ 41,190,146 | \$ 41,772,811 |
| :---: | :---: | :---: |
| Interest cost | 108,575,781 | 101,034,008 |
| Expected return on assets | (111,186,626) | $(104,383,044)$ |
| Amortization: |  |  |
| - Transition obligation (asset) | 25,610,556 | 25,610,556 |
| - Prior service cost (credit) | 434,435 | 434,435 |
| - Net loss (gain) | 7,461,902 | 10,624,878 |
| Postretirement welfare cost | \$72,086,194 | \$ 75,093,644 |
| Per active participant | \$ 3,470 | \$ 3,694 |

Fiscal 2006

Amortization:

- Transition obligation (asset)
- Prior service cost (credit)
- Net loss (gain)

Postretirement welfare cost
Per active participant
Posiretirement Melfare coss

## Chamge im Poseretirement livivare cost

Postretirement welfare cost for fiscal 2007
Change from fiscal 2007 to fiscal 2008:

- Expected based on prior valuation
- Demographic experience loss (gain)
- Experience loss (gain) from assets
- Assumption changes
- Claims cost changes
- Plan amendments

Postretirement welfare cost for fiscal 2008
(3,500,358)
$\$ 75,093,644$

7,190,443
1,907,737
$(2,827,727)$
$(5,777,545)$
$\$ 72,086,194$

## TOWERS

## Infiormation for the Deferred Tax Calculation

The following information is provided for purposes of determining the deferred portion of the tax provision and the deferred tax asset associated with the postretirement welfare cost.

|  | Including Mrax Subsidy |  | Excludinay Mind Sulosidy |
| :---: | :---: | :---: | :---: |
| Postretirement Meliare Cost |  |  |  |
| Fiscal 2008 | \$ | 72,086,194 | \$ 108,115,644 |
| Fiscal 2007 |  | 75,093,644 | 110,445,858 |
| Funded Position |  |  |  |
| Overfunded (underfunded) APBP | \$ | 355,730,943 | \$ 661,550,876 |
| Amoumes Not Yet Recognized in Net Periodic Cosk |  |  |  |
|  |  |  |  |
| Unamortized loss (gain) | \$ | 261,336,950 | \$ 428,581,418 |
| Unamortized prior cost (credit) |  | 3,923,390 | 3,923,390 |
| Unamortized transition obligation (asset) |  | 90,403,196 | 90,403,196 |
| Total |  | 355,663,536 | \$ 522,908,004 |

## Basic Results Tor R mployer Concributions - Merexs



## 2007 MFR

| Qualified Asset Account Limis (QAAL) |  |  |  |
| :---: | :---: | :---: | :---: |
| December 31, 2007, actuarial accrued liability (AAL) or present value of projected benefits (PVPB) | $\begin{aligned} & \text { AAL } \\ & \$ 162,790,600 \end{aligned}$ | $\begin{aligned} & \text { PVPB } \\ & \$ 419,643,717 \end{aligned}$ | AAL <br> \$594,874,449 |
| Unrecognized liability | $\underline{0}$ | $\underline{0}$ | $\underline{\square}$ |
| QAAL | \$162,790,600 | \$419,643,717 | \$594,874,449 |
| Assets |  |  |  |
| Market value - December 31, 2007 | \$155,280,940 | \$370,580,351 | \$690,460,774 |
| Unrecognized investment losses / (gains) | $\underline{0}$ | $\bigcirc$ | $\underline{0}$ |
| Actuarial value [AV] | \$155,280,940 | \$370,580,351 | \$690,460,774 |
| Funded Position |  |  |  |
| Unfunded account limit [QAAL - AV] | \$7,509,660 | \$49,063,366 | (\$95,586,325) |
| Contributions received in trust, but not yet deducted |  |  |  |
| 2004 | \$7,682,260 | \$0 | \$50,123,297 |
| 2005 | 0 | 0 | 38,410,307 |
| 2006 | 118,773 | - | 35,345,156 |
| 2007 | 7,444,444 | 522,419 | 73,264,539 |
| Total | \$15,245,477 | \$522,419 | \$197,143,299 |
| 2007 Employer Deductions for and Contributions to VEBAs |  |  |  |
| a. Maximum deduction available ${ }^{1}$ [Unfunded account limit + Contributions received, but not yet deducted] | \$22,755,137 | \$49,585,786 | \$101,556,974 |
| b. Qualified additions (prior years' carryover) |  |  |  |
| 2004 | \$7,682,260 | \$0 | \$50,123,297 |
| 2005 | 0 | 0 | 38,410,307 |
| 2006 | 118.773 | $\underline{0}$ | 13,023,370 |
| Total | \$7,801,033 | \$0 | \$101,556,974 |
| c. Qualified additions (current year) | 7,444,444 | 522,419 | $\underline{\square}$ |
| d. Total deductions available in 2007 [ $\mathrm{b} .+\mathrm{c}$. | \$15,245,477 | \$522,419 | \$101,556,974 |
| e. Other (nondeductible) current year additions | 0 | 0 | 73,264,539 |
| f. Total current year additions [ $0,+e$. | \$7,444,444 | \$522,419 | \$73,264,539 |

${ }^{1}$ Includes amounts not contributed.


## TOWERS

|  |  | Nonunion |
| :---: | :---: | :---: |
| Liffe Insurance | Union Medical | Whedical |

## Cumulaitive Nomdeductible Contributions

|  | Contributions Made by <br> December 31, 2007, but |  |  |
| :---: | :---: | :---: | :---: |
| Contribution | Not Deducled as of |  | Remaining Nondeductible |
| Year | December 31, 2006 | Deductible in 2007 ${ }^{1}$ | Contributions as of |
| December 31, 2007 |  |  |  |

## Nonunion Retiree Medical $=$ Dental VEBAs

| 2003 | $\$ 0$ | $\$ 0$ | $\$ 0$ |
| ---: | ---: | ---: | ---: |
| 2004 | $50,123,297$ | $50,123,297$ | 0 |
| 2005 | $38,410,307$ | $38,410,307$ | 0 |
| $2006^{2}$ | $35,345,156$ | $13,023,370$ | $22,321,786$ |
| 2007 | $73,264,539$ | 0 | $73,264,539$ |
| Total | $\$ 197,143,299$ | $\$ 101,556,974$ | $\$ 95,586,325$ |

## Retiree Life Insurance VEBA

| 2003 | $\$ 0$ | $\$ 0$ | $\$ 0$ |
| :--- | ---: | ---: | ---: |
| 2004 | $7,682,260$ | $7,682,260$ | 0 |
| 2005 | 0 | 0 | 0 |
| 2006 | 118,773 | 118,773 | 0 |
| 2007 | $7,444,444$ | $7,444,444$ | 0 |
| Total | $\$ 15,245,477$ | $\$ 15,245,477$ | $\$ 0$ |

'Prior years' nondeductible contributions to the Nonunion Medical + Dental VEBA are now deductible primarily due to liability losses generated by 2007 demographic experience
${ }^{2}$ Approximately $\$ 17.3$ million in 2006 contributions expected to be deductible as of December 31, 2008

## TOWERSS

## 2008 Maximum Deductible Contrilbutions - AOl (h)

|  | West Plan |  |
| :---: | :---: | :---: |
| 1. Present Value of Projected Benefits 1/1/2008 | \$139,127,813 | \$206,371,843 |
| 2. Fair Value of Assets $1 / 1 / 2008$ | 112,676,750 | 67,963,055 |
| 3. Unfunded (Surplus) PVPB (1) - (2) | 26,451,063 | 138,408,788 |
| 4. Average Present Value of Future Service | 8 | 16 |
| 5. Preliminary maximum |  |  |
| a) $10 \%$ of unfunded (3) $\times 0.10$ | \$2,645,106 | \$13,840,879 |
| b) Aggregate Normal Cost (3) / (4) | 3,306,383 | 8,439,560 |
| c) Greater of (a), (b) | 3,306,383 | 13,840,879 |
| 6. Prelim max 2008: (5c) * 1.0878 | 3,596,683 | 15,056,108 |
| 7. Subordination Test (shown below) | 0 | 0 |
| 8. Maximum Deductible Contribution, lesser (6), (7) | \$0 | $\$ 0$ |
| Subordimax ton Test |  |  |
| Year-by-year minimum of actual pension plan contribution and pension plan normal cost with interest |  |  |
| 1992 | \$9,766,169 | N/A |
| 1993 | 22,392,743 | N/A |
| 1994 | 21,208,326 | N/A |
| 1995 | 21,683,436 | N/A |
| 1996 | 20,271,648 | N/A |
| 1997 | 0 | N/A |
| 1998 | 0 | N/A |
| 1999 | 0 | N/A |
| 2000 | 0 | N/A |
| 2001 | 0 | N/A |
| 2002 | 0 | N/A |
| 2003 | 19,197,145 | 39,165,054 |
| 2004 | 18,614,338 | 56,614,811 |
| 2005 | 16,222,550 | 55,872,817 |
| 2006 | 0 | 0 |
| 2007 | 0 | 0 |
| 2008 | 0 | 0 |
| Cumulative pension contributions not for past service: | \$149,356,355 | \$151,652,681 |
|  | $\times 1 / 3$ | $\times 1 / 3$ |
|  | \$49,785,452 | \$50,550,894 |
| Cumulative 401(h) contributions before plan year 2008: | 49,785,452 | 50,550,894 |
| Subordination limit | \$0 | \$0 |

[^0]
## TOMERS

##  (nnd Particupame Contribentoms

danuary 1,2008 samuary 1,2007

| Perdicall and Demtal |  |  |
| :---: | :---: | :---: |
| Gross disbursements | \$ 105,896,805 | \$ 93,383,378 |
| Participant contributions | (19,777,240) | $(16,786,106)$ |
| Net disbursements | \$ 86,119,565 | \$ 76,597,272 |
| Eife lnisurance |  |  |
| Gross disbursements | \$ 13,132,039 | \$ 14,312,392 |
| Participant contributions | (3,198,698) | (3,166,556) |
| Net disbursements | \$ 99,333,341 | \$ 11,145,836 |
| Gross withour Res |  |  |
| Gross disbursements | \$ 119,028,844 | \$ 107,695,770 |
| Participant contributions | (22,975,938) | (19.952,662) |
| Net disbursements | \$ 96,052,906 | \$ 87,743,108 |
| R(S) |  |  |
| Gross disbursements | \$ $(9,428,957)$ | \$ $(8,586,678)$ |
| Participant contributions | 0 | 0 |
| Net disbursements | \$ $(9,428,957)$ | \$ $(8,586,678)$ |
| Net with |  |  |
| Gross disbursements | \$ 109,599,887 | \$ 99,109,092 |
| Participant contributions | (22,975,938) | (19,952,662) |
| Net disbursements | \$ 86,623,949 | \$ 79,156,430 |

* 2007 RDS payments expected to be received in 2008.



## Actuarial assumptions mud Methods

FAs 105 cost

## Rconomaic Assumptions

Discount rate
Return on plan assets:

- 401(h) accounts
- Life insurance and union medical/dental
- Nonunion medical/dentai
- Aggregate

| Salary increase rate | Age | Rate |
| :--- | :--- | :---: |
|  | $<25$ | $11.50 \%$ |
|  | $25-34$ | 9.50 |
|  | $35-44$ | 6.50 |
|  | $>4.5$ | 5.00 |


| Medical cost trend rate | 2008 | $7.00 \%$ | $7.00 \%^{* *}$ |
| :--- | :--- | :--- | :--- |
|  | 2009 | 6.50 | $6.50^{*}$ |
|  | 2010 | 6.00 | $6.00^{*}$ |
|  | 2011 | 5.50 | $5.50^{*}$ |
|  | $2012+$ | 5.00 | $5.00^{*}$ |
|  |  |  |  |
| Dental cost trend rate | $2008-2010$ | $6.00 \%$ | $6.00 \%^{*}$ |
|  | 2011 | 5.50 | $5.50^{*}$ |
|  | $2012^{*}$ | 5.00 | $5.00^{*}$ |

* $0 \%$ trend assumed for nonunion VEBA account limit.


## Health Gare Renefit Assumpeions

Average annual 2008 per capita claims cost:

| Age | Claims Cost |
| :---: | :---: |
| $<50$ | $\$ 4,738$ |
| $50-54$ | 5,459 |
| $55-59$ | 6,506 |
| $60-64$ | 8,287 |
| Average pre-65 | 7,347 |


|  | Age | COB | MOB | Medicare Part D Subsidy |
| :---: | :---: | :---: | :---: | :---: |
| $\star$Age 65 and after(net of Medicare) | 65-69 | \$3,452 | \$2,463 | \$(616) |
|  | 70-74 | 3,737 | 2,620 | (634) |
|  | 75-79 | 3,880 | 2,680 | (630) |
|  | 80-84 | 3,873 | 2,630 | (597) |
|  | $\geq 85$ | 3,850 | 2,527 | (532) |
|  | Average posi-65 | 3,736 | 2,582 | (609) |
| - Dental | All |  | \$262 |  |

- Medicare covered charges trend rate
$\triangleright$ Retiree contribution trend rate
Administrative expenses


## Dennographic Assumpeions

Same as medical cost increases.
Same as applicable medical cost increases.
Included in claims costs shown above.

Preretirement: RP2000, projected to 2023. Postretirement: RP2000, projected to 2015.

Rates vary by age and sex as indicated by the following sample values:

| Age | Male | Female |
| :---: | :---: | :---: |
|  |  |  |
| 30 | $2.60 \%$ | $2.60 \%$ |
| 40 | 2.60 | 2.60 |
| 50 | 3.10 | 3.10 |
| 60 | 6.20 | 6.20 |

Rates apply to employees not eligible to retire and vary by age as indicated by the following sample values:

| Age | $0-5$ Years | $5 \div$ Years |
| :---: | :---: | :---: |
| 20 | $12.5 \%$ | $10 \%$ |
| 30 | 12.5 | 5 |
| 40 | 12.5 | 3 |
| 50 | 12.5 | 3 |
| 60 | 12.5 | 3 |

## Disability

Retirement

Spouse ages
Participation rates

Rates apply to employees not eligible to retire and vary by age and sex as indicated by the following sample values:

| Age | Male | Female |
| :---: | :---: | :---: |
| 20 | $0.060 \%$ | $0.090 \%$ |
| 30 | 0.060 | 0.090 |
| 40 | 0.074 | 0.110 |
| 50 | 0.178 | 0.270 |
| 60 | 0.690 | 1.035 |

Rates that vary by age as follows:

| Age | Rate |
| :---: | :---: |
| $55-57$ | $7.5 \%$ |
| $58-60$ | 15.0 |
| $61-63$ | 35.0 |
| $64-65$ | 25.0 |
| $65-69$ | 20.0 |
| 70 | 100.0 |

Rates apply to employees with five or more years of service.

Wives three years younger than husbands.
Participation for current retirees is based on valuation census data; participation for future retirees is assumed to be $95 \%$.

The percentage of employees who will enroll for family coverage is assumed to vary by sex and to change from year to year as follows:
Male Employees: $74 \%$ for employees retiring in 2006, reducing by $1 \%$ each year to a minimum of $69 \%$ for employees retiring in 2011 and later.
Female Employees: $53.75 \%$ for employees retiring in 2006 reducing by $0.75 \%$ each year to a minimum of $50 \%$ for employees retiring in 2011 and later.

Projected unit credit actuarial cost method, allocated from date of hire to full eligibility date. Full eligibility age is defined as expected retirement date.

Development of claims cost

- Pre-65 retiree rates


Aetna, Medco, Lumenos and Magellan supplied data on retiree medical claims incurred in 2006. Claim experience rates are calculated separately for Aeina and Lumenos plans by dividing incurred claims by covered lives and
trending forward two years to 2008. Medical and prescription drug claim rates are then multiplied by plan change factors representing the effect of substantive prescription drug plan design changes. A blend of Aetna and Lumenos claim rates is taken and age-graded over standard Towers Perrin morbidity curves for both medical and prescription drugs to develop the quinquennial cost models.

MetLife supplied data on dental claims incurred in 2006. Experience for all active and retiree employees was analyzed to derive the dental claim rates.

2008 monthly claim rates are calculated separately for MOB and COB Medicare-eligible plans by dividing incurred claims by covered lives and trending forward two years to 2008. Prescription drug claim rates are then multiplied by plan change factors representing the savings from substantive prescription drug plan changes. MOB and COB cost models are developed separately by agegrading these claim rates over standard Towers Perrin morbidity curves for both medical and prescription drugs to develop the quinquennial cost models.

We calibrated our modeling tool to reffect the 2008 cost of the current prescription drug plans for AEP's post-65 retirees. The tool employs a continuance table of annual retiree drug utilization levels, developed from analyzing the experience of several large Towers Perrin clients.

After the plan-specific benefit provisions have been calibrated to current costs, the Modeler trends costs forward to 2008. Actuarial equivalence was determined using the following two-prong approach outlined in the regulations for Medicare Part D:

* Gross Value Test - The Modeler calculates the value of standard Medicare Part D coverage and compares it to AEP's plan costs. AEP's plans passed this test by being richer than the projected value of standard Medicare Part D coverage for these groups.
- Net Value Test-The net value prong of the test compares the value of Standard Part D coverage in 2008 minus the greater of $\$ 335.16$ per year (the national average Part D premium) and 25.5\% of the gross value of Part D to the projected 2008 value of AEP coverage minus the average projected 2008 retiree contribution rate. For this purpose, retiree contributions were assumed to apply pro rata between the value of medical benefits and prescription drug benefits.


## TOWERES

Benefits Not Valued

## Changes in Wiethods and

 Assumptions Eince Last YearWhen the plans are deemed to be actuarially equivalent, the tool calculates the average expected value of the employer subsidy in 2008, using the continuance table calibrated to AEP's plan costs. This produced a 2008 per person employer subsidy of $\$ 609$.

All benefits described in this report were valued. Towers Perrin has reviewed the plan provisions with AEP and, based on that review, is not aware of any significant benefits required to be valued that were not.

The discount rate was increased from $5.85 \%$ to $6.20 \%$. Mortality table was updated to preretirement: RP2000, projected to 2023; postretirement: RP2000, projected to 2015.

## Data Sources

The company furnished the participant data, as well as the accrued postretirement benefits cost as of December 31, 2007. Health plan vendors furnished claims cost data. Data were reviewed for reasonableness and consistency, but no audit was performed. We are aware of no errors or omissions in the data that would have a significant effect on the resulfs of our calculation.

## Participant Data

denuary 1, 2008

## Active

Number:

- Fully eligible for benefits
$\Rightarrow$ Other
- Total

Average age
Average past service
Average future service:

- To full eligibility age
- To expected retirement

Covered pay:
$\checkmark$ Total

- Average

Imactive
Retired participants:

- Number:

| - Under age 65 | 3,128 | 3,270 |
| :--- | :--- | :--- |

- Age 65 and over
- Total
- Average age
$\$ 1,336,821,768$
\$ 1,266,469,571
64,354
62,305

Dependents and surviving spouses*:

- Number:
$\begin{array}{lrr}\text { - Under age 65 } & 3,823 & 3,914 \\ \text { - Age } 65 \text { and over } & \underline{7,608} & 7,572 \\ \text { - Total } & 11,431 & 11,486 \\ \text { Average age } & 70.4 & 70.3\end{array}$
Disabled:

| $\triangleright$ | 730 | 712 |
| :--- | ---: | ---: |
| $>$ Aumber: | 53.9 | 55.7 |

"*For retired and disabled participants


PMan Provisions<br>Movith Care Benefits<br>Eligibility<br>Dependent eligibility<br>Survivor eligibility<br>Postretirement contributions

Participants are eligible upon retirement after age 55 with ten years of service or upon attaining age 55 with ten years of service after becoming permanently disabled. If involuntary termination, then eligible after age 50 with ten years of service.

Eligible dependents are spouse, unmarried children under age 19 (age 25 if a full-time student) and unmarried disabled children of any age.

After the death of a retiree or active employee eligible to retire, surviving spouses are eligible until death or remarriage. Surviving children are also eligible, subject to the limiting age provision outlined above.

Participant contributions are determined as a percentage of plan costs and vary by points (age at refirement plus service) as follows:

| Points | Retiree Cost |
| :--- | :---: |
| $65-69$ | $46 \%$ |
| $70-74$ | 42 |
| $75-79$ | 36 |
| $80-84$ | 32 |
| $85-89$ | 26 |
| $90-94$ | 22 |
| $95+$ | 20 |
| Grandfathered | 20 |

For East participants who retired prior to January 1, 1989, and West participants who retired prior to January 1, 1993, no contributions are required.

For East participants who retired on or after January 1, 1989, and West participants who retired on or after January 1, 1993, the 20\% "Grandfathered" contributions are in effect if they retired by December 31,2000 , or atiained age 50 and had ten or more years of service with the company on that date. The percentages described above are applied to plan costs that differ from the per capita claims costs assumed in the valuation as follows:
The Medicare status of dependents is not looked at in determining whether "pre-65" or "post-65" rates apply. The pre-65 plan rates used to calculate participant contributions are a blend of pre-65 retiree costs and active employee costs.

Disabled employee contributions

Benefits

Disabled employees have a waiver of premium provision where no contributions are made while an employee remains disabled.

If an employee retires while disabled and became disabled before January 1, 2001, the waiver of premium provision continues for life. If an employee retires while disabled and became disabled after January 1, 2001, the employee will continue to accrue points as if actively-at-work until age 65 and be subject to the same contribution schedule as normal retirees.

The AEP Medical Plan provides broad medical coverage with a deductible of $\$ 200,80 \%$ coinsurance and a maximum annual out-of-pocket expense of $\$ 2,000$ per person. Discounted charges and increased benefits may be obtained by pre-65 retirees electing to use network providers.
Pre-65 retirees who live in areas designated as "Network Area" will have reduced benefits ( $\$ 300$ deductible, $70 \%$ coinsurance, $\$ 4,000$ out-of-pocket maximum) if they do not use network providers. Alternatively, these retirees can elect coverage under consumer driven health plan designs.
Prescription drug benefits are provided under a separate plan with the following copayments for those who do not enroll in a consumer driven health plan:

| 30-day retail | Generic | Brand Name Formulary | Brand Name Non-Formulary |
| :---: | :---: | :---: | :---: |
|  | \$5 copay | 20\% | 20\% |
|  |  | \$20 minimum | \$35 minimum |
|  |  | \$100 maximum | \$100 maximum |
| 90-day retail | \$12 copay | 20\% | 20\% |
|  |  | \$50 minimum | $\$ 90$ minimum |
|  |  | \$200 maximum | \$200 minimum |

Prescription drug benefits are also subject to a $\$ 50$ deductible and a $\$ 1,000$ out-of-pocket maximum per person.
Benefits after age 65 are coordinated with Medicare using the carve-out method. Participants have the option to "buy up" to exclusion coordination of benefits coverage. Exclusion coordination is provided to East retirees who attained age 65 prior to January 1, 2001.
Deductibles and out-of-pocket maximums are assumed to increase over time at approximately the same rate as benefit costs.

Grandfathered participants

Grandfathered benefits

Grandfathered contributions

Nongrandfathered benefits

Rental Benefits

Participants over age 50 with ten years of service as of December 31, 2000.

Grandfathered participants have the option of keeping current coverage. Active employee coverage for grandfathered East participants is one times final base pay at no cost with the option to buy up to two times base pay. The entire amount of coverage (basic plus supplemental) in force prior to retirement can be carried into retirement subject to reduction beginning at age 66. Current coverage for grandfathered West participants is one and one-half times final base pay prior to age 60 , one times final base pay from age 60 to 64 and one-half times final base pay after age 65.

Life Insurance Benefit Reduction Table for Grandfathered Easi Paricipants

| Years of <br> Coverage | Age 65 | Age 67 | Age 68 | Age 69 | Age 70 <br> or Over |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $10-11$ | $65 \%$ | $55 \%$ | $45 \%$ | $35 \%$ | $25 \%$ |
| $11-12$ | 70 | 60 | 50 | 40 | 30 |
| $12-13$ | 75 | 65 | 55 | 45 | 35 |
| $13-14$ | 80 | 70 | 60 | 50 | 40 |
| $14-15$ | 85 | 75 | 65 | 55 | 45 |
| 15 or more | 90 | 80 | 70 | 60 | 50 |

Grandfathered East retirees must contribute $\$ 0.60 / \$ 1,000$ of coverage (basic + supplemental) per month. West retirees are not required to contribute to the cost of coverage.

One-half times final base pay at no cost to retiree.

Participants, including retirees and surviving dependents, are eligible upon retirement after age 55 with ten years of service. There is a one-time election and if coverage terminates there is no opporiunity to reenroll.

Benefits

The AEP Dental Plan provides dental coverage with a deductible of $\$ 50$ single/ $\$ 150$ family, $100 \%$ coinsurance for preventive care, $80 \%$ coinsurance for basic restorative care, $50 \%$ coinsurance for major restorative care and $50 \%$ coinsurance for orthodontia.
Most retirees pay the full cost of dental coverage if they enroll. CSW employees who retire before January 1, 1993, contribute nothing to enroll for dental coverage. Former CSW employees retiring after January 1, 1993, who were either retired or had attained age 50 with ten years of service as of January 1, 2001, pay $30 \%$.

## Changes in Plan Provisions Since the Prior Year

There have been no changes in the substantive plan provisions since the prior year.

## Overview of cenefits Provided loy Fumbime Yehicles

## Funding Vehicle

Nonunion postretirement medical/dental VEBAs

Union postretirement medical/dental VEBAs

Postreeirrement́ life insurance VEBA
West 401(h) account
East 401(h) account

## Proviles for

$100 \%$ of medical/dental benefits to nonunion employees before 2010 and $75 \%$ (East retirees) or $50 \%$ (West retirees) of benefits thereafter.
$100 \%$ of medical/dental benefits to union employees.

Life insurance benefits for all retirees.
$50 \%$ of benefits after 2009 for nonunion retirees.
$25 \%$ of benefits after 2009 for nonunion retirees.

American Electric Power
2008 Summary of Postretirement Health Care Plan Participants - Non-UNINA

|  | Nonretired Participants |  |  | Retired Participants |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Dependent Surviving |  |  |  |
|  | Active | Disabled | Total | Retiree | Spouse | Spouse | Total |
| AEP Energy Services, inc. | 0 | 2 | 2 | 31 | 24 | 0 | 55 |
| AEP Pro Serv, Inc. | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| AEP Service Corporation | 6,240 | 84 | 6,324 | 1,693 | 1,164 | 184 | 3,041 |
| AEP Texas Central Co-Distribution | 1,069 | 48 | 1,117 | 869 | 611 | 274 | 1,754 |
| AEP Texas Central Co-Generation | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| AEP Texas Central Co-Nuclear | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AEP Texas Central Co - Transmission | 131 | 4 | 135 | 78 | 49 | 31 | 158 |
| AEP Texas North Co-Distribution | 325 | 13 | 338 | 228 | 157 | 71 | 456 |
| AEP Texas North Co-Generation | 0 | 5 | 5 | 150 | 97 | 43 | 290 |
| AEP Texas North Co - Transmission | 51 | 2 | 53 | 36 | 26 | 12 | 74 |
| Appalachian Power Co - Distribution | 1,162 | 76 | 1,238 | 1,149 | 814 | 429 | 2,392 |
| Appalachian Power Co-Generation | 1,156 | 80 | 1,236 | 694 | 562 | 213 | 1,469 |
| Appalachian Power Co - Transmission | 186 | 18 | 204 | 95 | 86 | 3 | 186 |
| Cardinal Operating Company | 289 | 14 | 303 | 150 | 116 | 50 | 316 |
| Cedar Coal Ca. | 0 | $\bigcirc$ | 0 | 21 | 10 | 21 | 52 |
| Central Ohlo Coal Co. | 0 | 0 | 0 | 53 | 30 | 6 | 89 |
| Columbus Southem Power Co. Distribution | 828 | 29 | 857 | 792 | 496 | 208 | 1,496 |
| Columbus Southem Power Co-Generation | 359 | 17 | 376 | 278 | 191 | 79 | 548 |
| Columbus Southem Power Co. Transmission | 59 | 1 | 60 | 69 | 53 | 19 | 141 |
| Conesville Coal Preparation Company | 10 | 0 | 10 | 8 | 7 | 0 | 15 |
| Cook Coa! Terminal | 18 | 0 | 18 | 9 | 7 | 0 | 16 |
| cswenergy, Inc. | 19 | 0 | 19 | 8 | 2 | 0 | 10 |
| Elmwood | 158 | 3 | 161 | 6 | 4 | 0 | 10 |
| Houston Pipeline ( HPL ) | 0 | 2 | 2 | 31 | 19 | 0 | 50 |
| Indiana Michigan Power Co- Distribution | 747 | 17 | 764 | 680 | 407 | 266 | 1,353 |
| Indiana Michigan Power Co-Generation | 453 | 16 | 469 | 241 | 181 | 84 | 506 |
| Indiana Michigan Power Co-Nuclear | 1.019 | 12 | 1,031 | 259 | 193 | 47 | 499 |
| Indiana Michigan Power Co - Transmission | 169 | 6 | 175 | 96 | 73 | 9 | 178 |
| Kentucky Power Ca-Distribution | 266 | 28 | 314 | 153 | 118 | 69 | 340 |
| Kentucky Power Co-Generation | 135 | 21 | 156 | 68 | 72 | 20 | 160 |
| Kentucky Power Co - Transmission | 55 | 3 | 58 | 8 | 11 | 0 | 19 |
| Kingsport Power Co - Distribution | 46 | 4 | 50 | 49 | 28 | 15 | 92 |
| Kingsport Power Co-Transmission | 11 | 1 | 12 | 6 | 5 | , | 12 |
| Memco | 760 | 6 | 768 | 8 | 3 | 0 | 11 |
| Ohio Power Co-Distribution | 905 | 30 | 935 | 884 | 615 | 308 | 1,907 |
| Ohio Power Co-Generation | 843 | 71 | 914 | 670 | 570 | 216 | 1,456 |
| Ohio Power Co - Transmission | 235 | 9 | 244 | 117 | 95 | 33 | 245 |
| Price River Coal Co . | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Public Service Co of Oklahama - Distribution | 812 | 27 | 839 | 516 | 370 | 183 | 1,069 |
| Public Service Co of Oklahoma - Generation | 367 | 10 | 377 | 186 | 129 | 78 | 393 |
| Public Service Co of Oklahoma - Transmission | 84 | 3 | 87 | 54 | 36 | 16 | 106 |
| Soulhem Ohio Coal - Martinka | 0 | 0 | 0 | 21 | 12 | 4 | 37 |
| Southern Ohio Coal-Meigs | 0 | 0 | 0 | 49 | 33 | 13 | 95 |
| Southwestem Electric Power Co-Distribution | 536 | 11 | 547 | 274 | 207 | 84 | 565 |
| Southwestern Electric Power Co-Generation | 492 | 20 | 512 | 244 | 197 | 78 | 519 |
| Southwestern Electric Power Co-Texas - Distribution | 275 | 7 | 282 | 141 | 102 | 30 | 273 |
| Soultwestern Electric Power Co-Transmission | 93 | 2 | 95 | 47 | 28 | 20 | 95 |
| Water Transportation (Lakin) | 328 | 24 | 352 | 117 | 69 | 30 | 216 |
| Wheeling Power Co-Distribution | 61 | 4 | 65 | 68 | 49 | 30 | 147 |
| Wheeling Power Co - Transmission | 0 | 0 | 0 | 5 | 3 | 8 | 16 |
| Windsor Coal Co. | $\underline{\square}$ | $\underline{0}$ | 0 | 13 | 10 | $\underline{2}$ | 25 |
| Tolal | 20,773 | 730 | 21,503 | 11,423 | 8,144 | 3,287 | 22,854 |



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## Foreast year Discount rate

## Location AEP Energy Services, Inc. AEP Pro Serv, Ine. AEP Service Corporation

AEP Servica Corporation
AEP Texas Central Co - Distribution
AEP Texas Central Co-Generation
AEP Texas Central Co - Nurlcar
AEP Texas Central Co - Itansmission
AEP Texas North Co - Distribution AEP Texas North Co-Generalion
AEP Texas North Co - Transmission
Appalachien Power Co - Distribulion Appaiachian Power Ce - Generalon Appalachian Power Co-Tminsmizson Cerdar Cabl Co.
Ceniral Oitlo Cont Co.





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Foracsat year
Discount rate

 Indiana Mentigan Power CO －Transmission
Indiona Michigan Power

 Mernco
Ohio Power Co－Distribution
OHO Power Co－Generation











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# 2009 Actuarial Reports 

Exhibit HEM-3 includes the following 2009 AEP Actuarial Reports:

| - Exhibit HEM-3A | Qualified Pension |
| :--- | :--- |
| - Exhibit HEM-3B | Supplemental Pension |
| - Exhibit HEM-3C | Non-UMWA Postretirement |

# Americur Electric Power Systum 

## Retiremern Plown

Actuarial Vaikation Report<br>Pension Cost for Fiscal Year Ruding December 31,2009<br>Employer Contributions for Plam Year Beghnuing January 1, 2009

April 2000

This report is confidential and intended sofely for the information and benefit of the immediate recipient thereof. It may not be distributed to a third party unless expressly allowed under the "Actuarial Certification, Reliances and Distribulion" section herein.

## TOWERS

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# Managenent Summary of Votuation Results 


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## Financial Results

This report summarizes financial results for American Electric Power System's Retirement Plan based on actuarial valuations for fiscal 2009 (fiscal year ending December 31, 2009) and fiscal 2008 and for plan year 2009 (plan year beginning January 1,2009 ) and plan year 2008.

## FRS $x^{4} 7$ Pension cost

Amount

FAS 87 Funded POsicion
Projected benefit obligation [PBO]
Fair value of assets [FV]
Overfunded (underfunded) PBO
PBO funded percentage [ $\mathrm{FV} \div \mathrm{PBO}]$

## Employer Comeribuerons

Minimum funding requirement
Remaining cash requirement (assuming sponsor uses available credit balance)
Maximum deductible contribution*

Fiscel 2009
\$ 86,074,595
denuery i, 2009
$\$ 4,232,544,398$
3,156,051,105
(1,076,493,288)
$74.6 \%$

Plan Year 2000
\$
riscal 2008
$\$ 41,836,053$

Jennary 1,2008
\$ 4,157,050,273
$4,491,367,256$
334,316,983
$108.0 \%$

Plan lear 2008
$\$ 119,031,550$

0
$1,889,731,808$

## PRISA Rumded Positicn

Funding target
Net actuarial value of assets
Funding shortfall/(excess assets)
Funding target attainment percentage for participant funding notice

Actuarial value of assets
\$
$\%$
$\$ 4,090,259,584$
$3,611,433,814$
$478,825,770$

Actuarial value of assets as a percentage of funding target $\%$ 109.3\%

* Estimated amount, pending issuance of Treasury/IRS guidance.


## Fas 8 P Pension Cost and Punded Position

The cost of the pension plan is determined in accordance with FAS 87. The fiscal 2009 pension cost for the plan is $\$ 86,074,595$, or $5.3 \%$ of covered pay.

Under FAS 87, as amended by FAS 158, the funded position (projected benefit obligation, or "PBO," less the fair value of plan assets) of each pension plan at fiscal year-end is required to be reported as an asset (for overfunded plans) or a liability (for underfunded plans). The PBO is the actuarial present value of benefits attributed to service rendered prior to the measurement date, measured using expected future pay increases for pay-related plans. The plan's overfunded (underfunded) PBO as of January 1, 2009, was ( $\$ 1,076,493,288$ ), based on the fair value of plan assets of $\$ 3,156,051,105$ and the PBO of $\$ 4,232,544,393$.
Fiscal year-end financial reporting and disclosures are prepared before detailed participant data and the full valuation results are available. Therefore, the postretirement benefit asset (liability) at December 1 , 2008 , was derived from January 1, 2008, valuation results. The fiscal year-end 2009 financial reporting information will be developed based on the results of the January 1, 2009, valuation, rolled forward to the end of 2009 and adjusted for the year-end discount rate and asset values, as well as significant changes in plan provisions and participant population.

## Change in Pension Cost mod Funded Position

The pension cost increased from $\$ 4,1,836,053$ in fiscal 2008 to $\$ 86,074,595$ in fiscal 2009 and the funded position decreased from $\$ 334,316,983$ on January 1,2008 , to $\$(1,076,493,288)$ on January 1 , 2009, as set forth below:

|  | Perision cost |  | Fumded Position |  |
| :---: | :---: | :---: | :---: | :---: |
| Prior year | \$ | 41,836,053 | \$ | 334,316,983 |
| Change due to: |  |  |  |  |
| - Expected based on prior valuation and contributions |  | (9,374,665) |  | $(7,301,616)$ |
| - Unexpected noninvestment experience |  | 1,362,998 |  | $(15,073,111)$ |
| - Unexpected investment experience |  | 51,301,808 |  | $(1,382,416,106)$ |
| - Assumption changes |  | 948,401 |  | (6,019,438) |
| - Plan amendments |  | 0 |  | 0 |
| Current year | \$ | 86,074,595 |  | (1,076,493,288) |

Significant reasons for these changes include the following:

- The return on the fair value of plan assets since the prior measurement date was less than expected, which decreased the funded position.
$\checkmark$ The plan experienced demographic losses primarily due to (i) fewer terminations and retirements than expected and (ii) fewer retiring and terminating participants electing a lump sum form of payment than expected.
- The healthy mortality tables updated to the 2009 IRS Applicable mortality tables required to be used by the IRS for funding purposes.


## Mistory or Pension Cost and randed Position

The following table shows the history of the plan's pension cost and funded position.

---.-.-- Pension cost --......

| Fiscal <br> year | Amount | Percent ot <br> coveredpay | Funded <br> position | Discount <br> rate |
| :--- | ---: | :---: | ---: | ---: |
| 2009 | $\$ 86,074,595$ | $5.3 \%$ | $(1,076,493,288)$ | $6.00 \%$ |
| 2008 | $41,836,053$ | 2.7 | $334,316,983$ | 6.00 |
| 2007 | $40,454,930$ | 2.8 | $299,752,151$ | 5.75 |
| 2006 | $61,344,648$ | 4.4 | $(45,745,159)$ | 5.50 |
| 2005 | $52,038,709$ | 3.7 | $(567,199,238)$ | 5.50 |

## Bossis Tor Male

## Recmomic Assumputions

The discount rate for pension cost purposes is the rate at which the pension obligations could be effectively settled. This rate is developed from yields on available high-quality bonds and reflects the plan's expected cash flows.
The assumed rate of return on assets and salary increase rate assumptions both reflect long-term expectations. The assumed rate of return on assets for pension cost purposes is the weighted average of expected asset returns. The salary increase rate is based on current expectations of future pay increases. The assumptions selected by American Electric Power for pension cost purposes are:

|  | December 31, 2008 | December 31, 2007 |
| :--- | ---: | ---: |
| Discount rate | $6.00 \%$ | $6.00 \%$ |
| Rate of return on assets | $8.00 \%$ | $8.00 \%$ |

Rate vary by age Rate vary by age from $5.0 \%$ to $11.5 \%$
from $5.0 \%$ to $11.5 \%$

Salary increase rate

January 1, 2008
Effective interest rate
Salary increase rate

- nuary 1, 2009

Rate vary by age from
5.0\%to 11.0\%
5.93\%

Rate vary by age from
5.0\% to $11.0 \%$

## Other Assumpetions

The mortality basis used to calculate fiscal 2009 pension cost and the plan year 2009 funding target and minimum required contribution was updated to RP2000 with projections to 2016 for annuitants and 2024 for nonannuitants.

## nctuarial Cerificotion, Relỉnces and Distribution

American Electric Power retained Towers Perrin to perform a valuation of its pension plan for the purpose of determining (1) its pension cost in accordance with FAS 87 and (2) the minimum required and maximum tax-deductible contributions in accordance with ERISA and allowed by the Internal Revenue Code. This valuation has been conducted in accordance with generally accepted actuarial principles and practices.
The consulting actuaries are members of the Society of Actuaries and other professional actuarial organizations and meet their "Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States" relating to pension plans.
In preparing the results presented in this report, we have relied upon information provided to us regarding plan provisions, plan participants and plan assets. We have reviewed this information for reasonableness and consistency, but have neither audited nor independently verified this information. The accuracy of the results presented in this report is dependent upon the accuracy and completeness of the underlying information.
The actuarial assumptions and the accounting policies and methods employed in the development of the pension cost have been selected by the plan sponsor, with the concurrence of Towers Perrin. FAS 87 requires that each significant assumption "individually represent the best estimate of a particular future event."

To the extent not prescribed by ERISA, the Internal Revenue Code and regulatory guidance from the Treasury and the IRS, the funding methods (including asset valuation method, choice among prescribed interest rates and choice among prescribed mortality tables) employed in the development of the contribution limits have been selected by the plan sponsor, with the concurrence of Towers Perrin. To the extent not prescribed by ERISA, the Internal Revenue Code and regulatory guidance from the Treasury and the IRS, the actuarial assumptions employed in the development of the contribution limits have been selected by Towers Perrin, with the concurrence of the plan sponsor. Other than prescribed assumptions, ERISA and the Internal Revenue Code require the use of assumptions each of which is "reasonable (taking into account the experience of the plan and reasonable expectations), and ... which, in combination, offer the actuary's best estimate of anticipated experience under the plan."

The results shown in this report have been developed based on actuarial assumptions that, to the extent evaluated or selected by Towers Perrin, are considered to be reasonable and within the "best-estimate range" as described by the Actuarial Standards of Practice. Other actuarial assumptions could also be considered to be reasonable and within the best-estimate range. Thus, reasonable results differing from those presented in this report could have been developed by selecting different points within the bestestimate ranges for various assumptions.

The information contained in this report was prepared for the internal use of American Electric Power and its auditors in connection with our actuarial valuation of the pension plan. It is neither intended nor necessarily suitable for other purposes. American Electric Power may also distribute this actuarial valuation report to the appropriate authorities who have the legal right to require American

Electric Power to provide them this report, in which case American Electric Power will use best efforts to notify Towers Perrin in advance of this distribution. Further distribution to, or use by, other parties of all or part of this report is expressly prohibited without Towers Perrin's prior written consent.
Joseph K.Perko, FSA, MAAA, EA
Towers Perrin
$\frac{9 \text { weasel W. Niswander, FSA, MAAA, EA }}{\text { Russell }}$
April 2009

## Supplewentul Informoitor

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TOMERS

## Asset Volues

## Asset values for Gallulatimg Pensiou cost mad runded Positien

Fair value (excludes contributions recejvable):
$\triangleright$ As of January 1,2008 \$ 4,491,367,256

- Contributions
- Disbursements
- Investment return
- As of January 1,2009
- Rate of return

Market-related value:

- As of January 1, 2008
- As of January 1, 2009
- Rate of return

Asset values for calculating Employer Contribution

Market value, including contributions receivable:

- As of January 1,2008
$\$$
- Contributions
- Disbursements
- Investment return
- As of January 1, 2009
- Rate of return

Aciuarial value:

- As of January 1,2008
\$
- As of January 1, 2009
- Rate of reíurn $\%$
- Rate of return (assuming mid-year cash Flow) for Schedule B of Form 5500\%


## Rasic Results hor Pension Cost nun rumiodeol Posirion

Servise Coss
Amount

## Obligations

Accumulated benefit obligation [ABO]:

- Participants currently receiving benefits
- Deferred inactive participants
- Active participants

Total ABO
Obligation due to future salary increases
Projected benefit obligation [PBO]
Assets
Fair value [FV]
Unamorized investment losses (gains)
Market-related value
Pumedeal Posiêion
Overiunded (underfunded) PBO
PBO funded percentage
Amounts rot $\mathbb{N e f}$ Periodic Coss

Net actuarial loss (gain)
Prior service cost (credit)
Transition obligation (asset)
Total

## Fiscal 2009

\$ 102,723,635
\$
98,632,166
Riscal 2008

| \$ | 1,916,732,391 | \$ | 1,902,789,986 |
| :---: | :---: | :---: | :---: |
|  | 232,490,752 |  | 237,299,967 |
|  | 1,974,284,956 |  | 1,903,216,601 |
| \$ | 4,123,508,099 | \$ | 4,043,306,554. |
|  | 109,036,294. |  | 113,743,719 |
| \$ | 4,232,544,393 | \$ | 4,157,050,273 |

\$ 3,156,051,105
\$ 4,491,367,256
$1,051,533,364$
$(113,485,934)$
\$ 4,207,584,4,69
\$ 4,377,881,322
\$ $(1,076,493,288) \quad \$ \quad 334,316,983$
$74.57 \%$
108.04\%

| \$ | 2,021,497,870 | \$ | 652,412,995 |
| :---: | :---: | :---: | :---: |
|  | 10,356,988 |  | 10,4,67,645 |
|  | 0 |  | 0 |
| \$ | 2,031,854,858 | \$ | 662,880,640 |

## Key Eecnomic Assumptions

Discount rate
Rate of return on assets
Salary increase rate

Fiscal 2009
6.00\%
8.00\%

Rates vary by age
from $5.0 \%$ to
$11.5 \%$

## Piscal 2008

$6.00 \%$
8.00\%

Rates vary by age from $5.0 \%$ to 11.5\%

The results above may differ from the amounts disclosed in AEP's 2008 financial statements because disclosures are prepared before the corresponding valuation results are available.

## Pension Cost

Fiseal 2009

## Pension cosk

Service cost
Interest cost
Expected return on assets
Amortization:

- Transition obligation (asset)
- Prior service cost (credit)
- Net loss (gain)

Pension cost
Percent of covered pay
Per active participant

## Change in Pensicn cost

Pension cost for fiscal 2008
Change from fiscal 2008 to fiscal 2009:

- Expected based on prior valuation
\$ 102,723,635 248,651,629
(321,393,288)

0
111,658
$55,980,961$
\$ 86,074,595
5.3\%

4,192
\$ 41,836,053

- Loss (gain) from noninvestment experience
- Loss (gain) from asset experience
- Assumption changes
- Plan amendments

Pension cost for fiscal 2009

Fiscen 200e
$98,632,166$
$244,457,540$
$(335,788,090)$

0
110,658
34,423,779
$\$ \quad 41,836,053$
$2.7 \%$
2,088

## Rresent value of accumulated Plan Renemits for ris 35

|  | Hawuary 1,2009 |  | Jmuary 1, 2008 |  |
| :---: | :---: | :---: | :---: | :---: |
| Actuanial Presemt yalue of Accumulated Plan Benefiss |  |  |  |  |
| Vested benefits: |  |  |  |  |
| - Participants currently receiving benefits | \$ | 1,665,510,496 | \$ | 1,651,733,748 |
| - Other participants |  | 1,860,424,545 |  | 1,772,347,576 |
| - Total vested benerits | \$ | 3,525,935,041 | \$ | 3,424,081,324 |
| Nonvested benefits |  | 45,840,797 |  | 40,367,425 |
| Total accumulated benefits | \$ | 3,571,775,838 | \$ | 3,464,448,749 |
| Market value of asseits |  | 3,156,051,105 |  | 4,491,367,256 |
| Rey Assumptions |  |  |  |  |
| Interest rate |  | 8.00\% |  | 8.00\% |
| Average retirement age |  | 60 |  | 60 |
| Mortality |  | 2009 IRS AMT |  | 2008 IRS A |
| Change um uetuaian Present volue of Accumbunted Plan Renchitis |  |  |  |  |
| Actuarial present value of accumulated plan benefits as of January 1,2008 |  | \$ 3,464 | 749 |  |
| Change from 2008 to 2009: |  |  |  |  |
| $\checkmark$ Additional benefits accumulated (including the effect of noninvestment experience)$366,713,805$ |  |  |  |  |
| - Benefits paid |  | (288 | 135) |  |
| - Assumption changes |  |  | 419 |  |
| - Plan amendments |  | - | 0 |  |
| Actuarial present value of accumulated plan benefits as of January 1, 2009 |  | \$ 3,571 | 838 |  |

## $\square$

## Actuarial fssumppilo s and Method

|  | Pension cosi |  | Contriloutions |
| :---: | :---: | :---: | :---: |
| Economic Assumpetions |  |  |  |
| Discount rate |  | 6.00\% | N/A |
| Return on assets |  | 8.00\% | N/A |
| Funding interest rate basis: |  |  |  |
| - Applicable month |  | N/A |  |
| - Yield curve basis |  | N/A |  |
| - Transition from current liability rates |  | N/A | No |
| Funding interest rates: |  |  |  |
| - First segment rate (10-year rate) |  | N/A | \% |
| - Second segment rate (20-year rate) |  | N/A | \% |
| - Third segment rate (30-year rate) |  | N/A | \% |
| - Effective interest rate |  | N/A | \% |
| Annual rates of increase |  |  |  |
| - Total compensation | Age | Rate | Rate |
|  | $<25$ | 11.50\% | 11.50\% |
|  | 25-34 | 9.50\% | 9.50\% |
|  | 35-44 | 6.50\% | 6.50\% |
|  | $>45$ | 5.00\% | 5.00\% |
| - Cash balance crediting rate |  | 5.25\% | 5.50\% |
| - Lump sum conversion rate |  | 6.50\% | 6.50\% |
| - Future Social Security wage bases |  | 4.00\% | 4.00\% |
| - Statutory limits on compensation and benefifis |  | 3.00\% | N/A |

## Demographiic Assurvpilicns



Retirement Raies varying by age; average retirement age 60:

| Age | Rate |
| :---: | :---: |
| $55-57$ | $7.5 \%$ |
| $58-60$ | $15.0 \%$ |
| $61-63$ | $35.0 \%$ |
| $64-65$ | $25.0 \%$ |
| $66-69$ | $20.0 \%$ |
| $70+$ | $100 \%$ |

Form of payment $75 \%$ lump sum; $25 \%$ annuity.
Percent married $\quad 80 \%$ of male participants; $70 \%$ of female participants.
Spouse ages Wives are assumed to be three years younger than husbands.
Valuation pay 2009 Base Salary Pay (Grandfathered) - estimated as 2008 Base Pay updated one year according to the salary increase assumption.

2009 Expanded Pay (Casn Balance) - sum of the following updated one year according to the salary increase assumption:
(i) 2008 base salary
(ii) A 12\% increase for overtime eligible employees and a target bonus percent increase for incentive-eligible employees.

## Actumian Methods

## Pension cost:

- Service cost and projected benefit obligation
- Market-related value of assets

Projected unit credit.

The market value on the valuation date less the following percentages of prior years' investment gains and losses:

- $80 \%$ of the prior year
- $60 \%$ of the second prior year
- $40 \%$ of the third prior year
- $20 \%$ of the fourth prior year.

The investment gain or loss is calculated each year by:

- Rolling forward the prior year's fair value of assets with actual contributions, benefit payments and expected return on investments using the long-term yield assumption
- Comparing the actual fair value of assets to the expected value calculated above.
Contributions:
$\checkmark$ Funding target and target normal cost
- Aciuarial value of assets


## Renefits Not Vallued



- Any liabilities that may be reinstated in the event of reemploymení
- The alternate benefit formula for members who did not elect to withdraw their contributions - Any liabilities relating to member's unwithdrawn contributions - Liabilities related to special benefits as a result of termination due to restructuring or downsizing.

Average of the fair market value of assets on the valuation date and the six immediately preceding months, adjusted for contributions, benefitlexpense payments and expected investment refurns. The average asset value must be within $10 \%$ of fair value, including contributing receivable.

All benefits were valued except:

## Change in Astumperons mme

Pension cost The mortality table used to value the benefit obligations was updated from the RP2000 with projections to 2015 for annuitants and to 2023 for nonannuitants to RP2000 with projections to 2016 for annuitants and to 2024 to nonannuitants.

Contributions
The funded interest rate was changed from segment rates as of October 2007 to
The required mortality table used to value the funding target and target normal cost was updated to include one additional year of projected moréality improvements.

## Dera sources

Towers Perrin used participant and asset data as of January 1, 2009, supplied by AEP. Data were reviewed for reasonableness and consistency, but no audit was performed. Assumptions or estimates were made by Towers Perrin actuaries when data were not available. We are not aware of any errors or omissions in the data that would have a significant effect on the results of our calculations.

## Participan Reata

|  | danumry 1,2009 |  | Jamuary 1, 2008 |  |
| :---: | :---: | :---: | :---: | :---: |
| Active |  |  |  |  |
| Number |  | 20,533 |  | 20,036 |
| Average age |  | 47.1 |  | 47.2 |
| Average past service |  | 18.2 |  | 18.5 |
| Average future service |  | 9.8 |  | 9.8 |
| Covered pay: |  |  |  |  |
| - Total | \$ | 1,624,499,706 | \$ | 1,531,474,265 |
| - Average |  | 79,117 |  | 76,436 |
| Deforred lnaceive |  |  |  |  |
| Number |  | 5,355 |  | 5,540 |
| Average age |  | 52.5 |  | 51.8 |
| Annual benefitis: |  |  |  |  |
| - Total | \$ | 41,131,607 | \$ | 44,473,862 |
| - Average |  | 7,681 |  | 8,028 |
| Currentiy feceiving *enefits |  |  |  |  |
| Number |  | 15,047 |  | 15,023 |
| Average age |  | 73.7 |  | 73.5 |
| Annual benefits: |  |  |  |  |
| - Total | \$ | 203,104,413 | $\$$ | 195,894,94.9 |
| - Average |  | 13,498 |  | 13,040 |
| Total Participants lnclucied in Valuation |  |  |  |  |
| Number |  | 40,935 |  | 40,599 |

Analysis aif Inactive Parkicipant Data
Beierred lnactive

|  |  |  |  | Average annual <br> benefit |
| :--- | ---: | ---: | ---: | ---: |
| Age last birthday | Number | Annual benefit |  | 7,436 |
| $<40$ | 143 | $\$$ | $1,063,416$ | $\$$ |
| $40-44$ | 371 | $2,572,437$ |  | 6,934 |
| $45-49$ | 1,110 | $7,911,903$ | 7,128 |  |
| $50-54$ | 1,655 | $13,223,366$ |  | 7,990 |
| $55-59$ | 1,296 | $10,504,444$ |  | 8,105 |
| $60-64$ | 721 | $5,401,988$ |  | 7,492 |
| $>64$ | 59 | 454,052 |  | 7,696 |
| Total | 5,355 | $\$$ | $41,131,607$ | $\$$ |

Curremtly Receiving
國ementife

|  |  |  | Average annual <br> benefit |  |
| :--- | ---: | ---: | ---: | ---: |
| Age lasi birthday | Number | Annual benefit |  | 3,963 |
| $<55$ | 106 | $\$$ | 420,102 | $\$$ |
| $55-59$ | 587 | $7,836,575$ |  | 13,350 |
| $60-64$ | 2,028 | $36,842,320$ | 18,167 |  |
| $65-69$ | 2,645 | $32,443,036$ |  | 12,266 |
| $70-74$ | 2,691 | $36,989,289$ |  | 13,746 |
| $75-79$ | 2,592 | $37,091,985$ |  | 14,310 |
| $>79$ | 4,398 | $51,481,106$ |  | 11,706 |
| Total | 15,047 | $\$$ | $203,104,413$ | $\$$ |

## Reconcilituicm of Particiman Data

|  | Active | Deferred inacive | Currently receiving benefits | Total |
| :---: | :---: | :---: | :---: | :---: |
| Included in January 1, 2008 valuation | 20,036 | 5,540 | 15,023 | 40,599 |
| Change due to: |  |  |  |  |
| - New hire and rehire | 1,605 | (33) | (3) | 1,569 |
| - Nonvested termination | (338) | 0 | 0 | (338) |
| - Vested termination | (106) | 106 | 0 | 0 |
| - Retirement | (247) | (179) | 426 | 0 |
| - Disability | 0 | 0 | 0 | 0 |
| - Death without beneficiary | (15) | (6) | (479) | (500) |
| - Death with beneficiary | (6) | (3) | 9 | 0 |
| - Cashout | (396) | (134) | 0 | (530) |
| - Miscellaneous | 0 | 64 | 71 | 135 |
| - Net change | 497 | (185) | 24 | 336 |
| Included in January 1, 2009 valuation | 20,533 | 5,355 | 15,047 | 40,935 |


|  |  |
| :---: | :---: |
| Rfective Date | May 1, 1955. Restated effective January 1, 2009. |
| Recent Amenclments | Effective as of January 1, 2009. |
| Govered rmployees | Employees become Members of the Plan on the first day of the month following completion of one year of service. |
| Pearicipation Date | Date of becoming a covered employee. |
| Dentmicioms |  |
| Grandfathered Employee | If, on December 31, 2000, either: |
|  | (0) Participating in AEP Retirement Plan, or |
|  | (In one-year waiting period for AEP System Retirement Plan participation. |
| Vesting Service | A period of time from employment date to termination date and, in general, includes periods of severance that are not in excess of 12 months. |
| Accredited Service | Elapsed time from date of hire (from benefit service start date). |
| Final Average Pay | Average of the highest 36 -consecutive months of base pay out of the last 120 months of employment, subject to IRS limits. |
| Cash Balance Pay | Pay received during the year, including base pay, overtime, shift differential/Sunday premium pay and incentive pay, subject to IRS limits. |
| Covered Compensation Amount | The average of the Social Security taxable wage base during the 35 -year period including the year in which the participant retires, dies, becomes disabled or otherwise terminates employment. This monthly average is calculated to the next lower or equal whole dollar amount and is then rounded to nearest $\$ 50$. |
| Normal Retirement Date (NRD) | The first day of the calendar month whose first day is nearest the later of the member's $65^{\text {th }}$ birthday or the completion of five years of Vesting Service. |

## $\rightarrow 2$

Cash Balance Account

Cash Balance Benefit

Opening Balance

Interest Credits
Recordkeeping account to which annual interest credits and annual compensation credits is credited. The cash balance account is updated at the end of each plan year and is equal to:

> Cash Balance Account as of the End of the Prior Plan Year
> +
> Interest Credits
> +
> Company Credits

Cash Balance Account converted to a monthly annuity.

For those participating in or eligible for the AEP System Retirement Plan on December 31,2000, opening balance is calculated as follows:

- Present value of monthly normal retirement benefit determined as of December 31, 2000, and payable at age 65 (or current age if older)
- Present value determined based on $5.78 \%$ interest and IRS regulated mortality (GAM83 Unisex) data for lump sums (positretirement only)
Plus
- Credit for early retirement subsidy for monthly payments beginning at age 62 (or current age if older)
Plus
- Transition credit based on age, service and pay received in 2000 (see "Company Credits" for credif percentages)
- Age and service based on completed whole years as of December 31, 2000.
For employees hired on or after January 1, 2001, opening balance is $\$ 0$.

Interest credits are applied to beginning of year account balance on December 31 each year.
Based on the average 30-year Treasury Bond rate for November of the previous year.
Minimum of $4 \%$.

## TOMERS <br> PERRRN

## Company Credits

Monthly Grandfathered Benefit

Long-term Disability and Paid Leaves

Unpaid Leave

## 

Applied to account balance on December 31 or termination date if earlier.

Amount is a percentage of eligible pay received during the year, based on age plus years of Vesting Service (age and service in completed whole years as of December 31).


Less than 30
30-39
40-49
50-59
60-69
$70+$

Annual
Company Crediir
3.0\%
$3.5 \%$
4.5\%
-5.5\%
7.0\%
8.5\%

Sum of $(1)+(2)+(3)$ :
(1) $1.1 \%$ of Final Average Pay $\times$ Accredited Service up to 35 years
(2) $0.5 \%$ of Final Average Pay Less Covered Compensation $x$ Accredited Service up to 35 years
(3) $1.33 \%$ of Final Average Pay $\times$ Accredited Service between 35 and 45 years.

Service continues to accrue and Final Average Pay grows through December 31, 2010.

Compensation equal to base rate of pay as of disability date. Vesting service continues.

No compensation for annual compensation credit. Vesting service continues.

All members at or after their Normal Retirement Date.
$\left.\left.\begin{array}{ll}\text { Vested } & \begin{array}{l}\text { All members who terminate employment after completion of } \\ \text { three years of Vesting Service, or upon death. }\end{array} \\ \text { Early Retirement } \\ \text { Any time after attainmenti of age } 55 \text { and completion of five } \\ \text { years of vesting. }\end{array}\right\} \begin{array}{l}\text { All members who are unable to work at own occupation solely } \\ \text { because of sickness or injury for the first } 24 \text { months of } \\ \text { disability. After } 24 \text { months of disability, the participant is } \\ \text { eligible if unable to work at any gainful occupation for which } \\ \text { the participant may be able, or may reasonably become } \\ \text { qualified by education, training or experience, to perform. }\end{array}\right\}$ as of the Early Retirement Date.

| Deferred Vested Retirement | The accrued Normal Retirement Benefil (better of Cash Balance and Grandfathered Benefits, if eligible), payable at Normal Retirement Date or actuarially reduced and payable at any age. |
| :---: | :---: |
| Disability | The greater of (1) or (2): |
|  | (1) Accrued Grandfathered Retirement Benefit reduced as in the Early Retirement Benefit. If retirement occurs prior to age 55, the benefit is further reduced actuarially from age 55. The Disability Retirement Benefit will reflect Accredited Service that accrued (at most recent rate of base earnings) to a member while receiving benefits under the Company's LTD plan. |
|  | (2) The Cash Balance Benefit with continued Company Credits while disabled. |
|  | Benefit (1) applies for Grandfathered Employees only. |
| Preretirement Death | Better of (1) or (2): |
|  | (1) The grandfathered monthly benefit as if the employee commenced a $60 \%$ qualified joint and survivor benefit at his earliest retirement date |
|  | (2) Annuity equivalent of Cash Balance account, or the cash balance account. |
|  | Benefit (1) applies for a Grandfathered Employee whose beneficiary is his or her spouse. |
| Surviving Spouse Benefits | A benefit payable for life equal to $30 \%$ of the single life annuity payable to the grandfathered member. The spouse's benefit is actuarially reduced for each year by which the spouse is more than ten years younger than the member. Payable to Grandfathered Employees only. |

Form of Payment

- Grandfathered Employees
- Employees Hired on or After January 1, 2001

The following are available for Grandfathered Employees for both the Grandfathered Benefit and the Cash Balance Benefit:

- Full lump sum payment.

Combination of partial lump sum ( $25 \%, 50 \%$ or $75 \%$ of full lump sum) with remainder paid as a monthly benefil (see below).

- Monthly payment:
- Single life annuity.
- Optional joint annuities (spouse or other beneficiary).
- Available in $40 \%, 50 \%, 60 \%, 75 \%, 100 \%$.
- Can elect pop-up and/or level income options.
- Automatic company-paid $30 \%$ surviving spouse annuity included in Grandfathered Benefit annuity if terminate on or after age 55 and married at least one year. Cash Balance Benefif is actuarially reduced for this feature.
The following are available for those hired on or after January 1, 2001:
- Full lump sum payment.

Combination of partial lump sum ( $25 \%, 50 \%$ or $75 \%$ of full lump sum) with remainder paid as a monthly benefit (see below).

园 Monthly payment:

- Single life annuity.
- Joint annuities (spouse or other beneficiary).
- Available in $50 \%, 75 \%, 100 \%$.



Prior to January 1, 1978, employee contributions were required as a condition of Membership. In May and June of 1981, Members were permitted an election to withdraw those contributions. Those who did not elect to withdraw have retirement benefits based on a formula that differs from the formulas previously described in this section. However, the number of nonelecting Members is so small that special plan provisions for that group have not been included in this summary.

## Benefits Noe valusal

A small portion of the population made employee contributions to the plan. Because the amount of these contributions is not material to the plan, they are not part of the valuation.
Participants who were employees of Columbus Southern Power (CSP) at the time AEP acquired that company have a frozen benefit under the CSP benefit formula at December 31, 1986. Benefits for these participants are the greater of an all-service AEP benefit and a twopart benefit consisting of the frozen CSP benefit plus an AEP benefit accrued from January 1 , 1987. Because this applies to a small portion of the population and the CSP frozen benefit is not often the greater benefit for these participants, this benefit is not valued.

## Ruture Plam Changes

No future plan changes were recognized in determining pension cost. Towers Perrin is not aware of any future plan changes that are required to be reflected.

## Changes in Renciits Valued Since Pricr Year

- Changes in the IRS pay cap and Section 4.15 limits.
- Effective January 1, 2009, the former Central and South West Cash Balance Plan was merged into one American Electric Power System Retirement Plan.


## Plan Provisions for Partifpants covered by the Former West Retirement Plan

<br>Recent Amendments<br>Covered rmployecs<br>Participation Date<br>Deffinitions<br>Grandfathered Employee<br>Vesting Service<br>Credited Service

Final Average Pay

Cash Balance Pay

Normal Retirement
Date (NRD)

January 1940. Restated effective January 1, 2009.

Effective as of January 1, 2009.
All full-time employees of a Participating Company employed by CSW before January 1, 2001, and not covered by a union (that has not bargained for coverage) or another pension plan provided by AEP. Part-time employees of the Company had to work more than 1,000 hours in the first anniversary year or subsequent calendar years.

Date of becoming a covered employee.

Employees who were at least age 50 with ten years of vesting service as of July 1, 1997.

All service from date of hire in completed years.
The aggregate of:
For the period prior to January 1, 1976:
(1) The number of full years in the last continuous period that employee was a participant after June 30,1970 , plus
(2) Credited service under any prior plan if service extended to July 1, 1970.

For the period beginning on or after January 1, 1976, the number of full years of service.
Highest average annual earnings (base pay only) during any 36 consecutive months in the 120 months before retirement. Any changes in earnings within the last three months before retirement will not be taken into account.

Pay received during the year, including base pay, overtime, shift differential/Sunday premium pay and incentive pay, subjeci to $\operatorname{RRS}$ limits.

The first day of the calendar month on or following the member's $65^{\text {th }}$ birthday.

Cash Balance Account

Cash Balance Benefit
Interest Credits

## Company Credits

Recordkeeping account to which annual interest credits and annual compensation credits are credited. The cash balance account is updated at the end of each plan year and is equal to:

> Cash Balance Account as of the End of the Prior Plan Year
> +
> Interest Credits +
> Company Credits

Cash Balance Account converted to a monthly annuity.

Interest credits are applied to beginning of year account balance on December 31 each year.

Based on the average 30-year Treasury Bond rate for November of the previous year.

Minimum of $4 \%$.
Applied to account balance on December 31 or date of termination if earlier.

Amount is a percentage of eligible pay received during the year, based on age plus years of Vesting Service (age and service in completed whole years as of December 31).

| Age Plus <br> Years of Service | Annual <br> Company Credit |
| :---: | :---: |
| Less than 30 | $3.0 \%$ |
| $30-39$ | $3.5 \%$ |
| $40-49$ | $4.5 \%$ |
| $50-59$ | $5.5 \%$ |
| $60-69$ | $7.0 \%$ |
| $70+$ | $8.5 \%$ |

Monthly Grandfathered Benefit

Minimum Benefits

Primary Social Security Benefif

Long-term Disability and Paid Leaves

Greater of (1) or (2) below with automatic cost of living adjustments upon retirement:
(1) Basic benefit - An annual amount equal to:

The aggregate of a participant's (a) earned benefit (if any) under any prior plan or acquired Company pension plan under which no election was made to receive a paid-up annuity; and (b) participant contributions without interest for the period commencing on or after July 1, 1970. For the period after September 1, 1980, participants will be deemed to have made contributions at the rate of $2 \%$ annually of the participant's annual rate of earnings as of January 1.
(2) Minimum benefit:
$1-2 / 3 \%$ of final average annual earnings less $50 \%$ of participant's annual primary Social Security benefit times years of credited service up to 30 years.

The benefit payable will never be less than the frozen accrued benefit as of July 1,1997 , under the prior plan.

The annual amount payable under the Social Security Act as amended in effect at the employee's date of retirement. The date as of which the amount is to be determined is:
(1) In the case of an employee (including deferred vested employees) retiring on or after normal retirement date, normal retirement date.
(2) In the case of an employee retiring prior to normal retirement date, the later of employee's $62^{\text {nd }}$ birthday or actual retirement date.
Eariy retirees and deferred vested employees are assumed to have no earnings affer termination in determining the amount of this benefit.

Compensation equal to the base rate of pay as of disability date. If a participant became disabled prior to January 1, 2003, compensation for the cash balance formula is equal to the greater of the compensation for the calendar year before the disability and the year in which the disability benefits began. For the grandfathered formula, the final average pay will be determined as of the date on which the participant became disabled. Vesting service continues.

Unpaid Leave

葛相gibility
Normal Retirement
Vested

Early Retirement

Disability

Surviving Spouse

Preretirement Death

No compensation for annual compensation credik. Vesting service continues.

All panicipants at or after their normal retirement date.
The participant's cash balance account is $100 \%$ vested when any one of the following applies:
(1) Three years of vesting service
(2) Attainment of age 55 while an employee
(3) Death prior to termination
(4) Upon disability.

Any time after attainment of age 55 and completion of 15 years of vesting service.

All participants who become permanently and totally disabled. Permanent and total disability is determined by reference to the LTD plan covering that participant.

The surviving spouse of a participant who retired or is eligible to retire on normal or early retirement.

Beneficiary of participant who dies after becoming vested.

## Montily

Normal Retirement

Early Retirement

Deferred Vested Retirement

Grandfathered employees must elect either the cash balance or the grandfathered formula. For purposes of this valuation, the employee is assumed to elect the formula with the higher present value. Employees with a prior plan frozen benefit get the beiter of the cash balance benefit and the prior plan frozen benefit. For all other employees, the Cash Balance Benefit is determined as of Normal Retirement Date.

Greater of (1) if applicable or (2):
(1) The grandfathered accrued benefit and the prior plan frozen are payable subject to reduction according to the following schedule if payments commence prior to the normal retirement date.

| Age at | Percent of |
| :---: | :---: |
| Relirement | Benefii Payable |


| 64 | $100 \%$ |
| :--- | ---: |
| 63 | $100 \%$ |
| 62 | $100 \%$ |
| 61 | $95 \%$ |
| 60 | $90 \%$ |
| 59 | $84 \%$ |
| 58 | $78 \%$ |
| 57 | $72 \%$ |
| 56 | $66 \%$ |
| 55 | $60 \%$ |

(2) The Cash Balance Benefit determined as of the Early Retirement Date.

Greater of (1) if applicable or (2):
(1) Grandfathered accrued benefit payable at age 65 , or if earlier reduced $5 \%$ per year from age $65,6 \%$ per year from age 60 and $7.5 \%$ per year compounded from age 55 .
(2) Vested cash balance account.

## TOWERS

Disability Retirement

Preretirement Death

The greatest of grandfathered accrued benefit, if eligible, based on projected service and frozen pay deferred to age 65, prior plan frozen benefit if eligible and cash balance account with continued pay credits.

If the beneficiary is the spouse and the participant is a grandfathered/protected plan participant, then:
(1) For an active participant who dies on or after $55^{\text {th }}$ birthday but before retirement, a monthly benefit equal to $50 \%$ of the benefit accrued to the date of death without reduction for early retirement is payable immediately as a life annuity to a qualifying spouse.
(2) For an active participant who dies after completing five or more years of vesting service but before age 55, a deferred monthly benefit equal to $50 \%$ of the benefit accrued to the date of death reduced as for early retirement is payable as a life annuity to a qualifying spouse. Benefit commencement is deferred to when the deceased participant would have attained age 55.
(3) For a deferred vested participant who dies before benefits commence, a monthly benefit equal to $50 \%$ of the deferred vested benefit reduced for early commencement (as for deferred vesteds) is payable as a life annuity to a qualifying spouse. If death occurs before age 55 , the benefit to the spouse is deferred to when the deceased participant would have attained age 55.

The spouse's benefit is actuarially reduced for each year by which the spouse is more than five years younger than the participant.
For all employees, the minimum benefit is the cash balance account immediate annuity, which is also payable if the beneficiary is not the participant's spouse.

The following are available for those participants who did not work an hour of service on or after January 1 , 2003:
匃 Full lump sum payment.

- Monthly payment:
- Single life annuity.
- $50 \%$ joint annuity (spouse or other beneficiary).

The following are available for those participants who work an hour of service on or after January 1, 2003:

- Full lump sum payment.
- Combination of paríal lump sum ( $25 \%, 50 \%$ or $75 \%$ of full lump sum) with remainder paid as a monthly benefit (see below).
- Monthly payment:
- Single life annuity.
- Joint annuities (spouse or other beneficiary).
- Available in $50 \%, 75 \%, 100 \%$.


## Future Plan Changes

No future plan changes were recognized in determining pension cost. Towers Perrin is not aware of any future plan changes that are required to be reflected

Changes in Renemits Valued since Prior Year

- Changes in the IRS pay cap and Section 415 limits.
- Effective January 1, 2009, the former Central and South West Cash Balance Plan was merged into one American Electric Power System Retirement Plan.
QUA $\triangle F I E D$ RETIREMENT PLAN
SUMMARY OF PLAN PARTICIPANTS FOR THE 2009 VALUATION
 $\stackrel{4}{9}$
$\stackrel{3}{8}$
$\stackrel{y}{8}$
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AMERICAN ELECTRIC POWER SYSTEM- QUALFIED REEIREMENT PLAN
SUMMARY OF FAS GT VALUATION RESULTS AS OF JANUARYY, 2009
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 $54,232,544,393$
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AMERICAN ELECTRLC POWER SYSTEM
QUALFIED RETREMENT PLAN
2009 NET PERIODIC PENSION COST
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QURLFIED REIREMENTPLAN
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# American Electric Power <br> Excess Benefit Plam 

## Actuarial valdirion Report

## Pension Cose for Fiscal Year Ending Decemiler 31,2009

## April 2000

## Talole off Conternis

Supplemental Informadion ..... SI
Miscellaneous by Location ..... MIL

## Plan Provisions

The Excess Benefit Plan provides a benefit determined in accordance with the provisions of the American Electric Power System's Retirement Plan (a qualified defined benefit plan), without recognition of the statutory maximums on benefits and pay, less the benefit payable from the qualified plan. MICP awards are also included in the definition of pay for the former East Plan grandfathered benefit for executives with base pay in excess of the IRS limit. Certain executives have contracis providing additional benefits. Certain former Central and South West company executives are eligible for a final average pay cash balance benefit (pension equity - type formula) if it produces a larger benefit. The schedule of contribution percentages for this formula is identical to the cash balance formula.

Prior to 2004, all executives had their cash balance pay limited to $\$ 1,000,000$. In addition, pay was limited for executives in an uncapped incentive plan to two times base pay for both the final average pay formula and the cash balance formula. Base pay rate is determined at the earlier of year-end or date of termination.

Effective January 1, 2004, pay for all executives is limited to the greater of two times base pay or $\$ 1$ million for the cash balance formula only. The executives in the uncapped incentive plan continue to have two times pay limit apply to the former East Plan final average pay formula.

## Fucure Plan Ghanges

No future plan changes were recognized in determining pension cost. Towers Perrin is not aware of any future plan changes that are required to be reflected.

## Changes in enemits Yalued Since Prior Year

$\checkmark$ Changes in the IRS pay cap and Section 415 limits.

- Effective January 1, 2009, the former Central and South West Excess Benefit Plan was combined with the American Electric Power Excess Benefiit Plan for reporting purposes.


## Actuarial cenilicotion, Reliances and Distrilution

American Electric Power retained Towers Perrin to perform a valuation of its pension plan for the purpose of determining its pension cost in accordance with FAS 87. This valuation has been conducted in accordance with generally accepted actuarial principles and practices.

The consulting actuaries are members of the Society of Actuaries and other professional actuarial organizations and meet their "Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States" relating to pension plans.

In preparing the results presented in this report, we have relied upon information provided to us regarding plan provisions, plan participants and plan assets. We have reviewed this information for reasonableness and consistency, but have neither audited nor independently verified this information. The accuracy of the results presented in this report is dependent upon the accuracy and completeness of the underlying information.

The actuarial assumptions and the accounting policies and methods employed in the development of the pension cost have been selected by the plan sponsor, with the concurrence of Towers Perrin. FAS 87 requires that each significant assumption "individually represent the best estimate of a particular future event."

The results shown in this report have been developed based on actuarial assumptions that, to the extent evaluated or selected by Towers Perrin, are considered reasonable by us and within the "best-estimate range" as described by the Actuarial Standards of Practice. Other actuarial assumptions could also be considered to be reasonable and within the best-estimate range. Thus, reasonable results differing from those presented in this report could have been developed by selecting different points within the best-estimate ranges for various assumptions.

The information contained in this report was prepared for the internal use of American Electric Power and its auditors in connection with our actuarial valuation of the pension plan. It is neither intended nor necessarily suitable for other purposes. American Electric Power may also distribute this actuarial valuation report to the appropriate authorities who have the legal right to require American Electric Power to provide them this report, in which case American Electric Power will use best efforts to notify Towers Perrin in advance of this distribution. Further distribution to, or use by, other parties of all or part of this report is expressly prohibited without Towers Perrin's prior written consent.


Towers Perrin


April 2009

## Supplemecrial Inforyturion

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## Rasic Results for Ponsion Cost

This report summarizes financial results for American Electric Power's (AEP) Excess Benefit Plan based on actuarial valuations for fiscal years 2008 and 2009.

## Service Cost

## Obligations

Accumulated benefit obligation [ABO]:

| - Participanis currently receiving benefits | \$ | 57,163,249 | \$ | 55,679,249 |
| :---: | :---: | :---: | :---: | :---: |
| - Deferred inactive participants |  | 759,589 |  | 566,811 |
| - Active participants |  | 27,642,500 |  | 22,375,118 |
| Total ABO | \$ | 85,565,338 | \$ | 78,621,178 |
| Obligation due to future salary increases |  | 1,361,541 |  | 3,679,034 |
| Projected benefit obligation [PBO] | \$ | 86,926,879 | \$ | 82,300,212 |
| Amounts rot Yet Recommized in Net |  |  |  |  |
| Perioulie Cost |  |  |  |  |
| Net actuarial loss (gain) | \$ | 33,916,625 | \$ | 30,217,206 |
| Prior service cost (credit) |  | 2,475,708 |  | 3,737,508 |
| Transition obligation (asset) |  | 0 |  | 0 |
| Total | \$ | 36,392,333 | 9 | 33,954,714 |

Hey Economic Assumprions

## Discount rate

Salary increase rate

Jamuary 1,200s
$\$ 1,354,262$
\$ 1,352,588

## Pension Cos

Riscal 2009

## Pension Cost

Service cost
Interest cost
Expected return on assets
Amorization:

- Transition obligation (asset)
- Prior service cost (credit)
Net loss (gain)
Pension cost
Percent of covered pay
Chemge un Pension cost

Pension cosí for fiscal 2008
\$ 9,656,308
Change from fiscal 2008 to fiscal 2009:

- Expected based on prior valuation
- Loss (gain) from noninvestment experience
- Assumption changes
- Plan amendments

Pension cost for fiscal 2009

Piscall 2008
\$ 1,352,588
4,769,120
0

0
1,261,800
$\begin{array}{r}2,272,800 \\ \hline\end{array}$
\$ 9,656,308
$0.6 \%$

## Actumuial assumptions anid Methods

## Ecomomic Assemptions

Discount rate
5.95\%

Annual rates of increase in:

- Total compensation
- Cash balance crediting rate
- Lump sum conversion rate
- Future Social Security wage bases
- Indexed limits on compensation and benefits
Dencegraphic Assumptions
Healthy Mortality
Termination

Retirement

Rates varying by age

| Age | Rate |
| :--- | ---: |
| $<25$ | $11.50 \%$ |
| $25-34$ | $9.50 \%$ |
| $35-44$ | $6.50 \%$ |
| $>4.5$ | $5.00 \%$ |

Underfive years Five or more

| Age | of service | years of service |
| :---: | :---: | :---: |
| $<25$ | $12.50 \%$ | $10.00 \%$ |
| $25-30$ | $12.50 \%$ | $6.00 \%$ |
| $30-35$ | $12.50 \%$ | $5.00 \%$ |
| $35-40$ | $12.50 \%$ | $3.50 \%$ |
| $>40$ | $12.50 \%$ | $3.00 \%$ |

Rates varying by age

| Age | Rate |
| :---: | :---: |
| $55-57$ | $7.5 \%$ |
| $58-60$ | $15.0 \%$ |
| $61-63$ | $35.0 \%$ |
| $64-65$ | $25.0 \%$ |
| $66-69$ | $20.0 \%$ |
| $70+$ | $100 \%$ |

Form of payment
Percent married

Spouse ages

Valuation pay
$75 \%$ lump sum; 25\% annuity
$80 \%$ of male paricipants; $70 \%$ of female participants
Wives are assumed to be three years younger than husbands
2009 Base Salary Pay (Grandfathered) - estimated as the sum of the following updated one year according to the salary increase assumption:
(i) 2008 base salary
(ii) Target bonus percentage times 2008 base pay (if base pay was greater than IRC $401(a)(17)$ pay limit in prior year)

- Executives who participate in an uncapped incentive plan will have incentive limited to $1 x$ base pay

2009 Expanded Pay (Cash Balance) - sum of the following updated one year according to the salary increase assumption:
(i) 2008 base salary
(ii) Target bonus percentage times 2008 base pay

- Effective January 1, 2004, pay for all executives is limited to the greater of $2 x$ base pay or $\$ 1$ million


## Actumain fituluods

Service cost and projected benefit obligation

Benemits idot Valmed

Projected uniz credit

All benefits described in the Plan Provisions section of this report were valued. Towers Perrin has reviewed the plan provisions with AEP and is not aware of any significant benefits required to be valued that were not.

## 

- The discount rate used to measure the benefit obligations was changed from $6.00 \%$ as of December 31, 2007, to $5.95 \%$ as of December 31, 2008.
- The healthy mortality tables used to value the benefit obligations were updated from the 2008 IRS Applicable Mortality Tables to the 2009 IRS Applicable Mortality Tables.


## Data Sources

Towers Perrin used participant data as of January 1, 2009, supplied by AEP. Data were reviewed for reasonableness and consisiency, but no audit was performed. Assumptions or estimates were made by Towers Perrin actuaries when data were not available. We are not aware of any errors or omissions in the data that would have a significant effect on the results of our calculations.

## Participant (iaca

## Active

Number
Average age
Average past service
Average future service
Covered pay:

## - Total

- Average


## (1)ferred lnactive

NumberAverage age558.4
Annual benefits:

- Total ..... 91,96318,393- Average
Guramaly Receiving Remeuits
Number ..... 83
70.0
0.0Average ageAnnual benefits:
- Total- Average
Total Participants lnelucleat
in $V$ Vuation
Number20,62120,121
Jonuary 1, 2008
20,036
20,533
47.2
47.118.59.8 18.2 9.8
\$ 1,641,827,417 79,960 ,





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AMERICAM ELECTRIC POWER
NONQUALFIED RETIREMENT PLAN
2000 NET PERIQDK PENSION COST

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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2010 | 2014 | 2012 | 2013 | 2014 |  | 2016 | 2017 | 2010 | 2079 |
| 50 | 50 | 30 | so | so | 30 | so | 50 | 50 | sa | 50 |
| 0 | 0 |  | 0 | B | 0 | 0 | - | 0 | ${ }_{0}$ | 0 |
|  |  | 0 | 0 | a | $\stackrel{0}{0}$ | ${ }^{\text {a }}$ - ${ }^{\text {a }}$ | 0.00 | 0,403,209 | $0.438,373$ | 6.430,799 |
| $0,000.005$ | 8,009,477 | 7,023,134 | 7,602,003 | 7.265 .778 | 0.844,535 | 0.731,058 |  | 0,40,200 |  |  |
| 21,184 | 10.871 | 18,609 | 17,035 | 17,058 | 10,203 | 15.611 | 14,453 | 19,475 80 | ${ }^{13,987}$ | ${ }^{13.436}$ |
| 123 | 114 | 108 | 109 | or | 0 | 0 | 0 | 0 | - | 0 |
| $\bigcirc$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| 0 | 0 | $\square^{0}$ | $\bigcirc$ |  |  | 29 | 205 | 211 | 215 | 219 |
| 212 | 203 | ${ }_{248}^{208}$ | ${ }_{241009}^{204}$ | 232, ${ }^{204}$ | 222.338 | 215,677 | 203,315 | 201,047 | 105,650 | 191.178 |
| 277.615 | 261,607 | 247, 001 | 241,009 | 232,519 | 2320 |  | - | 0 |  | - |
| $\bigcirc$ | 0 | $\square$ | $\bigcirc$ | 0 | 0 | $\square$ | 0 | $\bigcirc$ | 0 | 0 |
| 53 | 50 | 47 | 45 | 43 | 4 | 39 | ${ }^{38}$ | 36 | 35 | 34 |
| 10 | 10 | 10 | 10 | 10 | 10 | 80 | 80 | 10 | 0 | 0 |
| 0 |  | 0 | 0 | 0 | 0 | ${ }^{\text {a }}$ | $\bigcirc$ | 0 | 0 | 0 |
| $\bigcirc$ | 0 | 0 | 0 | 0 | a | 0 |  |  |  |  |
| 6 | 65 | 02 | 59 | 55 | 53 | 51 | 48 | 47 | 45 | ${ }_{0}^{4}$ |
| 0 | 0 | 0 | 0 | $\bigcirc$ | 0 |  |  |  | 65,016 | 67,310 |
| 61,034 | 50.630 | 60,520 | 60.663 | 60.999 | 62,59\% | 62,386 | 6, 3.320 | 64.543 | 5,60 | 0 |
| 0 | 0 | 0 | 0 | $\square$ | 0 |  |  | - | - | 0 |
| 90 | 0 | 9 | $\bigcirc$ | 0 | $\square^{6}$ | 9 | 66,394 | 60,283 | 65.535 | 07,042 |
| 73.979 | 73.465 | ${ }^{71,585}$ | 70,032 | ${ }^{011,283}$ | ${ }^{812,565}$ | 12.114 | ${ }_{12,505}$ | 13.054 | 43,503 | 14,407 |
| 10.030 19.705 | ${ }_{7}^{19,0204}$ | 20.993 | ${ }^{10,025}$ | ${ }_{21,162}$ | 21.605 | 22.280 | 20,005 | 24,002 | 25.531 | 29.502 |
| 0,669 | 0,134 | 8,830 | 8.203 | 7,807 | 7.451 | 7.140 | 6,333 | 0,593 | 6,40: | 6,241 |
| 2.700 | 1.919 | 1,893 | 1.869 | 1.247 | 440 | 422 | 404 | 393 | 378 | ${ }^{329}$ |
| 20 | 18 | 18 | 17 | 16 | 15 | 15 | 14 |  | ${ }^{3}$ |  |
| 0 | O | 0 | 0 | a | 0 | 0 | 0 | 0 | 0 |  |
| 0 | 0 | 0 | 9 | - | 8 | 0 | 0 | a | : | $\bigcirc$ |
| , | 0 | $\bigcirc$ | 0 | ${ }^{\circ}$ |  |  |  |  | 41.080 | 42,524 |
| 33,073 | 33.345 | ${ }^{33,817}$ | 34,415 0 | 35,072 | 35,649 | 36,700 0 | 37,850 | 30,570 | 41.0 | $\bigcirc$ |
| 67.356 | 02.238 |  |  | 52,443 | 40.733 | 45,501 | 44.725 | $4 \mathrm{4}, 178$ | 11,926 | 40,875 |
| 67,366 | 02.80 | 0 | O | - |  |  | 0 | + | a | \% ${ }^{\text {a }}$ |
| 22,653 | 70.591 | 77,771 | 76,487 | 74,722 | 73,373 | 72770 | 72.373 | ${ }_{2}^{72,5394}$ | 21,081 | 20.633 |
| 20,932 | 27,234 | 25,624 | 25.1010 | 24,304 | 23,652 | 23,107 | 2,394 |  |  |  |
| 0 | ${ }^{\square}$ | 0 | 0 | \% | ${ }_{9}^{0} 7$ | 9080 | 10,751 | 10.405 | 10,009 | 11.027 |
| 0.303 | \% 310 | 0,074 | 9,467 | 3,588 | $\begin{array}{r}\text { 9,743 } \\ \hline 5.305\end{array}$ | \% $6.3,305$ |  | 55,294 | 57,343 | 55,885 |
| 01.700 | 76.056 | ${ }^{2} 275$ | 71,033 | 63,393 | 65,305 | ${ }^{\text {w }}$ | - |  |  | $\square$ |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  | 0 |
| \% ${ }_{853}$ | 809 | 782 | 724 | $6{ }_{6}$ | 600 | 633 | 008 | gas | 569 | ${ }_{172}^{55}$ |
| $\begin{array}{r}853 \\ \hline 137\end{array}$ | 138 | 140 | 143 | 145 | 149 | 152 | 155 | 161 | ${ }^{168}$ | - 1788 |
| 72,463 | 8.120 | 06,46 | 63,430 | 60,283 | 57,544 | 55.701 | 53,718 | 51.687 | 50.172 |  |
| 51,032 | 47,900 | 45,372 | 44,612 | 42,402 | 40,476 | 39,205 | 37.748 | 35.307 | 35.242 |  |
| D | 0 | 0 | $\bigcirc$ | ${ }^{0}$ | ${ }_{0}^{0}$ | - | ${ }_{0}$ | 0 | 0 | 0 |
| ! | 0 | 0 | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | ${ }^{\text {a }}$ |  | 0 | 0 | 0 | - | 0 | a |  |
| 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | $\bigcirc$ | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |  |  |  | 3,400 | 3,201 | 3,218 |
| 4,000 | 4.710 | 4,455 | 4,230 | 4.023 |  | 3.00 |  | 0 | 0 | 0 |
| : | O | : | 0 | $\stackrel{\circ}{\circ}$ | 9 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | a | $\bigcirc$ |
| 0 | 0 | 0 | 0 | 0 | 0 | $\bigcirc$ | 0 | 0 |  |  |
|  |  |  | \$8,489,812 | s3,059, 155 | 57.613 .147 | 97,486,078 | 57,361,657 | 57,278,031 | 57,101,347 | S7,148,501 |

- Tawars Pomin $\stackrel{\rightharpoonup}{5}$
$\stackrel{\rightharpoonup}{5}$
$\stackrel{5}{5}$ 57,298,031 57,361,657




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# American Electric Power <br> Non-UMIWA Postreturement Plare 

## Actuarial Valuation Report

## Postretirment Welfare Cost for Piscan Year Rnving December 31, 2009

Rnoployer Contibutions for Plan Year Beginning January 1, 2009 distributed to a third party unless expressly allowed under the "Actuarial Certification, Rellances and Distribution" Section herein.

## Tu解le of Conteris

Management Summary of Valuation Results. ..... MS
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## Moragement Summary of Valuadion Resultes

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Eruployer Coneributions. ..... MS-8
Actuarial Certification, Reliances and Distribution. ..... MS-9

## Funamcial Resulte

This report summarizes the financial results for American Electric Power's (AEP) Non-UMWA Postretirement Plan based on actuarial valuations as of January 1, 2009, and January 1, 2008.

Jemury 1, 2009 Sanuary 1,2008

## FAS 106 Postretirement

Wellaia cost

| Amount | \$ | $133,008,592$ | $\$ 2,086,194$ |
| :--- | ---: | ---: | ---: |
| Per active participant | 6,104 | 3,470 |  |
| PAS 10G Fumaled Position |  |  |  |

APBO funded percentage $[\mathrm{FV} \div \mathrm{APBO}]$
59.0\%
$79.7 \%$
Prepaiod (Accrued) Postretirement genefit Cost
$\$ \quad(241,305)$
$\$ \quad(67,407)$

## Rmployer Contributions

Funding policy - contributions to retiree VEBAs and 401(h) accounts
\$ 151,393,719*
$\$ 76,310,835$

| Prior nondeductible contributions | 0 | $95,586,325$ |
| :--- | :---: | :---: |
| Deductible contributions | $127,461,699$ (est.) | $171,897,160$ (act.) |

*Includes estimated 2008 RDS payment of $\$ 9,400,000$ as well as an approximate $\$ 9,000,000$ contribution from additional 2007 RDS payment.

## Discussion offinencial

The financial results of AEP's Non-UMWA Postretirement Plan for the current year were affected by the following factors:

- Long-term corporate bond yields decreased during the prior year, resulting in a slightly lower FAS 106 discount rate, which increased the postretirement welfare cost.
- The fair value of plan assets was significantly lower than expected, which increased the postretirement welfare cost.
- Claims experience was generally more favorable than expected. This created an actuarial gain and reduced postretirement welfare cost.
- Fewer employees retired than expected, which created an actuarial gain and decreased postretirement welfare cost. In addition, there were data updates to the spouse dates of birth that generated gains.
$\checkmark$ The mortality basis used to calculate the obligations was changed to the RP2000 table with projections to 2016 for annuitants (postretirement) and 2024 for nonannuitants (preretirement). This change increased postretirement welfare costs.


## Basis for Valuation

## *conomic Assumpeicms

The discount rate for postretirement welfare cost purposes is the rate at which the postretirement welfare obligation could be effectively settled. This rate is developed from yields on available high-quality bonds and reflects the plan's expected cash flows. The duration of AEP's postretirement welfare plan is 13.02 years as of December 31, 2008.

The assumed rate of return on assets for postretirement welfare cost purposes is the weighted average of expected long-term asset returns, net of taxes. The salary increase rate is a long-term rate based on current expectations of future pay increases. The assumptions selected by AEP for postretirement welfare cost purposes are:

|  | Jhamary f, 2009 | Jemurary t, 2008 |
| :--- | ---: | ---: |
| Discount rate for obligations | $6.10 \%$ | $6.20 \%$ |
| Rate of return on assets | $7.75 \%$ | $8.00 \%$ |
|  | weighted return | weighted return |
| Salary increase rate | Rates varying by age | Rates varying by age |
|  | from $5.00 \%$ to $11.50 \%$ | from $5.00 \%$ to $11.50 \%$ |

Assumptions used to determine the statutory contribution limits must be reasonable taking into account the experience of the plan and reasonable expectations. The discount rate used to determine normal cost and actuarial accrued liability is based on the long-term expected return on assets, net of taxes. The assumptions for contribution purposes are:

December 34, 2009 December 31,2008
Discount rate for normal cost and actuarial accrued liability:

VEBA

- Life insurance
7.34\%
7.59\%
- Union medical
7.34\%
7.59\%
- Nonunion medical
6.96\%
$7.21 \%$
401(h)
Salary increase rate

Rates varying by age from $5.00 \%$ to $11.50 \%$

Rates varying by age from $5.00 \%$ to $11.50 \%$

## Healith Care Cost Trend rete Assumpaioms

The health care cost trend assumptions used in the valuation are:

|  | January i, 2009 | Samesary 1,2008 |
| :--- | :---: | ---: |
| 2008 trend | N/A | $7.00 \%$ |
| 2009 trend | $6.50 \%$ | $6.50 \%$ |
| Ultimate trend | $5.00 \%$ | $5.00 \%$ |
| Year ultimate reached | 2012 | 2012 |

## Per Capita Claims Cost Assumprions

The assumed per capita costs and Part D subsidy used in the 2008 and 2009 valuations are:

| Under age 65 | 2009 |  | 200\% |  |
| :---: | :---: | :---: | :---: | :---: |
| - Aetna | \$ | 7,311 | \$ | 7,347 |
| - Lumenos |  | 6,987 |  | N/A |
| Age 65 and older |  |  |  |  |
| - COB | \$ | 3,729 | \$ | 3,736 |
| > MOB |  | 2,753 |  | 2,582 |
| - CSP |  | 1,485 |  | N/A |
| Medicare Part D subsidy |  |  |  |  |
| - MOB/COB |  | (617) |  | (609) |
| - CSP |  | (178) |  | N/A |

The assumed per capita cost is the expected annual per person cash cost of the medical plan, before reflecting participant contributions. The assumed per capita Part D subsidy is the expected annual subsidy for eligible prescription drug claims.

## (Bemocyraphic Assumptions

The cost of providing plan benefits depends on demographic factors such as retirement, mortality, turnover and plan participation. Demographic assumptions used in the valuation were selected to reflect the experience of the covered population and reasonable expectations. If actual experience is more favorable than assumed, plan costs will be lower. Alternatively, if actual experience is less favorable than assumed, future plan costs will be increased.

AEP has updated its mortality assumptions to reflect the Pension Protection Act of 2006 (PPA).

## Pllan Changes

There have been no significant changes in plan provisions since the previous year.

## 

Postretirement welfare cost is the amount recognized in AEP's financial statement as the cost of postretirement welfare plans and is determined in accordance with Financial Accounting Standard No. 106. The fiscal 2009 postretirement welfare cost for the plan is $\$ 133,008,592$ or $\$ 6,104$ per active participant.
Funded position, on a FAS 106 basis, is measured by comparing the fair value of assets with the accumulated postretirement benefit obligation (APBO). The APBO is the portion of the total present value of projected benefits allocated to prior years as of the measurement date.
The plan's funded percentage is $59.0 \%$ as of January 1,2009 , based on the fair value of assets of $\$ 1,023,341,072$ and an APBO of $\$ 1,733,844,181$.
Fiscal year-end financial reporting and disclosures are prepared before detailed participant data and the full valuation results are available. Therefore, the 2008 postretirement benefit asset (liability) was derived from the 2008 valuation results. The next fiscal year financial reporting information will be developed based on the results of the 2009 valuation, rolled forward to the end of the year and adjusted for the year-end discount rate and asset values, as well as significant changes in plan provisions and participant population.

## Change in Postrewirement Melfare cose

The postretirement welfare cost increased from $\$ 72,086,194$ in fiscal 2008 to $\$ 133,008,592$ in fiscal 2009 because:

- Expected changes based on prior year's assumptions, methods, plan provisions and contributions decreased the postretirement welfare cost $\$ 2,227,520$.
* Noninvestment experience decreased the postretirement welfare cost $\$ 6,053,305$, primarily due to fewer retirements than expected and spouse date of birth data updates.
- The fair value of plan assets was significantly lower than expected, which increased the postretirement welfare cost $\$ 77,894,675$.
- Assumption changes increased the postretirement welfare cost $\$ 1,712,683$. The discount rate was decreased from $6.20 \%$ to $6.10 \%$. In addition, the mortality table was updated to RP2000 with projections to 2024 (preretirement) and 2016 (postretirement).
- Changes in per capita claims costs decreased the postretirement welfare cost $\$ 10,4,04,135$. Much of this was due to lower prescription drug costs due to savings projected from renewal of the Rx Collaborative.

The net increase in postretirement welfare cost is $\$ 60,922,398$ or $84.5 \%$ from the prior year.

## mistory or Poseretirement Melfare Cost and Funced Position

The following charts show the history of the plan's postretirement welfare cost and funded position.

Postretiremenu Melfare Cost


Accumulated Postreirement Benefit Obligetion Funded Percentege


## History of Postrewirement litelare cost and APRO Funded Percentage

... Postretirement Welfare Cost-( $\$$ in millions)

| Fiscal | Amount | APBO funded <br> percentage | Discount rate |
| :--- | :---: | ---: | :---: |
| year | $\$ 133.0$ | $59.0 \%$ | $6.10 \%$ |
| 2009 | 72.1 | $79.7 \%$ | $6.20 \%$ |
| 2008 | 75.1 | $75.8 \%$ | $5.85 \%$ |
| 2007 | 87.8 | $67.6 \%$ | $5.65 \%$ |
| 2006 | 101.2 | $62.1 \%$ | $5.80 \%$ |

## Rnployer Contributions

Employer contributions are the amount paid by the company to provide for postretirement benefits, net of participant cash contributions. Participants are required to contribute toward the cost of the plan. Employer contributions are used to fund the cost of benefits in excess of participant contributions.

The company's funding policy is to contribute the FAS 106 cost for the Non-UMWA Postretirement Plan as well as the RDS payments received during the year. For 2009 the contribution under the funding policy is $\$ 151,393,719$, which includes the estimated 2008 RDS of $\$ 9,400,000$ and the 2007 RDS of approximately $\$ 9,000,000$.
The $\$ 133,008,592$ contribution of the FAS 106 cost is projected to be made through contributions at the beginning of each month to AEP's VEBAs and 401(h) accounts as follows:

2009 Emplayer Contribution Schedule

| Month | Postretirement Welfare Funding Vehtcie |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | CWRF1745362 <br> Medical Nonunion | CWUF1745372 <br> Medical Unlon | CWRF1745392 Denfal Nonunion | CWLF1745402 <br> Dental <br> Unlon | CWIF1745382 Life Insurance | 401(h) | Total |
| January | \$10,373,328 | \$0 | \$125,000 | \$15,000 | $\$ 0$ | $\$ 0$ | \$10,513,320 |
| February | 10,373,328 | 0 | 125,000 | 15,000 | 0 | 0 | 10,513,328 |
| March | 10,373,328 | 0 | 125,000 | 15,000 | 0 | 0 | 10,513,328 |
| April | 11,134,290 | $a$ | 125,000 | 15,000 | 0 | 0 | 11,274,290 |
| May | 11,134,290 | 0 | 125,000 | 15,000 | 0 | 0 | 11,274,290 |
| June | 11,134,290 | 0 | 125,000 | 15,000 | 0 | 0 | 11,274,290 |
| Suly | 11,134,290 | 0 | 125,000 | 15,000 | 0 | 0 | 11,274,290 |
| August | 11,134,290 | 0 | 125,000 | 15,000 | 0 | 0 | 11,274,290 |
| September | 11,134,290 | 0 | 125,000 | 15,000 | 0 | 0 | 11,274,290 |
| October | 11,134,290 | 0 | 125,000 | 15,000 | 0 | 0 | 11,274,290 |
| November | 11,134,290 | 0 | 125,000 | 15,000 | 0 | 0 | 11,274,290 |
| December | 11,134,289 | 0 | 125,000 | 15,000 | 0 | 0 | 11,274,288 |
| Total | \$131,328,592 | \$0 | 51,500,000 | \$180,000 | \$0 | 30 | \$133,008,592 |

Notes:

- Tolal of amounts shown above being contributed equals actual 2003 non-UMWA postretirement welfare cost.
- In addilion to the amounts shown above, AEP will contribule both the 2007 Reilree Drug Subsidy (estimated to be 59.0 million) and the 2008 Retiree Drug Sulbsidy (approximately $\$ 9.4$ miltion) to the Medical nonunion VEBA (CWRF1745362) and Medical Union VEBA after receiving these payments from CMS.
- AEP will have capacity to make contributions to the $401(\mathrm{~h})$ account if contributions are made to the pension plan in 2009. In this scenario, contributions in the later part of the year scheduled above for the Medical nonunion VEBA would be redirected to the 401 (h).


## Actuarial Certification, Reliance s nd Distribution

American Electric Power retained Towers Perrin to perform a valuation of its postretirement welfare benefit plans for the purpose of determining (1) the value of benefit obligations and its postretirement welfare cost in accordance with FAS 106 and (2) the maximum tax-deductible contribution allowed by the Internal Revenue Code. This valuation has been conducted in accordance with generally accepted actuarial principles and practices.

The consulting actuaries are members of the Society of Actuaries and other professional actuarial organizations and meet their "General Qualification Standard for Public Statements of Actuarial Opinion" relating to postretirement welfare plans.
In preparing the results presented in this report, we have relied upon information provided to us regarding plan provisions, plan participants and plan assets. While the scope of our engagement did not call for us to perform an audit or independent verification of this information, we have reviewed this information for reasonableness but have not audited it. The accuracy of the results presented in this report is dependent upon the accuracy and completeness of the underlying information.

The actuarial assumptions and the accounting policies and methods employed in the development of the postretirement welfare cost have been selected by the plan sponsor, with the concurrence of Towers Perrin. FAS 106 requires that each significant assumption "individually represent the best estimate of a particular future event." The actuarial assumptions and methods employed in the development of the contribution limits have been selected by Towers Perrin, with the concurrence of the plan sponsor. The Internal Revenue Code requires the use of assumptions each of which is reasonable (taking into account the experience of the plan and reasonable expectations) and which, in combination, offer the actuary's best estimate of anticipated experience under the plan.
The results shown in this report have been developed based on actuarial assumptions that are considered to be reasonable and within the "best-estimate range" as described by the Actuarial Standards of Practice. Other actuarial assumptions could also be considered to be reasonable and within the best-estimate range. Thus, reasonable results differing from those presented in this report could have been developed by selecting different points within the best-estimate ranges for various assumptions.

The information contained in this report was prepared for the internal use of American Electric Power and its auditors in connection with our actuarial valuation of the postretirement welfare plan. It is neither intended nor necessarily suitable for other purposes. American Electric Power may also distribute this actuarial valuation report to the appropriate authorities who have the legal right to require American Electric Power to provide them with this report, in which case American Electric Power will use best efforts to notify Towers Perrin in advance of this distribution. Further distribution to, or use by, other parties of all or part of this report is expressly prohibited without Towers Perrin's prior written consent.


Martin P. Franzinger, ASA, MAAA
Towers Perrin
April 2009

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## Supplemental Information

Basic Results for Postrotirement Welfure Cost ..... SEl
Posiretiremend Welfare Cost. ..... SIT 3
Information for the Deferred Tax Calculotions ..... SI-4
Acturnal Present Value of Renefut Obligation for SOP 92-6 ..... SIL- 5
Basic Results for Enaployer Contributions - WeBAs ..... SII-7
2008 VEBA Deduction Limits ..... SIT-8
Cumulative Nondeductible Covertibutiorss ..... SIT-9
2009 Maximum Deductible Contributions - - 401 (R) ..... SH-10
Expected Benefuts Disbursemeris, Administrative Experses and Participant Contributions. ..... SIII
Actuarial Assumptions and Methods ..... SIT 12
Participand Duta ..... ST-18
Plave Provisions ..... SI-20

## 

|  | 8amenary 1, 2009 |  | January 1, 2008 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Service Cosi |  |  |  |  |  |
| Total | \$ | 41,587,824 | \$ |  | 41,190,146 |
| Accumulated Postretirement Benemit Obligation [APBO] |  |  |  |  |  |
|  |  |  |  |  |  |
| Medical: |  |  |  |  |  |
| - Current retirees | \$ | 698,832,037 |  |  | 716,284,575 |
| - Other participants fully eligible for benefits |  | 329,074 |  |  | 197,516 |
| $\checkmark$ Other active participants |  | 731,419,113 |  |  | 744,924,996 |
| - Total |  | ,430,580,224 |  |  | ,461,407,087 |
| Life Insurance: |  |  |  |  |  |
| - Current retirees | \$ | 181,154,164 |  |  | 175,914,759 |
| - Other participants fully eligible for benefits |  | 157,027 |  |  | 101,821 |
| - Other active panticipants |  | 103,571,115 |  |  | . $96,717,418$ |
| - Total | \$ | 284,882,306 |  |  | 272,733,998 |
| Dental: |  |  |  |  |  |
| - Current retirees | \$ | 15,799,457 |  |  | 15,683,421 |
| - Other participants fully eligible for benefits |  | 7,936 |  |  | 3,494 |
| - Other active participants |  | 2,574,258 |  |  | 2,864,812 |
| - Total | \$ | 18,381,651 |  |  | 18,551,727 |
| Total: |  |  |  |  |  |
| - Current retirees | \$ | 895,785,658 |  |  | 907,882,755 |
| - Other participants fully eligible for benefits |  | 494,037 |  |  | 302,831 |
| - Other active participants |  | 837,564,486 |  |  | 844,507,226 |
| - Total |  | ,733,844,181 |  |  | ,752,692,812 |

## TOWERS

## Assets

Fair value [FV]
$\$ 1,023,341,072$
$\$ 1,396,961,869$
FAS 106 Pumded Position
Unfunded APBO [APBO - FV]
$\$ 710,503,109$
\$ 355,730,943
$A P B O$ funded percentage $[F V \div A P B O]$
$59.0 \%$
$79.7 \%$

## Key reancmic and fealti bare

 Assumptions| Discount rate | $6.10 \%$ | $6.20 \%$ |
| :--- | :--- | :--- |
| Rate of reiurn on assets | $7.75 \%$ | $8.00 \%$ |
| Health care cost trend rate: |  |  |
| - First year | $6.50 \%$ | $7.00 \%$ |
| $>$ Ultimate | $5.00 \%$ | $5.00 \%$ |
| - Year ullimate reached | 2012 | 2012 |

## AOCl (Amounts Noe Yet fecogmized In Nesperiodie Cost

Unrecognized net actuarial loss (gain)
Unrecognized prior service cost (credit)
Unrecognized fransition obligation (asset)

Total

| $\$$ | $641,980,209$ |  | $\$$ |
| ---: | ---: | ---: | ---: |
|  |  | $261,336,950$ |  |
| $3,488,955$ |  | $3,923,390$ |  |
|  |  |  |  |
|  | $-64,792,640$ |  | $-90,403,196$ |

## ETHect © Cinange in Health Care Cose Trend Rete

One-percentage-point increase:

| Sum of service cost and interest cost | \$ | 19,623,975 | \$ | 19,143,523 |
| :---: | :---: | :---: | :---: | :---: |
| - APBO |  | 188,888,236 |  | 184,982,256 |
| One-percentage-point decrease: |  |  |  |  |
| > Sum of service cost and interest cost | \$ | (15,901,496) | \$ | (15,652,793) |
| - APBO |  | (156,610,717) |  | ( $154,357,883$ ) |

The results above may differ from the amounts disclosed in AEP's 2008 financial statements because disclosures are prepared before the corresponding valuation results are available.


## TOWERS

## Postretirmment villixare cost

| Fiscal 2009 | Fiscal 2008 |
| ---: | ---: |
|  |  |
| $\$ 41,587,824$ | $\$ 41,190,146$ |
| $105,778,169$ | $108,575,781$ |
| $(80,812,326)$ | $(111,186,626)$ |
|  |  |
| $25,610,556$ | $25,610,556$ |
| 434,436 | 434,435 |
| $40,409,932$ | $7,461,902$ |
| $\$ 133,008,592$ | $\$ 72,086,134$ |
| $\$ \quad 6,104$ | $\$$ |
| $\$$ | 3,470 |

## Change in Postrexirement Melfare Cost

Postretirement welfare cost for fiscal 2008
Change from fiscal 2008 to fiscal 2009:

- Expected based on prior valuation
- Demographic experience loss (gain)
- Experience loss (gain) from assets
- Assumption changes
- Claims cost changes
- Plan amendments

Postretirement welfare cost for fiscal 2009
$\$ 72,086,194$
$(2,227,520)$
$(6,053,305)$
77,894,675
1,712,683
$(10,404,135)$
$\$ 133,008,592$

## ルuformeeton for the Deferfed Tex Collculleion

The following information is provided for purposes of determining the deferred portion of the tax provision and the deferred tax asset associated with the postretirement welfare cost.

Inchuolineg Part<br>Excluding Part (i)<br>Subsiolly<br>Subsiddy

Postreniremnent ululuare Cose

| Fiscal 2009 | \$ | 133,008,592 | \$ | 166,711,778 |
| :---: | :---: | :---: | :---: | :---: |
| Fiscal 2008 |  | 72,086,194 |  | 108,410,335 |
| Funieleal Position |  |  |  |  |
| Overfunded (underiunded) APBO | \$ | $(710,503,109)$ |  | ,017,083,872) |
| AOCl (Amounts Rot Yet Recomilized m Net Pariodic Cose |  |  |  |  |
| Net actuarial loss (gain) | \$ | 641,980,209 | \$ | 778,452,316 |
| Prior service cost (credit) |  | 3,488,955 |  | 3,488,955 |
| Transition obligation (asset) |  | 64,792,640 |  | 64,792,640 |
| Total | \$ | 710,261,804 | \$ | 846,733,911 |

##  (as minended by SOP (1)-2)

Jameary 1, 2009 Janeary 1,200 en

## Medical

(lignorimg Medicare Part D)

- Current retirees
- Active participants fully eligible for benefits
$\checkmark$ Other active participants
- Total


## Büfe lnsurame

- Current́ retirees
$\$ \quad 181,154,164$
$\$ \quad 175,914,759$
- Active participants fully eligible for benefits
- Other active participants
- Total


## Dental

- Current retirees
$\$ \quad 15,799,457$
\$
$15,683,421$
- Active participants fully eligible for benefifs

7,936
3,494

- Other active participants
- Total
\$ 18,381,651
$\$$
2,864,812


## Toをal

(lignoring Medicare Part (D)

- Current retirees
$\$ 1,069,410,362$
$\$ \quad 1,081,913,280$
- Active participants fully eligible for benefits

623,902
389,760

- Other active participants
- Total

|  | $970,390,680$ |
| ---: | ---: | ---: |
| $\$ \quad 2,040,424,944$ | $976,209,705$ |

## Actuarial Present value of eenefit Obliyation for Sop $92-6$ (2ต A Mencleal by SOP (1-2-2)

Hitedical (ignorimg Medicare Part (i)
Benefit obligation, beginning of year
Service cost
Interest cost
Participant contribuíions
Actuarial (gain)/loss
Plan amendments
Gross benefits paid
Benefit obligation, end of year
Lite Imsurance
Benefit obligation, beginning of year
Service cost
Interest cost
Participant contributions
Actuarial (gain)/loss
Plan amendments
Gross benefits paid
Benefit obligation, end of year
Dental
Benefit obligation, beginning of year
Service cost
Interesí cost
Participant contributions
Actuarial (gain)/loss
Plan amendments
Gross benefits paid
Benefit obligation, end of year
Totall (lynorimg Medicare Part (D)
Benefit obligation, beginning of year
Service cost
Interest cost
Participant contributions
Actuarial (gain)/loss
Plan amendments
Gross benefits paid
Benefit obligation, end of year

FY2009
PY 2007

| $1,767,227,020$ | $\$ 1,697,227,800$ |
| ---: | ---: |
| $43,262,387$ | $43,225,751$ |
| $112,591,695$ | $99,642,851$ |
| $19,389,606$ | $17,454,136$ |
| $(106,119,006)$ | $14,401,949$ |
| 0 | 0 |
| $(99,190,714)$ | $(104,725,467)$ |
| $\$ 1,737,160,987$ | $\$ 1,767,227,020$ |
|  |  |
| $272,733,998$ | $\$ 292,651,869$ |
| $4,532,952$ | $4,957,167$ |
| $16,887,248$ | $17,088,746$ |
| $1,908,666$ | $1,988,104$ |
| 167,998 | $(32,167,574)$ |
| 0 | 0 |
| $(11,348,556)$ | $(11,784,315)$ |
| $\$ 284,882,306$ | $\$ 272,733,998$ |

$$
18,551,727
$$

$$
79,881
$$

$$
1,117,111
$$

$$
2,414,400
$$

$$
132,145
$$

(3.913,614)
$\$ 18,381,651$

| $2,058,512,745$ | $\$ 2,008,296,240$ |
| ---: | ---: |
| $47,875,220$ | $48,279,612$ |
| $130,596,054$ | $117,779,678$ |
| $23,712,671$ | $21,691,364$ |
| $(105,818,863)$ | $(17,073,255)$ |
| 0 | 0 |
| $(114,452,884)$ | $(120,460,894)$ |
| $\$ 2,040,424,944$ | $\$ 2,058,512,745$ |

## TOWERS

# Basic Results for Employer Contriodrelons - VRents 

|  | Esaimated December 31, 2005 | December 31,2006 |
| :---: | :---: | :---: |
| Oralified Asser Accoumt Limits | \$1,234,004,188 | \$1,160,604,578 |
| Assets |  |  |
| Market Value | \$1,078,917,656 | \$898,443,767 |
| Unrecognized investment losses (gains) | 0 | 0 |
| Acluarial value [AV] | \$1,078,917,656 | \$898,443,767 |
| Fumded Pasition |  |  |
| Unfunded account limits [QAAL - FV] | \$155,086,532 | \$262,160,811 |
| Employer Contributions (to all funding vehicles) |  |  |
| a. Maximum deduction available ${ }^{1}$ | \$306,480,251 | \$434,057,971 |
| b. Qualified additions (prior years' carryover) | 0 | 95,586,325 |
| c. Qualified additions (current year) | 125,623,745 | 76,310,835 |
| d. Total deductions available[b. +c ] | \$125,623,745 | \$171,897,160 |
| e. Other (nondeductible) current year additions | 25,769,974 | 0 |
| f. Total adotitions [c. +e.$]$ | \$151,393,719 | \$76,310,835 |
| - Life insurance VEBA | 0 | 2,400,000 |
| - Union medicalidental VEBAs | 180,000 | 180,000 |
| - Nonunion medicalidental |  |  |
| VEBAs | 151,213,719 | 73,730,835 |
| - West 401(h) | 0 | 0 |
| - East 401( h) $^{\text {( }}$ | 0 | 0 |

## TOW日ER

 PERRPN
## 

|  | Nomanion |
| :---: | :---: |
| Umion Medical | Medical |

## Qualified Asset Accounc Rimis (indal

December 31, 2008, actuarial accrued
liability (AAL) or present value of liability (AAL) or present val
projected benefits (PVPB)
Unrecognized liability
QAAL
Assets
Market value . December 31,2008
Unrecognized investment losses / (gains)
Actuarial value [AV]
Runded Position
Unfunded account limit [OAAL - AV]
Contributions received in trust, but not yet
2008 Empolloyer Deductions for
amol Contributions ro veee
a. Maximum deduction available ${ }^{1}$
[Unfunded account limit + Confributions received, but not yet deducted]
b. Qualified additions (prior years' carryover)

| 2004 | $\$ 0$ | $\$ 0$ | $\$ 0$ |
| ---: | ---: | ---: | ---: |
| 2005 | 0 | 0 | 0 |
| 2006 | 0 | 0 | $22,321,786$ |
| 2007 | $\underline{0}$ | $\underline{0}$ | $\underline{73,264,539}$ |
| Total | $\$ 0$ | $\$ 0$ | $\$ 95,586,325$ |
|  | $\underline{0}, 400,000$ | $\underline{0}$ | $\underline{0} 0,000$ |
|  | $\$ 2,400,000$ | $\$ 180,000$ | $\$ 169,317,160$ |
|  | 0 | 0 | 0 |
|  | $\$ 2,400,000$ | $\$ 180,000$ | $\$ 73,730,835$ |

${ }^{1}$ Includes amounts not contributed.


TOWERS
PERRIN

## 

Contrimations Made by
December 31, 2008, but Remaming Nondeductible
Consribueion Not Dedicted as of Contributions as of Year December 31,2007 Deductibfe in 20081 December 32,2008


| 2003 | $\$ 0$ | $\$ 0$ | $\$ 0$ |
| :--- | ---: | ---: | ---: |
| 2004 | 0 | 0 | 0 |
| 2005 | 0 | 0 | 0 |
| 2006 | $22,321,786$ | $22,321,786$ | 0 |
| 2007 | $73,264,539$ | $73,264,539$ | 0 |
| 2008 | $73,730,835$ | $73,730,835$ | 0 |
| Total | $\$ 169,317,160$ | $\$ 169,317,160$ | $\$ 0$ |

## 

| 2003 | $\$ 0$ | $\$ 0$ | $\$ 0$ |
| :--- | ---: | ---: | ---: |
| 2004 | 0 | 0 | 0 |
| 2005 | 0 | 0 | 0 |
| 2006 | 0 | 0 | 0 |
| 2007 | 0 | 0 | 0 |
| 2008 | $2,400,000$ | $2,400,000$ | 0 |
| Total | $\$ 2,400,000$ | $\$ 2,400,000$ | $\$ 0$ |

${ }^{1}$ Prior years' nondeductible contributions to the Nonunion Medical $\div$ Dental VEBA are now deductible primarily due to losses from 2008 asset returns.

## 

|  | prest plam | Fast Plan | Comblined Plan |
| :---: | :---: | :---: | :---: |
| 1. Present Value of Projected Benefits 1/1/2009 | \$103,124,644 | \$321,577,305 | \$424,701,949 |
| 2. Fair Value of Assets 1/1/2009 | n/a | n/a | \$124,897,305 |
| 3. Unfunded (Surplus) PVPB (1) - (2) |  |  | \$299,804,644 |
| 4. Average Present Value of Future Service |  |  | 12 |
| 5. Preliminary maximum |  |  |  |
| a) $10 \%$ of unfunded (3) $\times 0.10$ |  |  | \$29,980,464 |
| b) Aggregate Normal Cost (3) / (4) |  |  | 24,983,720 |
| c) Greater of (a), (b) |  |  | 29,980,464 |
| 6. Prelim max 2009: (5c)*1.0853 |  |  | 32,537,798 |
| 7. Subordination Test (shown below) |  |  | 0 |
| 8. Maximum Deductible Contribution, lesser (6), (7) |  |  | \$0 |

## Subordimation Test

Year-by-year minimum of actual pension plan contribution and pension plan normal cost with interest

| 1992 | \$9,766,169 | n/a | n/a |
| :---: | :---: | :---: | :---: |
| 1993 | 22,392,743 | n/a | n/a |
| 1994 | 21,208,326 | n/a | n/a |
| 1995 | 21,683,436 | n/a | n/a |
| 1996 | 20,271,648 | n/a | nia |
| 1997 | 0 | n/a | n/a |
| 1998 | 0 | n/a | n/a |
| 1999 | 0 | n/a | n/a |
| 2000 | 0 | n/a | n/a |
| 2001 | 0 | n/a | n/a |
| 2002 | 0 | n/a | n/a |
| 2003 | 19,197,145 | 39,165,054 | n/a |
| 2004 | 18,614,338 | 56,614,811 | n/a |
| 2005 | 16,222,550 | 55,872,817 | n/a |
| 2006 | 0 | 0 | n/a |
| 2007 | 0 | 0 | n/a |
| 2008 | n/a | n/a | 0 |
| vice: | $\begin{gathered} \$ 149,356,355 \\ \times 1 / 3 \end{gathered}$ | $\begin{gathered} \$ 151,652,681 \\ \times 1 / 3 \end{gathered}$ | $\begin{gathered} \$ 301,009,036 \\ \times 1 / 3 \end{gathered}$ |
|  | \$49,785,452 | \$50,550,894 | \$100,336,345 |
| 2009: | 49,785,452 | 50,550,894 | \$100,336,346 |
|  | \$0 | \$0 | $\$ 0$ |

* Includes only portion of normal cost and contributions after 401(h) account adoption dates for indicated years


## TOWERS

## Fxpected Rencifits, Disbursementes, Admuinistrative rexpenses ตnd Participant Comeribution

|  | danuary 1, 2009 | danumy 1, 2008 |
| :---: | :---: | :---: |
| Medical and Dental |  |  |
| Gross disbursements | \$ 104,067,794 | \$ 105,896,805 |
| Participant contributions | $(21,054,334)$ | - $119,777,240)$ |
| Net disbursements | \$ 83,013,460 | \$ 86,119,565 |
| Lite Imsurance |  |  |
| Gross disbursements | \$ 13,659,419 | \$ 13,132,039 |
| Participant contributions | $(3,199,184)$ | $(3,198,698)$ |
| Net disbursements | \$ 10,460,235 | \$ 9,333,341 |
| (6ross withous Ros |  |  |
| Gross disbursements | \$ 117,727,213 | \$ 119,028,844 |
| Participant contributions | (24,253,518) | - (22,975,938) |
| Net disbursements | \$ 93,473,695 | \$ 96,052,906 |
| 風岛* |  |  |
| Gross disbursements | \$ (9,503,470) | \$ $(9,428,957)$ |
| Participant contributions | - 0 | 0 |
| Net disbursements | \$ (9,503,470) | \$ (9,428,957) |
| Net with rems |  |  |
| Gross disbursements | \$ 108,223,743 | \$ 109,599,887 |
| Participant contributions | (24,253,518) | (22,975,938) |
| Net disbursements | \$ 83,970,225 | \$ 86,623,949 |

* 2008 RDS payments expected to be received in 2009.


## Acturuial assumpations ond



## TOWERS

- Age 65 and after (net of Medicare)
- Dental
- Medicare covered charges trend rate
- Retiree contribution firend rate

Administrative expenses

## Democraphic Assumptions

## Mortality

Disabled mortality
(through age 65)

|  |  |  |  | Medicare PariD |  |  |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  |  | COB | MOB | CSP | MOB/COB CSP |  |
| $65-69$ | $\$ 3,436$ | $\$ 2,657$ | $\$ 1,231$ | $\$(625)$ | $\$(180)$ |  |
| $70-74$ | 3,712 | 2,848 | 1,375 | $(644)$ | $(186)$ |  |
| $75-79$ | 3,848 | 2,932 | 1,461 | $(639)$ | $(184)$ |  |
| $80-84$ | 3,834 | 2,899 | 1,492 | $(606)$ | $(175)$ |  |
| $\geq 85$ | 3,797 | 2,827 | 1,551 | $(540)$ | $(156)$ |  |
| Average | 3,729 | 2,753 | 1,485 | $(617)$ | $(178)$ |  |
| post-65 |  |  |  |  |  |  |
| All |  |  |  | $\$ 277$ |  |  |

Same as medical cost increases.

Same as applicable medical cost increases.
Included in claims costs shown above.

Preretirement: RP2000, projected to 2024.
Postretirement: RP2000, projected to 2016.
Rates vary by age and sex as indicated by the following sample values:

| Age | Male | Female |
| :---: | :---: | :---: |
|  |  |  |
| 30 | $2.60 \%$ | $2.60 \%$ |
| 40 | 2.60 | 2.60 |
| 50 | 3.10 | 3.10 |
| 60 | 6.20 | 6.20 |

Rates apply to employees not eligible to retire and vary by age as indicated by the following sample values:

| Age | $0-5$ Years | $5+$ Vears |
| :---: | :---: | :---: |
| 20 | $12.5 \%$ | $10 \%$ |
| 30 | 12.5 | 5 |
| 40 | 12.5 | 3 |
| 50 | 12.5 | 3 |
| 60 | 12.5 | 3 |

## Disability

Retirement

Spouse ages
Participation rates

Rates apply to employees not eligible to retire and vary by age and sex as indicated by the following sample values:

| Age | Niale | Female |
| :---: | :---: | :---: |
| 20 | $0.060 \%$ | $0.090 \%$ |
| 30 | 0.060 | 0.090 |
| 40 | 0.074 | 0.110 |
| 50 | 0.178 | 0.270 |
| 60 | 0.690 | 1.035 |

Rates that vary by age as follows: Age

| $55-57$ | $7.5 \%$ |
| :---: | :---: |
| $58-60$ | 15.0 |
| $61-63$ | 35.0 |
| $64-65$ | 25.0 |
| $66-69$ | 20.0 |
| 70 | 100.0 |

Rates apply to employees with five or more years of service.
Wives three years younger than husbands.
Participation for current retirees is based on valuation census data; participation for future retirees is assumed to be $95 \%$.

The percentage of employees who will enroll for family coverage is assumed to vary by sex and to change from year to year as follows:
Male Employees: $74 \%$ for employees retiring in 2006, reducing by $1 \%$ each year to a minimum of $69 \%$ for employees retiring in 2011 and later.
Female Employees: 53.75\% for employees retiring in 2006 reducing by $0.75 \%$ each year to a minimum of $50 \%$ for employees retiring in 2011 and later.

## Basis for Per Capien Clamu

 Cose fssumption- Pre-65 retiree rates


Aetna, Medco, Lumenos and Magellan supplied data on retiree medical claims incurred in 2007. Claim experience rates are calculated separately for Aetna and Lumenos plans by dividing incurred claims by covered lives and trending forward two years to 2009. Medical and prescription drug claim rates are then multiplied by plan change factors representing the effect of substantive prescription drug plan design changes. Aetna and Lumenos cost models are developed separately by age-grading these claims rates over standard Towers Perrin morbidify curves for both medical and prescription drugs to develop the quinquennial cost models.

- Post-65 retiree rates
- Medicare Pant D subsidy

MetLife supplied data on dental claims incurred in 2007. Experience for all active and retiree employees was analyzed to derive the dental claim rates.

2009 monthly claim rates are calculated separately for MOB, COB and CSP Medicare-eligible plans by dividing incurred claims by covered lives and trending forward two years to 2009. Prescription drug claim rates are then muttiplied by plan change factors representing the savings from substantive prescription drug plan changes. MOB and COB cost models are developed separately by age-grading these claim rates over standard Towers Perrin morbidity curves for both medical and prescription drugs to develop the quinquennial cost models.

We calibrated our modeling tool to reflect the 2009 cost of the current prescription drug plans for AEP's post-65 retirees. The tool employs a continuance table of annual retiree drug utilization levels, developed from analyzing the experience of several large Towers Perrin clients.

After the plan-specific benefit provisions have been calibrated to current costs, the Modeler trends costs forward to 2009. Actuarial equivalence was determined using the following fwoprong approach outlined in the regulations for Medicare Part D:

- Gross Value Test - The Modeler calculates the value of standard Medicare Part D coverage and compares it to AEP's plan costs. AEP's plans passed this test by being richer than the projected value of standard Medicare Part D coverage for these groups.
- Net Value Test - The net value prong of the test compares the value of Standard Part D coverage in 2009 minus the greater of $\$ 364.32$ per year (the national average Part D premium) and $25.5 \%$ of the gross value of Part $D$ to the projected 2009 value of AEP coverage minus the average projected 2009 retiree contribution rate. For this purpose, retiree contributions were assumed to apply pro rata between the value of medical benefits and prescription drug benefits.

When the plans are deemed to be actuarially equivalent, the tool calculates the average expected value of the employer subsidy in 2009, using the continuance table calibrated to AEP's plan costs. This produced a 2009 per person employer subsidy of $\$ 617$ for MOB and COB plans and $\$ 178$ for CSP.

## Medhods

Postretirement welfare cost:

- Service cost and APBO
- Market-related value of assets

Amortization of unrecognized amounts:

- Transition obligation
- Prior service cost (credit)
- Net loss (gain)

SOP 92-6:
$\triangleright$ APBO

- Funding policy

Projected unit credit actuarial cost method, allocated in equal amounts, from the valuation date on or after date of hire to full eligibility date.

The fair value of assets on the measurement date.

Amortized over 20 years beginning January 1, 1993 Increase in APBO resulting from a change in benefits valued is amortized on a straight-line basis over the expected average remaining service until full eligibility date of active participants. Decrease in APBO first reduces any unamortized prior service cost, then any unamortized transition obligation. Any remaining amount is amortized on a straight-line basis as described above.

Net loss (gain) in excess of $10 \%$ of the greater of APBO or market-related value of assets is amorized on a straightline basis over the expected average remaining service of active employees.

Projected unit credit actuarial cost method, allocated in equal amounts, from the valuation date on or after date of hire to full eligibility date.

AEP's funding policy is to contribute an amount equal to the postretirement welfare cost. AEP maximizes its contribution to the $401(\mathrm{~h})$ account and contributes the remainder to the VEBA.



## Changes in Metionds anel Assummpions Simee Last Yam

All benefits described in the Plan Provisions section of this report were valued. Life insurance benefits in excess of $\$ 50,000$ and health care benefits for key employees were not included in determining the maximum deductible contribution. Towers Perrin has reviewed the plan provisions with AEP and based on that review is not aware of any significant benefits required to be valued that were not.

The discount rate was decreased from $6.20 \%$ to $6.10 \%$. Mortality table was updated to preretirement: RP2000, projected to 2024; postretirement: RP2000, projected to 2016.

## Bata Sources

The company furnished the participant data, as well as the accrued postretirement benefits cost as of December 31, 2008. Health plan vendors furnished claims cost data. Data were reviewed for reasonableness and consistency, but no audit was performed. We are aware of no errors or omissions in the data that would have a significant effect on the results of our calculation.

## Participanit Dote

dmauary i, 2009 Jomumy 1,2008

## Active

## Number:

- Fully eligible for benefits

14
10
$\Delta$ Other 21.775
20.763

- Total

21,789
20,773
Average age
45.6

Average past service
16.4
17.1

Average future service:

- To full eligibility age
11.6
11.5
- To expected retirement
11.6
11.5

Covered pay:

- Total
\$ 1,447,105,465
\$ 1,336,821,768
- Average

66,414 64,354

## Imactive

Retirees and surviving spouses:

- Number:
- Under age 65
3,145
3,275
- Age 65 and over
11.582

11,425

- Total

14,727
14,700
2 Average age
73.5 73.2

Dependents*:

- Number:
$\begin{array}{lll}\text { - Under age } 65 & 3,565 & 3,676\end{array}$
- Age 65 and over $\quad 3.551 \quad \underline{4.468}$
- Total 8,116 8,144
$\begin{array}{lll}\text { * Average age } & 67.3 & 67.0\end{array}$
Disabled:
- Number:

726
730

- Average age 56.3 55.9
*For retired and disabled participants


## TOWERE

## Plan Provisions

## Flalth Care Rencions

Eligibility

Dependent eligibility

Survivor eligibility

Postretirement contributions

Participants are eligible upon retirement after age 55 with ten years of service or upon attaining age 55 with ten years of service after becoming permanently disabled. If involuntary termination, then eligible after age 50 with ten years of service.

Eligible dependents are spouse, unmarried children under age 19 (age 25 if a full-time student) and unmarried disabled children of any age.

After the death of a retiree or active employee eligible to retire, surviving spouses are eligible until death or remarriage. Surviving children are also eligible, subject to the limiting age provision outined above.

Participant contributions are determined as a percentage of plan costs and vary by points (age at retirement plus service) as follows:

| Points | Retiree Cost |
| :--- | :---: |
| $65-69$ | $46 \%$ |
| $70-74$ | 42 |
| $75-79$ | 36 |
| $80-84$ | 32 |
| $85-89$ | 26 |
| $90-94$ | 22 |
| $95 t$ | 20 |
| Grandfathered | 20 |

For East participants who retired prior to January 1, 1989, and West participants who retired prior to January 1, 1993, no contributions are required.
For East participants who retired on or atter January 1, 1989, and West participants who retired on or after January 1, 1993, the 20\% "Grandfathered" contributions are in effect if they retired by December 31, 2000, or attained age 50 and had ten or more years of service with the company on that date. The percentages described above are applied to plan costs that differ from the per capita claims costs assumed in the valuation as follows:

The Medicare status of dependents is not looked at in determining whether "pre-65" or "post-65" rates apply. The pre-65 plan rates used to calculate participant contributions are a blend of pre- 65 retiree costs and active employee costs.

Disabled employee contributions

Benefits

Disabled employees have a waiver of premium provision where no contributions are made while an employee remains disabled.

If an employee retires while disabled and became disabled before January 1, 2001, the waiver of premium provision continues for life. If an employee retires while disabled and became disabled after January 1, 2001, the employee will continue to accrue points as if actively-at-work until age 65 and be subject to the same contribution schedule as normal retirees.

The AEP Medical Plan provides broad medical coverage with a deductible of $\$ 200,80 \%$ coinsurance and a maximum annual out-of-pocket expense of $\$ 2,000$ per person. Discounted charges and increased benefits may be obtained by pre-65 retirees electing to use network providers.
Pre-65 retirees who live in areas designated as "Network Area" will have reduced benefits ( $\$ 300$ deductible, $70 \%$ coinsurance, $\$ 4,000$ out-of-pocket maximum) if they do not use network providers. Alternatively, these retirees can elect coverage under consumer driven health plan designs.
Prescription drug benefits are provided under a separate plan with the following copayments for those who do not enroll in a consumer driven healch plan:

| 30-day retail | Generic | Brand Name Formulary | Brand Name Noniormulary |
| :---: | :---: | :---: | :---: |
|  | \$5 copay | 20\% | 20\% |
|  |  | \$20 minimum | \$35 minimum |
|  |  | \$100 maximum | \$100 maximum |
| 90-day retail | \$12 copay | 20\% | 20\% |
|  |  | \$50 minimum | \$90 minimum |
|  |  | \$200 maximum | \$200 minimum |

Prescription drug benefits are also subject to a $\$ 50$ deductible and a $\$ 1,000$ out-of-pocket maximum per person.
Benefits after age 65 are coordinated with Medicare using the carve-out method. Participants have the option to "buy up" to exclusion coordination of benefits coverage. Exclusion coordination is provided to East retirees who attained age 65 prior to January 1, 2001.
Deductibles and out-of-pocket maximums are assumed to increase over time at approximately the same rate as benefit costs.

## SI-22

## [ife lnsurance Reneitits <br> Grandfathered participants

Grandfathered benefits

Nongrandfathered benefits

## Dental 踢

Eligibility

Participants, including retirees and surviving dependents, are eligible upon retirement after age 55 with ten years of service. There is a one-time election and if coverage terminates there is no opportunity to reenroll.

The AEP Dental Plan provides dental coverage with a deductible of $\$ 50$ single/ $\$ 150$ family, $100 \%$ coinsurance for preventive care, $80 \%$ coinsurance for basic restorative care, $50 \%$ coinsurance for major restorative care and $50 \%$ coinsurance for orthodontia.

Most retirees pay the full cost of dental coverage if they enroll. CSW employees who retire before January 1,1993 , contribute nothing to enroll for dental coverage. Former CSW employees retiring after January 1, 1993, who were either retired or had attained age 50 with ten years of service as of January 1, 2001, pay $30 \%$.

## Chamges un Plan Provisions Sumee the Piov Year

There have been no changes in the substantive plan provisions since the prior year.

## 

## fonclimg Vereicile

Nonunion postretirement medical/dental VEBAs

Union postretirement medical/dental VEBAs

Postretirement life insurance VEBA

401(h) account

## Provides for

$100 \%$ of medical/dental benefits to nonunion employees before 2016 and $50 \%$ of benefits thereafter.
$100 \%$ of medical/dental benefits to union employees.

Life insurance benefits for all retirees.
$50 \%$ of benefits after 2015 for nonunion retirees.

American Electric Power
2003 Summary of Postretirement Health Care Plan Participants - Non-UMWUA

|  | Nonretired Participants |  |  | Retired Participants |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Dependent Surviving |  |  |  |
|  | Active | Disabled | Total | Retiree | Spouse | Spouse | Total |
| AEP Energy Services, Inc. | 0 | 2 | 2 | 31 | 23 | 0 | 54 |
| AEP Pro Serv, inc. | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| AEP River Operations LLC | 1,095 | 7 | 1,102 | 13 | 6 | 0 | 19 |
| AEP Service Corporalion | 6,439 | 90 | 6,529 | 1,742 | 1,186 | 191 | 3.119 |
| AEP Texas Central Co-Distribution | 1,069 | 43 | 1,112 | 849 | 590 | 278 | 1.717 |
| AEP Texas Central Co-Generation | 1 | 0 | 1 | 17 | 13 | 0 | 30 |
| AEP Texas Central Co-Nuclear | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AEP Texas Central Co - Transmission | 135 | 4 | 139 | 78 | 47 | 31 | 156 |
| AEP Texas North Co-Distribution | 319 | 15 | 334 | 218 | 148 | 70 | 436 |
| AEP Texas North Co-Generalion | 0 | 5 | 5 | 142 | 87 | 44 | 273 |
| AEP Texas North Co-Transmission | 52 | 2 | 54 | 35 | 24 | 11 | 70 |
| Appalachian Power Co-Distribution | 1,183 | 83 | 1,266 | 1,137 | 812 | 411 | 2,360 |
| Appalachian Power Co-Generation | 1.205 | 87 | 1,292 | 716 | 575 | 212 | 1,503 |
| Appalachian Power Co-Transmission | 187 | 15 | 202 | 100 | 87 | 4 | 191 |
| Cardinal Operating Company | 327 | 13 | 340 | 154 | 119 | 47 | 320 |
| Cedar Coal Co. | 0 | 0 | 0 | 19 | 8 | 20 | 47 |
| Central Ohio Coal Co. | 0 | 0 | 0 | 49 | 28 | 4 | 81 |
| Columbus Southern Power Co - Distribution | 853 | 21 | 874 | 793 | 491 | 203 | 1,487 |
| Columbus Southern Power Co - Generation | 379 | 19 | 398 | 283 | 197 | 85 | 565 |
| Columbus Southern Power Co - Transmission | 67 | 1 | 68 | 69 | 52 | 22 | 143 |
| Conesville Coal Preparation Company | 10 | 0 | 10 | 8 | 7 | 0 | 15 |
| Cook Coal Terminal | 16 | 0 | 16 | 9 | 7 | 0 | 16 |
| CSW Energy, Inc. | 18 | 0 | 18 | 8 | 2 | 0 | 10 |
| Elmwood | 158 | 6 | 164 | 8 | 7 | 0 | 15 |
| Houston Pipeline (HPL) | 0 | 2 | 2 | 30 | 20 | 0 | 50 |
| Indlana Michigan Power Co-Distribution | 768 | 13 | 781 | 677 | 399 | 266 | 1,342 |
| Indiana Michigan Power Co-Generation | 460 | 12 | 472 | 241 | 180 | 86 | 507 |
| Indiana Michigan Power Co-Nuclear | 1.133 | 11 | 1.144 | 273 | 203 | 50 | 526 |
| Indiana Michigan Power Co-Transmission | 176 | 6 | 182 | 97 | 74 | 8 | 179 |
| Kentucky Power Co - Distribution | 287 | 25 | 312 | 151 | 110 | 68 | 329 |
| Kentucky Power Co-Generation | 142 | 23 | 165 | 69 | 72 | 21 | 182 |
| Kentucky Power Co - Transmission | 54 | 2 | 56 | 8 | 10 | 0 | 18 |
| Kingsport Power Co-Distribution | 46 | 4 | 50 | 50 | 30 | 15 | 95 |
| Kingsport Power Co - Transmission | 12 | 1 | 13 | 6 | 5 | 1 | 12 |
| Ohio Power Co-Distribution | 922 | 39 | 961 | 871 | 614 | 297 | 1,782 |
| Ohio Power Co-Generation | 867 | 62 | 929 | 686 | 576 | 215 | 1,477 |
| Ohio Power Co-Transmission | 235 | 8 | 243 | 123 | 95 | 35 | 253 |
| Price River Coal Co. | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Public Service Co of Okiahoma - Disfribution | 812 | 25 | 837 | 517 | 362 | 172 | 1,051 |
| Public Service Co of Okiahoma - Generation | 392 | 10 | 402 | 185 | 130 | 71 | 386 |
| Public Service Co of Oklahoma - Transmission | 85 | 2 | 88 | 55 | 39 | 15 | 109 |
| Southem Ohio Coal - Martinka | 0 | 0 | 0 | 21 | 12 | 3 | 36 |
| Southem Ohlo Coal - Meigs | 0 | 0 | 0 | 46 | 30 | 13 | 89 |
| Southwestern Electric Power Co-Distribution | 537 | 12 | 549 | 272 | 199 | 84 | 555 |
| Southwestem Electric Power Co-Generation | 538 | 17 | 555 | 241 | 188 | 79 | 508 |
| Southwestern Electric Power Co - Texas - Distribution | 288 | 7 | 295 | 140 | 99 | 33 | 272 |
| Southwestem Electric Power CO-Transmission | 97 | 3 | 100 | 48 | 28 | 19 | 95 |
| Water Transportation (Lakin) | 361 | 24 | 385 | 118 | 66 | 30 | 214 |
| Wheeling Power Co-Distribution | 62 | 5 | 67 | 64 | 47 | 29 | 140 |
| Wheeling Power Co-Transmission | 0 | 0 | 0 | 4 | 2 | 9 | 15 |
| Windsor Coal Co. | 0 | $\underline{0}$ | $\underline{\square}$ | 12 | 10 | 1 | $\underline{23}$ |
| Tolal | 21,789 | 726 | 22,515 | 11,483 | 8,116 | 3,253 | 22,852 |

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American Elactric Power
2017 Net Pariodf Postreturement Benefit Cost－Non－UMWA Benefits
Reflects Effach of bfedicare PortD









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## Effect of Additional Pension Contributions Recorded As Prepaid Pension in Reducing Pension Cost Kentucky Power Company

|  | Plan <br> Contribution | Investment Return |  | Balance of <br> Plan Assets |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Rate | Amount |  |
|  |  |  | FAS 87 <br> Savings |  |
| Prepaid Pension Balance from 2005 Contributions | 15,390,035 |  |  | 15,390,035 |
| 2006 Return on 2005 Balance | - | 8.50\% | 1,308,153 | 16,698,188 |
| 2007 Retum on 2006 Balance | - | 8.50\% | 1,419,346 | 18,117,534 |
| 2008 Retum on 2007 Balance | - | 8.00\% | 1,449,403 | 19,566,937 |
| 2009 Return on 2008 Balance | - | 8.00\% | 1,565,355 | 21,132,292 |
| Prepaid Pension Balance at September 2009 | 15,390,035 |  |  |  |
|  |  | 2008 | 2009 |  |
| Actual Pension Cost |  | 995,487 | 2,218,216 |  |
| Prepaid Contribution Savings Above |  | 1,449,403 | 1,565,355 |  |
| Pension Cost Without Contribution Savings |  | 2,444,890 | 3,783,571 |  |

## BEFORE THE

## PUBLIC SERVICE CONIMISSION OF KENTUCKY

## IN THE MATTER OF

GENERAL ADJUSTMENTS IN ELECTRIC RATES OF KENTUCKY POWER COMPANY CASE NO. 2009-00459

DIRECT TESTIMONY OF JAMES E. HENDERSON<br>ON BEHALF OF KENTUCKY POWER COMPANY

# DIRECT TESTIMONY OF <br> JAMES E. HENDERSON, ON BEHALF OF KENTUCKY POWER COMPANY BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY 

CASE NO. 2009-00459

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II. Background ..... 2
III. Purpose of Testimony ..... 4
IV. Conclusion ..... 14

## DIRECT TESTIMONY OF <br> JAMES E. HENDERSON, ON BEHALF OF KENTUCKY POWER COMPANY BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

## I. Introduction

Q: PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.
My name is James E. Henderson. My business address is 1 Riverside Plaza, Columbus, Ohio 43215. My position is Senior Staff Accountant for American Electric Power Service Corporation (AEPSC).

## Q. WHAT ARE YOUR PRINCIPAL AREAS OF RESPONSIBILITY?

$$
\begin{aligned}
& \text { A. I am responsible for depreciation studies and coordination of plant accounting for } \\
& \text { the AEP System companies. }
\end{aligned}
$$

## II. BACKGROUND

Q: PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND BUSINESS EXPERIENCE.
A. I received a Bachelor of Science Degree with a major in accounting from Columbus Business University in 1969. I am a Public Accountant. I have attended three sessions in depreciation life analysis sponsored by Western Michigan University Center of Depreciation Studies. I have been a member of the Depreciation Accounting Committee, which was merged into the Property Accounting and Valuation Committee of Edison Electrical Institute since 1976. I am a member of the Institute of Management Accountants and Senior Member of the Society of Depreciation Professionals.

I joined Columbus Southern Power Company (CSP), one of the AEP operating companies, as a part-time student employee in 1967. Upon graduation, I was employed full time and held various positions in the Accounting Department in the areas of plant accounting, tax accounting and depreciation. From 1978 to 1980, I held the position of Director of Depreciation Accounting and from 1980 to 1982, I held the position of Director of Plant Accounting and Depreciation. My responsibilities in those positions included performing depreciation studies, preparing book and federal income tax depreciation accruals, preparing and analyzing property valuations for state and local property tax assessments and supervising the accounting for CSP's investment in electric utility plant.

In August 1982, I transferred from CSP to American Electric Power Service Corporation (AEPSC).
Q. HAVE YOU PREVIOUSLY FILED TESTIMONY IN REGULATORY PROCEEDINGS?
A. Yes. I have filed testimony regarding depreciation rates with the Public Service Commissions in the states of Indiana, Kentucky, Ohio, Oklahoma, Texas, Virginia and West Virginia. I was an industry panelist before the Federal Energy Regulatory Commission (FERC) (FERC Docket 02-0700) testifying on the implementation of Statement of Financial Standards No. 143, Accounting For Asset Retirement Obligations (SFAS 143).

## III. Purpose of Testimony

## Q: WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A. The purpose of my testimony is to recommend revised depreciation accrual rates for Kentucky Power Company's (Kentucky Power or Company) electric plant in service based on a depreciation study for Kentucky Power's electric utility plant in service at December 31, 2008. Exhibit No. JEH-1 is a report of the results of the study. The depreciation rates determined by my study are intended to provide recovery of invested capital and cost of removal, and credit for salvage over the expected life of the property.

## Q. WAS THIS DEPRECIATION STUDY PREPARED BY YOU OR UNDER YOUR SUPERVISION?

A. Yes.
Q. WHAT WAS THE PURPOSE OF THE DEPRECIATION STUDY?
A. In the Commission's Order in Case No. 2005-00341, Kentucky Power was instructed to file a depreciation study within five years of the date of that Order or by the filing date of its next general rate case. This study complies with that Order. The purpose of the present study is to recommend appropriate annual depreciation rates for Kentucky Power to use in computing annual book depreciation expense in light of current conditions.
Q. HOW DO THE DEPRECIATION RATES AND ANNUAL ACCRUALS AS A RESULTT OF YOUR STUDY COMPARE WITH KENTUCKY POWER'S CURRENT RATES AND ACCRUALS?
A. A comparison of Kentucky Power's current rates and the study rates are shown below based on December 31, 2008 depreciable plant balances:

## Composite Rates and Accruals

|  | Existing |  |  | $\underline{\text { Study }}$ |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Functional Plant Group | Rates | $\underline{\text { Accruals }}$ |  | Rates | $\underline{\text { Accruals }}$ |
| Steam Production Plant | $3.89 \%$ | $\$ 20,314,393(\mathrm{a})$ | $4.05 \%$ |  | $\$ 21,152,010$ |
| Transmission Plant | $1.71 \%$ | $7,329,252$ | $3.24 \%$ |  | $13,887,818$ |
| Distribution Plant | $3.52 \%$ | $18,532,028$ | $3.96 \%$ |  | $20,832,841$ |
| General Plant | $2.54 \%$ | $\boxed{817,176}$ | $5.07 \%$ |  | $1,632,019$ |
| Total | $3.11 \%$ | $\underline{\$ 46,992.849}$ | $3.81 \%$ | $\underline{\$ 57.504 .688}$ |  |

(a) Includes $\$ 552,360$ of amortization related to SCR Catalysts

The above summary is taken from Columns 4 through 7 of Schedule II of Exhibit JEH-1.

Based on the results of the study, I am recommending an increase in annual depreciation expense of $\$ 10,511,839$ or $0.70 \%$ in the annual accrual rate based on December 31, 2008 depreciable plant balances. The depreciation rate changes are necessary because of changes (both increases and decreases) in the average service lives and the gross salvage and cost of removal estimates that were used to calculate Kentucky Power's current depreciation rates.
Q. PLEASE EXPLAIN THE DEFINITION OF DEPRECIATION AS USED IN PREPARING YOUR STUDY.
A. The definition of depreciation that I used in preparing the study is the same that is used by the Federal Energy Regulatory Commission and the National Association of Regulatory Utility Commissioners. That definition is:

Depreciation, as applied to depreciable electric plant, means the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of electric 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 and requirements of public authorities. Service value means the difference between original cost and the net salvage value (net salvage value means the salvage value of the property retired less the cost of removal) of the electric plant.

## Q. PLEASE BRIEFLY DESCRIBE THE METHODS AND PROCEDURES USED IN THE STUDY.

A. The methods and procedures are fully described on pages 1 through 9 of Exhibit JEH-1. In summary, all of the property included in this report was considered on a group plan. Under the group plan, depreciation is accrued upon the basis of the original cost of all property included in each depreciable plant group instead of individual items of property. Upon retirement of any depreciable property, its full cost, less any net salvage realized, is charged to the accumulated provision for depreciation regardless of the age of the particular item retired. Also under this plan, the dollars in each primary plant account are considered as a separate group for depreciation accounting purposes and an annual depreciation rate for each account is determined. In this study, the plant groups consisted of the individual
primary plant accounts for Production, Transmission, Distribution and General Plant property.

For Production Plant, the generating unit retirement dates and the interim retirement history for the individual plant accounts were used to determine the average service lives and the remaining lives of the plants. The average service lives for the Company's Transmission, Distribution and General Plant were determined using statistical procedures similar to those used in the insurance industry in studies of human mortality. The historical retirement experience of the property groups was studied and the retirement characteristics of the property were described using the Iowa-type retirement dispersion curves.

The net salvage for each property group was determined based on actual historical experience for the Production, Transmission, Distribution and General Plant accounts. In addition, for Production Plant, Kentucky Power had a conceptual demolition cost estimate made by Brandenburg Industrial Service Company (Brandenburg). Brandenburg estimated the probable cost to demolish Big Sandy Plant based on the current price levels. My recommended depreciation rates for Production Plant included the probable demolition cost for Big Sandy Plant at current price levels. However, I recommend that Kentucky Power adjust the estimated cost to remove Big Sandy Plant in future depreciation studies to reflect changes in price levels. This will enable the Company to recover the estimated actual removal costs that can reasonably be expected to be incurred at the time Big Sandy Plant is retired.

The depreciation rates were calculated by the Average Remaining Life Method which is the same method that was used to calculate Kentucky Power's current depreciation rates.
Q. DO YOU HAVE ANY OTHER RECOMMENDATIONS REGARDING THE ADOPTION OF YOUR RECOMMENDED DEPRECIATION RATES?
A. Yes. I recommend that the Commission authorize Kentucky Power to adopt and apply the recommended depreciation accrual rates at the primary plant account level and that the accumulated depreciation be established by primary plant account as of a specific date, (e.g., the date the revised rates become effective) and from that date forward Kentucky Power should apply depreciation rates and maintain the accumulated depreciation at the primary plant account level.
Q. PLEASE EXPLAIN WHY YOU ARE RECOMMENDING THAT KENTUCKY POWER APPLY DEPRECIATION RATES AND MAINTAIN THE ACCUMULATED DEPRECIATION AT THE PRIMARY PLANT ACCOUNT LEVEL.
A. Kentucky Power currently applies depreciation rates and maintains the accumulated depreciation at a functional plant level (i.e. Production, Transmission, Distribution and General). The amount of the accumulated depreciation is an important component in calculating remaining life depreciation rates. Thus, the amount of accumulated depreciation has a direct effect on developing a depreciation rate for each plant account. If the accumulated depreciation is not maintained at the primary account level, it is necessary to
allocate the functional plant accumulated depreciation to individual plant accounts based on what the calculated accumulated depreciation would be based on the survivor curves, average service lives, gross removal and gross salvage determined in the current depreciation study.

When the accumulated depreciation is maintained by primary plant account, it enables the Company to monitor depreciation accruals and removal/salvage costs actually recorded in each primary plant account and eliminate the requirement to allocate the accumulated depreciation to primary plant accounts. This will facilitate the identification of changes that occur in the primary plant account activity that lead to the recommendation of revised depreciation rates.

## Q. DOES YOUR RECOMMENDATION THAT THE COMPANY MAINTAIN

 THE ACCUMULATED DEPRECIATION BY PRIMARY ACCOUNT HAVE ANY EFFECT ON THE DETERMINATION OF THE DEPRECIATION RATES THAT YOU RECOMMENDED AS A RESULT OF THIS DEPRECIATION STUDY?A. No, it does not. My recommendation affects how the Company should be maintaining its accumulated depreciation in the future.

## Q. PLEASE DESCRIBE SFAS 143.

A. The Financial Accounting Standards Board (FASB) issued SFAS 143 in June 2001. SFAS 143 prescribes the accounting for Asset Retirement Obligations (ARO) and was implemented by Kentucky Power effective January 1, 2003 as required by the FASB. SFAS 143 applies to legal obligations associated with the
retirement of tangible, long-lived assets and requires that those legal obligations be recognized at fair value at the time the legal obligation was incurred if a reasonable estimate of fair value can be made. SFAS 143 defines a legal obligation as an obligation that a party is required to settle as a result of an existing or enacted law, statute, ordinance, or written or oral contract or by legal construction of a contract under the doctrine of promissory estoppel.
Q. HAS KENTUCKY POWER RECOGNIZED ANY ARO'S UNDER SFAS 143?
A. Yes. Kentucky Power has recognized an ARO for asbestos at Big Sandy Generating Plant.
Q. DOES SFAS 143 CHANGE THE ACCOUNTING REQUIREMENTS FOR OBLIGATIONS THAT ARE NOT SPECIFIC LEGAL OBLIGATIONS FOR RATE-REGULATED COMPANIES SUCH AS KENTUCKY POWER?
A. No it does not. Rate-regulated companies such as Kentucky Power can continue to collect asset retirement costs (removal costs) that are not within the scope of SFAS 143 through depreciation rates when authorized by a ratemaking such as the Public Service Commission of Kentucky. However, for United States Security and Exchange Commission (SEC) financial reporting purposes, the amounts of removal coats that have been collected though the Company's Commission approved depreciation rates, and included in accumulated depreciation, must be reclassified to a regulatory liability. Kentucky Power has followed this accounting for SEC financial reporting purposes.
Q. HAS THE FERC ISSUED ANY ACCOUNTING INSTRUCTIONS FOR ARO'S?
A. Yes. On April 9, 2003 FERC issued Order 631. Order 631 added new balance sheet and income statement accounts to be utilized for recording ARO's. In addition, Order 631 revised definitions and, the general and plant accounting instructions contained in the Uniform System of Accounts.
Q. DID ORDER 631 ADDRESS THE ACCOUNTING FOR COST OF REMOVAL THAT DOES NOT CONSTITUTE A LEGAL OBLIGATION?
A. Yes. The FERC specifically addressed accounting for cost of removal that does not constitute a legal obligation in Section III, paragraph 36 of Order 631 as follows:

As proposed in the NOPR, the rule applies to legal obligations associated with the retirement of tangible long-lived assets. Under the existing requirements of the Uniform System of Accounts removal costs that are not asset retirement obligations are included as a component of the depreciation expense and recorded in accumulated depreciation. The Commission notes that certain jurisdictional entities may have been receiving specific allowances for cost of removal for non-legal retirement obligations as a specific component in their rates approved by their regulators. The Commission did not propose any changes to its existing accounting requirements for cost of removal for non-legal retirement obligations. Accordingly, jurisdictional
entities are accounting for such costs consistent with the requirements of the Uniform System of Account under part 101 for public utilities and licensees, part 201 for natural gas companies and Part 352 for oil pipeline companies.
Q. DOES YOUR DEPRECIATION STUDY COMPLY WITH THE ACCOUNTING REQUIREMENTS OF SFAS 143 AND FERC ORDER $631 ?$
A. Yes, it does. In my study I split the amounts of net salvage that I recommended into a gross removal component and a gross salvage component. Thus, for SEC financial reporting purposes, the amount of removal costs included in depreciation rates and accruals can readily be determined and reclassified to a regulatory liability account.

## Q. PLEASE EXPLAIN THE AVERAGE REMAINING LIFE METHOD OF CALCULATING DEPRECIATION RATES.

A. There are two basic methods commonly utilized to calculate depreciation rates. They are the Average Life Method (sometimes referred to as the whole life method) and the Average Remaining Life Method.

The Average Life Method recovers the original cost of the plant, adjusted for net salvage, over the average service life of the investment. The basic assumptions used in determining depreciation rates by the Average Life Method are: 1) the property will be retired over a specified average life; and 2) the future amount of net salvage is known. Neither of these assumptions can be confirmed until the entire property group is retired. The major shortcoming of the Average

Life Method is that it does not provide a mechanism to adjust the accumulated depreciation when changes occur in service life or net salvage.

The Remaining Life Method compensates for this shortfall by recovering the original cost of the plant, adjusted for net salvage, less the accumulated depreciation over the average remaining life of the plant.
Q. PLEASE EXPLAIN THE RESULTS OF YOUR STUDY FOR PRODUCTION PLANT.
A. The composite rate for Steam Production Plant increased from 3.89\% to 4.05\%. The increase was caused by an increase in the investments in the accounts since the last study, offset in large part by an increase in the total life span of both units and a decrease in the amount of negative net salvage.
Q. PLEASE EXPLAIN THE RESULTS OF YOUR STUDY FOR TRANSMISSION PLANT.
A. The composite rate for Transmission Plant increased from $1.71 \%$ to $3.24 \%$. The increase was caused by a reduction of the average service lives for Accounts 353, Station Equipment, 354 Towers and Fixtures and 355, Poles \& Fixtures as indicated in the life analysis for those accounts and by increases in the net removal costs for this functional group of plant investment based on the actual cost of removal experienced during the period 1994 through 2008.

## Q. PLEASE EXPLAIN THE RESULTS OF YOUR STUDY FOR

 DISTRIBUTION PLANT.A. The composite rate for Distribution Plant increased from $3.52 \%$ to $3.96 \%$. The increase was caused by increases in net removal costs for this functional group of
plant investments based on the actual cost of removal experienced during the period 1994 through 2008 offset, in part, by increases in the average service lives for ten of the twelve individual plant accounts that comprise this functional plant investment.
Q. PLEASE EXPLAIN THE RESULTS OF YOUR STUDY FOR GENERAL PLANT.
A. The composite rate for General Plant increased from $2.54 \%$ to $5.07 \%$. The increase is mainly attributable to the decrease in average service life for Account 390, Structures and Improvements.

Q: DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?
A: Yes.

## AFFIDAVIT

James E. Henderson, upon first being duly sworn, hereby makes oath that if the foregoing questions were propounded to him at a hearing before the Public Service Commission of Kentucky, he would give the answers recorded following each of said questions and that said answers are true.

## State of Ohio



James E. Henderson

County of Franklin
)ss
County or Franklin )

Subscribed and sworn ty before me, a Notary Public, by James E. Henderson this $11^{\text {th }}$ day of Ahem lien 2009.

Blew C. Pr eq Quince
Notary Public
My Commission Expires PACy $11^{\text {th }}, 2011$

# KENTUCKY POWER COMPANY 

DEPRECIATION STUDY REPORT
OF
ELECTRIC PLANT IN SERVICE
AT DECEMRER 31, 2008

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## INTRODUCTION

This report presents the results of a depreciation study of Kentucky Power Company's (KPCo) depreciable electric utility plant in service at December 31, 2008. The study was prepared by James E. Henderson, Senior Staff Accountant at American Electric Power Service Corporation (AEPSC). The purpose of this depreciation study was to develop appropriate ammal depreciation accrual rates for each of the primary plant accounts, which comprise the functional groups for which KPCo computes its annual depreciation expense.

The recommended depreciation rates are based on the Average Remaining Life Method of computing depreciation. Further explanation of this method is contained in Section II of this report.

The definition of depreciation used in this Study is the same as that used by the Federal Energy Regulatory Commission (FERC) and the National Association of Regulatory Utility Commissioners:
"Depreciation, as applied to depreciable electric plant, means the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of electric 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 and requirements of public authorities."
"Service value means the difference between original cost and the net salvage value (net salvage value means the salvage value of the property retired less the cost of removal) of the electric plant." (FERC Accounting and Reporting Requirements for Public Utilities and Licensees, $\mathbb{q}[15.001$.)

Section I of this report contains Schedule I, which shows the recommended depreciation accrual rates by primary plant accomnts and composited to functional plant classifications; Schedule II, which shows a comparison of KPCo's current depreciation rates and accruals to the recommended rates and accruals and Schedule III that shows a comparison of the current mortality characteristics that were used to compute the recommended depreciation rates and the mortality characteristics used to determine the existing depreciation rates and accruals. A comparison of KPCo's current functional group composite depreciation rates and accruals to the recommended functional group rates and accruals based on plant-in-service at December 31,2008 follows:

## Ammual Rates and Accruals

| Functional Group | Current |  | Recommended |  | Increase (Decrease) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Rate $\%$ | \% Amount | Rate \% | \% Amount |  |  |
| Steam Production | 3.89 | \$20,314,393(a) | 4.05 | \$21,152,010 | \$ | 837,617 |
| Transmission Plant | 1.71 | 7,329,252 | 3.24 | 13,887,818 |  | 6,558,566 |
| Distribution Plant | 3.52 | 18,532,028 | 3.96 | 20,832,841 |  | 2,300,813 |
| General Plant | 2.54 | 817,176 | 5.07 | 1,632,019 |  | 814,843 |
| Total | 3.11 | \$46,992,849 | 3.81 | \$57,504,688 |  | 10,511,839 |

(a) The current approved depreciation rate for Steam Production Plant is 3.78\%. The $3.78 \%$ rate does not include the approved amortization of SCR Catalysts. For comparison purposes, the amounts shown above under Current Rates and Accruals have been adjusted to include an annual amortization of $\$ 552,360$ relating to the
catalysts. The recommended depreciation rates and accruals shown above reflect the catalysts in the recommended depreciation rate of $4.05 \%$.

Based on Depreciable Plant In Service as of December 31, 2008, I am recommending an increase in annual depreciation expense of $\$ 10,511,839$ or $0.70 \%$ in the annual composite rate. The depreciation rate changes are necessary because of changes (both increases and decreases) in the average service lives and the gross salvage of removal estimates that were used to calculate KPCo's current depreciation rates.

KPCo currently applies depreciation rates and maintains the accumulated depreciation by functional plant classification. I recommend that KPCo adopt and apply the depreciation accrual rates at the primary plant account level and that the accumulated depreciation be established by primary plant account as of a specific date, (e.g. the date revised depreciation rates become effective) and from that date forward KPCo should apply depreciation rates and maintain the accumulated depreciation at the primary plant account level. This will facilitate monitoring the depreciation accruals and actual salvage and removal cost activity for future depreciation study purposes. This will also eliminate the requirement to allocate the accumulated depreciation to primary plant accounts in future depreciation studies.

Section II of this report contains an explanation of the methods and procedures used in this study. Examples of computations discussed in Section II appear in Appendix A.

## SECTIION I

## SCHEDULES

## SCHEDULES

## SCHEDULE

## SUBJECT

I

II

III

Determination of Recommended Annual Depreciation Rates and Accruals by Primary Plant Account

Comparison of Existing Annual Accrual Rates and Accruals To the Recommended Amual Accrual Rates and Accruals

Comparison of Property Mortality Characteristics

## SCHEDULE I

Schedule I shows the determination of the recommended amual depreciation accrual rate by primary plant accounts by the straight line remaining life method. An explanation of the schedule follows:

| Column I | - | Account number. |
| :---: | :---: | :---: |
| Column II | - | Account title. |
| Column III | - | Original Cost at December 31, 2008 |
| Column IV | - | Average Life and (Iowa) Curve Type. |
| Column V | - | Terminal Retirement Date for accounts utilizing Life-Span Forecast |
| Column VI | - | Net Salvage Ratio. |
| Column VII | - | Total to be Recovered (Column III) * (Column IV). |
| Column VIII | - | Calculated Depreciation Requirement. |
| Colunn IX | - | Allocated Accumulated Depreciation - KPCo's Accounting group accumulated depreciation (book reserve) spread to each account on the basis of the Calculated Depreciation Requirement shown in Column VIII. |
| Column X | - | Remaining to be Recovered (Column VII - Column IX). |
| Column XI | - | Average Remaining Life. |
| Column XII | - | Recommended Annual Accrual Amount. |
| Column XIII |  | Recommend Amual Accrual Percent or Depreciation Rate (Column XII/Column III). |

KENTUCKY POWER COMPANY
ANNUAL DEPRECIATION RATES AND ACCRUALS BY THE REMAINING LIFE METHOD
BASED ON PLANT N SERVICE AT DECEMBER 31,2003


ANNUAL DEPRECIATION RATES AND ACCRUALS BY THEREMAINING TIFE METHOD BASED ON PLANT W SERVICE AT DECEMBER 31, 2008

ORIGINAL
COSTAT
$12 / 31 / 08$
(3)

|  | CURRENT |  |
| :---: | :---: | :---: |
| CURRENT | ANNUAL | STUDY |
| RATE | ACCRUAL | RATE |
| (4) | (5) | (6) |


| STUDY | DIFPERENCE |
| :---: | :---: |
| ACCRUAL | (DECREASE) |
| (7) | $(8)$ |

(8)

PRODUCTION PLANT

|  | Steam Production |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Big Sandy Plant |  |  |  |  |  |  |
| 311 | Structures \& improvements | 40,583,921 | 3.78\% | 1,534,072 | 2.98\% | 1,209,106 | $(324,966)$ |
| 312 | Boiler Plant Equipment - | 355,237,890 | 3.94\% | 13,980,352 (a) | $427 \%$ | 15,165,859 | 1,185,507 |
| 314 | Turbogenerator Units | 104,506,857 | 3.78\% | 3,250,359 | 3.96\% | 4,139,084 | 188.725 |
| 315 | Accessory Electrical Equipnont | 15,303,286 | 3.78\% | 578,464 | 2.93\% | 447,759 | $(130,705)$ |
| 316 | Misc. Power Plant Equipment | 7.173,142 | 3.78\% | 271.145 | 2.65\% | 100.202 | (80,943) |
|  | Total Stcam Production | 522.805 .096 | 3.89\% | 20, 314.393 | 4.05\% | 21.152 .010 | 837.617 |

## TRANSMISSION PLANT

| 350.1 | Rights of Way | 23,482.119 | 1.71\% | 401,544 | 1.54\% | 362,774 | (38.770) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 352.0 | Stuctures \& Improvements | 6,369,000 | 1.71\% | 108,925 | 1.42\% | 90,725 | $(18,200)$ |
| 353.0 | Station Equipment | 146,458,490 | 1.71\% | 2,504,440 | 2.87\% | 4,198,363 | 1,603,023 |
| 354.0 | Towers \& Fixtures | 94,722.543 | 1.71\% | 1,619,755 | 4.24\% | 4,015,310 | 2,305,564 |
| 355.0 | Poles \& Fixtures | 48,384,844 | 1.71\% | 827,381 | 4.69\% | 2,267,335 | 1,439,954 |
| 356.0 | Oll Cond. \& Devices | 109,075,670 | 1.71\% | 1,865,194 | 2.70\% | 2,949,918 | 1,084,724 |
| 3570 | Underground Conduit | 11.590 | 1.71\% | 198 | 3.09\% | 358 | 160 |
| 358.0 | Underground Conductor | 106.066 | 1.71\% | 1,814 | 285\% | 3.026 | 1.212 |
|  | Total Transmission Plant | 428.611.222 | 1.71\% | 7,329,253 | $374 \%$ | 13.887 .818 | 6.558,566 |

## DISTRIBUTION PLANT

| 360.1 | Rights of Way | 4,178,635 | 3.52\% | 147,088 | 1.40\% | 58,576 | $(88,512)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 361.0 | Structures \& improvements | 4,273,118 | 3.52\% | 150,414 | 1.35\% | 53,496 | $(96,918)$ |
| 362.0 | Station Equipment | 48,811,224 | 3.52\% | 1,718,155 | 3.00\% | 1,462,928 | $(256,127)$ |
| 364.0 | Poles, Towers, \& Fixtures | 147,624,354 | 3.52\% | 5,196,377 | 539\% | 7,961,738 | 2,765,361 |
| 365.0 | Overhead Conductor \& Devices | 129,155,638 | 3.52\% | 4,546,278 | 2.61\% | 3,372,083 | (1,174,195) |
| 366.0 | Underground Conduit | 4,302,754 | 3.52\% | 151,457 | 2.05\% | 88,056 | $(63,401)$ |
| 367.0 | Underground Conductor | 7,652,121 | 3.52\% | 209,355 | 2.05\% | 156,630 | (112,725) |
| 368.0 | Line Transformers | 98,415,053 | 352\% | 3,464,210 | 2.64\% | 2,600,670 | $(863,540)$ |
| 369.0 | Services | 38,162,243 | 3.52\% | 1,343,311 | 4.78\% | 1,822,919 | 479,608 |
| 370.0 | Meters | 22,962,067 | 3.52\% | 808,265 | 6.77\% | 1,554,856 | 746,591 |
| 371.0 | Inslallations on Custs Prem. | 18,001,253 | 3.52\% | 633,644 | 8.72\% | 1,564,966 | 036,322 |
| 373.0 | Street Lighting \& Signal Sys. | 2.939.603 | 3.52\% | 103.474 | 4.48\% | 131.823 | 28.349 |
|  | Total Distribution Plant | 526,478,063 | 3.52\% | 18.532,028 | 3.96\% | 20,832.841 | 2,300,813 |
| GENERAL PLANT |  |  |  |  |  |  |  |
| 389.1 | Land Rights | 210,615 | 2.54\% | 5,578 | 138\% | 3,023 | $(2,555)$ |
| 3900 | Structures \& Improvements | 19,910,322 | 2.54\% | 505,722 | 5.30\% | 1,054,590 | 548,868 |
| 3910 | Office Fumiture \& Equipment | 1,312,821 | 2.54\% | 33,346 | $3.28 \%$ | 43,111 | 9.76 .5 |
| 392.0 | Transportation Equipment | 1),655 | 2.54\% | 245 | 3.74\% | 361 | 116 |
| 393.0 | Stores Equipment | 142,851 | 2.54\% | 3,628 | 3.69\% | 5,268 | 1,640) |
| 394.0 | Tools Shop \& Garage Equipment | 2,579,396 | 2.54\% | 65,517 | 361\% | 93,166 | 27,649 |
| 395.0 | Laboratory Equipment | 262,378 | 2.54\% | 6,664 | 5.51\% | 14,464 | 7,800 |
| 396.0 | Power Operated Equipment | 5,931 | 2.54\% | 151 | 40.16\% | 2,382 | 2,231 |
| 397.0 | Communication Equipment | $6,755,008$ | 2.54\% | 171,577 | 530\% | 357,718 | [86,14] |
| 398.0 | Miscellameous Equipment | 974.320 | 254\% | 24,748 | 5.95\% | 57,936 | 33.188 |
|  | Total Goneral Plant | 32.172.297 | 2.54\% | 817,176 | 5.07\% | 1.632.019 | 814.843 |
|  | Total Depreciable Plant | 1,510,066,678 | 3.11\% | 46,992,849 (a) | 3.81\% | 57,504,688 | $10,511,839$ |

[^2]
## KENTUCKY POWER COMPANY COMPARISON OF MORTALITY CHARACTERISTICS

SCHEDULEIII

| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Exisling Rates |  |  | Study Rates |  |  |  |  |
|  |  | Avcrage Service Life (Ycars) | Iowa <br> Curve | Net <br> Salvage <br> Factor | Average Scrvice $\underset{\text { (Years) }}{\text { Life }}$ | lowa <br> Curve | Salvage Factor | Cost of Removal Factor | Net <br> Salvage Factor |
| TRANSMISSION PLANT |  |  |  |  |  |  |  |  |  |
| 350.1 | Rights of Way | 75 | R4.0 | $0 \%$ | 75 | R4.0 | 0\% | 0\% | 0\% |
| 352.0 | Structures \& Improvements | 55 | S1.5 | 0\% | 73 | L2.0 | 10\% | 0\% | 10\% |
| 353.0 | Station Equipment | 50 | RO. 5 | 25\% | 42 | R2.0 | 15\% | 20\% | -5\% |
| 354.0 | Towers \& Fixtures | 55 | R4.0 | 0\% | 50 | R3.0 | 10\% | 75\% | -65\% |
| 355.0 | Poles \& Fixtures | 45 | R3.0 | 0\% | 38 | S4.0 | 2\% | 55\% | -53\% |
| 356.0 | OH Cond. \& Devices | 50 | R3.0 | 10\% | 50 | R3.0 | 15\% | 25\% | -10\% |
| 357.0 | Underground Conduit | 37 | R2.0 | 0\% | 37 | R2.0 | 0\% | 0\% | 0\% |
| 358.0 | Underground Conductor and Devices | 44 | R1.0 | $0 \%$ | 44 | R1.0 | 0\% | 0\% | 0\% |
| DISTRIBUTION PLANT |  |  |  |  |  |  |  |  |  |
| 360.1 | Rights of Way | 75 | R4.0 | 0\% | 75 | R4.0 | 0\% | 0\% | 0\% |
| 361.0 | Structures \& Improvements | 65 | L0. 5 | 0\% | 75 | L2.0 | 15\% | 5\% | 10\% |
| 362.0 | Station Equipment | 25 | Lo. 0 | 25\% | 32 | R1.0 | 35\% | 25\% | 10\% |
| 364.0 | Poles, Towers, \& Fixtures | 28 | LO.O | 25\% | 30 | RO. 5 | 12\% | 65\% | -53\% |
| 365.0 | Overhead Conductor \& Devices | 26 | R1.5 | 25\% | 30 | R0.5 | 50\% | 25\% | 25\% |
| 366.0 | Underground Conduit | 37 | R2.0 | 0\% | 50 | R0.5 | 0\% | 0\% | 0\% |
| 367.0 | Underground Conductor | 44 | R1.0 | 0\% | 50 | S. 5 | $0 \%$ | 0\% | 0\% |
| 368.0 | Line Transformers | 25 | R1.5 | 15\% | 30 | RO. 5 | 35\% | 10\% | 25\% |
| 369.0 | Services | 18 | R2.0 | 0\% | 25 | L0.0 | $0 \%$ | 15\% | -15\% |
| 370.0 | Meters | 27 | R0.5 | 0\% | 17 | S6.0 | 2\% | 10\% | -8\% |
| 3710 | Installations on Custs. Prem. | 11 | LO. 0 | 30\% | 14 | R0. 5 | 5\% | 20\% | -15\% |
| 373.0 | Street Lighting \& Signal Sys. | 15 | Lo. 0 | 15\% | 24 | LO.O | 3\% | 5\% | -2\% |


| GENERAL PLANT |  |
| :--- | :--- |
| 389.2 | Rights of Way |
| 390.0 | Structures \& Improvements |
| 391.0 | Office Furniture \& Equipment |
| 392.0 | Transportation Equipment |
| 393.0 | Stores Equipment |
| 394.0 | Tools Shop \& Garage Equipment |
| 395.0 | Laboratory Equipment |
| 396.0 | Power Operated Equipment |
| 397.0 | Commmication Equipment |
| 398.0 | Miscellaneous Equipment |

## SECTION III

## DISCUSSION OF METHODS AND PROCEDURES USED IN THE STUDY

## SECTION II

## DISCUSSION OF METHODS

## AND PROCEDURES USED IN THE STUDY

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## SECTION II

## DISCUSSION OF METHODS AND PROCEDURES USED IN THE STUDY

## 1. Group Method

All of the depreciable property included in this report was considered on a group plan. Under the group plan, depreciation expense is accrued upon the basis of the original cost of all property included in each depreciable plant account. Upon retirement of any depreciable property, its full cost, less any net salvage realized, is charged to the accrued depreciation reserve regardless of the age of the particular item retired. Also, under this plan, the dollars in each primary plant account are considered as a separate group for depreciation accounting purposes and an amual depreciation rate for each. account is determined. The annual accruals by primary account were then summed, to arrive at the total acciual for each functional group. The total accrual divided by the original cost yields the functional group accrual rate.
2. Determination of Annual Depreciation Rates

## By the Average Remaining Life Method

KPCo's current depreciation rates are based on the Average Remaining Life Method. The Average Remaining Life Method recovers the original cost of the plant, adjusted for net salvage, less the accumulated depreciation, over the average remaining life of the plant. By this method, the annual depreciation rate for each account is determined on the following basis:

# Annual <br> Depreciation Expense $=$ <br> (Orig. Cost) (Net Salvage Ratio) - Accumulated Depreciation Average Remaining Life <br> Annual <br> Depreciation $=$ Aunual Depreciation Expense Rate Original Cost 

## 3. Methods of Life Analysis

Depending upon the type of property and the nature of the data available from the property accounting records, one of three life analyses was used to arrive at the historically realized mortality characteristics and service lives of the depreciable plant investments. These methods are identified and described as follows:

## Forecast Analysis

The life span forecast analysis was employed for Production Plant. KPCo's investment in production is the Big Sandy Generating Station which consists of Unit One with a nameplate capacity of $260,000 \mathrm{KW}$ and Unit Two with a nameplate capacity of $800,000 \mathrm{KW}$. Units One and Two were placed in service in 1963 and 1969 respectively. The life-span method of analysis is particularly suited to specific location property, such as Big Sandy, where all of the surviving investments are likely to be retired in total at a future date.

The key elements in the life span forecast analysis are the age of the surviving investments, the projected retirement date of the facility and the expected interim retirements. Interim retirements are those that are expected to occur between the date of the depreciation study and the expected final retirement date of the generating plant. Examples of interim retirements include fans,
pumps, motors, a set of boiler tubes, a turbine rotor, etc. The interim retirement history for each primary production plant account was analyzed and the results of those analyses were used to project future interim retirements. An example of the interim retirement for Account 311, Structures and Improvements, is shown in the Appendix on Page A-1.

The age of the surviving investments were obtained from KPCo's property accounting records. American Electric Power Service Corporation provided the retirement dates used in the life-span analysis. The retirement dates for Big Sandy Plant are Unit 1 in 2023 and Unit 2 in 2029.

## Actuarial Analysis

This method of analyzing past experience represents the application to industrial property of statistical procedures developed in the life insurance field for investigating human mortality. It is distinguished from other methods of life estimation by the requirement that it is necessary to know the age of the property at the time of its retirement and the age of survivors, or plant remaining in service; that is, the installation date must be known for each particular retirement and for each particular survivor.

The application of this method involves the statistical procedure known as the "annual rate method" of analysis. This procedure relates the retirements during each age interval to the exposures at the begiming of that interval, the ratio of these being the annual retirement ratio. Subtracting each retirement ratio from unity yields a sequence of annual survival ratios from which a survivor curve can be determined. This is accomplished by the consecutive multiplication of the survivor ratios. The length of this curve depends primarily upon the age of the oldest property. Normally, if the period of years from the inception of the
account to the time of the study is short in relation to the expected maximum life of the property, an incomplete or stub survivor curve results.

While there are a number of acceptable methods of smoothing and extending this stub survivor curve in order to compute the area under it from which the average life is determined, the well-known Iowa Type Curve Method was used in this study.

By this procedure, instead of mathematically smoothing and projecting the stub survivor curve to determine the average life of the group, it was assumed that the stub curve would have the same mortality characteristics as the type curve selected. The selection of the appropriate type curve and average life is accomplished by plotting the stub curve, superimposing on it fowa curves of the various types and average lives drawn to the same scale, and then determining which Iowa type curve and average life best matches the stub.

An example of the calculations involved in the Actuatial Method of Life Analysis is shown in the Appendix on Pages A-2 through A-4 for Account 362.0Distribution Station Equipment. Pages A-2 AND A-3 show the computation of the actual survivor curve for the experience band 1969-2008, inclusive based on historical data supplied by KPCO. The actual survivor curve for the 1969-2008 period is plotted and matched on Page A-4, as explained above. This method was used for the following accounts:

### 352.0 Transmission Structures \& Improvements

353.0 Transmission Station Equipment
361.0 Distribution Structures \& Improvements
362.0 Distribution Station Equipment
390.1 General Structures \& Improvements

## Simulated Plant Record Analysis

The "Simulated Plant Record" (SPR) method designates a class of statistical techniques that provide an estimate of the age distribution, mortality dispersion and average service life of property accounts whose recorded history provides no indication of the age of the property units when retired from service. For each such account, the available property records usually reveal only the amual gross additions, annual retirements and balances with no indication of the age of either plant retirements or amual plant balances. For this study, the "Balances method" of analysis was used.

The SPR Balances Method is a trial and error procedure that attempts to duplicate the annual balance of a plant account by distributing the actual annual gross additions over time according to an assumed mortality distribution. Specifically, the dollars remaining in service at any date are estimated by multiplying each year's additions by the successive proportion surviving at each age as given by the assumed survivor characteristics. For a given year, the balance indicated is the accumulation of survivors from all vintages and this is compared with the actual book balance. This process is repeated for a different survivor curves and average life combinations until a pattern is discovered which produces a series of "simulated balances" most nearly equaling the actual balances shown in a company's books.

This determination is based on the distribution producing the minimum sum of squared differences between the simulated balance and the actual balances over a test period of years.

The iterative nature of the simulated methods makes them ideally suited for computerized analysis. For each analysis of a given property account, the computer program provides a single page summary containing the results of each analysis indicating the "best fit" based on criteria selected by the user.

The results of such an analysis by the Balance Method is shown for Account 367 - Underground Conductor $\&$ Devices on page A-5 in the Appendix. In the case of the Balances Method each curve type tested is shown along with the average service life that produced the minimum sum of squared differences from the actual balances. The analysis also shows the value of the Index of Variation of the difference that is calculated according to the following equation for the Balances Method:


The lower the value of the Index the better the agreement with the actual data.

The SPR Method of Life Analysis was utilized for the following accounts:
354.0 Transmission Towers \& Fixtures
355.0 Transmission Poles \& Fixtures
356.0 OH Conductor \& Devices
364.0 Distribution Poles, Towers \& Fixtures
365.0 Distribution OH Conductor \& Devices
366.0 Underground Conduit
367.0 Underground Conductor \& Devices
368.0 Distribution Line Transformers

# 369.0 Distribution Services <br> 370.0 Distribution Meters <br> 371.0 Installation on Customers Premises <br> 373.0 Street Lighting \& Signal Systems 

## 4. Final Selection of Average Life and Curve Type

The final selection of average life and curve type for each depreciable plant account analyzed by the Actuarial Method was primarily based on the results of the mortality analyses of past retirement history.

## 5. Net Salvage

The net salvage percentages used in this report are expressed as percent of original cost and are based primarily on the Company's experience combined with the experienced judgment of the analyst. KPCo maintains salvage and removal costs at the functional plant level, rather than by primary plant accounts. To aid in the selection of net salvage percentages, a review was made of the Company's experience for each plant function with respect to salvage and removal costs for the period 1994-2008. A sample of the type of salvage analysis made appears in Appendix A on Pages A-6 through A-11 for the Distribution Plant function. In order to determine gross salvage, gross removal and net salvage percentages for the individual plant accounts, the original cost retirements were detailed by account for the period 1994 through 2008 and, based on judgment, gross salvage and cost of removal percentages were selected for each account so that the gross salvage and gross removal would approximate the total functional percentages for the period 1994 through 2008. The salvage and removal percentages for each account were then netted to determine a net salvage percentage for each account.

The net salvage percents were converted to net salvage ratios and appear in Column VI on Schedule I and were used to determine the total amount to be recovered through depreciation. The same net salvage was also reflected in the determination of the calculated depreciation requirement, which was used to allocate the accumulated depreciation at the functional group to the accounts comprising each group.

The net salvage ratios shown in Colunn VI on Schedule I in Section I of this report may be explained as follows:
a. Where the ratio is shown as unity (1.00), it was assumed that the net salvage in that particular account would be zero.
b. Where the ratio is less than unity, it was assumed that the salvage exceeded the removal costs. For example, if the net salvage were $20 \%$, the net salvage ratio would be expressed as 80 .
c. Where the ratio is greater than unity, it was assumed that the salvage was less than the cost of removal. For example, if the net salvage were minus $5 \%$, the net salvage ratio would be expressed as 1.05 .

Net Salvage for Steam Production Plant

While the analysis described above was used to determine the net salvage applicable to interim retirements for steam production plant, the most significant net salvage realization for generating plants occurs at the end of their life. Therefore, to assist in establishing the net salvage applicable to KPCo's steam generating plant, KPCo had a conceptual demolition cost estimate prepared by Brandenburg Industrial Service Company for Big Sandy Plant. The cost estimate to demolish the plant is based on
current (2004) price levels. The estimates of demolition costs were incorporated into the net salvage ratios for Steam Production Plant.

## 6. Effects of Statement of Financial Accounting Standards No. 143 (SFAS 143) and Federal Energy Regulatory Commission (FERC) Order 631 on Net Salvage

The Financial Accounting Standards Board (FASB) issued SFAS 143, Accounting for Asset Retirement Obligations, in June 2002. SFAS 143 became effective January 1, 2003 for companies whose fiscal year ends on December 31. SFAS 143 is a financial accounting requirement that deals with the identification, measurement and recording of legal liabilities associated with asset retirement. SFAS 143 was designed to standardize the way that different companies and different industries account for cost of removal when there is a legal asset retirement obligation. SFAS 143 was not intended to address the appropriate ratemaking treatment for regulated utilities.

As stated in KPCo's financial statements, KPCo has identified, but not recognized, asset retirement obligations related to electric transmission and distribution as a result of the nature of certain easements on property on which KPCo has assets. Generally these easements are perpetual and require only the retirement and removal of transmission and distribution assets upon the cessation of the property's use. The retirement obligation is not estimable for such easements as KPCo plans to use the facilities indefinitely. KPCo has identified asbestos at Big Sandy plant to constitute an ARO.

SFAS 143 did not directly change the accounting requirements for rate-regulated companies for removal costs that are not a legal retirement obligation. The Security and Exchange Commission (SEC) has interpreted SFAS 143 to require that cost of removal that is not a legal obligation should not be recognized under Generally Accepted

Accoming Principles (GAAP) by unregulated entities. Statement of Financial Accounting Standards No. 71 (SFAS 71) provides that any such amounts that are recovered in rates by regulated enterprises would be classified as regulatory liabilities for SEC reporting purposes.

The (FERC) issued Order 631 on April 9, 2003. Order 631 added new balance sheet and income statement accounts to be used for recording legal Asset Retirement Obligations. In addition, Order 631 revised definitions and, the general and plant instructions contained in the FERC Uniform System of Accounts.

FERC also specifically addressed accounting for cost of removal that does not constitute a legal obligation in Section III, paragraph 36 of Order 631 as follows:

As proposed in the NOPR, the rule applies to legal obligations associated with the retirement of tangible long-lived assets. Under existing requirements of the Uniform System of Accounts removal costs that are not asset retirement obligations are included as a component of the depreciation expense and recorded in accumulated depreciation. The Commission notes that certain jurisdictional entities may have been receiving specific allowances for cost of removal for nonlegal retirement obligations as a specific component in their rates approved by their regulators. The Commission did not propose any changes to its existing accounting requirements for cost of removal for non-legal retirement obligations. Accordingly, jurisdictional entities are accounting for such costs consistent with the requirements of the Uniform System of Accounts under Part 101 for public utilities and licensees, Part 201 for natural gas companies and Part 352 for oil pipeline companies.

KPCo's current book depreciation study rate recommendations comply with the
accounting requirements of SFAS 143 and FERC Order 631. The study splits the amount of net salvage into a gross removal component and a gross salvage component. Thus, for SEC financial reporting purposes, the amount of removal costs included in depreciation rates and accruals can readily be determined and reclassified to a regulatory liability account.
7. Calculation of Depreciation Requirement at December 31, 2008

The accumulated depreciation by functional group was allocated to individual plant accounts based on the calculation of a depreciation requirement (theoretical reserve) for each plant account using the average service life, curve type and net salvage amount recommended in this study. An example of the calculation of the depreciation requirement at December 31, 2008, for Account 361 - Distribution Structures, is shown on Pages A-12 and A-13 in Appendix A.
8. Study Results

The average service life, retirement dispersion pattern and net salvage pattern used to calculate each primary plant account rate are shown on Schedule 2. The mortality characteristics and net salvage values for the current rates are also shown. The changes to the mortality characteristics follow the trends shown by the historical retirement experience. The gross salvage and gross cost of removal percentages were based on the history of the account for the period 1994-2008.

## Production Plant

The composite rate for Steam Production Plant increased from 3.89\% to 4.05\%. The increase was caused by an increase in the investments in the accounts since the last depreciation study, offset in large part by an increase in the total life span of both units
and a decrease in the amount of negative net salvage.

## Transmission Plant

The composite rate for Transmission Plant increased from $1.71 \%$ to $3.24 \%$. The increase was caused by a reduction of the average service lives for Accounts 353, Station Equipment and 3.55, Poles \& Fixtures as indicated in the life analysis for those accounts and by increases in the net removal costs for this functional group of plant investment based on the actual cost of removal experienced during the period 1994 through 2008.

## Distribution Plant

The composite rate for Distribution Plant increased from 3.52\% to 3.96\%. The increase was caused by increases in net removal costs for this functional group of plant investments based on the actual cost of removal experienced during the period 1994 through 2008 offset, in part, by increases in the average service lives for ten of the twelve individual plant accounts that comprise this functional plant investment.

## General Plant

The composite rate for General Plant increased from $2.54 \%$ to $5.07 \%$. The increase is mainly attributable to the decrease in average service life for Accounts 390, Structures and Improvements.

## APPENDIX A

## 

KENTUCKY POWER COMPANY CALCULATION OF INTERIM RETIREMENT RATIOS STEAM PRODUCTION PLANT ACCOUNT 311.0 STRUCTURES \& IMPROVEMENTS

| YEAR | ADDITIONS | RETIREMENTS | BALANCE | AVERAGE BALANCE | $\begin{aligned} & \text { RETIREMENT } \\ & \text { RATIO } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1963 | 6,127,706 | 0 | 6,127,706 | N. A. | N. A. |
| 1964 | 13,194 | 0 | 6,140,900 | 6,134,303 | 0.0000 |
| 1965 | 18,607 | 255 | 6,159,252 | 6,150,076 | 0.0000 |
| 1966 | 4,255 | 7.338 | 6,156,169 | 6,157,711 | 0,0012 |
| 1967 | 575 | 69,333 | 6,087,411 | 6,121,790 | 0.0113 |
| 1968 | 21,282 | 0 | 6,108,693 | 6,098,052 | 0,0000 |
| 1969 | 15,770,374 | 0 | 21,879,067 | 13,993,880 | 0.0000 |
| 1970 | 803,526 | 7,182 | 22,675,411 | 22,277,239 | 0.0003 |
| 1971 | 163,043 | 37,002 | 22,801,452 | 22,738,432 | 0.0016 |
| 1972 | 56,860 | 0 | 22,858,312 | 22,829,882 | 0.0000 |
| 1973 | 2,605 | 0 | 22,860,917 | 22,859,615 | 0.0000 |
| 1974 | 66,090 | 1,665 | 22,925,342 | 22,893,130 | 0.0001 |
| 1975 | 29,219 | 0 | 22,954,561 | 22,939,952 | 0.0000 |
| 1976 | 65,662 | 0 | 23,020,223 | 22,987,392 | 0.0000 |
| 1977 | 87,499 | 0 | 23,107,722 | 23,063,973 | 0.0000 |
| 1978 | 297,729 | 24,379 | 23,381,072 | 23,244,397 | 0.0010 |
| 1979 | 214,311 | 5,000 | 23,590,383 | 23,485,728 | 0.0002 |
| 1980 | 27,547 | 6,618 | 23,611,312 | 23,600,848 | 0.0003 |
| 1981 | 212,801 | 358 | 23,823,755 | 23,717,534 | 0.0000 |
| 1982 | 716,535 | 44,396 | 24,495,894 | 24,159,825 | 0.0018 |
| 1983 | 389,851 | 307,808 | 24,577,937 | 24,536,916 | 0.0125 |
| 1984 | 81,115 | 469 | 24,658,583 | 24,618,260 | 0.0000 |
| 1985 | 64,741 | 1,605 | 24,721,719 | 24,690,151 | 0.0001 |
| 1986 | 0 | 0 | 24,721,719 | 24,721,719 | 0.0000 |
| 1987 | 34,955 | 966 | 24,755,708 | 24,738,714 | 0.0000 |
| 1988 | 171,684 | 718 | 24,926,674 | 24,841,191 | 0.0000 |
| 1989 | 28,362 | 2,856 | 24,952,180 | 24,939,427 | 0.0001 |
| 1990 | 484,041 | 3,690 | 25,432,531 | 25,192,356 | 0.0001 |
| 1991 | 18,357 | 35,387 | 25,415,501 | 25,424,016 | 0.0014 |
| 1992 | 22,217 | 13,640 | 25,424,078 | 25,419,790 | 0.0005 |
| 1993 | 168,711 | 56,800 | 25,535,989 | 25,480,034 | 0.0022 |
| 1994 | 1,254,912 | 4,050 | 26,786,851 | 26,161,420 | 0.0002 |
| 1995 | 45,725 | 9,070 | 26,823,506 | 26,805,179 | 0.0003 |
| - 1996 | 113,294 | 94,931 | 26,841,869 | 26,832,688 | 0.0035 |
| 1997 | $0$ | 101,804 | 26,740,065 | 26,780,967 | 0.0038 |
| 1898 | 2,448,051 | 54,548 | 29,133,568 | 27,936,817 | 0.0020 |
| 1999 | 220,173 | 4,000 | 29,349,741 | 29,241,655 | 0.0001 |
| 2000 | 46,629 | 17,282 | 29,379,088 | 29,364,415 | 0.0006 |
| 2001 | 20,444 | 8,355 | 29,391,177 | 29,385,133 | 0.0003 |
| 2002 | 431 | 1,158 | 29,390,440 | 29,390,809 | 0.0000 |
| 2003 | 6,265,695 | 5,061 | 35,651,074 | 32,520,757 | 0.0002 |
| 2004 | 630,676 | 74,097 | 36,207,653 | 35,929,364 | 0.0021 |
| 2005 | 2,005,164 | 60,910 | 38,151,907 | 37,179,780 | 0.0016 |
| 2006 | 484,134 | 118,897 | 38,517,144 | 38,334,526 | 0.0031 |
| 2007 | 1,141,080 | 258,942 | 39,399,282 | 38,958,213 | 00066 |
| 2008 | 1,533,583 | 348,944 | 40,583,921 | 39,981,602 | 0.0087 |
| TOTAL 1975-2008 | 14,161,367 | 879,056 | 788,802,573 | 782,161,418 | 0.0537 |

Used 1975 through 2008 interim retirements. Based on retirements five years after in-service date of Unit 2.

AVERAGE INTERIMRATE 0.0537
0.0016

Account: KEPCo 101/6 362 - KY Scenario: KEPCO DISTRIBUTION 2008 NEW

- Actual Data
- R1 31.86


| Account: KEPCO 10116362 - KY |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Scenario: KEPCO DISTRIBUTION 2008 |  |  |  |  |  |  |
| Placement Band: 1914-2008 |  |  |  |  |  |  |
| Function: Survivorship Annual Rate MethodWeighting: UnweightedT-Cut: None |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Observation | Cen | ring | Error Sum |  |  |  |
| Band | Age | Percent | of Squares | Disp | ASL |  |
| 1969-2008 | 94.5 | 0.00 | 0.03943455 | R1 | 31.86 |  |

Scenario: KEPCO DISTRIEUTION 2008
Account: KEPCO 101/6 362-KY
Placement Band: 1914-2008 Observation Band: 1969-2008

| Age at Beginning of interval | Exposures at Beginning of Interval | Retirements During Interval | Retirment Ratio | Survivor Ratio | Percent Sur <br> at Beginning of Interval |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 59,985,742,89 | 95,997.00 | 0.00160 | 0.99840 | 100.00 |
| 0.5 | 59,323,302.21 | 787,640.82 | 0.01328 | 0.98672 | 99.84 |
| 1.5 | 56,260,881.34 | 961,667.23 | 0.01709 | 0.98291 | 98.51 |
| 2.5 | 52,496,365.06 | 787,381.07 | 0.01500 | 0.98500 | 96.83 |
| 3.5 | 48,262,548.88 | 883,989,43 | 0.01832 | 0.98168 | 95.38 |
| 4.5 | 46,863,612.93 | $870,467.55$ | 0.01857 | 0.98143 | 93.63 |
| 5.5 | 45,040,509.33 | 564,357.53 | 0.01253 | 0.98747 | 91.89 |
| 6.5 | 43,870,474.71 | 580,977.03 | 0.01347 | 0.98653 | 90.74 |
| 7.5 | 41,310,178.14 | 608,387.84 | 0.01473 | 0.98527 | 89.52 |
| 8.5 | 39,025,002.34 | 509,696.24 | 0.01306 | 0.98694 | 88.20 |
| 9.5 | 37,488,552,39 | 375,115.70 | 0.01001 | 0.98999 | 87.05 |
| 10.5 | 36,399,250.11 | 516,939.35 | 0.01420 | 0.98580 | 86.18 |
| 11.5 | 34,269,086.91 | 340,545.36 | 0.00994 | 0.99006 | 84.96 |
| 12.5 | 32,265,407.49 | 380,919.42 | 0.01181 | 0.98819 | 84.12 |
| 13.5 | 27,506,410.48 | 353,632.11 | 0.01286 | 0.98714 | 83.13 |
| 14.5 | 25,870,415.65 | 379,032.58 | 0.01465 | 0.98535 | 82.06 |
| 15.5 | 22,316,533,76 | 223,168,02 | 0.01000 | 0.98000 | 80.86 |
| 16.5 | 21,122,946.21 | 479,248.43 | 0.02268 | 0.97731 | B0.05 |
| 17.5 | 19,283,088.40 | 326,077,46 | 0.01691 | 0.98309 | 78.23 |
| 18.5 | 18,638,065.72 | 392,058.95 | 0.02104 | 0.97896 | 76.91 |
| 19.5 | 17,924,689,42 | 295,941.08 | 0.01651 | 0.98349 | 75.29 |
| 20.5 | 17,446,790.83 | 322,228.18 | 0.01847 | 0.98153 | 74.05 |
| 21.5 | 15,461,836.06 | 458,812.55 | 0.02967 | 0.97033 | 72.68 |
| 22.5 | 13,817,901.14 | 219,271.18 | 0.01587 | 0.98413 | 70.52 |
| 23.5 | 12,968,924,12 | 506,496.37 | 0.03905 | 0.96095 | 69.40 |
| 24.5 | 11,819,895.00 | 166,890.39 | 0.01412 | 0.98588 | 66.69 |
| 25.5 | 10,947,470.25 | 210,003.59 | 0.01918 | 0.98082 | 65.75 |
| 26.5 | 9,762,598.13 | 344,075,32 | 0.03524 | 0.96476 | 64.49 |
| 27.5 | 8,734,296.39 | 140,671,46 | 0.01611 | 0.98389 | 62.22 |
| 28.5 | 6,162,356.68 | 163,183.85 | 0.02648 | 0.97352 | 61.22 |
| 29.5 | 5,571,673.14 | 182,596.92 | 0.03277 | 0.96723 | 59.60 |
| 30.5 | 4,565,331.66 | 170,685.72 | 0.03739 | 0.96261 | 57.65 |
| 31.5 | 3,697,547.84 | 220,582,40 | 0.05966 | 0.94034 | 55.49 |
| 32.5 | 3,338,844.77 | 107,673,01 | 0.03225 | 0.96775 | 52.18 |
| 33.5 | 2,899,794.83 | 292,997.95 | 0.10104 | 0.89896 | 50.50 |
| 34.5 | 2,322,768.13 | 35,180.41 | 0.01515 | 0.98485 | 45.40 |
| 35.5 | 1,863,045.96 | 94,900.00 | 0.05094 | 0.94906 | 44.71 |
| 36.5 | 1,260,741.63 | 70,970.12 | 0.05629 | 0.94371 | 42.43 |
| 37.5 | 921,418.79 | 79,953.11 | 0.08677 | 0.91323 | 40.04 |
| 38.5 | 765,507.98 | 19,569.00 | 0.02556 | 0.97444 | 36.57 |
| 39.5 | 728,441.97 | $34,540.43$ | 0.04742 | 0.95258 | 35.64 |
| 40.5 | 572,590.96 | 23,938.39 | 0.04181 | 0.95819 | 33.95 |
| 41.5 | 437,736,97 | 56,689,84 | 0.12951 | 0.87049 | 32.53 |
| 42.5 | 329,186.59 | $2,981.00$ | 0.00906 | 0.99094 | 28.32 |
| 43.5 | 325,218.59 | 1,312.00 | 0.00403 | 0.99597 | 28.06 |
| 44.5 | 304,618.57 | 129,889.59 | 0.42640 | 0.57360 | 27.95 |
| 45.5 | 107,889.15 | 1,647.00 | 0.01527 | 0.98473 | 16.03 |
| 46.5 | 111,03121 | 823.00 | 0.00741 | 0.99259 | 15.79 |
| 47.5 | 83,649.55 | 409.00 | 0.00489 | 0.99511 | 15.67 |
| 48.5 | 93,364.55 | 5,126.00 | 0.05490 | 0.04510 | 15.59 |
| 49.5 | 93,290.55 | 36,688.00 | 0.39326 | 0.60674 | 14.73 |
| 50.5 | 61,392.55 | 10,337 | A 468837 | 0.83163 | 8.94 |
| 51.5 | $35,019.00$ | 0 | 0000 | 1.00000 | 7.43 |
| 52.5 | 40,616.00 | 954.00 | 0.02349 | 0.97651 | 7.43 |



Account: KEPCo $101 / 6367$ - KY
Version: KEPCO DISTRIBUTION 2008
Mechod: Simulated Balances
No. of Test Points: 40 Interval: 0 Observation Band: 1969-2008

| Dispersion | Avg Service Life | Sum of Squared Differences | Index of Variation | Conformance Index | Retirement <br> Experience Index |
| :---: | :---: | :---: | :---: | :---: | :---: |
| S-. 5 | 49.6 | $1.19 \mathrm{E}+10$ | 7.1041 | 140.76 | 76.77 |
| R1 | 43.0 | 1.21E+10 | 7.1537 | 139.79 | 94.11 |
| R0.5 | 51.8 | 1.24E* 10 | 7.2383 | 138.15 | 73.74 |
| LO | 54.8 | $1.26 \mathrm{E}+10$ | 7.2917 | 137.14 | 71.23 |
| L0.5 | 47.1 | 1.64E+10 | 8.3340 | 119.99 | 81.60 |
| R1.5 | : 37.7 | 1.77E+10 | 8.6522 | 115.58 | 99.80 |
| So | 40.7 | 1.96E+10 | 9.1087 | 109.79 | 95.53 |
| L. 1 | 41.3 | 2.81E+10 | 10.8986 | 91.75 | 90.54 |
| S0.5 | 36.8 | $3.23 \mathrm{E}+10$ | 11.6972 | 85.49 | 99.93 |
| R2 | 34.1 | $3.89 \mathrm{E}+10$ | 12.8274 | 77.96 | 100.00 |
| L1. 5 | 37.7 | $4.61 \mathrm{E}+10$ | 13.9653 | 71.61 | 95.71 |
| 51 | 33.9 | $5.73 \mathrm{E}+10$ | 15.5764 | 64.20 | 100.00 |
| R2. 5 | 31.7 | 7.47E+10 | 17.7842 | 56.23 | 100.00 |
| L2 | 34.4 | $8.02 \mathrm{E}+10$ | 18.4262 | 54.27 | 98.86 |
| S1.5 | 32.4 | $8.62 \mathrm{E}+10$ | 19.0977 | 52.36 | 100.00 |
| S2 | 30.7 | 1.29E+11 | 23.3729 | 42.78 | 100.00 |
| R3 | 30.3 | 1.36Et1才 | 23.9983 | 41.67 | 100.00 |
| L3 | 31.1 | $1.60 \mathrm{E}+11$ | 26.0489 | 38.39 | 100.00 |
| S3 | 29.3 | 2.20E+11 | 30.5292 | 32.76 | 100.00 |
| 14 | 29.0 | $2.67 \mathrm{E}+11$ | 33.6344 | 29.73 | 100.00 |
| R4 | 28.7 | 2.6BE +11 | 33.6871 | 29.68 | 100.00 |
| 54 | 28.3 | 3.45E+11 | 38.2156 | 26.17 | 100.00 |
| 15 | 28.3 | 3.79E+11 | 40.0704 | 24.96 | 100.00 |
| R5 | 28.0 | 4.17E+11 | 42.0333 | 23.79 | 100.00 |
| S5 | 27.9 | $4.50 \mathrm{E}+11$ | 43.6313 | 22.92 | 100.00 |
| 56 | 27.4 | $5.16 \mathrm{E}+11$ | 46.7445 | 21.39 | 100.00 |
| SQ | 29.9 | $9.82 \mathrm{E}+11$ | 64.4743 | 15.51 | 100.00 |



号㲋。

| KENTUCKY POWER COMPANY <br> Distribution Plant Net Salvage Test |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Original Cost Retired by Plant Account Net |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Year | 361 | 362 | 364 | 365 | 366 | 367 | 368 | 369 | 370 | 371 | 373 | Total | $\frac{\text { Salvage }}{\%}$ |
|  |  |  |  |  |  |  | 1，164，053 | 562，102 | 576，545 | 354，006 | 37，451 | 4，524，294 | 4\％ |
| 1994 | 19，675 | 267，934 | 144，412 | 1，379，552 | 199 5842 | 18，3071 | 1，313，309 | 497，449 | 631，063 | 350；093 | 30，017 | 7，357，320 | 1\％ |
| 1995 | 2.757 | 287，579 | 1，671，011 | 2，549，129 | 5,842 1,248 | 37，421 | 1，578，917 | 475，561 | 517，207 | 246，115 | 18，665 | 6，125，834 | 2\％ |
| 1996 | 5，030 | 454，597 | 1，128，837 | 1，662，236 | 1，248 | 46，345 | 2，186，374 | 522，610 | 836，156 | 529，850 | 26，937 | 8，102，223 | 6\％ |
| 1997 | 6，522 | 734，060 | 1，542，829 | 1，666．505 | 4，035 | 46,345 16729 | 2， 180,387 $1,560,837$ | 431，172 | 723.727 | 553，968 | 20，374 | 5，746，071 | 8\％ |
| 1998 | 57，059 | 430.669 | 1，082，705 | 867,054 767232 | 1,777 2,608 | 16,729 11,656 | 1，278，242 | 344，602 | 979，544 | 465，115 | 15，450 | 4，778，017 | 4\％ |
| 1999 | 462 | 133，384 | 779,722 $1.459,576$ | 767,232 $1.553,565$ | 2，608 6,479 | 36，661 | 1，443，110 | 569，287 | 1，709，961 | 637，697 | 26，217 | 7，873，489 | 16\％ |
| 2000 | 0 | 430，936 | $1,459,576$ $1,402,184$ | 1，533，565 | 9，421 | 11，194 | 1，029，459 | 390，080 | 639.511 | 563.686 | 22，268 | 5，934，589 | $-7 \%$ $30 \%$ |
| 2001 2002 | 0 | 543,501 163,287 | $1,402,184$ $1,100,199$ | $1,323,285$ 2,020 | 16，953 | 71，261 | 1，055，795 | 508，684 | 970，185 | 370，170 | 27.698 | 6，304，532 $5,434,676$ | －30\％ |
| 2002 | 0 | 163,287 448,926 | $\begin{array}{r}1,700,59 \\ \hline 70,546\end{array}$ | 1，665，159 | 2，929 | 23，089 | 1，073，924 | 630.850 | 624，632 | 155，458 | 39，163 | 5，434，676 7249,358 | －15\％ |
| 2004 | 370 | 325，880 | 3，264，700 | 1，048，651 | 2，052 | 37，052 | 1，076，234 | 511，999 | 832,607 1.515899 | 115,921 818,523 | 78，077 | 8，110，338 | －7\％ |
| 2005 | 25，016 | 1，290，672 | 728，627 | 1，665，652 | 143 | 36，728 | 1，100，630 | ＋760，371 | 9，319，669 | 1，063，929 | 145，：14 | 17，649，598 | 6\％ |
| 2006 | 0 | 854，863 | 839，957 | 2，373，219 | 7，368 | 144，643 | 2，367，716 | ＋887．176 | 9，974，912 | 930，355 | 102，177 | 19，390，775 | －10\％ |
| 2007 | 0 | 811，720 | 1，283，667 | 2，993，281 | 7,269 694 | －36，512 | 2，310，335 | 720，680 | 1，023，534 | 1，060，049 | 97，394 | 9，934，619 | $-22 \%$ |
| 2008 | 206 | 197，774 | 1，315，032 | 3，155，687 |  |  |  |  |  |  |  |  |  |
| TOTAL | 117，097 | 2375.782 | 18．514，004 | 26，690．507 | 35，007 | 599.961 | 22.385 .162 | 8，957，232 | 30，875，152 | 8.214 .935 | 220.894 | 124.515 .733 | 0\％ |
|  |  |  |  |  |  |  |  |  |  | ＊ |  |  |  |
| $\stackrel{\rightharpoonup}{V}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EVALUATION BASED ON 1994－2008 ACTUAL |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 361 | 362 | 364 | 365 | 366 | 367 | 368 | 369 | 370 | 371 | 373 | Total |  |
| Total Retmis | 117097 | 7375782 | 18，514，004 | 26，690，507 | 65，007 | 599，961 | 22，385，162 | 8，957，232 | 30，875，152 | 8，214，935 | 720，894 | 124，515，733 |  |
|  |  |  | －53 |  |  |  |  | －15 | －8 | －15 | －2 | －1 |  |
| Net Salvage \％ | 10 | 10 |  | 25 | 0 | 0 | 25 |  |  |  |  | －1，854，472 |  |
| Net Salvage \＄ | 11，710 | 737．578 | －9，812，422 | 6，672，627 | 0 | 0 | 5，596，291 | －1，343，585 | －2，470，012 | －1，232，240 | －14，418 |  |  |


| KENTUCKY POWER COMPANY <br> Distribution Plant Net Salvage Test |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Original Cost Retired by Plant Account Net |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Year | 361 | 362 | 364 | 365 | 366 | 367 | 368 | 369 | 370 | 371 | 373 | Total | $\frac{\text { Salvage }}{\%}$ |
|  |  |  |  |  |  |  | 1，164，053 | 562，102 | 576，545 | 354，006 | 37，451 | 4，524，294 | 4\％ |
| 1994 | 19，675 | 267，934 | 144，412 | 1，379，552 | 199 5842 | 18，3071 | 1，313，309 | 497，449 | 631，063 | 350；093 | 30，017 | 7，357，320 | 1\％ |
| 1995 | 2.757 | 287，579 | 1，671，011 | 2，549，129 | 5,842 1,248 | 37，421 | 1，578，917 | 475，561 | 517，207 | 246，115 | 18，665 | 6，125，834 | 2\％ |
| 1996 | 5，030 | 454，597 | 1，128，837 | 1，662，236 | 1，248 | 46，345 | 2，186，374 | 522，610 | 836，156 | 529，850 | 26，937 | 8，102，223 | 6\％ |
| 1997 | 6，522 | 734，060 | 1，542，829 | 1，666．505 | 4，035 | 46,345 16729 | 2， 180,387 $1,560,837$ | 431，172 | 723.727 | 553，968 | 20，374 | 5，746，071 | 8\％ |
| 1998 | 57，059 | 430.669 | 1，082，705 | 867,054 767232 | 1,777 2,608 | 16,729 11,656 | 1，278，242 | 344，602 | 979，544 | 465，115 | 15，450 | 4，778，017 | 4\％ |
| 1999 | 462 | 133，384 | 779,722 $1.459,576$ | 767,232 $1.553,565$ | 2，608 6,479 | 36，661 | 1，443，110 | 569，287 | 1，709，961 | 637，697 | 26，217 | 7，873，489 | 16\％ |
| 2000 | 0 | 430，936 | $1,459,576$ $1,402,184$ | 1，533，565 | 9，421 | 11，194 | 1，029，459 | 390，080 | 639.511 | 563.686 | 22，268 | 5，934，589 | $-7 \%$ $30 \%$ |
| 2001 2002 | 0 | 543,501 163,287 | $1,402,184$ $1,100,199$ | $1,323,285$ 2,020 | 16，953 | 71，261 | 1，055，795 | 508，684 | 970，185 | 370，170 | 27.698 | 6，304，532 $5,434,676$ | －30\％ |
| 2002 | 0 | 163,287 448,926 | $\begin{array}{r}1,700,59 \\ \hline 70,546\end{array}$ | 1，665，159 | 2，929 | 23，089 | 1，073，924 | 630.850 | 624，632 | 155，458 | 39，163 | 5，434，676 7249,358 | －15\％ |
| 2004 | 370 | 325，880 | 3，264，700 | 1，048，651 | 2，052 | 37，052 | 1，076，234 | 511，999 | 832,607 1.515899 | 115,921 818,523 | 78，077 | 8，110，338 | －7\％ |
| 2005 | 25，016 | 1，290，672 | 728，627 | 1，665，652 | 143 | 36，728 | 1，100，630 | ＋760，371 | 9，319，669 | 1，063，929 | 145，：14 | 17，649，598 | 6\％ |
| 2006 | 0 | 854，863 | 839，957 | 2，373，219 | 7，368 | 144，643 | 2，367，716 | ＋887．176 | 9，974，912 | 930，355 | 102，177 | 19，390，775 | －10\％ |
| 2007 | 0 | 811，720 | 1，283，667 | 2，993，281 | 7,269 694 | －36，512 | 2，310，335 | 720，680 | 1，023，534 | 1，060，049 | 97，394 | 9，934，619 | $-22 \%$ |
| 2008 | 206 | 197，774 | 1，315，032 | 3，155，687 |  |  |  |  |  |  |  |  |  |
| TOTAL | 117，097 | 2375.782 | 18．514，004 | 26，690．507 | 35，007 | 599.961 | 22.385 .162 | 8，957，232 | 30，875，152 | 8.214 .935 | 220.894 | 124.515 .733 | 0\％ |
|  |  |  |  |  |  |  |  |  |  | ＊ |  |  |  |
| $\stackrel{\rightharpoonup}{V}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EVALUATION BASED ON 1994－2008 ACTUAL |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 361 | 362 | 364 | 365 | 366 | 367 | 368 | 369 | 370 | 371 | 373 | Total |  |
| Total Retmis | 117097 | 7375782 | 18，514，004 | 26，690，507 | 65，007 | 599，961 | 22，385，162 | 8，957，232 | 30，875，152 | 8，214，935 | 720，894 | 124，515，733 |  |
|  |  |  | －53 |  |  |  |  | －15 | －8 | －15 | －2 | －1 |  |
| Net Salvage \％ | 10 | 10 |  | 25 | 0 | 0 | 25 |  |  |  |  | －1，854，472 |  |
| Net Salvage \＄ | 11，710 | 737．578 | －9，812，422 | 6，672，627 | 0 | 0 | 5，596，291 | －1，343，585 | －2，470，012 | －1，232，240 | －14，418 |  |  |





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sune: KEPCo 101/6361-KY
ario: KEPCO DISTRIBUTION 2008 NEW
Dispersion: 75-L2
$\begin{array}{ll}\text { Average Nei Salvage Rate: } & 10.00 \% \\ \text { Future Net Salvage Rate: } & 10.00 \%\end{array}$

Broad Group Procedure
January 1, 2009

|  | Plant Amt | Amount | Repreciation Reserve | Net Plant | Ratio |
| :--- | :---: | :---: | :---: | :---: | :---: |

Account: KEPCo $101 / 6361-\mathrm{KY}$
EXHHBTE IEH-1
Dispersion: $75.00-12$
Average Net Salvage Rate: $10.00 \%$
Future Net Salvage Rate: $\quad 10.00 \%$
Eroad Group Procedure
January 1,2009

| Vintage | Age | Surviving Plant | Avg Life | Remaining <br> Life | Net Plant Ratio | Alloc <br> Factor | Computed Net Plant: | Accrual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2008 | 0.50 | \$121,240.22 | 75.00 | 74.50 | 0.8940 | 1.0000 | \$108,388. 39 | \$1,454.88 |
| 2005 | 3.50 | \$8,634.85 | 75.00 | 71.51 | 0.8581 | 1.0000 | \$7,409.48 | \$103.62 |
| 2003 | 5.50 | \$395,783.91 | 75.00 | 69.53 | 0.8344 | 1.0000 | \$330,235.37 | \$4,749.41 |
| 2002 | 6.50 | \$38,513.72 | 75.00 | 68.55 | 0.8226 | 1.0000 | \$31,681.44 | \$462.16 |
| 2001 | 7.50 | \$7,027.54 | 75.00 | 67.58 | 0.8109 | 1.0000 | \$5,698.75 | \$84.33 |
| 2000 | 8.50 | \$100,752.20 | 75.00 | 66.61 | 0.7993 | 1.0000 | \$80,532.22 | \$1,209.03 |
| 1999 | 9.50 | \$387,262.85 | 75.00 | 65.65 | 0.7878 | 1.0000 | \$305,071.32 | \$4,647.15 |
| 1998 | 10.50 | \$30,887.03 | 75.00 | 64.69 | 0.7763 | 1.0000 | \$23,978.77 | \$370.64 |
| 1997 | 11.50 | \$67,892.00 | 75.00 | 63.75 | 0.7650 | 1.0000 | \$51,937.75 | \$814.70 |
| 1996 | 12.50 | \$35,578.00 | 75.00 | 62.81 | 0.7537 | 1.0000 | \$26,816.66 | \$426.94 |
| 1995 | 13.50 | \$604,605.00 | 75.00 | 61.88 | 0.7426 | 1.0000 | \$448,988.83 | \$7,255.26 |
| 1994 | 14.50 | \$104,061.00 | 75.00 | 60.97 | 0.7316 | 1.0000 | \$76,129.94 | \$1,248.73 |
| 1993 | 15.50 | \$254,730.00 | 75.00 | 60.05 | 0.7206 | 1.0000 | \$183,568.28 | \$3,056.76 |
| 1992 | 16.50 | \$112,019.00 | 75.00 | 59.15 | 0.7098 | 1.0000 | \$79,514.72 | \$1,344.23 |
| 1991 | 17.50 | \$344,187.00 | 75.00 | 58.26 | 0.6991 | 1.0000 | \$240,630.33 | \$4,130.24 |
| 1990 | 18.50 | \$32,711.00 | 75.00 | 57.37 | 0.6885 | 1.0000 | \$22,521.37 | \$392.53 |
| 1989 | 19.50 | \$33,374.00 | 75.00 | 56.50 | 0.6780 | 1.0000 | \$22,627.98 | \$400.49 |
| 1988 | 20.50 | \$35,799.00 | 75.00 | 55.64 | 0.6676 | 1.0000 | \$23,900.34 | \$429.59 |
| 1987 | 21.50 | \$127,890.00 | 75.00 | 54.78 | 0.6573 | 1.0000 | \$84,063.81 | \$1,534.68 |
| 1986 | 22.50 | \$148,205,00 | 75.00 | 53.93 | 0.6471 | 1.0000 | \$95,910.27 | \$1,778.46 |
| 1985 | 23.50 | \$119,083.00 | 75.00 | 53.09 | 0.6371 | 1.0000 | \$75,864.68 | \$1,429.00 |
| 1984 | 24.50 | \$10,503.00 | 75.00 | 52.26 | 0.6271 | 1.0000 | \$6,586.10 | \$126.04 |
| 1983 | 25.50 | \$7,053.00 | 75.00 | 51.43 | 0.6172 | 1.0000 | \$4,353.24 | \$84.64 |
| 1982 | 26.50 | \$62,465.00 | 75.00 | 50.62 | 0.6075 | 1.0000 | \$37,945.95 | \$749.58 |
| 1981 | 27.50 | \$92,865.00 | 75.00 | 49.82 | 0.5978 | 1.0000 | \$55,517.51 | \$1,114.38 |
| 1980 | 28.50 | \$373,477.00 | 75.00 | 49.03 | 0.5884 | 1.0000 | \$219,753.51 | \$4,481.72 |
| 1979 | 29.50 | \$5,950.00 | 76.00 | 48.26 | 0.5791 | 1.0000 | \$3,445.80 | \$71.40 |
| 1978 | 30.50 | \$44,891.00 | 75.00 | 47.50 | 0.5700 | 1.0000 | \$25,587. 22 | \$538.69 |
| 1977 | 31.50 | \$83,665.00 | 76.00 | 46.76 | 0.5611 | 1.0000 | \$46,945.95 | \$1,003.98 |
| 1976 | 32.50 | \$24,921.00 | 75,00 | 46.04 | 0.5524 | 1.0000 | \$13,767.45 | \$299.05 |
| 1975 | 33.50 | \$72,704.00 | 75.00 | 45.33 | 0.5439 | 1.0000 | \$39,545.89 | \$872.45 |
| 1974 | 34.50 | \$62,865.00 | 75.00 | 44.64 | 0.5357 | 1.0000 | \$33,678.19 | \$754.38 |
| 1973 | 35.50 | \$44,691.00 | 75.00 | 43.98 | 0.5277 | 1.0000 | \$23,585.05 | \$536.29 |
|  |  |  |  | A11 |  |  |  |  |

Account: KEPCo $101 / 6351 \cdot \mathrm{KY}$

Dispersion: 75.00-L2
Average Net Salvage Rate: $\quad 10.00 \%$
Future Net Salvage Rate: $\quad 10.00 \%$
Broad Group Procedure
January 1,2009

| Vintage | Age | Surviving Plant | Avg Life | Remaining Life | Net Plant Ratio | Alloc <br> Factor | Computed Net Plant | Accrual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1972 | 36.50 | \$49,794.00 | 75.00 | 43.33 | 0.5199 | 1.0000 | \$25,888,78 | \$597.53 |
| 1971 | 37.50 | \$60,176.00 | 75.00 | 42.70 | 0.5124 | 1.0000 | \$30,835.90 | \$722.11 |
| 1970 | 38.50 | \$13,257,00 | 75.00 | 42.10 | 0.5052 | 1.0000 | \$6,696.84 | \$159.08 |
| 1969 | 39.50 | \$6,970,00 | 75.00 | 41.50 | 0.4981 | 1.0000 | \$3,471,48 | \$83.64 |
| 1968 | 40.50 | \$20,793,00 | 75.00 | 40.94 | 0.4913 | 1.0000 | \$10,215.05 | \$249.52 |
| 1967 | 41.50 | \$15,108.00 | 75.00 | 40.39 | 0.4847 | 1.0000 | \$7,323.01 | \$181.30 |
| 1966 | 42.50 | \$31,096.00 | 75.00 | 39.86 | 0.4783 | 1.0000 | \$14,873,67 | \$373.15 |
| 1965 | 43.50 | \$1,812.70 | 75.00 | 39.35 | 0.4722 | 1.0000 | \$855.97 | \$21.75 |
| 1964 | 44.50 | \$495.00 | 75.00 | 38.86 | 0.4663 | 1.0000 | \$230.82 | \$5.94 |
| 1963 | 45.50 | \$5,202.00 | 75.00 | 38.38 | 0.4606 | 1.0000 | \$2,395.86 | \$62.42 |
| 1962 | 46.50 | \$190.00 | 75.00 | 37.92 | 0.4551 | 1.0000 | \$86.47 | \$2.28 |
| 1961 | 47.50 | \$1,585,00 | 75.00 | 37.48 | 0.4498 | 1.0000 | \$712.91 | \$19.02 |
| 1960 | 48.50 | \$291.00 | 75.00 | 37.05 | 0.4446 | 1.0000 | \$129.39 | \$3.49 |
| 1959 | 49.50 | \$193.00 | 75.00 | 36.64 | 0.4397 | 1.0000 | \$84.86 | \$2.32 |
| 1957 | 51.50 | \$6,356.00 | 75.00 | 35.86 | 0.4303 | 1.0000 | \$2,735.10 | \$76.27 |
| 1956 | 52.50 | \$5,955.00 | 75.00 | 35.49 | 0.4259 | 1.0000 | \$2,536.12 | \$71.46 |
| 1955 | 53.50 | \$701.00 | 75.00 | 35.13 | 0.4216 | 1.0000 | \$295.53 | \$8.41 |
| 1954 | 54.50 | \$4,906.00 | 75.00 | 34.78 | 0.4174 | 1.0000 | \$2,047.74 | \$58.87 |
| 1953 | 55.50 | \$9,315.00 | 75.00 | 34.45 | 0.4134 | 1.0000 | \$3,850.54 | \$111.78 |
| 1952 | 56.50 | \$4,482.00 | 75.00 | 34.12 | 0.4095 | 1,0000 | \$1,835.17 | \$63.78 |
| 1951 | 57.50 | \$2,866.00 | 75.00 | 33.80 | 0.4056 | 1.0000 | \$1,162.58 | \$34.39 |
| 1950 | 58.50 | \$3,771.63 | 75.00 | 33.50 | 0.4020 | 1.0000 | \$1,516.03 | \$46.26 |
| 1949 | 59.50 | \$3,862,00 | 75.00 | 33.20 | 0.3984 | 1.0000 | \$1,538.45 | \$46.34 |
| 1948 | 60.50 | \$5,174.00 | 75.00 | 32.90 | 0.3949 | 1.0000 | \$2,043.00 | \$62.09 |
| 1947 | 61.50 | \$2,508.00 | 75.00 | 32.62 | 0.3914 | 1.0000 | \$981.71 | \$30.10 |
| 1946 | 62.50 | \$42.00 | 75.00 | 32.34 | 0.3881 | 1.0000 | \$16.30 | \$0.50 |
| 1945 | 63.50 | \$946.00 | 75.00 | 32.07 | 0.3848 | 1.0000 | \$364.04 | \$11.35 |
| 1943 | 65.50 | \$1,672.00 | 75.00 | 31.54 | 0.3784 | 1.0000 | \$632,76 | \$20.06 |
| 1942 | 66.50 | \$977.00 | 75.00 | 31.28 | 0.3754 | 1.0000 | \$366.72 | \$11.72 |
| 1941 | 67.50 | \$140.00 | 75.00 | 31.02 | 0.3723 | 1.0000 | \$52.12 | \$1.68 |
| 1940 | 68.50 | \$3,539.00 | 75.00 | 30.77 | 0.3693 | 1.0000 | \$1,306.81 | \$42.47 |
| 1938 | 70.50 | \$12,655.04 | 75.00 | 30.28 | 0.3633 | 1.0000 | \$4,597.80 | \$151.86 |
|  |  | \$4,273,116.69 | 75.00 | $12^{57.88}$ | 0.6945 | 1.0000 | \$2,967,862.12 | \$51,277.40 |

# KENTUCKY POWER COMIPANY 

## DEPRECIATION STUDY AS OF 12-31-08

## STUDY WORKPAPERS

Page 1 of 350

## KENTUCKY POWER COMPANY

## DEPRECIATION STUDY AS OF 12-31-08

## STEAM PRODUCTION PLANT WORKPAPERS

KENTUCKY POWER COMPANY
Depreciation Study as of December 31, 2008
Production Plant

This investment consists of two generating units located on the Big Sandy River near Louisa, Kentucky. Unit 1 is rated at 260 MW and was placed in service in 1963. Unit 2 is rated at 800 MW and was placed in service in 1969. The estimated final retirement dates for the units were provided by the Asset and Outage Planning Section of AEP's Generating Division.

## Life Analysis

Interim retirements for the Big Sandy Plant were determined by analyzing past history for each of the accounts in the production plant function. Interim retirement ratio's were developed based on the period 1975 through 2008. Interim retirements are not usually considered representative of the future until the generating units have experienced a few years of actual operation. Since Unit 2 was placed in-service in 1969, the period beginning in 1975 provided for five years of operational experience.

In addition to the interim retirements experienced to date, the Selective Catalytic Reduction (SCR) system that is installed at Big Sandy Plant will have the SCR Catalysts replaced at future intervals. The AEP Engineering group provided the following details for replacement of the SCR Catalysts:

Layer 1 will be replaced in year 2015
Layer 2 will be replaced in year 2016
Layer 3 will be replaced in year 2011
The original cost of the catalysts are as follows:

| Layer 1 | $\$ 3,259,048$ |
| :--- | :--- |
| Layer 2 | $\$ 3,259,049$ |
| Layer 3 | $\$ 1,629,524$ |

After determining the interim retirments and the retirement of the SCR catalysts, a remaining life was calculated for each of the primary production plant accounts. The surviving plant balances by primary plant account at $12 / 31 / 08$ were also aged. The age of the surviving balances plus the remaining life were summed to determine the total life of the investments.

## Salvage and Cost of Removal

Kentucky Power Company engaged the firm of Brandenburg Industrial Service Company to perform a conceptual demolition cost estimate for the Big Sandy Plant. The demolition cost is estimated to be $\$ 32,000,000$ in current (2008) dollars. It is appropriate to include the final retirement costs for the Big Sandy plant in depreciation rates in order to ensure that the generation of customers that are receiving service from the plant also share in the final removal costs of the plant.

There are also gross salvage and removal costs associated with the removal/replacement of equipment during the operating life of the plant. An analysis of interim retirements was made for the production plant function and the fifteen year period of 1994-2008 was used as the basis to determing a gross salvage percentage and a gross removal percentage. The estimates of salvage and removal for both the final plant retirement and the interim retirements were combined to calculate a net salvage for each plant account. That calculation is as follows:

KENTUCKY POWER COMPANY
Depreciation Study as of December 31, 2008
Production Plant

## Calculation of Removal and Salvage:

Interim Retirements:

| Account | Interim Retirements (From Remaining Life Workpaper) | Gross Removal Percent | Gross Salvage Percent | Interim Retirement Net Salvage Percent |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 311 | 1,250,309 | 34\% | 6\% | -28\% |  |
| 312 | 76,510,548 | 34\% | 6\% | -28\% |  |
| 314 | 24,276,603 | 34\% | 6\% | -28\% |  |
| 315 | 1,086,040 | 34\% | 6\% | -28\% |  |
| 316 | 1,354,889 | 34\% | 6\% | -28\% |  |
| Total | 104,478,389 |  |  |  |  |
| Account | Plant In -Service at $12 / 31 / 08$ | Net Salvage on Interim Retirement | Final Demolition Cost (a) | Total Net Salvage Costs | Net Salvage as Percent of Plant |
| 311 | 40,583,921 | -350,087 | -3,342,154 | -3,692,240 | -9\% |
| 312 | 355,237,890 | -21,422,953 | -29,254,434 | -50,677,387 | -14\% |
| 314 | 104,506,857 | -6,797,449 | -8,606,314 | -15,403,763 | -15\% |
| 315 | 15,303,286 | -304,091 | -1,260,251 | -1,564,342 | -10\% |
| 316 | 6,518,954 | -379,369 | -536,847 | -916,216 | -14\% |
| Total | 522,150,908 | -29,253,949 | -43,000,000 | -72,253,949 | -14\% |

Notes: (a) Costs allocated to plant accounts based on Plant-In-Service Balances at 12/31/08
Calculation of Theoretical Reserve and Depreciation Rates
A theoretical reserve was determined based on the above calculations of average age, remaining life and net salvage. The theoretical reserve was used to allocate the actual book reserve to the individual plant accounts.

Based on plant balances at 12/31/08 and the allocated book reserve, remaining life depreciation rates were calculated for each primary plant account.

# KENTUCKY POWER COMPANY <br> DEPRECIATION STUDY AS OF 12-31-08 <br> STEAM PRODUCTION PLANT WORKPAPERS 

INTERIM RETHRMIENT RATIOS

KENTUCKY POWER COMPANY
CALCULATION OF INTERIM RETIREMENT RATIOS
STEAM PRODUCTION PLANT
ACCOUNT 311.0 STRUCTURES \& IMPROVEMENTS

| YEAR | ADDITIONS | RETIREMENTS | BALANCE | AVERAGE BALANCE | RETIREMENT RATIO |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1963 | 6,127,706 | 0 | 6,127,706 | N. A. | N. A. |
| 1964 | 13,194 | 0 | 6,140,900 | 6,134,303 | 0.0000 |
| 1965 | 18,607 | 255 | 6,159,252 | 6,150,076 | 0.0000 |
| 1966 | 4,255 | 7,338 | 6,156,169 | 6,157,711 | 0.0012 |
| 1967 | 575 | 69,333 | 6,087,411 | 6,121,790 | 0.0113 |
| 1968 | 21,282 | 0 | 6,108,693 | 6,098,052 | 0.0000 |
| 1969 | 15,770,374 | 0 | 21,879,067 | 13,993,880 | 0.0000 |
| 1970 | 803,526 | 7,182 | 22,675,411 | 22,277,239 | 0.0003 |
| 1971 | 163,043 | 37,002 | 22,801,452 | 22,738,432 | 0.0016 |
| 1972 | 56,860 | 0 | 22,858,312 | 22,829,882 | 0.0000 |
| 1973 | 2,605 | 0 | 22,860,917 | 22,859,615 | 0.0000 |
| 1974 | 66,090 | 1,665 | 22,925,342 | 22,893,130 | 0.0001 |
| 1975 | 29,219 | 0 | 22,954,561 | 22,939,952 | 0.0000 |
| 1976 | 65,662 | 0 | 23,020,223 | 22,987,392 | 0.0000 |
| 1977 | 87,499 | 0 | 23,107,722 | 23,063,973 | 0.0000 |
| 1978 | 297,729 | 24,379 | 23,381,072 | 23,244,397 | 0.0010 |
| 1979 | 214,311 | 5,000 | 23,590,383 | 23,485,728 | 0.0002 |
| 1980 | 27,547 | 6,618 | 23,611,312 | 23,600,848 | 0.0003 |
| 1981 | 212,801 | 358 | 23,823,755 | 23,717,534 | 0.0000 |
| 1982 | 716,535 | 44,396 | 24,495,894 | 24,159,825 | 0.0018 |
| 1983 | 389,851 | 307,808 | 24,577,937 | 24,536,916 | 0.0125 |
| 1984 | 81,115 | 469 | 24,658,583 | 24,618,260 | 0.0000 |
| 1985 | 64,741 | 1,605 | 24,721,719 | 24,690,151 | 0.0001 |
| 1986 | 0 | 0 | 24,721,719 | 24,721,719 | 0.0000 |
| 1987 | 34,955 | 966 | 24,755,708 | 24,738,714 | 0.0000 |
| 1988 | 171,684 | 718 | 24,926,674 | 24,841,191 | 0.0000 |
| 1989 | 28,362 | 2,856 | 24,952,180 | 24,939,427 | 0.0001 |
| 1990 | 484,041 | 3,690 | 25,432,531 | 25,192,356 | 0.0001 |
| 1991 | 18,357 | 35,387 | 25,415,501 | 25,424,016 | 0.0014 |
| 1992 | 22,217 | 13,640 | 25,424,078 | 25,419,790 | 0.0005 |
| 1993 | 168,711 | 56,800 | 25,535,989 | 25,480,034 | 0.0022 |
| 1994 | 1,254,912 | 4,050 | 26,786,851 | 26,161,420 | 0.0002 |
| 1995 | 45,725 | 9,070 | 26,823,506 | 26,805,179 | 0.0003 |
| 1996 | 113,294 | 94,931 | 26,841,869 | 26,832,688 | 0.0035 |
| 1997 | 0 | 101,804 | 26,740,065 | 26,790,967 | 0.0038 |
| 1998 | 2,448,051 | 54,548 | 29,133,568 | 27,936,817 | 0.0020 |
| 1999 | 220,173 | 4,000 | 29,349,741 | 29,241,655 | 0.0001 |
| 2000 | 46,629 | 17,282 | 29,379,088 | 29,364,415 | 0.0006 |
| 2001 | 20,444 | 8,355 | 29,391,177 | 29,385,133 | 0.0003 |
| 2002 | 431 | 1,168 | 29,390,440 | 29,390,809 | 0.0000 |
| 2003 | 6,265,695 | 5,061 | 35,651,074 | 32,520,757 | 0.0002 |
| 2004 | 630,676 | 74,097 | 36,207,653 | 35,929,364 | 0.0021 |
| 2005 | 2,005,164 | 60,910 | 38,151,907 | 37,179,780 | 0.0016 |
| 2006 | 484,134 | 118,897 | 38,517,144 | 38,334,526 | 0.0031 |
| 2007 | 1,141,080 | 258,942 | 39,399,282 | 38,958,213 | 0.0066 |
| 2008 | 1,533,583 | 348,944 | 40,583,921 | 39,991,602 | 0.0087 |
| TOTAL 1975-2008 | 14,161,367 | 879,056 | 788,802,573 | 782,161,418 | 0.0537 |

Used 1975 through 2008 interim retirements. Based on retirements five years after in-service date of Unit 2.


KENTUCKY POWER COMPANY CALCULATION OF INTERIM RETIREMENT RATIOS

STEAM PRODUCTION PLANT
ACCOUNT 312.0 BOILER PLANT EQUIPMENT

| YEAR | ADDITIONS | RETIREMENTS | BALANCE | AVERAGE BALANCE | RETIREMENT RATIO |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1963 | 27,271,786 | 0 | 27,271,786 | N . | N. A. |
| 1964 | 119,842 | 8,093 | 27,383,535 | 27,327,661 | 0.0003 |
| 1965 | 33,135 | 7,505 | 27,409,165 | 27,396,350 | 0.0003 |
| 1966 | 176,256 | 19,803 | 27,565,618 | 27,487,392 | 0.0007 |
| 1967 | 7,026 | 3,196 | 27,569,448 | 27,567,533 | 0.0001 |
| 1968 | 39,011 | 127,966 | 27,480,493 | 27,524,971 | 0.0046 |
| 1969 | 57,241,411 | 5,000 | 84,716,904 | 56,098,699 | 0.0001 |
| 1970 | 2,611,299 | 569,493 | 86,758,710 | 85,737,807 | 0.0066 |
| 1971 | 1,703,522 | 87,366 | 88,374,866 | 87,566,788 | 0.0010 |
| 1972 | 773,998 | 23,261 | 89,125,603 | 88,750,235 | 0.0003 |
| 1973 | 124,697 | 24,700 | 89,225,600 | 89,175,602 | 0.0003 |
| 1974 | 795,833 | 128,171 | 89,893,262 | 89,559,431 | 0.0014 |
| 1975 | 1,177,739 | 43,910 | 91,027,091 | 90,460,177 | 0.0005 |
| 1976 | 4,699,081 | 1,136,240 | 94,589,932 | 92,808,512 | 0.0122 |
| 1977 | 1,500,565 | 738,415 | 95,352,082 | 94,971,007 | 0.0078 |
| 1978 | 3,596,304 | 210,933 | 98,737,453 | 97,044,768 | 0.0022 |
| 1979 | 3,702,290 | 690,851 | 101,748,892 | 100,243,173 | 0.0069 |
| 1980 | 1,574,173 | 1,302,708 | 102,020,357 | 101,884,625 | 0.0128 |
| 1981 | 2,710,157 | 1,947,465 | 102,783,049 | 102,401,703 | 0.0190 |
| 1982 | 4,780,741 | 1,372,184 | 106,191,606 | 104,487,328 | 0.0131 |
| 1983 | 2,053,897 | 244,647 | 108,000,856 | 107,096,231 | 0.0023 |
| 1984 | 1,928,226 | 583,176 | 109,345,906 | 108,673,381 | 0.0054 |
| 1985 | 1,775,366 | 79,270 | 111,042,002 | 110,193,954 | 0.0007 |
| 1986 | 1,302,549 | 1,199,650 | 111,144,901 | 111,093,452 | 0.0108 |
| 1987 | 2,870,827 | 941,836 | 113,073,892 | 112,109,397 | 0.0084 |
| 1988 | 2,769,412 | 757,438 | 115,085,866 | 114,079,879 | 0.0066 |
| 1989 | 1,780,224 | 543,698 | 116,322,392 | 115,704,129 | 0.0047 |
| 1990 | 2,114,057 | 841,371 | 117,595,078 | 116,958,735 | 0.0072 |
| 1991 | 1,503,783 | 964,562 | 118,134,299 | 117,864,689 | 0.0082 |
| 1992 | 3,022,972 | 929,688 | 120,227,583 | 119,180,941 | 0.0078 |
| 1993 | 6,037,402 | 2,619,487 | 123,645,498 | 121,936,541 | 0.0215 |
| 1994 | 11,992,454 | 1,471,709 | 134,166,243 | 128,905,871 | 0.0114 |
| 1995 | 10,399,357 | 5,694,627 | 138,870,973 | 136,518,608 | 0.0417 |
| 1996 | 12,608,246 | 12,608,246 | 138,870,973 | 138,870,973 | 0.0908 |
| 1997 |  | 3,024,973 | 135,846,000 | 137,358,487 | 0.0220 |
| 1998 | 10,554,688 | 901,600 | 145,499,088 | 140,672,544 | 0.0064 |
| 1999 | 1,940,785 | 263,258 | 147,176,615 | 146,337,852 | 0.0018 |
| 2000 | 2,930,632 | 704,876 | 149,402,371 | 148,289,493 | 0.0048 |
| 2001 | 925,934 | 356,729 | 149,971,576 | 149,686,974 | 0.0024 |
| 2002 | 3,329,584 | 560,581 | 152,740,579 | 151,356,078 | 0.0037 |
| 2003 | 183,221,112 | 15,170,924 | 320,790,767 | 236,765,673 | 0.0641 |
| 2004 | 6,041,203 | 2,293,276 | 324,538,694 | 322,664,731 | 0.0071 |
| 2005 | 6,490,044 | 946,348 | 330,082,390 | 327,310,542 | 0.0029 |
| 2006 | 7,880,638 | 2,730,271 | 335,232,757 | 332,657,574 | 0.0082 |
| 2007 | 4,975,558 | 2,668,838 | 337,539,477 | 336,386,117 | 0.0079 |
| 2008 | 23,004,352 | 5,305,939 | 355,237,890 | 346,388,684 | 0.0153 |
| TOTAL 1975-2008 | 294,843,760 | 60,198,328 | 3,993,942,614 | 3,876,619,898 | 0.4486 |

Used 1975 through 2008 interim retirements. Based on retirements five years after in-service date of Unit 2.

AVERAGE INTERIM RATE
0.4486
0.0132


KENTUCKY POWER COMPANY CALCULATION OF INTERIM RETIREMENT RATIOS STEAM PRODUCTION PLANT ACCOUNT 314.0 TURBO-GENERATOR UNITS

| YEAR | ADDITIONS | RETIREMENTS | BALANCE | AVERAGE BALANCE | RETIREMENT RATIO |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1963 | 11,920,700 | 0 | 11,920,700 | N. A. | N. A. |
| 1964 | 19,361 | 0 | 11,940,061 | 11,930,381 | 0.0000 |
| 1965 | 12,601 | 755 | 11,951,907 | 11,945,984 | 0.0001 |
| 1966 | 7,592 | 872 | 11,958,627 | 11,955,267 | 0.0001 |
| 1967 | 7,158 | 0 | 11,965,785 | 11,962,206 | 0.0000 |
| 1968 | 52,378 | 0 | 12,018,163 | 11,991,974 | 0.0000 |
| 1969 | 26,377,737 | 0 | 38,395,900 | 25,207,032 | 0.0000 |
| 1970 | 1,024,372 | 180,383 | 39,239,889 | 38,817,895 | 0.0046 |
| 1971 | 713,082 | 0 | 39,952,971 | 39,596,430 | 0.0000 |
| 1972 | 272,380 | 0 | 40,225,351 | 40,089, 161 | 0.0000 |
| 1973 | 63,768 | 0 | 40,289,119 | 40,257,235 | 0.0000 |
| 1974 | 63,140 | 0 | 40,352,259 | 40,320,689 | 0.0000 |
| 1975 | 336,271 | 80,578 | 40,607,952 | 40,480,106 | 0.0020 |
| 1976 | 74,777 | 2,746 | 40,679,983 | 40,643,968 | 0.0001 |
| 1977 | 33,676 | 1,548 | 40,712,111 | 40,696,047 | 0.0000 |
| 1978 | 45,149 | 6,818 | 40,750,442 | 40,731,277 | 0.0002 |
| 1979 | 1,007,454 | 398,443 | 41,359,453 | 41,054,948 | 0.0097 |
| 1980 | 66,913 | 214,355 | 41,212,011 | 41,285,732 | 0.0052 |
| 1981 | 1,916,304 | 618,632 | 42,509,683 | 41,860,847 | 0.0148 |
| 1982 | 1,006,642 | 82,616 | 43,433,709 | 42,971,696 | 0.0019 |
| 1983 | 1,067,481 | 549,626 | 43,951,564 | 43,692,637 | 0.0126 |
| 1984 | 237,266 | 2,944 | 44,185,886 | 44,068,725 | 0.0001 |
| 1985 | 528,415 | 7,819 | 44,706,482 | 44,446,184 | 0.0002 |
| 1986 | 634,657 | 709,776 | 44,631,363 | 44,668,923 | 0.0159 |
| 1987 | 229,683 | 307,098 | 44,553,948 | 44,592,656 | 0.0069 |
| 1988 | 5,606,623 | 58,088 | 50,102,483 | 47,328,216 | 0.0012 |
| 1989 | 3,103,073 | 2,768,504 | 50,437,052 | 50,269,768 | 0.0551 |
| 1990 | 2,320,315 | 1,094,464 | 51,662,903 | 51,049,978 | 0.0214 |
| 1991 | 2,065,521 | 138,353 | 53,590,071 | 52,626,487 | 0.0026 |
| 1992 | 836,989 | 1,593,641 | 52,833,419 | 53,211,745 | 0.0299 |
| 1993 | 2,739,309 | 550,206 | 55,022,522 | 53,927,971 | 0.0102 |
| 1994 | 2,265,960 | 2,354,678 | 54,933,804 | 54,978,163 | 0.0428 |
| 1995 | 1,186,873 | 444,477 | 55,676,200 | 55,305,002 | 0.0080 |
| 1996 | 126,815 | 477,746 | 55,325,269 | 55,500,735 | 0.0086 |
| 1997 | 13,047,841 | 4,684,964 | 63,688,146 | 59,506,708 | 0.0787 |
| 1998 | 0 | 695,946 | 62,992,200 | 63,340,173 | 0.0110 |
| 1999 | 0 | 205,238 | 62,786,962 | 62,889,581 | 0.0033 |
| 2000 | 227,801 | 52,538 | 62,962,225 | 62,874,594 | 0.0008 |
| 2001 | 47,682 | 141,367 | 62,868,540 | 62,915,383 | 0.0022 |
| 2002 | 1,505,312 | 257,582 | 64,116,270 | 63,492,405 | 0.0041 |
| 2003 | 9,648,825 | 1,427,668 | 72,337,427 | 68,226,849 | 0.0209 |
| 2004 | 1,394,539 | 692,983 | 73,038,983 | 72,688,205 | 0.0095 |
| 2005 | 1,257,589 | 333,750 | 73,962,822 | 73,500,903 | 0.0045 |
| 2006 | 1,053,124 | 493,138 | 74,522,808 | 74,242,815 | 0.0066 |
| 2007 | 1,393,818 | 884,733 | 75,031,893 | 74,777,351 | 0.0118 |
| 2008 | 29,686,507 | 211,543 | 104,506,857 | 89,769,375 | 0.0024 |
| TOTAL 1975-2008 | 53,308,166 | 20,621,442 | 1,557,669,063 | 1,541,325,701 | 0.4054 |

Used 1975 through 2008 interim retirements. Based on retirements five years after in-service date of Unit 2.

AVERAGE INTERIM RATE
0.4054
0.0119

KENTUCKY POWER COMPANY CALCULATION OF INTERIM RETIREMENT RATIOS STEAM PRODUCTION PLANT ACCOUNT 315.0 ACCESSORY ELECTRICAL EQUIPMENT

| YEAR | ADDITIONS | RETIREMENTS | BALANCE | AVERAGE BALANCE | RETIREMENT RATIO |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1963 | 2,298,368 | 0 | 2,298,368 | N. A. | N. A. |
| 1964 | 9,817 | 2,835 | 2,305,350 | 2,301,859 | 0.0012 |
| 1965 | 2,265 | 0 | 2,307,615 | 2,306,483 | 0.0000 |
| 1966 | 20,284 | 0 | 2,327,899 | 2,317,757 | 0.0000 |
| 1967 | 4,595 | 0 | 2,332,494 | 2,330,197 | 0.0000 |
| 1968 | 947 | 0 | 2,333,441 | 2,332,968 | 0.0000 |
| 1969 | 6,451,294 | 0 | 8,784,735 | 5,559,088 | 0.0000 |
| 1970 | 555,696 | 0 | 9,340,431 | 9,062,583 | 0.0000 |
| 1971 | 356,319 | 0 | 9,696,750 | 9,518,591 | 0.0000 |
| 1972 | 13,318 | 2,910 | 9,707,158 | 9,701,954 | 0.0003 |
| 1973 | 114,131 | 12,654 | 9,808,635 | 9,757,897 | 0.0013 |
| 1974 | 1,489 | 4,680 | 9,805,444 | 9,807,040 | 0.0005 |
| 1975 | 0 | 0 | 9,805,444 | 9,805,444 | 0.0000 |
| 1976 | 425,620 | 0 | 10,231,064 | 10,018,254 | 0.0000 |
| 1977 | 113,934 | 0 | 10,344,998 | 10,288,031 | 0.0000 |
| 1978 | 226,909 | 0 | 10,571,907 | 10,458,453 | 0.0000 |
| 1979 | 40,978 | 0 | 10,612,885 | 10,592,396 | 0.0000 |
| 1980 | 81,148 | 0 | 10,694,033 | 10,653,459 | 0.0000 |
| 1981 | 607,835 | 49,582 | 11,252,286 | 10,973,160 | 0.0045 |
| 1982 | 369,121 | 120,858 | 11,500,549 | 11,376,418 | 0.0106 |
| 1983 | 92,707 | 10,516 | 11,582,740 | 11,541,645 | 0.0009 |
| 1984 | 88,302 | 5,454 | 11,665,588 | 11,624,164 | 0.0005 |
| 1985 | 108,963 | 11,203 | 11,763,348 | 11,714,468 | 0.0010 |
| 1986 | 38,938 | 19,802 | 11,782,484 | 11,772,916 | 0.0017 |
| 1987 | 119,792 | 27,283 | 11,874,993 | 11,828,739 | 0.0023 |
| 1988 | 187,376 | 71,442 | 11,990,927 | 11,932,960 | 0.0060 |
| 1989 | 100,224 | 0 | 12,091,151 | 12,041,039 | 0.0000 |
| 1990 | 286,615 | 24,236 | 12,353,530 | 12,222,341 | 0.0020 |
| 1991 | 106,173 | 12,852 | 12,446,851 | 12,400, 191 | 0.0010 |
| 1992 | 38,842 | 10,027 | 12,475,666 | 12,461,259 | 0.0008 |
| 1993 | 115,632 | 9,068 | 12,582,230 | 12,528,948 | 0.0007 |
| 1994 | 79,021 | 1,052 | 12,660,199 | 12,621,215 | 0.0001 |
| 1995 | 35,386 | 91,239 | 12,604,346 | 12,632,273 | 0.0072 |
| 1996 | 12,996 | 0 | 12,617,342 | 12,610,844 | 0.0000 |
| 1997 | 1,139,691 | 324,810 | 13,432,223 | 13,024,783 | 0.0249 |
| 1998 | 363,986 | 24,960 | 13,771,249 | 13,601,736 | 0.0018 |
| 1999 | 8,929 | 1,372 | 13,778,806 | 13,775,028 | 0.0001 |
| 2000 | 368,049 | 80,920 | 14,065,935 | 13,922,371 | 0.0058 |
| 2001 | 46,339 | 32,876 | 14,079,398 | 14,072,667 | 0.0023 |
| 2002 | 7,426 | 2,009 | 14,084,815 | 14,082,107 | 0.0001 |
| 2003 | 244,780 | 587,860 | 13,741,735 | 13,913,275 | 0.0423 |
| 2004 | 4,907 | 4,041 | 13,742,601 | 13,742,168 | 0.0003 |
| 2005 | 1,210,759 | 12,798 | 14,940,562 | 14,341,582 | 0.0009 |
| 2006 | 206,091 | 57,499 | 15,089, 154 | 15,014,858 | 0.0038 |
| 2007 | 173,582 | 46,468 | 15,216,268 | 15,152,711 | 0.0031 |
| 2008 | 103,305 | 16,287 | 15,303,286 | 15,259,777 | 0.0011 |
| TOTAL 1975-2008 | 5,460,619 | 1,523,462 | 366,201,323 | 364,232,745 | 0.1259 |

Used 1975 through 2008 interim retirements. Based on retirements five years after in-service date of Unit 2.



KENTUCKY POWER COMPANY
CALCULATION OF INTERIM RETIREMENT RATIOS
STEAM PRODUCTION PLANT
ACCOUNT 316.0 MISCELLANEOUS POWER PLANT EQUIPMENT

| YEAR | ADDITIONS | RETIREMENTS | BALANCE | AVERAGE BALANCE | RETIREMENT RATIO |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1963 | 726,100 | 0 | 726,100 | N. A | N. A. |
| 1964 | 5,839 | 1,922 | 730,017 | 728,059 | 0.0026 |
| 1965 | 5,676 | 0 | 735,693 | 732,855 | 0.0000 |
| 1966 | 15,702 | 292 | 751,103 | 743,398 | 0.0004 |
| 1967 | 2,344 | 394 | 753,053 | 752,078 | 0.0005 |
| 1968 | 8,129 | 150 | 761,032 | 757,043 | 0.0002 |
| 1969 | 1,686,335 | 1,226 | 2,446,141 | 1,603,587 | 0.0008 |
| 1970 | 204,242 | 8,507 | 2,641,876 | 2,544,009 | 0.0033 |
| 1971 | 88,954 | 1,728 | 2,729,102 | 2,685,489 | 0.0006 |
| 1972 | 58,425 | 83 | 2,787,444 | 2,758,273 | 0.0000 |
| 1973 | 93,582 | 1,700 | 2,879,326 | 2,833,385 | 0.0006 |
| 1974 | 555 | 37,702 | 2,842,179 | 2,860,753 | 0.0132 |
| 1975 | 132,129 | 1,473 | 2,972,835 | 2,907,507 | 0.0005 |
| 1976 | 20,739 | 6,251 | 2,987,323 | 2,980,079 | 0.0021 |
| 1977 | 66,965 | 13,849 | 3,040,439 | 3,013,881 | 0.0046 |
| 1978 | 37,660 | 27,895 | 3,050,204 | 3,045,322 | 0.0092 |
| 1979 | 25,265 | 5,173 | 3,070,296 | 3,060,250 | 0.0017 |
| 1980 | 17,868 | 15,971 | 3,072,193 | 3,071,245 | 0.0052 |
| 1981 | 117,316 | 3,482 | 3,186,027 | 3,129,110 | 0.0011 |
| 1982 | 122,076 | 54,567 | 3,253,536 | 3,219,782 | 0.0169 |
| 1983 | 6,160 | 14,806 | 3,244,890 | 3,249,213 | 0.0046 |
| 1984 | 78,342 | 5,857 | 3,317,375 | 3,281,133 | 0.0018 |
| 1985 | 101,194 | 2,086 | 3,416,483 | 3,366,929 | 0.0006 |
| 1986 | 108,695 | 11,296 | 3,513,882 | 3,465,183 | 0.0033 |
| 1987 | 32,012 | 12,552 | 3,533,342 | 3,523,612 | 0.0036 |
| 1988 | 29,324 | 12,736 | 3,549,930 | 3,541,636 | 0.0036 |
| 1989 | 169,870 | 5,926 | 3,713,874 | 3,631,902 | 0.0016 |
| 1990 | 34,137 | 10,400 | 3,737,611 | 3,725,743 | 0.0028 |
| 1991 | 41,416 | 3,814 | 3,775,213 | 3,756,412 | 0.0010 |
| 1992 | 127,431 | 70,529 | 3,832,115 | 3,803,664 | 0.0185 |
| 1993 | 21,290 | 623 | 3,852,782 | 3,842,449 | 0.0002 |
| 1994 | 803,660 | 136,159 | 4,520,283 | 4,186,533 | 0.0325 |
| 1995 | 91,614 | 104,801 | 4,507,096 | 4,513,690 | 0.0232 |
| 1996 | 39,964 | 9,510 | 4,537,550 | 4,522,323 | 0.0021 |
| 1997 | 865,744 | 31,903 | 5,371,391 | 4,954,471 | 0.0064 |
| 1998 | 6,545 | 51,000 | 5,326,936 | 5,349,164 | 0.0095 |
| 1999 | 31,382 | 805 | 5,357,513 | 5,342,225 | 0.0002 |
| 2000 | 64,253 | 0 | 5,421,766 | 5,389,640 | 0.0000 |
| 2001 | 59,062 | 4,330 | 5,476,498 | 5,449,132 | 0.0008 |
| 2002 | 67,283 | 38,540 | 5,505,241 | 5,490,870 | 0.0070 |
| 2003 | 442,131 | 62,105 | 5,885,267 | 5,695,254 | 0.0109 |
| 2004 | 698,136 | 64,449 | 6,518,954 | 6,202,111 | 0.0104 |
| 2005 | 191,000 | 31,593 | 6,678,361 | 6,598,658 | 0.0048 |
| 2006 | 176,384 | 20,681 | 6,834,064 | 6,756,213 | 0.0031 |
| 2007 | 302,266 | 15,563 | 7,120,767 | 6,977,416 | 0.0022 |
| 2008 | 78,252 | 25,877 | 7,173,142 | 7,146,955 | 0.0036 |
| TOTAL 1975-2008 | 4,459,663 | 782,888 | 122,548,845 | 120,710,458 | 0.1996 |

Used 1975 through 2008 interim retirements. Based on retirements five years after in-service date of Unit 2.

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\text { Page } 10 \text { of } 350
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## KENTUCKY POWER COMPANY

# DEPRECIATION STUDY AS OF 12-31-08 <br> STEAM PRODUCTION PLANT WORKPAPERS 

## AVERAGE AGE CALCULATIONS



KENTUCKY POWER COMPANY
DEPRECIATION STUDY AS OF DECEMBER 31, 2008 CALCULATION OF AVERAGE AGE OF SURVIVING PLANT BIG SANDY GENERATING PLANT

| VINTAGE YEAR | SURVIVING BALANCE | $\begin{gathered} \text { AGE } \\ \text { (YEARS) } \end{gathered}$ | DOLLAR <br> YEARS | AVERAGE AGE (YEARS) |
| :---: | :---: | :---: | :---: | :---: |
| 1963 | 5,733,371 | 45.5 | 260,868,402 |  |
| 1964 | 13,194 | 44.5 | 587,133 |  |
| 1965 | 18,352 | 43.5 | 798,312 |  |
| 1966 | 3,636 | 42.5 | 154,530 |  |
| 1967 | 217 | 41.5 | 9,006 |  |
| 1968 | 21,282 | 40.5 | 861,921 |  |
| 1969 | 15,030,655 | 39.5 | 593,710,888 |  |
| 1970 | 798,917 | 38.5 | 30,758,305 |  |
| 1971 | 162,704 | 37.5 | 6,101,400 |  |
| 1972 | 56,780 | 36.5 | 2,072,470 |  |
| 1973 | 2,605 | 35.5 | 92,478 |  |
| 1974 | 5,005 | 34.5 | 172,673 |  |
| 1975 | 28,389 | 33.5 | 951,032 |  |
| 1976 | 65,662 | 32.5 | 2,134,015 |  |
| 1977 | 76,759 | 31.5 | 2,417,909 |  |
| 1978 | 290,514 | 30.5 | 8,860,677 |  |
| 1979 | 163,014 | 29.5 | 4,808,925 |  |
| 1980 | 23,035 | 28.5 | 656,501 |  |
| 1981 | 212,801 | 27.5 | 5,852,028 |  |
| 1982 | 659,475 | 26.5 | 17,476,075 |  |
| 1983 | 334,415 | 25.5 | 8,527,595 |  |
| 1984 | 2,624 | 24.5 | 64,287 |  |
| 1985 | -2,666 | 23.5 | -62,648 |  |
| 1986 | 0 | 22.5 | 0 |  |
| 1987 | 34,955 | 21.5 | 751,533 |  |
| 1988 | 171,684 | 20.5 | 3,519,522 |  |
| 1989 | 15,604 | 19.5 | 304,278 |  |
| 1990 | 452,845 | 18.5 | 8,377,626 |  |
| 1991 | 11,250 | 17.5 | 196,875 |  |
| 1992 | 20,716 | 16.5 | 341,814 |  |
| 1993 | 157,920 | 15.5 | 2,447,760 |  |
| 1994 | 1,185,417 | 14.5 | 17,188,551 |  |
| 1995 | 21,942 | 13.5 | 296,214 |  |
| 1996 | 465,478 | 12.5 | 5,818,479 |  |
| 1997 | 719,120 | 11.5 | 8,269,880 |  |
| 1998 | 1,341,044 | 10.5 | 14,080,965 |  |
| 1999 | 56,378 | 9.5 | 535,594 |  |
| 2000 | 202,044 | 8.5 | 1,717,378 |  |
| 2001 | 431 | 7.5 | 3,229 |  |
| 2002 | 6,208,831 | 6.5 | 40,357,401 |  |
| 2003 | 315,933 | 5.5 | 1,737,633 |  |
| 2004 | 555,899 | 4.5 | 2,501,544 |  |
| 2005 | 1,838,533 | 3.5 | 6,434,866 |  |
| 2006 | 864,204 | 2.5 | 2,160,510 |  |
| 2007 | 941,391 | 1.5 | 1,412,086 |  |
| 2008 | 1,301,560 | 0.5 | 650,780 |  |
| TOTALS | 40,583,920 |  | 1.066,978,425 | $\underline{26.29}$ |

## KENTUCKY POWER COMPANY

DEPRECIATION STUDY AS OF DECEMBER 31, 2008 CALCULATION OF AVERAGE AGE OF SURVIVING PLANT BIG SANDY GENERATING PLANT



KENTUCKY POWER COMPANY DEPRECIATION STUDY AS OF DECEMBER 31, 2008 CALCULATION OF AVERAGE AGE OF SURVIVING PLANT BIG SANDY GENERATING PLANT


KENTUCKY POWER COMPANY DEPRECIATION STUDY AS OF DECEMBER 31， 2008 CALCULATION OF AVERAGE AGE OF SURVIVING PLANT BIG SANDY GENERATING PLANT 315


KENTUCKY POWER COMPANY
DEPRECIATION STUDY AS OF DECEMBER 31, 2008 CALCULATION OF AVERAGE AGE OF SURVIVING PLANT BIG SANDY GENERATING PLANT 316


# KENTUCKY POWER COMPANY <br> DEPRECIATION STUDY AS OF 12-31-08 <br> STEAM PRODUCTION PLANT WORKPAPERS 

AVERAGE REMAINING LIFE CALCULATIONS

## KENTUCKY POWER COMPANY

 DEPRECIATION STUDY AS OF DECEMBER 31, 2008 CALCULATION OF AVERAGE REMAINING LIFE BIG SANDY PLANT ACCOUNT 311 RETIREMENT YEARS - UNIT 1 2023; UNIT 22029 ANNUAL INTERIM RETIREMENT RATE. 0.0016|  | AMOUNT | REM. LIFE | DOLLAR | AVERAGE |
| :---: | :---: | :---: | :---: | :---: |
| YEAR | RETIRED | (YEARS) | YEARS | REM. LIFE |

2009
64,934
0.5

32,467
2010
64,934
2011
2012
64,934
1.5

97,401
162,336
64,934
2.5

227,270
2013
64,934
3.5

292,204
64,934
4.5

357,139
2014
2015
2016
64,934
5.5

422,073
64,934
64,934
6.5
7.5

487,007
2017
2018
64,934
8.5

551,941
2019
2020
2021
2022
2023
2024
2025
2026
2027
2028
2029

TOTALS
40,583,921
782,196,947
19.27

INTERIM RETIREMENTS:
Total Plant at 12/31/08
40,583,921
Less Retirement of Unit 1 in 2023
-6,047,061
Less Final Retirement in year 2029
$-33,286,551$
Total Interim Retirements
1,250,309

KENTUCKY POWER COMPANY
DEPRECIATION STUDY AS OF DECEMBER 31, 2008 CALCULATION OF AVERAGE REMAINING LIFE BIG SANDY PLANT

ACCOUNT 312
RETIREMENT YEARS - UNIT 1 2023; UNIT 22029
ANNUAL INTERIM RETIREMENT RATE
0.0132

## YEAR

## AMOUNT REM. LIFE RETIRED (YEARS)

DOLLAR YEARS

AVERAGE
REM. LIFE

4,689,140
0.5

2,344,570
7,033,710
2010
4,689,140
1.5

2011
6,318,664
2.5

2012
4,667,630
3.5

2013
4,667,630
4.5

2014
4,667,630
5.5

2015
7,926,679
6.5

2016
2017
2018
2019
7,883,660
7.5
$4,581,592 \quad 8.5$

2020
4,581,592
9.5

2021
4,581,592
10.5

2022
4,581,592
11.5
12.5
13.5

2023
4,581,592
14.5

2024
4,581,592
15.5

2025 4.581592
16.5

2026
2027
2028
2029

TOTALS
$355,237,890$
17.5
18.5
19.5
20.5

5,222,346,633

INTERIM RETIREMENTS:
Total Plant at 12/31/08
Less Retirement of Unit 1 in 2023
355,237,890
Less Final Retirement in year 2029
Total Interim Retirements
$-22,537,880$
$-254,748,616$
77.951,394

Retirement of SCR Catalysts

Layer 12015
3,259,048
Layer 22016
3,259,049
Layer 32011
1,629,524
88 8.147.621
17.43

KENTUCKY POWER COMPANY
DEPRECIATION STUDY AS OF DECEMBER 31, 2008 CALCULATION OF AVERAGE REMAINING LIFE BIG SANDY PLANT ACCOUNT 314 RETIREMENT YEARS - UNIT 1 2023; UNIT 22029 ANNUAL INTERIM RETIREMENT RATE 0.0119

|  | AMOUNT | REM. LIFE | DOLLAR | AVERAGE |
| :--- | :--- | :---: | :--- | :--- |
| YEAR | RETIRED | (YEARS) | YEARS | REM. LIFE |


| 2009 | $1,243,632$ | 0.5 | 621,816 |
| :--- | ---: | ---: | ---: |
| 2010 | $1,243,632$ | 1.5 | $1,865,447$ |
| 2011 | $1,243,632$ | 2.5 | $3,109,079$ |
| 2012 | $1,243,632$ | 3.5 | $4,352,711$ |
| 2013 | $1,243,632$ | 4.5 | $5,596,342$ |
| 2014 | $1,243,632$ | 5.5 | $6,839,974$ |
| 2015 | $1,243,632$ | 6.5 | $8,083,605$ |
| 2016 | $1,243,632$ | 7.5 | $9,327,237$ |
| 2017 | $1,243,632$ | 8.5 | $10,570,869$ |
| 2018 | $1,243,632$ | 9.5 | $11,814,500$ |
| 2019 | $1,243,632$ | 10.5 | $13,058,132$ |
| 2020 | $1,243,632$ | 11.5 | $14,301,763$ |
| 2021 | $1,243,632$ | 12.5 | $15,545,395$ |
| 2022 | $1,243,632$ | 13.5 | $16,789,027$ |
| 2023 | $11,260,925$ | 14.5 | $163,283,407$ |
| 2024 | $1,124,426$ | 15.5 | $17,428,600$ |
| 2025 | $1,124,426$ | 16.5 | $18,553,026$ |
| 2026 | $1,124,426$ | 17.5 | $19,677,452$ |
| 2027 | $1,124,426$ | 18.5 | $20,801,878$ |
| 2028 | $1,124,426$ | 19.5 | $21,926,303$ |
| 2029 | $70,212,961$ | 20.5 | $1,439,365,700$ |

TOTALS 104,506,857 1,822,912,262 17.44

INTERIM RETIREMENTS:
Total Plant at 12/31/08 104,506,857
Less Retirement of Unit 1 in $2023-10,017,293$
Less Final Retirement in year $2029 \quad-70,212,961$
Total Interim Retirements 24,276.603


KENTUCKY POWER COMPANY
DEPRECIATION STUDY AS OF DECEMBER 31, 2008 CALCULATION OF AVERAGE REMAINING LIFE BIG SANDY PLANT ACCOUNT 315 RETIREMENT YEARS - UNIT 1 2023; UNIT 22029

## ANNUAL INTERIM RETIREMENT RATE 0.0037



KENTUCKY POWER COMPANY
DEPRECIATION STUDY AS OF DECEMBER 31, 2008 CALCULATION OF AVERAGE REMAINING LIFE BIG SANDY PLANT ACCOUNT 316 RETIREMENT YEARS - UNIT 1 2023; UNIT 22029

ANNUAL INTERIM RETIREMENT RATE
AMOUNT REM. LIFE DOLLAR
YEAR

2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
2028
2029
42,322
42,322
42,322
42,322
42,322
42,322
42,322
42,322
42,322
42,322
42,322
42,322
42,322
42,322
743,023
38,187
38,187
38,187
38,187
38,187
5,646,681

7,173,142
TOTALS

INTERIM RETIREMENTS:
Total Plant at 12/31/08

$$
7,173,142
$$

Less Retirement of Unit 1 in 2023
Less Final Retirement in year 2029
Total Interim Retirements

21,161
63,482
105,804
148,125
190,447
232,768
275,090
317,412
359,733
402,055
444,376
486,698
529,019
571,341
10,773,827
591,905
630,092
668,280
706,467
744,654
115,756,959

$$
0.0059
$$



KENTUCKY POWER COMPANY
Depreciation Study as of December 31, 2008
Retirement of Big Sandy Unit 1


## KENTUCKY POWER COMPANY

DEPRECIATION STUDY AS OF 12-31-08

## STEAM PRODUCTION PLANT WORKPAPERS

INTERIM SALVAGE AND REMOVAL ANALYSIS

## KENTUCKY POWER COMPANY

Depreciation Study as of December 31, 2008
Analysis of Removal and Salvage Activity from 1994 through 2008 Steam Production Plant


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# KENTUCKY POWER COMPANY <br> DEPRECIATION STUDY AS OF 12-31-08 <br> STEAM PRODUCTION PLANT WORKPAPERS 

## DEMOLITION REPORT



## American Electric Power Company <br> Big Sandy Power <br> LOUISA, $\mathbb{K}$ Y

## BIG SANDY AEP POWER PLANT <br> CONCEPTUAL DEMOLITION PLAN

## DEFINITIONS:

ACM
Asbestos Containing Material
CFC's
Chlorofluorocarbons.

## Construction / Demolition Debris

Any solid waste resulting from the construction, remodeling, repair, or demolition of structures. Such wastes may include, but not limited to, brick, stone, and concrete.

## Contractor

The individual, partnership or corporation with which AEP Company enters into a contract to perform all of the work described in the Specification.

## Contract

A purchase order placed by Purchaser and accepted by Contractor, together with this Specification and all other documents referred to in such purchase order, or a formal contract executed by Purchaser and Contractor, together with this Specification and all other documents referred to in such formal contract.

## Engineer

The Engineer or his authorized representative designated by AEP Company to be assigned to this contract.

## Fill Material

Material to be used to bring area to grade. Material shall meet the requirements of all applicable Federal and/or State rules and/or regulations. Material shall also meet the requirements of the Engineer.

## Greases

Any used or unused greases or waste containing grease.

## Hazardous Substance

This definition shall be the same definition as found in CERCLA Section 101(14), and shall include but limited to any substance or pollutant defined under Sections 311 (b)(2)(A) and 307(a) of the Federal Water Pollution Control Act, Section 102 of CERCLA, Section 3001 of the Solid Waste Disposal Act and Section 112 of the Clean Air Act.

## Hazardous Waste

Hazardous waste as defined in 40 CFR 261.3 or as defined in any applicable state regulation.

## HAZMATs

Any hazardous, toxic or regulated substance controlled under RCRA, CERCLA or any other Federal, State, or Local law, statute, regulation or ordinance pertaining to the handling, transportation, or disposal of any controlled substance.

[^3]
## Industrial Process Waste

Any solid waste generated by manufacturing or industrial process waste that is not a hazardous waste. Such waste may include, but not limited to, refractory brick, fire clay refractory earth brick, and ceramic block.

## Landfill

River City Disposal
1837 River Cities Drive Ashland, KY 41102

## MISDS

Material Safety Data Sheet.

## ODCS

Ozone Depleting Chemicals as defined under Title VI of the CAA Amendments of 1990

## Oils

Any used or unused hydraulic, lubrication, rolling, waste or other such oil or oily waste.

## OSHA

Occupational Safety and Health Act and amendments thereto.

## PCBs

Polychlorinated By-phenols.

## Process IMaterials

Any raw materials, blended raw materials, recyclable process generated dusts (such as flue dust), fly ash, ash slurry and etc.

## RACM

Regulated Asbestos Containing Material as defined in 40 CFR 61, Subpart M and any other applicable Federal, State, and/or Local rules, regulations and/or ordinances.

## Scrap

All ferrous scrap designated by the Engineer to be suitable for melting at a steel processing plant.

## Structural Removal

As in the Specification, shall mean all work of every nature described herein, implied herein, or necessary to complete the work described or implied herein, with the exception of Asbestos Abatement.

## AEP Company

American Electric Power Company

# $1+\mathrm{H}_{3} \mathrm{E}$ 

$26-5050$

# American Electric Power Company <br> Big Sandy Power <br> LOUISA, $\mathbb{K Y}$ 

Imformation Sheets

## BIG SANDY POWER

## 1. GENERAL SCOPE OF WORK

1.1. The work to be performed under the terms of this specification shall consist of the dismantling and removal of all facilities, machinery, equipment, all associated structures, foundations, debris, asbestos containing materials, hazardous substances and hazardous waste as directed by the Engineer. Upon completion each dismantling site shall be left in a neat, clean, safe condition.
1.2. Work under this specification shall be performed in accordance with the terms and conditions of the Contract, entered into between AEP Company and the Contractor, and in accordance with all EPA, OSHA, Federal, State, County, and Local laws, statutes, ordinances, and regulations.
1.3. The Contractor shall perform all utility disconnection and/or relocation work which is necessary to complete the proposed dismantling and removal work, without disrupting active utilities.
1.4. The Contractor shall perform all excavation, back-filling, construction and closure work which is necessary to complete the proposed dismantling work.
1.5. The Contractor shall provide all labor, materials, equipment, services and pay all necessary taxes, in addition to securing all required permits, to perform the dismantling.
1.6. The Contractor is responsible to clean up and dispose of any and all materials which are generated as a result of a spill caused by the Contractor, or which are generated as a result of the improper handling of any materials by the Contractor. This includes all RACM, Hazardous Substances, Hazardous Waste, Special wastes, Non-process Debris, Demolition Debris, and combustible materials.
2. FACILITY DISMANTLEMENT AND RELATED WORK
2.1. Perform the environment abatement of the following:
2.1.1. Vacuum the inside area of Unit 1 Boiler
2.1.2. Chemical sweep of structures, tanks and pipe in Unit 1 Boiler area
2.1.3. Abate tank insulation in Unit 1 Boiler along with all connected pipes
2.1.4. Abate Unit 1 Boiler, boiler breeching and piping
2.1.5. Abate Unit 1 Boiler building siding, office and turbine building siding, Unit 1 coil conveyor, Unit 1 coil conveyor transfer building, Unit 1 train coal unload station house and miscellaneous outside structures.
2.1.6. Remove Units 1 fluorescent light bulbs, PCB ballast, mercury vapor light, HID vapor lights and mercury containing instruments.
2.1.7. Vacuum the inside area of Unit 2 Boiler

## Dismantling Conceptual Specification

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2.1.8. Chemical sweep of structures, tanks and pipe in Unit 2 Boiler area
2.1.9. Abate tank insulation in Unit 2 Boiler along with all connected pipes
2.1.10. Abate Unit 2 Boiler, boiler breeching and piping
2.1.11. Abate Unit 2 miscellaneous outside structures.
2.1.12. Remove Unit 2 fluorescent light bulbs, PCB ballast, mercury vapor light, HID vapor lights and mercury containing instruments.
2.1.13. Remove storage building fluorescent light bulbs, PCB ballast, mercury vapor light, HID vapor lights and mercury containing instruments.
2.1.14. Remove the secondary and primary river water pump house building fluorescent light bulbs, PCB ballast, mercury vapor light, HID vapor lights and mercury containing instruments.
2.2. Perform the building dismantling, equipment removal, concrete removal to surrounding grade elevation of the following.
2.2.1. Unit 1 boiler building, turbine generator building, precipitators, office and maintenance building, coal conveyor.
2.2.2. Unit 2 boiler building, turbine generator building, precipitators, office and maintenance building the chemical lab building, coal conveyor to Unit 2 coal pile the SCR building and the Unit $1 \& 2$ concrete smoke stack.
2.3. Perform the removal of the following to grade elevation.
2.3.1. Unit 1 water cooling tower structure, adjacent pump structures, adjacent condensate water tank to surround grade elevation. Fill the pits and trenches to surround grade elevation.
2.3.2. The pump house and metal cleaning waste treatment tank located west of Unit 1 boiler building.
2.3.3. The coal train car unload building, adjacent control building, the coal conveyor and coal transfer and sampling building.
2.3.4. The tractor shed and locomotive house building.
2.3.5. The remains of the standby river water make-up equipment, railroad ties and pipes to the Big Sandy River.
2.3.6. The in-service sanitary treatment equipment, trenches and tanks located adjacent to the Big Sandy River.
2.3.7. The secondary and primary river water pump building structures, the two electrical control buildings. Remove building and water intakes to surrounding grade elevation. Install a barricade in the water inlet from the Big Sandy River. Remove the water inlet screens from the river.
2.3.8. The ammonia storage building and chemical manufacturing building structure and ammonia storage tank structures.
2.3.9. The 500,000 gallon fuel oil tank and oil pump station. Remove the oil tank dyke down to surround grade elevation.
2.3.10. The six single story maintenance, storage and office buildings located south of the Unit 2 boiler building.
2.3.11. The Unit 2 water cooling tower structure, adjacent pump structures, adjacent clean condensate water tank, dirty condensate water tank, the fire water control building, the sulfuric acid storage and control building, the chlorine tank and control building to surround grade elevation. Fill the pits and trenches to surround grade elevation.
2.3.12. The Unit 2 coal conveyor from the coil pile to the Unit 2 boiler.
2.3.13. The coal train unload building, coal conveyor from the unload building to the coal transfer building to the coal storage area. Remove all bents and transfer building to surround grade elevation. Remove the coal
truck unload equipment from grade elevation to the bottom of the pit. Fill the truck unload pit and the coal train unload pit to surrounding grade elevation. Fill the pit from the coal train station to the coal conveyor exit with fill material to surround grade elevation.
2.3.14. The coal system sample building, trailer and sample equipment to surrounding grade elevation.
2.3.15. The coal system transportation office and maintenance building located east of the coal storage area.
2.3.16. The two truck scales, control building, and coal train car warming structure and equipment down to surrounding grade elevation.
2.3.17. The abandoned $3,400,000$ gallon fuel storage tank. Remove the dyke wall surrounding the fuel tank to surrounding grade elevation. Remove all pumps, pipe, wires, and controls from the tank area to the Unit 2 boiler structure.
2.3.18. Remove the maintenance parts storage building located north of the Unit 2 turbine building.
2.3.19. Remove the electrical wire, and electric towers from the transformers located adjacent to Unit 2 boiler building to the 345,000 volt electrical station located north of highway 23.

## 3. WORK BY CONTRACTOR

The Contractor Shall:
3.1. Furnish all supervision, labor, materials, tools, supplies and equipment necessary to perform the work, including dismantling and removal of all the facilities, equipment, structures, etc. noted herein with the exception of specific structures which are designated in this Specification to remain.
3.2. Furnish on the site, during the performance of the work, an experienced supervisor who shall be duly authorized to represent and act for the Contractor in all matters pertaining to the work covered by this Specification.
3.3. Provide all written instructions, orders, and other communications delivered to the Contractor's construction office shall be considered as having been delivered to the Contractor himself.
3.4. Develop detailed written demolition plans for each area to be dismantled, and submit them to the Engineer for his review prior to the start of work in an area. Such plans shall include, but limited to:
3.4.1. A detailed and complete schedule for the performance of the work.
3.4.2. A survey of each area, identifying all materials to be disposed of other than scrap and equipment.
3.4.3. Identification and protection of demolition areas.
3.4.4. Termination and/or relocation of utilities.
3.4.5. Asbestos abatement and disposal.
3.4.6. Handling and disposal of hazardous wastes and materials.
3.4.7. Handling and disposal of oils and greases.
3.4.8. Handling and disposal of non-hazardous debris and materials.
3.4.9. Handling and disposal of ODC's.
3.4.10. Fire prevention and protection.
3.4.11. Handling and storage locations for ferrous and non-ferrous scrap.
3.4.12. Method of demolition and/or equipment removal.
3.4.13. Clean-out, breaking open, and filling of basements, pits, and tumnels.
3.4.14. Final grading and restoration of demolition site.
3.5. Clear each site of existing equipment, structures, and material designated to be removed. Each site will be left in a neat, clean, safe condition in conformity with all applicable Federal, State, or Local laws, statutes and/or regulations, including

## Dismantling Conceptual Specification

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but not limited to CAA, OSHA, RCRA, SARA, TSCA, and/or CERCLA. The finished condition of each site will be approved by the Engineer.
3.6. Remove all structures down to final grade except where otherwise noted. Final grade will generally be the adjacent grade surrounding the facility to be removed. The removal of concrete \& debris and grading will be done concurrent with the demolition work. As one area is cleared of structures, the required concrete removal work in that area will be done simultaneously with the demolition of structures in the next area of work. If the Contractor breaches the provisions of this section AEP Company reserves the right, in AEP Company's sole opinion, to stop the Contractor from doing further demolition until the concrete and debris removal is current.
3.7. Perform all material removal and asbestos abatement work in accordance with all applicable Federal, State, and/or Local rules, regulations and/or ordinances, which is necessary to complete the proposed removal work.
3.8. Perform all utility, telecommunications and telemetering disconnection and/or relocation work which is necessary to complete the proposed removal work.
3.9. Prior to beginning demolition of any facility, Contractor shall ascertain that no live utilities remain in the facility and identify and locate all underground utilities. It shall be the Contractor's exclusive responsibility to determine that all utility systems in each area remain isolated from active utility systems.
3.10. Perform all excavation, back-filling, construction and closure work which is necessary to complete the proposed dismantling and removal work.
3.11. Remove all debris generated as a result of the proposed removal work.
3.12. Break the floors of all pits, trenches and depressions sufficiently to provide drainage and to prevent the accumulation of water within the underground structure.
3.13. Tunnel and basement roof structures which do not support structures designated to remain and which are located less than 3 feet below finish grade elevation will be broken in. Said tunnel excavations will be filled with fill materials approved by the Site Engineer up to finish grade elevation.
3.14. Properly drain and capture all contents of pipelines prior to dismantling any pipelines.
3.15. Empty and shovel clean all pits, sumps, basements, and depressions to the satisfaction of the Engineer. Areas will be inspected by the Site Engineer prior to filling. Any pits, sumps, basements or depressions in contact with a hazardous waste or PCB shall be decontaminated in accordance with any applicable Federal and/or State rules and/or regulations.
3.16. Back-fill all pits, sumps, and depressions up to existing grade. Each site shall be rough graded and left in a neat, clean, safe condition. Contractor will use fill material approved by the Engineer. The final six inches of fill shall be other select fill material approved by the Engineer.
3.17. Furnish all fill material in accordance with the Specification. If the work activity generates more fill material than needed, the Contractor shall pay for the transportation and disposal off site. If the work activity is fill negative, the Contractor shall pay for the purchase and transportation of required fill to the site. Such purchased material shall be approved by the Site Engineer.
3.18. Furnish portable sanitary facilities and drinking water for Contractor's personnel in areas of removal.
3.19. Furnish electric power and temporary lighting in those areas of removal where active utilities are not available.
3.20. Provide adequate protective barriers for open pits, holes and depressions, as a result of the equipment removal work, until they are properly backfilled. Temporary barricades shall conform to all applicable Federal, State and Local, rules and regulations or standards including, but not limited to OSHA.
3.21. Remove above ground utility support systems such as poles, structural steel towers or guy wires which have been designated to be removed by the Engineer.
3.22. Remove and scrap all tanks, including supporting steel and concrete structures. Prior to removal work Contractor shall remove the contents of each tank, drain each tank and otherwise purge each tank in accordance with all applicable rules or regulations to render them safe for removal. Notify Engineer of any potentially contaminated soils. Remove of these

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tanks shall conform to all applicable Federal, State, and Local laws, statutes, regulations or ordinances.
3.23. Secure the approval of local Fire Department for the Fire Prevention Plan. Contractor shall meet with representatives of the Fire Department prior to commencement of work on each facility. Prior to the commencement of removal work, Contractor shall inspect all fire hydrants in the work area and shall notify the Engineer of those that are not in good operating condition.
3.24. Provide fire extinguishers and fire hoses as required to immediately control any fires resulting from the work. Implement all fire prevention measures as directed by the Fire Department. Measures required by Fire Department may include, but will not be limited to, the maintenance of pressurized fire hoses at each removal site.
3.25. Attend a safety meeting with AEP Company's representatives prior to starting work in each facility or designed area.
3.26. Furnish all temporary or permanent supports or protective devices which are necessary to preserve active pipes, electrical lines or other structures which AEP Company designates to remain in place.
3.27. Abide by AEP Company Contractor Safety Responsibilities, AEP Company Energy Control-Lockout and Tryout Rules, as well as all Federal, State, and Local regulations.
3.28. Secure the Engineer's approval prior to using any railroad track or mobile crane movements to or from the dismantling site.
3.29. Schedule rail movements, order all railroad cars and be solely responsible for demurrage charges resulting from the Contractor's operations.
3.30. Where Contractor removes railroad track, the Contractor shall remove all wooden and concrete ties, and load and transport them to an approved disposal site approved by the Engineer. Contractor shall be responsible for the cost of all removal, loading, transportation, and disposal of such material.

### 3.31. ACM ABATEMENT

3.31.1. Contractor shall provide all supervision, labor, consumable materials, tools, equipment, documentation, services and permits required to identify, remove, and dispose of all ACM located on, in, adjacent to or forming a part of each structure designated for removal. RACM removal work shall include but is not necessarily limited to the work described herein.
3.31.2. Prepare a complete, written ACM removal plan for each dismantling site. Contractor shall obtain and analyze all bulk sample analyses of any suspect RACM. Prior to the commencement of work, Contractor shall provide the Engineer with the results of the analyses and Contractor's removal plan.
3.31.3. Provide all respirators, protective clothing and equipment required to protect all personnel associated with the RACM removal work. All respirators, protective clothing and equipment shall conform to all applicable rules, regulations, and standards, including but not limited to OSHA..
3.31.4. Employ only competent persons, trained, knowledgeable and qualified in the techniques of abatement, handling and disposal of RACM and subsequent cleaning of contaminated areas. Employees who perform RACM removal work shall posses current, valid asbestos abatement licenses as required by any governmental agency having jurisdiction over the work.
3.31.5. Perform all RACM removal in strict accordance with all applicable Federal, State, and Local laws, statutes, ordinances and regulations. Contractor shall provide timely and accurate notification in accordance with all Federal, State, and Local laws, statutes, and regulations and ordinances.
3.31.6. Adequately wet all friable RACM prior to removal. Adequately wet RACM debris shall be packaged in bags provided by Contractor. Bags of ACM debris shall promptly placed in dumpster boxes provided by Contractor.
3.31.7. Haul all RACM debris from each RACM removal site to the disposal site approved by AEP Company. Contractor shall unload RACM at the disposal site. All transportation of RACM shall be performed in enclosed dumpster boxes.
3.31.8. Be responsible for any spilling, escape or release of RACM which occurs during the transportation of RACM to

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the disposal site. AEP Company shall be responsible for any spilling, escape or release of RACM which occurs after the RACM has been unloaded by Contractor at the disposal site approved by AEP Company. Contractor shall immediately report to AEP Company any spilling, escape or release of RACM which occurs during the transportation of RACM. Contractor shall submit copies of reports of spilling, escape or release of RACM to all authorities as required by Federal, State or Local laws, statutes, regulations and ordinances.
3.31.9. Maintain complete and accurate records of all removal, transportation and disposal activities in accordance with all Federal, State and Local laws, statutes, regulations and ordinances. Contractor shall submit copies of all such records to AEP Company on a daily basis.
3.31.10. Perform personal and area air monitoring as necessary to assure the safety of all persons associated with the removal of ACM and as required by Federal, State and Local laws, statutes, regulations and ordinances. Contractor shall perform environmental air monitoring in the area at each location where RACM removal work is performed. Environmental air monitoring shall conform to all applicable Federal, State, and Local laws, statutes, regulations and ordinances.

### 3.32. HAZARDOUS WASTE HANDLING AND DISPOSAL

3.32.1. Contractor shall provide all supervision, labor, consumable materials, tools, equipment, documentation, services and permits required to identify, remove and load any hazardous waste located in, adjacent to or forming a part of the equipment designated for removal. Contractor shall be responsible to perform all in-plant handling of such materials, including, but not limited to removal, loading, and in-plant transportation. Hazardous waste removal work shall include, but is not necessarily limited to, the work described herein.
3.32.2. Contractor is required to secure samples of all materials, which are suspected of being a hazardous waste, located in the areas defined in this Specification. Samples shall be collected in accordance with all applicable regulations. Contractor shall deliver all samples of suspected hazardous waste to the Engineer. AEP Company shall secure required analyses of all such samples.
3.32.3. Prepare a complete written hazardous waste removal plan for each work site that will be submitted to the Engineer for his review prior to the start of work in an area.
3.32.4. Contractor shall provide all respirators, protective clothing and equipment required to protect all personnel associated with the handling or removal of any Hazardous Wastes. All said respirators, protective clothing and equipment shall conform to all applicable rules, regulations and standards, including but not limited to OSHA.
3.32.5. Employ only competent persons, trained, knowledgeable and qualified in the techniques of handling and disposal of hazardous wastes and subsequent cleaning of contaminated areas. Employees who perform hazardous waste removal work shall possess current, valid licenses as required by any government agency having jurisdiction over the work. Perform all hazardous waste removal in strict accordance with all applicable Federal, State and Local laws, statutes, ordinances and regulations. Contractor shall provide timely and accurate notification in accordance with all Federal, State and Local laws, statutes, regulations and ordinances.
3.32.6. Contractor shall post all appropriate warning signs at each work area, as is required by applicable regulations.
3.32.7. Contractor shall be solely responsible for any spills, releases, escapes or improper handling of hazardous wastes caused by the Contractor (or by their approved subcontractor). Contractor shall pay all penalties, clean up, and disposal costs incurred as a result of improper handling by Contractor. Contractor shall immediately report any spilling, escape or release of any hazardous waste to the Engineer in accordance with Section 6.48 of the Specification.
3.32.8. Maintain complete and accurate records of all removal activities in accordance with all Federal, State, and Local laws, statutes, regulations and ordinances. Contractor shall submit copies of all such records to AEP Company on a weekly basis.
3.32.9. Perform personal monitoring as necessary to assure the safety of all persons associated with the removal of hazardous wastes and as required by Federal, State, and Local laws, statutes, regulations and ordinances. If so required, Contractor shall perform environmental air monitoring in the area of each location where hazardous

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waste removal work is performed. Envirommental air monitoring shall comply with applicable Federal, State, and Local laws, statutes, regulations and ordinances.
3.32.10. AEP Company shall be responsible for disposal, the method of disposal and the disposal site for all identified hazardous waste except asbestos waste. Contractor shall load all such wastes into trucks or containers provided by AEP Company.
3.33. COMBUSTIBLE DEBRIS
3.33.1. Contractor is responsible for identification, (including sampling and testing if required), removal, transportation, and disposal of all combustible debris located in the areas defined in this Specification, or which are generated by the Contractor in the performance of the work defined herein.
3.33.2. Contractor shall dispose of all combustible debris to a licensed off-plant disposal site. Such disposal site shall be approved by the Engineer.

### 3.34. CONSTRUCTION / DEMOLITION WASTE

3.34.1. Contractor is required to perform the work described herein in a manner that will separate construction / demolition waste from ferrous scrap, combustible waste, non-ferrous scrap, ferrous scrap, process demolition waste, oils and greases, hazardous wastes, and all other materials.
3.34.2. Contractor shall identify all quantities of construction / demolition waste to the Engineer. The Engineer shall positively identify all such materials as being construction / demolition waste.
3.34.3. For all materials which have been positively identified by the Engineer as construction / demolition waste, Contractor shall use such materials as clean fill in locations approved for filling by the Engineer.
3.34.4. Contractor shall be responsible to perform all in-plant handling of such materials, including, but not limited to, screening, separation, from other materials, loading, crushing and transportation.
3.34.5. Contractor shall be responsible for any costs that are incurred as a result of his handling construction / demolition waste, including, but not limited to, sampling, analysis, permit applications, loading, on and off-site transportation, and disposal at an approved disposal site.
3.35. OILS
3.35.1. Contractor is required to secure samples of all oils and oily wastes located in the areas defined in this Specification. Samples shall be collected in accordance with all applicable regulations.
3.35.2. AEP Company shall secure analyses required by the applicable regulations, or by the disposal facility, of all such samples, including, but not limited to, analysis for PCB contamination.
3.35.3. For all oils which have been positively identified as being free of PCB contamination (i.e. less than 50 ppm ), Contractor shall be responsible to perform all handling of such materials, including, but not limited to, removal, clean up, loading and transportation.
3.35.4. Contractor shall be responsible to pay for fees to dispose of all oils and oily waste in accordance with all applicable regulations. The Engineer shall approve all methods of disposal and disposal sites for all oils and oily waste.
3.36. GREASES
3.36.1. Contractor is required to secure samples of all greases and wastes containing grease located in the areas defined in this Specification. Samples shall be collected in accordance with all applicable regulations.
3.36.2. AEP Company shall secure analyses required by the applicable regulations, or by the disposal facility, of all such samples.
3.36.3. Contractor shall be responsible to perform all handling of such materials, including, but not limited to, removal, clean up, loading, and transportation.
3.36.4. AEP Company shall be responsible for the disposal of all special and hazardous greases and waste containing

greases in accordance with all applicable regulations.

### 3.37. PROCESS MATERIALS

3.37.1. Contractor is required to perform the work described herein in a manner that will separate process demolition debris from ferrous scrap, combustible debris, non-ferrous scrap, construction / demolition waste, oils and greases, hazardous wastes, and all other materials.
3.37.2. Prior to the start of demolition in an area, Contractor shall identify all quantities of process materials to the Engineer. The Engineer shall positively identify all such materials as being process materials.
3.37.3. Contractor is required to secure samples of all process materials located in the areas defined in this Specification. Contractor must provide samples to the Engineer with sufficient lead time so as not to interfere with the dismantling work.

### 3.38. PCB AND EQUIPMENT CONTAINING PCB

3.38.1. Prior to dismantling, Contractor shall conduct a survey of each dismantling area to locate and identify any electrical or hydraulic equipment which has not been clearly identified as being free of PCB contamination and, therefore, may contain PCBs. Contractor shall provide the Engineer with the location and description of any surveyed equipment which may contain CBs. Where so directed by AEP Company, Contractor shall provide AEP Company with a sample of the oil contained in the piece of equipment. AEP Company will secure analysis and provide Contractor with the written results.
3.38.2. Prior to dismantling the facility, the Contractor shall remove, intact each piece of PCB contaminated equipment. Contractor shall transport said PCB equipment to AEP Company's designated PCB storage facility. Contractor shall schedule and coordinate said deliveries with the Engineer. Alternatively, at the direction of the Engineer, Contractor shall load PCB equipment onto vehicles provided by AEP Company. Contractor shall schedule and coordinate said loading with the Engineer. Contractor shall schedule and coordinate the pumping and removal of PCB dielectric fluid from transformers prior to loading when so directed by the Engineer.
3.38.3. AEP Company shall be responsible for the disposal of all PCB equipment and fluids.
3.38.4. Contractor shall be solely responsible for any spills, releases, escapes, or improper handling of the hazardous substance caused by the Contractor. Contractor shall pay all penalties, clean up, and disposal costs incurred as a result of improper handling by Contractor. Contractor shall immediately report any spilling, escape, or release of any hazardous substance to the Engineer in accordance with Section 6.48 of the Specification.
3.39. ODC's:
3.39.1. Prior to dismantling, Contractor shall conduct a survey to locate and identify any equipment which may contain ODCs, including, but not limited to CFCs. Contractor shall provide the engineer with the location and description of any surveyed equipment which may contain ODCs.
3.39.2. Prior to dismantling the facility, the Contractor shall remove, intact, any piece of equipment which contains ODCs. Contractor shall transport said ODC containing equipment to a designated location.
3.39.3. Contractor shall be responsible for the removal and disposal of ODCs from equipment in accordance with all applicable regulations. Contractor shall provide the Engineer with documentation showing proper removal and disposal.
3.39.4. Contractor shall be responsible for the disposal of all equipment after all ODCs have been properly removed.
3.39.5. Contractor shall be solely responsible for any spills, releases, escapes, or improper handling of ODCs caused by the Contractor (or by their approved subcontractor). Contractor shall pay all penalties, clean up, and disposal costs incurred as a result of improper handling by Contractor. Contractor shall immediately report any spilling, escape, or release of any ODCs to the Engineer in accordance with Section 6.48 of this Specification.

### 3.40. PIPING SYSTEMS

3.40.1. Prior to the commencement of dismantling work, Contractor shall identify, plan and perform all piping shut

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offs, disconnections, and relocation work necessary to complete the work specified in a safe, orderly manner.
3.40.2. Piping shall be purged (where necessary) and shall be removed to a point of origin as designated by the Engineer.
3.40.3. Contractor shall submit plans, procedures and working drawings showing design details for all piping work to the Engineer for review. Contractor shall secure the Engineer's review of all designs, plans and procedures prior to the commencement of work. The correctness of the design shall remain the Contractors responsibility.
3.40.4. Contractor shall provide all supervision, labor, materials, tools and equipment necessary to complete all piping work required for the work as specified herein. Contractor shall be responsible for the identification of all piping construction, disconnection and relocation work which will be required to complete all work specified herein.
3.40.5. Contractor shall perform all piping construction, disconnection and relocation work using methods which will not interrupt AEP Company's ongoing operations.
3.40.6. Secure the Engineer's permission prior to any utility outage. In the absence of the Engineer's approval of Contractor's proposed outage, Contractor shall perform the proposed work on live pressurized lines.

### 3.41. ELECTRICAL SYSTEMS

3.41.1. Prior to the commencement of dismantling work, Contractor shall identify, plan and perform all electrical shut offs, disconnections, and relocation work necessary to complete the work specified in a safe and orderly manner.
3.41.2. Conduit, cable, wireways, and buss shall be removed to a point of origin as designated by the Engineer.
3.41.3. Contractor shall submit plans, procedures and working drawings showing design details for all electrical and related work to the Engineer for review. Contractor shall secure the Engineer's review of all designs prior to the commencement of work. The correctness of design shall remain the Contractor's responsibility.
3.41.4. Contractor shall provide all supervision, labor, materials, tools and equipment necessary to complete all electrical, telecommunication and telemetering work required for the dismantling work specified herein. Contractor shall be responsible for the identification of all electrical, telecommunication and telemetering construction, disconnection and relocation work which will be required to complete all work specified herein.
3.41.5. Contractor shall perform all electrical construction, disconnection and relocation work using methods which will not interrupt AEP Company's ongoing operations.
3.41.6. Contractor shall secure the Engineer's permission prior to any utility outage. In the absence of the Engineer's approval of Contractor's proposed outage, Contractor shall perform the proposed work on live energized lines.

## 4. WORK BY PURCHASER:

## AEP Company Shall:

4.1. Provide Material Safety Data Sheets (MSDS) in accordance with OSHA "Right to Know" regulations for each substance listed under said regulations.
4.2. Provide, where available, utility services such as 460 Volt, 3 phase, 60 Hz power, 250 Volt DC current, potable water, oxygen, compressed air, or natural gas, which are deemed available by AEP Company. Contractor may, at his own expense and approval of the Engineer, make necessary connections provided there is no interruption to normal production operations. AEP Company assumes no responsibility or liability for loss of, or damage to, the equipment or materials of the Contractor or his subcontractors. Contractor will pay charges that may be assessed. The assessment of charges and/or the availability of utilities may change through the course of the contract as determined.
4.3. Provide existing railroad tracks, railroad tracks sidings, and roadways on plant site, if available, for Contractor's use when and where the Engineer may designate. Contractor shall keep traffic lanes free of congestion so as to avoid interference with normal plant operations.

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4.4. Provide one copy of all available drawings necessary for the completion of the work specified. These drawings are to be used by the Contractor for reference only in the performance of the work. Said drawings are not to be construed as a complete description of the Scope of Work, nor as fully depicting existing conditions. Additional copies may be purchased by Contractor through the Purchaser.
4.5. Approve the selection of all subcontractors before they will be allowed to enter the job site and perform work. Subcontractors are subject to all applicable terms and conditions contained herein.
4.6. Provide written releases for the demolition of each specific area or facility as identified in the Schedule of Values. Demolition shall not commence without the receipt of said release.
4.7. Assign to Contractor ownership of each facility to be dismantled. The assignment shall include:
4.7.1. All ferrous and non-ferrous scrap resulting from the dismantling work
4.7.2. All ferrous and non-ferrous scrap located within each dismantling area as identified by Engineer during the site visitation.
4.7.3. Spare parts and/or spare equipment.
4.7.4 All railroad track designated for removal.
4.7.5. All vehicles and mobile equipment located within each dismantling area as identified in the Specification.
4.8. AEP Company will maintain ownership of all real estate

## 5. Pricing

5.1. Environmental Abatement \$4,000,000
5.2. Demolition of Unit 1,2, cooling towers, stacks, buildings, railroad tracks and tanks \$9,000,000
5.3. Capping of bottom and slurry ash ponds $\$ 30,000,000$

$$
\text { Payee } 38 \text { of } 350
$$

# KENTUCKY POWER COMPANY <br> DEPRECIATION STUDY AS OF 12-31-08 <br> STEAM PRODUCTION PLANT WORKPAPERS 

## CALCULATED ACCUMULATED DEPRECIATION

## Pase <br> 39 of 350



KENTUCKY POWER COMPANY

# DEPRECIATION STUDY AS OF 12-31-08 

TRANSMISSION PLANT WORKPAPERS

LIFE ANALYSIS

KENTUCKY POWER COMPANY
Depreciation Study as of December 31, 2008
Transmission Plant


An actuarial analysis was not performed on this account because of the minimal retirements. The recommendation is to continue the current average service and retirement dispersion for this account.

Retirements from this account should not be expected to incur removal costs or receive any salvage.

## KENTUCKY POWER COMPANY

Depreciation Study as of December 31, 2008
Transmission Plant
Account 352 STRUCTURES \& IMPROVEMENTS
Depreciable Balance ..... \$6,369,900
Current Recommended
Average Service Life (Yrs) ..... 55 ..... 73
Iowa Curve ..... S1.5 ..... L2.0
Gross Removal, \% ..... 0\%
Gross Salvage, \% ..... 10\%
Net Salvage \% 0\% ..... 10\%

The 40 year band analysis of the account shows the best fit curve is an $L 2.0$ with a 73 year average service life. Due to minimal retirement experience in the 20 year and 10 year bands, the actuarial analyses were not meaningful.

Retirements from the structures account should provide some salvage but no measureable removal costs would be expected.

Account: KEPCo 101/6 352 - KY Scenario: KEPCO TRANSMISSION 2008

A Actual Data

- L273.32



## Actuarial Life Analysis

Account: KEPCo 101/6 352 -KY
Scenario: KEPCO TRANSMISSION 2008
Placement Band: $1923-2008$
'unction: Survivorship Annual Rate Methodweighting: Unweighted
T-Cut: None

| Observation <br> Band | Censoring |  | Error Sum |  | Best Fit |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1969-2008$ | 85.5 | 46.97 | Percent | of Squares | Dis |  | ASL.

## Observed Life Table

Scenario: KEPCO TRANSMISSION 2008
$\frac{1 \rightarrow 0}{}+450$
Account: KEPCo 101/6 352 -KY
Placement Band: 1923-2008
Observation Band: 1969-2008

| ge at beginning of Interval | Exposures at Beginning of Interval | Retirements During Interval | Retirment Ratio | Survivor Ratio | Percent Surv at Beginning of Interval |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 6,292,828.06 | 0.00 | 0.00000 | 1.00000 | 100.00 |
| 0.5 | 6,184,874.74 | 0.00 | 0.00000 | 1.00000 | 100.00 |
| 1.5 | 6,201,894.40 | 0.00 | 0.00000 | 1.00000 | 100.00 |
| 2.5 | 6,237,136.40 | 1,954.00 | 0.00031 | 0.99969 | 100.00 |
| 3.5 | 6,173,534.45 | 1,667.00 | 0.00027 | 0.99973 | 99.97 |
| 4.5 | 6,180,313.45 | 3,388.00 | 0.00055 | 0.99945 | 99.94 |
| 5.5 | 6,197,626.45 | 2,007.00 | 0.00032 | 0.99968 | 99.89 |
| 6.5 | 5,401,409.10 | 1,459.00 | 0.00027 | 0.99973 | 99.86 |
| 7.5 | 5,400,005,93 | 1,986.00 | 0.00037 | 0.99963 | 99.83 |
| 8.5 | 5,316,655,55 | 61,166.00 | 0.01150 | 0.98850 | 99.79 |
| 9.5 | 5,241,108.40 | 5,840.00 | 0.00111 | 0.99889 | 98.64 |
| 10.5 | 5,184,749.40 | 841.00 | 0.00016 | 0.99984 | 98.53 |
| 11.5 | 4,981,474.39 | 271.00 | 0.00005 | 0.99995 | 98.51 |
| 12.5 | 4,859,681.24 | 8,260.00 | 0.00170 | 0.99830 | 98.51 |
| 13.5 | 4,740,203.24 | 9,144.00 | 0.00193 | 0.99807 | 98.34 |
| 14.5 | 4,721,383.24 | 1,281.00 | 000027 | 0.99973 | 98.15 |
| 15.5 | 4,351,122.24 | 724.00 | 0.00017 | 0.99983 | 98.12 |
| 16.5 | 4,242,767,24 | 0.00 | 0.00000 | 1.00000 | 98.10 |
| 17.5 | 4,208,519.24 | 684.00 | 0.00016 | 0.99984 | 98.10 |
| 18.5 | 4,142,040.24 | 7,165.00 | 0.00173 | 0.99827 | 98.08 |
| 19.5 | 4,133,365.24 | 9,049.00 | 0.00219 | 0.99781 | 97.91 |
| 20.5 | 4,119,120.24 | 369.00 | 0.00009 | 0.99991 | 97.70 |
| 21.5 | 4,104,291.24 | 318.00 | 0.00008 | 0.99992 | 97.69 |
| 22.5 | 3,947,748.24 | 544.00 | 0.00014 | 0.99986 | 97.68 |
| 23.5 | 3,845,679.24 | 11,644.00 | 0.00303 | 0.99697 | 97.67 |
| 24.5 | 3,720,801.24 | 7,387,00 | 0.00199 | 0.99801 | 97.37 |
| 25.5 | 3,671,314,33 | 2,500.00 | 0.00068 | 0.99932 | 97.18 |
| 26.5 | 3,481,599.33 | 5,102.00 | 0.00147 | 0.99853 | 97.11 |
| 27.5 | 1,834,638.33 | 359.00 | 0.00020 | 0.99980 | 96.97 |
| 28.5 | 1,735,063.33 | 1,237.00 | 0.00071 | 0.99929 | 96.95 |
| 29.5 | 1,730,686.33 | 4,232.00 | 0.00245 | 0.99755 | 96.88 |
| 30.5 | 1,726,668.33 | 0.00 | 0.00000 | 1.00000 | 96.64 |
| 31.5 | 1,568,043.94 | 0.00 | 0.00000 | 1.00000 | 96.64 |
| 32.5 | 1,480,504.94 | 5,298.00 | 0.00358 | 0.99642 | 96.64 |
| 33.5 | 1,464,196.77 | 852.00 | 0.00058 | 0.99942 | 96.29 |
| 34.5 | 308,999.77 | 2,213.00 | 0.00716 | 0.99284 | 96.23 |
| 35.5 | 259,904.00 | 32500 | 0.00125 | 0.99875 | 95.54 |
| 36.5 | 259,579.00 | 200.00 | 0.00077 | 0.99923 | 95.42 |
| 37.5 | 248,274.00 | 0.00 | 0.00000 | 1.00000 | 95.35 |
| 38.5 | 227,424.00 | 0.00 | 0.00000 | 1.00000 | 95.35 |
| 39.5 | 242,062.00 | 0.00 | 0.00000 | 1.00000 | 95.35 |
| 40.5 | 210,01300 | 0.00 | 0.00000 | 1.00000 | 95.35 |
| 41.5 | 189,894.09 | 0.00 | 0.00000 | 1.00000 | 95.35 |
| 42.5 | 168,387.09 | 0.00 | 0.00000 | 1.00000 | 9535 |
| 43.5 | 168,090.09 | 44.00 | 0.00026 | 0.99974 | 95.35 |
| 44.5 | 159,600.09 | 33,904.00 | 0.21243 | 0.78757 | 95.33 |
| 45.5 | 109,107.09 | 0.00 | 0.00000 | 1.00000 | 75.08 |
| 46.5 | 102,135.09 | 0.00 | 0.00000 | 1.00000 | 75.08 |
| 47.5 | 102,014.09 | 0.00 | 0.00000 | 1.00000 | 75.08 |
| 48.5 | 99,097.09 | 2,428.00 | 0.02450 | 0.97550 | 75.08 |
| 49.5 | 94,870.09 | 339.00 | 0.00357 | 0.99643 | 73.24 |
| 50.5 | 90,117.09 | 0.00 | 0.00000 | 1.00000 | 72.98 |
| 51.5 | 89,538.09 | 15,534,00 | 0.17349 | 0.82651 | 72.98 |
| 52.5 | 73,623.09 | 241.00 | 0.00327 | 0.99673 | 60.32 |


| Age at <br> Beginning <br> of Interval | Exposures <br> at Beginning <br> of Interval | Retirements <br> During <br> Interval | Retirment <br> Ratio | Survivor <br> Ratio | Percent Surv <br> at Beginning <br> of Interval |
| :---: | ---: | ---: | ---: | ---: | ---: |
| 53.5 | $72,866.09$ | $1,476.00$ | 0.02026 | 0.97974 | 60.12 |
| 54.5 | $32,596.09$ | $5,704.00$ | 0.17499 | 0.82501 | 58.90 |
| 55.5 | $26,181.09$ | 356.00 | 0.01360 | 0.98640 | 48.59 |
| 56.5 | $25,733.09$ | 0.00 | 0.00000 | 1.00000 | 47.93 |
| 57.5 | $17,332.09$ | 0.00 | 0.00000 | 1.00000 | 47.93 |
| 58.5 | $17,332.09$ | 352.00 | 0.02031 | 0.97969 | 47.93 |
| 59.5 | $16,980.09$ | 0.00 | 0.00000 | 1.00000 | 46.96 |
| 60.5 | $16,980.09$ | 0.00 | 0.00000 | 1.00000 | 46.96 |
| 61.5 | $16,980.09$ | 0.00 | 0.00000 | 1.00000 | 46.96 |
| 62.5 | $16,828.09$ | 0.00 | 0.00000 | 1.00000 | 46.96 |
| 63.5 | $16,828.09$ | 0.00 | 0.00000 | 1.00000 | 46.96 |
| 64.5 | $14,691.09$ | 0.00 | 0.00000 | 1.00000 | 46.96 |
| 65.5 | $8,951.00$ | 0.00 | 0.00000 | 1.00000 | 46.96 |
| 66.5 | $1,616.00$ | 0.00 | 0.00000 | 1.00000 | 46.96 |
| 67.5 | $1,616.00$ | 0.00 | 0.00000 | 1.00000 | 46.96 |
| 68.5 | 0.00 | 0.00 | 0.00000 | 1.00000 | 46.96 |

Scenario: KEPCO TRANSMISSION 2008
Account: KEPCo 101/6 352 - KY
Placement Band: 1923 -2008 Observation Band: 1969-2008


Scenario: KEPCO TRANSMISSION 2008
Account: KEPCo 101/6 352 - KV
Placement Band: 1923 - 2008 Observation Band: 1969-2008

| Age | Actual | L2 73.32 |
| :---: | :---: | :---: |
| 54.5 | 58.91 | 69.53 |
| 55.5 | 48.60 | 68.52 |
| 56.5 | 47.94 | 66.48 |
| 57.5 | 47.94 | 65.46 |
| 58.5 | 47.94 | 64.44 |
| 59.5 | 46.97 | 62.40 |
| 60.5 | 46.97 | 61.39 |
| 61.5 | 46.97 | 60.38 |
| 62.5 | 46.97 | 58.37 |
| 63.5 | 46.97 | 57.37 |
| 64.5 | 46.97 | 56.38 |
| 65.5 | 46.97 | 54.42 |
| 66.5 | 46.97 | 53.45 |
| 67.5 | 46.97 | 51.53 |
| 68.5 | 46.97 | 50.59 |
| 69.5 | 46.97 | 49.66 |
| 70.5 | 46.97 | 47.82 |
| 71.5 | 46.97 | 46.92 |
| 72.5 | 46.97 | 46.03 |
| 73.5 | 46.97 | 44.28 |
| 74.5 | 46.97 | 43.42 |
| 75.5 | 46.97 | 42.57 |
| 76.5 | 46.97 | 40.91 |
| 77.5 | 46.97 | 40.09 |
| 78.5 | 46.97 | 38.50 |
| 79.5 | 46.97 | 37.72 |
| 80.5 | 46.97 | 36.95 |
| 81.5 | 46.97 | 35.45 |
| 82.5 | 46.97 | 34.71 |
| 83.5 | 46.97 | 33.99 |
| 84.5 | 46.97 | 32.57 |
| 85.5 | 46.97 | 31.88 |
|  |  |  |




Account: KEPCo 101/6 352 - KY
Placement Band: 1923-2008
Observation Band: 1989-2008

| tge at beginning of Interval | Exposures at Beginning of Interval | Retirements During Interval | Retirment Ratio | Survivor Ratio | Percent Surv at Beginning of Interval |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 2,333,502.73 | 0.00 | 0.00000 | 1.00000 | 100.00 |
| 0.5 | 2,197,565.41 | 0.00 | 0.00000 | 1.00000 | 100.00 |
| 1.5 | 2,206,020.16 | 0.00 | 0.00000 | 1.00000 | 100.00 |
| 2.5 | 2,362,397,16 | 410.00 | 0.00017 | 0.99983 | 100.00 |
| 3.5 | 2,397,622.21 | 119.00 | 0.00005 | 0.99995 | 99.98 |
| 4.5 | 2,513,082.21 | 3,388.00 | 0.00135 | 0.99865 | 99.98 |
| 5.5 | 2,568,898.21 | 270.00 | 0.00011 | 0.99989 | 99.85 |
| 6.5 | 1,957,550,86 | 0.00 | 0.00000 | 1.00000 | 99.84 |
| 7.5 | 3,599,698.69 | 636.00 | 0.00018 | 0.99982 | 99.84 |
| 8.5 | 3,617,687.31 | 61,166.00 | 0.01691 | 0.98309 | 99.82 |
| 9.5 | 3,544,927.16 | 649.00 | 0.00018 | 0.99982 | 98.13 |
| 10.5 | 3,485,743.16 | 0.00 | 0.00000 | 1.00000 | 98.11 |
| 11.5 | 3,441,977.54 | 271.00 | 0.00008 | 0.99992 | 98.11 |
| 12.5 | 3,406,980.39 | 943.00 | 0.00028 | 0.99972 | 98.10 |
| 13.5 | 3,304,785.56 | 7,381.00 | 0.00223 | 0.99777 | 98.07 |
| 14.5 | 4,405,019.56 | 418.00 | 0.00009 | 0.99991 | 97.85 |
| 15.5 | 4,093,432.33 | 89.00 | 0.00002 | 0.99998 | 97.84 |
| 16.5 | 3,979,800.33 | 0.00 | 0.00000 | 1.00000 | 97.84 |
| 17.5 | 3,945,938.33 | 406.00 | 0.00010 | 0.99990 | 97.84 |
| 18.5 | 3,931,311,33 | 0.00 | 0.00000 | 1.00000 | 97.83 |
| 19.5 | 3,931,053.33 | 7,625.00 | 0.00194 | 0.99806 | 97.83 |
| 20.5 | 3,950,281.33 | 79.00 | 0.00002 | 0.99998 | 97.64 |
| 21.5 | 3,958,222.24 | 0.00 | 0.00000 | 1.00000 | 97.64 |
| 22.5 | 3,836,797.24 | 0.00 | 0.00000 | 1.00000 | 97.64 |
| 23.5 | 3,738,355.24 | 3,162.00 | 0.00085 | 0.99915 | 97.64 |
| 24.5 | 3,628,060.24 | 7,217.00 | 0.00199 | 0.99801 | 97.56 |
| 25.5 | 3,585,106.24 | 0.00 | 0.00000 | 1.00000 | 97.37 |
| 26.5 | 3,397,528.24 | 1,293.00 | 0.00038 | 0.99962 | 97.37 |
| 27.5 | 1,754,241.24 | 103.00 | 0.00006 | 0.99994 | 97.33 |
| 28.5 | 1,654,238.24 | 522.00 | 0.00032 | 0.99968 | 97.32 |
| 29.5 | 1,652,375.24 | 3,791.00 | 0.00229 | 0.99771 | 97.29 |
| 30.5 | 1,652,873.24 | 0.00 | 0.00000 | 1.00000 | 97.07 |
| 31.5 | 1,494,827.85 | 0.00 | 0.00000 | 1.00000 | 97.07 |
| 32.5 | 1,407,669,85 | 3,313.00 | 0.00235 | 0.99765 | 97.07 |
| 33.5 | 1,393,862.68 | 852.00 | 0.00061 | 0.99939 | 96.84 |
| 34.5 | 277,459.68 | 2,213.00 | 0.00798 | 0.99202 | 96.78 |
| 35.5 | 229,074.91 | 0.00 | 0.00000 | 1.00000 | 96.01 |
| 36.5 | 229,166.91 | 0.00 | 0.00000 | 1.00000 | 96.01 |
| 37.5 | 226,468.91 | 0.00 | 0.00000 | 1.00000 | 96.01 |
| 38.5 | 175,848.91 | 0.00 | 0.00000 | 1.00000 | 96.01 |
| 39.5 | 174,596.91 | 0.00 | 0.00000 | 1.00000 | 96.01 |
| 40.5 | 142,547.91 | 0.00 | 0.00000 | 1.00000 | 96.01 |
| 41.5 | 120,959.00 | 0.00 | 0.00000 | 1.00000 | 96.01 |
| 42.5 | 91,187,00 | 0.00 | 0.00000 | 1.00000 | 96.01 |
| 43.5 | 90,890.00 | 0.00 | 0.00000 | 1.00000 | 96.01 |
| 44.5 | 84,581.00 | 0.00 | 0.00000 | 1.00000 | 96.01 |
| 45.5 | 74,084.09 | 0.00 | 0.00000 | 1.00000 | 96.01 |
| 46.5 | 74,447.09 | 0.00 | 0.00000 | 1.00000 | 96.01 |
| 47.5 | 74,326.09 | 0.00 | 0.00000 | 1.00000 | 96.01 |
| 48.5 | 73,025.09 | 0.00 | 0.00000 | 1.00000 | 96.01 |
| 49.5 | 71,226.09 | 0.00 | 0.00000 | 1.00000 | 96.01 |
| 50.5 | 66,812.09 | 0.00 | 0.00000 | 1.00000 | 96.01 |
| 51.5 | 66,233.09 | 0.00 | 0.00000 | 1.00000 | 96.01 |
| 52.5 | 65,852.09 | 0.00 | 0.00000 | 1.00000 | 96.01 |


| Age at <br> Beginning <br> of Interval | Exposures <br> at Beginning <br> of Interval | Retirements <br> During <br> Interval | Retirment <br> Ratio | Survivor <br> Ratio | Percent Surv <br> at Beginning <br> of Interval |
| :---: | ---: | ---: | :---: | ---: | ---: |
| 53.5 | $65,336.09$ | 6.00 | 0.00009 | 0.99991 | 96.01 |
| 54.5 | $26,536.09$ | 0.00 | 0.00000 | 1.00000 | 96.00 |
| 55.5 | $25,825.09$ | 0.00 | 0.00000 | 1.00000 | 96.00 |
| 56.5 | $25,733.09$ | 0.00 | 0.00000 | 1.00000 | 96.00 |
| 57.5 | $17,332.09$ | 0.00 | 0.00000 | 1.00000 | 96.00 |
| 58.5 | $17,332.09$ | 352.00 | 0.02031 | 0.97969 | 96.00 |
| 59.5 | $16,980.09$ | 0.00 | 0.00000 | 1.00000 | 94.05 |
| 60.5 | $16,980.09$ | 0.00 | 0.00000 | 1.00000 | 94.05 |
| 61.5 | $16,980.09$ | 0.00 | 0.00000 | 1.00000 | 94.05 |
| 62.5 | $16,828.09$ | 0.00 | 0.00000 | 1.00000 | 94.05 |
| 63.5 | $16,828.09$ | 0.00 | 0.00000 | 1.00000 | 94.05 |
| 64.5 | $14,691.09$ | 0.00 | 0.00000 | 1.00000 | 94.05 |
| 65.5 | $8,951.00$ | 0.00 | 0.00000 | 1.00000 | 94.05 |
| 66.5 | $1,616.00$ | 0.00 | 0.00000 | 1.00000 | 94.05 |
| 67.5 | $1,616.00$ | 0.00 | 0.00000 | 1.00000 | 94.05 |
| 68.5 | 0.00 | 0.00 | 0.00000 | 1.00000 | 94.05 |

Account: KEPCo 101/6 352 - KY
Placement Band: 1923 -2008 Observation Band: 1989-2008


Surviving Percent Report
Scenario: KEPCO TRANSMISSION 2008
Account: KEPCo 101/6 352 - KY
Placement Band: 1923 -2008 Observation Band: 1989-2008

| Age | Actual | R1.5251.32 | L2 73.00 |
| :--- | :---: | :---: | :---: |
| 54.5 | 96.00 | 95.51 | 69.53 |
| 55.5 | 96.00 | 95.25 | 67.50 |
| 56.5 | 96.00 | 95.25 | 66.48 |
| 57.5 | 96.00 | 95.25 | 65.46 |
| 58.5 | 96.00 | 94.99 | 63.42 |
| 59.5 | 94.05 | 94.99 | 62.40 |
| 60.5 | 94.05 | 94.72 | 61.39 |
| 61.5 | 94.05 | 94.72 | 59.37 |
| 62.5 | 94.05 | 94.72 | 58.37 |
| 63.5 | 94.05 | 94.44 | 57.37 |
| 64.5 | 94.05 | 94.44 | 55.39 |
| 65.5 | 94.05 | 94.17 | 54.42 |
| 66.5 | 94.05 | 94.17 | 52.49 |
| 67.5 | 94.05 | 94.17 | 51.53 |
| 68.5 | 94.05 | 93.89 | 50.59 |
| 69.5 | 94.05 | 93.89 | 48.74 |
| 70.5 | 94.05 | 93.60 | 47.82 |
| 71.5 | 94.05 | 93.60 | 46.92 |
| 72.5 | 94.05 | 93.60 | 45.15 |
| 73.5 | 94.05 | 93.31 | 44.28 |
| 74.5 | 94.05 | 93.31 | 42.57 |
| 75.5 | 94.05 | 93.01 | 41.73 |
| 76.5 | 94.05 | 93.01 | 40.91 |
| 77.5 | 94.05 | 93.01 | 39.29 |
| 78.5 | 94.05 | 92.71 | 38.50 |
| 79.5 | 94.05 | 92.71 | 37.72 |
| 80.5 | 94.05 | 92.40 | 36.19 |
| 81.5 | 94.05 | 92.40 | 35.45 |
| 82.5 | 94.05 | 92.40 | 33.99 |
| 83.5 | 94.05 | 92.09 | 33.27 |
| 84.5 | 94.05 | 92.09 | 32.57 |
| 85.5 | 94.05 | 91.78 | 31.20 |
|  |  |  |  |

## Account: KEPCo 101/6 352 -KY

## Scenario: KEPCO TRANSMISSION 2008

Placement Band: 1923 - 2008
Inction: Survivorship Annual Rate Method
, Jeighting: Unweighted
T-Cut: None

| Observation <br> Band | Censoring |  | Error Sum |  | Best Fit |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent | of Squares | Disp | ASL |  |  |
| $1999-2008$ | 85.5 | 91.63 | 0.03130360 | R0.5 | 280.35 |  |



Account: KEPCo 101/6 352 - KY
Placement Band: 1923-2008 Observation Band: 1999-2008

| Age at Beginning of Interval | Exposures at Beginning of Interval | Retirements During Interval | Retirment Ratio | Survivor Ratio | Percent Sury at Beginning of Interval |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 1,125,852.57 | 0.00 | 0.00000 | 1.00000 | 100.00 |
| 0.5 | 1,043,379.25 | 0.00 | 0.00000 | 1.00000 | 100.00 |
| 1.5 | 1,239,877.01 | 0.00 | 0.00000 | 1.00000 | 100.00 |
| 2.5 | 1,419,991.16 | 0.00 | 0.00000 | 1.00000 | 100.00 |
| 3.5 | 1,469,351.21 | 0.00 | 0.00000 | 1.00000 | 100.00 |
| 4.5 | 1,518,538.21 | 1,180.00 | 0.00078 | 0.99922 | 100.00 |
| 5.5 | 1,888,743.21 | 270.00 | 0.00014 | 0.99986 | 99.92 |
| 6.5 | 1,196,345.86 | 0.00 | 0.00000 | 1.00000 | 99.91 |
| 7.5 | 1,240,714.69 | 0.00 | 0.00000 | 1.00000 | 99.91 |
| 8.5 | 1,222,228.31 | 60,792.00 | 0.04974 | 0.95026 | 99.91 |
| 9.5 | 1,146,766.16 | 0.00 | 0.00000 | 1.00000 | 94.94 |
| 10.5 | 1,093,302.16 | 0.00 | 0.00000 | 1.00000 | 94.94 |
| 11.5 | 904,170.15 | 0.00 | 0.00000 | 1.00000 | 94.94 |
| 12.5 | 938,203.00 | 0.00 | 0.00000 | 1.00000 | 94.94 |
| 13.5 | 924,478.00 | 0.00 | 0.00000 | 1.00000 | 94.94 |
| 14.5 | 990,870.00 | 0.00 | 0.00000 | 1.00000 | 94.94 |
| 15.5 | 672,081.00 | 0.00 | 0.00000 | 1.00000 | 94.94 |
| 16.5 | 752,713.00 | 0.00 | 0.00000 | 1.00000 | 94.94 |
| 17.5 | 2,349,758.00 | 0.00 | 0.00000 | 1.00000 | 94.94 |
| 18.5 | 2,386,780.00 | 0.00 | 0.00000 | 1.00000 | 94.94 |
| 19.5 | 2,388,410,00 | 0.00 | 0.00000 | 1.00000 | 94.94 |
| 20.5 | 2,383,339,00 | 0.00 | 0.00000 | 1.00000 | 94.94 |
| 21.5 | 2,528,705.39 | 0.00 | 0.00000 | 1.00000 | 94.94 |
| 22.5 | 2,459,867,39 | 0.00 | 0.00000 | 1.00000 | 94.94 |
| 23.5 | 2,372,340.56 | 0.00 | 0.00000 | 1.00000 | 94.94 |
| 24.5 | 3,411,106.56 | 0.00 | 0.00000 | 1.00000 | 94.94 |
| 25.5 | 3,407,876.33 | 0.00 | 0.00000 | 1.00000 | 94.94 |
| 26.5 | 3,213,326.33 | 0.00 | 0.00000 | 1.00000 | 94.94 |
| 27.5 | 1,582,419.33 | 103.00 | 0.00007 | 0.99993 | 94.94 |
| 28.5 | 1,530,119.33 | 0.00 | 0.00000 | 1.00000 | 94.93 |
| 29.5 | 1,528,231,33 | 1,202.00 | 0.00079 | 0.99921 | 94.93 |
| 30.5 | 1,558,953.33 | 0.00 | 0.00000 | 1.00000 | 94.86 |
| 31.5 | 1,422,769.85 | 0.00 | 0.00000 | 1.00000 | 94.86 |
| 32.5 | 1,365,154.85 | 3,313.00 | 0.00243 | 0.99757 | 94.86 |
| 33.5 | 1,351,128.68 | 852.00 | 0.00063 | 0.99937 | 94.63 |
| 34.5 | 204,377,68 | 2,213.00 | 0.01083 | 0.98917 | 94.57 |
| 35.5 | 171,870.91 | 0.00 | 0.00000 | 1.00000 | 93.55 |
| 36.5 | 178,842.91 | 0.00 | 0.00000 | 1.00000 | 93.55 |
| 37.5 | 167,858.91 | 0.00 | 0.00000 | 1.00000 | 93.55 |
| 38.5 | 120,155.91 | 0.00 | 0.00000 | 1.00000 | 93.55 |
| 39.5 | 120,702.91 | 0.00 | 0.00000 | 1.00000 | 93.55 |
| 40.5 | 93,067.91 | 0.00 | 0.00000 | 1.00000 | 93.55 |
| 41.5 | 72,058.00 | 0.00 | 0.00000 | 1.00000 | 93.55 |
| 42.5 | 42,515.00 | 0.00 | 0.00000 | 1.00000 | 93.55 |
| 43.5 | 42,734 00 | 0.00 | 0.00000 | 1.00000 | 93.55 |
| 44.5 | 73,082.00 | 0.00 | 0.00000 | 1.00000 | 93.55 |
| 45.5 | 57,204.00 | 0.00 | 0.00000 | 1.00000 | 93.55 |
| 46.5 | 50,324.00 | 0.00 | 0.00000 | 1.00000 | 93.55 |
| 47.5 | 58,610.00 | 0.00 | 0.00000 | 1.00000 | 93.55 |
| 48.5 | 55,693.00 | 0.00 | 0.00000 | 1.00000 | 93.55 |
| 49.5 | 53,894.00 | 0.00 | 0.00000 | 1.00000 | 93.55 |
| 50.5 | 49,480.00 | 0.00 | 0.00000 | 1.00000 | 93.55 |
| 51.5 | 48,901.00 | 0.00 | 0.00000 | 1.00000 | 93.55 |
| 525 | 48,672.00 | 0.00 | 0.00000 | 1.00000 | 93.55 |

Scenario: KEPCO TRANSWISSION 2008
Account: KEPCo 101/6 352 -KY
Placement Band: 1923-2008


Beginning of Interval
53.5
54.5
55.5
57.5
58.5
59.5
60.5
61.5
62.5
63.5
64.5
65.5
67.5
68.5

Observation Band: 1999-2008

Percent Surv of Interval
93.55
93.54
93.54
33.54
93.54
91.64
91.64
91.64
91.64
91.64
91.64
1.64
91.64

Scenario: KEPCO TRANSMISSION 2008

Account: KEPCo 101/6 352 -KY
Placement Band: 1923 - 2008
Observation Band: 1999-2008


Scenario: KEPCO TRANSMISSION 2008
Account: KEPCo 101/6 352 - KY
Placement Band: $1923-2008$
Observation Band: 1999-2008

| Age | Actual | R0.5280.35 | L3 73.00 |
| :---: | :---: | :---: | :---: |
| 54.5 | 93.53 | 92.49 | 78.54 |
| 55.5 | 93.53 | 92.49 | 76.12 |
| 56.5 | 93.53 | 92.08 | 74.86 |
| 57.5 | 93.53 | 92.08 | 73.57 |
| 58.5 | 93.53 | 92.08 | 70.93 |
| 59.5 | 91.63 | 91.66 | 69.58 |
| 60.5 | 91.63 | 91.66 | 68.21 |
| 61.5 | 91.63 | 91.66 | 65.43 |
| 62.5 | 91.63 | 91.24 | 64.03 |
| 63.5 | 91.63 | 91.24 | 62.62 |
| 64.5 | 91.63 | 90.82 | 59.81 |
| 65.5 | 91.63 | 90.82 | 58.40 |
| 66.5 | 91.63 | 90.82 | 55.61 |
| 67.5 | 91.63 | 90.40 | 54.23 |
| 68.5 | 91.63 | 90.40 | 52.87 |
| 69.5 | 91.63 | 90.40 | 50.18 |
| 70.5 | 91.63 | 89.98 | 48.86 |
| 71.5 | 91.63 | 89.98 | 47.57 |
| 72.5 | 91.63 | 89.98 | 45.04 |
| 73.5 | 91.63 | 89.56 | 43.81 |
| 74.5 | 91.63 | 89.56 | 41.43 |
| 75.5 | 91.63 | 89.56 | 40.28 |
| 76.5 | 91.63 | 89.13 | 39.16 |
| 77.5 | 91.63 | 89.13 | 36.99 |
| 78.5 | 91.63 | 88.71 | 35.94 |
| 79.5 | 91.63 | 88.71 | 34.92 |
| 80.5 | 91.63 | 88.71 | 32.96 |
| 81.5 | 91.63 | 88.28 | 32.02 |
| 82.5 | 91.63 | 88.28 | 30.21 |
| 83.5 | 91.63 | 88.28 | 29.35 |
| 84.5 | 91.63 | 87.85 | 28.50 |
| 85.5 | 91.63 | 87.85 | 26.88 |
|  |  |  |  |

KENTUCKY POWER COMPANY
Depreciation Study as of December 31, 2008
Transmission Plant
Account 353 STATION EQUIPMENT
Depreciable Balance \$146,458,490
Current
Recommended
Average Service Life (Yrs) ..... 50 ..... 42
Iowa Curve RD. 5 ..... R2.0
Gross Removal, \% ..... 20\%
Gross Salvage, \% ..... 15\%
Net Salvage \% ..... 25\% ..... $-5 \%$

The actuarial analysis indicate that the current 50 year average service life for this account should be shortened. Based on the analysis of the 40 year band, recommendation is to move to a 42 year average service life following an R2.0 type dispersion.

The removal of station equipment will require labor and equipment costs and some salvage would be expected from the scrap values and reuse of the material.

$$
\text { Page } 60 \text { of } 350
$$

Account: KEPCo 101/6 353 - KY Scenario: KEPCO TRANSMISSION 2008
a Actual Data

- R2 42.22



## Actuarial Life Analysis

Account: KEPCo 101/6 353 -KY
Scenario: KEPCO TRANSMISSION 2008Placement Band: 1916 -2008unction: Survivorship Annual Rate Methodweighting: Unweighted
T-Cut: ..... None

| Observation <br> Band | Censoring |  | Error Sum | Best Fit |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Percent | of Squares | Disp | ASL |  |
| $1969-2008$ | 92.5 | 0.00 | 0.14609933 | R2 | 42.22 |

Account: KEPCo 101/6 353 -KY
Placement Band: 1916-2008


Observation Band: 1969-2008

| Age at Beginning of Interval | Exposures at Beginning of Interval | Retirements During Interval | Retirment Ratio | Survivor Ratio | Percent Surv at Beginning of Interval |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 158,770,054.58 | 88,301.00 | 0.00056 | 0.99944 | 100.00 |
| 0.5 | 146,237,516.57 | 161,021.00 | 0.00110 | 0.99890 | 99.94 |
| 1.5 | 144,768,267,99 | 313,688.00 | 0.00217 | 0.99783 | 99.83 |
| 2.5 | 134,563,930.14 | 1,085,702.00 | 0.00807 | 0.99193 | 99.61 |
| 3.5 | 131,727,554,56 | 655,240.00 | 0.00497 | 0.99503 | 98.81 |
| 4.5 | 128,279,079.69 | 516,028.00 | 0.00402 | 0.99598 | 98.32 |
| 5.5 | 124,894,734.49 | 753,720.00 | 0.00603 | 0.99397 | 97.92 |
| 6.5 | 120,507,580.51 | 575,370.00 | 0.00477 | 0.99523 | 97.33 |
| 7.5 | 116,974,854.15 | 944,062.00 | 0.00807 | 0.99193 | 96.87 |
| 8.5 | 113,596,404.96 | 636,873.00 | 0.00561 | 0.99439 | 96.09 |
| 9.5 | 111,658,793.55 | 302,826.00 | 0.00271 | 0.99729 | 95.55 |
| 10.5 | 100,386,632.37 | 1,229,866.00 | 0.01225 | 0.98775 | 95.29 |
| 11.5 | 62,477,651,11 | 362,851.00 | 000581 | 0.99419 | 94.12 |
| 12.5 | 59,747,607.67 | 273,968.00 | 0.00459 | 0.99541 | 93.57 |
| 13.5 | 58,654,324.63 | 683,381.00 | 0.01165 | 0.98835 | 93.14 |
| 14.5 | 56,082,909.51 | 196,811.00 | 0.00351 | 0.99649 | 92.05 |
| 15.5 | 50,277,130.40 | 275,537.00 | 0.00548 | 0.99452 | 91.73 |
| 16.5 | 48,182,592.24 | 261,269.00 | 0.00542 | 0.99458 | 91.23 |
| 17.5 | 44,178,678.91 | 409,131.00 | 0.00926 | 0.99074 | 90.74 |
| 18.5 | 40,802,355.30 | 457,121.00 | 0.01120 | 0.98880 | 89.90 |
| 19.5 | 39,267,091.78 | 716,735.00 | 0.01825 | 0.98175 | 88.89 |
| 20.5 | 38,028,239 21 | 89,639.00 | 0.00236 | 0.99764 | 87.27 |
| 21.5 | 35,921,425.59 | 653,577.00 | 0.01819 | 0.98181 | 87.06 |
| 22.5 | 34,773,226.59 | 618,190.00 | 0.01778 | 0.98222 | 85.48 |
| 23.5 | 33,439,336.67 | 237,217.00 | 0.00709 | 0.99291 | 83.96 |
| 24.5 | 31,995,181,67 | 469,737.00 | 0.01468 | 0.98532 | 83.36 |
| 25.5 | 30,321,935.27 | 153,18500 | 0.00505 | 0.99495 | 82.14 |
| 26.5 | 28,576,586.24 | 43,402.00 | 0.00152 | 0.99848 | 81.73 |
| 27.5 | 21,350,804.22 | 831,854,00 | 0.03896 | 0.96104 | 81.61 |
| 28.5 | 15,242,898.36 | 333,833.00 | 0.02190 | 0.97810 | 78.43 |
| 29.5 | 13,973,393.06 | 171,898.00 | 0.01230 | 0.98770 | 76.71 |
| 30.5 | 13,897,099 27 | 97,331.00 | 0.00700 | 0.99300 | 75.77 |
| 31.5 | 11,809,345.14 | 73,709.00 | 0.00624 | 0.99376 | 75.24 |
| 32.5 | 10,688,901.70 | 182,578.00 | 0.01708 | 0.98292 | 74.77 |
| 33.5 | 9,742,596.70 | 188,855.00 | 0.01938 | 0.98062 | 73.49 |
| 34.5 | 8,524,898.95 | 14,310.00 | 0.00168 | 0.99832 | 72.07 |
| 35.5 | 8,349,277.24 | 259,105.00 | 0.03103 | 0.96897 | 71.95 |
| 36.5 | 7,921,386,16 | 164,869.00 | 0.02081 | 0.97919 | 69.72 |
| 37.5 | 7,555,200,74 | 13,605.00 | 0.00180 | 0.99820 | 68.27 |
| 38.5 | 6,851,704.99 | 152,639.00 | 0.02228 | 0.97772 | 68.15 |
| 39.5 | 1,961,198,63 | 30,716.00 | 001566 | 0.98434 | 66.63 |
| 40.5 | 1,871,058.63 | 72,083.00 | 0.03853 | 0.96147 | 65.59 |
| 41.5 | 1,560,051.16 | 5,110.00 | 0.00328 | 0.99672 | 63.06 |
| 42.5 | 1,549,478.16 | 158,998.00 | 0.10261 | 0.89739 | 62.85 |
| 43.5 | 1,294,284.54 | 102,193.00 | 0.07896 | 0.92104 | 56.40 |
| 44.5 | 1,189,747,28 | 199,980.00 | 0.16809 | 0.83191 | 51.95 |
| 45.5 | 428,806.28 | 2,021.00 | 0.00471 | 0.99529 | 43.22 |
| 46.5 | 441,292.28 | 23,804.00 | 0.05394 | 0.94606 | 43.02 |
| 47.5 | 417,141.28 | 6,012.00 | 0.01441 | 0.98559 | 40.70 |
| 48.5 | 385,745.31 | 177.00 | 0.00046 | 0.99954 | 40.11 |
| 49.5 | 333,200.76 | 0.00 | 0.00000 | 1.00000 | 40.09 |
| 50.5 | 332,623.76 | 59,24400 | 0.17811 | 0.82189 | 40.09 |
| 51.5 | 264,399.25 | 403.00 | 0.00152 | 0.99848 | 32.95 |
| 52.5 | 264,130.25 | 327.00 | 0.00124 | 0.99876 | 32.90 |


| Age at <br> Beginning <br> of Interval | Exposures <br> at Beginning <br> of Interval | Retirements <br> During <br> Interval | Retirment <br> Ratio | Survivor <br> Ratio | Percent Surv <br> at Beginning <br> of Interval |
| :---: | ---: | ---: | :---: | ---: | :---: |
| 53.5 | $262,906.25$ | $8,887.00$ | 0.03380 | 0.96620 | 32.86 |
| 54.5 | $28,122.00$ | 0.00 | 0.00000 | 1.00000 | 31.75 |
| 55.5 | $20,547.00$ | $6,860.00$ | 0.33387 | 0.66613 | 31.75 |
| 56.5 | $13,687.00$ | 134.00 | 0.00979 | 0.99021 | 21.15 |
| 57.5 | $13,553.00$ | 0.00 | 0.00000 | 1.00000 | 20.94 |
| 58.5 | $13,553.00$ | $13,553.00$ | 1.00000 | 0.00000 | 20.94 |
| 59.5 | 0.00 | 0.00 | 0.00000 | 1.00000 | 0.00 |

Scenario: KEPCO TRANSMISSION 2008
Account: KEPCo 101/6 353 - KY
Placement Band: 1916 -2008 Observation Band: 1969-2008


| Age | Actual | R2 42.22 |
| :---: | ---: | :---: |
| 54.5 | 31.74 | 23.28 |
| 55.5 | 31.74 | 21.38 |
| 56.5 | 21.14 | 19.54 |
| 57.5 | 20.94 | 16.93 |
| 58.5 | 20.94 | 15.30 |
| 59.5 | 0 | 13.74 |
| 60.5 | 0 | 11.58 |
| 61.5 | 0 | 10.25 |
| 62.5 | 0 | 8.43 |
| 63.5 | 0 | 7.33 |
| 64.5 | 0 | 6.32 |
| 65.5 | 0 | 4.96 |
| 66.5 | 0 | 4.16 |
| 67.5 | 0 | 3.44 |
| 68.5 | 0 | 2.51 |
| 69.5 | 0 | 1.99 |
| 70.5 | 0 | 1.53 |
| 71.5 | 0 | 0.98 |
| 72.5 | 0 | 0.69 |
| 73.5 | 0 | 0.36 |
| 74.5 | 0 | 0.21 |
| 75.5 | 0 | 0.11 |
| 76.5 | 0 | 0.03 |
| 77.5 | 0 | 0.01 |
| 78.5 | 0 | 0 |
| 79.5 | 0 | 0 |
| 80.5 | 0 |  |
| 81.5 | 0 |  |
| 82.5 | 0 |  |
| 83.5 | 0 |  |
| 84.5 | 0 |  |
| 85.5 | 0 |  |
| 86.5 | 0 |  |
| 87.5 | 0 |  |
| 88.5 | 0 |  |
| 89.5 | 0 |  |
| 90.5 | 0 |  |
| 91.5 | 0 |  |
| 92.5 | 0 |  |
|  | 0 |  |

$$
\text { Page } 66 \text { of } 350
$$

Account: KEPCo 101/6 353 - KY Scenario: KEPCO TRANSMISSION 2008
\& Actual Data

- LO 69.07
$\checkmark$ Re 42.00


Actuarial Life Analysis
Account: KEPCo 101/6 353 -KY
Scenario: KEPCO TRANSNISSION 2008
Placement Band: 1916 - 2008
unction: Survivorship Annual Rate Method
, Veighting: Unweighted
T-Cut: None

| Observation | Censoring |  | Error Sum |  | Best Fit |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Band | Age | Percent | of Squares | Disp | ASL |  |
| $1989-2008$ | 92.5 | 42.70 | 0.39718772 | L0 | 69.07 |  |



Account: KEPCo 101/6 353 - KY
Placement Band: 1916-2008
Observation Band: 1989-2008

| Age at Beginning of Interval | Exposures at Beginning of Interval | Retirements During Interval | Retirment Ratio | Survivor Ratio | Percent Surv at Beginning of Interval |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 115,554,490.43 | 6,132,00 | 0.00005 | 0.99995 | 100.00 |
| 0.5 | 103,556,584.99 | 41,737.00 | 0.00040 | 0.99960 | 100.00 |
| 1.5 | 104,287,231.56 | 207,662.00 | 0.00199 | 0.99801 | 99.96 |
| 2.5 | 94,469,559.71 | 429,862.00 | 0.00455 | 0.99545 | 99.76 |
| 3.5 | 92,738,977.43 | 493,160.00 | 0.00532 | 0.99468 | 99.31 |
| 45 | 90,644,141.30 | 153,844.00 | 0.00170 | 0.99830 | 98.78 |
| 5.5 | 88,533,672.50 | 694,506.00 | 0.00784 | 0.99216 | 98.61 |
| 6.5 | 85,991,728.55 | 131,698.00 | 0.00153 | 0.99847 | 97.84 |
| 7.5 | 91,995, 174.21 | 325,680.00 | 0.00354 | 0.99646 | 97.69 |
| 8.5 | 95,261,679.91 | 300,469.00 | 0.00315 | 0.99685 | 97.34 |
| 9.5 | 94,523,591.25 | 153,218.00 | 0.00162 | 0.99838 | 97.03 |
| 10.5 | 83,689,694.86 | 962,618.00 | 0.01150 | 0.98850 | 96.87 |
| 11.5 | 48,209,037.22 | 150,774.00 | 0.00313 | 0.99687 | 95.76 |
| 12.5 | 46,727,918.22 | 155,095.00 | 0.00332 | 0.99668 | 95.46 |
| 13.5 | 46,493,103.18 | 576,403.00 | 0.01240 | 0.98760 | 95.14 |
| 14.5 | 44,862,485.56 | 77,616.00 | 0.00173 | 0.99827 | 93.96 |
| 15.5 | 39,510,742.16 | 149,478.00 | 0.00378 | 0.99622 | 93.80 |
| 16.5 | 37,443,890.08 | 250,921.00 | 0.00670 | 0.99330 | 93.45 |
| 17.5 | 33,670,268.17 | 332,352,00 | 0.00987 | 0.99013 | 92.82 |
| 18.5 | 31,090,390.31 | 266,591.00 | 0.00857 | 0.99143 | 91.90 |
| 19.5 | 36,713,988.15 | 649,282.00 | 0.01768 | 0.98232 | 91.11 |
| 20.5 | 35,629,931.58 | 65,030.00 | 0.00183 | 0.99817 | 89.50 |
| 21.5 | 33,869,878,43 | 639,232.00 | 0.01887 | 0.98113 | 89.34 |
| 22.5 | 32,780,230.43 | 507,975.00 | 0.01550 | 0.98450 | 87.65 |
| 23.5 | 31,684,108.13 | 97,460.00 | 0.00308 | 0.99692 | 86.29 |
| 24.5 | 30,450,428.39 | 465,455,00 | 0.01529 | 0.98471 | 86.02 |
| 25.5 | 29,188,835.99 | 152,166.00 | 0.00521 | 0.99479 | 84.70 |
| 26.5 | 27,453,651.96 | 28,241.00 | 0.00103 | 0.99897 | 84.26 |
| 27.5 | 20,198,547,94 | 800,841.00 | 0.03965 | 0.96035 | 84.17 |
| 28.5 | 14,154,315.05 | 168,119.00 | 0.01188 | 0.98812 | 80.83 |
| 29.5 | 13,145,034.30 | 123,396.00 | 0.00939 | 0.99061 | 79.87 |
| 30.5 | 12,968,856.51 | 88,497.00 | 0.00682 | 0.99318 | 79.12 |
| 31.5 | 10,900,981.89 | 40,033,00 | 0.00367 | 0.99633 | 78.58 |
| 32.5 | 9,769,519.45 | 63,477.00 | 0.00650 | 0.99350 | 78.29 |
| 33.5 | 8,943,341.45 | 188,744.00 | 0.02110 | 0.97890 | 77.78 |
| 34.5 | 8,131,209.95 | 14,310.00 | 0.00176 | 0.99824 | 76.14 |
| 35.5 | 7,963,163,24 | 233,376.00 | 0.02931 | 0.97069 | 76.01 |
| 36.5 | 7,561,001.16 | 163,760,00 | 0.02166 | 0.97834 | 73.78 |
| 37.5 | 7,195,924.74 | 11,618.00 | 0.00161 | 0.99839 | 72.18 |
| 38.5 | 6,494,729,99 | 152,065.00 | 0.02341 | 0.97659 | 72.06 |
| 39.5 | 1,604,797,63 | 11,504.00 | 0.00717 | 0.99283 | 70.37 |
| 40.5 | 1,533,869.63 | 72,076.00 | 0.04699 | 0.95301 | 69.87 |
| 41.5 | 1,222,869.16 | 5,110.00 | 0.00418 | 0.99582 | 66.59 |
| 42.5 | 1,211,916.16 | 80,090.00 | 0.06609 | 0.93391 | 66.31 |
| 43.5 | 1,035,630.54 | 30,513,00 | 0.02946 | 0.97054 | 61.93 |
| 44.5 | 1,002,773.28 | 13,293.00 | 0.01326 | 0.98674 | 60.11 |
| 45.5 | 428,519,28 | 1,734.00 | 0.00405 | 0.99595 | 59.31 |
| 46.5 | 420,879.28 | 23,804.00 | 0.05656 | 0.94344 | 59.07 |
| 47.5 | 396,728.28 | 6,012.00 | 0.01515 | 0.98485 | 55.73 |
| 48.5 | 365,332.31 | 177.00 | 0.00048 | 0.99952 | 54.89 |
| 49.5 | 312,787,76 | 0.00 | 0.00000 | 1.00000 | 54.86 |
| 50.5 | 312,210.76 | 59,244.00 | 0.18976 | 0.81024 | 54.86 |
| 51.5 | 243,986.25 | 403.00 | 0.00165 | 0.99835 | 44.45 |
| 52.5 | 243,583.25 | 327.00 | 0.00134 | 0.99866 | 44.38 |

## Observed Life Table

## Scenario: KEPCO TRANSMIISSION 2008

Account: KEPCo 101/6 353 -KY
Placement Band: 1916-2008

| Age at <br> Beginning <br> of Interval | Exposures <br> at Beginning <br> of Interval | Retirements <br> During <br> Interval | Retirment <br> Ratio | Survivor <br> Ratio | Percent Surv <br> at Beginning <br> of Interval |
| :---: | ---: | :---: | :---: | :---: | ---: |
| 53.5 | $242,359.25$ | $8,887.00$ | 0.03667 | 0.96333 | 44.32 |
| 54.5 | $7,575.00$ | 0.00 | 0.00000 | 1.00000 | 42.69 |
| 55.5 | 0.00 | 0.00 | 0.00000 | 1.00000 | 42.69 |

Scenario: KEPCO TRANSMISSION 2008
Page 70 of 350
Account: KEPCo 101/6 353 -KY
Placement Band: 1916 - 2008
Observation Band: 1989-2008


Scenario: KEPCO TRANSMISSION 2008
Account: KEPCo 101/6 353-KY
Placement Band: 1916 -2008 Observation Band: 1989-2008

| Age | Actual | L0 69.07 | R2 42.00 |
| :--- | :---: | :---: | :---: |
| 54.5 | 42.70 | 57.50 | 23.28 |
| 55.5 | 42.70 | 56.31 | 20.45 |
| 56.5 | 42.70 | 55.71 | 18.65 |
| 57.5 | 42.70 | 54.53 | 16.93 |
| 58.5 | 42.70 | 53.94 | 14.51 |
| 59.5 | 42.70 | 52.77 | 13.00 |
| 60.5 | 42.70 | 52.18 | 10.91 |
| 61.5 | 42.70 | 51.02 | 9.62 |
| 62.5 | 42.70 | 50.45 | 8.43 |
| 63.5 | 42.70 | 49.87 | 6.81 |
| 64.5 | 42.70 | 48.73 | 5.84 |
| 65.5 | 42.70 | 48.17 | 4.96 |
| 66.5 | 42.70 | 47.04 | 3.79 |
| 67.5 | 42.70 | 46.48 | 3.12 |
| 68.5 | 42.70 | 45.37 | 2.24 |
| 69.5 | 42.70 | 44.82 | 1.75 |
| 70.5 | 42.70 | 43.73 | 1.33 |
| 71.5 | 42.70 | 43.18 | 0.82 |
| 72.5 | 42.70 | 42.64 | 0.56 |
| 73.5 | 42.70 | 41.57 | 0.28 |
| 74.5 | 42.70 | 41.04 | 0.16 |
| 75.5 | 42.70 | 39.99 | 0.07 |
| 76.5 | 42.70 | 39.47 | 0.01 |
| 77.5 | 42.70 | 38.44 | 0 |
| 78.5 | 42.70 | 37.93 | 0 |
| 79.5 | 42.70 | 36.91 |  |
| 80.5 | 42.70 | 36.41 |  |
| 81.5 | 42.70 | 35.92 |  |
| 82.5 | 42.70 | 34.93 |  |
| 83.5 | 42.70 | 34.44 |  |
| 84.5 | 42.70 | 33.48 |  |
| 85.5 | 42.70 | 33.00 |  |
| 86.5 | 42.70 | 32.06 |  |
| 87.5 | 42.70 | 30.69 |  |
| 88.5 | 42.70 | 30.21 |  |
| 89.5 | 42.70 | 28.31 |  |
| 90.5 | 42.70 |  |  |
| 91.5 | 42.70 | 42.43 |  |
| 92.5 | 42.70 |  |  |
|  |  |  |  |

A Actual Data

- LO 7500
$\checkmark$ Re 42.00


| Actuarial Life Analysis |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Account: KEPCo 101/6 353 - KY |  |  |  |  |  |
| Scenario: KEPCO TRANSMISSION 2008 |  |  |  |  |  |
| Placement Band: 1916 - 2008 |  |  |  |  |  |
| nction: Survivorship Annual Rate Method |  |  |  |  |  |
| T-Cut: None |  |  |  |  |  |
| Observation | Cens | ring | Error Sum |  |  |
| Band | Age | Percent | of Squares | Disp | ASL |
| 1999 -2008 | 92.5 | 45.55 | 0.41200720 | LO | 75.00 |

Scenario: KEPCO TRANSMISSION 2008
Account: KEPCo 101/6 353 -KY
Placement Band: 1916-2008


Observation Band: 1999-2008

| Age at Beginning of Interval | Exposures at Beginning of Interval | Retirements During Interval | Retirment Ratio | Survivor Ratio | Percent Sur at Beginning of Interval |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 44,599,905.90 | 3,244.00 | 0.00007 | 0.99993 | 100.00 |
| 0.5 | 43,170,970,07 | 9,526.00 | 0.00022 | 0.99978 | 99.99 |
| 1.5 | 78,371,483.79 | 12,591.00 | 0.00016 | 0.99984 | 99.97 |
| 2.5 | 70,703,385.38 | 307,249.00 | 0.00435 | 0.99565 | 99.95 |
| 3.5 | 69,143,420.22 | 19,460.00 | 0.00028 | 0.99972 | 99.52 |
| 4.5 | 68,569,086.46 | 120,453.00 | 0.00176 | 0.99824 | 99.49 |
| 5.5 | 70,669,612.37 | 480,898.00 | 0.00680 | 0.99320 | 99.31 |
| 6.5 | 68,692,544.55 | 25,042.00 | 0.00036 | 0.99964 | 98.63 |
| 7.5 | 69,424,688.52 | 24,865.00 | 0.00036 | 0.99964 | 98.59 |
| 8.5 | 69,936,940.97 | 198,466.00 | 0.00284 | 0.99716 | 98.55 |
| 9.5 | 69,602,838.53 | 76,596.00 | 0.00110 | 0.99890 | 98.27 |
| 10.5 | 58,933,874.92 | 34,320.00 | 0.00058 | 0.99942 | 98.16 |
| 11.5 | 24,482,929.77 | 112,016.00 | 0.00458 | 0.99542 | 98.10 |
| 12.5 | 22,410,921.33 | 73,392.00 | 0.00327 | 0.99673 | 97.65 |
| 13.5 | 22,287,451.21 | 49,097,00 | 0.00220 | 0.99780 | 97.33 |
| 14.5 | 21,166,695.84 | 7,252.00 | 0.00034 | 0.99966 | 97.12 |
| 15.5 | 17,030,286,13 | 52,243.00 | 0.00307 | 0.99693 | 97.09 |
| 16.5 | 16,636,893.00 | 227,186.00 | 0.01366 | 0.98634 | 96.79 |
| 17.5 | 20,531,430,69 | 325,948.00 | 0.01588 | 0.98412 | 95.47 |
| 18.5 | 23,262,944.94 | 214,296.00 | 0.00921 | 0.99079 | 93.95 |
| 19.5 | 22,842,095.72 | 64,297.00 | 0.00281 | 0.99719 | 93.08 |
| 20.5 | 22,351,801.94 | 44,522.00 | 0.00199 | 0.99801 | 92.82 |
| 21.5 | 22,414,758.45 | 61,935.00 | 0.00276 | 0.99724 | 92.64 |
| 22.5 | 22,963,782.89 | 438,930.00 | 0.01911 | 0.98089 | 92.38 |
| 23.5 | 22,546,287,97 | 65,904.00 | 0.00292 | 0.99708 | 90.61 |
| 24.5 | 22,386,670.72 | 175,539.00 | 0.00784 | 0.99216 | 90.35 |
| 25.5 | 21,085,004.03 | 127,912.00 | 0.00607 | 0.99393 | 89.64 |
| 26.5 | 19,537,947,08 | 20,927.00 | 0.00107 | 0.99893 | 89.10 |
| 27.5 | 12,503,582,48 | 528,416.00 | 0.04226 | 0.95774 | 89.00 |
| 28.5 | 7,397,338.37 | 131,193.00 | 0.01774 | 0.98226 | 85.24 |
| 29.5 | 11,837,909.43 | 80,115.00 | 0.00677 | 0.99323 | 83.73 |
| 30.5 | 11,764,986.64 | 83,958.00 | 0.00714 | 0.99286 | 83.16 |
| 31.5 | 10,004,284.98 | 27,160.00 | 0.00271 | 0.99729 | 82.57 |
| 32.5 | 8,891,538,54 | 35,081.00 | 0.00395 | 0.99605 | 82.35 |
| 33.5 | 8,198,407.16 | 168,446.00 | 0.02055 | 0.97945 | 82.02 |
| 34.5 | 7,013,328.67 | 14,245.00 | 0.00203 | 0.99797 | 80.33 |
| 35.5 | 7,398,732.96 | 233,206.00 | 0.03152 | 0.96848 | 80.17 |
| 36.5 | 7,002,646.88 | 161,806.00 | 0.02311 | 0.97689 | 77.64 |
| 37.5 | 6,642,923,46 | 4,463.00 | 0.00067 | 0.99933 | 75.85 |
| 38.5 | 5,974,378.68 | 151,509.00 | 002536 | 0.97464 | 75.80 |
| 39.5 | 1,179,474 87 | 11,504.00 | 0.00975 | 0.99025 | 73.88 |
| 40.5 | 1,109,123.87 | 72,076.00 | 0.06498 | 0.93502 | 73.16 |
| 41.5 | 809,168.91 | 5,110.00 | 0.00632 | 0.99368 | 68.41 |
| 42.5 | 798,215.91 | 13,107.00 | 0.01642 | 0.98358 | 67.98 |
| 43.5 | 689,810.29 | 28,247,00 | 0.04095 | 0.95905 | 66.86 |
| 44.5 | 995,198.28 | 13,293.00 | 0.01336 | 0.98664 | 64.12 |
| 45.5 | 428,519.28 | 1,734.00 | 0.00405 | 0.99595 | 63.26 |
| 46.5 | 420,879.28 | 23,804.00 | 0.05656 | 0.94344 | 63.00 |
| 47.5 | 396,728 28 | 6,012.00 | 0.01515 | 0.98485 | 59.44 |
| 48.5 | 365,332.31 | 177.00 | 0.00048 | 0.99952 | 58.54 |
| 49.5 | 312,787.76 | 0.00 | 0.00000 | 1.00000 | 58.51 |
| 50.5 | 312,210.76 | 59,244.00 | 0.18976 | 0.81024 | 58.51 |
| 51.5 | 243,986.25 | 403.00 | 0.00165 | 0.99835 | 47.41 |
| 52.5 | 243,583, 25 | 327.00 | 0.00134 | 0.99866 | 47.33 |



Surviving Percent Report
Scenario: KEPCO TRANSMISSION 2008
Account: KEPCo 101/6 $353-\mathrm{KY}$
Placement Band: 1916-2008 Observation Band: 1999-2008

| Age | Actual | L0 75.00 | R2 42.00 |
| :---: | :---: | :---: | :---: |
| 0.0 | 100.00 | 100.00 | 100.00 |
| 0.5 | 99.99 | 100.00 | 99.91 |
| 1.5 | 99.97 | 99.68 | 99.71 |
| 2.5 | 99.95 | 99.45 | 99.49 |
| 3.5 | 99.52 | 99.19 | 99.15 |
| 4.5 | 99.49 | 98.89 | 98.89 |
| 5.5 | 99.32 | 98.24 | 98.49 |
| 6.5 | 98.64 | 97.88 | 98.19 |
| 7.5 | 98.61 | 97.11 | 97.88 |
| 8.5 | 98.57 | 96.70 | 97.37 |
| 9.5 | 98.29 | 96.27 | 97.01 |
| 10.5 | 98.18 | 95.38 | 96.43 |
| 11.5 | 98.13 | 94.92 | 96.01 |
| 12.5 | 97.68 | 94.45 | 95.56 |
| 13.5 | 97.36 | 93.47 | 94.85 |
| 14.5 | 97.14 | 92.97 | 94.34 |
| 15.5 | 97.11 | 92.46 | 93.80 |
| 16.5 | 96.81 | 91.41 | 92.93 |
| 17.5 | 95.49 | 90.88 | 92.32 |
| 18.5 | 93.97 | 90.33 | 91.34 |
| 19.5 | 93.11 | 89.78 | 90.64 |
| 20.5 | 92.85 | 88.67 | 89.90 |
| 21.5 | 92.66 | 88.10 | 88.73 |
| 22.5 | 92.40 | 87.53 | 87.89 |
| 23.5 | 90.64 | 86.37 | 87.02 |
| 24.5 | 90.37 | 85.78 | 85.63 |
| 25.5 | 89.66 | 85.19 | 84.65 |
| 26.5 | 89.12 | 83.99 | 83.09 |
| 27.5 | 89.02 | 83.39 | 81.98 |
| 28.5 | 85.26 | 82.79 | 80.83 |
| 29.5 | 83.75 | 81.57 | 79.01 |
| 30.5 | 83.18 | 80.95 | 77.73 |
| 31.5 | 82.59 | 80.34 | 76.39 |
| 32.5 | 82.37 | 79.10 | 74.29 |
| 33.5 | 82.04 | 78.48 | 72.82 |
| 34.5 | 80.36 | 77.86 | 70.50 |
| 35.5 | 80.19 | 76.62 | 68.88 |
| 36.5 | 77.66 | 75.99 | 67.21 |
| 37.5 | 75.87 | 75.37 | 64.60 |
| 38.5 | 75.82 | 74.12 | 62.79 |
| 39.5 | 73.90 | 73.50 | 59.97 |
| 40.5 | 73.18 | 72.87 | 58.04 |
| 41.5 | 68.42 | 71.62 | 56.05 |
| 42.5 | 67.99 | 71.00 | 53.00 |
| 43.5 | 66.87 | 70.38 | 50.91 |
| 44.5 | 64.13 | 69.13 | 48.79 |
| 45.5 | 63.28 | 68.51 | 45.57 |
| 46.5 | 63.02 | 67.89 | 43.40 |
| 47.5 | 59.46 | 66.65 | 40.12 |
| 48.5 | 58.56 | 66.04 | 37.93 |
| 49.5 | 58.53 | 65.42 | 35.75 |
| 50.5 | 58.53 | 64.19 | 32.51 |
| 51.5 | 47.42 | 63.57 | 30.39 |
| 52.5 | 47.34 | 62.96 | 27.27 |
| 53.5 | 47.28 | 61.74 | 25.25 |

Scenario: KEPCO TRANSMAISSION 2008
Account: KEPCo 101/6 353 -KY
Placement Band: 1916 -2008 Observation Band: 1999-2008

| Age | Actual | L0 |  |
| :---: | :---: | :---: | :---: |
| 54.5 | R2 242.00 |  |  |
| 55.5 | 45.55 | 61.13 | 23.28 |
| 56.5 | 45.55 | 6.52 | 20.45 |
| 57.5 | 45.55 | 59.31 | 18.65 |
| 58.5 | 45.55 | 58.70 | 16.93 |
| 59.5 | 45.55 | 58.10 | 14.51 |
| 60.5 | 45.55 | 56.90 | 13.00 |
| 61.5 | 45.55 | 56.31 | 10.91 |
| 62.5 | 45.55 | 55.71 | 9.62 |
| 63.5 | 45.55 | 54.53 | 8.43 |
| 64.5 | 45.55 | 53.94 | 6.81 |
| 65.5 | 45.55 | 53.35 | 5.84 |
| 66.5 | 45.55 | 52.18 | 4.96 |
| 67.5 | 45.55 | 51.60 | 3.79 |
| 68.5 | 45.55 | 51.02 | 3.12 |
| 69.5 | 45.55 | 49.87 | 2.24 |
| 70.5 | 45.55 | 49.30 | 1.75 |
| 71.5 | 45.55 | 48.17 | 1.33 |
| 72.5 | 45.55 | 47.60 | 0.82 |
| 73.5 | 45.55 | 47.04 | 0.56 |
| 74.5 | 45.55 | 45.92 | 0.28 |
| 75.5 | 45.55 | 45.37 | 0.16 |
| 76.5 | 45.55 | 44.82 | 0.07 |
| 77.5 | 45.55 | 43.73 | 0.01 |
| 78.5 | 45.55 | 43.18 | 0 |
| 79.5 | 45.55 | 42.64 | 0 |
| 80.5 | 45.55 | 41.57 |  |
| 81.5 | 45.55 | 41.04 |  |
| 82.5 | 45.55 | 40.52 |  |
| 83.5 | 45.55 | 39.47 |  |
| 84.5 | 45.55 | 38.95 |  |
| 85.5 | 45.55 | 37.44 |  |
| 86.5 | 45.55 | 36.91 |  |
| 87.5 | 45.55 | 36.41 |  |
| 88.5 | 45.55 | 35.42 |  |
| 89.5 | 45.55 | 34.93 |  |
| 90.5 | 45.55 | 33.44 |  |
| 91.5 | 45.55 |  |  |
| 92.5 | 45.55 |  |  |
|  |  |  |  |



KENTUCKY POWER COMPANY
Depreciation Study as of December 31, 2008
Transmission Plant
Account 354 TOWERS \& FIXTURES
Depreciable Balance ..... $\$ 94,722,543$
Current Recommended
Average Service Life (Yrs) ..... 45 ..... 50
lowa Curve ..... R3.0 ..... R3.0
Gross Removal, \% ..... 75\%
Gross Salvage, \% ..... 10\%
Net Salvage \% 0\% ..... -65\%

This account has experienced minimal retirements. The simulation analyses of all bands do not provide meaningful results. Based on the limited retirements and the age of the investments in this account, the recommendation is to retain the current average service life of 45 years following an R3.0 type dispersion.

The cost of removing the towers will be labor and equipment intensive. Scrap salvage should be expected from the sale of the towers.

## Simulated Plant Record Analysis

Kentucky Power - Transm
$1 \operatorname{lag}^{2}+7$ ot 350
Account: KEPCo 101/6 354 - KY
rsion: KEPCO TRANSMISSION 2008
whethod: Simulated Balances
No. of Test Points: $40 \quad$ Interval: $0 \quad$ Observation Band: 1969-2008

| Dispersion |  | Sum of <br> Squared <br> Differences | Index of Variation | Conformance Index | Retirement <br> Experience Index |
| :---: | :---: | :---: | :---: | :---: | :---: |
| R0.5 | 1243.0 | $4.80 \mathrm{E}+11$ | 1.9546 | 511.61 | 2.52 |
| R 1 | 852.1 | $4.86 \mathrm{E}+11$ | 1.9662 | 508.60 | 2.62 |
| R1.5 | 593.5 | $4.94 \mathrm{E}+11$ | 1.9836 | 504.13 | 2.74 |
| S-. 5 | 891.5 | $5.01 \mathrm{E}+11$ | 1.9980 | 500.50 | 2.78 |
| R2 | 344.9 | $5.26 \mathrm{E}+11$ | 2.0470 | 488.52 | 3.30 |
| R2.5 | 225.0 | $5.73 \mathrm{E}+11$ | 2.1351 | 468.36 | 4.35 |
| L0.5 | 478.9 | $6.58 \mathrm{E}+11$ | 2.2896 | 436.76 | 4.14 |
| L1 | 289.7 | $6.62 E+11$ | 2.2951 | 435.71 | 5.79 |
| Lo | 641.4 | $6.68 \mathrm{E}+11$ | 2.3064 | 433.58 | 4.04 |
| L1.5 | 201.7 | $7.98 \mathrm{E}+11$ | 2.5207 | 396.72 | 8.64 |
| R3 | 121.3 | $8.38 \mathrm{E}+11$ | 2.5837 | 387.04 | 12.84 |
| So | 312.1 | $8.78 \mathrm{E}+11$ | 2.6445 | 378.14 | 5.98 |
| S0.5 | 226.2 | $9.28 \mathrm{E}+11$ | 2.7176 | 367.97 | 7.57 |
| SQ | 47.0 | 1.10E+12 | 2.9531 | 338.63 | 100.00 |
| $j 6$ | 48.2 | 1.14E+12 | 3.0183 | 331.31 | 100.00 |
| S1 | 141.8 | $1.27 \mathrm{E}+12$ | 3.1741 | 315.05 | 15.45 |
| L2 | 127.7 | $1.30 \mathrm{E}+12$ | 3.2114 | 311.39 | 20.57 |
| S1.5 | 116.5 | $1.31 \mathrm{E}+12$ | 3.2281 | 309.78 | 21.07 |
| S5 | 51.0 | $1.39 \mathrm{E}+12$ | 3.3252 | 300.73 | 100.00 |
| R4 | 70.5 | 1,47E+12 | 3.4223 | 292.20 | 77.15 |
| S2 | 88.7 | $1.59 \mathrm{E}+12$ | 3.5549 | 281.30 | 40.39 |
| R5 | 53.5 | 1.60E+12 | 3.5720 | 279.96 | 100.00 |
| L3 | 83.3 | $1.61 \mathrm{E}+12$ | 3.5765 | 279.60 | 53.49 |
| L5 | 54.3 | 1.63E+12 | 3.6002 | 277.76 | 99.49 |
| S4 | 56.4 | $1.71 \mathrm{E}+12$ | 3.6940 | 270.71 | 99.62 |
| S3 | 68.0 | $1.76 \mathrm{E}+12$ | 3.7425 | 267.20 | 78.42 |
| L4 | 63.8 | $1.78 \mathrm{E}+12$ | 3.7653 | 265.58 | 87.60 |

Account: KEPCo 101/6 354 - KY
rsion: KEPCO TRANSMISSION 2008
ulethod: Simulated Balances
No. of Test Points: $20 \quad$ Interval: $0 \quad$ Observation Band: 1989-2008


Account: KEPCo 101/6 354 -KY
'ersion: KEPCO TRANSMIISSION 2008
Method: Simulated Balances
No. of Test Points: 10
Interval: $0 \quad$ Observation Band: 1999-2008



10／20／2009 \＄92，333，581 \＄92，241，911 $\varepsilon Z L^{2} \angle Z Z^{\prime} 16 \$$ 98s＇06s＇06\＄
 $888^{\prime} 650^{\circ} 62 \$$ $9 \angle t^{\prime} 60 z^{\prime} 8 \angle S$ $76 L^{\prime} 988^{\circ} L L \$$ 6S＇${ }^{\prime}$ とE＇$\angle 1 \$$ 691＇LEG＇LL\＄ カレと＇tse＇LL か0t＇sici $\angle \angle \$$ \＄77，316，825 698 $\angle 46^{\prime} 9 \angle \$$ \＄76，972，135 sel＇zL6＇9L\＄ sعا＇ZL6＇9L\＄ 916＇z88＇9L\＄
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Page 2 of 3

## 



Account 355 POLES \& FIXTURES
Depreciable Balance ..... \$48,384,844
Current Recommended
Average Service Life (Yrs) ..... 43 ..... 38
Iowa Curve ..... R3.0 ..... S4.0
Gross Removal, \% ..... 55\%
Gross Salvage, \% ..... $2 \%$
Net Salvage \% ..... 0\% ..... $-53 \%$

Both the 40 year and 20 year simulation band analyses indicate that the average service life for this account is 38 years following an S4.0 type retirement dispersion pattern.

The removal cost for poles involves significant labor, equipment and transportation costs since the poles must be transported back to the storeroom for disposal. There could be some reuse salvage of insulators and crossarm.

Account: KEPCo 101/6 355 - KY rsion: KEPCO TRANSAISSION 2008
Method: Simulated Balances


Account: KEPCo 101/6 355 -KY
rsion: KEPCO TRANSMISSION 2008
ufethod: Simulated Balances
No. of Test Points: $20 \quad$ Interval: $0 \quad$ Observation Band: 1989-2008


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Account: KEPCo 101/6 $355-\mathrm{KY}$
rsion: KEPCO TRANSHIISSION 2008
method: Simulated Balances
No. of Test Points: $10 \quad$ Interval: $0 \quad$ Observation Band: 1999-2008



10/20/2009

$\$ 7,821,843$
$\$ 547,335$
$\$ 1,905,268$
$\$ 1,400,727$
$\$ 1,450,694$
$\$ 725,788$
$\$ 1,374,086$
$\$ 3,034,077$
$\$ 2,016,921$
$\$ 7,276,249$
$\$ 246,198$
$\$ 2,200,205$
$\$ 966,627$
$\$ 502,094$
$\$ 2,853,695$
$\$ 2,024,333$
$\$ 1,980,376$
$\$ 1,225,759$
$\$ 379,655$
$\$ 526,772$
$\$ 501,638$
$\$ 208,776$
$\$ 743,795$
$\$ 286,320$
$\$ 129,011$
$\$ 472,313$
$\$ 1,190,640$
$\$ 831,647$
$\$ 971,067$
$\$ 163,523$
$\$ 400,964$
$\$ 372,518$
$\$ 465,135$
$\$ 413,882$
$\$ 343,018$




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10/20/2009

## KENTUCKY POWER COMPANY

Depreciation Study as of December 31, 2008
Transmission Plant
Account
356 OVERHEAD CONDUCTOR \& DEVICES
Depreciable Balance $\quad \$ 109,075,670$

## Current <br> Recommended

Average Service Life (Yrs) 50

Iowa Curve R3.0 R3.0
Gross Removal, \% 25\%
Gross Salvage, \% 15\%
Net Salvage \% 10\% -10\%

The simulation analyses for all bands do not provide meaningful guidance since the retirements from this account have been minimal. The recommendation is to continue the current 50 year average service life following an R3.0 type retirement dispersion.

Removal costs should be expected from the labor and transportation costs involved in removing the conductor. Salvage costs would be expected from the sale of the conductor and the reuse of circuit breakers, insulators and switches.

Account: KEPCo 101/6 356 - KY
rsion: KEPCO TRANSMIISSION 2008
ulethod: Simulated Balances
No. of Test Points: $40 \quad$ Interval: $0 \quad$ Observation Band: 1969-2008


Simulated Plant Record Analysis
Kentucky Power - Transm
+69 $950-3.50$

Account: KEPCo 101/6 356 - KY
rsion: KEPCO TRANSMISSION 2008
ulethod: Simulated Balances
No. of Test Points: $20 \quad$ Interval: $0 \quad$ Observation Band: 1989-2008


Account: KEPCo 101/6 356 kY sion: KEPCO TRANSMISSION 2008
Method: Simulated Balances
No. of Test Points: $10 \quad$ Interval: $0 \quad$ Observation Band: 1999-2008


#  


10／20／2009
Act $\mathrm{Y}_{\mathrm{r}}$ Additions Retirements Ending Balance $^{2}$

 68て＇z80＇8L\＄ \＄73，818，140 カレか＇SLZ＇ZL\＄ 8カガャレレ0ん\＄ Z99＇ZLカ＇69\＄
 18L＇66L＇89\＄ 989‘L8it89\＄ 988＇9LL＇L9\＄
 88L＇L9s＇เZ\＄
 $\$ 19,777,057$
$\$ 19,083,516$ か09＇299＇81．\＄ $\$ 18,570,886$ \＄16，561，088 686＇818＇Gレ\＄ \＄15，522，321 \＄2，896 \＄55，180 102，59 $\$ 8,636$
$\$ 112,146$ \＄315，114
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0 $\$ 3,248$会 \＄73，842 \＄26，128 \＄78，806 뇨N 웅 영 $N$
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## Page 98 of 350





| $10 / 20 / 2009$ |  |  |  |
| :---: | :---: | :---: | ---: |
| Act Yr | Additions | Retirements | Ending Balance |
| 1938 | $\$ 129,975$ | $\$ 0$ | $\$ 199,601$ |
| 1937 | $\$ 8,842$ | $\$ 0$ | $\$ 69,626$ |
| 1936 | $\$ 9,973$ | $\$ 0$ | $\$ 60,784$ |
| 1935 | $\$ 1,327$ | $\$ 0$ | $\$ 50,811$ |
| 1934 | $\$ 2,159$ | $\$ 0$ | $\$ 49,484$ |
| 1933 | $\$ 1,642$ | $\$ 0$ | $\$ 47,325$ |
| 1932 | $\$ 2,108$ | $\$ 0$ | $\$ 45,683$ |
| 1931 | $\$ 2,112$ | $\$ 0$ | $\$ 43,575$ |
| 1930 | $\$ 4,553$ | $\$ 0$ | $\$ 41,463$ |
| 1929 | $\$ 15,583$ | $\$ 0$ | $\$ 36,910$ |
| 1928 | $\$ 3,395$ | $\$ 0$ | $\$ 21,327$ |
| 1927 | $\$ 4,792$ | $\$ 0$ | $\$ 17,932$ |
| 1926 | $\$ 8,395$ | $\$ 0$ | $\$ 13,140$ |
| 1925 | $\$ 1,862$ | $\$ 0$ | $\$ 4,745$ |
| 1924 | $\$ 369$ | $\$ 0$ | $\$ 2,883$ |
| 1923 | $\$ 1,121$ | $\$ 0$ | $\$ 2,514$ |
| 1922 | $\$ 1,393$ | $\$ 0$ | $\$ 1,393$ |

KENTUCKY POWER COMPANY
Depreciation Study as of December 31, 2008Transmission Plant
Account 356 UNDERGROUND CONDUIT
Depreciable Balance ..... $\$ 11,590$
Current Recommended
Average Service Life (Yrs) ..... 37 ..... 37
Iowa Curve ..... R2.0 ..... R2.0
Gross Removal, \% ..... $0 \%$
Gross Salvage, \% ..... $0 \%$
Net Salvage \% 0\% ..... 0\%

No life analysis was performed for this account since there have been no retirements. The recommendation is to continue the current average service life of 37 years following an R2.0 type dispersion.

The underground conduit will likely be retired in place. Therefore the investment is not anticipated to incure removal or salvage cost.

KENTUCKY POWER COMPANY
Depreciation Study as of December 31, 2008
Transmission Plant

| Account | 358 UNDERGROUND CONDUCTOR \& DEVICES |  |
| :--- | :---: | :---: | :---: |
| Depreciable Balance | $\$ 106,066$ |  |
|  | $\underline{\text { Current }}$ | Recommended |
| Average Service Life (Yrs) | 44 | 44 |
| lowa Curve | R 1.0 | R 1.0 |
| Gross Removal, \% |  | $0 \%$ |
| Gross Salvage, \% | $0 \%$ | $0 \%$ |
| Net Salvage \% |  | $0 \%$ |

As in account 357, there have been no retirements from this account. No life analyis was performed. The recommendation is to continue the current 44 year average service life following an R1.0 dispersion.

Do the minimal investment, neither removal or salvage is expected from the investment in this account.

## KENTUCKY POWER COMPANY

DEPRECIATION STUDY AS OF 12-31-08

## TRANSMISSION PLANT WORKPAPERS

## SALVAGE AND REMOVAL ANALYSIS



$\stackrel{\otimes}{0}$

KENTUCKY POWER COMPANY
Transmission Plant Net Salvage Test
Original Cost Retired by Plant Account


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| 0 |
| 0 |

$\stackrel{H}{m}$


## Original Cost Retired by Plant Account





$\stackrel{\infty}{\infty}$
$\stackrel{N}{m}$



EVALUATION BASED ON 1994-2008 ACTUAL



352

Gross Removal \%
Gross Removal \$



$\stackrel{\infty}{\infty}$


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# KENTUCKY POWER COMPANY <br> DEPRECIATION STUDY AS OF 12-31-08 <br> TRANSMISSION PLANT WORKPAPERS 

## CALCULATION OF AGE OF SIMULATED PLANT balances

tacge 107 of 350
Account: KEPCo 101/6 $354-\mathrm{KV}$
Version: KEPCO TRANSMISSION 2008

| Vintage | 50 <br> Additions | $\begin{aligned} & \text { Age } \\ & 2009 \end{aligned}$ | Theoretical Survivors |  | Computed Survivors |  | Realized Life |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Percent | Amount | Percent | Amount |  |
| 2008 | 2,400,231 | 0.5 | 99.99 | 2,399,871 | 100.00 | 2,400,232 | 0.50 |
| 2005 | 16,025 | 3.5 | 99.86 | 16,003 | 100.00 | 16,026 | 3.50 |
| 2004 | 5,437 | 4.5 | 99.80 | 5,426 | 100.01 | 5,438 | 4.50 |
| 2003 | 27,462 | 5.5 | 99.74 | 27,390 | 100.00 | 27,463 | 5.50 |
| 2002 | 96,142 | 6.5 | 99.66 | 95,817 | 100.00 | 96,143 | 6.50 |
| 2001 | 994,593 | 7.5 | 99.58 | 990,366 | 100.00 | 994,594 | 7.50 |
| 2000 | 657,177 | 8.5 | 99.48 | 653,727 | 100.00 | 657,178 | 8.50 |
| 1999 | 4,771,185 | 9.5 | 99.36 | 4,740,697 | 100.00 | 4,771,186 | 9.50 |
| 1998 | 6,759,531 | 10.5 | 99.23 | 6,707,618 | 100.00 | 6,759,532 | 10.50 |
| 1997 | 860,276 | 11.5 | 99.09 | 852,413 | 100.00 | 860,277 | 11.50 |
| 1996 | 363,575 | 12.5 | 98.92 | 359,652 | 100.00 | 363,576 | 12.50 |
| 1995 | 315,635 | 13.5 | 98.74 | 311,642 | 100.00 | 315,636 | 13.50 |
| 1993 | 182,665 | 15.5 | 98.30 | 179,551 | 100.00 | 182,666 | 15.50 |
| 1992 | 41,132 | 16.5 | 98.04 | 40,325 | 100.00 | 41,133 | 16.50 |
| 1991 | 15 | 17.5 | 97.75 | 15 | 103.33 | 16 | 17.79 |
| 1990 | 427,812 | 18.5 | 97.43 | 416,830 | 100.00 | 427,813 | 18.50 |
| 1986 | 783,128 | 22.5 | 95.81 | 750,338 | 100.00 | 783,129 | 22.50 |
| 1985 | 59,889,883 | 23.5 | 95.31 | 57,079,850 | 100.00 | 59,889,884 | 23.50 |
| 1984 | 177,806 | 24.5 | 94.76 | 168,485 | 100.00 | 177,807 | 24.50 |
| 1982 | 273,723 | 26.5 | 93.51 | 255,964 | 100.00 | 273,724 | 26.50 |
| 1978 | 81,431 | 30.5 | 90.35 | 73,572 | 100.00 | 81,432 | 30.50 |
| 1977 | 28,623 | 31.5 | 89.40 | 25,589 | 100.00 | 28,624 | 31.50 |
| 1976 | 158,516 | 32.5 | 88.38 | 140,096 | 100.00 | 158,517 | 32.50 |
| 1975 | 72,763 | 33.5 | 87.29 | 63,511 | 100.00 | 72,764 | 33.50 |
| 1974 | 20,383 | 34.5 | 86.11 | 17,552 | 100.00 | 20,384 | 34.50 |
| 1973 | 112,943 | 35.5 | 84.85 | 95,834 | 100.00 | 112,944 | 35.50 |
| 1972 | 8,467,428 | 36.5 | 83.51 | 7,070,810 | 100.00 | 8,467,429 | 36.50 |
| 1971 | 26,158 | 37.5 | 82.07 | 21,467 | 100.00 | 26,159 | 37.50 |
| 1970 | 4,036,456 | 38.5 | 80.53 | 3,250,477 | 100.00 | 4,036,457 | 38.50 |
| 1968 | 768,389 | 40.5 | 77.14 | 592,728 | 99.70 | 766,108 | 40.44 |
| 1967 | 370,618 | 41.5 | 75.28 | 278,998 | 97.30 | 360,608 | 40.94 |
| 1966 | 19,067 | 42.5 | 73.30 | 13,977 | 94.75 | 18,066 | 41.38 |
| 1965 | 450,199 | 43.5 | 71.21 | 320,582 | 92.04 | 414,357 | 41.77 |
| 1964 | 97,303 | 44.5 | 69.00 | 67,134 | 89.18 | 86,772 | 42.09 |
| 1963 | 681,030 | 45.5 | 66.66 | 453,975 | 86.16 | 586,767 | 42.35 |
| 1962 | 115,749 | 46.5 | 64.21 | 74,317 | 82.99 | 96,055 | 42.54 |
| 1961 | 227 | 47.5 | 61.64 | 140 | 79.88 | 181 | 42.72 |
| 1959 | 376,337 | 49.5 | 56.17 | 211,385 | 72.60 | 273,216 | 42.72 |
| 1958 | 9,324 | 50.5 | 53.29 | 4,969 | 68.89 | 6,423 | 42.64 |
| 1956 | 8,760 | 52.5 | 47.32 | 4,145 | 61.16 | 5,358 | 42.31 |
| 1954 | 65,848 | 54.5 | 41.16 | 27,106 | 53.20 | 35,034 | 41.75 |
| 1944 | 1,370 | 64.5 | 13.92 | 191 | 18.03 | 247 | 38.07 |
| 1942 | 184,841 | 66.5 | 10.20 | 18,850 | 13.18 | 24,363 | 37.63 |
| 1940 | 2,636 | 68.5 | 7.17 | 189 | 9.28 | 245 | 37.43 |
| 1939 | 848 | 69.5 | 5.91 | 50 | 7.68 | 65 | 37.42 |

Account：KEPCo 101／6 354－KY
Version：KEPCO TRANSMISSION 2008

| persion： | 50 <br> Additions | $\begin{aligned} & \text { Age } \\ & 2009 \end{aligned}$ | Theoretical Survivors |  | Computed Survivors |  | Realized Life |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |
|  |  |  | Percent | Amount | Percent | Amount |  |
| 1938 | 7，093 | 70.5 | 4.80 | 340 | 6.19 | 439 | 37.43 |
| 1936 | 462 | 72.5 | 3.01 | 14 | 3.97 | 18 | 37.69 |
| 1933 | 45 | 75.5 | 1.24 | 1 | 2.69 | 1 | 38.77 |
| 1932 | 539 | 76.5 | 0.86 | 5 | 1.18 | 6 | 38.70 |
| 1930 | 2，645 | 78.5 | 0.35 | 9 | 0.45 | 12 | 39，43 |
| 1929 | 18，866 | 79.5 | 0.19 | 36 | 0.24 | 46 | 39.85 |
| 1928 | 5，349 | 80.5 | 0.09 | 5 | 0.12 | 6 | 40.30 |
| 1927 | 722 | 81.5 | 0.04 |  | 0.04 |  | 40．77 |
|  | 95，236，401 |  |  | 88，880，032 |  | 94，722，544＊ |  |

＊Recorded Balance January 1，2009：94，722，544

Account: KEPCo 101/6 355 -KY


Version: KEPCO TRANSNAISSION 2008

| Dispersion: <br> age | $38 \quad-54$ <br> Additions | $\begin{aligned} & \text { Age } \\ & 2009 \end{aligned}$ | Theoretical Survivors |  | Computed Survivors |  | $\begin{aligned} & \text { Realized } \\ & \text { Life } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |
|  |  |  | Percent | Amount | Percent | Amount |  |
| 2008 | 7,821,842 | 0.5 | 100.00 | 7,821,842 | 100.00 | 7,821,843 | 0.50 |
| 2007 | 547,335 | 1.5 | 100.00 | 547,335 | 100.00 | 547,336 | 1.50 |
| 2006 | 1,905,268 | 2.5 | 100.00 | 1,905,268 | 100.00 | 1,905,269 | 2.50 |
| 2005 | 1,400,726 | 3.5 | 100.00 | 1,400,726 | 100.00 | 1,400,727 | 3.50 |
| 2004 | 1,450,693 | 4.5 | 100.00 | 1,450,693 | 100.00 | 1,450,694 | 4.50 |
| 2003 | 725,787 | 5.5 | 100.00 | 725,787 | 100.00 | 725,788 | 5.50 |
| 2002 | 1,374,086 | 6.5 | 100.00 | 1,374,086 | 100.00 | 1,374,087 | 6.50 |
| 2001 | 3,034,077 | 7.5 | 100.00 | 3,034,077 | 100.00 | 3,034,078 | 7.50 |
| 2000 | 2,016,920 | 8.5 | 100.00 | 2,016,920 | 100.00 | 2,016,921 | 8.50 |
| 1999 | 7,276,249 | 9.5 | 100.00 | 7,276,249 | 100.00 | 7,276,250 | 9.50 |
| 1998 | 246,197 | 10.5 | 100.00 | 246,197 | 100.00 | 246,198 | 10.50 |
| 1997 | 2,200,205 | 11.5 | 100.00 | 2,200,205 | 100.00 | 2,200,206 | 11.50 |
| 1996 | 966,626 | 12.5 | 100.00 | 966,626 | 100.00 | 966,627 | 12.50 |
| 1995 | 502,094 | 13.5 | 100.00 | 502,089 | 100.00 | 502,095 | 13.50 |
| 1994 | 2,853,694 | 14.5 | 100.00 | 2,853,604 | 100.00 | 2,853,695 | 14.50 |
| 1993 | 2,024,333 | 15.5 | 99.99 | 2,024,180 | 100.00 | 2,024,334 | 15.50 |
| 1992 | 1,980,376 | 16.5 | 99.98 | 1,980,029 | 100.00 | 1,980,377 | 16.50 |
| 1991 | 1,225,759 | 17.5 | 99.96 | 1,225,285 | 100.00 | 1,225,760 | 17.50 |
| 1990 | 379,655 | 18.5 | 99.92 | 379,352 | 100.00 | 379,656 | 18.50 |
| -989 | 526,772 | 19.5 | 99.85 | 525,968 | 100.00 | 526,773 | 19.50 |
| 388 | 501,637 | 20.5 | 99.72 | 500,257 | 100.00 | 501,638 | 20.50 |
| 1987 | 208,776 | 21.5 | 99.52 | 207,780 | 100.00 | 208,777 | 21.50 |
| 1986 | 743,795 | 22.5 | 99.21 | 737,944 | 100.00 | 743,796 | 22.50 |
| 1985 | 286,320 | 23.5 | 98.75 | 282,748 | 99.69 | 285,437 | 23.46 |
| 1984 | 129,011 | 24.5 | 98.09 | 126,546 | 99.02 | 127,749 | 24.38 |
| 1983 | 472,313 | 25.5 | 97.18 | 458,978 | 98.10 | 463,342 | 25.26 |
| 1982 | 1,190,639 | 26.5 | 95.95 | 1,142,372 | 96.86 | 1,153,232 | 26.08 |
| 1981 | 831,647 | 27.5 | 94.35 | 784,623 | 95.24 | 792,082 | 26.85 |
| 1980 | 971,066 | 28.5 | 92.33 | 896,576 | 93.21 | 905,099 | 27.53 |
| 1979 | 163,523 | 29.5 | 89.82 | 146,883 | 90.68 | 148,280 | 28.13 |
| 1978 | 400,964 | 30.5 | 86.82 | 348,129 | 87.65 | 351,438 | 28.62 |
| 1977 | 372,517 | 31.5 | 83.30 | 310,308 | 84.09 | 313,258 | 28.99 |
| 1976 | 465,134 | 32.5 | 79.25 | 368,619 | 80.00 | 372,123 | 29.25 |
| 1975 | 413,881 | 33.5 | 74.72 | 309,237 | 75.43 | 312,177 | 29.38 |
| 1974 | 343,018 | 34.5 | 69.73 | 239,201 | 70.40 | 241,475 | 29.39 |
| 1973 | 125,643 | 35.5 | 64.38 | 80,887 | 64.99 | 81,656 | 29.29 |
| 1972 | 154,289 | 36.5 | 58.75 | 90,640 | 59.31 | 91,501 | 29.07 |
| 1971 | 241,075 | 37.5 | 52.93 | 127,612 | 53.44 | 128,825 | 28.77 |
| 1970 | 5,279 | 38.5 | 47.07 | 2,485 | 47.52 | 2,509 | 28.40 |
| 1969 | 331,594 | 39.5 | 41.25 | 136,794 | 41.65 | 138,094 | 27.98 |
| 1968 | 245,350 | 40.5 | 35.62 | 87,397 | 35.96 | 88,228 | 27.53 |
| 967 | 434,577 | 41.5 | 30.27 | 131,528 | 30.55 | 132,778 | 27.09 |
| 1966 | 672,143 | 42.5 | 25.28 | 169,942 | 25.52 | 171,556 | 26.67 |
| 1965 | 586,942 | 43.5 | 20.75 | 121,790 | 20.95 | 122,947 | 26.31 |
| 1964 | 116,699 | 44.5 | 16.70 | 19,488 | 16.86 | 19,674 | 26.00 |

Account: KEPCo 101/6 355 -KY
Version: KEPCO TRANSMISSION 2008
Dispersion: $38-$ S4

| .age | Additions | $\begin{aligned} & \text { Age } \\ & 2009 \end{aligned}$ | Theoretical Survivors |  | Computed Survivors |  | Realized Life |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Percent | Amount | Percent | Amount |  |
| 1963 | 40,074 | 45.5 | 13.18 | 5,281 | 13.30 | 5,331 | 25.78 |
| 1962 | 83,740 | 46.5 | 10.18 | 8,521 | 10.27 | 8,602 | 25.64 |
| 1961 | 53,310 | 47.5 | 7.67 | 4,089 | 7.74 | 4,128 | 25.59 |
| 1960 | 80,558 | 48.5 | 5.65 | 4,555 | 5.71 | 4,598 | 25.63 |
| 1959 | 72,588 | 49.5 | 4.05 | 2,942 | 4.09 | 2,970 | 25.76 |
| 1958 | 31,500 | 50.5 | 2.82 | 889 | 2.85 | 898 | 25.97 |
| 1957 | 12,111 | 51.5 | 1.91 | 231 | 1.93 | 234 | 26.25 |
| 1956 | 52,890 | 52.5 | 1.25 | 660 | 1.26 | 666 | 26.58 |
| 1955 | 11,248 | 53.5 | 0.79 | 88 | 0.80 | 90 | 26.96 |
| 1954 | 159,581 | 54.5 | 0.48 | 761 | 0.48 | 767 | 27.38 |
| 1953 | 59,562 | 55.5 | 0.28 | 164 | 0.28 | 165 | 27.83 |
| 1952 | 9,028 | 56.5 | 0.15 | 14 | 0.16 | 14 | 28.29 |
| 1951 | 4,317 | 57.5 | 0.08 | 3 | 0.08 | 4 | 28.77 |
| 1950 | 2,849 | 58.5 | 0.04 | 1 | 0.05 | 1 | 29.26 |
| 1949 | 16,466 | 59.5 | 0.02 | 3 | 0.01 | 2 | 29.75 |
| 1948 | 2,881 | 60.5 | 0.01 |  | 0.01 |  | 30.25 |
| 1947 | 802 | 61.5 | 0.00 |  | 0.02 |  | 30.76 |
| 1946 | 1,398 | 62.5 | 0.00 |  | -0.02 | () | 31.25 |
| 1945 | 11,785 | 63.5 | 0.00 |  | -0.00 | (1) | 31.75 |
| 344 | 76,227 | 64.5 | 0.00 |  | 0.00 |  | 0.00 |
| 342 | 164,194 | 66.5 | 0.00 |  | 0.00 |  | 0.00 |
| 1941 | 2,006 | 67.5 | 0.00 |  | 0.00 |  | 0.00 |
| 1938 | 113,662 | 70.5 | 0.00 |  | 0.00 |  | 0.00 |
| 51,929,303 |  |  | 48,313,486 |  | 48,384,844 * |  |  |

[^4]Account: KEPCo 101/6 356-KY
Version: KEPCO TRANSNISSION 2008
Dispersion: $50-\mathrm{R} 3$

| age | Additions | Age 2009 | Theoretical Survivors |  | Computed Survivors |  | Realized Life |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Percent | Amount | Percent | Amount |  |
| 2008 | 7,615,244 | 0.5 | 99.99 | 7,614,102 | 100.00 | 7,615,245 | 0.50 |
| 2007 | 388,254 | 1.5 | 99.95 | 388,056 | 100.00 | 388,255 | 1.50 |
| 2006 | 278,652 | 2.5 | 99.91 | 278,396 | 100.00 | 278,653 | 2.50 |
| 2005 | 743,702 | 3.5 | 99.86 | 742,661 | 100.00 | 743,703 | 3.50 |
| 2004 | 244,994 | 4.5 | 99.80 | 244,511 | 100.00 | 244,995 | 4.50 |
| 2003 | 653,964 | 5.5 | 99.74 | 652,251 | 100.00 | 653,965 | 5.50 |
| 2002 | 203,909 | 6.5 | 99.66 | 203,220 | 100.00 | 203,910 | 6.50 |
| 2001 | 1,212,537 | 7.5 | 99.58 | 1,207,384 | 100.00 | 1,212,538 | 7.50 |
| 2000 | 1,907,562 | 8.5 | 99.48 | 1,897,547 | 100.00 | 1,907,563 | 8.50 |
| 1999 | 11,988,969 | 9.5 | 99.36 | 11,912,359 | 100.00 | 11,988,970 | 9.50 |
| 1998 | 4,941,737 | 10.5 | 99.23 | 4,903,784 | 100.00 | 4,941,738 | 10.50 |
| 1997 | 712,207 | 11.5 | 99.09 | 705,697 | 100.00 | 712,208 | 11.50 |
| 1996 | 1,377,964 | 12.5 | 98.92 | 1,363,096 | 100.00 | 1,377,965 | 12.50 |
| 1995 | 1,023,703 | 13.5 | 98.74 | 1,010,753 | 100.00 | 1,023,704 | 13.50 |
| 1994 | 3,258,061 | 14.5 | 98.53 | 3,210,070 | 100.00 | 3,258,062 | 14.50 |
| 1993 | 1,695,512 | 15.5 | 98.30 | 1,666,604 | 100.00 | 1,695,513 | 15.50 |
| 1992 | 2,241,118 | 16.5 | 98.04 | 2,197,125 | 100.00 | 2,241,119 | 16.50 |
| 1991 | 704,245 | 17.5 | 97.75 | 688,399 | 100.00 | 704,246 | 17.50 |
| 1990 | 430,845 | 18.5 | 97.43 | 419,785 | 100.00 | 430,846 | 18.50 |
| -989 | 273,872 | 19.5 | 97.08 | 265,883 | 100.00 | 273,873 | 19.50 |
| 488 | 187,297 | 20.5 | 96.70 | 181,112 | 100.00 | 187,298 | 20.50 |
| 1987 | 131,020 | 21.5 | 96.28 | 126,141 | 100.00 | 131,021 | 21.50 |
| 1986 | 838,491 | 22.5 | 95.81 | 803,383 | 100.00 | 838,492 | 22.50 |
| 1985 | 46,009,402 | 23.5 | 95.31 | 43,850,641 | 100.00 | 46,009,403 | 23.50 |
| 1984 | 171,899 | 24.5 | 94.76 | 162,888 | 100.00 | 171,900 | 24.50 |
| 1983 | 42,428 | 25.5 | 94.16 | 39,950 | 100.00 | 42,429 | 25.50 |
| 1982 | 1,827,109 | 26.5 | 93.51 | 1,708,566 | 100.00 | 1,827,110 | 26.50 |
| 1981 | 694,030 | 27.5 | 92.81 | 644,129 | 100.00 | 694,031 | 27.50 |
| 1980 | 452,257 | 28.5 | 92.05 | 416,307 | 100.00 | 452,258 | 28.50 |
| 1979 | 91,746 | 29.5 | 91.23 | 83,702 | 100.00 | 91,747 | 29.50 |
| 1978 | 2,009,798 | 30.5 | 90.35 | 1,815,832 | 100.00 | 2,009,799 | 30.50 |
| 1977 | 512,195 | 31.5 | 89.40 | 457,902 | 100.00 | 512,196 | 31.50 |
| 1976 | 229,904 | 32.5 | 88.38 | 203,189 | 100.00 | 229,905 | 32.50 |
| 1975 | 299,105 | 33.5 | 87.29 | 261,074 | 100.00 | 299,106 | 33.50 |
| 1974 | 44,958 | 34.5 | 86.11 | 38,713 | 100.00 | 44,959 | 34.50 |
| 1973 | 72,762 | 35.5 | 84.85 | 61,740 | 100.00 | 72,763 | 35.50 |
| 1972 | 158,182 | 36.5 | 83.51 | 132,091 | 99.80 | 157,862 | 36.46 |
| 1971 | 1,144,131 | 37.5 | 82.07 | 938,943 | 98.08 | 1,122,122 | 37.14 |
| 1970 | 8,258,592 | 38.5 | 80.53 | 6,650,479 | 96.24 | 7,947,927 | 37.78 |
| 1969 | 306,367 | 39.5 | 78.89 | 241,684 | 94.28 | 288,835 | 38.37 |
| 1968 | 1,214,668 | 40.5 | 77.14 | 936,983 | 92.19 | 1,119,780 | 38.92 |
| 967 | 622,934 | 41.5 | 75.28 | 468,938 | 89.97 | 560,424 | 39.42 |
| 1966 | 235,126 | 42.5 | 73.30 | 172,354 | 87.60 | 205,980 | 39.87 |
| 1965 | 750,174 | 43.5 | 71.21 | 534,191 | 85.10 | 638,407 | 40.26 |
| 1964 | 332,032 | 44.5 | 69.00 | 229,085 | 82.46 | 273,778 | 40.60 |

Account: KEPCo 101/6 356 -KY


Version: KEPCO TRANSMIISSION 2008

| Dispersion: <br> tage | $50 \quad-\mathrm{R} 3$ <br> Additions | $\begin{aligned} & \text { Age } \\ & 2009 \end{aligned}$ | Theoretical Survivors |  | Computed Survivors |  | Realized Life |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Percent | Amount | Percent | Amount |  |
| 1963 | 516,316 | 45.5 | 66.66 | 344,176 | 79.66 | 411,322 | 40.87 |
| 1962 | 116,770 | 46.5 | 64.21 | 74,972 | 76.73 | 89,599 | 41.09 |
| 1961 | 35,760 | 47.5 | 61.64 | 22,041 | 73.66 | 26,341 | 41.24 |
| 1960 | 34,229 | 48.5 | 58.95 | 20,179 | 70.46 | 24,116 | 41.34 |
| 1959 | 203,931 | 49.5 | 56.17 | 114,546 | 67.13 | 136,893 | 41.36 |
| 1958 | 363,538 | 50.5 | 53.29 | 193,737 | 63.69 | 231,532 | 41.33 |
| 1957 | 9,636 | 51.5 | 50.34 | 4,850 | 60.16 | 5,797 | 41.24 |
| 1956 | 41,375 | 52.5 | 47.32 | 19,577 | 56.55 | 23,397 | 41.09 |
| 1955 | 4,298 | 53.5 | 44.25 | 1,902 | 52.90 | 2,274 | 40.90 |
| 1954 | 318,755 | 54.5 | 41.16 | 131,212 | 49.19 | 156,809 | 40.66 |
| 1953 | 63,843 | 55.5 | 38.07 | 24,308 | 45.50 | 29,050 | 40.38 |
| 1952 | 15,004 | 56.5 | 35.01 | 5,252 | 41.84 | 6,277 | 40.07 |
| 1951 | 13,420 | 57.5 | 31.98 | 4,292 | 38.22 | 5,130 | 39.74 |
| 1950 | 4,533 | 58.5 | 29.03 | 1,316 | 34.70 | 1,573 | 39.40 |
| 1949 | 63,340 | 59.5 | 26.17 | 16,576 | 31.28 | 19,810 | 39.05 |
| 1948 | 14,823 | 60.5 | 23.42 | 3,472 | 28.00 | 4,150 | 38.72 |
| 1947 | 11,563 | 61.5 | 20.81 | 2,407 | 24.88 | 2,876 | 38.40 |
| 1946 | 5,928 | 62.5 | 18.35 | 1,088 | 21.94 | 1,301 | 38.11 |
| 1945 | 27,492 | 63.5 | 16.05 | 4,413 | 19.18 | 5,274 | 37.84 |
| -944 | 5,349 | 64.5 | 13.92 | 745 | 16.65 | 891 | 37.62 |
| . 943 | 5,002 | 65.5 | 11.97 | 599 | 14.32 | 716 | 37.44 |
| 1942 | 378,305 | 66.5 | 10.20 | 38,580 | 12.19 | 46,103 | 37.30 |
| 1941 | 6,577 | 67.5 | 8.60 | 566 | 10.28 | 676 | 37.22 |
| 1940 | 101,822 | 68.5 | 7.17 | 7,302 | 8.57 | 8,726 | 37.19 |
| 1939 | 476 | 69.5 | 5.91 | 28 | 7.16 | 34 | 37.24 |
| 1938 | 129,975 | 70.5 | 4.80 | 6,238 | 5.73 | 7,453 | 37.27 |
| 1937 | 8,842 | 71.5 | 3.84 | 339 | 4.59 | 406 | 37.39 |
| 1936 | 9,973 | 72.5 | 3.01 | 300 | 3.59 | 358 | 37.55 |
| 1935 | 1,327 | 73.5 | 2.31 | 31 | 2.78 | 37 | 37.77 |
| 1934 | 2,159 | 74.5 | 1.72 | 37 | 2.07 | 45 | 38.02 |
| 1933 | 1,642 | 75.5 | 1.24 | 20 | 1.50 | 25 | 38.32 |
| 1932 | 2,108 | 76.5 | 0.86 | 18 | 1.03 | 22 | 38.65 |
| 1931 | 2,112 | 77.5 | 0.56 | 12 | 0.68 | 14 | 39.01 |
| 1930 | 4,553 | 78.5 | 0.35 | 16 | 0.41 | 19 | 39.41 |
| 1929 | 15,583 | 79.5 | 0.19 | 30 | 0.22 | 35 | 39.84 |
| 1928 | 3,395 | 80.5 | 0.09 | 3 | 0.11 | 4 | 40.30 |
| 1927 | 4,792 | 81.5 | 0.04 | 2 | 0.04 | 2 | 40.77 |
| 1926 | 8,394 | 82.5 | 0.01 | 1 | 0.01 | 1 | 41.25 |
| 1925 | 1,862 | 83.5 | 0.00 |  | 0.00 |  | 41.75 |
| 1924 | 369 | 84.5 | 0.00 |  | -0.14 | (1) | 42.19 |
| 1923 | 1,121 | 85.5 | 0.00 |  | 0.00 |  | 0.00 |
| 1922 | 1,393 | 86.5 | 0.00 |  | 0.00 |  | 0.00 |

$111,095,343$
103,776,885
$109,075,670$ *

[^5]| Account: KEPCo 101/6 357-KY |  |  | Computed Age Distribution Report |  |  |  | $4=$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Version: KEPCO TRANSMISSION 2008 |  |  |  |  |  |  |  |
| Dispersion: | $37-\mathrm{R} 2$ |  | Theoretical Survivors |  | Computed Survivors |  | Realized Life |
|  |  | Age |  |  |  |  |  |  |
| ،age | Additions | 2009 | Percent | Amount | Percent | Amount |  |
| 1997 | 11,590 | 11.5 | 95.07 | 11,019 | 100.00 | 11,591 | 11.50 |
|  | 11,590 |  |  | 11,019 |  | 11,591 |  |

*Recorded Balance January 1, 2009: 11,591

*Recorded Balance January 1, 2009: 106,067

$$
\text { Page } 115 \text { of } 35^{\circ}
$$

# KENTUCKY POWER COMPANY <br> DEPRECIATION STUDY AS OF 12-31-08 <br> TRANSMISSION PLANT WORKPAPERS 

## CALCULATED RESERVE

| Account: KEPCo 101/6 350 Land Rights |
| :--- |
| Scenario: KEPCO TRANSMISSION 2008 NEW |
| n:-version: $\quad 75-$ R4 |
| age Net Salvage Rate: $\quad 0.00 \%$ |
| Future Net Salvage Rate: |

Broad Group Procedure
January 1, 2009

|  | Plant Amt | Depreciation Reserve |  | Net Plant |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Amount | Ratio | Amount | Ratio |
| Recorded | \$23,482,119.13 | \$4,193,440.40 | 0.1786 | \$19,288,678.73 | 0.8214 |
| Computed | \$23,482,119.13 | \$6,833,405.81 | 0.2910 | \$16,648,713.32 | 0.7090 |
| Difference |  | (\$2,639,965.41) | -0.1124 | \$2,639,965.41 | 0.1124 |



Account: KEPCo 101/6 350 Land Rights
Dispersion: 75.00-R4
rage Net Salvage Rate: $0.00 \%$
. ucure Net Salvage Rate: $0.00 \%$
Broad Group Procedure
January 1, 2009

| Vintage | Age | Surviving Plant | Avg Life | Remaining Life | Net Plant Ratio | Alloc Factor | Computed Net Plant | Accrual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2008 | 0.50 | \$7,611.97 | 75.00 | 74.50 | 0.9933 | 1.0000 | \$7,561.27 | \$101.49 |
| 2007 | 1.50 | \$2,274.15 | 75.00 | 73.50 | 0.9800 | 1.0000 | \$2,228.71 | \$30.32 |
| 2006 | 2.50 | \$103,998.38 | 75.00 | 72.50 | 0.9667 | 1.0000 | \$100,535.18 | \$1,386.65 |
| 2005 | 3.50 | \$92,305.72 | 75.00 | 71.50 | 0.9534 | 1.0000 | \$88,003.21 | \$1,230.74 |
| 2004 | 4.50 | \$33,991.00 | 75.00 | 70.51 | 0.9401 | 1.0000 | \$31,953.84 | \$453.21 |
| 2003 | 5.50 | (\$9,734.24) | 75.00 | 69.51 | 0.9268 | 1.0000 | (\$9,021.33) | (\$129.79) |
| 2002 | 6.50 | (\$200,238.00) | 75.00 | 68.51 | 0.9135 | 1.0000 | (\$182,908.75) | (\$2,669.84) |
| 2001 | 7.50 | \$480,775.90 | 75.00 | 67.51 | 0.9002 | 1.0000 | \$432,775.09 | \$6,410.35 |
| 2000 | 8.50 | \$321,568.93 | 75.00 | 66.51 | 0.8869 | 1.0000 | \$285,188.26 | \$4,287.59 |
| 1999 | 9.50 | \$966,674.32 | 75.00 | 65.52 | 0.8736 | 1.0000 | \$844,471.77 | \$12,888.99 |
| 1998 | 10.50 | \$1,280,236.00 | 75.00 | 64.52 | 0.8603 | 1.0000 | \$1,101,398.63 | \$17,069.81 |
| 1997 | 11.50 | \$580,453.00 | 75.00 | 63.53 | 0.8470 | 1.0000 | \$491,664.30 | \$7,739.37 |
| 1996 | 12.50 | \$126,373.00 | 75.00 | 62.53 | 0.8338 | 1.0000 | \$105,366.30 | \$1,684.97 |
| 1995 | 13.50 | \$339,788.00 | 75.00 | 61.54 | 0.8205 | 1.0000 | \$278,805.29 | \$4,530.51 |
| 1994 | 14.50 | \$321,828.00 | 75.00 | 60.55 | 0.8073 | 1.0000 | \$259,809.91 | \$4,291.04 |
| 1993 | 15.50 | \$316,776.00 | 75.00 | 59.56 | 0.7941 | 1.0000 | \$251,545.01 | \$4,223.68 |
| 1992 | 16.50 | \$75,805.00 | 75.00 | 58.57 | 0.7809 | 1.0000 | \$59,193.95 | \$1,010.73 |
| 1991 | 17.50 | \$325,286.00 | 75.00 | 57.58 | 0.7677 | 1.0000 | \$249,718.09 | \$4,337.15 |
| 1990 | 18.50 | \$104,145.00 | 75.00 | 56.59 | 0.7545 | 1.0000 | \$78,578.91 | \$1,388.60 |
| 1989 | 19.50 | \$15,874.00 | 75.00 | 55.60 | 0.7414 | 1.0000 | \$11,768.68 | \$211.65 |
| 1988 | 20.50 | \$3,265.00 | 75.00 | 54.62 | 0.7283 | 1.0000 | \$2,377.77 | \$43.53 |
| 1987 | 21.50 | \$1,327.00 | 75.00 | 53.64 | 0.7152 | 1.0000 | \$949.02 | \$17.69 |
| 1986 | 22.50 | \$82,584.00 | 75.00 | 52.66 | 0.7021 | 1.0000 | \$57,983.06 | \$1,101.12 |
| 1985 | 23.50 | \$12,474,189.00 | 75.00 | 51.68 | 0.6891 | 1.0000 | \$8,595,731.04 | \$166,322.52 |
| 1984 | 24.50 | \$294,262.00 | 75.00 | 50.71 | 0.6761 | 1.0000 | \$198,943.70 | \$3,923.49 |
| 1983 | 25.50 | \$502,031.00 | 75.00 | 49.73 | 0.6631 | 1.0000 | \$332,911.24 | \$6,693.75 |
| 1982 | 26.50 | \$148,856.00 | 75.00 | 48.77 | 0.6502 | 1.0000 | \$96,789.13 | \$1,984.75 |
| 1981 | 27.50 | \$154,641.00 | 75.00 | 47.80 | 0.6373 | 1.0000 | \$98,558.83 | \$2,061.88 |
| 1980 | 28.50 | \$259,692.00 | 75.00 | 46.84 | 0.6245 | 1.0000 | \$162,185.69 | \$3,462.56 |
| 1979 | 29.50 | \$4,236,751.00 | 75.00 | 45.88 | 0.6118 | 1.0000 | \$2,591,909.23 | \$56,490.01 |
| 1975 | 33.50 | \$38,729.00 | 75.00 | 42.10 | 0.5613 | 1.0000 | \$21,738.31 | \$516.39 |
|  |  | \$23,482,119.13 | 75.00 | 53.17 | 0.7090 | 1.0000 | \$16,648,713.32 | \$313,094.92 |

Account: KEPCo 101/6 352 -KY
Scenario: KEPCO TRANSMISSION 2008 NEW
nispersion: 73-L2
rage Net Salvage Rate: $\quad 10.00 \%$
Future Net Salvage Rate: $\quad 10.00 \%$

Broad Group Procedure
January 1, 2009

|  | Plant Amt | Depreciation Reserve |  | Net Plant |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Amount | Ratio | Amount | Ratio |
| Recorded | \$6,369,901.06 | \$1,008,870.00 | 0.1584 | \$4,724,040.95 | 0.7416 |
| Computed | \$6,369,901.06 | \$1,644,000.50 | 0.2581 | \$4,088,910.45 | 0.6419 |
| Difference |  | (\$635,130.50) | -0.0997 | \$635,130.50 | 0.0997 |

Account: KEPCo 101/6 352 - KY
Dispersion: 73.00-L2
age Net Salvage Rate: $\quad 10.00 \%$
, uture Net Salvage Rate: $10.00 \%$
Broad Group Procedure
January 1, 2009

| Vintage | Age | Surviving Plant | Avg Life | Remaining <br> Life | Net Plant Ratio | Alloc Factor | Computed Net Plant | Accrual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2008 | 0.50 | \$141,133.32 | 73.00 | 72.50 | 0.8938 | 1.0000 | \$126,149.59 | \$1,740.00 |
| 2007 | 1.50 | \$7,094.25 | 73.00 | 71.50 | 0.8815 | 1.0000 | \$6,253.70 | \$87.46 |
| 2005 | 3.50 | \$66,214.95 | 73.00 | 69.51 | 0.8570 | 1.0000 | \$56,742.99 | \$816.35 |
| 2002 | 6.50 | \$806,045.35 | 73.00 | 66.55 | 0.8205 | 1.0000 | \$661,376.97 | \$9,937.55 |
| 2001 | 7.50 | \$701.17 | 73.00 | 65.58 | 0.8085 | 1.0000 | \$566.92 | \$8.64 |
| 2000 | 8.50 | \$84,281.38 | 73.00 | 64.61 | 0.7966 | 1.0000 | \$67,138.29 | \$1,039.09 |
| 1999 | 9.50 | \$16,180.15 | 73.00 | 63.66 | 0.7848 | 1.0000 | \$12,698.02 | \$199.48 |
| 1998 | 10.50 | \$58,660.00 | 73.00 | 62.70 | 0.7731 | 1.0000 | \$45,348.49 | \$723.21 |
| 1997 | 11.50 | \$203,592.01 | 73.00 | 61.76 | 0.7614 | 1.0000 | \$155,021.64 | \$2,510.04 |
| 1996 | 12.50 | \$122,344.15 | 73.00 | 60.83 | 0.7499 | 1.0000 | \$91,749.93 | \$1,508.35 |
| 1995 | 13.50 | \$115,575.00 | 73.00 | 59.90 | 0.7385 | 1.0000 | \$85,355.56 | \$1,424.90 |
| 1994 | 14.50 | \$49,187.00 | 73.00 | 58.99 | 0.7272 | 1.0000 | \$35,770.12 | \$606.42 |
| 1993 | 15.50 | \$371,115.00 | 73.00 | 58.08 | 0.7161 | 1.0000 | \$265,737.61 | \$4,575.39 |
| 1992 | 16.50 | \$113,918.00 | 73.00 | 57.18 | 0.7050 | 1.0000 | \$80,307.64 | \$1,404.47 |
| 1991 | 17.50 | \$45,070.00 | 73.00 | 56.29 | 0.6940 | 1.0000 | \$31,279.31 | \$555.66 |
| 1990 | 18.50 | \$65,795.00 | 73.00 | 55.41 | 0.6832 | 1.0000 | \$44,950.13 | \$811.17 |
| 1989 | 19.50 | \$1,510.00 | 73.00 | 54.54 | 0.6724 | 1.0000 | \$1,015.37 | \$18.62 |
| 1988 | 20.50 | \$5,196.00 | 73.00 | 53.68 | 0.6618 | 1.0000 | \$3,438.87 | \$64.06 |
| 1987 | 21.50 | \$14,460.00 | 73.00 | 52.83 | 0.6513 | 1.0000 | \$9,418.20 | \$178.27 |
| 1986 | 22.50 | \$156,377.00 | 73.00 | 51.99 | 0.6409 | 1.0000 | \$100,224.41 | \$1,927.94 |
| 1985 | 23.50 | \$101,850.00 | 73.00 | 51.15 | 0.6306 | 1.0000 | \$64,230.05 | \$1,255.68 |
| 1984 | 24.50 | \$115,579.00 | 73.00 | 50.32 | 0.6204 | 1.0000 | \$71,708.29 | \$1,424.95 |
| 1983 | 25.50 | \$52,326.00 | 73.00 | 49.51 | 0.6104 | 1.0000 | \$31,939.06 | \$645.12 |
| 1982 | 26.50 | \$194,550.00 | 73.00 | 48.71 | 0.6005 | 1.0000 | \$116,824.01 | \$2,398.56 |
| 1981 | 27.50 | \$1,642,115.00 | 73.00 | 47.91 | 0.5907 | 1.0000 | \$969,982.75 | \$20,245.25 |
| 1980 | 28.50 | \$102,817.00 | 73.00 | 47.14 | 0.5811 | 1.0000 | \$59,750.53 | \$1,267.61 |
| 1979 | 29.50 | \$3,140.00 | 73.00 | 46.38 | 0.5718 | 1.0000 | \$1,795.33 | \$38.71 |
| 1978 | 30.50 | \$125.00 | 73.00 | 45.63 | 0.5625 | 1.0000 | \$70.32 | \$1.54 |
| 1977 | 31.50 | \$158,624.39 | 73.00 | 44.90 | 0.5536 | 1.0000 | \$87,816.70 | \$1,955.64 |
| 1976 | 32.50 | \$87,539.00 | 73.00 | 44.19 | 0.5448 | 1.0000 | \$47,693.67 | \$1,079.25 |
| 1975 | 33.50 | \$11,010.17 | 73.00 | 43.51 | 0.5364 | 1.0000 | \$5,905.65 | \$135.74 |
| 1974 | 34.50 | \$1,154,345.00 | 73.00 | 42.84 | 0.5282 | 1.0000 | \$609,685.70 | \$14,231.65 |
| 1973 | 35.50 | \$46,882.77 | 73.00 | 42.19 | 0.5201 | 1.0000 | \$24,384.77 | \$578.01 |

Account: KEPCo 101/6 352 - KY
Dispersion: 73.00 - L2
rage Net Salvage Rate: $10.00 \%$
. uture Net Salvage Rate: $10.00 \%$
Broad Group Procedure
January 1, 2009

| Vintage | Age | Surviving Plant | Avg Life | Remaining Life | Net Plant Ratio | Alloc <br> Factor | Computed Net Plant | Accrual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1971 | 37.50 | \$11,105.00 | 73.00 | 40.96 | 0.5050 | 1.0000 | \$5,607.58 | \$136.91 |
| 1970 | 38.50 | \$50,620.00 | 73.00 | 40.37 | 0.4977 | 1.0000 | \$25,192.98 | \$624.08 |
| 1969 | 39.50 | \$1,252.00 | 73.00 | 39.80 | 0.4907 | 1.0000 | \$614.40 | \$15.44 |
| 1968 | 40.50 | \$32,049.00 | 73.00 | 39.26 | 0.4840 | 1.0000 | \$15,511.89 | \$395.12 |
| 1967 | 41.50 | \$21,588.91 | 73.00 | 38.73 | 0.4775 | 1.0000 | \$10,308.25 | \$266.16 |
| 1966 | 42.50 | \$29,924.00 | 73.00 | 38.22 | 0.4712 | 1.0000 | \$14,101.16 | \$368.93 |
| 1965 | 43.50 | \$297.00 | 73.00 | 37.73 | 0.4652 | 1.0000 | \$138.15 | \$3.66 |
| 1964 | 44.50 | \$8,446.00 | 73.00 | 37.26 | 0.4594 | 1.0000 | \$3,879.79 | \$104.13 |
| 1963 | 45.50 | \$16,589.00 | 73.00 | 36.81 | 0.4538 | 1.0000 | \$7,527.58 | \$204.52 |
| 1962 | 46.50 | \$6,972.00 | 73.00 | 36.37 | 0.4483 | 1.0000 | \$3,125.82 | \$85.96 |
| 1961 | 47.50 | \$121.00 | 73.00 | 35.94 | 0.4432 | 1.0000 | \$53.62 | \$1.49 |
| 1960 | 48.50 | \$2,917.00 | 73.00 | 35.54 | 0.4381 | 1.0000 | \$1,278.04 | \$35.96 |
| 1959 | 49.50 | \$1,799.00 | 73.00 | 35.14 | 0.4333 | 1.0000 | \$779.47 | \$22.18 |
| 1958 | 50.50 | \$4,414.00 | 73.00 | 34.77 | 0.4286 | 1.0000 | \$1,891.88 | \$54.42 |
| 1957 | 51.50 | \$579.00 | 73.00 | 34.40 | 0.4241 | 1.0000 | \$245.54 | \$7.14 |
| 1956 | 52.50 | \$381.00 | 73.00 | 34.04 | 0.4197 | 1.0000 | \$159.92 | \$4.70 |
| 1955 | 53.50 | \$516.00 | 73.00 | 33.70 | 0.4155 | 1.0000 | \$214.40 | \$6.36 |
| 1954 | 54.50 | \$38,794.00 | 73.00 | 33.37 | 0.4114 | 1.0000 | \$15,960.63 | \$478.28 |
| 1953 | 55.50 | \$711.00 | 73.00 | 33.05 | 0.4075 | 1.0000 | \$289.70 | \$8.77 |
| 1952 | 56.50 | \$92,00 | 73.00 | 32.74 | 0.4036 | 1.0000 | \$37.13 | \$1.13 |
| 1951 | 57.50 | \$8,401.00 | 73.00 | 32.43 | 0.3999 | 1.0000 | \$3,359.34 | \$103.57 |
| 1946 | 62.50 | \$152.00 | 73.00 | 31.03 | 0.3825 | 1.0000 | \$58.15 | \$1.87 |
| 1944 | 64.50 | \$2,137.00 | 73.00 | 30.50 | 0.3761 | 1.0000 | \$803.63 | \$26.35 |
| 1943 | 65.50 | \$5,740.09 | 73.00 | 30.25 | 0.3729 | 1.0000 | \$2,140.60 | \$70.77 |
| 1942 | 66.50 | \$7,335.00 | 73.00 | 29.99 | 0.3698 | 1.0000 | \$2,712.49 | \$90.43 |
| 1940 | 68.50 | \$1,616.00 | 73.00 | 29.50 | 0.3637 | 1.0000 | \$587.72 | \$19.92 |
|  |  | \$6,369,901.06 | 73.00 | 52.07 | 0.6419 | 1.0000 | \$4,088,910.45 | \$78,533.03 |

Account: KEPCo 101/6 $353-\mathrm{KY}$
Scenario: KEPCO TRANSMISSION 2008 NEW
Ricdersion: $42-$ R2

$\quad$| age Net Salvage Rate: | $-5.00 \%$ |
| :--- | :--- |
| Future Net Salvage Rate: | $-5.00 \%$ |

Broad Group Procedure
January 1, 2009

|  | Plant Amt | Depreciation Reserve |  | Net Plant |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Amount | Ratio | Amount | Ratio |
| Recorded | \$146,458,490.21 | \$25,983,249.06 | 0.1774 | \$127,798,165.66 | 0.8726 |
| Computed | \$146,458,490.21 | \$42,340,910.64 | 0.2891 | \$111,440,504.08 | 0.7609 |
| Difference |  | (\$16,357,661.58) | -0.1117 | \$16,357,661.58 | 0.1117 |

Account: KEPCo 101/6 353 -KY
Dispersion: 42.00 - R2
rage Net Salvage Rate: $\quad-5.00 \%$
, uture Net Salvage Rate: $\quad \mathbf{- 5 . 0 0 \%}$
Broad Group Procedure
January 1, 2009

| Vintage | Age | Surviving Plant | Avg Life | Remaining Life | Net Plant Ratio | Alloc Factor | Computed Net Plant | Accrual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2008 | 0.50 | \$12,624,818.01 | 42.00 | 41.55 | 1.0387 | 1.0000 | \$13,113,243.81 | \$315,620.45 |
| 2007 | 1.50 | \$1,708,499.05 | 42.00 | 40.65 | 1.0161 | 1.0000 | \$1,736,082.91 | \$42,712.48 |
| 2006 | 2.50 | \$10,134,361.85 | 42.00 | 39.75 | 0.9938 | 1.0000 | \$10,071,455.97 | \$253,359.05 |
| 2005 | 3.50 | \$2,121,353.20 | 42.00 | 38.86 | 0.9716 | 1.0000 | \$2,061,072.13 | \$53,033.83 |
| 2004. | 4.50 | \$2,898,108.13 | 42.00 | 37.98 | 0.9495 | 1.0000 | \$2,751,820.68 | \$72,452.70 |
| 2003 | 5.50 | \$3,593,864.20 | 42.00 | 37.11 | 0.9277 | 1.0000 | \$3,333,850.25 | \$89,846.61 |
| 2002 | 6.50 | \$3,657,236.98 | 42.00 | 36.24 | 0.9059 | 1.0000 | \$3,313,266.14 | \$91,430.92 |
| 2001 | 7.50 | \$3,023,907.36 | 42.00 | 35.38 | 0.8844 | 1.0000 | \$2,674,367.88 | \$75,597.68 |
| 2000 | 8.50 | \$2,475,078.16 | 42.00 | 34.52 | 0.8631 | 1.0000 | \$2,136,165.10 | \$61,876.95 |
| 1999 | 9.50 | \$1,485,510.96 | 42.00 | 33.68 | 0.8419 | 1.0000 | \$1,250,648.56 | \$37,137.77 |
| 1998 | 10.50 | \$11,131,808.18 | 42.00 | 32.84 | 0.8209 | 1.0000 | \$9,138,580.73 | \$278,295.20 |
| 1997 | 11.50 | \$36,704,773.77 | 42.00 | 32.01 | 0.8002 | 1.0000 | \$29,370,648.11 | \$917,619.34 |
| 1996 | 12.50 | \$2,459,852.44 | 42.00 | 31.18 | 0.7796 | 1.0000 | \$1,917,729.27 | \$61,496.31 |
| 1995 | 13.50 | \$843,447.04 | 42.00 | 30.37 | 0.7593 | 1.0000 | \$640,402.43 | \$21,086.18 |
| 1994 | 14.50 | \$2,295,811.37 | 42.00 | 29.56 | 0.7391 | 1.0000 | \$1,696,827.34 | \$57,395.28 |
| 1993 | 15.50 | \$5,624,959.11 | 42.00 | 28.77 | 0.7192 | 1.0000 | \$4,045,453.03 | \$140,623.98 |
| 1992 | 16.50 | \$2,112,501.16 | 42.00 | 27.98 | 0.6995 | 1.0000 | \$1,477,703.46 | \$52,812.53 |
| 1991 | 17.50 | \$3,780,305.33 | 42.00 | 27.20 | 0.6800 | 1.0000 | \$2,570,663.40 | \$94,507.63 |
| 1990 | 18.50 | \$2,980,615.61 | 42.00 | 26.43 | 0.6608 | 1.0000 | \$1,969,555.23 | \$74,515.39 |
| 1989 | 19.50 | \$1,181,931.52 | 42.00 | 25.67 | 0.6418 | 1.0000 | \$758,563.92 | \$29,548.29 |
| 1988 | 20.50 | \$525,646.57 | 42.00 | 24.92 | 0.6230 | 1.0000 | \$327,492.99 | \$13,141.16 |
| 1987 | 21.50 | \$2,020,844.62 | 42.00 | 24.18 | 0.6045 | 1.0000 | \$1,221,689.24 | \$50,521.12 |
| 1986 | 22.50 | \$499,860.00 | 42.00 | 23.45 | 0.5863 | 1.0000 | \$293,051.21 | \$12,496.50 |
| 1985 | 23.50 | \$742,291.92 | 42.00 | 22.73 | 0.5683 | 1.0000 | \$421,849.16 | \$18,557.30 |
| 1984 | 24.50 | \$1,222,337.00 | 42.00 | 22.02 | 0.5506 | 1.0000 | \$673,019.96 | \$30,558.43 |
| 1983 | 25.50 | \$1,385,202.40 | 42.00 | 21.33 | 0.5331 | 1.0000 | \$738,505.73 | \$34,630.06 |
| 1982 | 26.50 | \$1,592,738.03 | 42.00 | 20.64 | 0.5160 | 1.0000 | \$821,850.07 | \$39,818.45 |
| 1981 | 27.50 | \$7,233,381.02 | 42.00 | 19.97 | 0.4991 | 1.0000 | \$3,610,417.34 | \$180,834.53 |
| 1980 | 28.50 | \$5,281,891.86 | 42.00 | 19.30 | 0.4825 | 1.0000 | \$2,548,706.77 | \$132,047.30 |
| 1979 | 29.50 | \$935,672.30 | 42.00 | 18.65 | 0.4663 | 1.0000 | \$436,279.26 | \$23,391.81 |
| 1978 | 30.50 | \$54,420.79 | 42.00 | 18.01 | 0.4503 | 1.0000 | \$24,504.32 | \$1,360.52 |
| 1977 | 31.50 | \$1,990,423.13 | 42.00 | 17.39 | 0.4346 | 1.0000 | \$865,124.87 | \$49,760.58 |
| 1976 | 32.50 | \$1,091,429.44 | 42.00 | 16.77 | 0.4193 | 1.0000 | \$457,653.68 | \$27,285.74 |



Account: KEPCo 101/6 353 -KY
Dispersion: 42.00 -R2
rage Net Salvage Rate: $\quad-5.00 \%$
. cure Net Salvage Rate: $-5.00 \%$
Broad Group Procedure
January 1, 2009

| Vintage | Age | Surviving Plant | Avg Life | Remaining Life | Net Plant Ratio | Alloc <br> Factor | Computed Net Plant | Accrual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1975 | 33.50 | \$763,727.00 | 42.00 | 16.17 | 0.4043 | 1.0000 | \$308,764.37 | \$19,093.18 |
| 1974 | 34.50 | \$1,028,842.75 | 42.00 | 15.58 | 0.3896 | 1.0000 | \$400,856.74 | \$25,721.07 |
| 1973 | 35.50 | \$161,311.71 | 42.00 | 15.01 | 0.3752 | 1.0000 | \$60,531.72 | \$4,032.79 |
| 1972 | 36.50 | \$168,786.08 | 42.00 | 14.45 | 0.3613 | 1.0000 | \$60,977.02 | \$4,219.65 |
| 1971 | 37.50 | \$201,316.42 | 42.00 | 13.91 | 0.3476 | 1.0000 | \$69,983.09 | \$5,032.91 |
| 1970 | 38.50 | \$690,132.75 | 42.00 | 13.37 | 0.3343 | 1.0000 | \$230,713.43 | \$17,253.32 |
| 1969 | 39.50 | \$4,737,867.36 | 42.00 | 12.85 | 0.3214 | 1.0000 | \$1,522,583.50 | \$118,446.68 |
| 1968 | 40.50 | \$59,424.00 | 42.00 | 12.35 | 0.3088 | 1.0000 | \$18,348.59 | \$1,485.60 |
| 1967 | 41.50 | \$238,924.47 | 42.00 | 11.86 | 0.2965 | 1.0000 | \$70,845.91 | \$5,973.11 |
| 1966 | 42.50 | \$5,843.00 | 42.00 | 11.39 | 0.2846 | 1.0000 | \$1,663.18 | \$146.08 |
| 1965 | 43.50 | \$96,195.62 | 42.00 | 10.92 | 0.2731 | 1.0000 | \$26,270.94 | \$2,404.89 |
| 1964 | 44.50 | \$2,344.26 | 42.00 | 10.48 | 0.2619 | 1.0000 | \$614.02 | \$58.61 |
| 1963 | 45.50 | \$560,961.00 | 42.00 | 10.04 | 0.2511 | 1.0000 | \$140,856.61 | \$14,024.03 |
| 1962 | 46.50 | \$5,906.00 | 42.00 | 9.62 | 0.2406 | 1.0000 | \$1,421.00 | \$147.65 |
| 1961 | 47.50 | \$347.00 | 42.00 | 9.22 | 0.2304 | 1.0000 | \$79.96 | \$8.68 |
| 1960 | 48.50 | \$25,383.97 | 42.00 | 8.82 | 0.2206 | 1.0000 | \$5,599.99 | \$634.60 |
| 1959 | 49.50 | \$52,367.55 | 42.00 | 8.44 | 0.2111 | 1.0000 | \$11,054.41 | \$1,309.19 |
| 1958 | 50.50 | \$677.00 | 42.00 | 8.07 | 0.2019 | 1.0000 | \$116.48 | \$14.43 |
| 1957 | 51.50 | \$8,980.51 | 42.00 | 7.72 | 0.1930 | 1.0000 | \$1,732.85 | \$224.51 |
| 1955 | 53.50 | \$897.00 | 42.00 | 7.03 | 0.1758 | 1.0000 | \$157.73 | \$22.42 |
| 1954 | 54.50 | \$225,897.25 | 42.00 | 6.71 | 0.1677 | 1.0000 | \$37,878.20 | \$5,647.43 |
| 1953 | 55.50 | \$7,575.00 | 42.00 | 6.39 | 0.1597 | 1.0000 | \$1,209.41 | \$189.38 |
|  |  | \$146,458,490.21 | 42.00 | 30.44 | 0.7609 | 1.0000 | \$111,440,504.09 | \$3,661,462.26 |




Account: KEPCo 101/6 354 -KY
Dispersion: 50.00 - R3
rage Net Salvage Rate: $\quad-65.00 \%$
. suture Net Salvage Rate: $\quad-65.00 \%$
Broad Group Procedure
January 1, 2009


Account: KEPCo 101/6 354 -KY
Dispersion: 50.00 - R3
rage Net Salvage Rate: $\quad-65.00 \%$

- future Net Salvage Rate: $\quad-65.00 \%$

Broad Group Procedure
January 1, 2009



Account: KEPCo 101/6 355 - KY
Dispersion: 38.00 - S4
rage Net Salvage Rate: $\quad-53.00 \%$
. ucure Net Salvage Rate: -53.00\%
Broad Group Procedure
January 1, 2009

| Vintage | Age | Surviving Plant | Avg Life | Remaining Life | Net Plant Ratio | Alloc Factor | Computed Net Plant | Accrual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2008 | 0.50 | \$7,821,842.50 | 38.00 | 37.50 | 1.5099 | 1.0000 | \$11,809,952.91 | \$314,932.08 |
| 2007 | 1.50 | \$547,335.50 | 38.00 | 36.50 | 1.4696 | 1.0000 | \$804,367.13 | \$22,037.46 |
| 2006 | 2.50 | \$1,905,268.50 | 38.00 | 35.50 | 1.4293 | 1.0000 | \$2,723,280.47 | \$76,712.13 |
| 2005 | 3.50 | \$1,400,726.50 | 38.00 | 34.50 | 1.3891 | 1.0000 | \$1,945,719.68 | \$56,397.67 |
| 2004 | 4.50 | \$1,450,693.50 | 38.00 | 33.50 | 1.3488 | 1.0000 | \$1,956,718.29 | \$58,409.50 |
| 2003 | 5.50 | \$725,787.50 | 38.00 | 32.50 | 1.3086 | 1.0000 | \$949,731.14 | \$29,222.50 |
| 2002 | 6.50 | \$1,374,086.50 | 38.00 | 31.50 | 1.2683 | 1.0000 | \$1,742,739.43 | \$55,325.06 |
| 2001 | 7.50 | \$3,034,077.50 | 38.00 | 30.50 | 1.2280 | 1.0000 | \$3,725,926.99 | \$122,161.54 |
| 2000 | 8.50 | \$2,016,920.50 | 38.00 | 29.50 | 1.1878 | 1.0000 | \$2,395,623.84 | \$81,207.59 |
| 1999 | 9.50 | \$7,276,249.50 | 38.00 | 28.50 | 1.1475 | 1.0000 | \$8,349,496.24 | \$292,964.78 |
| 1998 | 10.50 | \$246,197.50 | 38.00 | 27.50 | 1.1072 | 1.0000 | \$272,598.94 | \$9,912.69 |
| 1997 | 11.50 | \$2,200,205.50 | 38.00 | 26.50 | 1.0670 | 1.0000 | \$2,347,561.35 | \$88,587.22 |
| 1996 | 12.50 | \$966,626.50 | 38.00 | 25.50 | 1.0267 | 1.0000 | \$992,445.59 | \$38,919.44 |
| 1995 | 13.50 | \$502,094.50 | 38.00 | 24.50 | 0.9865 | 1.0000 | \$495,292.45 | \$20,215.91 |
| 1994 | 14.50 | \$2,853,694.50 | 38.00 | 23.50 | 0.9462 | 1.0000 | \$2,700,208.34 | \$114,898.75 |
| 1993 | 15.50 | \$2,024,333.50 | 38.00 | 22.50 | 0.9060 | 1.0000 | \$1,834,027.45 | \$81,506.06 |
| 1992 | 16.50 | \$1,980,376.50 | 38.00 | 21.50 | 0.8658 | 1.0000 | \$1,714,644.84 | \$79,736.21 |
| 1991 | 17.50 | \$1,225,759.50 | 38.00 | 20.51 | 0.8257 | 1.0000 | \$1,012,150.08 | \$49,352.95 |
| 1990 | 18.50 | \$379,655.50 | 38.00 | 19.52 | 0.7858 | 1.0000 | \$298,329.74 | \$15,286.13 |
| 1989 | 19.50 | \$526,772.50 | 38.00 | 18.53 | 0.7461 | 1.0000 | \$393,023.36 | \$21,209.52 |
| 1988 | 20.50 | \$501,637.50 | 38.00 | 17.55 | 0.7067 | 1.0000 | \$354,517.64 | \$20,197.51 |
| 1987 | 21.50 | \$208,776.50 | 38.00 | 16.59 | 0.6678 | 1.0000 | \$139,421.75 | \$8,406.00 |
| 1986 | 22.50 | \$743,795.50 | 38.00 | 15.64 | 0.6296 | 1.0000 | \$468,300.66 | \$29,947.56 |
| 1985 | 23.50 | \$285,436.75 | 38.00 | 14.71 | 0.5922 | 1.0000 | \$169,024.55 | \$11,492.58 |
| 1984 | 24.50 | \$127,749.47 | 38.00 | 13.80 | 0.5558 | 1.0000 | \$71,002.33 | \$5,143.60 |
| 1983 | 25.50 | \$463,341.68 | 38.00 | 12.93 | 0.5206 | 1.0000 | \$241,197.64 | \$18,655.60 |
| 1982 | 26.50 | \$1,153,231.59 | 38.00 | 12.09 | 0.4866 | 1.0000 | \$561,210.07 | \$46,432:75 |
| 1981 | 27.50 | \$792,082.06 | 38.00 | 11.28 | 0.4544 | 1.0000 | \$359,891.97 | \$31,891.73 |
| 1980 | 28.50 | \$905,098.61 | 38.00 | 10.52 | 0.4236 | 1.0000 | \$383,384.82 | \$36,442.13 |
| 1979 | 29.50 | \$148,279.51 | 38.00 | 9.80 | 0.3944 | 1.0000 | \$58,488.54 | \$5,970.20 |
| 1978 | 30.50 | \$351,438.34 | 38.00 | 9.12 | 0.3672 | 1.0000 | \$129,061.82 | \$14,150.02 |
| 1977 | 31.50 | \$313,258.24 | 38.00 | 8.48 | 0.3416 | 1.0000 | \$107,015.31 | \$12,612.77 |
| 1976 | 32.50 | \$372,123.11 | 38.00 | 7.89 | 0.3177 | 1.0000 | \$118,216.15 | \$14,982.85 |

Account: KEPCo 101/6 355 -KY


Dispersion: 38.00 - $\mathbf{S 4}$
rage Net Salvage Rate: $\quad-53.00 \%$
, uture Net Salvage Rate: $\quad-53.00 \%$
Broad Group Procedure
January 1, 2009

| Vintage | Age | Surviving Plant | Avg Life | Remaining Life | Net Plant Ratio | Alloc Factor | Computed Net Plant | Accrual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1975 | 33.50 | \$312,176.72 | 38.00 | 7.34 | 0.2956 | 1.0000 | \$92,280.05 | \$12,569.22 |
| 1974 | 34.50 | \$241,474.61 | 38.00 | 6.83 | 0.2750 | 1.0000 | \$66,398.82 | \$9,722.53 |
| 1973 | 35.50 | \$81,656.47 | 38.00 | 6.36 | 0.2560 | 1.0000 | \$20,900.30 | \$3,287.75 |
| 1972 | 36.50 | \$91,501.36 | 38.00 | 5.92 | 0.2383 | 1.0000 | \$21,804.72 | \$3,684.13 |
| 1971 | 37.50 | \$128,825.29 | 38.00 | 5.51 | 0.2220 | 1.0000 | \$28,596.66 | \$5,186.91 |
| 1970 | 38.50 | \$2,508.69 | 38.00 | 5.14 | 0.2069 | 1.0000 | \$519.04 | \$101.01 |
| 1969 | 39.50 | \$138,094.05 | 38.00 | 4.79 | 0.1930 | 1.0000 | \$26,645.94 | \$5,560.10 |
| 1968 | 40.50 | \$88,227.81 | 38.00 | 4.47 | 0.1801 | 1.0000 | \$15,891.13 | \$3,552.33 |
| 1967 | 41.50 | \$132,778.29 | 38.00 | 4.17 | 0.1681 | 1.0000 | \$22,315.13 | \$5,346.07 |
| 1966 | 42.50 | \$171,556.34 | 38.00 | 3.90 | 0.1570 | 1.0000 | \$26,938.13 | \$6,907.40 |
| 1965 | 43.50 | \$122,947.01 | 38.00 | 3.64 | 0.1466 | 1.0000 | \$18,024.27 | \$4,950.23 |
| 1964 | 44.50 | \$19,673.57 | 38.00 | 3.40 | 0.1370 | 1.0000 | \$2,695.56 | \$792.12 |
| 1963 | 45.50 | \$5,331.06 | 38.00 | 3.18 | 0.1282 | 1.0000 | \$683.56 | \$214.65 |
| 1962 | 46.50 | \$8,602.44 | 38.00 | 2.97 | 0.1196 | 1.0000 | \$1,029.06 | \$346.36 |
| 1961 | 47.50 | \$4,128.34 | 38.00 | 2.78 | 0.1119 | 1.0000 | \$461.77 | \$166.22 |
| 1960 | 48.50 | \$4,597.83 | 38.00 | 2.60 | 0.1048 | 1.0000 | \$481.88 | \$185.12 |
| 1959 | 49.50 | \$2,970.18 | 38.00 | 2.42 | 0.0975 | 1.0000 | \$289.62 | \$119.59 |
| 1958 | 50.50 | \$897.89 | 38.00 | 2.26 | 0.0912 | 1.0000 | \$81.85 | \$36.15 |
| 1957 | 51.50 | \$233.96 | 38.00 | 2.12 | 0.0856 | 1.0000 | \$20.02 | \$9.42 |
| 1956 | 52.50 | \$665.93 | 38.00 | 1.97 | 0.0792 | 1.0000 | \$52.75 | \$26.81 |
| 1955 | 53.50 | \$89.69 | 38.00 | 1.84 | 0.0741 | 1.0000 | \$6.65 | \$3.61 |
| 1954 | 54.50 | \$767.23 | 38.00 | 1.70 | 0.0684 | 1.0000 | \$52.46 | \$30.89 |
| 1953 | 55.50 | \$165.21 | 38.00 | 1.58 | 0.0635 | 1.0000 | \$10.49 | \$6.65 |
| 1952 | 56.50 | \$13.99 | 38.00 | 1.47 | 0.0593 | 1.0000 | \$0.83 | \$0.56 |
| 1951 | 57.50 | \$3.64 | 38.00 | 1.34 | 0.0540 | 1.0000 | \$0.20 | \$0.15 |
| 1950 | 58.50 | \$1.38 | 38.00 | 1.23 | 0.0495 | 1.0000 | \$0.07 | \$0.06 |
| 1949 | 59.50 | \$2.38 | 38.00 | 1.14 | 0.0457 | 1.0000 | \$0.11 | \$0.10 |
| 1948 | 60.50 | \$0.21 | 38.00 | 0.98 | 0.0393 | 1.0000 | \$0.01 | \$0.01 |
| 1947 | 61.50 | \$0.16 | 38.00 | 0.79 | 0.0319 | 1.0000 | \$0.01 | \$0.01 |
| 1946 | 62.50 | (\$0.21) | 38.00 | 0.29 | 0.0117 | 1.0000 | \$0.00 | (\$0.01) |
| 1945 | 63.50 | (\$0.50) | 38.00 | 0.00 | 0.0000 | 0.0000 | \$0.00 | \$0.00 |
|  |  | \$48,384,843.88 | 38.00 | 26.68 | 1.0741 | 1.0000 | \$51,970,752.59 | \$1,948,126.63 |




Account: KEPCo 101/6 356 - KY
Dispersion: 50.00 - R3
rrage Net Saivage Rate: $-10.00 \%$
.cture Net Salvage Rate: - $\mathbf{- 1 0 . 0 0 \%}$
Broad Group Procedure
January 1, 2009

| Vintage | Age | Surviving Plant | Avg Life | Remaining Life | Net Plant Ratio | Alloc Factor | Computed Net Plant | Accrual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2008 | 0.50 | \$7,615,244.50 | 50.00 | 49.51 | 1.0892 | 1.0000 | \$8,294,251.68 | \$167,535.38 |
| 2007 | 1.50 | \$388,254.50 | 50.00 | 48.53 | 1.0676 | 1.0000 | \$414,482.08 | \$8,541.60 |
| 2006 | 2.50 | \$278,652.50 | 50.00 | 47.54 | 1.0460 | 1.0000 | \$291,466.65 | \$6,130.36 |
| 2005 | 3.50 | \$743,702.50 | 50.00 | 46.57 | 1.0245 | 1.0000 | \$761,911.02 | \$16,361.46 |
| 2004 | 4.50 | \$244,994.50 | 50.00 | 45.59 | 1.0031 | 1.0000 | \$245,744.78 | \$5,389.88 |
| 2003 | 5.50 | \$653,964.50 | 50.00 | 44.62 | 0.9817 | 1.0000 | \$642,002.82 | \$14,387.22 |
| 2002 | 6.50 | \$203,909.50 | 50.00 | 43.66 | 0.9604 | 1.0000 | \$195,844.72 | \$4,486.01 |
| 2001 | 7.50 | \$1,212,537.50 | 50.00 | 42.69 | 0.9393 | 1.0000 | \$1,138,910.72 | \$26,675.83 |
| 2000 | 8.50 | \$1,907,562.50 | 50.00 | 41.74 | 0.9182 | 1.0000 | \$1,751,546.66 | \$41,966.38 |
| 1999 | 9.50 | \$11,988,969.50 | 50.00 | 40.78 | 0.8973 | 1.0000 | \$10,757,136.58 | \$263,757.33 |
| 1998 | 10.50 | \$4,941,737.50 | 50.00 | 39.84 | 0.8764 | 1.0000 | \$4,330,963.08 | \$108,718.23 |
| 1997 | 11.50 | \$712,207.50 | 50.00 | 38.89 | 0.8557 | 1.0000 | \$609,421.76 | \$15,668.57 |
| 1996 | 12.50 | \$1,377,964.50 | 50.00 | 37.96 | 0.8351 | 1.0000 | \$1,150,722.99 | \$30,315.22 |
| 1995 | 13.50 | \$1,023,703.50 | 50.00 | 37.03 | 0.8146 | 1.0000 | \$833,951.29 | \$22,521.48 |
| 1994 | 14.50 | \$3,258,061.50 | 50.00 | 36.11 | 0.7943 | 1.0000 | \$2,588,002.07 | \$71,677.35 |
| 1993 | 15.50 | \$1,695,512.50 | 50.00 | 35.19 | 0.7742 | 1.0000 | \$1,312,643.52 | \$37,301.28 |
| 1992 | 16.50 | \$2,241,118.50 | 50.00 | 34.28 | 0.7542 | 1.0000 | \$1,690,241.08 | \$49,304.61 |
| 1991 | 17.50 | \$704,245.50 | 50.00 | 33.38 | 0.7344 | 1.0000 | \$517,181.97 | \$15,493.40 |
| 1990 | 18.50 | \$430,845.50 | 50.00 | 32.49 | 0.7147 | 1.0000 | \$307,938.59 | \$9,478.60 |
| 1989 | 19.50 | \$273,872.50 | 50.00 | 31.60 | 0.6953 | 1.0000 | \$190,414.78 | \$6,025.20 |
| 1988 | 20.50 | \$187,297.50 | 50.00 | 30.73 | 0.6760 | 1.0000 | \$126,611.68 | \$4,120.55 |
| 1987 | 21.50 | \$131,020.50 | 50.00 | 29.86 | 0.6569 | 1.0000 | \$86,068.31 | \$2,882.45 |
| 1986 | 22.50 | \$838,491.50 | 50.00 | 29.00 | 0.6380 | 1.0000 | \$534,981.40 | \$18,446.81 |
| 1985 | 23.50 | \$46,009,402.50 | 50.00 | 28.15 | 0.6194 | 1.0000 | \$28,495,959.87 | \$1,012,206.86 |
| 1984 | 24.50 | \$171,899.50 | 50.00 | 27.31 | 0.6009 | 1.0000 | \$103,291.28 | \$3,781.79 |
| 1983 | 25.50 | \$42,428.50 | 50.00 | 26.48 | 0.5826 | 1.0000 | \$24,720.04 | \$933.43 |
| 1982 | 26.50 | \$1,827,109.50 | 50.00 | 25.66 | 0.5646 | 1.0000 | \$1,031,566.37 | \$40,196.41 |
| 1981 | 27.50 | \$694,030.50 | 50.00 | 24.85 | 0.5468 | 1.0000 | \$379,479.57 | \$15,268.67 |
| 1980 | 28.50 | \$452,257.50 | 50.00 | 24.05 | 0.5292 | 1.0000 | \$239,332.05 | \$9,949.67 |
| 1979 | 29.50 | \$91,746.50 | 50.00 | 23.27 | 0.5118 | 1.0000 | \$46,960.09 | \$2,018.42 |
| 1978 | 30.50 | \$2,009,798.50 | 50.00 | 22.49 | 0.4947 | 1.0000 | \$994,329.66 | \$44,215.57 |
| 1977 | 31.50 | \$512,195.50 | 50.00 | 21.72 | 0.4779 | 1.0000 | \$244,765.93 | \$11,268.30 |
| 1976 | 32.50 | \$229,904.50 | 50.00 | 20.97 | 0.4613 | 1.0000 | \$106,046.72 | \$5,057.90 |



Account: KEPCo 101/6 $356-\mathrm{KY}$
Dispersion: 50.00 - R3
age Net Salvage Rate: $-10.00 \%$

- wure Net Salvage Rate: -10.00\%

Broad Group Procedure
January 1, 2009

| Vintage | Age | Surviving Plant | Avg Life | Remaining <br> Life | Net Plant Ratio | Alloc Factor | Computed Net Plant | Accrual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1975 | 33.50 | \$299,105.50 | 50.00 | 20.22 | 0.4449 | 1.0000 | \$133,075.88 | \$6,580.32 |
| 1974 | 34.50 | \$44,958.50 | 50.00 | 19.49 | 0.4288 | 1.0000 | \$19,279.72 | \$989.09 |
| 1973 | 35.50 | \$72,762.50 | 50.00 | 18.77 | 0.4130 | 1.0000 | \$30,052.98 | \$1,600.78 |
| 1972 | 36.50 | \$157,861.81 | 50.00 | 18.07 | 0.3975 | 1.0000 | \$62,751.43 | \$3,472.96 |
| 1971 | 37.50 | \$1,122,122.22 | 50.00 | 17.38 | 0.3823 | 1.0000 | \$428,976.77 | \$24,686.69 |
| 1970 | 38.50 | \$7,947,927.28 | 50.00 | 16.70 | 0.3674 | 1.0000 | \$2,919,924.24 | \$174,854.40 |
| 1969 | 39.50 | \$288,834.50 | 50.00 | 16.04 | 0.3528 | 1.0000 | \$101,899,45 | \$6,354.36 |
| 1968 | 40.50 | \$1,119,779.77 | 50.00 | 15.39 | 0.3385 | 1.0000 | \$379,090.79 | \$24,635.15 |
| 1967 | 41.50 | \$560,424.38 | 50.00 | 14.76 | 0.3246 | 1.0000 | \$181,932.46 | \$12,329.34 |
| 1966 | 42.50 | \$205,979.56 | 50.00 | 14.14. | 0.3111 | 1.0000 | \$64,077.74 | \$4,531.55 |
| 1965 | 43.50 | \$638,407.23 | 50.00 | 13.54 | 0.2979 | 1.0000 | \$190,189.41 | \$14,044.96 |
| 1964 | 44.50 | \$273,778.14 | 50.00 | 12.96 | 0.2851 | 1.0000 | \$78,059.40 | \$6,023.12 |
| 1963 | 45.50 | \$411,321.74 | 50.00 | 12.40 | 0.2727 | 1.0000 | \$112,176.14 | \$9,049.08 |
| 1962 | 46.50 | \$89,598.87 | 50.00 | 11.85 | 0.2607 | 1.0000 | \$23,360.98 | \$1,971.18 |
| 1961 | 47.50 | \$26,341.04 | 50.00 | 11.32 | 0.2491 | 1.0000 | \$6,562.65 | \$579.50 |
| 1960 | 48.50 | \$24,116.18 | 50.00 | 10.82 | 0.2380 | 1.0000 | \$5,739.06 | \$530.56 |
| 1959 | 49.50 | \$136,892.80 | 50.00 | 10.33 | 0.2272 | 1.0000 | \$31,105.53 | \$3,011.64 |
| 1958 | 50.50 | \$231,532.24 | 50.00 | 9.86 | 0.2169 | 1.0000 | \$50,218.99 | \$5,093.71 |
| 1957 | 51.50 | \$5,797.10 | 50.00 | 9.41 | 0.2070 | 1.0000 | \$1,199.94 | \$127.54 |
| 1956 | 52.50 | \$23,397.09 | 50.00 | 8.98 | 0.1975 | 1.0000 | \$4,620.80 | \$514.74 |
| 1955 | 53.50 | \$2,273.53 | 50.00 | 8.56 | 0.1884 | 1.0000 | \$428.35 | \$50.02 |
| 1954 | 54.50 | \$156,809.32 | 50.00 | 8.17 | 0.1797 | 1.0000 | \$28,181.81 | \$3,449.81 |
| 1953 | 55.50 | \$29,049.83 | 50.00 | 7.79 | 0.1714 | 1.0000 | \$4,979.52 | \$639.10 |
| 1952 | 56.50 | \$6,277.17 | 50.00 | 7.43 | 0.1635 | 1.0000 | \$1,026.17 | \$138.10 |
| 1951 | 57.50 | \$5,129.69 | 50.00 | 7.09 | 0.1559 | 1.0000 | \$799.68 | \$112.85 |
| 1950 | 58.50 | \$1,573.06 | 50.00 | 6.76 | 0.1486 | 1.0000 | \$233.80 | \$34.61 |
| 1949 | 59.50 | \$19,809.74 | 50.00 | 6.44 | 0.1417 | 1.0000 | \$2,806.33 | \$435.81 |
| 1948 | 60.50 | \$4,149.85 | 50.00 | 6.14 | 0.1350 | 1.0000 | \$560.15 | \$91.30 |
| 1947 | 61.50 | \$2,876.48 | 50.00 | 5.84 | 0.1285 | 1.0000 | \$369.73 | \$63.28 |
| 1946 | 62.50 | \$1,300.51 | 50.00 | 5.56 | 0.1223 | 1.0000 | \$159.06 | \$28.61 |
| 1945 | 63.50 | \$5,274.13 | 50.00 | 5.28 | 0.1162 | 1.0000 | \$613.09 | \$116.03 |
| 1944 | 64.50 | \$890.54 | 50.00 | 5.01 | 0.1103 | 1.0000 | \$98.25 | \$19.59 |
| 1943 | 65.50 | \$716.11 | 50.00 | 4.75 | 0.1045 | 1.0000 | \$74.85 | \$15.75 |

Account: KEPCo 101/6 356 -KY
Dispersion: 50.00 -R3
age Net Salvage Rate: $-10.00 \%$
. cure Net Salvage Rate: -10.00\%
Broad Group Procedure
January 1, 2009

| Vintage | Age | Surviving Plant | Avg Life | Remaining Life | Net Plant Ratio | Alloc <br> Factor | Computed Net Plant | Accrual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1942 | 66.50 | \$46,102.67 | 50.00 | 4.49 | 0.0988 | 1.0000 | \$4,554.68 | \$1,014.26 |
| 1941 | 67.50 | \$676.35 | 50.00 | 4.23 | 0.0931 | 1.0000 | \$62.98 | \$14.88 |
| 1940 | 68.50 | \$8,726.26 | 50.00 | 3.98 | 0.0875 | 1.0000 | \$763.21 | \$191.98 |
| 1939 | 69.50 | \$34.10 | 50.00 | 3.72 | 0.0818 | 1.0000 | \$2.79 | \$0.75 |
| 1938 | 70.50 | \$7,452.94 | 50.00 | 3.46 | 0.0762 | 1.0000 | \$567.79 | \$163.96 |
| 1937 | 71.50 | \$405.52 | 50.00 | 3.21 | 0.0705 | 1.0000 | \$28.61 | \$8.92 |
| 1936 | 72.50 | \$358.49 | 50.00 | 2.95 | 0.0649 | 1.0000 | \$23.27 | \$7.89 |
| 1935 | 73.50 | \$36.94 | 50.00 | 2.70 | 0.0593 | 1.0000 | \$2.19 | \$0.81 |
| 1934 | 74.50 | \$44.60 | 50.00 | 2.44 | 0.0538 | 1.0000 | \$2.40 | \$0.98 |
| 1933 | 75.50 | \$24.60 | 50.00 | 2.19 | 0.0483 | 1.0000 | \$1.19 | \$0.54 |
| 1932 | 76.50 | \$21.80 | 50.00 | 1.95 | 0.0428 | 1.0000 | \$0.93 | \$0.48 |
| 1931 | 77.50 | \$14.41 | 50.00 | 1.71 | 0.0375 | 1.0000 | \$0.54 | \$0.32 |
| 1930 | 78.50 | \$18.70 | 50.00 | 1.47 | 0.0323 | 1.0000 | \$0.60 | \$0.41 |
| 1929 | 79.50 | \$34.80 | 50.00 | 1.24 | 0.0273 | 1.0000 | \$0.95 | \$0.77 |
| 1928 | 80.50 | \$3.87 | 50.00 | 1.02 | 0.0224 | 1.0000 | \$0.09 | \$0.09 |
| 1927 | 81.50 | \$2.05 | 50.00 | 0.81 | 0.0177 | 1.0000 | \$0.04 | \$0.05 |
| 1926 | 82.50 | \$0.77 | 50.00 | 0.60 | 0.0132 | 1.0000 | \$0.01 | \$0.02 |
| 1925 | 83.50 | \$0.01 | 50.00 | 0.25 | 0.0055 | 1.0000 | \$0.00 | \$0.00 |
| 1924 | 84.50 | (\$0.50) | 50.00 | 0.00 | 0.0000 | 0.0000 | \$0.00 | \$0.00 |
|  |  | \$109,075,670.29 | 50.00 | 31.38 | 0.6904 | 1.0000 | \$75,309,529.20 | \$2,399,664.76 |



Account: KEPCo 101/6 357 -KY
Dispersion: 37.00 - R2
rage Net Salvage Rate: $\quad 0.00 \%$
. sture Net Salvage Rate: $0.00 \%$
Broad Group Procedure
January 1, 2009

| Vintage | Age | Surviving Plant | Avg Life | Remaining Life | Net Plant Ratio | Alloc Factor | Computed Net Plant | Accrual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1997 | 11.50 | \$11,590.50 | 37.00 | 27.07 | 0.7317 | 1.0000 | \$8,481.15 | \$313.26 |
|  |  | \$11,590.50 | 37.00 | 27.07 | 0.7317 | 1.0000 | \$8,481.15 | \$313.26 |

## Depreciation Reserve Summary

Account: KEPCo 101/6 $358-\mathrm{KY}$
Scenario: KEPCO TRANSAISSION 2008 NEW
nispersion: $\quad 44-\mathrm{R1}$

| rage Net Salvage Rate: $\quad 0.00 \%$ |
| :--- | :--- |
| Future Net Salvage Rate: $\quad 0.00 \%$ |

Broad Group Procedure
January 1, 2009

|  | Plant Amt | Depreciation Reserve |  | Net Plant |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Amount | Ratio | Amount | Ratio |
| Recorded | \$106,066.50 | \$25,908.95 | 0.2443 | \$80,157.55 | 0.7557 |
| Computed | \$106,066.50 | \$42,219.85 | 0.3981 | \$63,846.65 | 0.6019 |
| Difference |  | (\$16,310.90) | -0.1538 | \$16,310.90 | 0.1538 |

Account: KEPCo 101/6 358 -KY
Dispersion: 44.00 - R1
rage Net Salvage Rate: $\quad 0.00 \%$
Future Net Salvage Rate: $\quad 0.00 \%$
Broad Group Procedure
January 1, 2009

| Vintage | Age | Surviving <br> Plant | Avg Life | Remaining <br> Life | Net Plant <br> Ratio | Alloc <br> Factor | Computed <br> Net Plant | Accrual |
| :--- | ---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1983 | 25.50 | $\$ 106,066.50$ | 44.00 | 26.49 | 0.6019 | 1.0000 | $\$ 63,846.65$ | $\$ 2,410.60$ |

$$
P_{\text {rage }} 138 \text { of } 350
$$

# KENTUCKY POWER COMPANY <br> DEPRECIATION STUDY AS OF 12-31-08 <br> DISTRIBUTION PLANT WORKPAPERS 

LITE ANALYSIS

KENTUCKY POWER COMPANY
Depreciation Study as of December 31, 2008
Distribution Plant

| Account | 3602 | LAND RIGHTS |
| :--- | :---: | :---: |
| Depreciable Balance | $\$ 4,178,635$ |  |
|  | Current | Recommended |
| Average Service Life (Yrs) | 75 | 75 |
| Iowa Curve | R4.0 | R4.0 |
| Gross Removal, \% |  | $0 \%$ |
| Gross Salvage, \% |  | $0 \%$ |
| Net Salvage \% | $0 \%$ | $0 \%$ |

No actuarial analysis was performed for the investment in this account due to the minimal retirement history. The recommendation is to continue the current current average service life and dispersion.

No removal cost or salvage is expected from retirements from this account.

## KENTUCKY POWER COMPANY

## Depreciation Study as of December 31, 2008

Distribution Plant

| Account | 361 STRUCTURES \& IMPROVEMENTS |  |
| :--- | :---: | :---: |
| Depreciable Balance | $\$ 4,273,118$ |  |
|  | Current | Recommended |
| Average Service Life (Yrs) | 65 | 75 |
| Iowa Curve | LO.5 | L2.0 |
| Gross Removal, \% |  | $5 \%$ |
| Gross Salvage, \% |  | $15 \%$ |
| Net Salvage \% | $0 \%$ | $10 \%$ |

The actuarial analyses indicated the average service life for the investment in this account is increasing. Based on the analysis of the 40 year band, the recommendation is to move to a 75 year average service life following an L2.0 type retirement dispersion.

Removal costs would be expected from the removal and replacement of retirment units in this account. Salvage would likely be received from the scrap materials removed or replaced.

Account: KEPCo 101/6 361 - KY Scenario: KEPCO DISTRIBUTION 2008
a Actual Data

- 1274.78



## Actuarial Life Analysis

| Account: <br> Scenario: | KEPCo 101/6 361 - KY |  |  |  |  | $42$ | 06 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| acement Ba | 191 | -2008 |  |  |  |  |  |
| unction: S Weighting: | orship eighted | Annual Rat |  |  |  |  |  |
| T-Cut: |  |  |  |  |  |  |  |
| Observation | Cen |  | Error Sum |  |  |  |  |
| Band | Age | Percent | of Squares | Disp | ASL |  |  |
| 1969-2008 | 93.5 | 35.02 | 0.32561113 | L2 | 74.78 |  |  |

Scenario: KEPCO DISTRIBUTION 2008
Account: KEPCo 101/6 361 - KY 'acement Band: 1915 -2008

Page 143 ot 350

Age 0.0 0.5

## 1.5

## 2.5

3.5
4.5
5.5
6.5
7.5
8.5 9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5 19.5 20.5 21.5 22.5 23.5 25.5 26.5
27.5 28.5 29.5 30.5
31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5 39.5

40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5 49.5 50.5 51.5 52.5 53.5 | 77.94 |
| :--- | 77.94

72.55
Scenario: KEPCO DISTRIBUTION 2008
Account: KEPCo 101/6 361 - KY cement Band: 1915-2008 Observation Band: 1969-2008

| Age | Actual | L274.78 |
| :---: | :---: | :---: |
| 54.5 | 77.57 | 71.55 |
| 55.5 | 77.06 | 69.53 |
| 56.5 | 76.75 | 68.52 |
| 57.5 | 76.60 | 67.50 |
| 58.5 | 74.89 | 65.46 |
| 59.5 | 74.89 | 64.44 |
| 60.5 | 74.75 | 63.42 |
| 61.5 | 65.02 | 61.39 |
| 62.5 | 63.39 | 60.38 |
| 63.5 | 63.39 | 59.37 |
| 64.5 | 62.33 | 57.37 |
| 65.5 | 62.33 | 56.38 |
| 66.5 | 62.33 | 55.39 |
| 67.5 | 35.02 | 53.45 |
| 68.5 | 35.02 | 52.49 |
| 69.5 | 35.02 | 51.53 |
| 70.5 | 35.02 | 49.66 |
| 71.5 | 35.02 | 48.74 |
| 72.5 | 35.02 | 47.82 |
| 73.5 | 35.02 | 46.03 |
| 74.5 | 35.02 | 45.15 |
| 75.5 | 35.02 | 44.28 |
| 76.5 | 35.02 | 42.57 |
| 77.5 | 35.02 | 41.73 |
| 78.5 | 35.02 | 40.91 |
| 79.5 | 35.02 | 39.29 |
| 80.5 | 35.02 | 38.50 |
| 81.5 | 35.02 | 37.72 |
| 82.5 | 35.02 | 36.19 |
| 83.5 | 35.02 | 35.45 |
| 84.5 | 35.02 | 34.71 |
| 85.5 | 35.02 | 33.27 |
| 86.5 | 35.02 | 32.57 |
| 87.5 | 35.02 | 31.20 |
| 88.5 | 35.02 | 30.53 |
| 89.5 | 35.02 | 29.87 |
| 90.5 | 35.02 | 28.58 |
| 91.5 | 35.02 | 27.95 |
| 92.5 | 35.02 | 27.33 |
| 93.5 | 35.02 | 26.12 |

Observed Life Table
Scenario: KEPCO DISTRIBUTION 2008
Account: KEPCo 101/6 361 - KY
icement Band: 1915-2008

| Age at Beginning of Interval | Exposures at Beginning of Interval | Retirements During Interval | Retirment Ratio | Survivor Ratio | Percent Surv at Beginning of Interval |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 4,246,979.32 | 0.00 | 0.00000 | 1.00000 | 100.00 |
| 0.5 | 4,151,022.10 | 1,747.00 | 0.00042 | 0.99958 | 100.00 |
| 1.5 | 4,170,137.10 | 1,155.00 | 0.00028 | 0.99972 | 99.96 |
| 2.5 | 4,200,776.10 | 3,479.00 | 0.00083 | 0.99917 | 99.93 |
| 3.5 | 4,190,894.95 | 3,444.00 | 0.00082 | 0.99918 | 99.85 |
| 4.5 | 4,193,737,95 | 1,793.00 | 0.00043 | 0.99957 | 99.77 |
| 5.5 | 3,801,487.04 | 9,431.00 | 0.00248 | 0.99752 | 99.73 |
| 6.5 | 3,753,732.32 | 17,098.00 | 0.00455 | 0.99545 | 99.48 |
| 7.5 | 3,732,107.78 | 853.00 | 0.00023 | 0.99977 | 99.03 |
| 8.5 | 3,630,793.58 | 40,022.00 | 0.01102 | 0.98898 | 99.01 |
| 9.5 | 3,203,761.73 | 1,662.00 | 0.00052 | 0.99948 | 97.92 |
| 10.5 | 3,175,203.70 | 1,676.00 | 0.00053 | 0.99947 | 97.87 |
| 11.5 | 3,114,285.70 | 1,008.00 | 0.00032 | 0.99968 | 97.82 |
| 12.5 | 3,087,145.70 | 1,550.00 | 0.00050 | 0.99950 | 97.79 |
| 13.5 | 2,481,939.70 | 1,888.00 | 0.00076 | 0.99924 | 97.74 |
| 14.5 | 2,381,075.70 | 402.00 | 0.00017 | 0.99983 | 97.67 |
| 15.5 | 2,135,258.70 | 2,252.00 | 0.00105 | 0.99895 | 97.65 |
| 16.5 | 2,029,772.70 | 9,268.00 | 0.00457 | 0.99543 | 97.55 |
| 17.5 | 1,680,469.70 | 193.00 | 0.00011 | 0.99989 | 97.10 |
| 18.5 | 1,651,785.70 | 1,357.00 | 0.00082 | 0.99918 | 97.09 |
| 19.5 | 1,621,326.70 | 106.00 | 0.00007 | 0.99993 | 97.01 |
| 20.5 | 1,591,956.70 | 2,211.00 | 0.00139 | 0.99861 | 97.00 |
| 21.5 | 1,464,363.70 | 21,325.00 | 0.01456 | 0.98544 | 96.87 |
| 22.5 | 1,295,002.70 | 158.00 | 0.00012 | 0.99988 | 95.46 |
| 23.5 | 1,176,707.70 | 13,13000 | 0.01116 | 0.98884 | 95.45 |
| 24.5 | 1,153,074.70 | 4,779.00 | 0.00414 | 0.99586 | 94.38 |
| 25.5 | 1,142,914.70 | 244.00 | 0.00021 | 0.99979 | 93.99 |
| 26.5 | 1,081,255.70 | 1,363.00 | 0.00126 | 0.99874 | 93.97 |
| 27.5 | 987,192.70 | 3,194.00 | 0.00324 | 0.99676 | 93.85 |
| 28.5 | 616,734.70 | 2,550.00 | 0.00413 | 0.99587 | 93.55 |
| 29.5 | 609,393.70 | 726.00 | 0.00119 | 0.99881 | 93.16 |
| 30.5 | 601,390.74 | 491.00 | 0.00082 | 0.99918 | 93.05 |
| 31.5 | 517,234.74 | 1,985,00 | 0.00384 | 0.99616 | 92.97 |
| 32.5 | 491,388.74 | 2,658.00 | 0.00541 | 0.99459 | 92.61 |
| 33.5 | 416,026.74 | 2,247.00 | 0.00540 | 0.99460 | 92.11 |
| 34.5 | 350,914.74 | 787.00 | 0.00224 | 099776 | 91.61 |
| 35.5 | 306,309.74 | 873.00 | 0.00285 | 0.99715 | 91.40 |
| 36.5 | 255,642.74 | 2,94500 | 0.01152 | 0.98848 | 91.14 |
| 37.5 | 193,004.74 | 3,124.00 | 0.01619 | 0.98381 | 90.09 |
| 38.5 | 176,623.74 | 1,141.00 | 0.00646 | 0.99354 | 88.63 |
| 39.5 | 169,469.74 | 200.00 | 0.00118 | 0.99882 | 88.06 |
| 40.5 | 149,621.74 | 53.00 | 0.00035 | 0.99965 | 87.96 |
| 41.5 | 136,485.74 | 2,100.00 | 0.01539 | 0.98461 | 87.93 |
| 42.5 | 103,289.74 | 306.00 | 0.00296 | 0.99704 | 86.58 |
| 43.5 | 101,171.04 | 0.00 | 0.00000 | 1.00000 | 86.32 |
| 44.5 | 100,676.04 | 1,679.00 | 0.01668 | 0.98332 | 86.32 |
| 45.5 | 100,216.04 | 0.00 | 0.00000 | 1.00000 | 84.88 |
| 46.5 | 100,026.04 | 423.00 | 0.00423 | 0.99577 | 84.88 |
| 47.5 | 98,018.04 | 1,36200 | 0.01390 | 0.98610 | 84.52 |
| 48.5 | $96,365.04$ | 22500 | 0.00233 | 0.99767 | 83.35 |
| 49.5 | 96,383.04 | 2,991.00 | 0.03103 | 0.96897 | 83.16 |
| 50.5 | 94,244.04 | 3,077.00 | 0.03265 | 0.96735 | 80.58 |
| 51.5 | 84,811.04 | 0.00 | 0.00000 | 1.00000 | 77.95 |
| 52.5 | 79,657.04 | 0.00 | 0.00000 | 1.00000 | 77.95 |

Account: KEPCo 101/6 361 - KY
'acement Band: 1915-2008

| Age at <br> Beginning <br> of Interval | Exposures <br> at Beginning <br> of Interval | Retirements <br> During <br> Interval | Retirment <br> Ratio | Survivor <br> Ratio | Percent Surv <br> at Beginning <br> of Interval |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 53.5 | $79,039.04$ | 370.37 | 0.00468 | 0.99532 | 77.95 |
| 54.5 | $73,762.67$ | 483.00 | 0.00655 | 0.99345 | 77.59 |
| 55.5 | $63,964.67$ | 261.00 | 0.00408 | 0.99592 | 77.08 |
| 56.5 | $59,221.67$ | 111.00 | 0.00187 | 0.99813 | 76.77 |
| 57.5 | $56,244.67$ | $1,262.00$ | 0.02244 | 0.97756 | 76.63 |
| 58.5 | $51,211.04$ | 0.00 | 0.00000 | 1.00000 | 74.91 |
| 59.5 | $47,349.04$ | 83.00 | 0.00175 | 0.99825 | 74.91 |
| 60.5 | $42,092.04$ | $5,484.00$ | 0.13029 | 0.86971 | 74.78 |
| 61.5 | $34,100.04$ | 852.00 | 0.02499 | 0.97501 | 65.04 |
| 62.5 | $33,206.04$ | 0.00 | 0.00000 | 1.00000 | 63.41 |
| 63.5 | $32,260.04$ | 540.00 | 0.01674 | 0.98326 | 63.41 |
| 64.5 | $31,720.04$ | 0.00 | 0.00000 | 1.00000 | 62.35 |
| 65.5 | $30,048.04$ | 0.00 | 0.00000 | 1.00000 | 62.35 |
| 66.5 | $29,071.04$ | $12,737.00$ | 0.43813 | 0.56187 | 62.35 |
| 67.5 | $16,194.04$ | 0.00 | 0.00000 | 1.00000 | 35.03 |
| 68.5 | $12,655.04$ | 0.00 | 0.00000 | 1.00000 | 35.03 |
| 69.5 | $12,655.04$ | 0.00 | 0.00000 | 1.00000 | 35.03 |
| 70.5 | 0.00 | 0.00 | 0.00000 | 1.00000 | 35.03 |

$$
\text { Page } 147 \text { of } 350
$$

Account: KEPCo 101/6 361 - KY Scenario: KEPCO DISTRIBUTION 2008
4 Actual Data
■ L2 88.45
マ $L 274.78$


## Actuarial Life Analysis



Observed Life Table
Scenario: KEPCO DISTRIBUTION 2008


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Account: KEPCo 101/6 361 - KY
'acement Band: 1915-2008

| Age at Beginning of interval | Exposures at Beginning of Interval | Retirements During Interval | Retirment Ratio | Survivor Ratio | Percent Sur at Beginning of Interval |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 2,737,953.32 | 0.00 | 0.00000 | 1.00000 | 100.00 |
| 0.5 | 2,653,484.10 | 234.00 | 0.00009 | 0.99991 | 100.00 |
| 1.5 | 2,781,948.10 | 448.00 | 0.00016 | 0.99984 | 99.99 |
| 2.5 | 2,929,705.10 | 829.00 | 0.00028 | 0.99972 | 99.97 |
| 3.5 | 3,040,132.25 | 2,497.00 | 0.00082 | 0.99918 | 99.94 |
| 4.5 | 3,048,138.25 | 1,793.00 | 0.00059 | 0.99941 | 99.86 |
| 5.5 | 2,657,614.34 | 7,015.00 | 0.00264 | 0.99736 | 99.80 |
| 6.5 | 2,674,550.62 | 6,923.00 | 0.00259 | 0.99741 | 99.54 |
| 7.5 | 2,754,921.08 | 408.00 | 0.00015 | 0.99985 | 9928 |
| 8.5 | 3,031,509.88 | 40,011.00 | 0.01320 | 0.98680 | 99.27 |
| 9.5 | 2,611,749.03 | 837.00 | 0.00032 | 0.99968 | 97.96 |
| 10.5 | 2,624,916.00 | 1,563.00 | 0.00060 | 0.99940 | 97.93 |
| 11.5 | 2,639,490.00 | 808.00 | 0.00031 | 0.99969 | 97.87 |
| 12.5 | 2,628,438.00 | 156.00 | 0.00006 | 0.99994 | 97.84 |
| 13.5 | 2,096,381.00 | 0.00 | 0.00000 | 1.00000 | 97.83 |
| 14.5 | 2,063,729,00 | 0.00 | 0.00000 | 1.00000 | 97.83 |
| 15.5 | 1,854,687,00 | 1,792.00 | 0.00097 | 0.99903 | 97.83 |
| 16.5 | 1,810,935.00 | 432.00 | 0.00024 | 0.99976 | 97.74 |
| 17.5 | 1,526,962.00 | 193.00 | 0.00013 | 0.99987 | 97.72 |
| 18.5 | 1,507,912.00 | 127.00 | 0.00008 | 0.99992 | 97.71 |
| 19.5 | 1,481,479.00 | 106.00 | 0.00007 | 0.99993 | 97.70 |
| 20.5 | 1,468,035.00 | 462.00 | 0.00031 | 0.99969 | 97.69 |
| 21.5 | 1,359,260.00 | 20,039,00 | 001474 | 0.98526 | 97.66 |
| 22.5 | 1,222,603.00 | 80.00 | 0.00007 | 0.99993 | 96.22 |
| 23.5 | 1,105,672.70 | 12,591.00 | 0.01139 | 0.98861 | 96.21 |
| 24.5 | 1,085,045.70 | 4,779.00 | 0.00440 | 0.99560 | 95.11 |
| 25.5 | 1,078,539.70 | 158.00 | 0.00015 | 0.99985 | 94.69 |
| 26.5 | 1,016,106.70 | 1,314.00 | 0.00129 | 0.99871 | 94.68 |
| 27.5 | 924,428.70 | 916.00 | 0.00099 | 0.99901 | 94.56 |
| 28.5 | 550,326.70 | 351.00 | 0.00064 | 0.99936 | 94.47 |
| 29.5 | 544,218.70 | 726.00 | 0.00133 | 0.99867 | 94.41 |
| 30.5 | 501,659.70 | 491.00 | 0.00098 | 0.99902 | 94.28 |
| 315 | 424,059.70 | 1,972.00 | 0.00465 | 0.99535 | 94.19 |
| 32.5 | 403,696.70 | 0.00 | 0.00000 | 1.00000 | 93.75 |
| 33.5 | 331,855.70 | 0.00 | 0.00000 | 1.00000 | 93.75 |
| 34.5 | 273,996.70 | 49.00 | 0.00018 | 0.99982 | 93.75 |
| 35.5 | 238,571.70 | 0.00 | 0.00000 | 1.00000 | 93.73 |
| 36.5 | 193,259.70 | 0.00 | 0.00000 | 1.00000 | 93.73 |
| 37.5 | 135,949.70 | 3,058.00 | 0.02249 | 0.97751 | 93.73 |
| 38.5 | 123,776.70 | 350.00 | 0.00283 | 0.99717 | 91.62 |
| 39.5 | 120,318.70 | 200.00 | 0.00166 | 0.99834 | 91.36 |
| 40.5 | 104,499.70 | 0.00 | 0.00000 | 1.00000 | 91.21 |
| 41.5 | 91,899.70 | 75.00 | 0.00082 | 0.99918 | 91.21 |
| 42.5 | 60,770.70 | 306.00 | 0.00504 | 0.99496 | 91.14 |
| 43.5 | 59,598.00 | 0.00 | 0.00000 | 1.00000 | 90.68 |
| 44.5 | 59,103.00 | 0.00 | 0.00000 | 1.00000 | 90.68 |
| 45.5 | 55,573.00 | 0.00 | 0.00000 | 1.00000 | 90.68 |
| 46.5 | 56,360.00 | 0.00 | 0.00000 | 1.00000 | 90.68 |
| 47.5 | 54,915.00 | 0.00 | 0.00000 | 1.00000 | 90.68 |
| 48.5 | 58,163.00 | 225.00 | 0.00387 | 0.99613 | 90.68 |
| 49.5 | 57,745,00 | 162.00 | 000281 | 0.99719 | 90.33 |
| 50.5 | 86,052.04 | 3,077.00 | 0.03576 | 0.96424 | 90.08 |
| 51.5 | 76,619.04 | 0.00 | 0.00000 | 1.00000 | 86.86 |
| 52.5 | 70,664.04 | 000 | 0.00000 | 1.00000 | 86.86 |

## Observed Life Table

## Scenario: KEPCO DISTRIBUTION 2008

## Account: KEPCo 101/6 361 - KY

'acement Band: 1915-2008

| Age at <br> Beginning <br> of Interval | Exposures <br> at Beginning <br> of Interval | Retirements <br> During <br> Interval | Retirment <br> Ratio | Survivor <br> Ratio | Percent Surv <br> at Beginning <br> of Interval |
| :---: | ---: | ---: | ---: | ---: | ---: |
| 53.5 | $69,963.04$ | 370.37 | 0.00529 | 0.99471 | 86.86 |
| 54.5 | $64,686.67$ | 0.00 | 0.00000 | 1.00000 | 86.40 |
| 55.5 | $55,371.67$ | 0.00 | 0.00000 | 1.00000 | 86.40 |
| 56.5 | $50,889.67$ | 0.00 | 0.00000 | 1.00000 | 86.40 |
| 57.5 | $48,023.67$ | 0.00 | 0.00000 | 1.00000 | 86.40 |
| 58.5 | $44,252.04$ | 0.00 | 0.00000 | 1.00000 | 86.40 |
| 59.5 | $40,390.04$ | 0.00 | 0.00000 | 1.00000 | 86.40 |
| 60.5 | $35,216.04$ | 0.00 | 0.00000 | 1.00000 | 86.40 |
| 61.5 | $32,708.04$ | 0.00 | 0.00000 | 1.00000 | 86.40 |
| 62.5 | $32,666.04$ | 0.00 | 0.00000 | 1.00000 | 86.40 |
| 63.5 | $31,720.04$ | 0.00 | 0.00000 | 1.00000 | 86.40 |
| 64.5 | $31,720.04$ | 0.00 | 0.00000 | 1.00000 | 86.40 |
| 65.5 | $30,048.04$ | 0.00 | 0.00000 | 1.00000 | 86.40 |
| 66.5 | $29,071.04$ | $12,737.00$ | 0.43813 | 0.56187 | 86.40 |
| 67.5 | $16,194.04$ | 0.00 | 0.00000 | 1.00000 | 48.55 |
| 68.5 | $12,655.04$ | 0.00 | 0.00000 | 1.00000 | 48.55 |
| 69.5 | $12,655.04$ | 0.00 | 0.00000 | 1.00000 | 48.55 |
| 70.5 | 0.00 | 0.00 | 0.00000 | 1.00000 | 48.55 |

Surviving Percent Report
Scenario: KEPCO DISTRIBUTION 2008

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Account: KEPCo 101/6 361 -KY
cement Band: $1915-2008$
Observation Band: 1989-2008


## Surviving Percent Report

Scenario: KEPCO DISTRIBUTION 2008 Account: KEPCo 101/6 361 -KY

$$
\prod_{6}=152 \quad 0 \quad 350
$$

cement Band: 1915 - 2008

Observation Band: 1989-2008


$$
P_{\text {age } 153 \text { of }} 550
$$

Account: KEPCo 101/6 361 - KY Scenario: KEPCO DISTRIBUTION 2008

- Actual Data
- LB 91.45
$\nabla L 274.78$



## Actuarial Life Analysis

Account: KEPCo 101/6 361 - KYScenario: KEPCO DISTRIBUTION 2008
zcement Band: 1915 - 2008
. unction: Survivorship Annual Rate Method
Weighting: Unweighted
T-Cut: None

| Observation | Censoring |  | Error Sum of Squares | Best Fit |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Band | Age | Percent |  | Disp | ASL |
| 1999-2008 | 93.5 | 53.99 | 0.60583962 | L3 | 91.45 |

Scenario: KEPCO DISTRIBUTION 2008
Account: KEPCo 101/6 361 -KY
Tlacement Band: 1915-2008 Observation Band: 1999-2008

| Age at Beginning of Interval | Exposures at Beginning of Interval | Retirements During Interval | Retirment Ratio | Survivor Ratio | Percent Surv at Beginning of Interval |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 1,064,766.29 | 0.00 | 0.00000 | 1.00000 | 100.00 |
| 0.5 | 974,413.10 | 0.00 | 0.00000 | 1.00000 | 100.00 |
| 1.5 | 1,042,350.10 | 0.00 | 0.00000 | 1.00000 | 100.00 |
| 2.5 | 1,079,786.10 | 000 | 0.00000 | 1.00000 | 100.00 |
| 3.5 | 1,676,279.25 | 0.00 | 0.00000 | 1.00000 | 100.00 |
| 45 | 1,780,340.25 | 0.00 | 0.00000 | 1.00000 | 100.00 |
| 5.5 | 1,639,286.34 | 5,551.00 | 0.00339 | 0.99661 | 100.00 |
| 6.5 | 1,707,240.62 | 0.00 | 0.00000 | 1.00000 | 99.66 |
| 7.5 | 2,044,400.08 | 45.00 | 0.00002 | 0.99998 | 99.66 |
| 8.5 | 1,976,313.88 | 1,858.00 | 0.00094 | 0.99906 | 99.66 |
| 9.5 | 1,620,567.03 | 523.00 | 0.00032 | 0.99968 | 99.57 |
| 10.5 | 1,624,956.00 | 0.00 | 0.00000 | 1.00000 | 99.54 |
| 11.5 | 1,684,954,00 | 0.00 | 0.00000 | 1.00000 | 99.54 |
| 12.5 | 1,797,581.00 | 0.00 | 0.00000 | 1.00000 | 99.54 |
| 13.5 | 1,312,059.00 | 0.00 | 0.00000 | 1.00000 | 99.54 |
| 14.5 | 1,218,501.00 | 0.00 | 0.00000 | 1.00000 | 99.54 |
| 15.5 | 970,824.00 | 0.00 | 0.00000 | 1.00000 | 99.54 |
| 16.5 | 921,270.00 | 0.00 | 0.00000 | 1.00000 | 99.54 |
| 17.5 | 669,948.00 | 0.00 | 0.00000 | 1.00000 | 99.54 |
| 18.5 | 1,014,554.00 | 0.00 | 0.00000 | 1.00000 | 99.54 |
| 19.5 | 987,130.00 | 0.00 | 0.00000 | 1.00000 | 99.54 |
| 20.5 | 996,222.00 | 0.00 | 0.00000 | 1.00000 | 99.54 |
| 21.5 | 952,361.00 | 364.00 | 0.00038 | 0.99962 | 99.54 |
| 22.5 | 828,713.00 | 0.00 | 0.00000 | 1.00000 | 99.50 |
| 23.5 | 782,334,00 | 0.00 | 0.00000 | 1.00000 | 99.50 |
| 24.5 | 834,696.00 | 3,840.00 | 0.00460 | 0.99540 | 99.50 |
| 25.5 | 868,494.00 | 0.00 | 0.00000 | 1.00000 | 99.04 |
| 26.5 | 855,823.00 | 0.00 | 0.00000 | 1.00000 | 99.04 |
| 27.5 | 823,134.00 | 0.00 | 0.00000 | 1.00000 | 99.04 |
| 28.5 | 462,914.00 | 0.00 | 0.00000 | 1.00000 | 99.04 |
| 29.5 | 464,032.00 | 98.00 | 0.00021 | 0.99979 | 99.04 |
| 30.5 | 439,836.00 | 0.00 | 0.00000 | 1.00000 | 99.02 |
| 31.5 | 371,279.00 | 0.00 | 0.00000 | 1.00000 | 99.02 |
| 32.5 | 377,454.00 | 0.00 | 0.00000 | 1.00000 | 99.02 |
| 33.5 | 306,768.70 | 0.00 | 0.00000 | 1.00000 | 99.02 |
| 34.5 | 244,398.70 | 0.00 | 0.00000 | 1.00000 | 99.02 |
| 35.5 | 204,984.70 | 0.00 | 0.00000 | 1.00000 | 99.02 |
| 36.5 | 155,380.70 | 0.00 | 0.00000 | 1.00000 | 99.02 |
| 37.5 | 96,789.70 | 0.00 | 0.00000 | 1.00000 | 99.02 |
| 38.5 | 83,823.70 | 0.00 | 0.00000 | 1.00000 | 99.02 |
| 39.5 | 77,046.70 | 0.00 | 0.00000 | 1.00000 | 99.02 |
| 40.5 | 56,253.70 | 0.00 | 0.00000 | 1.00000 | 99.02 |
| 41.5 | 47,501.70 | 75.00 | 0.00158 | 0.99842 | 99.02 |
| 42.5 | 22,510.70 | 206.00 | 0.00915 | 0.99085 | 98.86 |
| 43.5 | 21,355.00 | 0.00 | 0.00000 | 1.00000 | 97.96 |
| 44.5 | 25,766.00 | 0.00 | 0.00000 | 1.00000 | 97.96 |
| 45.5 | 29,879.00 | 0.00 | 0.00000 | 1.00000 | 97.96 |
| 46.5 | 34,171.00 | 0.00 | 0.00000 | 1.00000 | 97.96 |
| 47.5 | 35,452 00 | 0.00 | 000000 | 1.00000 | 97.96 |
| 48.5 | 39,303 00 | 225.00 | 0.00572 | 0.99428 | 97.96 |
| 49.5 | 42,747.00 | 162.00 | 0.00379 | 0.99621 | 97.40 |
| 50.5 | 47,759.00 | 0.00 | 0.00000 | 1.00000 | 97.03 |
| 51.5 | 43,911.00 | 0.00 | 0.00000 | 1.00000 | 97.03 |
| 52.5 | 37,998.00 | 0.00 | 0.00000 | 1.00000 | 97.03 |

## Observed Life Table

Scenario: KEPCO DISTRIBUTION 2008
Account: KEPCo 101/6 361 - KY
'acement Band: 1915-2008
Observation Band: 1999-2008

| Age at <br> Beginning <br> of Interval | Exposures <br> at Beginning <br> of Interval | Retirements <br> During <br> Interval | Retirment <br> Ratio | Survivor <br> Ratio | Percent Surv <br> at Beginning <br> of Interval |
| :---: | ---: | :---: | :---: | :---: | :---: |
| 53.5 | $38,243.00$ | 370.37 | 0.00967 | 0.99033 | 97.03 |
| 54.5 | $32,966.63$ | 0.00 | 0.00000 | 1.00000 | 96.09 |
| 55.5 | $25,323.63$ | 0.00 | 0.00000 | 1.00000 | 96.09 |
| 56.5 | $21,818.63$ | 0.00 | 0.00000 | 1.00000 | 96.09 |
| 57.5 | $19,092.63$ | 0.00 | 0.00000 | 1.00000 | 96.09 |
| 58.5 | $18,860.00$ | 0.00 | 0.00000 | 1.00000 | 96.09 |
| 59.5 | $14,998.00$ | 0.00 | 0.00000 | 1.00000 | 96.09 |
| 60.5 | $35,216.04$ | 0.00 | 0.00000 | 1.00000 | 96.09 |
| 61.5 | $32,708.04$ | 0.00 | 0.00000 | 1.00000 | 96.09 |
| 62.5 | $32,666.04$ | 0.00 | 0.00000 | 1.00000 | 96.09 |
| 63.5 | $31,720.04$ | 0.00 | 0.00000 | 1.00000 | 96.09 |
| 645 | $31,720.04$ | 0.00 | 0.00000 | 1.00000 | 96.09 |
| 65.5 | $30,048.04$ | 0.00 | 0.00000 | 1.00000 | 96.09 |
| 66.5 | $29,071.04$ | $12,737.00$ | 0.43813 | 0.56187 | 96.09 |
| 67.5 | $16,194.04$ | 0.00 | 0.00000 | 1.00000 | 53.99 |
| 68.5 | $12,655.04$ | 0.00 | 0.00000 | 1.00000 | 53.99 |
| 69.5 | $12,655.04$ | 0.00 | 0.00000 | 1.00000 | 53.99 |
| 70.5 | 0.00 | 0.00 | 0.00000 | 1.00000 | 53.99 |

Scenario: KEPCO DISTRIBUTION 2008 Page 157
Account: KEPCo 101/6 361 - KY
cement Band: 1915 - 2008


Surviving Percent Report
Scenario: KEPCO DISTRIBUTION 2008
Account: KEPCo 101/6 361 - KY
эcement Band: 1915 - 2008

| Age | Actual | L3 91.45 | L275.00 |
| :---: | :---: | :---: | :---: |
| 54.5 | 96.09 | 91.82 | 71.55 |
| 55.5 | 96.09 | 91.21 | 70.54 |
| 56.5 | 96.09 | 90.57 | 68.52 |
| 57.5 | 96.09 | 89.89 | 67.50 |
| 58.5 | 96.09 | 89.17 | 66.48 |
| 59.5 | 96.09 | 87.60 | 64.44 |
| 60.5 | 96.09 | 86.76 | 63.42 |
| 61.5 | 96.09 | 85.87 | 62.40 |
| 62.5 | 96.09 | 84.94 | 60.38 |
| 63.5 | 96.09 | 83.98 | 59.37 |
| 64.5 | 96.09 | 82.97 | 58.37 |
| 65.5 | 96.09 | 81.92 | 56.38 |
| 66.5 | 96.09 | 80.83 | 55.39 |
| 67.5 | 53.99 | 79.70 | 54.42 |
| 68.5 | 53.99 | 78.54 | 52.49 |
| 69.5 | 53.99 | 77.34 | 51.53 |
| 70.5 | 53.99 | 74.86 | 49.66 |
| 71.5 | 53.99 | 73.57 | 48.74 |
| 72.5 | 53.99 | 72.26 | 47.82 |
| 73.5 | 53.99 | 70.93 | 46.03 |
| 74.5 | 53.99 | 69.58 | 45.15 |
| 75.5 | 53.99 | 68.21 | 44.28 |
| 76.5 | 53.99 | 66.83 | 42.57 |
| 77.5 | 53.99 | 65.43 | 41.73 |
| 78.5 | 53.99 | 64.03 | 40.91 |
| 79.5 | 53.99 | 62.62 | 39.29 |
| 80.5 | 53.99 | 59.81 | 38.50 |
| 81.5 | 53.99 | 58.40 | 37.72 |
| 82.5 | 53.99 | 57.00 | 36.19 |
| 83.5 | 53.99 | 55.61 | 35.45 |
| 84.5 | 53.99 | 54.23 | 34.71 |
| 85.5 | 53.99 | 52.87 | 33.27 |
| 86.5 | 53.99 | 51.51 | 32.57 |
| 87.5 | 53.99 | 50.18 | 31.88 |
| 88.5 | 53.99 | 48.86 | 30.53 |
| 89.5 | 53.99 | 47.57 | 29.87 |
| 90.5 | 53.99 | 46.29 | 29.22 |
| 91.5 | 53.99 | 43.81 | 27.95 |
| 92.5 | 53.99 | 42.61 | 27.33 |
| 93.5 | 53.99 | 41.43 | 26.72 |

KENTUCKY POWER COMPANY
Depreciation Study as of December 31, 2008

## Distribution Plant

| Account | STATION EQUIPMENT |  |
| :--- | :---: | :---: |
| Depreciable Balance | $\$ 48,811,224$ |  |
|  | Current | Recommended |
| Average Service Life (Yrs) | 25 | 32 |
| Iowa Curve | LO.O | R1.0 |
| Gross Removal, \% |  | $25 \%$ |
| Gross Salvage, \% | $25 \%$ | $35 \%$ |
| Net Salvage \% |  | $10 \%$ |

The actuarial analysis of the 40 year band indicated the investment has experienced a complete life cycle. Based on the analysis of the 40 year band, the recommendation is to move to a 32 year average service life following an R1.0 type retirement dispersion.

Removal costs would be expected from labor, machine and transportation cost incurred in the retirement and replacement of equipment. Salvage could be received from the sale of equipment.

$$
P_{r i g c} 160 \text { of } E_{350}
$$

Account: KEPCo 101/6 362 - KY Scenario: KEPCO DISTRIBUTION 2008
$\triangle$ Actual Data a R1 3186


## Actuarial Life Analysis



Observed Lif́e Table
Scenario: KEPCO DISTRIBUTION 2008
Account: KEPCo 101/6 362 - KY
'วcement Band: 1914-2008


Observation Band: 1969-2008



## Surviving Percent Report

Scenario: KEPCO DISTRIBUTION 2008
Account: KEPCo 101/6 362 - KY cement Band: 1914 - 2008

Observation Band: 1969-2008
Page 164 of 350
Scenario: KEPCO DISTRIBUTION 2008
Account: KEPCo 101/6 $362-\mathrm{KY}$
'cement Band: 1914 - 2008

| Age | Actual | Ri 31.86 |
| :---: | :---: | :---: |
| 54.5 | 7.10 | 4.95 |
| 55.5 | 6.95 | 3.93 |
| 56.5 | 6.89 | 3.04 |
| 57.5 | 6.89 | 2.28 |
| 58.5 | 6.89 | 1.65 |
| 59.5 | 5.78 | 1.14 |
| 60.5 | 5.42 | 0.73 |
| 61.5 | 2.68 | 0.33 |
| 62.5 | 1.39 | 0.13 |
| 63.5 | 0.88 | 0.03 |
| 64.5 | 0.15 | 0 |
| 65.5 | 0 | 0 |
| 66.5 | 0 |  |
| 67.5 | 0 |  |
| 68.5 | 0 |  |
| 69.5 | 0 |  |
| 70.5 | 0 |  |
| 71.5 | 0 |  |
| 72.5 | 0 |  |
| 73.5 | 0 |  |
| 74.5 | 0 |  |
| 75.5 | 0 |  |
| 76.5 | 0 |  |
| 77.5 | 0 |  |
| 78.5 | 0 |  |
| 79.5 | 0 |  |
| 80.5 | 0 |  |
| 81.5 | 0 |  |
| 82.5 | 0 |  |
| 83.5 | 0 |  |
| 84.5 | 0 |  |
| 85.5 | 0 |  |
| 86.5 | 0 |  |
| 87.5 | 0 |  |
| 88.5 | 0 |  |
| 89.5 | 0 |  |
| 90.5 | 0 |  |
| 91.5 | 0 |  |
| 92.5 | 0 |  |
| 93.5 | 0 |  |
| 94.5 | 0 |  |
|  | 0 |  |

Account: KEPCo 101/6 362 - KY Scenario: KEPCO DISTRIBUTION 2008

* Actual Data

■ L0.541.66

- R1 31.86


Actuarial Life Analysis


Observed life Table
Scenario: KEPCO DISTRIBUTION 2008
Account: KEPCo 101/6 362 - KY
' 3 cement Band: 1914-2008
Observation Band: 1989-2008

| Age at Beginning of Interval | Exposures at Beginning of Interval | Retirements During Interval | Retiment Ratio | Survivor Ratio | Percent Surv at Beginning of Interval |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 37,957,986.01 | 16,504 00 | 0.00043 | 0.99957 | 100.00 |
| 0.5 | 37,300,146.32 | 51,511.82 | 0.00138 | 0.99862 | 99.96 |
| 1.5 | $36,461,883.03$ | 498,479.23 | 0.01367 | 0.98633 | 99.82 |
| 2.5 | 34,689,274,60 | 267,113.07 | 0.00770 | 0.99230 | 98.46 |
| 3.5 | 31,755,382, 0 | 562,794,43 | 0.01772 | 0.98228 | 97.70 |
| 4.5 | 31,189,687,75 | 334,487,55 | 0.01072 | 0.98928 | 95.97 |
| 5.5 | 30,735,830.39 | 322,047,53 | 0.01048 | 0.98952 | 94.94 |
| 6.5 | 30,865,836.23 | 88,848.03 | 0.00288 | 0.99712 | 93.95 |
| 7.5 | 29,727,140.51 | 420,317.84 | 0.01414 | 0.98586 | 93.68 |
| 8.5 | 30,367,823.90 | 403,059.24 | 0.01327 | 0.98673 | 92.36 |
| 9.5 | 29,380,405.09 | 152,391.70 | 0.00519 | 0.99481 | 91.13 |
| 10.5 | 29,986,166.96 | 301,335.35 | 0.01005 | 0.98995 | 90.66 |
| 11.5 | 28,933,244,35 | 139,100.36 | 0.00481 | 0.99519 | 89.75 |
| 12.5 | 27,274,422.60 | 237,548.42 | 0.00871 | 0.99129 | 89.32 |
| 13.5 | 23,040,336.16 | 146,148.11 | 0.00634 | 0.99366 | 88.54 |
| 14.5 | 22,099,722.38 | 299,057.58 | 0.01353 | 0.98647 | 87.98 |
| 15.5 | 19,156,963.00 | 116,16202 | 0.00606 | 0.99394 | 86.79 |
| 16.5 | 18,918,290.84 | 378,903.43 | 0.02003 | 0.97997 | 86.26 |
| 17.5 | 17,415,568.57 | 251,522.46 | 0.01444 | 0.98556 | 84.53 |
| 18.5 | 17,010,660.06 | 330,036.95 | 0.01940 | 0.98060 | 83.31 |
| 19.5 | 16,263,927.76 | 246,577.08 | 0.01516 | 0.98484 | 81.69 |
| 20.5 | 15,934,437.04 | 305,586.18 | 0.01918 | 0.98082 | 80.45 |
| 21.5 | 14,082,897.88 | $355,474.55$ | 0.02524 | 0.97476 | 78.91 |
| 22.5 | 12,707,922.78 | 71,642.18 | 0.00564 | 0.99436 | 76.92 |
| 23.5 | 12,003,443.76 | 421,134.37 | 0.03508 | 0.96492 | 76.49 |
| 24.5 | 11,005,971.60 | 96,852.39 | 0.00880 | 0.99120 | 73.81 |
| 25.5 | 10,315,144.85 | 130,060.59 | 0.01261 | 0.98739 | 73.16 |
| 26.5 | 9,246,955.73 | 326,467.32 | 0.03531 | 0.96469 | 72.24 |
| 27.5 | 8,266,777.25 | 64,674.46 | 0.00782 | 0.99218 | 69.69 |
| 28.5 | 5,762,620.54 | 138,862.85 | 0.02410 | 0.97590 | 69.15 |
| 29.5 | 5,195,648.00 | 138,480.92 | 0.02665 | 0.97335 | 67.48 |
| 30.5 | 4,152,656.52 | 145,231,72 | 0.03497 | 0.96503 | 65.68 |
| 31.5 | 3,332,000.84 | 157,259,40 | 0.04720 | 0.95280 | 63.38 |
| 32.5 | 3,033,410.77 | 78,033,01 | 0.02572 | 0.97428 | 60.39 |
| 33.5 | 2,625,717,83 | 263,309.95 | 0.10028 | 0.89972 | 58.84 |
| 34.5 | 2,078,826.13 | 17,202.41 | 0.00827 | 0.99173 | 52.94 |
| 35.5 | 1,632,459.96 | 42,392.00 | 0.02597 | 0.97403 | 52.50 |
| 365 | 1,083,256.63 | 40,515.12 | 0.03740 | 0.96260 | 51.14 |
| 37.5 | 774,364.79 | 6,744.11 | 0.00871 | 0.99129 | 49.23 |
| 38.5 | 594,709.98 | 15,499.00 | 0.02606 | 0.97394 | 48.80 |
| 39.5 | 558,988.97 | 28,997.43 | 0.05187 | 0.94813 | 47.53 |
| 40.5 | 404,996.96 | 23,426.39 | 0.05784 | 0.94216 | 45.06 |
| 41.5 | 270,245.97 | 53,032.84 | 0.19624 | 0.80376 | 42.45 |
| 42.5 | 163,531.59 | 0.00 | 0.00000 | 1.00000 | 34.12 |
| 43.5 | 162,544,59 | 0.00 | 0.00000 | 1.00000 | 34.12 |
| 44.5 | 143,256.57 | 17,999.59 | 0.12565 | 0.87435 | 34.12 |
| 45.5 | 57,184.15 | 0.00 | 0.00000 | 1.00000 | 29.83 |
| 46.5 | 46,920.21 | 0.00 | 0.00000 | 1.00000 | 29.83 |
| 47.5 | 20,361.55 | 0.00 | 0.00000 | 1.00000 | 29.83 |
| 48.5 | 20,361.55 | 4,325.00 | 0.21241 | 0.78759 | 29.83 |
| 49.5 | 16,036.55 | 0.00 | 0.00000 | 1.00000 | 23.49 |
| 50.5 | 26,373.55 | 10,337.00 | 0.39194 | 0.60806 | 23.49 |
| 51.5 | 0.00 | 0.00 | 0.00000 | 1.00000 | 14.28 |

Scenario: KEPCO DISTRIBUTION 2008
Account: KEPCo 101/6 362 - KY
'acement Band: 1914 - 2008
Observation Band: 1989-2008

| Age | Actual | L0.541.66 | R1 32.00 |
| :---: | :---: | :---: | :---: |
| 0.0 | 100.00 | 100.00 | 100.00 |
| 0.5 | 99.96 | 99.91 | 99.74 |
| 1.5 | 99.82 | 99.63 | 98.95 |
| 2.5 | 98.45 | 99.06 | 98.12 |
| 3.5 | 97.70 | 98.60 | 97.26 |
| 4.5 | 95.96 | 98.08 | 96.06 |
| 5.5 | 94.94 | 97.21 | 95.12 |
| 6.5 | 93.94 | 96.56 | 94.15 |
| 7.5 | 93.67 | 95.50 | 93.15 |
| 8.5 | 92.35 | 94.73 | 92.12 |
| 9.5 | 91.12 | 93.92 | 91.05 |
| 10.5 | 90.65 | 92.61 | 89.96 |
| 11.5 | 89.74 | 91.68 | 88.84 |
| 12.5 | 89.30 | 90.20 | 87.28 |
| 13.5 | 88.53 | 89.16 | 86.08 |
| 14.5 | 87.97 | 88.08 | 84.83 |
| 15.5 | 86.78 | 86.39 | 83.55 |
| 16.5 | 86.25 | 85.22 | 82.22 |
| 17.5 | 84.52 | 83.40 | 80.84 |
| 18.5 | 83.30 | 82.15 | 79.41 |
| 19.5 | 81.68 | 80.87 | 77.94 |
| 20.5 | 80.45 | 78.92 | 75.88 |
| 21.5 | 78.90 | 77.56 | 74.28 |
| 22.5 | 76.91 | 75.52 | 72.61 |
| 23.5 | 76.48 | 74.15 | 70.89 |
| 24.5 | 73.80 | 72.78 | 69.11 |
| 25.5 | 73.15 | 70.74 | 67.28 |
| 26.5 | 72.22 | 69.37 | 65.38 |
| 27.5 | 69.67 | 67.33 | 63.43 |
| 28.5 | 69.13 | 65.98 | 60.74 |
| 29.5 | 67.46 | 64.63 | 58.66 |
| 30.5 | 65.66 | 62.61 | 56.54 |
| 31.5 | 63.37 | 61.27 | 54.36 |
| 32.5 | 60.38 | 59.27 | 52.15 |
| 33.5 | 58.82 | 57.95 | 49.90 |
| 34.5 | 52.93 | 56.63 | 47.62 |
| 35.5 | 52.49 | 54.67 | 45.31 |
| 36.5 | 51.12 | 53.38 | 42.20 |
| 37.5 | 49.21 | 51.45 | 39.85 |
| 38.5 | 48.78 | 50.18 | 37.50 |
| 39.5 | 47.51 | 48.93 | 35.15 |
| 40.5 | 45.05 | 47.06 | 32.81 |
| 41.5 | 42.44 | 45.83 | 30.50 |
| 42.5 | 34.11 | 44.01 | 28.21 |
| 43.5 | 34.11 | 42.82 | 25.95 |
| 44.5 | 34.11 | 41.63 | 23.02 |
| 45.5 | 29.83 | 39.89 | 20.89 |
| 46.5 | 29.83 | 38.74 | 18.83 |
| 47.5 | 29.83 | 37.05 | 16.84 |
| 48.5 | 29.83 | 35.95 | 14.93 |
| 49.5 | 23.49 | 34.86 | 13.12 |
| 50.5 | 23.49 | 33.26 | 11.40 |
| 51.5 | 14.28 | 32.21 | 9.80 |
| 52.5 | 14.28 | 30.67 | 7.84 |
| 53.5 | 14.28 | 29.66 | 6.52 |

Scenario: KEPCO DISTRIBUTION 2008
Account: KEPCo 101/6 $362-K Y$
cement Band: $1914-2008$

| Age | Actual | Lo.5 41.66 | R1 32.00 |
| :---: | :---: | :---: | :---: |
| 54.5 | 14.28 | 28.68 | 5.32 |
| 55.5 | 14.28 | 27.23 | 4.25 |
| 56.5 | 14.28 | 26.29 | 3.32 |
| 57.5 | 14.28 | 24.92 | 2.52 |
| 58.5 | 14.28 | 24.03 | 1.84 |
| 59.5 | 14.28 | 23.15 | 1.30 |
| 60.5 | 14.28 | 21.88 | 0.73 |
| 61.5 | 14.28 | 21.05 | 0.41 |
| 62.5 | 14.28 | 19.85 | 0.19 |
| 63.5 | 14.28 | 19.07 | 0.05 |
| 64.5 | 14.28 | 18.32 | 0 |
| 65.5 | 14.28 | 17.22 | 0 |

Account: KEPCo 101/6 362 - KY Scenario: KEPCO DISTRIBUTION 2008

- Actual Data
- L047.32
- R1 31.88

Account: KEPCo 101/6 362 - KYScenario: KEPCO DISTRIBUTION 2008
'acement Band: 1914 ..... - 2008
unction: Survivorship Annual Rate Method
Weighting: Unweighted
T-Cut: None

| Observation <br> Band | Censoring <br> Age |  | Percent | Error Sum |
| :---: | :---: | :---: | :---: | :---: | :---: |
| of Squares |  |  |  |  |$\quad$| Disp |
| :---: |

Scenario: KEPCO DISTRIBUTION 2008
Account: KEPCo $101 / 6362$-KV
'zcement Band: 1914-2008

Age ait
Beginning
of Interval
0
0.5
1.5
2.5
3.5 4.5 5.5
6.5 7.5 8.5
9.5
10.5
11.5
12.5
13.5
14.5
15.5
16.5
17.5
18.5
19.5
20.5
21.5
22.5
23.5
24.5
25.5
26.5 27.5 28.5 29.5 30.5
31.5
32.5
33.5 34.5 35.5 36.5 37.5 38.5
39.5
40.5
41.5
42.5
43.5
44.5
45.5
46.5
47.5
48.5
49.5
50.5 51.5

Exposures
at Beginning of Interval
$18,620,137,60$
$18,620,137,60$
$18,484,500.18$
17,769,316.42
16,114,584.22
16,989,947.79
17,515,445 34 19,878,524.35
20,163,669.69
19,738,975.08
18,182,056.50 17,523,694.99 16,953,099.57 16,870,723.42 16,746,953.67 $12,910,001.44$ 12,207,607.07 9,521,461.42

$$
9,544,610.33
$$

Retirements
Retirements
During
Interval
0.00
$412,40.82$
$111,518.07$
$303,627.43$
0.00
$12,446.82$
Retirment
Ratio
0.00000
0.00067

Observation Band: 1999-2008

Account: KEPCo 101/6 362 -KY sement Band: 1914 -2008

| Age | Actual | L047.32 | R1 32.00 |
| :---: | :---: | :---: | :---: |
| 0.0 | 100.00 | 100.00 | 100.00 |
| 0.5 | 100.00 | 99.87 | 99.74 |
| 1.5 | 99.93 | 99.45 | 98.95 |
| 2.5 | 97.61 | 98.89 | 98.12 |
| 3.5 | 96.94 | 98.24 | 97.26 |
| 4.5 | 95.21 | 97.50 | 96.06 |
| 5.5 | 95.04 | 96.70 | 95.12 |
| 6.5 | 93.97 | 95.83 | 94.15 |
| 7.5 | 93.80 | 94.92 | 93.15 |
| 8.5 | 92.80 | 93.97 | 92.12 |
| 9.5 | 92.24 | 92.46 | 91.05 |
| 10.5 | 91.87 | 91.41 | 89.96 |
| 11.5 | 90.61 | 90.33 | 88.84 |
| 12.5 | 90.21 | 89.23 | 87.28 |
| 13.5 | 89.63 | 88.10 | 86.08 |
| 14.5 | 89.28 | 86.95 | 84.83 |
| 15.5 | 87.79 | 85.78 | 83.55 |
| 16.5 | 87.16 | 84.59 | 82.22 |
| 17.5 | 85.21 | 83.39 | 80.84 |
| 18.5 | 84.60 | 81.57 | 79.41 |
| 19.5 | 82.98 | 80.34 | 77.94 |
| 20.5 | 81.91 | 79.10 | 75.88 |
| 21.5 | 80.00 | 77.86 | 74.28 |
| 22.5 | 79.10 | 76.62 | 72.61 |
| 23.5 | 78.79 | 75.37 | 70.89 |
| 24.5 | 76.24 | 74.12 | 69.11 |
| 25.5 | 75.73 | 72.87 | 67.28 |
| 26.5 | 74.66 | 71.00 | 65.38 |
| 27.5 | 71.87 | 69.76 | 63.43 |
| 28.5 | 71.50 | 68.51 | 60.74 |
| 29.5 | 69.66 | 67.27 | 58.66 |
| 30.5 | 67.58 | 66.04 | 56.54 |
| 31.5 | 64.98 | 64.80 | 54.36 |
| 32.5 | 62.36 | 63.57 | 52.15 |
| 33.5 | 60.67 | 62.35 | 49.90 |
| 34.5 | 53.94 | 61.13 | 47.62 |
| 35.5 | 53.44 | 59.31 | 45.31 |
| 36.5 | 51.94 | 58.10 | 42.20 |
| 37.5 | 50.10 | 56.90 | 39.85 |
| 38.5 | 49.64 | 55.71 | 37.50 |
| 39.5 | 49.40 | 54.53 | 35.15 |
| 40.5 | 47.01 | 53.35 | 32.81 |
| 41.5 | 44.35 | 52.18 | 30.50 |
| 42.5 | 35.65 | 51.02 | 28.21 |
| 43.5 | 35.65 | 49.87 | 25.95 |
| 44.5 | 35.65 | 48.17 | 23.02 |
| 45.5 | 31.17 | 47.04 | 20.89 |
| 46.5 | 31.17 | 45.92 | 18.83 |
| 47.5 | 31.17 | 44.82 | 16.84 |
| 48.5 | 31.17 | 43.73 | 14.93 |
| 49.5 | 24.55 | 42.64 | 13.12 |
| 50.5 | 24.55 | 41.57 | 11.40 |
| 51.5 | 24.55 | 40.52 | 9.80 |
| 52.5 | 24.55 | 39.47 | 7.84 |
| 53.5 | 24.55 | 37.93 | 6.52 |

Surviving Percent Report
Scenario: KEPCO DISTRIBUTION 2008
Account: KEPCo 101/6 362-KV
प90 $1756+350$ cement Band: 1914-2008

Observation Band: 1999-2008

| Age | Actual | L0 47.32 | RI 32.00 |
| :--- | ---: | :---: | :---: |
| 54.5 | 24.55 | 36.91 | 5.32 |
| 55.5 | 24.55 | 35.92 | 4.25 |
| 56.5 | 24.55 | 34.93 | 3.32 |
| 57.5 | 24.55 | 33.96 | 2.52 |
| 58.5 | 24.55 | 33.00 | 1.84 |
| 59.5 | 24.55 | 32.06 | 1.30 |
| 60.5 | 24.55 | 31.13 | 0.73 |
| 61.5 | 24.55 | 30.21 | 0.41 |
| 62.5 | 24.55 | 28.87 | 0.19 |
| 63.5 | 24.55 | 27.99 | 0.05 |
| 64.5 | 24.55 | 27.13 | 0 |
| 65.5 | 24.55 | 26.28 | 0 |

KENTUCKY POWER COMPANY
Depreciation Study as of December 31, 2008
Distribution Plant
Account
364 POLES, TOWERS \& FIXTURES
Depreciable Balance
$\$ 147,634,354$
Current Recommended

| Average Service Life (Yrs) 28 | 30 |
| :--- | :--- | :--- |

lowa Curve
LO.O
R0.5
Gross Removal, \% 65\%
Gross Salvage, \% 12\%
Net Salvage \% 25\% -53\%

The simulation analyses for all bands indicate a retirement dispersion of an R0.5 type curve with an average service life of 30 years is appropriate for the investments in this account.

Extensive labor, equipment and transporation costs will be incurred in removing and replacing the equipment in this account. Some salvage could be experienced from the sale of scrap and the reuse of material.
count: KEPCo 101/6 364 - KY
version: KEPCO DISTRIBUTION 2008
Method: Simulated Balances

:Dunt: KEPCo 101/6 364 -KY
. ersion: KEPCO DISTRIBUTION 2008
Method: Simulated Balances
No. of Test Points: $20 \quad$ Interval: $0 \quad$ Observation Band: 1989-2008


## Simulated Plant Record Analysis

Kentucky Power - Distr

:count: KEPCo 101/6 364 -KY
. ersion: KEPCO DISTRIBUTION 2008
Method: Simulated Balances
No. of Test Points: $10 \quad$ Interval: $0 \quad$ Observation Band: 1999-2008


## 

加を＇g08‘86\＄ $\$ 90,241,421$
 698＇t01＇08\＄ 926＇L81＇9L\＄ $\$ 71,461,588$ $\$ 66,853,955$ $\$ 63,822,842$ $\$ 62,339,240$ 0
0
0
0
0
0
0
0 \＄55，758，917 N

 $\$ 40,680,310$ \＄36，650，921 80L＇00レ＇ CE \＄ \＄28，009，846 $\varepsilon \varepsilon 9^{\prime} \downarrow 9$ L＇$^{\prime} \downarrow$ ट\＄ \＄22，054，889 \＄19，371，485

 \＄16，077，183 | 2008 | $\$ 7,948,638$ | $\$ 1,315,032$ |
| :--- | ---: | ---: |
| 2007 | $\$ 8,178,275$ | $\$ 1,283,667$ |
| 2006 | $\$ 6,214,520$ | $\$ 839,957$ |
| 2005 | $\$ 4,777,960$ | $\$ 728,627$ |
| 2004 | $\$ 4,606,829$ | $\$ 3,264,700$ |
| 2003 | $\$ 3,549,389$ | $\$ 770,546$ |
| 1002 | $\$ 4,243,760$ | $\$ 1,100,199$ |
| 2001 | $\$ 6,491,237$ | $\$ 1,402,184$ |
| 2000 | $\$ 6,193,673$ | $\$ 1,459,576$ |
| 1999 | $\$ 7,750,006$ | $\$ 779,722$ |
| 1998 | $\$ 2,259,261$ | $\$ 1,082,705$ |
| 1997 | $\$ 2,175,205$ | $\$ 1,542,829$ |
| 1996 | $\$ 9,692,760$ | $\$ 1,128,837$ |
| 1995 | $\$ 5,532,239$ | $\$ 1,671,011$ |
| 1994 | $\$ 6,419,736$ | $\$ 144,412$ |
| 1993 | $\$ 5,227,092$ | $\$ 1,304,149$ |
| 1992 | $\$ 6,185,410$ | $\$ 1,465,072$ |
| 1991 | $\$ 6,088,191$ | $\$ 1,480,558$ |
| 1990 | $\$ 5,783,242$ | $\$ 2,752,129$ |
| 1989 | $\$ 5,307,552$ | $\$ 3,823,950$ |
| 1988 | $\$ 4,827,488$ | $\$ 1,966,798$ |
| 1987 | $\$ 5,327,380$ | $\$ 1,607,747$ |
| 1986 | $\$ 5,369,391$ | $\$ 1,438,007$ |
| 1985 | $\$ 4,909,635$ | $\$ 937,730$ |
| 1984 | $\$ 4,313,710$ | $\$ 808,923$ |
| 1983 | $\$ 4,439,316$ | $\$ 768,785$ |
| 1982 | $\$ 4,565,175$ | $\$ 635,786$ |
| 1981 | $\$ 5,803,340$ | $\$ 1,253,167$ |
| 1980 | $\$ 4,804,915$ | $\$ 714,013$ |
| 1979 | $\$ 3,884,010$ | $\$ 638,797$ |
| 1978 | $\$ 3,251,569$ | $\$ 541,825$ |
| 1977 | $\$ 3,061,702$ | $\$ 378,298$ |
| 1976 | $\$ 2,270,319$ | $\$ 328,987$ |
| 1975 | $\$ 1,611,041$ | $\$ 258,071$ |
| 1974 | $\$ 1,552,522$ | $\$ 299,128$ |
|  |  |  |




| Act Yr | Additions | Retirements | Ending Balance |
| :---: | :---: | :---: | :---: |
| 1973 | $\$ 1,515,199$ | $\$ 360,031$ | $\$ 14,823,789$ |
| 1972 | $\$ 1,255,246$ | $\$ 292,633$ | $\$ 13,688,621$ |
| 1971 | $\$ 1,29,340$ | $\$ 314,758$ | $\$ 12,706,008$ |
| 1970 | $\$ 840,500$ | $\$ 269,359$ | $\$ 11,791,426$ |
| 1969 | $\$ 775,929$ | $\$ 321,093$ | $\$ 11,220,285$ |
| 1968 | $\$ 779,145$ | $\$ 366,869$ | $\$ 10,765,449$ |
| 1967 | $\$ 736,064$ | $\$ 292,779$ | $\$ 10,353,173$ |
| 1966 | $\$ 623,348$ | $\$ 243,858$ | $\$ 9,999,888$ |
| 1965 | $\$ 625,458$ | $\$ 234,974$ | $\$ 9,530,398$ |
| 1964 | $\$ 510,960$ | $\$ 197,965$ | $\$ 9,139,914$ |
| 1963 | $\$ 412,308$ | $\$ 173,515$ | $\$ 8,826,919$ |
| 1962 | $\$ 374,871$ | $\$ 151,846$ | $\$ 8,588,126$ |
| 1961 | $\$ 49,550$ | $\$ 198,316$ | $\$ 8,365,101$ |
| 1960 | $\$ 350,996$ | $\$ 152,841$ | $\$ 8,063,867$ |
| 1959 | $\$ 417,502$ | $\$ 179,999$ | $\$ 7,865,712$ |
| 1958 | $\$ 460,209$ | $\$ 145,963$ | $\$ 7,628,209$ |
| 1957 | $\$ 421,180$ | $\$ 101,977$ | $\$ 7,313,963$ |
| 1956 | $\$ 364,630$ | $\$ 98,076$ | $\$ 6,994,760$ |
| 1955 | $\$ 300,304$ | $\$ 83,548$ | $\$ 6,728,206$ |
| 1954 | $\$ 286,975$ | $\$ 69,917$ | $\$ 6,511,450$ |
| 1953 | $\$ 314,622$ | $\$ 80,158$ | $\$ 6,294,392$ |
| 1952 | $\$ 352,512$ | $\$ 62,890$ | $\$ 6,059,928$ |
| 1951 | $\$ 535,120$ | $\$ 86,968$ | $\$ 5,770,306$ |
| 1950 | $\$ 649,686$ | $\$ 74,781$ | $\$ 5,32,154$ |
| 1949 | $\$ 716,821$ | $\$ 84,381$ | $\$ 4,747,249$ |
| 1948 | $\$ 927,453$ | $\$ 64,525$ | $\$ 4,114,809$ |
| 1947 | $\$ 1,015,765$ | $\$ 52,850$ | $\$ 3,251,881$ |
| 1946 | $\$ 836,816$ | $\$ 19,182$ | $\$ 2,288,966$ |
| 1945 | $\$ 176,492$ | $\$ 14,956$ | $\$ 1,471,332$ |
| 1944 | $\$ 61,306$ | $\$ 15,239$ | $\$ 1,309,796$ |
| 1943 | $\$ 39,257$ | $\$ 42,381$ | $\$ 1,263,729$ |
| 1942 | $\$ 117,724$ | $\$ 4,914$ | $\$ 1,26,853$ |
| 1941 | $\$ 118,223$ | $\$ 48,820$ | $\$ 1,154,043$ |
| 1940 | $\$ 206,783$ | $\$ 83,909$ | $\$ 1,084,640$ |
| 1939 | $\$ 181,871$ | $\$ 88,380$ | $\$ 961,766$ |
|  |  |  |  |

$\$ 14,823,789$ $\$ 13,668,621$ $\$ 12,706,008$ $\$ 11,220,285$ $\$ 10,765,449$ $\$ 10,353,173$ $\$ 9,909,888$ $\$ 9,530,398$
皆 \＄8，365，101 $\$ 8,063,867$ \＄7，865，712 \＄7，628，209
 \＄6，728，206 $\$ 6,511,450$ 268＇t6z＇9\＄ 8zcicoios
 $\$ 4,747,249$ $\$ 4,14,009$ 996＇882＇z\＄ \＄1，471，332 $\$ 1,309,796$ $\$ 1,263,729$
$\$ 1,266,853$


$\qquad$ $\$ 269,359$
$\$ 321,093$ $\$ 292,779$ 243，858 \＄197，965 $\$ 151,846$ $\$ 198,316$ $\$ 152,841$ \＄145，963 \＄101，977
 N $\$ 80,158$ $\$ 86,968$ \＄74，781 $\$ 64,525$ \＄19，182 \＄14，956 옹웅 $\$ 4,914$ \＄48，820 － $\$ 88,380$ \＄1，515，199
 ，
 ＂．
号蒦 ．登 $\$ 460,209$
葻
 \＄352，512 \＄535，120
笪

 \＄39，257 $\$ 117,724$
$\$ 118,223$ ※


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\text { Page } 182 \text { of } 350
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웅용웅
$\$ 868,275$
$\$ 868,340$
$\$ 861,093$


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The simulation analyses for all bands indicate a retirement dispersion of an R0.5 type curve with an average service life of 30 years is appropriate for the investments in this account.

Removal costs should be expected from the labor and transportation costs involved in removing the conductor. Salvage costs would be expected from the sale of the conductor and the reuse of circuit breakers, insulators and switches.

Dunt: KEPCo 101/6 365 - KY
ursion: KEPCO DISTRIBUTION 2008
Method: Simulated Balances
No. of Test Points: $40 \quad$ Interval: $0 \quad$ Observation Band: 1969-2008


## Simulated Plant Record Analysis

Kentucky Power - Distr

hunt: KEPCo 101/6 365-KY
. ersion: KEPCO DISTRIBUTION 2008
Method: Simulated Balances
No. of Test Points: 20 Interval: $0 \quad$ Observation Band: 1989-2008

hunt: KEPCo 101/6 365 -KY
sion: KEPCO DISTRIBUTION 2008
Method: Simulated Balances




| 2008 | $\$ 10,259,055$ | $\$ 3,155,687$ | $\$ 129,155,638$ |
| :--- | ---: | ---: | ---: |
| 2007 | $\$ 14,237,195$ | $\$ 2,993,281$ | $\$ 122,052,270$ |
| 2006 | $\$ 8,984,427$ | $\$ 2,373,219$ | $\$ 110,808,356$ |
| 2005 | $\$ 6,436,239$ | $\$ 1,665,652$ | $\$ 104,197,148$ |
| 2004 | $\$ 5,364,176$ | $\$ 1,048,651$ | $\$ 99,426,561$ |
| 2003 | $\$ 4,069,103$ | $\$ 1,665,159$ | $\$ 95,111,036$ |
| 2002 | $\$ 5,622,594$ | $\$ 2,020,300$ | $\$ 92,707,092$ |
| 2001 | $\$ 5,169,647$ | $\$ 1,323,285$ | $\$ 89,104,798$ |
| 2000 | $\$ 5,230,644$ | $\$ 1,553,565$ | $\$ 85,258,436$ |
| 1999 | $\$ 6,688,639$ | $\$ 767,232$ | $\$ 81,581,357$ |
| 1998 | $\$ 2,314,364$ | $\$ 867,054$ | $\$ 75,659,950$ |
| 1997 | $\$ 7,910,940$ | $\$ 1,666,505$ | $\$ 74,212,640$ |
| 1996 | $\$ 3,270,420$ | $\$ 1,662,236$ | $\$ 67,968,205$ |
| 1995 | $\$ 5,785,493$ | $\$ 2,549,129$ | $\$ 66,360,021$ |
| 1994 | $\$ 4,473,083$ | $\$ 1,379,552$ | $\$ 63,123,657$ |
| 1993 | $\$ 2,861,816$ | $\$ 758,447$ | $\$ 60,030,126$ |
| 1992 | $\$ 3,277,636$ | $\$ 909,965$ | $\$ 57,926,757$ |
| 1991 | $\$ 3,654,148$ | $\$ 1,060,633$ | $\$ 55,559,086$ |
| 1990 | $\$ 3,794,891$ | $\$ 1,114,551$ | $\$ 52,965,571$ |
| 1989 | $\$ 3,611,129$ | $\$ 899,096$ | $\$ 50,285,231$ |
| 1988 | $\$ 3,229,945$ | $\$ 1,188,810$ | $\$ 47,573,198$ |
| 1987 | $\$ 3,764,540$ | $\$ 1,004,247$ | $\$ 45,532,083$ |
| 1986 | $\$ 3,340,589$ | $\$ 919,744$ | $\$ 42,771,770$ |
| 1985 | $\$ 2,604,969$ | $\$ 519,259$ | $\$ 40,350,925$ |
| 1984 | $\$ 2,380,654$ | $\$ 517,838$ | $\$ 38,265,215$ |
| 1983 | $\$ 2,562,107$ | $\$ 598,823$ | $\$ 36,402,399$ |
| 1982 | $\$ 2,865,659$ | $\$ 452,557$ | $\$ 34,439,115$ |
| 1981 | $\$ 4,443,270$ | $\$ 876,800$ | $\$ 32,026,013$ |
| 1980 | $\$ 3,591,035$ | $\$ 532,297$ | $\$ 28,459,543$ |
| 1979 | $\$ 3,199,783$ | $\$ 516,238$ | $\$ 25,400,805$ |
| 1978 | $\$ 2,734,482$ | $\$ 472,645$ | $\$ 22,717,260$ |
| 1977 | $\$ 3,143,781$ | $\$ 369,728$ | $\$ 20,455,423$ |
| 1976 | $\$ 1,782,930$ | $\$ 302,893$ | $\$ 17,681,370$ |
| 1975 | $\$ 1,026,632$ | $\$ 230,227$ | $\$ 16,201,333$ |
| 1974 | $\$ 1,088,826$ | $\$ 298,710$ | $\$ 15,404,928$ |
|  |  |  |  |




10/20/2009

| 1973 | $\$ 1,108,750$ | $\$ 379,766$ | $\$ 14,614,812$ |
| :--- | :---: | :---: | :---: |
| 1972 | $\$ 1,152,475$ | $\$ 309,059$ | $\$ 13,885,828$ |
| 1971 | $\$ 1,451,307$ | $\$ 334,232$ | $\$ 13,042,412$ |
| 1970 | $\$ 1,150,481$ | $\$ 281,292$ | $\$ 11,925,337$ |
| 1969 | $\$ 992,508$ | $\$ 307,427$ | $\$ 11,056,148$ |
| 1968 | $\$ 949,626$ | $\$ 293,616$ | $\$ 10,371,067$ |
| 1967 | $\$ 869,418$ | $\$ 235,317$ | $\$ 9,715,057$ |
| 1966 | $\$ 728,131$ | $\$ 219,295$ | $\$ 9,080,956$ |
| 1965 | $\$ 688,379$ | $\$ 182,223$ | $\$ 8,572,120$ |
| 1964 | $\$ 500,173$ | $\$ 118,173$ | $\$ 8,065,964$ |
| 1963 | $\$ 342,519$ | $\$ 115,279$ | $\$ 7,683,964$ |
| 1962 | $\$ 356,863$ | $\$ 110,412$ | $\$ 7,456,724$ |
| 1961 | $\$ 431,518$ | $\$ 83,006$ | $\$ 7,210,273$ |
| 1960 | $\$ 309,663$ | $\$ 119,535$ | $\$ 6,861,761$ |
| 1959 | $\$ 332,979$ | $\$ 86,363$ | $\$ 6,671,633$ |
| 1958 | $\$ 411,734$ | $\$ 100,947$ | $\$ 6,425,017$ |
| 1957 | $\$ 370,826$ | $\$ 75,501$ | $\$ 6,114,230$ |
| 1956 | $\$ 335,384$ | $\$ 67,420$ | $\$ 5,818,905$ |
| 1955 | $\$ 247,836$ | $\$ 54,244$ | $\$ 5,550,941$ |
| 1954 | $\$ 237,566$ | $\$ 58,761$ | $\$ 5,357,349$ |
| 1953 | $\$ 244,683$ | $\$ 55,985$ | $\$ 5,178,544$ |
| 1952 | $\$ 291,012$ | $\$ 43,132$ | $\$ 4,979,846$ |
| 1951 | $\$ 333,824$ | $\$ 52,380$ | $\$ 4,731,986$ |
| 1950 | $\$ 509,472$ | $\$ 43,539$ | $\$ 4,390,522$ |
| 1949 | $\$ 591,741$ | $\$ 38,785$ | $\$ 3,924,589$ |
| 1948 | $\$ 780,371$ | $\$ 33,031$ | $\$ 3,371,633$ |
| 1947 | $\$ 845,275$ | $\$ 23,250$ | $\$ 2,624,293$ |
| 1946 | $\$ 541,149$ | $\$ 8,911$ | $\$ 1,802,268$ |
| 1945 | $\$ 107,824$ | $\$ 7,008$ | $\$ 1,270,030$ |
| 1944 | $\$ 34,927$ | $\$ 8,392$ | $\$ 1,169,214$ |
| 1943 | $\$ 14,300$ | $\$ 15,652$ | $\$ 1,142,679$ |
| 1942 | $\$ 71,460$ | $\$ 1,863$ | $\$ 1,144,031$ |
| 1941 | $\$ 90,549$ | $\$ 26,224$ | $\$ 1,074,434$ |
| 1940 | $\$ 125,801$ | $\$ 56,768$ | $\$ 1,010,109$ |
| 1939 | $\$ 132,698$ | $\$ 43,031$ | $\$ 941,076$ |

Page 2 of 3

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KENTUCKY POWER COMPANY
Depreciation Study as of December 31, 2008 Distribution Plant

Account
366 UNDERGROUND CONDUIT

| Depreciable Balance | $\$ 4,302,754$ |  |
| :--- | :---: | :---: |
|  | Current | Recommended |
| Average Service Life (Yrs) | 37 | 50 |
| Iowa Curve | R2.0 | R0.5 |
| Gross Removal, \% |  | $0 \%$ |
| Gross Salvage, \% |  | $0 \%$ |
| Net Salvage \% | $0 \%$ | $0 \%$ |

The simulation analyses for this account do not provide meaningful guidance for the selection of an average service life. However, it is obvious that the service life should be increased from the current 37 years. The recommendation is to move to a 50 year average service life following an R0. 5 type curve.

Neither salvage nor removal is expected from this investment as it is likely the conduit will be retired in place.

## Simulated Plant Record Analysis

Kentucky Power - Distr
$12 g 0191$ at 350
runt: KEPCo 101/6 366 - KY

- -rsion: KEPCO DISTRIBUTION 2008

Method: Simulated Balances
No. of Test Points: $40 \quad$ Interval: $0 \quad$ Observation Band: 1969-2008

hunt: KEPCo 101/6 366 - KV
. .rsion: KEPCO DISTRIBUTION 2008
Method: Simulated Balances

hunt: KEPCo 101/6 366 -KV
. version: KEPCO DISTRIBUTION 2008
Method: Simulated Balances


 \$2,071,740 \$1,784,452 $\$ 1,655,867$ \$1,528,420 \$1,409,697 $\$ 1,139,028$ $\$ 1,007,615$ \$957,230 \$757,353 \$712,172 \$687,279 ع8s'ヶ89\$ \$649,783 $\$ 580,131$ $\$ 579,525$ $\stackrel{2}{5}$
0
0
0
0 \$491,123 \$412,015 $\infty$
$\stackrel{0}{0}$
$\substack{0 \\ 0}$ \$371,121 \$343,183 $\$ 305,903$ N





## Page 195 of 350







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\text { Paga } 196 \text { of } 350
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KENTUCKY POWER COMPANY
Depreciation Study as of December 31, 2008
Distribution Plant
Account
367 UNDERGROUND CONDUCTOR \& DEVICES

Depreciable Balance
\$7,652,121

## Current

Average Service Life (Yrs) 44
Iowa Curve
Gross Removal, \%
Gross Salvage, \%
Net Salvage \%

R1.0
S-. 5
0\%
$0 \%$
0\%

As in the related underground conduit account, the simulation analyses indicates an increase in average, although the increase is not as dramatic. Based on the analyses, the recommendation is to move to a 50 year average service life following an $\mathrm{S}-.5$ type dispersion.

The recommendation of $0 \%$ for both salvage and removal is based on the fact that the conductor may be abandonded in place. If the conductor is removed, it may be likely that the scrap price would be equal to the cost of removal.
runt: KEPCo 101/6 367 - KY
...sion: KEPCO DISTRIBUTION 2008
Method: Simulated Balances

punt: KEPCo 101/6 367 - KY
version: KEPCO DISTRIBUTION 2008
Method: Simulated Balances
No. of Test Points: $20 \quad$ Interval: $0 \quad$ Observation Band: 1989-2008

ount: KEPCo 101/6 367-KY
ATSION: KEPCO DISTRIBUTION 2008
Method: Simulated Balances
No. of Test Points: $10 \quad$ Interval: $0 \quad$ Observation Band: 1999-2008

|  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Dispersion | Avg <br> Service <br> Life | Sum of <br> Squared <br> Difierences | Index of <br> Variation | Conformance <br> Index |
| R1.5 | 38.1 | $5.39 E+09$ | 4.3288 | 231.01 |
| S0 | 41.1 | $5.73 E+09$ | 4.4654 | Retirement <br> Experience <br> Index |
| L1 | 42.2 | $5.78 E+09$ | 4.4826 | 223.94 |

## Page 201 ot 550






## Page 2020 of 350



10/20/2009
Act Yr Additions





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| $10 / 20 / 2009$ |  |  |  |
| :--- | ---: | :--- | ---: | :--- |
| Act Yr | Additions | Retirements | Ending Balance |
| 1938 | $\$ 0$ | $\$ 0$ | $\$ 1,683$ |
| 1937 | $\$ 0$ | $\$ 0$ | $\$ 1,683$ |
| 1936 | $\$ 1,683$ | $\$ 0$ | $\$ 1,683$ |

KENTUCKY POVVER COMPANY Depreciation Study as of December 31, 2008

Distribution Plant

| Account | 368 LINE TRANSFORMERS |  |
| :--- | :---: | :---: |
| Depreciable Balance | $\$ 98,415,053$ |  |
|  | Current | Recommended |
| Average Service Life (Yrs) | 25 | 30 |
| lowa Curve | R1.5 | R0.5 |
| Gross Removal, \% |  | $10 \%$ |
| Gross Salvage, \% | $15 \%$ | $35 \%$ |
| Net Salvage $\%$ |  | $25 \%$ |

The results of the simulation analyses for the investment in this account indicate a slight increase in the average service life. Based on the analyses of all bands, the recommendation is to move to a 30 year average service life following an RO. 5 type dispersion.

Labor, equipment and transportation costs will result in a cost of removal for the investments in this account. The reuse of materials and scrap sales would be expected to result in salvage received.
:ount: KEPCo 101/6 368 -KY
rsion: KEPCO DISTRIBUTION 2008
Method: Simulated Balances
No. of Test Points: $40 \quad$ Interval: $0 \quad$ Observation Band: 1969-2008

| Dispersion | Avg Service Life | Sum of <br> Squared Differences | Index of Variation | Conformance Index | Retirement <br> Experience Index |
| :---: | :---: | :---: | :---: | :---: | :---: |
| R0.5 | 30.1 | $4.72 \mathrm{E}+13$ | 21.8580 | 45.75 | 100.00 |
| L0 | 32.9 | $5.41 \mathrm{E}+13$ | 23.4099 | 42.72 | 95.40 |
| S-. 5 | 30.0 | 5.72E+13 | 24.0647 | 41.55 | 100.00 |
| R1 | 28.0 | $6.85 \mathrm{E}+13$ | 26.3301 | 37.98 | 100.00 |
| L0.5 | 30.7 | $7.71 \mathrm{E}+13$ | 27.9431 | 35.79 | 98.17 |
| So | 28.2 | $9.31 E+13$ | 30.6943 | 32.58 | 100.00 |
| R1.5 | 27.1 | $9.70 \mathrm{E}+13$ | 31.3406 | 31.91 | 100.00 |
| 11 | 29.0 | $1.07 \mathrm{E}+14$ | 32.9706 | 30.33 | 99.66 |
| S0.5 | 27.3 | 1.21E+14 | 34.9733 | 28.59 | 100.00 |
| R2 | 25.9 | 1.38E +14 | 37.3784 | 26.75 | 100.00 |
| L1.5 | 28.0 | 1.41E+14 | 37.7457 | 26.49 | 99.91 |
| S1 | 26.3 | 1.57E+14 | 39.8194 | 25.11 | 100.00 |
| L2 | 26.7 | 1.82E+14 | 42.9118 | 23.30 | 100.00 |
| 22.5 | 25.2 | 1.85E+14 | 43.2610 | 23.12 | 100.00 |
| S1.5 | 25.6 | 1.90E+14 | 43.8568 | 22.80 | 100.00 |
| S2 | 25.0 | $2.32 E+14$ | 48.4146 | 20.65 | 100.00 |
| R3 | 24.8 | $2.43 \mathrm{E}+14$ | 49.5566 | 20.18 | 100.00 |
| L3 | 25.4 | $2.59 E+14$ | 51.1628 | 19.55 | 100.00 |
| S3 | 24.4 | $3.08 \mathrm{E}+14$ | 55.8030 | 17.92 | 100.00 |
| 14 | 24.3 | $3.45 \mathrm{E}+14$ | 59.0680 | 16.93 | 100.00 |
| R4 | 24.2 | $3.47 \mathrm{E}+14$ | 59.2796 | 16.87 | 100.00 |
| S4 | 24.0 | $4.01 \mathrm{E}+14$ | 63.7388 | 15.69 | 100.00 |
| L5 | 23.9 | $4.27 \mathrm{E}+14$ | 65.7758 | 15.20 | 100.00 |
| R5 | 23.8 | 4.57E+14 | 67.9926 | 14.71 | 100.00 |
| S5 | 23.7 | 4.80E+14 | 69.6686 | 14.35 | 100.00 |
| S6 | 23.5 | $5.31 \mathrm{E}+14$ | 73.3343 | 13.64 | 100.00 |
| SQ | 25.1 | $7.70 \mathrm{E}+14$ | 88.3045 | 11.32 | 100.00 |

mount: KEPCo 101/6 368 - KV
arsion: KEPCO DISTRIBUTION 2008
Method: Simulated Balances

count: KEPCo 101/6 368 - KV
Arsion: KEPCO DISTRIBUTION 2008
Method: Simulated Balances
No. of Test Points: 10 Interval: $0 \quad$ Observation Band: 1999-2008

|  | Avg <br> Service <br> Life | Sum of <br> Squared <br> Differences | Index of <br> Variation | Conformance <br> Index |
| :--- | ---: | :--- | ---: | ---: |
| R0.5 | 30.8 | $1.98 E+13$ | 16.5762 | Retirement <br> Experience <br> Index |
| LO | 33.8 | $2.10 E+13$ | 17.0841 | 60.33 |
| S-.5 | 30.8 | $2.23 E+13$ | 17.6038 | 58.63 |

## Page 208 of 350



10/20/2009

| 2008 | $\$ 7,450,618$ | $\$ 2,310,335$ | $\$ 98,415,054$ |
| :--- | ---: | ---: | ---: |
| 2007 | $\$ 7,254,032$ | $\$ 2,367,716$ | $\$ 93,274,771$ |
| 2006 | $\$ 4,661,413$ | $\$ 1,756,227$ | $\$ 88,388,455$ |
| 2005 | $\$ 2,488,476$ | $\$ 1,990,629$ | $\$ 85,483,269$ |
| 2004 | $\$ 2,607,713$ | $\$ 1,076,234$ | $\$ 84,185,422$ |
| 2003 | $\$ 1,347,430$ | $\$ 1,073,924$ | $\$ 82,653,943$ |
| 2002 | $\$ 3,758,604$ | $\$ 1,055,795$ | $\$ 82,380,437$ |
| 2001 | $\$ 2,36,046$ | $\$ 1,029,459$ | $\$ 79,677,628$ |
| 2000 | $\$ 3,420,485$ | $\$ 1,443,110$ | $\$ 78,311,041$ |
| 1999 | $\$ 4,458,378$ | $\$ 1,278,242$ | $\$ 76,333,666$ |
| 1998 | $\$ 3,482,894$ | $\$ 1,560,837$ | $\$ 73,153,530$ |
| 1997 | $\$ 4,777,388$ | $\$ 2,186,374$ | $\$ 71,231,473$ |
| 1996 | $\$ 3,287,901$ | $\$ 1,578,917$ | $\$ 68,640,459$ |
| 1995 | $\$ 4,198,526$ | $\$ 1,313,309$ | $\$ 66,931,475$ |
| 1994 | $\$ 5,479,512$ | $\$ 1,164,053$ | $\$ 64,046,258$ |
| 1993 | $\$ 4,268,448$ | $\$ 1,105,636$ | $\$ 59,730,799$ |
| 1992 | $\$ 3,210,065$ | $\$ 1,618,101$ | $\$ 56,567,987$ |
| 1991 | $\$ 3,837,537$ | $\$ 1,219,271$ | $\$ 54,976,023$ |
| 1990 | $\$ 3,902,514$ | $\$ 959,910$ | $\$ 52,357,757$ |
| 1989 | $\$ 3,776,952$ | $\$ 1,161,193$ | $\$ 49,415,153$ |
| 1988 | $\$ 2,317,695$ | $\$ 601,750$ | $\$ 46,799,394$ |
| 1987 | $\$ 3,159,121$ | $\$ 784,243$ | $\$ 45,083,449$ |
| 1986 | $\$ 3,654,901$ | $\$ 714,994$ | $\$ 42,708,571$ |
| 1985 | $\$ 2,911,382$ | $\$ 640,462$ | $\$ 39,768,664$ |
| 1984 | $\$ 3,261,356$ | $\$ 509,740$ | $\$ 37,497,744$ |
| 1983 | $\$ 2,530,699$ | $\$ 816,897$ | $\$ 34,746,128$ |
| 1982 | $\$ 2,206,738$ | $\$ 667,258$ | $\$ 33,032,326$ |
| 1981 | $\$ 2,989,360$ | $\$ 1,160,266$ | $\$ 31,492,846$ |
| 1980 | $\$ 3,636,711$ | $\$ 707,768$ | $\$ 29,663,752$ |
| 1979 | $\$ 2,852,002$ | $\$ 411,317$ | $\$ 26,734,809$ |
| 1978 | $\$ 3,851,592$ | $\$ 627,160$ | $\$ 24,294,124$ |
| 1977 | $\$ 3,541,256$ | $\$ 312,212$ | $\$ 21,069,692$ |
| 1976 | $\$ 1,711,891$ | $\$ 265,974$ | $\$ 17,840,648$ |
| 1975 | $\$ 1,610,300$ | $\$ 253,830$ | $\$ 16,394,731$ |
| 1974 | $\$ 1,473,612$ | $\$ 242,975$ | $\$ 15,038,261$ |

## tage 209 of 350



$\mathbf{1 1 , 0 1 8 , 2 9 5}$
$\$ 10,257,345$ S81' $\varepsilon L 6^{\prime} 6 \$$ \$9,169,403 $\$ 8,477,904$ $\$ 7,910,449$
 $\stackrel{\infty}{\infty}$ \$6,791,879
 N
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0
0 $\stackrel{0}{\circ}$ عย1'レG\&'s\$ $\stackrel{\text { ® }}{\stackrel{y}{\circ}}$ \$4,472,221
 $\infty$
0
0
N
0
$\infty$
$\infty$ \$3,404,177

 \$2,136,398 N $\$ 1,195,481$ \$874,189 $\$ 718,309$ \$695,071 \$698,885 $\$ 673,843$ $\stackrel{N}{N}$
 $\$ 229,211$

 Page 2 of 3


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KENTUCKY POWER COMPANY
Depreciation Study as of December 31, 2008
Distribution Plant

| Account | 369 SERVICES |  |
| :--- | :---: | :---: |
| Depreciable Balance | $\$ 38,162,243$ |  |
|  | Current | Recommended |
| Average Service Life (Yrs) | 18 | 25 |
| lowa Curve | R2.0 | L0 |
| Gross Removal, \% |  | $15 \%$ |
| Gross Salvage, \% | $0 \%$ | $0 \%$ |
| Net Salvage \% |  | $-15 \%$ |

Based on the results of the simulation analyses for all the observation bands, the recommendation is to move to a 25 year average service life following an LO. 0 type dispersion.

The removal and replacements of services will involve labor and equipment costs. No reuse or scrap value is expected.
sound: KEPCo $101 / 6369-\mathrm{KY}$
drsion: KEPCO DISTRIEUTION 2008
Method: Simulated Balances
No. of Test Points: $40 \quad$ Interval: $0 \quad$ Observation Band: 1969-2008

| Dispersion | Avg <br> Service <br> Life | Sum of <br> Squared <br> Differences | Index of <br> Variation | Conformance <br> Index |
| :--- | :---: | :---: | :---: | :---: |
| LO | 25.1 | $1.68 E+13$ | 41.7244 | 23.97 |
| S-.5 | 23.6 | $1.81 E+13$ | 43.2746 | Retirement <br> Experience <br> Index |
| R0.5 | 23.6 | $1.82 E+13$ | 43.3900 | 23.11 |

:count: KEPCo 101/6 369 - KY rsion: KEPCO DISTRIBUTION 2008
Method: Simulated Balances

$\int \frac{9}{a}=2140+35$
sount: KEPCo 101/6 369-KY
arsion: KEPCO DISTRIBUTION 2008
Method: Simulated Balances
No. of Test́Point̂s: 10 Interval: 0 Observation Band: 1999-2008

| Dispersion | Avg <br> Service <br> Life | Sum of <br> Squared <br> Differences | Index of <br> Variation | Renformance <br> Index |
| :--- | :---: | :---: | :---: | :---: |
| L0 | 26.4 | $1.80 E+12$ | 13.9501 | Experience <br> Index |
| L0.5 | 25.3 | $1.83 E+12$ | 14.1034 | 71.68 |
| L1 | 24.1 | $1.85 E+12$ | 14.1460 | 70.90 |




## fage 216 of 350




10／20／2009 \＄2，755，209 \＄2，554，056 | N |
| :--- |
| N |
| N |
| 等 |

 \＄2，251，867 \＄2，207，527 \＄2，149，037 \＄2，053，477 ， \＄1，899，622 \＄1，803，312 \＄1，719，960 \＄1，637，862加 $9^{\prime} G L S^{\prime} L \$$ \＄1，507，905 \＄1，427，568 $\$ 1,335,277$ \＄1，230，950 \＄1，093，652 \＄903，714 \＄676，629 \＄470，232 \＄364，939 N \begin{tabular}{l}
9 <br>
0 <br>
\hline \multirow{4}{3}{} <br>
\hline

 \＄316，889 \＄287，960 

N <br>
N <br>
N <br>
\multirow{2}{*}{}
\end{tabular}

 $\$ 163,509$
$\$ 158,801$
$\$ 118,146$
$\$ 108,673$
$\$ 126,343$
$\$ 128,889$
$\$ 97,914$
$\$ 101,048$
$\$ 91,455$
$\$ 84,465$
$\$ 81,492$
$\$ 70,456$
$\$ 71,168$
$\$ 71,016$
$\$ 65,607$
$\$ 72,705$
$\$ 61,021$
$\$ 54,615$
$\$ 50,921$
$\$ 47,791$
$\$ 43,728$
$\$ 36,275$
$\$ 35,506$
$\$ 24,246$
$\$ 29,813$
$\$ 16,194$
$\$ 11,858$
$\$ 6,923$
$\$ 4,137$
$\$ 3,671$
$\$ 8,861$
$\$ 971$
$\$ 10,956$
$\$ 15,722$
$\$ 12,835$
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|  | Current | Recommended |
| :--- | :---: | :---: |
| Average Service Life (Yrs) | 27 | 17 |
| Iowa Curve | R0.5 | S |
| Gross Removal, \% |  | $10 \%$ |
| Gross Salvage, \% | $0 \%$ | $2 \%$ |
| Net Salvage \% |  | $-8 \%$ |

The results of the simulation analyses for the investment in this account point to a shortening of the average service life. Based on the analyses, the recommendation is to move to a 17 year average service life following an S6.0 type retirement dispersion as indicated in both the 40 year and 20 year band analyses.

Labor and transportation costs will be incurred in the removal of the meters. A minimal amount of scrap value may be obtained.

# Simulated Plant Record Analysis 

Kentucky Power - Distr

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:ount: KEPCo 101/6 370 -KY
-rsion: KEPCO DISTRIBUTION 2008
Method: Simulated Balances

count: KEPCo 101/6 370-KY
arsion: KEPCO DISTRIBUTION 2008
Method: Simulated Balances

:count: KEPCo $101 / 6370$ - KY
arsion: KEPCO DISTRIBUTION 2008
Method: Simulated Balances




| $10 / 20 / 2009$ |
| :--- |
| Act Yr Additions｜Retirements Ending Balance |

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10/20/2009


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10/20/2009

|  |  |  |  |
| :---: | :---: | :---: | :---: |
| Act Yr | Additions | Retirements | Ending Balance |
| 1938 | $\$ 52,663$ | $\$ 14,262$ | $\$ 439,316$ |
| 1937 | $\$ 50,591$ | $\$ 20,604$ | $\$ 400,915$ |
| 1936 | $\$ 370,928$ | $\$ 0$ | $\$ 370,928$ |

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KENTUCKY POWER COMPANY
Depreciation Study as of December 31, 2008Distribution Plant
Account 371 INSTALLATIONS ON CUSTOMERS PREMISES
Depreciable Balance ..... \$18,001,253
Current Recommended
Average Service Life (Yrs) ..... 11 ..... 14
Iowa Curve LOO ..... R0.5
Gross Removal, \% ..... 20\%
Gross Salvage, \% ..... 5\%
Net Salvage \% ..... 30\% ..... -15\%
The simulation analyses of the 40 and 20 year bands indicate an R0.5 type dispersion is appropriate for the investments in this account. The resultant average service life is 14 years.
Labor and equipment costs will result in removal costs being incurred for the retirement of this investment. A minimum amount of scrap value may result in some salvage.

## Simulated Plant Record Analysis

Kentucky Power - Distr

count: KEPCo 101/6 371 -KY
ersion: KEPCO DISTRIBUTION 2008
Method: Simulated Balances


## Simulated Plant Record Analysis

Kentucky Power - Distr
oort: KEPCO 101/6 371 - KY
ersion: KEPCO DISTRIBUTION 2008
Method: Simulated Balances

| No. of Test Points: | 20 | Interval: 0 |  | Observation Band: $1989-2008$ |  |
| :--- | :--- | :--- | :--- | :--- | :--- |

:ount: KEPCo 101/6 371 -KY
version: KEPCO DISTRIBUTION 2008
Method: Simulated Balances
No. of Test Points: $10 \quad$ Interval: $0 \quad$ Observation Band: 1999-2008




10/20/2009

| 2008 | \$1,469,673 | \$1,060,049 | \$18,001,253 |
| :---: | :---: | :---: | :---: |
| 2007 | \$1,459,010 | \$930,355 | \$17,591,629 |
| 2006 | \$1,577,577 | \$1,063,929 | \$17,062,974 |
| 2005 | \$1,768,968 | \$818,524 | \$16,549,326 |
| 2004 | \$1,563,148 | \$115,921 | \$15,598,882 |
| 2003 | \$2,356,246 | \$155,458 | \$14,151,655 |
| 2002 | \$1,536,211 | \$370,170 | \$11,950,867 |
| 2001 | \$858,732 | \$563,686 | \$10,784,826 |
| 2000 | \$1,331,176 | \$637,697 | \$10,489,780 |
| 1999 | \$1,742,973 | \$465,115 | \$9,796,301 |
| 1998 | \$600,987 | \$553,968 | \$8,518,443 |
| 1997 | \$1,583,946 | \$529,850 | \$8,471,424 |
| 1996 | \$496,928 | \$246,115 | \$7,417,328 |
| 1995 | \$559,153 | \$350,093 | \$7,166,515 |
| 1994 | \$1,062,578 | \$354,006 | \$6,957,455 |
| 1993 | \$1,380,740 | \$349,338 | \$6,248,883 |
| 1992 | \$843,872 | \$292,580 | \$5,217,481 |
| 1991 | \$757,210 | \$317,371 | \$4,666,189 |
| 1990 | \$574,638 | \$261,542 | \$4,226,350 |
| 1989 | \$673,733 | \$291,379 | \$3,913,254 |
| 1988 | \$464,215 | \$257,746 | \$3,530,900 |
| 1987 | \$478,198 | \$421,123 | \$3,324,431 |
| 1986 | \$500,633 | \$195,928 | \$3,267,356 |
| 1985 | \$430,816 | \$184,064 | \$2,962,651 |
| 1984 | \$455,174 | \$152,915 | \$2,715,899 |
| 1983 | \$359,728 | \$156,108 | \$2,413,640 |
| 1982 | \$259,270 | \$102,664 | \$2,210,020 |
| 1981 | \$301,789 | \$124,056 | \$2,053,414 |
| 1980 | \$217,442 | \$114,552 | \$1,875,681 |
| 1979 | \$195,902 | \$87,903 | \$1,772,791 |
| 1978 | \$183,648 | \$67,643 | \$1,664,792 |
| 1977 | \$122,908 | \$58,498 | \$1,548,787 |
| 1976 | \$245,454 | \$66,077 | \$1,484,377 |
| 1975 | \$182,106 | \$64,832 | \$1,305,000 |
| 1974 | \$198,910 | \$85,653 | \$1,187,726 |

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| $10 / 20 / 2009$ |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Act Yr | Additions | Retirements | Ending Balance |
| 1938 | $\$ 0$ | $\$ 0$ | $\$ 0$ |
| 1937 | $\$ 0$ | $\$ 0$ | $\$ 0$ |
| 1936 | $\$ 0$ | $\$ 0$ | $\$ 0$ |



KENTUCKY POWER COMPANY
Depreciation Study as of December 31, 2008
Distribution Plant

Account
373 STREET LIGHTING \& SIGNAL SYSTEMS
Depreciable Balance $\$ 2,939,603$

Current
Average Service Life (Yrs) 15
Iowa Curve
Gross Removal, \%
LOO
Recommended
24
L. 0.0
$5 \%$

Gross Salvage, \%
3\%
Net Salvage \% $15 \% \quad-2 \%$

The simulation analyses for the investment in this account show a fluction in the retirement dispersion between the $L$ and $S$ type Iowa Curves. Both dispersion types show a slight increase is occurring in the average service life. Based on the analysis of the 40 year band, the recommendation is to increase the average service life to 24 years and to retain the LO.O type dispersion.

Labor and material costs will result in removal costs for this investment. Some net salvage may be expected from the sale of material.
:count: KEPCo $101 / 6373-\mathrm{KY}$
sion: KEPCO DISTRIGUTION 2008
Method: Simulated Balances


## Kentucky Power - Distr

sount: KEPCo 101/6 373 -KY
arsion: KEPCO DISTRIBUTION 2008
Method: Simulated Balances

| No. of Test Points: | 20 | Interval: 0 |  | n Band: 19 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Dispersion | Avg Service Life | Sum of <br> Squared Differences | Index of Variation | Conformance Index | Retirement <br> Experience Index |
| S6 | 21.4 | $9.90 \mathrm{E}+11$ | 93.1515 | 10.74 | 100.00 |
| 55 | 21.5 | 1.08E+12 | 97.2519 | 10.28 | 100.00 |
| R5 | 21.7 | 1.09E+12 | 97.7171 | 10.23 | 100.00 |
| R4 | 21.8 | 1.17E+12 | 101.1999 | 9.88 | 100.00 |
| L5 | 21.8 | 1.18E*12 | 101.5662 | 9.85 | 100.00 |
| R0.5 | 24.1 | 1.20E+12 | 102.6310 | 9.74 | 100.00 |
| S4 | 21.6 | 1.21E+12 | 102.7983 | 9.73 | 100.00 |
| L0 | 25.5 | 1.24E+12 | 104.3183 | 9.59 | 99.50 |
| R3 | 21.9 | $1.25 \mathrm{E}+12$ | 104.4927 | 9.57 | 100.00 |
| S. 5 | 24.3 | $1.26 E+12$ | 105.1720 | 9.51 | 100.00 |
| R1 | 23.5 | $1.26 \mathrm{E}+12$ | 105.2683 | 9.50 | 100.00 |
| R2.5 | 22.2 | $1.27 \mathrm{E}+12$ | 105.4939 | 9.48 | 100.00 |
| R1.5 | 22.9 | 1.29E*12 | 106.1548 | 9.42 | 100.00 |
| R2 | 22.6 | $1.31 \mathrm{E}+12$ | 106.9762 | 9.35 | 100.00 |
| 14 | 21.9 | $1.33 \mathrm{E}+12$ | 108.0478 | 9.26 | 100.00 |
| L0.5 | 24.9 | $1.35 \mathrm{E}+12$ | 108.6375 | 9.20 | 99.82 |
| S3 | 22.0 | $1.36 \mathrm{E}+12$ | 109.0772 | 9.17 | 100.00 |
| So | 23.7 | $1.40 \mathrm{E}+12$ | 110.7626 | 9.03 | 100.00 |
| SQ | 23.1 | 1.41E+12 | 111.1748 | 8.99 | 100.00 |
| 50.5 | 23.4 | 1.45E +12 | 112.5642 | 8.88 | 100.00 |
| S2 | 22.3 | $1.46 \mathrm{E}+12$ | 113.2549 | 8.83 | 100.00 |
| L1 | 24.3 | $1.46 \mathrm{E}+12$ | 113.2695 | 8.83 | 100.00 |
| S1.5 | 22.7 | $1.48 \mathrm{E}+12$ | 113.7163 | 8.79 | 100.00 |
| \$1 | 22.8 | 1.49E+12 | 114.4577 | 8.74 | 100.00 |
| L1.5 | 23.7 | $1.51 \mathrm{E}+12$ | 115.1355 | 8.69 | 100.00 |
| L3 | 22.7 | 1.53E +12 | 115.9609 | 8.62 | 100.00 |
| L2 | 23.3 | 1.58E+12 | 117.7177 | 8.49 | 100.00 |

## Simulated Plant Record Analysis

Kentucky Power - Distr

:ount: KEPCo 101/6 373 - KY
.ersion: KEPCO DISTRIBUTION 2008
Method: Simulated Balances
No. of Test Points: $10 \quad$ Interval: $0 \quad$ Observation Band: 1999-2008








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# KENTUCKY POWER COMPANY <br> DEPRECIATION STUDY AS OF 12-31-08 <br> DISTRIBUTION PLANT WORKPAPERS 

SALVAGE AND REMOVAL ANALYSIS

| Net | Functional |
| :---: | :---: |
| Salvage | Net Salvage |
| \％ |  |
| 4\％ | 200，646 |
| 1\％ | 39，259 |
| 2\％ | 96，665 |
| 6\％ | 474，137 |
| 8\％ | 487，840 |
| 4\％ | 178，028 |
| 16\％ | 1，288，086 |
| －7\％ | －403，255 |
| 30\％ | 1，866，215 |
| －2\％ | －121，659 |
| －15\％ | －1，080，231 |
| －7\％ | －556，174 |
| 6\％ | 1，086，023 |
| －10\％ | －1，905，849 |
| －22\％ | －2，182，453 |
| 0\％ | －532．722 |




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|  | 361 | 362 | 364 | 365 | 366 | 367 | 368 | 369 | 370 | 371 | 373 | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total Retmts | 117，097 | 7，375，782 | 18，514，004 | 26，690，507 | 65，007 | 599，961 | 22，385，162 | 8，957，232 | 30，875，152 | 8，214，935 | 720.894 | 124，515，733 |
| Net Salvage \％ | 10 | 10 | －53 | 25 | 0 | 0 | 25 | －15 | －8 | －15 | －2 | －1 |
| Net Salvage \＄ | 11，710 | 737，578 | －9，812，422 | 6，672，627 | 0 | 0 | 5，596，291 | $-1,343,585$ | －2，470，012 | －1，232，240 | －14，418 | 1，854，472 |




EVALUATION BASED ON 1994-2008 RESERVE ACTIVITY


# DEPRECIATION STUDY AS OF 12-31-08 

## DISTRIBUTION PLANT WORKPAPERS

## CALCULATION OR AGE OF SIMULATED PLANT BALANCES

Account: KEPCo 101/6 364 - KY


Version: KEPCO DISTRIBUTION 2008
r- version: $30-$ R0.5

| Vintage | Additions | $\begin{aligned} & \text { Age } \\ & 2009 \end{aligned}$ | Theoretical Survivors |  | Computed Survivors |  | Realized Life |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Percent | Amount | Percent | Amount |  |
| 2008 | 7,948,638 | 0.5 | 99.37 | 7,898,323 | 100.00 | 7,948,639 | 0.50 |
| 2007 | 8,178,275 | 1.5 | 98.09 | 8,021,825 | 100.00 | 8,178,276 | 1.50 |
| 2006 | 6,214,520 | 2.5 | 96.79 | 6,014,765 | 100.00 | 6,214,521 | 2.50 |
| 2005 | 4,777,960 | 3.5 | 95.47 | 4,561,280 | 100.00 | 4,777,961 | 3.50 |
| 2004 | 4,606,829 | 4.5 | 94.12 | 4,336,132 | 100.00 | 4,606,830 | 4.50 |
| 2003 | 3,549,389 | 5.5 | 92.76 | 3,292,508 | 100.00 | 3,549,390 | 5.50 |
| 2002 | 4,243,760 | 6.5 | 91.38 | 3,878,033 | 99.31 | 4,214,323 | 6.48 |
| 2001 | 6,491,237 | 7.5 | 89.98 | 5,840,945 | 97.78 | 6,347,452 | 7.42 |
| 2000 | 6,193,673 | 8.5 | 88.56 | 5,485,303 | 96.24 | 5,960,969 | 8.34 |
| 1999 | 7,750,006 | 9.5 | 87.12 | 6,752,167 | 94.68 | 7,337,692 | 9.25 |
| 1998 | 2,259,261 | 10.5 | 85.67 | 1,935,441 | 93.10 | 2,103,276 | 10.14 |
| 1997 | 2,175,205 | 11.5 | 84.19 | 1,831,283 | 91.49 | 1,990,086 | 11.01 |
| 1996 | 9,692,760 | 12.5 | 82.69 | 8,014,943 | 89.86 | 8,709,971 | 11.87 |
| 1995 | 5,532,239 | 13.5 | 81.17 | 4,490,297 | 88.20 | 4,879,680 | 12.70 |
| 1994 | 6,419,736 | 14.5 | 79.62 | 5,111,180 | 86.52 | 5,554,404 | 13.52 |
| 1993 | 5,227,092 | 15.5 | 78.04 | 4,079,275 | 84.81 | 4,433,016 | 14.32 |
| 1992 | 6,185,410 | 16.5 | 76.44 | 4,727,818 | 83.06 | 5,137,798 | 15.10 |
| 1991 | 6,088,191 | 17.5 | 74.80 | 4,553,886 | 81.28 | 4,948,783 | 15.86 |
| 1990 | 5,783,242 | 18.5 | 73.13 | 4,229,266 | 79.47 | 4,596,013 | 16.60 |
| 389 | 5,307,552 | 19.5 | 71.43 | 3,791,025 | 77.62 | 4,119,770 | 17.32 |
| 1988 | 4,827,488 | 20.5 | 69.69 | 3,364,244 | 75.73 | 3,655,980 | 18.01 |
| 1987 | 5,327,380 | 21.5 | 67.92 | 3,618,179 | 73.81 | 3,931,935 | 18.68 |
| 1986 | 5,369,391 | 22.5 | 66.11 | 3,549,597 | 71.84 | 3,857,406 | 19.33 |
| 1985 | 4,909,635 | 23.5 | 64.26 | 3,155,046 | 69.83 | 3,428,641 | 19.96 |
| 1984 | 4,313,710 | 24.5 | 62.38 | 2,690,964 | 67.79 | 2,924,315 | 20.55 |
| 1983 | 4,439,316 | 25.5 | 60.47 | 2,684,232 | 65.71 | 2,917,000 | 21.13 |
| 1982 | 4,665,175 | 26.5 | 58.52 | 2,729,827 | 63.59 | 2,966,548 | 21.68 |
| 1981 | 5,803,340 | 27.5 | 56.53 | 3,280,783 | 61.43 | 3,565,281 | 22.20 |
| 1980 | 4,804,915 | 28.5 | 54.52 | 2,619,640 | 59.25 | 2,846,805 | 22.69 |
| 1979 | 3,884,010 | 29.5 | 52.48 | 2,038,238 | 57.03 | 2,214,987 | 23.16 |
| 1978 | 3,251,569 | 30.5 | 50.41 | 1,639,138 | 54.78 | 1,781,278 | 23.60 |
| 1977 | 3,061,702 | 31.5 | 48.32 | 1,479,476 | 52.51 | 1,607,770 | 24.02 |
| 1976 | 2,270,319 | 32.5 | 46.21 | 1,049,213 | 50.22 | 1,140,197 | 24.41 |
| 1975 | 1,611,041 | 33.5 | 44.09 | 710,335 | 47.92 | 771,933 | 24.78 |
| 1974 | 1,552,522 | 34.5 | 41.96 | 651,423 | 45.60 | 707,912 | 25.12 |
| 1973 | 1,515,199 | 35.5 | 39.82 | 603,352 | 43.27 | 655,673 | 25.43 |
| 1972 | 1,255,246 | 36.5 | 37.68 | 472,989 | 40.95 | 514,005 | 25.72 |
| 1971 | 1,229,340 | 37.5 | 35.55 | 436,993 | 38.63 | 474,888 | 25.99 |
| 1970 | 840,500 | 38.5 | 33.42 | 280,915 | 36.32 | 305,275 | 26.24 |
| 1969 | 775,929 | 39.5 | 31.31 | 242,980 | 34.03 | 264,050 | 26.47 |
| 1968 | 779,145 | 40.5 | 29.23 | 227,729 | 31.76 | 247,476 | 26.68 |
| 1967 | 736,064 | 41.5 | 27.17 | 199,996 | 29.53 | 217,339 | 26.88 |
| 1966 | 623,348 | 42.5 | 25.15 | 156,751 | 27.33 | 170,344 | 27.06 |
| 1965 | 625,458 | 43.5 | 23.16 | 144,875 | 25.17 | 157,438 | 27.22 |
| 1964 | 510,960 | 44.5 | 21.23 | 108,463 | 23.07 | 117,869 | 27.38 |

Account: KEPCo 101/6 364-KY
Version: KEPCO DISTRIBUTION 2008
r-persion: 30 - R0.5


[^6]

Account: KEPCo 101/6 365 -KY
Version: KEPCO DISTRIBUTION 2008
nispersion: 30 - R0.5

| vintage | Additions | $\begin{aligned} & \text { Age } \\ & 2009 \end{aligned}$ | Theoretical Survivors |  | Computed Survivors |  | Realized Life |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Percent | Amount | Percent | Amount |  |
| 2008 | 10,259,054 | 0.5 | 99.37 | 10,194,114 | 100.00 | 10,259,055 | 0.50 |
| 2007 | 14,237,195 | 1.5 | 98.09 | 13,964,837 | 98.84 | 14,071,576 | 1.49 |
| 2006 | 8,984,427 | 2.5 | 96.79 | 8,695,638 | 97.53 | 8,762,102 | 2.47 |
| 2005 | 6,436,239 | 3.5 | 95.47 | 6,144,356 | 96.19 | 6,191,320 | 3.43 |
| 2004 | 5,364,176 | 4.5 | 94.12 | 5,048,977 | 94.84 | 5,087,569 | 4.38 |
| 2003 | 4,069,103 | 5.5 | 92.76 | 3,774,608 | 93.47 | 3,803,460 | 5.32 |
| 2002 | 5,622,594 | 6.5 | 91.38 | 5,138,039 | 92.08 | 5,177,311 | 6.24 |
| 2001 | 5,169,647 | 7.5 | 89.98 | 4,651,752 | 90.67 | 4,687,307 | 7.15 |
| 2000 | 5,230,644 | 8.5 | 88.56 | 4,632,415 | 89.24 | 4,667,823 | 8.04 |
| 7999 | 6,688,639 | 9.5 | 87.12 | 5,827,454 | 87.79 | 5,871,996 | 8.92 |
| 1998 | 2,314,364 | 10.5 | 85.67 | 1,982,646 | 86.32 | 1,997,801 | 9.78 |
| 1997 | 7,910,940 | 11.5 | 84.19 | 6,660,141 | 84.83 | 6,711,047 | 10.63 |
| 1996 | 3,270,420 | 12.5 | 82.69 | 2,704,310 | 83.32 | 2,724,981 | 11.46 |
| 1995 | 5,785,493 | 13.5 | 81.17 | 4,695,853 | 81.79 | 4,731,745 | 12.27 |
| 1994 | 4,473,083 | 14.5 | 79.62 | 3,561,320 | 80.23 | 3,588,540 | 13.07 |
| 1993 | 2,861,816 | 15.5 | 78.04 | 2,233,390 | 78.64 | 2,250,461 | 13.84 |
| 1992 | 3,277,636 | 16.5 | 76.44 | 2,505,261 | 77.02 | 2,524,410 | 14.60 |
| 1991 | 3,654,148 | 17.5 | 74.80 | 2,733,254 | 75.37 | 2,754,145 | 15.34 |
| 1990 | 3,794,891 | 18.5 | 73.13 | 2,775,191 | 73.69 | 2,796,403 | 16.07 |
| 989 | 3,611,129 | 19.5 | 71.43 | 2,579,321 | 71.97 | 2,599,036 | 16.77 |
| 1988 | 3,229,945 | 20.5 | 69.69 | 2,250,927 | 70.22 | 2,268,132 | 17.45 |
| 1987 | 3,764,540 | 21.5 | 67.92 | 2,556,750 | 68.44 | 2,576,292 | 18.11 |
| 1986 | 3,340,589 | 22.5 | 66.11 | 2,208,397 | 66.61 | 2,225,276 | 18.74 |
| 1985 | 2,604,969 | 23.5 | 64.26 | 1,674,014 | 64.75 | 1,686,809 | 19.36 |
| 1984 | 2,380,654 | 24.5 | 62.38 | 1,485,092 | 62.86 | 1,496,443 | 19.95 |
| 1983 | 2,562,107 | 25.5 | 60.47 | 1,549,178 | 60.93 | 1,561,019 | 20.52 |
| 1982 | 2,865,659 | 26.5 | 58.52 | 1,676,840 | 58.96 | 1,689,657 | 21.06 |
| 1981 | 4,443,270 | 27.5 | 56.53 | 2,511,899 | 56.96 | 2,531,098 | 21.58 |
| 1980 | 3,591,035 | 28.5 | 54.52 | 1,957,832 | 54.94 | 1,972,796 | 22.08 |
| 1979 | 3,199,783 | 29.5 | 52.48 | 1,679,171 | 52.88 | 1,692,006 | 22.55 |
| 1978 | 2,734,482 | 30.5 | 50.41 | 1,378,471 | 50.80 | 1,389,007 | 23.00 |
| 1977 | 3,143,781 | 31.5 | 48.32 | 1,519,138 | 48.69 | 1,530,749 | 23.42 |
| 1976 | 1,782,930 | 32.5 | 46.21 | 823,969 | 46.57 | 830,267 | 23.82 |
| 1975 | 1,026,632 | 33.5 | 44.09 | 452,659 | 44.43 | 456,119 | 24.19 |
| 1974 | 1,088,826 | 34.5 | 41.96 | 456,861 | 42.28 | 460,353 | 24.54 |
| 1973 | 1,108,750 | 35.5 | 39.82 | 441,504 | 40.12 | 444,879 | 24.87 |
| 1972 | 1,152,475 | 36.5 | 37.68 | 434,264 | 37.97 | 437,583 | 25.18 |
| 1971 | 1,451,307 | 37.5 | 35.55 | 515,896 | 35.82 | 519,839 | 25.47 |
| 1970 | 1,150,481 | 38.5 | 33.42 | 384,518 | 33.68 | 387,456 | 25.73 |
| 1969 | 992,508 | 39.5 | 31.31 | 310,801 | 31.55 | 313,176 | 25.98 |
| 1968 | 949,626 | 40.5 | 29.23 | 277,557 | 29.45 | 279,678 | 26.21 |
| 1967 | 869,418 | 41.5 | 27.17 | 236,230 | 27.38 | 238,035 | 26.43 |
| 1966 | 728,131 | 42.5 | 25.15 | 183,101 | 25.34 | 184,500 | 26.63 |
| 1965 | 688,379 | 43.5 | 23.16 | 159,449 | 23.34 | 160,668 | 26.83 |
| 1964 | 500,173 | 44.5 | 21.23 | 106,173 | 21.39 | 106,985 | 27.01 |

Account: KEPCo 101/6 365 -KY
Version: KEPCO DISTRIBUTION 2008

| -"--persion: <br> Vintage | $30-\mathrm{R} 0.5$ <br> Additions | $\begin{aligned} & \text { Age } \\ & 2009 \end{aligned}$ | Theoretical Survivors |  | Computed Survivors |  | Realized Life |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |
|  |  |  | Percent | Amount | Percent | Amount |  |
| 1963 | 342,519 | 45.5 | 19.34 | 66,253 | 19.49 | 66,760 | 27.18 |
| 1962 | 356,863 | 46.5 | 17.52 | 62,512 | 17.65 | 62,990 | 27.35 |
| 1961 | 431,518 | 47.5 | 15.76 | 67,989 | 15.88 | 68,508 | 27.52 |
| 1960 | 309,663 | 48.5 | 14.06 | 43,548 | 14.17 | 43,881 | 27.69 |
| 1959 | 332,979 | 49.5 | 12.44 | 41,429 | 12.54 | 41,746 | 27.85 |
| 1958 | 411,734 | 50.5 | 10.90 | 44,879 | 10.98 | 45,222 | 28.02 |
| 1957 | 370,826 | 51.5 | 9.44 | 34,995 | 9.51 | 35,262 | 28.20 |
| 1956 | 335,384 | 52.5 | 8.05 | 27,015 | 8.12 | 27,221 | 28.38 |
| 1955 | 247,836 | 53.5 | 6.76 | 16,744 | 6.81 | 16,872 | 28.57 |
| 1954 | 237,566 | 54.5 | 5.54 | 13,154 | 5.58 | 13,255 | 28.77 |
| 1953 | 254,683 | 55.5 | 4.39 | 11,190 | 4.43 | 11,275 | 28.98 |
| 1952 | 291,012 | 56.5 | 3.32 | 9,662 | 3.35 | 9,735 | 29.20 |
| 1951 | 393,824 | 57.5 | 2.30 | 9,065 | 2.32 | 9,134 | 29.42 |
| 1950 | 509,472 | 58.5 | 1.34 | 6,817 | 1.35 | 6,869 | 29.64 |
| 1949 | 591,741 | 59.5 | 0.00 |  | -0.00 | (1) | 29.75 |
| 1948 | 780,371 | 60.5 | 0.00 |  | 0.00 |  | 0.00 |
| 1947 | 845,275 | 61.5 | 0.00 |  | 0.00 |  | 0.00 |
| 1946 | 541,149 | 62.5 | 0.00 |  | 0.00 |  | 0.00 |
| 1945 | 107,824 | 63.5 | 0.00 |  | 0.00 |  | 0.00 |
| 944 | 34,927 | 64.5 | 0.00 |  | 0.00 |  | 0.00 |
| 1943 | 14,300 | 65.5 | 0.00 |  | 0.00 |  | 0.00 |
| 1942 | 71,460 | 66.5 | 0.00 |  | 0.00 |  | 0.00 |
| 1941 | 90,549 | 67.5 | 0.00 |  | 0.00 |  | 0.00 |
| 1940 | 125,801 | 68.5 | 0.00 |  | 0.00 |  | 0.00 |
| 1939 | 132,698 | 69.5 | 0.00 |  | 0.00 |  | 0.00 |
| 1938 | 124,001 | 70.5 | 0.00 |  | 0.00 |  | 0.00 |
| 1937 | 120,859 | 71.5 | 0.00 |  | 0.00 |  | 0.00 |
| 1936 | 771,885 | 72.5 | 0.00 |  | 0.00 |  | 0.00 |
| 173,544,807 |  | 128,188,820 |  |  | 129,155,638 * |  |  |

[^7]Account: KEPCo 101/6 366-KY


Version: KEPCO DISTRIBUTION 2008
bersion: 50 -R0.5


Account: KEPCo 101/6 366 -KY
Version: KEPCO DISTRIBUTION 2008

| Vintage | $\begin{aligned} & 50-\mathrm{R} 0.5 \\ & \text { Additions } \end{aligned}$ | $\begin{aligned} & \text { Age } \\ & 2009 \end{aligned}$ | Theoretical Survivors |  | Computed Survivors |  | Realized Life |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Percent | Amount | Percent | Amount |  |
| 1940 | 77 | 68.5 | 27.99 | 22 | 33.02 | 25 | 45.56 |
| 1939 | 315 | 69.5 | 26.76 | 84 | 31.08 | 98 | 45.55 |
| 1936 | 1,383 | 72.5 | 23.16 | 320 | 26.76 | 370 | 45.95 |
|  | 4,416,728 |  |  | 3,980,102 |  | 4,302,755 |  |

*Recorded Balance January 1, 2009: 4,302,755

Account: KEPCo 101/6 367 -KY


Version: KEPCO DISTRIBUTION 2008

| Vintage | 50 <br> Additions | $\begin{aligned} & \text { Age } \\ & 2009 \end{aligned}$ | Theoretical Survivors |  | Computed Survivors |  | Realized Life |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Percent | Amount | Percent | Amount |  |
| 2008 | 578,818 | 0.5 | 99.74 | 577,307 | 99.54 | 576,157 | 0.50 |
| 2007 | 973,386 | 1.5 | 99.18 | 965,385 | 98.98 | 963,461 | 1.49 |
| 2006 | 784,947 | 2.5 | 98.58 | 773,762 | 98.38 | 772,220 | 2.48 |
| 2005 | 104,018 | 3.5 | 97.94 | 101,871 | 97.74 | 101,669 | 3.46 |
| 2004 | 811,825 | 4.5 | 97.27 | 789,622 | 97.07 | 788,048 | 4.43 |
| 2003 | 245,976 | 5.5 | 96.57 | 237,527 | 96.37 | 237,054 | 5.40 |
| 2002 | 150,681 | 6.5 | 95.84 | 144,408 | 95.65 | 144,121 | 6.36 |
| 2001 | 293,525 | 7.5 | 95.08 | 279,092 | 94.89 | 278,537 | 7.31 |
| 2000 | 259,570 | 8.5 | 94.30 | 244,785 | 94.12 | 244,297 | 8.25 |
| 1999 | 377,491 | 9.5 | 93.50 | 352,965 | 93.32 | 352,262 | 9.18 |
| 1998 | 147,054 | 10.5 | 92.68 | 136,290 | 92.50 | 136,018 | 10.11 |
| 1997 | 339,985 | 11.5 | 91.84 | 312,225 | 91.65 | 311,603 | 11.02 |
| 1996 | 190,902 | 12.5 | 90.97 | 173,664 | 90.79 | 173,318 | 11.92 |
| 1995 | 209,851 | 13.5 | 90.09 | 189,046 | 89.91 | 188,670 | 12.82 |
| 1994 | 177,719 | 14.5 | 89.18 | 158,497 | 89.01 | 158,181 | 13.70 |
| 1993 | 285,294 | 15.5 | 88.26 | 251,812 | 88.09 | 251,310 | 14.58 |
| 1992 | 155,416 | 16.5 | 87.33 | 135,720 | 87.15 | 135,450 | 15.44 |
| 1991 | 141,320 | 17.5 | 86.37 | 122,064 | 86.20 | 121,821 | 16.29 |
| 1990 | 367,094. | 18.5 | 85.41 | 313,520 | 85.24 | 312,895 | 17.13 |
| 389 | 117,298 | 19.5 | 84.42 | 99,025 | 84.25 | 98,828 | 17.96 |
| 1988 | 78,161 | 20.5 | 83.43 | 65,206 | 83.26 | 65,076 | 18.78 |
| 1987 | 108,890 | 21.5 | 82.41 | 89,740 | 82.25 | 89,561 | 19.59 |
| 1986 | 79,589 | 22.5 | 81.39 | 64,777 | 81.23 | 64,648 | 20.39 |
| 1985 | 119,906 | 23.5 | 80.35 | 96,347 | 80.19 | 96,155 | 21.17 |
| 1984 | 21,545 | 24.5 | 79.30 | 17,086 | 79.15 | 17,052 | 21.95 |
| 1983 | 100,965 | 25.5 | 78.24 | 78,997 | 78.09 | 78,840 | 22.71 |
| 1982 | 263,053 | 26.5 | 77.17 | 203,001 | 77.02 | 202,595 | 23.45 |
| 1981 | 112,466 | 27.5 | 76.09 | 85,574 | 75.94 | 85,404 | 24.19 |
| 1980 | 86,392 | 28.5 | 75.00 | 64,791 | 74.85 | 64,662 | 24.92 |
| 1979 | 45,415 | 29.5 | 73.90 | 33,560 | 73.75 | 33,493 | 25.63 |
| 1978 | 83,270 | 30.5 | 72.79 | 60,609 | 72.64 | 60,488 | 26.33 |
| 1977 | 52,882 | 31.5 | 71.67 | 37,899 | 71.52 | 37,824 | 27.02 |
| 1976 | 67,240 | 32.5 | 70.54 | 47,432 | 70.40 | 47,337 | 27.69 |
| 1975 | 23,860 | 33.5 | 69.41 | 16,560 | 69.27 | 16,528 | 28.35 |
| 1974 | 76,050 | 34.5 | 68.27 | 51,916 | 68.13 | 51,812 | 29.00 |
| 1973 | 137,903 | 35.5 | 67.12 | 92,558 | 66.98 | 92,372 | 29.64 |
| 1972 | 109,531 | 36.5 | 65.96 | 72,251 | 65.83 | 72,106 | 30.26 |
| 1971 | 86,370 | 37.5 | 64.80 | 55,971 | 64.67 | 55,859 | 30.88 |
| 1970 | 76,458 | 38.5 | 63.64 | 48,657 | 63.51 | 48,559 | 31.48 |
| 1969 | 11,767 | 39.5 | 62.47 | 7,351 | 62.35 | 7,336 | 32.06 |
| 1968 | 4,973 | 40.5 | 61.30 | 3,048 | 61.18 | 3,042 | 32.64 |
| 1967 | 15,264 | 41.5 | 60.12 | 9,176 | 59.99 | 9,157 | 33.20 |
| 1966 | 4,745 | 42.5 | 58.94 | 2,796 | 58.82 | 2,791 | 33.75 |
| 1965 | 2,102 | 43.5 | 57.75 | 1,214 | 57.64 | 1,212 | 34.29 |
| 1963 | 1,638 | 45.5 | 55.37 | 907 | 55.26 | 905 | 35.32 |

Account: KEPCo 101/6 367 -KY
Version: KEPCO DISTRIBUTION 2008

| Vintage | $50$ <br> Additions | $\begin{aligned} & \text { Age } \\ & 2009 \end{aligned}$ | Theoretical Survivors |  | Computed Survivors |  | Realized Life |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |
|  |  |  | Percent | Amount | Percent | Amount |  |
| 1957 | 474 | 51.5 | 48.21 | 229 | 48.17 | 228 | 38.15 |
| 1947 | 543 | 61.5 | 36.36 | 197 | 36.33 | 197 | 41.92 |
| 1942 | 306 | 66.5 | 30.59 | 94 | 30.64 | 94 | 43.44 |
| 1940 | 198 | 68.5 | 28.33 | 56 | 28.46 | 56 | 44.00 |
| 1939 | 1,515 | 69.5 | 27.21 | 412 | 27.11 | 411 | 44.17 |
| 1936 | 1,683 | 72.5 | 23.91 | 402 | 23.79 | 400 | 44.87 |
|  | 8,487,324 |  |  | 7,667,400 |  | 7,652,122 |  |

[^8]

Account: KEPCo 101/6 368-KY
Version: KEPCO DISTRIBUTION 2008

| Vintage | $30$ <br> Additions | $\begin{aligned} & \text { Age } \\ & 2009 \end{aligned}$ | Theoretical Survivors |  | Computed Survivors |  | Realized Life |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Percent | Amount | Percent | Amount |  |
| 2008 | 7,450,618 | 0.5 | 99.37 | 7,403,456 | 100.00 | 7,450,619 | 0.50 |
| 2007 | 7,254,032 | 1.5 | 98.09 | 7,115,262 | 100.00 | 7,254,033 | 1.50 |
| 2006 | 4,661,413 | 2.5 | 96.79 | 4,511,580 | 98.91 | 4,610,531 | 2.49 |
| 2005 | 2,488,476 | 3.5 | 95.47 | 2,375,624 | 97.56 | 2,427,728 | 3.46 |
| 2004 | 2,607,713 | 4.5 | 94.12 | 2,454,484 | 96.19 | 2,508,317 | 4.41 |
| 2003 | 1,347,430 | 5.5 | 92.76 | 1,249,912 | 94.80 | 1,277,326 | 5.36 |
| 2002 | 3,758,604 | 6.5 | 91.38 | 3,434,688 | 93.39 | 3,510,020 | 6.29 |
| 2001 | 2,396,046 | 7.5 | 89.98 | 2,156,010 | 91.96 | 2,203,297 | 7.20 |
| 2000 | 3,420,485 | 8.5 | 88.56 | 3,029,284 | 90.51 | 3,095,725 | 8.10 |
| 1999 | 4,458,378 | 9.5 | 87.12 | 3,884,347 | 89.04 | 3,969,541 | 8.98 |
| 1998 | 3,482,894 | 10.5 | 85.67 | 2,983,691 | 87.55 | 3,049,131 | 9.85 |
| 1997 | 4,777,388 | 11.5 | 84.19 | 4,022,035 | 86.04 | 4,110,249 | 10.70 |
| 1996 | 3,287,901 | 12.5 | 82.69 | 2,718,765 | 84.50 | 2,778,395 | 11.53 |
| 1995 | 4,198,526 | 13.5 | 81.17 | 3,407,776 | 82.95 | 3,482,517 | 12.35 |
| 1994 | 5,479,512 | 14.5 | 79.62 | 4,362,605 | 81.36 | 4,458,288 | 13.15 |
| 1993 | 4,268,448 | 15.5 | 78.04 | 3,331,140 | 79.75 | 3,404,200 | 13.93 |
| 1992 | 3,210,065 | 16.5 | 76.44 | 2,453,613 | 78.11 | 2,507,428 | 14.69 |
| 1991 | 3,837,537 | 17.5 | 74.80 | 2,870,427 | 76.44 | 2,933,383 | 15.44 |
| 1990 | 3,902,514 | 18.5 | 73.13 | 2,853,895 | 74.73 | 2,916,489 | 16.16 |
| 1989 | 3,776,952 | 19.5 | 71.43 | 2,697,764 | 72.99 | 2,756,933 | 16.87 |
| 1988 | 2,317,695 | 20.5 | 69.69 | 1,615,186 | 71.22 | 1,650,612 | 17.55 |
| 1987 | 3,159,121 | 21.5 | 67.92 | 2,145,570 | 69.41 | 2,192,628 | 18.21 |
| 1986 | 3,654,901 | 22.5 | 66.11 | 2,416,182 | 67.56 | 2,469,175 | 18.85 |
| 1985 | 2,911,382 | 23.5 | 64.26 | 1,870,922 | 65.67 | 1,911,956 | 19.47 |
| 1984 | 3,261,356 | 24.5 | 62.38 | 2,034,488 | 63.75 | 2,079,110 | 20.06 |
| 1983 | 2,530,699 | 25.5 | 60.47 | 1,530,187 | 61.79 | 1,563,748 | 20.63 |
| 1982 | 2,206,738 | 26.5 | 58.52 | 1,291,273 | 59.80 | 1,319,594 | 21.17 |
| 1981 | 2,989,360 | 27.5 | 56.53 | 1,689,965 | 57.77 | 1,727,030 | 21.69 |
| 1980 | 3,636,711 | 28.5 | 54.52 | 1,982,735 | 55.72 | 2,026,221 | 22.19 |
| 1979 | 2,852,002 | 29.5 | 52.48 | 1,496,664 | 53.63 | 1,529,490 | 22.66 |
| 1978 | 3,851,592 | 30.5 | 50.41 | 1,941,613 | 51.52 | 1,984,197 | 23.11 |
| 1977 | 3,541,256 | 31.5 | 48.32 | 1,711,206 | 49.38 | 1,748,736 | 23.53 |
| 1976 | 1,711,891 | 32.5 | 46.21 | 791,139 | 47.23 | 808,491 | 23.92 |
| 1975 | 1,610,300 | 33.5 | 44.09 | 710,008 | 45.06 | 725,580 | 24.30 |
| 1974 | 1,473,612 | 34.5 | 41.96 | 618,313 | 42.88 | 631,874 | 24.65 |
| 1973 | 1,402,782 | 35.5 | 39.82 | 558,588 | 40.69 | 570,839 | 24.97 |
| 1972 | 1,089,601 | 36.5 | 37.68 | 410,573 | 38.51 | 419,577 | 25.28 |
| 1971 | 1,128,076 | 37.5 | 35.55 | 400,997 | 36.33 | 409,792 | 25.56 |
| 1970 | 954,361 | 38.5 | 33.42 | 318,970 | 34.16 | 325,966 | 25.82 |
| 1969 | 633,909 | 39.5 | 31.31 | 198,506 | 32.00 | 202,860 | 26.07 |
| 1968 | 994,850 | 40.5 | 29.23 | 290,775 | 29.87 | 297,152 | 26.30 |
| 1967 | 823,498 | 41.5 | 27.17 | 223,753 | 27.77 | 228,660 | 26.51 |
| 1966 | 699,015 | 42.5 | 25.15 | 175,779 | 25.70 | 179,634 | 26.71 |
| 1965 | 474,052 | 43.5 | 23.16 | 109,805 | 23.67 | 112,213 | 26.90 |
| 1964 | 376,312 | 44.5 | 21.23 | 79,881 | 21.69 | 81,633 | 27.08 |

Account: KEPCo 101/6 368 - KY
$F_{\text {Fse }} 2530 \in 350$
Version: KEPCO DISTRIBUTION 2008
version: $30-\mathrm{R} 0.5$


138,700,031

[^9]Account: KEPCo 101/6 $369-K Y$
Version: KEPCO DISTRIBUTION 2008

| Vintage | 25 <br> Additions | $\begin{aligned} & \text { Age } \\ & 2009 \end{aligned}$ | Theoretical Survivors |  | Computed Survivors |  | Realized Life |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |
|  |  |  | Percent | Amount | Percent | Amount |  |
| 2008 | 2,815,091 | 0.5 | 99.68 | 2,806,195 | 100.00 | 2,815,092 | 0.50 |
| 2007 | 2,552,906 | 1.5 | 98.58 | 2,516,553 | 100.00 | 2,552,907 | 1.50 |
| 2006 | 2,696,436 | 2.5 | 97.11 | 2,618,374 | 100.00 | 2,696,437 | 2.50 |
| 2005 | 2,370,702 | 3.5 | 95.38 | 2,261,270 | 99.94 | 2,369,259 | 3.50 |
| 2004 | 2,034,573 | 4.5 | 93.47 | 1,901,756 | 97.94 | 1,992,576 | 4.45 |
| 2003 | 2,678,347 | 5.5 | 91.41 | 2,448,277 | 95.78 | 2,565,196 | 5.38 |
| 2002 | 1,907,359 | 6.5 | 89.23 | 1,701,898 | 93.49 | 1,783,174 | 6.29 |
| 2001 | 1,931,126 | 7.5 | 86.95 | 1,679,075 | 91.10 | 1,759,261 | 7.17 |
| 2000 | 2,680,192 | 8.5 | 84.59 | 2,267,255 | 88.63 | 2,375,529 | 8.02 |
| 1999 | 2,508,736 | 9.5 | 82.18 | 2,061,629 | 86.10 | 2,160,083 | 8.84 |
| 1998 | 795,815 | 10.5 | 79.72 | 634,440 | 83.53 | 664,738 | 9.64 |
| 1997 | 2,636,990 | 11.5 | 77.24 | 2,036,758 | 80.93 | 2,134,025 | 10.40 |
| 1996 | 816,459 | 12.5 | 74.74 | 610,246 | 78.31 | 639,389 | 11.14 |
| 1995 | 1,107,925 | 13.5 | 72.25 | 800,443 | 75.70 | 838,668 | 11.86 |
| 1994 | 1,352,925 | 14.5 | 69.76 | 943,733 | 73.09 | 988,801 | 12.55 |
| 1993 | 1,658,958 | 15.5 | 67.27 | 1,116,014 | 70.48 | 1,169,310 | 13.21 |
| 1992 | 1,167,485 | 16.5 | 64.80 | 756,542 | 67.90 | 792,671 | 13.85 |
| 1991 | 1,236,345 | 17.5 | 62.35 | 770,824 | 65.32 | 807,635 | 14.47 |
| 1990 | 945,888 | 18.5 | 59.91 | 566,700 | 62.77 | 593,764 | 15.06 |
| . 989 | 1,182,480 | 19.5 | 57.50 | 679,938 | 60.25 | 712,409 | 15.62 |
| 1988 | 888,422 | 20.5 | 55.12 | 489,680 | 57.75 | 513,065 | 16.17 |
| 1987 | 931,227 | 21.5 | 52.77 | 491,362 | 55.28 | 514,827 | 16.69 |
| 1986 | 733,462 | 22.5 | 50.45 | 370,002 | 52.86 | 387,672 | 17.20 |
| 1985 | 712,353 | 23.5 | 48.17 | 343,105 | 50.47 | 359,490 | 17.68 |
| 1984 | 807,358 | 24.5 | 45.92 | 370,771 | 48.12 | 388,477 | 18.14 |
| 1983 | 969,567 | 25.5 | 43.73 | 423,953 | 45.81 | 444,199 | 18.59 |
| 1982 | 716,135 | 26.5 | 41.57 | 297,726 | 43.56 | 311,944 | 19.02 |
| 1981 | 868,594 | 27.5 | 39.47 | 342,843 | 41.36 | 359,215 | 19.44 |
| 1980 | 864,476 | 28.5 | 37.42 | 323,478 | 39.21 | 338,926 | 19.84 |
| 1979 | 711,506 | 29.5 | 35.42 | 252,015 | 37.11 | 264,050 | 20.22 |
| 1978 | 830,075 | 30.5 | 33.48 | 277,876 | 35.07 | 291,146 | 20.60 |
| 1977 | 723,397 | 31.5 | 31.59 | 228,514 | 33.10 | 239,427 | 20.96 |
| 1976 | 596,974 | 32.5 | 29.76 | 177,665 | 31.18 | 186,150 | 21.32 |
| 1975 | 524,332 | 33.5 | 27.99 | 146,771 | 29.33 | 153,780 | 21.66 |
| 1974 | 483,476 | 34.5 | 26.28 | 127,077 | 27.54 | 133,145 | 22.00 |
| 1973 | 654,650 | 35.5 | 24.64 | 161,299 | 25.82 | 169,002 | 22.33 |
| 1972 | 683,325 | 36.5 | 23.06 | 157,541 | 24.16 | 165,064 | 22.66 |
| 1971 | 509,551 | 37.5 | 21.54 | 109,732 | 22.56 | 114,972 | 22.98 |
| 1970 | 423,419 | 38.5 | 20.08 | 85,014 | 21.04 | 89,074 | 23.30 |
| 1969 | 373,867 | 39.5 | 18.68 | 69,853 | 19.58 | 73,189 | 23.62 |
| 1968 | 328,382 | 40.5 | 17.35 | 56,987 | 18.18 | 59,709 | 23.93 |
| 1967 | 299,067 | 41.5 | 16.09 | 48,108 | 16.85 | 50,405 | 24.25 |
| 1966 | 231,692 | 42.5 | 14.88 | 34,478 | 15.59 | 36,124 | 24.56 |
| 1965 | 186,261 | 43.5 | 13.74 | 25,589 | 14.39 | 26,810 | 24.88 |
| 1964 | 161,204 | 44.5 | 12.66 | 20,400 | 13.26 | 21,375 | 25.20 |

Account: KEPCo 101/6 369 -KY

Version: KEPCO DISTRIBUTION 2008


[^10]Account: KEPCo 101/6 370 - KY


Version: KEPCO DISTRIBUTION 2008


Account: KEPCo 101/6 370-KY

## Version: KEPCO DISTRIBUTION 2008



[^11]Account: KEPCo 101/6 371-KY
Version: KEPCO DISTRIBUTION 2008

| Vintage | $\begin{aligned} & 14 \quad-R 0.5 \\ & \text { Adiditions } \end{aligned}$ | $\begin{aligned} & \text { Age } \\ & 2009 \end{aligned}$ | Theoretical Survivors |  | Computed Survivors |  | Realized Life |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |
|  |  |  | Percent | Amount | Percent | Amount |  |
| 2008 | 1,469,673 | 0.5 | 98.64 | 1,449,650 | 99.83 | 1,467,152 | 0.50 |
| 2007 | 1,459,010 | 1.5 | 95.84 | 1,398,380 | 97.00 | 1,415,263 | 1.48 |
| 2006 | 1,577,577 | 2.5 | 92.96 | 1,466,491 | 94.08 | 1,484,196 | 2.43 |
| 2005 | 1,768,968 | 3.5 | 89.98 | 1,591,753 | 91.07 | 1,610,970 | 3.34 |
| 2004 | 1,563,148 | 4.5 | 86.92 | 1,358,653 | 87.97 | 1,375,056 | 4.23 |
| 2003 | 2,356,246 | 5.5 | 83.76 | 1,973,662 | 84.77 | 1,997,490 | 5.08 |
| 2002 | 1,536,211 | 6.5 | 80.51 | 1,236,729 | 81.48 | 1,251,660 | 5.90 |
| 2001 | 858,732 | 7.5 | 77.13 | 662,311 | 78.06 | 670,307 | 6.68 |
| 2000 | 1,331,176 | 8.5 | 73.61 | 979,884 | 74.50 | 991,715 | 7.42 |
| 1999 | 1,742,973 | 9.5 | 69.94 | 1,219,033 | 70.78 | 1,233,750 | 8.11 |
| 1998 | 600,987 | 10.5 | 66.11 | 397,300 | 66.91 | 402,097 | 8.76 |
| 1997 | 1,583,946 | 11.5 | 62.11 | 983,791 | 62.86 | 995,668 | 9.36 |
| 1996 | 496,928 | 12.5 | 57.95 | 287,978 | 58.65 | 291,455 | 9.92 |
| 1995 | 559,153 | 13.5 | 53.65 | 299,973 | 54.30 | 303,595 | 10.41 |
| 1994 | 1,062,578 | 14.5 | 49.22 | 522,998 | 49.81 | 529,312 | 10.86 |
| 1993 | 1,380,740 | 15.5 | 44.70 | 617,181 | 45.24 | 624,632 | 11.26 |
| 1992 | 843,872 | 16.5 | 40.13 | 338,610 | 40.61 | 342,698 | 11.60 |
| 1991 | 757,210 | 17.5 | 35.55 | 269,165 | 35.98 | 272,415 | 11.90 |
| 1990 | 574,638 | 18.5 | 31.02 | 178,226 | 31.39 | 180,377 | 12.15 |
| 989 | 673,733 | 19.5 | 26.59 | 179,139 | 26.91 | 181,301 | 12.37 |
| 1988 | 464,215 | 20.5 | 22.33 | 103,648 | 22.60 | 104,899 | 12.57 |
| 1987 | 478,198 | 21.5 | 18.29 | 87,474 | 18.51 | 88,530 | 12.74 |
| 1986 | 500,633 | 22.5 | 14.54 | 72,788 | 14.71 | 73,667 | 12.91 |
| 1985 | 430,816 | 23.5 | 11.12 | 47,886 | 11.25 | 48,464 | 13.07 |
| 1984 | 455,174 | 24.5 | 8.05 | 36,663 | 8.15 | 37,106 | 13.25 |
| 1983 | 359,728 | 25.5 | 5.37 | 19,314 | 5.43 | 19,546 | 13.44 |
| 1982 | 259,270 | 26.5 | 3.02 | 7,839 | 3.06 | 7,934 | 13.66 |
| 1981 | 301,789 | 27.5 | 0.00 |  | -0.00 | (1) | 13.75 |
| 1980 | 217,442 | 28.5 | 0.00 |  | 0.00 |  | 0.00 |
| 1979 | 195,902 | 29.5 | 0.00 |  | 0.00 |  | 0.00 |
| 1978 | 183,648 | 30.5 | 0.00 |  | 0.00 |  | 0.00 |
| 1977 | 122,908 | 31.5 | 0.00 |  | 0.00 |  | 0.00 |
| 1976 | 245,454 | 32.5 | 0.00 |  | 0.00 |  | 0.00 |
| 1975 | 182,106 | 33.5 | 0.00 |  | 0.00 |  | 0.00 |
| 1974 | 198,910 | 34.5 | 0.00 |  | 0.00 |  | 0.00 |
| 1973 | 226,725 | 35.5 | 0.00 |  | 0.00 |  | 0.00 |
| 1972 | 193,516 | 36.5 | 0.00 |  | 0.00 |  | 0.00 |
| 1971 | 118,336 | 37.5 | 0.00 |  | 0.00 |  | 0.00 |
| 1970 | 118,346 | 38.5 | 0.00 |  | 0.00 |  | 0.00 |
| 1969 | 134,430 | 39.5 | 0.00 |  | 0.00 |  | 0.00 |
| 1968 | 94,059 | 40.5 | 0.00 |  | 0.00 |  | 0.00 |
| 1967 | 112,403 | 41.5 | 0.00 |  | 0.00 |  | 0.00 |
| 1966 | 83,111 | 42.5 | 0.00 |  | 0.00 |  | 0.00 |
| 1965 | 113,528 | 43.5 | 0.00 |  | 0.00 |  | 0.00 |
| 1964 | 95,784 | 44.5 | 0.00 |  | 0.00 |  | 0.00 |



[^12]

Account: KEPCo 101/6 373-KY
Version: KEPCO DISTRIBUTION 2008


Account: KEPCo 101/6 373-KY
Version: KEPCO DISTRIBUTION 2008


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\text { Page } 262 \text { of } 350
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# KENTUCKY POWER COMPANY <br> DEPRECIATION STUDY AS OF 12-31-08 <br> DISTRIBUTION PLANT WORKPAPERS 

CALCULATED RESERVE

Account: KEPCo 101/6 360 Land Rights
Scenario: KEPCO DISTRIBUTION 2008 NEVI arson: $\quad 75-\mathrm{R4}$
$\begin{array}{ll}\text { Average Net Salvage Rate: } & 0.00 \% \\ \text { Future Net Salvage Rate: } & 0.00 \%\end{array}$

Broad Group Procedure
January 1, 2009


Account: KEPCo 101/6 360 Land Rights

- version: 75.00 -RA
rage Net Salvage Rate: $0.00 \%$
Future Net Salvage Rate: $0.00 \%$
Broad Group Procedure
January 1, 2009


Account: KEPCo 101/6 361 - KY
Srenario: KEPCO DISTRIBUTION 2008 NEW эrsion: 75-L2

Average Net Salvage Rate: $\quad 10.00 \%$
Future Net Salvage Rate: $10.00 \%$

Broad Group Procedure
January 1, 2009

|  | Plant Amt | Depreciation Reserve |  | Net Plant |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Amount | Ratio | Amount | Ratio |
| Recorded | \$4,273,116.69 | \$749,460.89 | 0.1754 | \$3,096,344.13 | 0.7246 |
| Computed | \$4,273,116.69 | \$877,942.90 | 0.2055 | \$2,967,862.12 | 0.6945 |
| Difference |  | (\$128,482.01) | -0.0301 | \$128,482.01 | 0.0301 |



Account: KEPCo 101/6 361 - KY

- version: 75.00-L2
. rage Net Salvage Rate: $10.00 \%$
Future Net Salvage Rate: $\quad 10.00 \%$
Broad Group Procedure
January 1, 2009



Account: KEPCo 101/6 361 - KY
r- nersion: 75.00 - L2
. rage Net Salvage Rate: $10.00 \%$
Future Net Salvage Rate: $\quad 10.00 \%$
Broad Group Procedure
January 1, 2009

| Vintage | Age | Surviving Plant | Avg Life | Remaining Life | Net Plant Ratio | Alloc <br> Factor | Computed Net Plant | Accrual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1972 | 36.50 | \$49,794.00 | 75.00 | 43.33 | 0.5199 | 1.0000 | \$25,888.78 | \$597.53 |
| 1971 | 37.50 | \$60,176.00 | 75.00 | 42.70 | 0.5124 | 1.0000 | \$30,835.90 | \$722.11 |
| 1970 | 38.50 | \$13,257.00 | 75.00 | 42.10 | 0.5052 | 1.0000 | \$6,696.84 | \$159.08 |
| 1969 | 39.50 | \$6,970.00 | 75.00 | 41.50 | 0.4981 | 1.0000 | \$3,471.48 | \$83.64 |
| 1968 | 40.50 | \$20,793.00 | 75.00 | 40.94 | 0.4913 | 1.0000 | \$10,215.05 | \$249.52 |
| 1967 | 41.50 | \$15,108.00 | 75.00 | 40.39 | 0.4847 | 1.0000 | \$7,323.01 | \$181.30 |
| 1966 | 42.50 | \$31,096.00 | 75.00 | 39.86 | 0.4783 | 1.0000 | \$14,873.67 | \$373.15 |
| 1965 | 43.50 | \$1,812.70 | 75.00 | 39.35 | 0.4722 | 1.0000 | \$855.97 | \$21.75 |
| 1964 | 44.50 | \$495.00 | 75.00 | 38.86 | 0.4663 | 1.0000 | \$230.82 | \$5.94 |
| 1963 | 45.50 | \$5,202.00 | 75.00 | 38.38 | 0.4606 | 1.0000 | \$2,395.86 | \$62.42 |
| 1962 | 46.50 | \$190.00 | 75.00 | 37.92 | 0.4551 | 1.0000 | \$86.47 | \$2.28 |
| 1961 | 47.50 | \$1,585.00 | 75.00 | 37.48 | 0.4498 | 1.0000 | \$712.91 | \$19.02 |
| 1960 | 48.50 | \$291.00 | 75.00 | 37.05 | 0.4446 | 1.0000 | \$129.39 | \$3.49 |
| 1959 | 49.50 | \$193.00 | 75.00 | 36.64 | 0.4397 | 1.0000 | \$84.86 | \$2.32 |
| 1957 | 51.50 | \$6,356.00 | 75.00 | 35.86 | 0.4303 | 1.0000 | \$2,735.10 | \$76.27 |
| 1956 | 52.50 | \$5,955.00 | 75.00 | 35.49 | 0.4259 | 1.0000 | \$2,536.12 | \$71.46 |
| 1955 | 53.50 | \$701.00 | 75.00 | 35.13 | 0.4216 | 1.0000 | \$295.53 | \$8.41 |
| 1954 | 54.50 | \$4,906.00 | 75.00 | 34.78 | 0.4174 | 1.0000 | \$2,047.74 | \$58.87 |
| 1953 | 55.50 | \$9,315.00 | 75.00 | 34.45 | 0.4134 | 1.0000 | \$3,850.54 | \$111.78 |
| 1952 | 56.50 | \$4,482.00 | 75.00 | 34.12 | 0.4095 | 1.0000 | \$1,835.17 | \$53.78 |
| 1951 | 57.50 | \$2,866.00 | 75.00 | 33.80 | 0.4056 | 1.0000 | \$1,162.58 | \$34.39 |
| 1950 | 58.50 | \$3,771.63 | 75.00 | 33.50 | 0.4020 | 1.0000 | \$1,516.03 | \$45.26 |
| 1949 | 59.50 | \$3,862.00 | 75.00 | 33.20 | 0.3984 | 1.0000 | \$1,538.45 | \$46.34 |
| 1948 | 60.50 | \$5,174.00 | 75.00 | 32.90 | 0.3949 | 1.0000 | \$2,043.00 | \$62.09 |
| 1947 | 61.50 | \$2,508.00 | 75.00 | 32.62 | 0.3914 | 1.0000 | \$981.71 | \$30.10 |
| 1946 | 62.50 | \$42.00 | 75.00 | 32.34 | 0.3881 | 1.0000 | \$16.30 | \$0.50 |
| 1945 | 63.50 | \$946.00 | 75.00 | 32.07 | 0.3848 | 1.0000 | \$364.04 | \$11.35 |
| 1943 | 65.50 | \$1,672.00 | 75.00 | 31.54 | 0.3784 | 1.0000 | \$632.76 | \$20.06 |
| 1942 | 66.50 | \$977.00 | 75.00 | 31.28 | 0.3754 | 1.0000 | \$366.72 | \$11.72 |
| 1941 | 67.50 | \$140.00 | 75.00 | 31.02 | 0.3723 | 1.0000 | \$52.12 | \$1.68 |
| 1940 | 68.50 | \$3,539.00 | 75.00 | 30.77 | 0.3693 | 1.0000 | \$1,306.81 | \$42.47 |
| 1938 | 70.50 | \$12,655.04 | 75.00 | 30.28 | 0.3633 | 1.0000 | \$4,597.80 | \$151.86 |
|  |  | \$4,273,116.69 | 75.00 | 57.88 | 0.6945 | 1.0000 | \$2,967,862.12 | \$51,277.40 |

Account: KEPCO 101/6 362 -KY

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\text { Page } 268 \text { of } 350
$$

Scenario: KEPCO DISTRIBUTION 2008 NEW arson: $\quad 32-\mathrm{R1}$

Average Net Salvage Rate: $10.00 \%$
Future Net Salvage Rate: $\quad 10.00 \%$

Broad Group Procedure
January 1, 2009


Account: KEPCo 101/6 362 - KY

- version: 32.00 -R1
. rage Net Salvage Rate: $10.00 \%$
Future Net Salvage Rate: $\quad 10.00 \%$
Broad Group Procedure
January 1, 2009

| Vintage | Age | Surviving Plant | Avg Life | Remaining Life | Net Plant Ratio | Alloc Factor | Computed Net Plant | Accrual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2008 | 0.50 | \$1,007,391.55 | 32.00 | 31.63 | 0.8896 | 1.0000 | \$896,135.50 | \$28,332.89 |
| 2007 | 1.50 | \$2,719,291.66 | 32.00 | 30.89 | 0.8689 | 1.0000 | \$2,362,663.34 | \$76,480.08 |
| 2006 | 2.50 | \$3,162,171.87 | 32.00 | 30.16 | 0.8483 | 1.0000 | \$2,682,615.85 | \$88,936.08 |
| 2005 | 3.50 | \$3,574,863.11 | 32.00 | 29.44 | 0.8280 | 1.0000 | \$2,960,076.92 | \$100,543.02 |
| 2004 | 4.50 | \$722,443.48 | 32.00 | 28.73 | 0.8079 | 1.0000 | \$583,656.43 | \$20,318.72 |
| 2003 | 5.50 | \$1,124,197.05 | 32.00 | 28.02 | 0.7879 | 1.0000 | \$885,790.59 | \$31,618.04 |
| 2002 | 6.50 | \$727,429.09 | 32.00 | 27.31 | 0.7681 | 1.0000 | \$558,763.85 | \$20,458.94 |
| 2001 | 7.50 | \$2,095,432.80 | 32.00 | 26.61 | 0.7485 | 1.0000 | \$1,568,431.66 | \$58,934.05 |
| 2000 | 8.50 | \$1,754,288.96 | 32.00 | 25.92 | 0.7290 | 1.0000 | \$1,278,862.97 | \$49,339.38 |
| 1999 | 9.50 | \$1,086,152.71 | 32.00 | 25.23 | 0.7096 | 1.0000 | \$770,777.21 | \$30,548.04 |
| 1998 | 10.50 | \$829,599.58 | 32.00 | 24.55 | 0.6904 | 1.0000 | \$572,777.94 | \$23,332.49 |
| 1997 | 11.50 | \$1,706,473.99 | 32.00 | 23.87 | 0.6713 | 1.0000 | \$1,145,623.25 | \$47,994.58 |
| 1996 | 12.50 | \$1,815,306.06 | 32.00 | 23.20 | 0.6524 | 1.0000 | \$1,184,285.99 | \$51,055.48 |
| 1995 | 13.50 | \$4,481,127.59 | 32.00 | 22.53 | 0.6336 | 1.0000 | \$2,839,256.04 | \$126,031.71 |
| 1994 | 14.50 | \$1,330,971.72 | 32.00 | 21.87 | 0.6150 | 1.0000 | \$818,534.69 | \$37,433.58 |
| 1993 | 15.50 | \$3,295,948.31 | 32.00 | 21.21 | 0.5966 | 1.0000 | \$1,966,240.29 | \$92,698.55 |
| 1992 | 16.50 | \$1,031,364.53 | 32.00 | 20.56 | 0.5783 | 1.0000 | \$596,459.17 | \$29,007.13 |
| 1991 | 17.50 | \$1,477,699.38 | 32.00 | 19.92 | 0.5603 | 1.0000 | \$827,991.16 | \$41,560.30 |
| 1990 | 18.50 | \$396,281.22 | 32.00 | 19.29 | 0.5426 | 1.0000 | \$215,007.76 | \$11,145.41 |
| 1989 | 19.50 | \$515,611.35 | 32.00 | 18.67 | 0.5251 | 1.0000 | \$270,721.95 | \$14,501.57 |
| 1988 | 20.50 | \$294,675.51 | 32.00 | 18.06 | 0.5078 | 1.0000 | \$149,635.77 | \$8,287.75 |
| 1987 | 21.50 | \$1,691,241.59 | 32.00 | 17.45 | 0.4908 | 1.0000 | \$830,108.38 | \$47,566.17 |
| 1986 | 22.50 | \$1,192,654.37 | 32.00 | 16.86 | 0.4741 | 1.0000 | \$565,483.40 | \$33,543.40 |
| 1985 | 23.50 | \$639,499.84 | 32.00 | 16.28 | 0.4577 | 1.0000 | \$292,721.59 | \$17,985.93 |
| 1984 | 24.50 | \$646,616.75 | 32.00 | 15.70 | 0.4416 | 1.0000 | \$285,558.04 | \$18,186.10 |
| 1983 | 25.50 | \$706,844.36 | 32.00 | 15.14 | 0.4258 | 1.0000 | \$300,988.85 | \$19,880,00 |
| 1982 | 26.50 | \$995,099.53 | 32.00 | 14.59 | 0.4103 | 1.0000 | \$408,315.12 | \$27,987.17 |
| 1981 | 27.50 | \$692,905.42 | 32.00 | 14.05 | 0.3951 | 1.0000 | \$273,796.44 | \$19,487.96 |
| 1980 | 28.50 | \$2,456,583.25 | 32.00 | 13.52 | 0.3803 | 1.0000 | \$934,166.37 | \$69,091.40 |
| 1979 | 29.50 | \$428,316.69 | 32.00 | 13.00 | 0.3657 | 1.0000 | \$156,634.75 | \$12,046.41 |
| 1978 | 30.50 | \$911,780.56 | 32.00 | 12.50 | 0.3514 | 1.0000 | \$320,431.49 | \$25,643.83 |
| 1977 | 31.50 | \$697,721.10 | 32.00 | 12.00 | 0.3375 | 1.0000 | \$235,461.11 | \$19,623.41 |
| 1976 | 32.50 | \$146,004.67 | 32.00 | 11.51 | 0.3238 | 1.0000 | \$47,276.29 | \$4,106.38 |

Account: KEPCo 101/6 362 -KY
version: 32.00-R1
murage Net Salvage Rate: $\quad 10.00 \%$
Future Net Salvage Rate: $10.00 \%$
Broad Group Procedure
January 1, 2009


Account: KEPCo 101/6 364 - KY
Scenario: KEPCO DISTRIBUTION 2008 NEW ¥rsion: 30 -R0.5
$\begin{array}{ll}\text { Average Net Salvage Rate: } & -53.00 \% \\ \text { Future Net Salvage Rate: } & -53.00 \%\end{array}$

Broad Group Procedure
January 1, 2009


|  | $\$ 147,624,353.34$ | $\$ 54,369,431.79$ | 0.3683 | $\$ 171,495,828.82$ | 1.1617 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Recorded | $\$ 147,624,353.34$ | $\$ 63,690,123.30$ | 0.4314 | $\$ 162,175,137.31$ | 1.0986 |
| Computed |  | $(\$ 9,320,691.51)$ | -0.0631 | $\$ 9,320,691.51$ | 0.0631 |

Account: KEPCo 101/6 364 -KY
ersion: $30.00-$ R0.5
A..rage Net Salvage Rate: $\quad-53.00 \%$

Future Net Salvage Rate: $-53.00 \%$
Broad Group Procedure
January 1, 2009

| Vintage | Age | Surviving Plant | Avg Life | Remaining Life | Net Plant Ratio | Alloc Factor | Computed Net Plant | Accrual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2008 | 0.50 | \$7,948,638.50 | 30.00 | 29.69 | 1.5142 | 1.0000 | \$12,035,471.82 | \$405,380.56 |
| 2007 | 1.50 | \$8,178,275.50 | 30.00 | 29.07 | 1.4826 | 1.0000 | \$12,125,043.33 | \$417,092.05 |
| 2006 | 2.50 | \$6,214,520.50 | 30.00 | 28.45 | 1.4512 | 1.0000 | \$9,018,407.02 | \$316,940.55 |
| 2005 | 3.50 | \$4,777,960.50 | 30.00 | 27.84 | 1.4199 | 1.0000 | \$6,784,207.07 | \$243,675.99 |
| 2004 | 4.50 | \$4,606,829.50 | 30.00 | 27.23 | 1.3888 | 1.0000 | \$6,397,836.62 | \$234,948.30 |
| 2003 | 5.50 | \$3,549,389.50 | 30.00 | 26.62 | 1.3578 | 1.0000 | \$4,819,286.21 | \$181,018.86 |
| 2002 | 6.50 | \$4,214,322.76 | 30.00 | 26.02 | 1.3269 | 1.0000 | \$5,591,977.46 | \$214,930.46 |
| 2001 | 7.50 | \$6,347,451.74 | 30.00 | 25.41 | 1.2962 | 1.0000 | \$8,227,288.19 | \$323,720.04 |
| 2000 | 8.50 | \$5,960,969.40 | 30.00 | 24.81 | 1.2655 | 1.0000 | \$7,543,698.37 | \$304,009.44 |
| 1999 | 9.50 | \$7,337,691.68 | 30.00 | 24.22 | 1.2350 | 1.0000 | \$9,061,882.40 | \$374,222.28 |
| 1998 | 10.50 | \$2,103,276.29 | 30.00 | 23.62 | 1.2046 | 1.0000 | \$2,533,536.80 | \$107,267.09 |
| 1997 | 11.50 | \$1,990,086.30 | 30.00 | 23.02 | 1.1743 | 1.0000 | \$2,336,891.67 | \$101,494.40 |
| 1996 | 12.50 | \$8,709,971.42 | 30.00 | 22.43 | 1.1441 | 1.0000 | \$9,964,882.15 | \$444,208.54 |
| 1995 | 13.50 | \$4,879,680.34 | 30.00 | 21.84 | 1.1141 | 1.0000 | \$5,436,424.72 | \$248,863.70 |
| 1994 | 14.50 | \$5,554,403.77 | 30.00 | 21.26 | 1.0843 | 1.0000 | \$6,022,522.36 | \$283,274.59 |
| 1993 | 15.50 | \$4,433,015.64 | 30.00 | 20.68 | 1.0546 | 1.0000 | \$4,675,246.54 | \$226,083.80 |
| 1992 | 16.50 | \$5,137,798.24 | 30.00 | 20.10 | 1.0253 | 1.0000 | \$5,267,682.32 | \$262,027.71 |
| 1991 | 17.50 | \$4,948,782.95 | 30.00 | 19.53 | 0.9962 | 1.0000 | \$4,929,741.95 | \$252,387.93 |
| 1990 | 18.50 | \$4,596,012.91 | 30.00 | 18.97 | 0.9673 | 1.0000 | \$4,445,708.08 | \$234,396.66 |
| 1989 | 19.50 | \$4,119,769.79 | 30.00 | 18.41 | 0.9388 | 1.0000 | \$3,867,461.14 | \$210,108.26 |
| 1988 | 20.50 | \$3,655,979.86 | 30.00 | 17.85 | 0.9105 | 1.0000 | \$3,328,875.63 | \$186,454.97 |
| 1987 | 21.50 | \$3,931,934.83 | 30.00 | 17.31 | 0.8826 | 1.0000 | \$3,470,372.18 | \$200,528.68 |
| 1986 | 22.50 | \$3,857,405.68 | 30.00 | 16.77 | 0.8551 | 1.0000 | \$3,298,390.56 | \$196,727.69 |
| 1985 | 23.50 | \$3,428,640.60 | 30.00 | 16.23 | 0.8279 | 1.0000 | \$2,838,596.59 | \$174,860.67 |
| 1984 | 24.50 | \$2,924,315.25 | 30.00 | 15.71 | 0.8011 | 1.0000 | \$2,342,615.02 | \$149,140.08 |
| 1983 | 25.50 | \$2,916,999.66 | 30.00 | 15.19 | 0.7747 | 1.0000 | \$2,259,755.63 | \$148,766.98 |
| 1982 | 26.50 | \$2,966,548.13 | 30.00 | 14.68 | 0.7487 | 1.0000 | \$2,220,914.34 | \$151,293.95 |
| 1981 | 27.50 | \$3,565,280.57 | 30.00 | 14.18 | 0.7230 | 1.0000 | \$2,577,692.64 | \$181,829.31 |
| 1980 | 28.50 | \$2,846,805.41 | 30.00 | 13.68 | 0.6978 | 1.0000 | \$1,986,392.42 | \$145,187.08 |
| 1979 | 29.50 | \$2,214,986.51 | 30.00 | 13.19 | 0.6729 | 1.0000 | \$1,490,524.02 | \$112,964.31 |
| 1978 | 30.50 | \$1,781,277.76 | 30.00 | 12.72 | 0.6485 | 1.0000 | \$1,155,099.05 | \$90,845.17 |
| 1977 | 31.50 | \$1,607,770,43 | 30.00 | 12.24 | 0.6244 | 1.0000 | \$1,003,898.84 | \$81,996.29 |
| 1976 | 32.50 | \$1,140,196.79 | 30.00 | 11.78 | 0.6007 | 1.0000 | \$684,939.60 | \$58,150.04 |

$$
1 \rightarrow 0-30+350
$$

Account: KEPCo 101/6 364 -KY
r-jersion: $30.00-$ R0.5
. age Net Salvage Rate: $\quad-53.00 \%$
Future Net Salvage Rate: $\quad-53.00 \%$
Broad Group Procedure
January 1, 2009


Account: KEPCo 101/6 365 -KY
Page 274 क 350
Scenario: KEPCO DISTRIBUTION 2008 NEW version: $\quad 30-\mathrm{RO} .5$

| Average Net Salvage Rate: | $25.00 \%$ |
| :--- | :--- |
| Future Net Salvage Rate: | $25.00 \%$ |

Broad Group Procedure
January 1, 2009



Account: KEPCo 101/6 385 -KY
nersion: $30.00-\mathrm{R0.5}$
frage Net Salvage Rate: $\quad 25.00 \%$
Future Net Salvage Rate: $\quad 25.00 \%$
Broad Group Procedure
January 1, 2009

| Vintage | Age | Surviving Plant | Avg Life | Remaining Life | Net Plant Ratio | Alloc Factor | Computed <br> Net Plant | Accrual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2008 | 0.50 | \$10,259,054.50 | 30.00 | 29.69 | 0.7422 | 1.0000 | \$7,614,607.88 | \$256,476.36 |
| 2007 | 1.50 | \$14,071,576.37 | 30.00 | 29.07 | 0.7268 | 1.0000 | \$10,226,667.77 | \$351,789.41 |
| 2006 | 2.50 | \$8,762,102.00 | 30.00 | 28.45 | 0.7114 | 1.0000 | \$6,233,046.18 | \$219,052.55 |
| 2005 | 3.50 | \$6,191,319.58 | 30.00 | 27.84 | 0.6960 | 1.0000 | \$4,309,328.43 | \$154,782.99 |
| 2004 | 4.50 | \$5,087,568.64 | 30.00 | 27.23 | 0.6808 | 1.0000 | \$3,463,467.53 | \$127,189.22 |
| 2003 | 5.50 | \$3,803,459.60 | 30.00 | 26.62 | 0.6656 | 1.0000 | \$2,531,498.64 | \$95,086.49 |
| 2002 | 6.50 | \$5,177,311.14 | 30.00 | 26.02 | 0.6504 | 1.0000 | \$3,367,531.88 | \$129,432.78 |
| 2001 | 7.50 | \$4,687,307.16 | 30.00 | 25.41 | 0.6354 | 1.0000 | \$2,978,977.30 | \$117,182.68 |
| 2000 | 8.50 | \$4,667,822.82 | 30.00 | 24.81 | 0.6204 | 1.0000 | \$2,895,687.01 | \$116,695.57 |
| 1999 | 9.50 | \$5,871,996.04 | 30.00 | 24.22 | 0.6054 | 1.0000 | \$3,554,794.91 | \$146,799.90 |
| 1998 | 10.50 | \$1,997,800.69 | 30.00 | 23.62 | 0.5905 | 1.0000 | \$1,179,649.21 | \$49,945.02 |
| 1997 | 11.50 | \$6,711,047.26 | 30.00 | 23.02 | 0.5756 | 1.0000 | \$3,863,018.61 | \$167,776.18 |
| 1996 | 12.50 | \$2,724,980.64 | 30.00 | 22.43 | 0.5608 | 1.0000 | \$1,528,229.89 | \$68,124.52 |
| 1995 | 13.50 | \$4,731,745.49 | 30.00 | 21.84 | 0.5461 | 1.0000 | \$2,584,123.20 | \$118,293.64 |
| 1994 | 14.50 | \$3,588,540.22 | 30.00 | 21.26 | 0.5315 | 1.0000 | \$1,907,342.23 | \$89,713.51 |
| 1993 | 15.50 | \$2,250,460.70 | 30.00 | 20.68 | 0.5170 | 1.0000 | \$1,163,446.78 | \$56,261.52 |
| 1992 | 16.50 | \$2,524,409.91 | 30.00 | 20.10 | 0.5026 | 1.0000 | \$1,268,738.85 | \$63,110.25 |
| 1991 | 17.50 | \$2,754,145.38 | 30.00 | 19.53 | 0.4883 | 1.0000 | \$1,344,876.71 | \$68,853.63 |
| 1990 | 18.50 | \$2,796,403.03 | 30.00 | 18.97 | 0.4742 | 1.0000 | \$1,325,956.57 | \$69,910.08 |
| 1989 | 19.50 | \$2,599,035.88 | 30.00 | 18.41 | 0.4602 | 1.0000 | \$1,196,010.85 | \$64,975.90 |
| 1988 | 20.50 | \$2,268,131.89 | 30.00 | 17.85 | 0.4463 | 1.0000 | \$1,012,352.86 | \$56,703.30 |
| 1987 | 21.50 | \$2,576,292.24 | 30.00 | 17.31 | 0.4327 | 1.0000 | \$1,114,640.20 | \$64,407.31 |
| 1986 | 22.50 | \$2,225,276.16 | 30.00 | 16.77 | 0.4192 | 1.0000 | \$932,739.81 | \$55,631.90 |
| 1985 | 23.50 | \$1,686,809.05 | 30.00 | 16.23 | 0.4058 | 1.0000 | \$684,569.38 | \$42,170.23 |
| 1984 | 24.50 | \$1,496,442.83 | 30.00 | 15.71 | 0.3927 | 1.0000 | \$587,633.70 | \$37,411.07 |
| 1983 | 25.50 | \$1,561,018.96 | 30.00 | 15.19 | 0.3797 | 1.0000 | \$592,793.06 | \$39,025.47 |
| 1982 | 26.50 | \$1,689,657.01 | 30.00 | 14.68 | 0.3670 | 1.0000 | \$620,081.53 | \$42,241.43 |
| 1981 | 27.50 | \$2,531,097.95 | 30.00 | 14.18 | 0.3544 | 1.0000 | \$897,049.08 | \$63,277.45 |
| 1980 | 28.50 | \$1,972,796.40 | 30.00 | 13.68 | 0.3420 | 1.0000 | \$674,775.59 | \$49,319.91 |
| 1979 | 29.50 | \$1,692,005.70 | 30.00 | 13.19 | 0.3299 | 1.0000 | \$558,135.37 | \$42,300.14 |
| 1978 | 30.50 | \$1,389,006.54 | 30.00 | 12.72 | 0.3179 | 1.0000 | \$441,531.51 | \$34,725.16 |
| 1977 | 31.50 | \$1,530,748.77 | 30.00 | 12.24 | 0.3061 | 1.0000 | \$468,532.44 | \$38,268.72 |
| 1976 | 32.50 | \$830,267.04 | 30.00 | 11.78 | 0.2945 | 1.0000 | \$244,489.43 | \$20,756.68 |



Account: KEPCo 101/6 $365-\mathrm{KV}$
version: 30.00-R0.5
. .. urage Net Salvage Rate: $25.00 \%$
Future Net Salvage Rate: $\quad 25.00 \%$
Broad Group Procedure
January 1, 2009

| Vintage | Age | Surviving Plant | Avg Life | Remaining Life | Net Plant Rakio | Alloc Factor | Computed Net Plant | Accrual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1975 | 33.50 | \$456,119.13 | 30.00 | 11.32 | 0.2830 | 1.0000 | \$129,102.02 | \$11,402.98 |
| 1974 | 34.50 | \$460,352.53 | 30.00 | 10.87 | 0.2718 | 1.0000 | \$125,123.40 | \$11,508.81 |
| 1973 | 35.50 | \$444,878.85 | 30.00 | 10.43 | 0.2607 | 1.0000 | \$115,992.94 | \$11,121.97 |
| 1972 | 36.50 | \$437,583.31 | 30.00 | 9.99 | 0.2498 | 1.0000 | \$109,319.90 | \$10,939.58 |
| 1971 | 37.50 | \$519,839.04 | 30.00 | 9.56 | 0.2391 | 1.0000 | \$124,278.57 | \$12,995.98 |
| 1970 | 38.50 | \$387,456.46 | 30.00 | 9.14 | 0.2285 | 1.0000 | \$88,524.63 | \$9,686.41 |
| 1969 | 39.50 | \$313,176.03 | 30.00 | 8.72 | 0.2180 | 1.0000 | \$68,277.81 | \$7,829.40 |
| 1968 | 40.50 | \$279,678.01 | 30.00 | 8.31 | 0.2077 | 1.0000 | \$58,086.24 | \$6,991.95 |
| 1967 | 41.50 | \$238,035.00 | 30.00 | 7.90 | 0.1975 | 1.0000 | \$47,004.55 | \$5,950.88 |
| 1966 | 42.50 | \$184,500.08 | 30.00 | 7.49 | 0.1874 | 1.0000 | \$34,570.25 | \$4,612.50 |
| 1965 | 43.50 | \$160,667.82 | 30.00 | 7.09 | 0.1773 | 1.0000 | \$28,493.05 | \$4,016.70 |
| 1964 | 44.50 | \$106,984.89 | 30.00 | 6.70 | 0.1674 | 1.0000 | \$17,906.70 | \$2,674.62 |
| 1963 | 45.50 | \$66,759.95 | 30.00 | 6.30 | 0.1575 | 1.0000 | \$10,513.66 | \$1,669.00 |
| 1962 | 46.50 | \$62,989.54 | 30.00 | 5.90 | 0.1476 | 1.0000 | \$9,296.32 | \$1,574.74 |
| 1961 | 47.50 | \$68,508.10 | 30.00 | 5.51 | 0.1377 | 1.0000 | \$9,432.91 | \$1,712.70 |
| 1960 | 48.50 | \$43,880.79 | 30.00 | 5.11 | 0.1278 | 1.0000 | \$5,607.23 | \$1,097.02 |
| 1959 | 49.50 | \$41,745.87 | 30.00 | 4.71 | 0.1178 | 1.0000 | \$4,917.22 | \$1,043.65 |
| 1958 | 50.50 | \$45,221.82 | 30.00 | 4.31 | 0.1077 | 1.0000 | \$4,869.93 | \$1,130.55 |
| 1957 | 51.50 | \$35,262.38 | 30.00 | 3.90 | 0.0975 | 1.0000 | \$3,437.43 | \$881.56 |
| 1956 | 52.50 | \$27,220.81 | 30.00 | 3.48 | 0.0870 | 1.0000 | \$2,369.45 | \$680.52 |
| 1955 | 53.50 | \$16,872.07 | 30.00 | 3.06 | 0.0764 | 1.0000 | \$1,288.73 | \$421.80 |
| 1954 | 54.50 | \$13,254.67 | 30.00 | 2.62 | 0.0655 | 1.0000 | \$868.03 | \$331.37 |
| 1953 | 55.50 | \$11,275.41 | 30.00 | 2.17 | 0.0543 | 1.0000 | \$611.82 | \$281.89 |
| 1952 | 56.50 | \$9,735.21 | 30.00 | 1.71 | 0.0428 | 1.0000 | \$416.49 | \$243.38 |
| 1951 | 57.50 | \$9,134.25 | 30.00 | 1.25 | 0.0312 | 1.0000 | \$285.23 | \$228.36 |
| 1950 | 58.50 | \$6,868.62 | 30.00 | 0.79 | 0.0197 | 1.0000 | \$135.48 | \$171.72 |
| 1949 | 59.50 | (\$0.50) | 30.00 | 0.40 | 0.0100 | 1.0000 | \$0.00 | (\$0.01) |
|  |  | \$129,155,637.73 | 30.00 | 23.03 | 0.5758 | 1.0000 | \$74,366,254.35 | \$3,228,890.94 |

Account: KEPCo $101 / 6366-\mathrm{KY}$
Smnario: $\quad$ KEPCO DISTRIBUTION 2008 NEW
rsion: $\quad 50-$ R0.5
Average Net Salvage Rate: $\quad 0.00 \%$
Future Net Salvage Rate: $\quad 0.00 \%$

Broad Group Procedure
January 1, 2009

|  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Pepreciation Reserve |  | Net Plant |  |  |  |
| Plant Amt | Amount | Ratio | Amount | Ratio |  |


|  | $\$ 4,302,754.53$ | $\$ 504,000.00$ | 0.1171 | $\$ 3,798,754.53$ | 0.8829 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Recorded | $\$ 4,302,754.53$ | $\$ 590,402.02$ | 0.1372 | $\$ 3,712,352.51$ | 0.8628 |
| Computed |  |  | $(\$ 86,402.02)$ | -0.0201 | $\$ 86,402.02$ |

Account: KEPCo 101/6 366-KY
эrsion: 50.00 -R0.5
Average Net Salvage Rate: $0.00 \%$
Future Net Salvage Rate: $\quad 0.00 \%$
Broad Group Procedure
January 1, 2009

| Vintage | Age | Surviving Plant | Avg Life | Remaining Life | Net Plant Ratio | Alloc Factor | Computed Net Plant | Accrual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2008 | 0.50 | \$332,819.50 | 50.00 | 49.69 | 0.9938 | 1.0000 | \$330,751.16 | \$6,656.39 |
| 2007 | 1.50 | \$312,381.50 | 50.00 | 49.07 | 0.9814 | 1.0000 | \$306,567.59 | \$6,247.63 |
| 2006 | 2.50 | \$509,176.50 | 50.00 | 48.45 | 0.9690 | 1.0000 | \$493,399.15 | \$10,183.53 |
| 2005 | 3.50 | \$199,943.50 | 50.00 | 47.83 | 0.9567 | 1.0000 | \$191,284.23 | \$3,998.87 |
| 2004 | 4.50 | \$173,356.50 | 50.00 | 47.22 | 0.9444 | 1.0000 | \$163,716.26 | \$3,467.13 |
| 2003 | 5.50 | \$118,994.50 | 50.00 | 46.61 | 0.9321 | 1.0000 | \$110,917.28 | \$2,379.89 |
| 2002 | 6.50 | \$134,439.50 | 50.00 | 45.99 | 0.9199 | 1.0000 | \$123,669.81 | \$2,688.79 |
| 2001 | 7.50 | \$123,659.50 | 50.00 | 45.38 | 0.9077 | 1.0000 | \$112,244.88 | \$2,473.19 |
| 2000 | 8.50 | \$182,080.50 | 50.00 | 44.78 | 0.8955 | 1.0000 | \$163,059.28 | \$3,641.61 |
| 1999 | 9.50 | \$137,692.50 | 50.00 | 44.17 | 0.8834 | 1.0000 | \$121,636.84 | \$2,753.85 |
| 1998 | 10.50 | \$60,158.50 | 50.00 | 43.56 | 0.8713 | 1.0000 | \$52,415.17 | \$1,203.17 |
| 1997 | 11.50 | \$291,323.50 | 50.00 | 42.96 | 0.8592 | 1.0000 | \$250,308.75 | \$5,826.47 |
| 1996 | 12.50 | \$131,833.50 | 50.00 | 42.36 | 0.8472 | 1.0000 | \$111,683.91 | \$2,636.67 |
| 1995 | 13.50 | \$133,289.50 | 50.00 | 41.76 | 0.8351 | 1.0000 | \$111,314.44 | \$2,665.79 |
| 1994 | 14.50 | \$118,922.50 | 50.00 | 41.16 | 0.8231 | 1.0000 | \$97,889.15 | \$2,378.45 |
| 1993 | 15.50 | \$270,669.50 | 50.00 | 40.56 | 0.8112 | 1.0000 | \$219,556.75 | \$5,413.39 |
| 1992 | 16.50 | \$131,413.50 | 50.00 | 39.96 | 0.7992 | 1.0000 | \$105,027.73 | \$2,628.27 |
| 1991 | 17.50 | \$51,674.59 | 50.00 | 39.36 | 0.7873 | 1.0000 | \$40,683.15 | \$1,033.49 |
| 1990 | 18.50 | \$203,684.51 | 50.00 | 38.77 | 0.7754 | 1.0000 | \$157,936.92 | \$4,073.69 |
| 1989 | 19.50 | \$47,694.17 | 50.00 | 38.18 | 0.7635 | 1.0000 | \$36,416.32 | \$953.88 |
| 1988 | 20.50 | \$24,133.84 | 50.00 | 37.59 | 0.7517 | 1.0000 | \$18,141.43 | \$482.68 |
| 1987 | 21.50 | \$9,203.37 | 50.00 | 37.00 | 0.7399 | 1.0000 | \$6,809.71 | \$184.07 |
| 1986 | 22.50 | \$33,613.44 | 50.00 | 36.41 | 0.7282 | 1.0000 | \$24,476.00 | \$672.27 |
| 1985 | 23.50 | \$70,256.51 | 50.00 | 35.82 | 0.7164 | 1.0000 | \$50,335.21 | \$1,405.13 |
| 1984 | 24.50 | \$4,236.37 | 50.00 | 35.24 | 0.7048 | 1.0000 | \$2,985.74 | \$84.73 |
| 1983 | 25.50 | \$36,207.20 | 50.00 | 34.66 | 0.6932 | 1.0000 | \$25,097.61 | \$724.14 |
| 1982 | 26.50 | \$43,688.68 | 50.00 | 34.08 | 0.6816 | 1.0000 | \$29,778.78 | \$873.77 |
| 1981 | 27.50 | \$70,212.75 | 50.00 | 33.51 | 0.6701 | 1.0000 | \$47,050.27 | \$1,404.26 |
| 1980 | 28.50 | \$40,343.58 | 50.00 | 32.93 | 0.6587 | 1.0000 | \$26,572.94 | \$806.87 |
| 1979 | 29.50 | \$7,082.14 | 50.00 | 32.36 | 0.6473 | 1.0000 | \$4,584.13 | \$141.64 |
| 1978 | 30.50 | \$23,996.61 | 50.00 | 31.80 | 0.6360 | 1.0000 | \$15,260.98 | \$479.93 |
| 1977 | 31.50 | \$31,336.24 | 50.00 | 31.24 | 0.6247 | 1.0000 | \$19,576.52 | \$626.72 |
| 1976 | 32.50 | \$42,429.68 | 50.00 | 30.68 | 0.6136 | 1.0000 | \$26,032.94 | \$848.59 |

Account: KEPCo $101 / 6366$ ~KY
version: $50.00-$ R0.5
... arage Net Salvage Rate: $0.00 \%$
Future Net Salvage Rate: $\quad 0.00 \%$
Broad Group Procedure
January 1, 2009

| Vintage | Age | Surviving Plant | Avg Life | Remaining Life | Net Plant Ratio | Alloc <br> Factor | Computed Net Plant | Accrual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1975 | 33.50 | \$25,596.90 | 50.00 | 30.12 | 0.6025 | 1.0000 | \$15,420.99 | \$511.94 |
| 1974 | 34.50 | \$43,167.39 | 50.00 | 29.57 | 0.5914 | 1.0000 | \$25,530.74 | \$863.35 |
| 1973 | 35.50 | \$47,793.41 | 50.00 | 29.02 | 0.5805 | 1.0000 | \$27,743.94 | \$955.87 |
| 1972 | 36.50 | \$21,698.35 | 50.00 | 28.48 | 0.5696 | 1.0000 | \$12,360.08 | \$433.97 |
| 1971 | 37.50 | \$28,424.14 | 50.00 | 27.94 | 0.5589 | 1.0000 | \$15,885.11 | \$568.48 |
| 1970 | 38.50 | \$23,036.43 | 50.00 | 27.41 | 0.5482 | 1.0000 | \$12,627.95 | \$460.73 |
| 1969 | 39.50 | \$2,324,70 | 50.00 | 26.88 | 0.5376 | 1.0000 | \$1,249.70 | \$46.49 |
| 1968 | 40.50 | \$597.47 | 50.00 | 26.35 | 0.5271 | 1.0000 | \$314.90 | \$11.95 |
| 1967 | 41.50 | \$4,686.19 | 50.00 | 25.83 | 0.5166 | 1.0000 | \$2,421.07 | \$93.72 |
| 1966 | 42.50 | \$2,912.71 | 50.00 | 25.32 | 0.5063 | 1.0000 | \$1,474.73 | \$58.25 |
| 1947 | 61.50 | \$23.97 | 50.00 | 16.36 | 0.3273 | 1.0000 | \$7.84 | \$0.48 |
| 1942 | 66.50 | \$51.31 | 50.00 | 14.25 | 0.2851 | 1.0000 | \$14.63 | \$1.03 |
| 1940 | 68.50 | \$25.42 | 50.00 | 13.43 | 0.2687 | 1.0000 | \$6.83 | \$0.51 |
| 1939 | 69.50 | \$97.89 | 50.00 | 13.03 | 0.2605 | 1.0000 | \$25.50 | \$1.96 |
| 1936 | 72.50 | \$370.07 | 50.00 | 11.82 | 0.2364 | 1.0000 | \$87.47 | \$7.40 |
|  |  | \$4,302,754.53 | 50.00 | 43.14 | 0.8628 | 1.0000 | \$3,712,352.51 | \$86,055.09 |

Account: KEPCo 101/6 367 -KY
Srenario: KEPCO DISTRIBUTION 2008 NEW arsion: 50 -S. 5

Average Net Salvage Rate: $0.00 \%$
Future Net Salvage Rate: $0.00 \%$

Broad Group Procedure

| January 1, 2009 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Plant Amt |  | Depreciation Reserve |  | Net Plant |  |
|  |  | Amount | Ratio | Amount | Ratio |
| Recorded | \$7,652,121.53 | \$898,240.40 | 0.1174 | \$6,753,881.13 | 0.8826 |
| Computed | \$7,652,121.53 | \$1,052,228.06 | 0.1375 | \$6,599,893.47 | 0.8625 |
| Difference |  | (\$153,987.66) | -0.0201 | \$153,987.66 | 0.0201 |

Account: KEPCo 101/6 367-KY
version: 50.00 - S. 5
r... -rage Net Salvage Rate: $0.00 \%$

Future Net Salvage Rate: $\quad 0.00 \%$
Broad Group Procedure
January 1, 2009



Account: KEPCo 101/6 367 -KY ersion: 50.00 -S. 5
m. urage Net Salvage Rate: $0.00 \%$

Future Net Salvage Rate: $0.00 \%$

## Broad Group Procedure

January 1, 2009

| Vintage | Age | Surviving Plant | Avg Life | Remaining Life | Net Plant Ratio | Alloc Factor | Computed Net Plant | Accrual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1975 | 33.50 | \$16,527.54 | 50.00 | 30.38 | 0.6076 | 1.0000 | \$10,041.53 | \$330.55 |
| 1974 | 34.50 | \$51,811.79 | 50.00 | 29.88 | 0.5976 | 1.0000 | \$30,960.21 | \$1,036.24 |
| 1973 | 35.50 | \$92,372.24 | 50.00 | 29.38 | 0.5876 | 1.0000 | \$54,277.21 | \$1,847.44 |
| 1972 | 36.50 | \$72,106.16 | 50.00 | 28.88 | 0.5777 | 1.0000 | \$41,655.50 | \$1,442.12 |
| 1971 | 37.50 | \$55,858.89 | 50.00 | 28.39 | 0.5679 | 1.0000 | \$31,719.96 | \$1,117.18 |
| 1970 | 38.50 | \$48,559.20 | 50.00 | 27.90 | 0.5581 | 1.0000 | \$27,099.49 | \$971.18 |
| 1969 | 39.50 | \$7,336.22 | 50.00 | 27.42 | 0.5483 | 1.0000 | \$4,022.71 | \$146.72 |
| 1968 | 40.50 | \$3,042.39 | 50.00 | 26.93 | 0.5386 | 1.0000 | \$1,638.77 | \$60.85 |
| 1967 | 41.50 | \$9,157.48 | 50.00 | 26.45 | 0.5290 | 1.0000 | \$4,844.36 | \$183.15 |
| 1966 | 42.50 | \$2,790.87 | 50.00 | 25.97 | 0.5194 | 1.0000 | \$1,449.62 | \$55.82 |
| 1965 | 43.50 | \$1,211.59 | 50.00 | 25.49 | 0.5099 | 1.0000 | \$617.75 | \$24.23 |
| 1963 | 45.50 | \$905.19 | 50.00 | 24.55 | 0.4909 | 1.0000 | \$444.36 | \$18.10 |
| 1957 | 51.50 | \$228.34 | 50.00 | 21.75 | 0.4349 | 1.0000 | \$99.32 | \$4.57 |
| 1947 | 61.50 | \$197.28 | 50.00 | 17.21 | 0.3442 | 1.0000 | \$67.90 | \$3.95 |
| 1942 | 66.50 | \$93.76 | 50.00 | 14.98 | 0.2997 | 1.0000 | \$28.10 | \$1.88 |
| 1940 | 68.50 | \$56.35 | 50.00 | 14.10 | 0.2820 | 1.0000 | \$15.89 | \$1.13 |
| 1939 | 69.50 | \$410.72 | 50.00 | 13.66 | 0.2732 | 1.0000 | \$112.21 | \$8.21 |
| 1936 | 72.50 | \$400.40 | 50.00 | 12.34 | 0.2468 | 1.0000 | \$98.82 | \$8.01 |
|  |  | \$7,652,121.53 | 50.00 | 43.12 | 0.8625 | 1.0000 | \$6,599,893.47 | \$153,042.43 |

Account: KEPCo 101/6 $368-\mathrm{KY}$
Smyario: KEPCO DISTRIBUTION 2008 NEW
rsion: $\quad 30-R 0.5$

Average Net Salvage Rate: $\quad \mathbf{2 5 . 0 0 \%}$
Future Net Salvage Rate: $\quad \mathbf{2 5 . 0 0 \%}$

Broad Group Procedure
January 1, 2009

|  | Plant Amt | Depreciation Reserve |  | Net Plant |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Amount | Ratio | Amount | Ratio |
| Recorded | \$98,415,054.43 | \$17,662,832.57 | 0.1795 | \$56,148,458.25 | 0.5705 |
| Computed | \$98,415,054.43 | \$20,690,817.38 | 0.2102 | \$53,120,473.44 | 0.5398 |
| Difference |  | (\$3,027,984.81) | -0.0308 | \$3,027,984.81 | 0.0308 |

Account: KEPCo 101/6 $368-\mathrm{KY}$

```
\etaersion: 30.00 -R0.5
```

...erage Net Salvage Rate: $\quad 25.00 \%$
Future Net Salvage Rate: $25.00 \%$
Broad Group Procedure
January 1, 2009

| Vintage | Age | Surviving Plant | Avg Lifie | Remaining Lifie | Net Plant Ratio | Alloc <br> Factor | Computed Neé Plant | Accrual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2008 | 0.50 | \$7,450,618.50 | 30.00 | 29.69 | 0.7422 | 1.0000 | \$5,530,094.25 | \$186,265.46 |
| 2007 | 1.50 | \$7,254,032.50 | 30.00 | 29.07 | 0.7268 | 1.0000 | \$5,271,945.26 | \$181,350.81 |
| 2006 | 2.50 | \$4,610,530.84 | 30.00 | 28.45 | 0.7114 | 1.0000 | \$3,279,766.84 | \$115,263.27 |
| 2005 | 3.50 | \$2,427,727.71 | 30.00 | 27.84 | 0.6960 | 1.0000 | \$1,689,765.15 | \$60,693.19 |
| 2004 | 4.50 | \$2,508,317.48 | 30.00 | 27.23 | 0.6808 | 1.0000 | \$1,707,588.98 | \$62,707.94 |
| 2003 | 5.50 | \$1,277,326.30 | 30.00 | 26.62 | 0.6656 | 1.0000 | \$850,160.15 | \$31,933.16 |
| 2002 | 6.50 | \$3,510,019.56 | 30.00 | 26.02 | 0.6504 | 1.0000 | \$2,283,058.23 | \$87,750.49 |
| 2001 | 7.50 | \$2,203,297.46 | 30.00 | 25.41 | 0.6354 | 1.0000 | \$1,399,910.49 | \$55,082.44 |
| 2000 | 8.50 | \$3,095,724.60 | 30.00 | 24.81 | 0.6204 | 1.0000 | \$1,920,434.83 | \$77,393.11 |
| 1999 | 9.50 | \$3,969,541.13 | 30.00 | 24.22 | 0.6054 | 1.0000 | \$2,403,084.83 | \$99,238.53 |
| 1998 | 10.50 | \$3,049,131.24 | 30.00 | 23.62 | 0.5905 | 1.0000 | \$1,800,432.48 | \$76,228.28 |
| 1997 | 11.50 | \$4,110,249.12 | 30.00 | 23.02 | 0.5756 | 1.0000 | \$2,365,945.02 | \$102,756.23 |
| 1996 | 12.50 | \$2,778,395.23 | 30.00 | 22.43 | 0.5608 | 1.0000 | \$1,558,185.99 | \$69,459.88 |
| 1995 | 13.50 | \$3,482,517.21 | 30.00 | 21.84 | 0.5461 | 1.0000 | \$1,901,888.75 | \$87,062.93 |
| 1994 | 14.50 | \$4,458,288.16 | 30.00 | 21.26 | 0.5315 | 1.0000 | \$2,369,621.28 | \$111,457.20 |
| 1993 | 15.50 | \$3,404,200.20 | 30.00 | 20.68 | 0.5170 | 1.0000 | \$1,759,908.87 | \$85,105.01 |
| 1992 | 16.50 | \$2,507,427.51 | 30.00 | 20.10 | 0.5026 | 1.0000 | \$1,260,203.70 | \$62,685.69 |
| 1991 | 17.50 | \$2,933,382.55 | 30.00 | 19.53 | 0.4883 | 1.0000 | \$1,432,400.01 | \$73,334.56 |
| 1990 | 18.50 | \$2,916,488.91 | 30.00 | 18.97 | 0.4742 | 1.0000 | \$1,382,897.09 | \$72,912.22 |
| 1989 | 19.50 | \$2,756,932.53 | 30.00 | 18.41 | 0.4602 | 1.0000 | \$1,268,670.91 | \$68,923.31 |
| 1988 | 20.50 | \$1,650,611.63 | 30.00 | 17.85 | 0.4463 | 1.0000 | \$736,730.26 | \$41,265.29 |
| 1987 | 21.50 | \$2,192,627.67 | 30.00 | 17.31 | 0.4327 | 1.0000 | \$948,646.62 | \$54,815.69 |
| 1986 | 22.50 | \$2,469,175.06 | 30.00 | 16.77 | 0.4192 | 1.0000 | \$1,034,971.71 | \$61,729.38 |
| 1985 | 23.50 | \$1,911,956.23 | 30.00 | 16.23 | 0.4058 | 1.0000 | \$775,942.42 | \$47,798.91 |
| 1984 | 24.50 | \$2,079,109.79 | 30.00 | 15.71 | 0.3927 | 1.0000 | \$816,439.47 | \$51,977.74 |
| 1983 | 25.50 | \$1,563,748.17 | 30.00 | 15.19 | 0.3797 | 1.0000 | \$593,829.47 | \$39,093.70 |
| 1982 | 26.50 | \$1,319,593.78 | 30.00 | 14.68 | 0.3670 | 1.0000 | \$484,273.27 | \$32,989.84 |
| 1981 | 27.50 | \$1,727,030.12 | 30.00 | 14.18 | 0.3544 | 1.0000 | \$612,078.55 | \$43,175,75 |
| 1980 | 28.50 | \$2,026,221.05 | 30.00 | 13.68 | 0.3420 | 1.0000 | \$693,048.97 | \$50,655.53 |
| 1979 | 29.50 | \$1,529,489.65 | 30.00 | 13.19 | 0.3299 | 1.0000 | \$504,526.83 | \$38,237.24 |
| 1978 | 30.50 | \$1,984,197.33 | 30.00 | 12.72 | 0.3179 | 1.0000 | \$630,728.24 | \$49,604.93 |
| 1977 | 31.50 | \$1,748,736.42 | 30.00 | 12.24 | 0.3061 | 1.0000 | \$535,254.23 | \$43,718.41 |
| 1976 | 32.50 | \$808,490.71 | 30.00 | 11.78 | 0.2945 | 1.0000 | \$238,076.94 | \$20,212.27 |

Account: KEPCo 101/6 368 -KY
version: $30.00-\mathrm{R} 0.5$
r....

Furure Net Salvage Rate: $25.00 \%$
Broad Group Procedure
January 1, 2009

| Vintage | Age | Surviving Plant | Avg Life | Remaining Life | Net Plant Ratio | Alloc Factor | Computed Net Plant | Accrual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1975 | 33.50 | \$725,580.37 | 30.00 | 11.32 | 0.2830 | 1.0000 | \$205,371.55 | \$18,139.51 |
| 1974 | 34.50 | \$631,874.00 | 30.00 | 10.87 | 0.2718 | 1.0000 | \$171,742.78 | \$15,796.85 |
| 1973 | 35.50 | \$570,838.98 | 30.00 | 10.43 | 0.2607 | 1.0000 | \$148,834.43 | \$14,270.97 |
| 1972 | 36.50 | \$419,577.46 | 30.00 | 9.99 | 0.2498 | 1.0000 | \$104,821.57 | \$10,489.44 |
| 1971 | 37.50 | \$409,792.00 | 30.00 | 9.56 | 0.2391 | 1.0000 | \$97,969.48 | \$10,244.80 |
| 1970 | 38.50 | \$325,965.50 | 30.00 | 9.14 | 0.2285 | 1.0000 | \$74,475.40 | \$8,149.14 |
| 1969 | 39.50 | \$202,860.35 | 30.00 | 8.72 | 0.2180 | 1.0000 | \$44,227.08 | \$5,071.51 |
| 1968 | 40.50 | \$297,152.00 | 30.00 | 8.31 | 0.2077 | 1.0000 | \$61,715.41 | \$7,428.80 |
| 1967 | 41.50 | \$228,659.98 | 30.00 | 7.90 | 0.1975 | 1.0000 | \$45,153.28 | \$5,716.50 |
| 1966 | 42.50 | \$179,634.16 | 30.00 | 7.49 | 0.1874 | 1.0000 | \$33,658.51 | \$4,490.85 |
| 1965 | 43.50 | \$112,213.01 | 30.00 | 7.09 | 0.1773 | 1.0000 | \$19,900.01 | \$2,805.33 |
| 1964 | 44.50 | \$81,633.10 | 30.00 | 6.70 | 0.1674 | 1.0000 | \$13,663.42 | \$2,040.83 |
| 1963 | 45.50 | \$62,860.75 | 30.00 | 6.30 | 0.1575 | 1.0000 | \$9,899.59 | \$1,571. 62 |
| 1962 | 46.50 | \$52,065.94 | 30.00 | 5.90 | 0.1476 | 1.0000 | \$7,684.16 | \$1,301.65 |
| 1961 | 47.50 | \$62,247.50 | 30.00 | 5.51 | 0.1377 | 1.0000 | \$8,570.88 | \$1,556.19 |
| 1960 | 48.50 | \$54,234.76 | 30.00 | 5.11 | 0.1278 | 1.0000 | \$6,930.29 | \$1,355.37 |
| 1959 | 49.50 | \$58,960.27 | 30.00 | 4.71 | 0.1178 | 1.0000 | \$6,944.89 | \$1,474.01 |
| 1958 | 50.50 | \$54,973.04 | 30.00 | 4.31 | 0.1077 | 1.0000 | \$5,920.04 | \$1,374.33 |
| 1957 | 51.50 | \$27,425.68 | 30.00 | 3.90 | 0.0975 | 1.0000 | \$2,673.50 | \$685.64 |
| 1956 | 52.50 | \$57,168.75 | 30.00 | 3.48 | 0.0870 | 1.0000 | \$4,976.29 | \$1,429.22 |
| 1955 | 53.50 | \$30,271.32 | 30.00 | 3.06 | 0.0764 | 1.0000 | \$2,312.21 | \$756.78 |
| 1954 | 54.50 | \$15,035.19 | 30.00 | 2.62 | 0.0655 | 1.0000 | \$984.63 | \$375.88 |
| 1953 | 55.50 | \$13,246.72 | 30.00 | 2.17 | 0.0543 | 1.0000 | \$718.79 | \$331.17 |
| 1952 | 56.50 | \$7,547.55 | 30.00 | 1.71 | 0.0428 | 1.0000 | \$322.90 | \$188.69 |
| 1951 | 57.50 | \$11,761.92 | 30.00 | 1.25 | 0.0312 | 1.0000 | \$367.28 | \$294.05 |
| 1950 | 58.50 | \$6,338.28 | 30.00 | 0.79 | 0.0197 | 1.0000 | \$125.02 | \$158.46 |
| 1949 | 59.50 | (\$0.50) | 30.00 | 0.40 | 0.0100 | 1.0000 | \$0.00 | (\$0.01) |
|  |  | \$98,415,054.43 | 30.00 | 21.59 | 0.5398 | 1.0000 | \$53,120,473.44 | \$2,460,376.36 |

Account: KEPCo 101/6 369-KY
Srenario: KEPCO DISTRIBUTION 2008 NEW
эrsion: $25-$ LO

Average Net Salvage Rate: - $15.00 \%$
Future Net Salvage Rate: $\quad-\mathbf{1 5 . 0 0 \%}$

Broad Group Procedure
January 1,2009

|  | Plant Amt | Depreciation Reserve |  | Net Plant |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Amount | Ratio | Amount | Ratio |
| Recorded | \$38,162,243.26 | \$7,829,242.37 | 0.2052 | \$36,057,337.38 | 0.9448 |
| Computed | \$38,162,243.26 | \$9,171,429.52 | 0.2403 | \$34,715,150.23 | 0.9097 |
| Difference |  | (\$1,342,187.15) | -0.0352 | \$1,342,187.15 | 0.0352 |

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\text { Page } 287 . t_{35}
$$

Account: KEPCO 101/6 369 - KY
version: 25.00 -LO
...enrage Net Salvage Rate: -15.00\%
Future Net Salvage Rate: $-15.00 \%$
Broad Group Procedure
January 1, 2009


Account: KEPCo 101/6 $369-\mathrm{KY}$
version: $25.00-L 0$
Average Net Salvage Rate: $-15.00 \%$
Future Net Salvage Rate: $\quad-15.00 \%$
Broad Group Procedure
January 1, 2009



$$
\text { Pay } 290 \text { of } 350
$$

Account: KEPCo $101 / 6370-K Y$ version: 17.00-S6
murage Net Salvage Rate: $\quad-8.00 \%$
Future Net Salvage Rate: $\quad \mathbf{- 8 . 0 0 \%}$
Broad Group Procedure
January 1, 2009



Account: KEPCo 101/6 371 KY ersion: $14.00-$ R0.5
murage Net Salvage Rate: $\quad-15.00 \%$
Future Net Salvage Rate: $\quad-15.00 \%$
Broad Group Procedure
January 1, 2009




Account: KEPCo 101/6 373 - KY
ersion: $24.00-$ L. 0
Average Net Salvage Rate: $\quad \mathbf{- 2 . 0 0 \%}$
Future Net Salvage Rate: $\quad-2.00 \%$
Broad Group Procedure
January 1, 2009

| Vintage | Age | Surviving Plant | Avg Life | Remaining Life | Net Plant Ratio | Alloc <br> Factor | Computed Net Plant | Accrual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2008 | 0.50 | \$141,474.50 | 24.00 | 23.58 | 1.0021 | 1.0000 | \$141,778.13 | \$6,012.67 |
| 2007 | 1.50 | \$173,112.50 | 24.00 | 22.85 | 0.9713 | 1.0000 | \$168,150.23 | \$7,357.28 |
| 2006 | 2.50 | \$151,500.50 | 24.00 | 22.21 | 0.9441 | 1.0000 | \$143,030.73 | \$6,438.77 |
| 2005 | 3.50 | \$155,045.50 | 24.00 | 21.63 | 0.9192 | 1.0000 | \$142,518.46 | \$6,589.43 |
| 2004 | 4.50 | \$139,549.50 | 24.00 | 21.09 | 0.8962 | 1.0000 | \$125,065.71 | \$5,930.85 |
| 2003 | 5.50 | \$114,834.50 | 24.00 | 20.58 | 0.8747 | 1.0000 | \$100,440.66 | \$4,880.47 |
| 2002 | 6.50 | \$90,680.50 | 24.00 | 20.10 | 0.8543 | 1.0000 | \$77,470.12 | \$3,853.92 |
| 2001 | 7.50 | \$105,554.50 | 24.00 | 19.65 | 0.8350 | 1.0000 | \$88,138.46 | \$4,486.07 |
| 2000 | 8.50 | \$76,887.73 | 24.00 | 19.21 | 0.8166 | 1.0000 | \$62,783.85 | \$3,267.73 |
| 1999 | 9.50 | \$84,715.22 | 24.00 | 18.80 | 0.7989 | 1.0000 | \$67,676.54 | \$3,600.40 |
| 1998 | 10.50 | \$38,145.06 | 24.00 | 18.40 | 0.7818 | 1.0000 | \$29,821.90 | \$1,621.17 |
| 1997 | 11.50 | \$36,567.39 | 24.00 | 18.01 | 0.7653 | 1.0000 | \$27,983.63 | \$1,554.11 |
| 1996 | 12.50 | \$43,421.44 | 24.00 | 17.63 | 0.7491 | 1.0000 | \$32,527.07 | \$1,845.41 |
| 1995 | 13.50 | \$54,669.17 | 24.00 | 17.25 | 0.7333 | 1.0000 | \$40,088.98 | \$2,323.44 |
| 1994 | 14.50 | \$79,388.39 | 24.00 | 16.89 | 0.7178 | 1.0000 | \$56,987.22 | \$3,374.01 |
| 1993 | 15.50 | \$141,697.78 | 24.00 | 16.53 | 0.7027 | 1.0000 | \$99,567.95 | \$6,022.16 |
| 1992 | 16.50 | \$10,074.14 | 24.00 | 16.18 | 0.6879 | 1.0000 | \$6,929.53 | \$428.15 |
| 1991 | 17.50 | \$44,545.61 | 24.00 | 15.84 | 0.6733 | 1.0000 | \$29,994.09 | \$1,893.19 |
| 1990 | 18.50 | \$146,181.88 | 24.00 | 15.51 | 0.6591 | 1.0000 | \$96,350.75 | \$6,212.73 |
| 1989 | 19.50 | \$227,626.68 | 24.00 | 15.18 | 0.6452 | 1.0000 | \$146,862.98 | \$9,674.13 |
| 1988 | 20.50 | \$128,973.28 | 24.00 | 14.86 | 0.6316 | 1.0000 | \$81,453.66 | \$5,481.36 |
| 1987 | 21.50 | \$121,744.77 | 24.00 | 14.55 | 0.6182 | 1.0000 | \$75,263.59 | \$5,174.15 |
| 1986 | 22.50 | \$118,986.20 | 24.00 | 14.24 | 0.6051 | 1.0000 | \$71,999.80 | \$5,056.91 |
| 1985 | 23.50 | \$65,526.86 | 24.00 | 13.94 | 0.5923 | 1.0000 | \$38,810.17 | \$2,784.89 |
| 1984 | 24.50 | \$26,049.08 | 24.00 | 13.64 | 0.5797 | 1.0000 | \$15,100.89 | \$1,107.09 |
| 1983 | 25.50 | \$45,456.85 | 24.00 | 13.35 | 0.5674 | 1.0000 | \$25,791.59 | \$1,931.92 |
| 1982 | 26.50 | \$85,096.65 | 24.00 | 13.07 | 0.5553 | 1.0000 | \$47,254.60 | \$3,616.61 |
| 1981 | 27.50 | \$62,364.59 | 24.00 | 12.79 | 0.5435 | 1.0000 | \$33,894.16 | \$2,650.50 |
| 1980 | 28.50 | \$33,159.55 | 24.00 | 12.51 | 0.5319 | 1.0000 | \$17,636.01 | \$1,409.28 |
| 1979 | 29.50 | \$8,626.93 | 24.00 | 12.25 | 0.5205 | 1.0000 | \$4,489.95 | \$366.64 |
| 1978 | 30.50 | \$20,778.56 | 24.00 | 11.98 | 0.5093 | 1.0000 | \$10,581.85 | \$883.09 |
| 1977 | 31.50 | \$6,696.29 | 24.00 | 11.72 | 0.4983 | 1.0000 | \$3,336.77 | \$284.59 |
| 1976 | 32.50 | \$5,436.47 | 24.00 | 11.47 | 0.4875 | 1.0000 | \$2,650.47 | \$231.05 |



Account: KEPCo 101/6 373-KY ersion: 24.00 -LO

Average Net Salvage Rate: $\quad-2.00 \%$
Future Net Salvage Rate: $\quad-2.00 \%$
Broad Group Procedure
January 1, 2009


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\text { Page } 296 \text { of } 350
$$

## KENTUCKY POWER COMPANY

## DEPRECIATION STUDY AS OF 12-31-08

GENERAL PLANT WORKPAPERS

## LIFE ANALYSIS

KENTUCKY POWER COMPANY
Depreciation Study as of December 31, 2008
General Plant

| Account | 3892 RIGHTS OF WAY |  |
| :--- | :---: | :---: |
| Depreciable Balance | $\$ 219,615$ |  |
|  | Current | Recommended |
| Average Service Life (Yrs) | 75 | 75 |
| lowa Curve | R4.0 | R4.0 |
| Gross Removal, \% |  | $0 \%$ |
| Gross Salvage, \% |  | $0 \%$ |
| Net Salvage \% | $0 \%$ | $0 \%$ |

There have been no retirements in this account. Therefore, no actuarial analysis was done.
The recommendation is to continue the current 75 year average service life following an R4.O type dispersion.

No removal or salvage is expected from the retirement of rights-of way.

## KENTUCKY POWER COMPANY

Depreciation Study as of December 31, 2008
General Plant
Account 390 STRUCTURES \& IMPROVEMENTS
Depreciable Balance ..... \$19,910,322
Current Recommended
Average Service Life (Yrs) ..... 45 ..... 28
Iowa Curve ..... L3.0 ..... L3.0
Gross Removal, \% ..... 0\%
Gross Salvage, \% ..... 11\%
Net Salvage \% ..... 0\% ..... 11\%

The actuarial analyses show the average service life for this account has decreased. Based on the results of the 40 year band analysis, the recommendation is to move to a 28 year average service life following an L3.0 type dispersion.

Gross salvage could be expected from the sale of service center buildings


## Actuarial Life Analysis



Scenario: KEPCO ACCT 3902008
Account: KEPCo 101/6 390 - KY
Placement Band: 1918-2008
ige at
oeginning
of Interval

0
0.5
1.5
2.5
3.5
4.5
5.5
6.5
7.5
8.5
9.5
10.5
11.5

Exposures at Beginning of Interval 32,371,761.83 32,376,068.21
32,345,773.19
31,803,602.83
31,511,043.51
31,368,714.91
31,352,034.91
31,293,807.67
31,279,448.84
30,668,631.41
30,680,038.41
30,566,819.41
29,156,450.41
27,581,670.97
27,072,680.97
27,000,390.97
26,971,578.97
26,807,772.97
26,404,768.97
14,220,198.52
13,668,606.52
13,662,663.52
13,633,645.77
13,481,099.77
4,573,215.77
4,557,816.77
4,531,133.77
4,524,762.77 619,968.00 602,533.00 445,224.00 472,049.00 484,562.00 473,110.00 456,033.00 404,339.00 390,667.00 388,215.00 380,736.00 379,315.00 359,864.00 295,029.00 349,398.00 281,513.00 209,999.00 209,987.00 207,303.00 206,754.00 146,395.00 128,780.00 73,933.00 73,408.00 73,261.00 73,261.00

| Retirements During Interval | Retirment Ratio | Survivor Ratio | Percent Surv at Beginning of Interval |
| :---: | :---: | :---: | :---: |
| 0.00 | 0.00000 | 1.00000 | 100.00 |
| 603.00 | 0.00002 | 0.99998 | 100.00 |
| 103,309.00 | 0.00319 | 0.99681 | 100.00 |
| 49,424.00 | 0.00155 | 0.99845 | 99.68 |
| 12,121.00 | 0.00038 | 0.99962 | 99.53 |
| 19,811.00 | 0.00063 | 0.99937 | 99.49 |
| 55,342,00 | 0.00177 | 0.99823 | 99.43 |
| 3,901.00 | 0.00012 | 0.99988 | 99.25 |
| 254,535.00 | 0.00814 | 0.99186 | 99.24 |
| 79,617.00 | 0.00260 | 0.99740 | 98.43 |
| 38,893.00 | 0.00127 | 0.99873 | 98.17 |
| 1,096,646.00 | 0.03588 | 0.96412 | 98.05 |
| 565,743.00 | 0.01940 | 0.98060 | 94.53 |
| 25,519.00 | 0.00093 | 0.99907 | 92.70 |
| 42,855.00 | 0.00158 | 0.99842 | 92.61 |
| 10,059.00 | 0.00037 | 0.99963 | 92.46 |
| 5,783.00 | 0.00021 | 0.99979 | 92.43 |
| 13,171.00 | 0.00049 | 0.99951 | 92.41 |
| 231,286.00 | 0.00876 | 0.99124 | 92.36 |
| 531,837.00 | 0.03740 | 0.96260 | 91.55 |
| 3,550.00 | 0.00026 | 0.99974 | 88.13 |
| 17,530.00 | 0.00128 | 0.99872 | 88.11 |
| 140,513.00 | 0.01031 | 0.98969 | 88.00 |
| 8,906,128.00 | 0.66064 | 0.33936 | 87.09 |
| 15,721.00 | 0.00344 | 0.99656 | 29.55 |
| 14,620.00 | 0.00321 | 0.99679 | 29.45 |
| 2,679.00 | 0.00059 | 0.99941 | 29.36 |
| 176,311.00 | 0.03897 | 0.96103 | 29.34 |
| 3,775.00 | 0.00609 | 0.99391 | 28.20 |
| 142,637.00 | 0.23673 | 0.76327 | 28.03 |
| 460.00 | 0.00103 | 0.99897 | 21.39 |
| 7,111.00 | 0.01506 | 0.98494 | 21.37 |
| 5,297.00 | 0.01093 | 0.98907 | 21.05 |
| 4,886.00 | 0.01033 | 0.98967 | 20.82 |
| 37,541.00 | 0.08232 | 0.91768 | 20.60 |
| 9,576.00 | 0.02368 | 0.97632 | 18.90 |
| 6,392.00 | 0.01636 | 0.98364 | 18.45 |
| 7,479.00 | 0.01927 | 0.98073 | 18.15 |
| 551.00 | 0.00145 | 0.99855 | 17.80 |
| 9,675.00 | 0.02551 | 0.97449 | 17.77 |
| 30,779.00 | 0.08553 | 0.91447 | 17.32 |
| 4,432.00 | 0.01502 | 0.98498 | 15.84 |
| 67,421.00 | 0.19296 | 0.80704 | 15.60 |
| 71,514.00 | 0.25403 | 0.74597 | 12.59 |
| 12.00 | 0.00006 | 0.99994 | 9.39 |
| 2,203.00 | 0.01049 | 0.98951 | 9.39 |
| 100.00 | 0.00048 | 0.99952 | 9.29 |
| 59,911.00 | 0.28977 | 0.71023 | 9.29 |
| 2,370.00 | 0.01619 | 0.98381 | 6.60 |
| 47,943.00 | 0.37229 | 0.62771 | 6.49 |
| 0.00 | 0.00000 | 1.00000 | 4.07 |
| 0.00 | 0.00000 | 1.00000 | 4.07 |
| 0.00 | 0.00000 | 1.00000 | 4.07 |
| 344.00 | 0.00470 | 0.99530 | 4.07 |

Scenario: KEPCO ACCT 3902008 Account: KEPCo 101/6 390-KY Placement Band: 1918-2008

| Age at <br> Beginning <br> of Interval | Exposures <br> at Beginning <br> of Interval |
| :---: | ---: |
| 53.5 | $72,917.00$ |
| 54.5 | $72,917.00$ |
| 55.5 | $54,412.00$ |
| 56.5 | $53,531.00$ |
| 57.5 | $53,531.00$ |
| 58.5 | $49,287.00$ |
| 59.5 | $48,171.00$ |
| 60.5 | $47,635.00$ |
| 61.5 | $47,635.00$ |
| 62.5 | $47,635.00$ |
| 63.5 | $46,833.00$ |
| 64.5 | $46,511.00$ |
| 65.5 | $46,511.00$ |
| 66.5 | $44,627.00$ |
| 67.5 | $44,510.00$ |
| 68.5 | $44,080.00$ |
| 69.5 | $43,738.00$ |
| 70.5 | 0.00 |

Scenario: KEPCO ACCT 3902008
Account: KEPCo 101/6 390 - KY
Placement Band: 1918 - 2008
Observation Band: 1969~2008

Tog -303 ot 350


## Account: KEPCo 101/6 390 - KY

Scenario: KEPCO ACCT 3902008
4. Actual Data

- LB 26.14
マ L3 27.94



## Actuarial Life Analysis



## Observed Life Table

Scenario: KEPCO ACCT 3902008 Account: KEPCo 101/6 390 -KY Placement Band: 1918-2008


0
0.5
1.5
2.5
3.5
4.5
5.5
6.5
7.5
8.5
9.5
10.5
11.5
12.5
13.5
14.5
15.5
16.5
17.5
18.5
19.5
20.5
21.5
22.5
23.5
24.5
25.5
26.5
27.5
28.5
50.5 50,340.00
$51.5 \quad 68,193.00$
52.5

Exposures
at Beginning
of Interval
18,121,974.31
18,094,338.69
18,075,866.42
17,574,006.06
17,770,167.74
17,623,175.14
17,615,819.14
17,667,250.90
30,299,989.84
29,688,719.41
29,658,454.41
29,855,601.41
$28,444,500.41$
26,773,250.97
26,276,891.97
26,558,574.97
26,533,945.97
26,369,308.97
25,966,839.97
13,786,270.52
13,336,533.52
13,372,922.52
13,351,847.77
13,206,217.77
4,327,026.77
4,328,312.77
4,304,062.77
4,295,891.77 390,732.00 405,162.00 328,345.00 312,021.00 307,189.00 401,733.00 385,353.00 333,659.00 320,492.00
' 315,091.00 308,421.00 305,968.00 284,539.00 220,240.00 209,577.00 205,524.00 134,444.00 134,754.00 133,406.00 134,397.00 74,155.00 58,170.00
6,759.00 68,193.00

## During Interval

103
49
11
19
5
3
253
79
2
1,09
56
2
4
4

1
1
22
53
0.00
574.00

103,069.00
49,424.00
11,372.00
19,811.00
$54,476.00$
3,500.00
253,871.00 $79,517.00$
$26,799.00$
1,096,487.00 565,059.00 25,199.00 41,731.00 9,966.00
5,623.00
$12,636.00 \quad 0.00048$
226,885.00 0.00874
0.03858
$17,530.00 \quad 0.00131$
$140,385.00 \quad 0.01051$
8,906,128.00 0.67439
$12,392.00 \quad 0.00286$
$14,620.00 \quad 0.00338$
$\begin{array}{rr}1,907.00 & 0.00044 \\ 175,590.00 & 0.04087\end{array}$
$3,775.00 \quad 0.00966$
$141,208.00 \quad 0.34852$
$387.00 \quad 0.00118$
4,735.00 0.01518
3,068.00 0.00999
$3,405.00 \quad 0.00848$
$37,541.00 \quad 0.09742$
$\begin{array}{ll}9,576.00 & 0.02870\end{array}$
$\begin{array}{ll}6,392.00 & 0.01994 \\ 6,670.00 & 0.02117\end{array}$
$\begin{array}{rr}6,670.00 & 0.02117 \\ 551.00 & 0.00179\end{array}$
9,675.00 0.03162
30,779.00 0.10817
$4,432.00 \quad 0.02012$
2,389.00 0.01140
$71,514.00 \quad 0.34796$
$12.00 \quad 0.00009$
$\begin{array}{ll}867.00 & 0.00643 \\ 100.00 & 0.00075\end{array}$
$\begin{array}{rr}59,911.00 & 0.44578 \\ 1,170.00 & 0.01578\end{array}$
$44,849.00 \quad 0.77100$
$0.00 \quad 0.00000$
$\begin{array}{ll}0.00 & 0.00000 \\ 0.00 & 0.00000\end{array}$
$0.00 \quad 0.00000$


307
06 350
Observation Band: 1989-2008

Percent Surv at Beginning of Interval
100.00
100.00
100.00
99.43
99.15
99.09
98.98
98.67
98.65
97.82
97.56
97.47
93.89
92.02
91.93
91.78
91.75
91.73
91.69
90.89

$$
87.38
$$

0.99869
87.36
$0.99714 \quad 28.11$
$0.99662 \quad 28.03$
$0.99956 \quad 27.94$
$0.99034 \quad 26.79$

| 0.65148 | 26.53 |
| :--- | :--- |
| 0.99882 | 17.28 |

$0.98482 \quad 17.26$
$\begin{array}{ll}0.99152 & 16.83 \\ 0.90258 & 16.69\end{array}$
$0.97130 \quad 15.06$
$\begin{array}{ll}0.98006 & 14.63 \\ 0.97883 & 14.34\end{array}$
$0.99821 \quad 14.04$
$0.96838 \quad 14.01$
$0.89183 \quad 13.57$
$0.97988 \quad 12.10$
$0.98860 \quad 11.86$
$0.65204 \quad 11.72$
$0.99991 \quad 7.64$
$0.99925 \quad 7.59$
$0.55422 \quad 7.58$
$0.98422 \quad 4.20$
$0.22900 \quad 4.13$
$1.00000 \quad 0.95$
1.00000 . 0.95
$1.00000 \quad 0.95$
$1.00000 \quad 0.95$

Scenario: KEPCO ACCT 3902008
Account: KEPCo 101/6 390 - KY
Placement Band: 1918-2008

| Age at <br> Beginning <br> of Interval | Exposures <br> at Beginning <br> of Interval |
| :---: | ---: |
| 53.5 | $68,977.00$ |
| 54.5 | $68,977.00$ |
| 55.5 | $50,472.00$ |
| 56.5 | $53,531.00$ |
| 57.5 | $53,531.00$ |
| 58.5 | $49,287.00$ |
| 59.5 | $48,171.00$ |
| 60.5 | $47,635.00$ |
| 61.5 | $47,635.00$ |
| 62.5 | $47,635.00$ |
| 63.5 | $46,833.00$ |
| 64.5 | $46,511.00$ |
| 65.5 | $46,511.00$ |
| 66.5 | $44,627.00$ |
| 67.5 | $44,510.00$ |
| 68.5 | $44,080.00$ |
| 69.5 | $43,738.00$ |
| 70.5 | 0.00 |


| Retirements <br> During <br> Interval | Retirment <br> Ratio |
| ---: | :--- |
| 0.00 | 0.00000 |
| $18,000.00$ | 0.26096 |
| 784.00 | 0.01553 |
| 0.00 | 0.00000 |
| $3,940.00$ | 0.07360 |
| 0.00 | 0.00000 |
| 0.00 | 0.00000 |
| 0.00 | 0.00000 |
| 0.00 | 0.00000 |
| 368.00 | 0.00773 |
| 0.00 | 0.00000 |
| 0.00 | 0.00000 |
| 0.00 | 0.00000 |
| 0.00 | 0.00000 |
| 0.00 | 0.00000 |
| 0.00 | 0.00000 |
| 0.00 | 0.00000 |
| 0.00 | 0.00000 |

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Scenario: KEPCO ACCT 3902008
Account: KEPCo 101/6 390 - KY
Placement Band: 1918 -2008 Observation Band: 1989-2008

| Age | Actual | L. 326.14 | L3 28.00 |
| :---: | :---: | :---: | :---: |
| 0.0 | 100.00 | 100.00 | 100.00 |
| 0.5 | 100.00 | 100.00 | 100.00 |
| 1.5 | 100.00 | 100.00 | 100.00 |
| 2.5 | 99.43 | 100.00 | 100.00 |
| 3.5 | 99.15 | 100.00 | 100.00 |
| 4.5 | 99.08 | 99.97 | 99.98 |
| 5.5 | 98.97 | 99.90 | 99.94 |
| 6.5 | 98.67 | 99.80 | 99.84 |
| 7.5 | 98.65 | 99.59 | 99.71 |
| 8.5 | 97.82 | 99.28 | 99.45 |
| 9.5 | 97.56 | 98.83 | 99.18 |
| 10.5 | 97.47 | 98.23 | 98.70 |
| 11.5 | 93.89 | 97.67 | 98.06 |
| 12.5 | 92.03 | 96.72 | 97.45 |
| 13.5 | 91.94 | 95.49 | 96.44 |
| 14.5 | 91.79 | 93.89 | 95.49 |
| 15.5 | 91.76 | 91.82 | 93.89 |
| 16.5 | 91.74 | 89.17 | 92.39 |
| 17.5 | 91.69 | 86.76 | 89.89 |
| 18.5 | 90.89 | 82.97 | 86.76 |
| 19.5 | 87.39 | 78.54 | 83.98 |
| 20.5 | 87.36 | 73.57 | 79.70 |
| 21.5 | 87.25 | 68.21 | 76.12 |
| 22.5 | 86.33 | 62.62 | 70.93 |
| 23.5 | 28.11 | 58.40 | 66.83 |
| 24.5 | 28.03 | 52.87 | 61.22 |
| 25.5 | 27.94 | 47.57 | 55.61 |
| 26.5 | 27.92 | 42.61 | 51.51 |
| 27.5 | 26.78 | 38.06 | 46.29 |
| 28.5 | 26.52 | 33.93 | 42.61 |
| 29.5 | 17.28 | 31.11 | 38.06 |
| 30.5 | 17.26 | 27.68 | 34.92 |
| 31.5 | 17.00 | 24.61 | 31.11 |
| 32.5 | 16.83 | 21.85 | 27.68 |
| 33.5 | 16.68 | 19.35 | 25.35 |
| 34.5 | 15.06 | 17.62 | 22.51 |
| 35.5 | 14.63 | 15.50 | 20.57 |
| 36.5 | 14.34 | 13.56 | 18.18 |
| 37.5 | 14.03 | 11.78 | 16.54 |
| 38.5 | 14.01 | 10.16 | 14.51 |
| 39.5 | 13.56 | 8.69 | 12.65 |
| 40.5 | 12.10 | 7.67 | 11.36 |
| 41.5 | 11.85 | 6.45 | 9.78 |
| 42.5 | 11.72 | 5.35 | 8.69 |
| 43.5 | 7.64 | 4.38 | 7.35 |
| 44.5 | 7.64 | 3.54 | 6.45 |
| 45.5 | 7.59 | 2.81 | 5.35 |
| 46.5 | 7.59 | 2.34 | 4.38 |
| 47.5 | 4.20 | 1.80 | 3.74 |
| 48.5 | 4.14 | 1.36 | 2.99 |
| 49.5 | 0.95 | 1.00 | 2.49 |
| 50.5 | 0.95 | 0.71 | 1.93 |
| 51.5 | 0.95 | 0.49 | 1.57 |
| 52.5 | 0.95 | 0.36 | 1.17 |
| 53.5 | 0.95 | 0.23 | 0.84 |

## Scenario: KEPCO ACCT 3902008

Account: KEPCo 101/6 390 -KY
Placement Band: $1918-2008$
Observation Band: 1989-2008

| Age | Actual | L3 26.14 | Lu 28.00 |
| :---: | :---: | :---: | :---: |
| 54.5 | 0.95 | 0.14 | 0.65 |
| 55.5 | 0.70 | 0.08 | 0.44 |
| 56.5 | 0.69 | 0.04 | 0.32 |
| 57.5 | 0.69 | 0.02 | 0.20 |
| 58.5 | 0.64 | 0.01 | 0.14 |
| 59.5 | 0.64 | 0 | 0.08 |
| 60.5 | 0.64 | 0 | 0.04 |
| 61.5 | 0.64 | 0 | 0.02 |
| 62.5 | 0.64 |  | 0.01 |
| 63.5 | 0.63 |  | 0 |
| 64.5 | 0.63 |  | 0 |
| 65.5 | 0.63 |  | 0 |
| 66.5 | 0.63 |  |  |
| 67.5 | 0.63 |  |  |
| 68.5 | 0.63 |  |  |
| 69.5 | 0.63 |  |  |
| 70.5 | 0.63 |  |  |
| 71.5 | 0.63 |  |  |
| 72.5 | 0.63 |  |  |
| 73.5 | 0.63 |  |  |
| 74.5 | 0.63 |  |  |
| 75.5 | 0.63 |  |  |
| 76.5 | 0.63 |  |  |
| 77.5 | 0.63 |  |  |
| 78.5 | 0.63 |  |  |
| 79.5 | 0.63 |  |  |
| 80.5 | 0.63 |  |  |
| 81.5 | 0.63 |  |  |
| 82.5 | 0.63 |  |  |
| 83.5 | 0.63 |  |  |
| 84.5 | 0.63 |  |  |
| 85.5 | 0.63 |  |  |
| 86.5 | 0.63 |  |  |
| 87.5 | 0.63 |  |  |
| 88.5 | 0.63 |  |  |
| 89.5 | 0.63 |  |  |
| 90.5 | 0.63 |  |  |

## Account: KEPCo 101/6 390 - KY

Scenario: KEPCO ACCT 3902008



Observation Band: 1999-2008

| Age at Beginning of Interval | Exposures at Beginning of Interval | Retirements During Interval | Retirment Ratio | Survivor Ratio | Percent Surv at Beginning of Interval |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 1,389,797.42 | 0.00 | 0.00000 | 1.00000 | 100.00 |
| 0.5 | 1,487,258.80 | 0.00 | 0.00000 | 1.00000 | 100.00 |
| 1.5 | 1,767,426.78 | 0.00 | 0.00000 | 1.00000 | 100.00 |
| 2.5 | 2,673,783.86 | 48,288.00 | 0.01806 | 0.98194 | 100.00 |
| 3.5 | 2,903,099.54 | 11,372.00 | 0.00392 | 0.99608 | 98.19 |
| 4.5 | 2,848,531.94 | 19,811.00 | 0.00695 | 0.99305 | 97.81 |
| 5.5 | 2,857,724.94 | 48,668.00 | 0.01703 | 0.98297 | 97.13 |
| 6.5 | 4,472,906.70 | 3,500.00 | 0.00078 | 0.99922 | 95.48 |
| 7.5 | 4,891,867.87 | 253,871.00 | 0.05190 | 0.94810 | 95.41 |
| 8.5 | 16,253,240.89 | 79,517.00 | 0.00489 | 0.99511 | 90.46 |
| 9.5 | 16,204,848.89 | 26,799.00 | 0.00165 | 0.99835 | 90.02 |
| 10.5 | 16,112,175.89 | 1,094,961.00 | 0.06796 | 0.93204 | 89.87 |
| 11.5 | 14,719,148.64 | 458,999.00 | 0.03118 | 0.96882 | 83.76 |
| 12.5 | 13,195,033.20 | 1,647.00 | 0.00012 | 0.99988 | 81.15 |
| 13.5 | 13,221,369.20 | 41,731.00 | 0.00316 | 0.99684 | 81.14 |
| 14.5 | 13,158,442.20 | 9,966.00 | 0.00076 | 0.99924 | 80.88 |
| 15.5 | 13,141,673.20 | 5,623.00 | 0.00043 | 0.99957 | 80.82 |
| 16.5 | 13,087,400.20 | 9,300.00 | 0.00071 | 0.99929 | 80.79 |
| 17.5 | 25,335,980.97 | 20,378.00 | 0.00080 | 0.99920 | 80.73 |
| 18.5 | 13,378,864,52 | 526,644.00 | 0.03936 | 0.96064 | 80.67 |
| 19.5 | 12,848,036.52 | 3,550.00 | 0.00028 | 0.99972 | 77.49 |
| 20.5 | 12,866,758.52 | 7,530.00 | 0.00059 | 0.99941 | 77.47 |
| 21.5 | 12,850,929.77 | 103,307.00 | 0.00804 | 0.99196 | 77.42 |
| 22.5 | 12,741,787.77 | 8,906,128.00 | 0.69897 | 0.30103 | 76.80 |
| 23.5 | 3,846,517.77 | 4,892.00 | 0.00127 | 0.99873 | 23.12 |
| 24.5 | 4,170,066.77 | 14,620.00 | 0.00351 | 0.99649 | 23.09 |
| 25.5 | 4,147,978.77 | 1,907.00 | 0.00046 | 0.99954 | 23.01 |
| 26.5 | 4,139,014.77 | 175,590.00 | 0.04242 | 0.95758 | 23.00 |
| 27.5 | 233,395.00 | 1,775.00 | 0.00761 | 0.99239 | 22.02 |
| 28.5 | 221,225.00 | 141,208.00 | 0.63830 | 0.36170 | 21.85 |
| 29.5 | 121,130.00 | 387.00 | 0.00319 | 0.99681 | 7.90 |
| 30.5 | 139,290.00 | 4,735.00 | 0.03399 | 0.96601 | 7.87 |
| 31.5 | 141,084.00 | 499.00 | 0.00354 | 0.99646 | 7.60 |
| 32.5 | 141,756.00 | 1,562.00 | 0.01102 | 0.98898 | 7.57 |
| 33.5 | 156,660.00 | 37,541.00 | 0.23963 | 0.76037 | 7.49 |
| 34.5 | 116,644.00 | 735.00 | 0.00630 | 0.99370 | 5.70 |
| 35.5 | 114,246.00 | 6,392.00 | 0.05595 | 0.94405 | 5.66 |
| 36.5 | 108,647.00 | 6,670.00 | 0.06139 | 0.93861 | 5.34 |
| 37.5 | 102,437.00 | 551.00 | 0.00538 | 0.99462 | 5.01 |
| 38.5 | 132,048.00 | 9,675.00 | 0.07327 | 0.92673 | 4.98 |
| 39.5 | 175,915.00 | 30,779.00 | 0.17497 | 0.82503 | 4.62 |
| 40.5 | 111,964.00 | 4,432.00 | 0.03958 | 0.96042 | 3.81 |
| 41.5 | 102,618.00 | 2,389.00 | 0.02328 | 0.97672 | 3.66 |
| 42.5 | 202,072.00 | 71,514.00 | 0.35390 | 0.64610 | 3.57 |
| 43.5 | 130,558.00 | 12.00 | 0.00009 | 0.99991 | 2.31 |
| 44.5 | 130,546.00 | 867.00 | 0.00664 | 0.99336 | 2.31 |
| 45.5 | 129,703.00 | 100.00 | 0.00077 | 0.99923 | 2.29 |
| 46.5 | 129,801.00 | 59,911.00 | 0.46156 | 0.53844 | 2.29 |
| 47.5 | 69,442.00 | 1,170.00 | 0.01685 | 0.98315 | 1.23 |
| 48.5 | 53,331.00 | 44,849.00 | 0.84096 | 0.15904 | 1.21 |
| 49.5 | 2,694.00 | 0.00 | 0.00000 | 1.00000 | 0.19 |
| 50.5 | 2,705.00 | 0.00 | 0.00000 | 1.00000 | 0.19 |
| 51.5 | 2,558.00 | 0.00 | 0.00000 | 1.00000 | 0.19 |
| 52.5 | 2,558.00 | 0.00 | 0.00000 | 1.00000 | 0.19 |

Scenario: KEPCO ACCT 3902008 Account: KEPCo 101/6 390 -KY Placement Band: 1918-2008

| ge at <br> beginning <br> of Interval | Exposures <br> at Beginning <br> of Interval |
| :---: | ---: |
| 53.5 | $2,992.00$ |
| 54.5 | $3,314.00$ |
| 55.5 | $2,809.00$ |
| 56.5 | $4,596.00$ |
| 57.5 | $4,713.00$ |
| 58.5 | $4,839.00$ |
| 59.5 | $4,065.00$ |
| 60.5 | $47,635.00$ |
| 61.5 | $47,635.00$ |
| 62.5 | $47,635.00$ |
| 63.5 | $46,833.00$ |
| 64.5 | $46,511.00$ |
| 65.5 | $46,511.00$ |
| 66.5 | $44,627.00$ |
| 67.5 | $44,510.00$ |
| 68.5 | $44,080.00$ |
| 69.5 | $43,738.00$ |
| 70.5 | 0.00 |


| Retirements <br> During <br> Interval | Retirment <br> Ratio |
| :---: | :---: |
| 0.00 | 0.00000 |
| 0.00 | 0.00000 |
| 0.00 | 0.00000 |
| 0.00 | 0.00000 |
| 0.00 | 0.00000 |
| 0.00 | 0.00000 |
| 0.00 | 0.00000 |
| 0.00 | 0.00000 |
| 0.00 | 0.00000 |
| 368.00 | 0.00773 |
| 0.00 | 0.00000 |
| 0.00 | 0.00000 |
| 0.00 | 0.00000 |
| 0.00 | 0.00000 |
| 0.00 | 0.00000 |
| 0.00 | 0.00000 |
| 0.00 | 0.00000 |
| 0.00 | 0.00000 |

Observation Band: 1999-2008

## Pase 314 of $=50$

Percent Surv at Beginning of Interval
0.19
0.19
0.19
0.19
0.19
0.19
0.19
0.19
0.19
0.19
0.19
0.19
0.19
0.19
0.19
0.19
0.19
0.19

Scenario: KEPCO ACCT 3902008
Account: KEPCo 101/6 390 - KY
Placement Band: 1918 - 2008
Observation Band: 1999-2008

| Age | Actual | R3 22.55 | L3 28.00 |
| :---: | :---: | :---: | :---: |
| 0.0 | 100.00 | 100.00 | 100.00 |
| 0.5 | 100.00 | 99.97 | 100.00 |
| 1.5 | 100.00 | 99.89 | 100.00 |
| 2.5 | 100.00 | 99.74 | 100.00 |
| 3.5 | 98.19 | 99.58 | 100.00 |
| 4.5 | 97.81 | 99.36 | 99.98 |
| 5.5 | 97.13 | 99.01 | 99.94 |
| 6.5 | 95.47 | 98.63 | 99.84 |
| 7.5 | 95.40 | 98.04 | 99.71 |
| 8.5 | 90.45 | 97.43 | 99.45 |
| 9.5 | 90.01 | 96.49 | 99.18 |
| 10.5 | 89.86 | 95.57 | 98.70 |
| 11.5 | 83.75 | 94.47 | 98.06 |
| 12.5 | 81.14 | 92.81 | 97.45 |
| 13.5 | 81.13 | 91.23 | 96.44 |
| 14.5 | 80.87 | 88.90 | 95.49 |
| 15.5 | 80.81 | 86.71 | 93.89 |
| 16.5 | 80.78 | 83.51 | 92.39 |
| 17.5 | 80.72 | 80.53 | 89.89 |
| 18.5 | 80.66 | 76.22 | 86.76 |
| 19.5 | 77.48 | 72.27 | 83.98 |
| 20.5 | 77.46 | 67.84 | 79.70 |
| 21.5 | 77.41 | 61.64 | 76.12 |
| 22.5 | 76.79 | 56.17 | 70.93 |
| 23.5 | 23.12 | 48.83 | 66.83 |
| 24.5 | 23.09 | 42.71 | 61.22 |
| 25.5 | 23.01 | 35.01 | 55.61 |
| 26.5 | 23.00 | 29.03 | 51.51 |
| 27.5 | 22.02 | 23.42 | 46.29 |
| 28.5 | 21.85 | 17.18 | 42.61 |
| 29.5 | 7.90 | 12.93 | 38.06 |
| 30.5 | 7.88 | 8.60 | 34.92 |
| 31.5 | 7.61 | 5.91 | 31.11 |
| 32.5 | 7.58 | 3.41 | 27.68 |
| 33.5 | 7.50 | 2.00 | 25.35 |
| 34.5 | 5.70 | 1.04 | 22.51 |
| 35.5 | 5.67 | 0.35 | 20.57 |
| 36.5 | 5.35 | 0.09 | 18.18 |
| 37.5 | 5.02 | 0 | 16.54 |
| 38.5 | 4.99 | 0 | 14.51 |
| 39.5 | 4.63 | 0 | 12.65 |
| 40.5 | 3.82 |  | 11.36 |
| 41.5 | 3.67 |  | 9.78 |
| 42.5 | 3.58 |  | 8.69 |
| 43.5 | 2.31 |  | 7.35 |
| 44.5 | 2.31 |  | 6.45 |
| 45.5 | 2.30 |  | 5.35 |
| 46.5 | 2.30 |  | 4.38 |
| 47.5 | 1.24 |  | 3.74 |
| 48.5 | 1.22 |  | 2.99 |
| 49.5 | 0.19 |  | 2.49 |
| 50.5 | 0.19 |  | 1.93 |
| 51.5 | 0.19 |  | 1.57 |
| 52.5 | 0.19 |  | 1.17 |
| 53.5 | 0.19 |  | 0.84 |


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of 350
KENTUCKY POWER COMPANY
Depreciation Study as of December 31, 2008
General Plant

| Account | 391 OFFICE FURNITURE AND EQUIPMENT |  |
| :--- | :---: | :---: |
| Depreciable Balance | $\$ 1,312,821$ |  |
|  | Current | Recommended |
| Average Service Life (Yrs) | 35 | 35 |
| Iowa Curve | RO.5 | RO.5 |
| Gross Removal, \% |  | $0 \%$ |
| Gross Salvage, \% |  | $0 \%$ |
| Net Salvage \% | $10 \%$ | $0 \%$ |

No life analysis was conducted for this account since retirements are base on age in accordance with FERC Accounting Release 15. This Accounting Release was adopted by Kentucky Power in June 1998 business.

There would be little if any salvage expected from the retirement of office furniture and equipment.

# Page 318 of 350 

KENTUCKY POWER COMPANY
Depreciation Study as of December 31, 2008
General Plant
Depreciable Balance ..... \$9,655
Current Recommended
Average Service Life (Yrs) ..... 30 ..... 30
Iowa Curve ..... R3.0 ..... R3.0
Gross Removal, \% ..... 0\%
Gross Salvage, \% ..... 0\%
Net Salvage \% ..... 0\% ..... 0\%

No life analysis was conducted for this account since retirements are base on age in accordance with FERC Accounting Release 15. This Accounting Release was adopted by Kentucky Power in June 1998 business.

Due to the minimal investment in this account, no salvage or removal costs are expected.

KENTUCKY POWER COMPANY Depreciation Study as of December 31, 2008 General Plant

Account
393 STORES EQUIPMENT

## Depreciable Balance <br> $\$ 142,851$

## Current Recommended

$\begin{array}{lll}\text { Average Service Life (Yrs) } 30 & 30\end{array}$
Iowa Curve
R1.0
R1.0
Gross Removal, \% 0\%
Gross Salvage, \% 5\%
Net Salvage \% 0\% 5\%

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P_{\text {ogee } e} 319 \text { of } 350
$$

|  | Current | Recommended |
| :--- | :---: | :---: |
| Average Service Life (Yrs) | 30 | 30 |
| Iowa Curve | R1.0 | R1.0 |
| Gross Removal, \% |  | $0 \%$ |
| Gross Salvage, \% |  | $5 \%$ |
| Net Salvage \% | $0 \%$ | $5 \%$ |

No life analysis was conducted for this account since retirements are base on age in accordance with FERC Accounting Release 15. This Accounting Release was adopted by Kentucky Power in June 1998 business.

A minimal amount of scrap value could result in a small amount of salvage. No removal costs are anticipated.
KENTUCKY POWER COMPANY

$$
\text { Page } 320 \text { of } 350
$$ Depreciation Study as of December 31, 2008 General Plant

Account 394 TOOLS. SHOP AND GARAGE EQUIPMENT
Depreciable Balance ..... \$2,579,396
Current Recommended
Average Service Life (Yrs) ..... 30 ..... 30
Iowa Curve ..... RD. 5 ..... RD. 5
Gross Removal, \% ..... $0 \%$.
Gross Salvage, \% ..... $5 \%$
Net Salvage \% 0\% ..... 5\%

No life analysis was conducted for this account since retirements are base on age in accordance with FERC Accounting Release 15. This Accounting Release was adopted by Kentucky Power in June 1998 business.

The disposal of tools shop and garage equipment may result in salvage. No removal costs are expected.

## KENTUCKY POWER COMPANY

## Page 321 of 350

## Depreciation Study as of December 31, 2008

General Plant
Account 395 LABORATORY EQUIPMENT
Depreciable Balance ..... \$262,378
Current Recommended
Average Service Life (Yrs) ..... 30 ..... 30
Iowa Curve ..... L5.0 ..... L5.0
Gross Removal, \% ..... 0\%
Gross Salvage, \% ..... 5\%
Net Salvage \% 0\% ..... 5\%No life analysis was conducted for this account since retirements are base on age inaccordance with FERC Accounting Release 15. This Accounting Release was adoptedby Kentucky Power in June 1998 business.

Scrap sales may result in salvage for the equipment. Minimal removal cost is expected.

$$
\text { Page } 322 \text { of } 350
$$

KENTUCKY POWER COMPANY
Depreciation Study as of December 31, 2008 General Plant

Account 396 TRANSPORTATION EQUIPMENT
Depreciable Balance
\$5,931
Current Recommended

## Average Service Life (Yrs)

Iowa Curve
Gross Removal, \% 0\%
Gross Salvage, \% 0\%
Net Salvage \% 0\%

No life analysis was conducted for this account since retirements are base on age in accordance with FERC Accounting Release 15. This Accounting Release was adopted by Kentucky Power in June 1998 business.

Due to the minimal investment in this account, no removal or salvage is expected.

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No life analysis was conducted for this account since retirements are base on age in accordance with FERC Accounting Release 15. This Accounting Release was adopted by Kentucky Power in June 1998 business.

The removal and replacement of communication equipment is expected to result in labor removal costs being incurred. Some salvage could be expected from the scrap sales of the equipment.

KENTUCKY POWER COMPANY
Depreciation Study as of December 31, 2008
General Plant
Account 398 MISCELLANEOUS EQUIPMENT
Depreciable Balance ..... \$974,320
Current Recommended
Average Service Life (Yrs) ..... 20 ..... 20
Iowa Curve ..... S5.0 ..... S5.0
Gross Removal, \% ..... 0\%
Gross Salvage, \% ..... 0\%
Net Salvage \% 0\% ..... 0\%

No life analysis was conducted for this account since retirements are base on age in accordance with FERC Accounting Release 15. This Accounting Release was adopted by Kentucky Power in June 1998 business.

No salvage or removal costs are seen for the investments in this account.

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P_{\text {re } 325} \text { of } 350
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# KENTUCKY POWER COMPANY <br> DEPRECIATION STUDY AS OF 12-31-08 <br> GENERAL PLANT WORKPAPERS 

## SALVAGE AND REMOVAL ANALYSIS

EVALUATION BASED ON 1994-2008 ACTUAL





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KENTUCKY POWER COMPANY
General Plant Gross Removal Test




$\operatorname{lage} 326$ of 350


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Original cost Retired by Plant Account
芦  ..... $\stackrel{4}{4}$
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$000 \underset{\sim}{\underset{\sim}{\text { ¢ }}} 0000 \underset{\sim}{\sim}$ ..... 49,370



| EVALUATION BASED ON 1994-2008 ACTUAL |  |  |
| :--- | ---: | ---: |
|  | $\underline{390}$ | $\underline{391}$ |
| Total Retmts | $12,609,545$ | 738,793 |
| Gross Salvage, $\%$ | 11 | 0 |
| Gross Salvage \$ | $1,387,050$ | 0 |




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Original Cost Retired by Account




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EVALUATION BASED ON 1994-2008 ACTUAL

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## KENTUCKY POWER COMPANY

## DEPRECIATION STUDY AS OF 12-31-08 <br> GENERAL PLANT WORKPAPERS

## CALCULATED RESERVE



Account: KEPCo 101/6 389 Land Rights - KY
Dispersion: $\quad 75.00-\mathrm{R} 4$
/ Tge Net Salvage Rate: $0.00 \%$

- .e Net Salvage Rate: $0.00 \%$

Broad Group Procedure
January 1, 2009

| Vintage | Age | Surviving Plant | Avg Life | Remaining <br> Life | Net Plant Ratio | Alloc Factor | Computed Net Plant | Accrual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2007 | 1.50 | \$182,230.82 | 75.00 | 73.50 | 0.9800 | 1.0000 | \$178,589.81 | \$2,429.74 |
| 2003 | 5.50 | \$9,137.87 | 75.00 | 69.51 | 0.9268 | 1.0000 | \$8,468.64 | \$121.84 |
| 1986 | 22.50 | \$22,442.00 | 75.00 | 52.66 | 0.7021 | 1.0000 | \$15,756.75 | \$299.23 |
| 1985 | 23.50 | \$1,227.00 | 75.00 | 51.68 | 0.6891 | 1.0000 | \$845.50 | \$16.36 |
| 1984 | 24.50 | \$678.00 | 75.00 | 50.71 | 0.6761 | 1.0000 | \$458.38 | \$9.04 |
| 1979 | 29.50 | \$3,899.00 | 75.00 | 45.88 | 0.6118 | 1.0000 | \$2,385.28 | \$51.99 |
|  |  | \$219,614.69 | 75.00 | 70.52 | 0.9403 | 1.0000 | \$206,504.37 | \$2,928.20 |

Account: KEPCO 101/6 390 -KV
Scenario: KEPCO GENERAL 2008
Dispersion: 28-L3
age Net Salvage Rate: $\quad 11.00 \%$
Future Net Salvage Rate: $11.00 \%$

Broad Group Procedure
January 1, 2009

|  | Plant Amt | Depreciation Reserve |  | Net Plant |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Amount | Ratio | Amount | Ratio |
| Recorded | \$19,910,321.83 | \$4,906,914.02 | 0.2465 | \$12,813,272.41 | 0.6435 |
| Compuied | \$19,910,321.83 | \$10,028,638.52 | 0.5037 | \$7,691,547.91 | 0.3863 |
| Diffèrence |  | (\$5,121,724.50) | -0.2572 | \$5,121,724.50 | 0.2572 |



Account: KEPCo 101/6 390 - KY
Dispersion: 28.00 -LS

> rage Net Salvage Rate: $\quad 11.00 \%$
> are Net Salvage Rate: $\quad 11.00 \%$

Broad Group Procedure
January 1, 2009


Account: KEPCo 101/6 390 - KY
Dispersion: 28.00 - L3
A.serage Net Salvage Rate: $11.00 \%$ Ire Net Salvage Rate: $\quad 11.00 \%$

## Broad Group Procedure

January 1, 2009

| Vintage | Age | Surviving Plant | Avg Life | Remaining Life | Net Plant Ratio | Alloc Factor | Computed Net Plant | Accrual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1970 | 38.50 | \$2,206.00 | 28.00 | 6.17 | 0.1962 | 1.0000 | \$432.74 | \$70.12 |
| 1969 | 39.50 | \$12,870.00 | 28.00 | 5.91 | 0.1878 | 1.0000 | \$2,417.42 | \$409.08 |
| 1968 | 40.50 | \$34,056.00 | 28.00 | 5.65 | 0.1796 | 1.0000 | \$6,117.77 | \$1,082.49 |
| 1967 | 41.50 | \$6,231.00 | 28.00 | 5.39 | 0.1714 | 1.0000 | \$1,068.24 | \$198.06 |
| 1966 | 42.50 | \$1,664.00 | 28.00 | 5.14 | 0.1634 | 1.0000 | \$271.94 | \$52.89 |
| 1963 | 45.50 | \$481.00 | 28.00 | 4.41 | 0.1402 | 1.0000 | \$67.42 | \$15.29 |
| 1962 | 46.50 | \$793.00 | 28.00 | 4.17 | 0.1326 | 1.0000 | \$105.16 | \$25.21 |
| 1961 | 47.50 | \$448.00 | 28.00 | 3.94 | 0.1253 | 1.0000 | \$56.16 | \$14.24 |
| 1960 | 48.50 | \$15,245.00 | 28.00 | 3.71 | 0.1181 | 1.0000 | \$1,800.02 | \$484.57 |
| 1959 | 49.50 | \$6,904.00 | 28.00 | 3.49 | 0.1111 | 1.0000 | \$766.83 | \$219.45 |
| 1958 | 50.50 | \$525.00 | 28.00 | 3.27 | 0.1041 | 1.0000 | \$54.63 | \$16.69 |
| 1957 | 51.50 | \$147.00 | 28.00 | 3.06 | 0.0973 | 1.0000 | \$14.30 | \$4.67 |
| 1953 | 55.50 | \$505.00 | 28.00 | 2.24 | 0.0712 | 1.0000 | \$35.95 | \$16.05 |
| 1952 | 56.50 | \$97.00 | 28.00 | 2.05 | 0.0650 | 1.0000 | \$6.31 | \$3.08 |
| 1950 | 58.50 | \$304.00 | 28.00 | 1.66 | 0.0527 | 1.0000 | \$16.02 | \$9.66 |
| 1949 | 59.50 | \$1,116.00 | 28.00 | 1.48 | 0.0470 | 1.0000 | \$52.46 | \$35.47 |
| 1948 | 60.50 | \$536.00 | 28.00 | 1.29 | 0.0409 | 1.0000 | \$21.93 | \$17.04 |
| 1945 | 63.50 | \$434.00 | 28.00 | 0.68 | 0.0215 | 1.0000 | \$9.33 | \$13.80 |
| 1944 | 64.50 | \$322.00 | 28.00 | 0.23 | 0.0073 | 1.0000 | \$2.35 | \$10.24 |
| 1942 | 66.50 | \$1,884.00 | 28.00 | 0.00 | 0.0000 | 0.0000 | \$0.00 | \$0.00 |
| 1941 | 67.50 | \$117.00 | 28.00 | 0.00 | 0.0000 | 0.0000 | \$0.00 | \$0.00 |
| 1940 | 68.50 | \$430.00 | 28.00 | 0.00 | 0.0000 | 0.0000 | \$0.00 | \$0.00 |
| 1939 | 69.50 | \$342.00 | 28.00 | 0.00 | 0.0000 | 0.0000 | \$0.00 | \$0.00 |
| 1938 | 70.50 | \$43,738.00 | 28.00 | 0.00 | 0.0000 | 0.0000 | \$0.00 | \$0.00 |
|  |  | \$19,910,321.83 | 28.00 | 12.15 | 0.3863 | 1.0000 | \$7,691,547.91 | \$631,385.42 |


| Account: $\quad$ KEPCo 101/6 391 - KY |
| :--- |
| Scenario: $\quad$ KEPCO GENERAL 2008 |
| Dispersion: $\quad 35$ - SQ |
| rage Net Salvage Rate: |
| ruture Net Salvage Rate: |

Broad Group Procedure
January 1, 2009

|  | Plant Amt | Depreciation Reserve |  | Net Plant |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Amount | Ratio | Amount | Ratio |
| Recorded | \$1,312,821.14 | \$145,379.54 | 0.1107 | \$1,167,441.60 | 0.8893 |
| Computed | \$1,312,821.14 | \$297,123.38 | 0.2263 | \$1,015,697.76 | 0.7737 |
| Difference |  | (\$151,743.84) | -0.1156 | \$151,743.84 | 0.1156 |



Account: KEPCo 101/6 391 - KY
Dispersion: 35.00 - SQ

- rage Net Salvage Rate: $0.00 \%$

Ire Net Salvage Rate: $0.00 \%$
Broad Group Procedure
January 1, 2009


## Depreciation Reserve Summary



Account: KEPCo 101/6 392 -KY
Dispersion: 30.00 -SQ
?rage Net Salvage Rate: $\quad 0.00 \%$
.ure Net Salvage Rate: $0.00 \%$

## Broad Group Procedure

January 1, 2009

| Vintage | Age | Surviving Plant | Avg Life | Remaining <br> Life | Net Plant Ratio | Alloc <br> Factor | Computed Net Plant | Accrual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2007 | 1.50 | \$3,835.70 | 30.00 | 28.50 | 0.9500 | 1.0000 | \$3,643.91 | \$127.86 |
| 2000 | 8.50 | \$5,819.20 | 30.00 | 21.50 | 0.7167 | 1.0000 | \$4,170.43 | \$193.97 |
|  |  | \$9,654.90 | 30.00 | 24.28 | 0.8094 | 1.0000 | \$7,814.34 | \$321.83 |

Account: KEPCo 101/6 $393-\mathrm{KY}$
Scenario: KEPCO GENERAL 2008
Dispersion: $\quad 30-$ SQ
rage Net Salvage Rate:
ruture Net Salvage Rate: $\quad 5.00 \%$

## Broad Group Procedure

January 1, 2009

|  | Plant Amt | Depreciation Reserve |  | Net Plant |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Amount | Ratio | Amount | Ratio |
| Recorded | \$142,851.30 | \$16,184.25 | 0.1133 | \$119,524.48 | 0.8367 |
| Computed | \$142,851.30 | \$33,077.00 | 0.2315 | \$102,631.73 | 0.7185 |
| Difference |  | (\$16,892.75) | -0.1183 | \$16,892.75 | 0.1183 |

Account: KEPCo 101/6 393-KY
Dispersion: $30.00-\mathrm{SQ}$
" 'erage Net Salvage Rate: $5.00 \%$ ure Net Salvage Rate: $\quad 5.00 \%$
Broad Group Procedure
January 1, 2009

| Vintage | Age | Surviving Plant | Avg Life | Remaining Life | Net Plant Ratio | Alloc <br> Factor | Computed Net Plant | Accrual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2008 | 0.50 | \$35,994.81 | 30.00 | 29.50 | 0.9342 | 1.0000 | \$33,625.15 | \$1,139.84 |
| 2006 | 2.50 | \$9,819.85 | 30.00 | 27.50 | 0.8708 | 1.0000 | \$8,551.45 | \$310.96 |
| 2004 | 4.50 | \$39,480.64 | 30.00 | 25.50 | 0.8075 | 1.0000 | \$31,880.62 | \$1,250.22 |
| 1995 | 13.50 | \$25,233.00 | 30.00 | 16.50 | 0.5225 | 1.0000 | \$13,184.24 | \$799.05 |
| 1994 | 14.50 | \$27,200.00 | 30.00 | 15.50 | 0.4908 | 1.0000 | \$13,350.67 | \$861.33 |
| 1992 | 16.50 | \$4,331.00 | 30.00 | 13.50 | 0.4275 | 1.0000 | \$1,851.50 | \$137.15 |
| 1986 | 22.50 | \$792.00 | 30.00 | 7.50 | 0.2375 | 1.0000 | \$188.10 | \$25.08 |
|  |  | \$142,851.30 | 30.00 | 22.69 | 0.7185 | 1.0000 | \$102,631.73 | \$4,523.62 |

Account: KEPCo 101/6 394-KV
Scenario: KEPCO GENERAL 2008

| Dispersion: $30-S Q$ |  |
| :--- | :--- |
| age Net Salvage Rate: | $5.00 \%$ |
|  | $5.00 \%$ |

Broad Group Procedure
January 1, 2009

|  | Plant Amt | Depreciation Reserve |  | Net Plant |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Amount | Ratio | Amount | Ratio |
| Recorded | \$2,579,395.57 | \$259,151.36 | 0.1005 | \$2,191,274.43 | 0.8495 |
| Computed | \$2,579,395.57 | \$529,647.62 | 0.2053 | \$1,920,778.17 | 0.7447 |
| Difference |  | (\$270,496.26) | -0.1049 | \$270,496.26 | 0.1049 |

Account: KEPCo 101/6 394 - KY

Dispersion: 30.00 - SQ
rage Net Salvage Rate: $\quad 5.00 \%$
are Net Salvage Rate: $\quad 5.00 \%$

## Broad Group Procedure

January 1, 2009

Account: KEPCo 101/6 395-KY
Scenario: KEPCO GENERAL 2008
Dispersion: $\quad 30-$ SQ
age Net Salvage Rate: $\quad 5.00 \%$
Future Net Salvage Rate: $\quad 5.00 \%$

## Broad Group Procedure

January 1, 2009

| Plant Amt | Depreciation Reserve |  | NetPlant |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Amount | Ratio | Amount | Ratio |


| Recorded | $\$ 262,378.70$ | $\$ 72,215.81$ | 0.2752 | $\$ 177,043.96$ | 0.6748 |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Computed | $\$ 262,378.70$ | $\$ 147,593.02$ | 0.5625 | $\$ 101,666.75$ | 0.3875 |
| Dificerence |  | $(\$ 75,377.21)$ | -0.2873 | $\$ 75,377.21$ | 0.2873 |

Account: KEPCo 101/6 395 - KY
Dispersion: $30.00-\mathrm{SQ}$

- arage Net Salvage Rate: $\quad 5.00 \%$ are Net Salvage Rate: $\quad 5.00 \%$


## Broad Group Procedure

January 1, 2009

| Vintage | Age | Surviving Plant | Avg Life | Remaining Life | Net Plant Ratio | Alloc Factor | Computed Net Plant | Accrual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2005 | 3.50 | \$1,833.80 | 30.00 | 26.50 | 0.8392 | 1.0000 | \$1,538.86 | \$58.07 |
| 2004 | 4.50 | \$11,433.43 | 30.00 | 25.50 | 0.8075 | 1.0000 | \$9,232.49 | \$362.06 |
| 2002 | 6.50 | \$7,357.47 | 30.00 | 23.50 | 0.7442 | 1.0000 | \$5,475.18 | \$232.99 |
| 1999 | 9.50 | \$3,800.00 | 30.00 | 20.50 | 0.6492 | 1.0000 | \$2,466.83 | \$120.33 |
| 1998 | 10.50 | \$9,244.00 | 30.00 | 19.50 | 0.6175 | 1.0000 | \$5,708.17 | \$292.73 |
| 1996 | 12.50 | \$28,363.00 | 30.00 | 17.50 | 0.5542 | 1.0000 | \$15,717.83 | \$898.16 |
| 1992 | 16.50 | \$23,978.00 | 30.00 | 13.50 | 0.4275 | 1.0000 | \$10,250.59 | \$759.30 |
| 1991 | 17.50 | \$31,455.00 | 30.00 | 12.50 | 0.3958 | 1.0000 | \$12,450.94 | \$996.08 |
| 1990 | 18.50 | \$24,300.00 | 30.00 | 11.50 | 0.3642 | 1.0000 | \$8,849.25 | \$769.50 |
| 1987 | 21.50 | \$55,513.00 | 30.00 | 8.50 | 0.2692 | 1.0000 | \$14,942.25 | \$1,757.91 |
| 1986 | 22.50 | \$51,612.00 | 30.00 | 7.50 | 0.2375 | 1.0000 | \$12,257.85 | \$1,634.38 |
| 1985 | 23.50 | \$13,489.00 | 30.00 | 6.50 | 0.2058 | 1.0000 | \$2,776.49 | \$427.15 |
|  |  | \$262,378.70 | 30.00 | 12.24 | 0.3875 | 1.0000 | \$101,666.74 | \$8,308.66 |

Account: KEPCo 101/6 396 -KY
Scenario: KEPCO GENERAL 2008
Dispersion: 8-SQ
rage Net Salvage Rate: $\quad 0.00 \%$
ruture Net Salvage Rate: $0.00 \%$

## Broad Group Procedure

January 1, 2009

|  |  | Depreciation Reserve |  |  | Net Plant |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Plant Amt | Amount | Ratio | Amount | Ratio |  |
|  |  |  |  |  |  |  |
| Recorded | $\$ 5,931.29$ | $\$ 2,357.97$ | 0.3975 | $\$ 3,573.32$ | 0.6025 |  |
| Computed | $\$ 5,931.29$ | $\$ 4,819.17$ | 0.8125 | $\$ 1,112.12$ | 0.1875 |  |
| Difference |  | $(\$ 2,461.20)$ | -0.4150 | $\$ 2,461.20$ | 0.4150 |  |

Account: KEPCo 101/6 396 -KV

| Dispersion: $8.00 \quad$ SQ |  |
| :---: | :---: | :---: |
| arage Net Salvage Rate: | $0.00 \%$ |
| ure Net Salvage Rate: | $0.00 \%$ |

Broad Group Procedure
January 1, 2009

| Vintage | Age | Surviving Plant | Avg Life | Remaining Life | Net Plant Ratio | Alloc Factor | Computed Net Plant | Accrual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2002 | 6.50 | \$5,931.29 | 8.00 | 1.50 | 0.1875 | 1.0000 | \$1,112.12 | \$741.41 |
|  |  | \$5,931.29 | 8.00 | 1.50 | 0.1875 | 1.0000 | \$1,112.12 | \$741.41 |

Account: KEPCo 101/6 397-KY
Scenario: KEPCO GENERAL 2003
Dispersion: 22-SQ
age Net Salvage Rate: $\quad 8.00 \%$
Future Net Salvage Rate: $\quad \mathbf{8 . 0 0 \%}$

Broad Group Procedure
January 1, 2009

|  |  | Depreciation Reserve |  |  | Net Plant |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | Plant Amt | Amount | Ratio | Amount | Ratio |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Recorded | $\$ 6,755,007.87$ | $\$ 1,042,002.19$ | 0.1543 | $\$ 5,172,605.05$ | 0.7657 |
| Computed | $\$ 6,755,007.87$ | $\$ 2,129,620.22$ | 0.3153 | $\$ 4,084,987.02$ | 0.6047 |
| Difference |  |  | $(\$ 1,087,618.03)$ | -0.1610 | $\$ 1,087,618.03$ |

Account: KEPCo 101/6 397 -KY
Dispersion: 22.00 -SQ
rage Net Salvage Rate: $\quad \mathbf{8 . 0 0 \%}$
cure Net Salvage Rate: $\quad 8.00 \%$
Broad Group Procedure
January 1, 2009

| Vintage | Age | Survive |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Plant |  |  |

Account: KEPCo 101/6 398 -KY
Scenario: KEPCO GENERAL 2008
Dispersion: 20 -SQ
rage Net Salvage Rate: $0.00 \%$
Future Net Salvage Rate: $0.00 \%$

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## Broad Group Procedure

January 1, 2009


Account: KEPCo 101/6 398 -KY
Dispersion: 20.00 -SQ

| rage Net Salvage Rate: | $0.00 \%$ |
| :--- | :--- |
| .ure Net Salvage Rate: | $0.00 \%$ |

Broad Group Procedure
January 1, 2009



[^0]:    * Includes only portion of normal cost and contributions after 401(h) account adoption dates for indicated years

[^1]:    

[^2]:    (a) Includes $\$ 552,360$ of amorization related to SCR Catalysts

[^3]:    Dismantling Conceptual Specification
    Page 1
    October 13, 2009

[^4]:    * Recorded Balance January 1, 2009: 48,384,844

[^5]:    * Recorded Balance January 1, 2009: 109,075,670

[^6]:    * Recorded Balance January 1, 2009: 147,624,353

[^7]:    * Recorded Balance January 1, 2009: 129,155,638

[^8]:    * Recorded Balance January 1, 2009: 7,652,122

[^9]:    *Recorded Balance January 1, 2009: 98,415,054

[^10]:    "Recorded Balance January 1, 2009: 38,162,243

[^11]:    * Recorded Balance January 1, 2009: 22,962,066

[^12]:    * Recorded Balance January 1, 2009: 18,001,253

[^13]:    * Recorded Balance January 1, 2009: 2,939,603

