

COMMONWEALTH OF KENTUCKY
BEFORE THE KENTUCKY PUBLIC SERVICE COMMISSION

In the matter of:

NOTICE OF ADJUSTMENT OF THE RATES) CASE NO.
OF KENTUCKY-AMERICAN WATER COMPANY) 92-452

I N D E X

FORECASTED TEST PERIOD	2
ANALYSIS AND DETERMINATION	7
Valuation Method	7
Utility Plant in Service	7
Accumulated Depreciation	11
Construction Work in Progress	11
Deferred Maintenance	14
Deferred Income Tax	14
Contractor Retentions and Extension	
Deposit Refunds	16
Cash Working Capital	17
Average Rate Base	21
Revenues	22
Forecasted Test Year Revenues	22
Allowance for Funds Used During Construction	24
Expenses	24
Fuel and Power	24
KU Refund	25
Chemicals	26
Group Insurance	27
SFAS 106	28
Medical Trend Rates	31
SFAS 106 Deferral	33
Funding	35
Pension Expense	35
Service Company Charges	36
Regulatory Expense	38
Insurance Other than Group	39
Property Tax	40
Public Service Commission Assessment	40
Depreciation	40
Toyota Main Depreciation	41
Tax Depreciation	42
Interest Synchronization	42

RATE OF RETURN	43
Capital Structure	43
Cost of Debt and Preferred Stock	43
Return on Equity	44
Rate of Return Summary	44
AUTHORIZED INCREASE	45
Revenue Allocation and Rate Design	45
Tariff Changes	49
Tariff Filings	49
Refund Requirements	50
AG's Motion to Establish Docket to Study Pipeline .	50
SUMMARY	53
ORDERING PARAGRAPHS	54

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O R D E R

On January 22, 1993, Kentucky-American Water Company ("Kentucky-American") filed its application with the Commission seeking to increase its rates and charges utilizing a forecasted test period, pursuant to 807 KAR 5:001, Section 10(1)(b). Kentucky-American proposed rates and charges to become effective February 22, 1993, which would generate an increase in annual revenue of \$2,706,568, an increase of approximately 9.27 percent over existing revenues.

To determine the reasonableness of the request, the Commission suspended the proposed rates and charges for 6 months after the effective date pursuant to KRS 278.190(2). Public hearings were conducted on June 29, 1993 at Lexington, Kentucky and on June 30-July 2, 1993, at the Commission's offices in Frankfort, Kentucky. The Utility and Rate Intervention Division of the Attorney General's Office ("AG"), the Lexington-Fayette Urban County Government ("LFUCG"), Chetan Talwalkar, and the Bluegrass Sierra Club ("Sierra Club") intervened. Jennifer L. Newman was granted limited intervention.

Kentucky-American presented the following witnesses: Robert A. Edens, its Vice President and Manager; Cecil Sasher, its Vice

President and Treasurer; Roy L. Ferrell, its Assistant Treasurer; Edward J. Grubb, Assistant Director of Rates and Revenues, American Water Works Service Company, Inc. ("Service Company"); Edwin Oxley, Revenue Requirements Specialist for the Southern Region, Service Company; John Young, Vice President of Engineering, Service Company; Porter Rivers, III, Consultant, Brown and Caldwell Consultants; Thomas M. Zepp, Vice President and co-founder of Utility Resources, Inc.; and James M. Dewey, CPA, partner in the firm of Price Waterhouse.

David Stawicki, its Conservation Chair, appeared on behalf of the Sierra Club and Chetan Talwalkar appeared on his own behalf. The AG and LFUCG ("AG/LFUCG") did not sponsor any testimony.

This Order addresses the Commission's findings and determinations on the issues presented and disclosed upon the investigation of Kentucky-American's revenue requirement. The Commission has approved rates and charges to produce an annual increase of \$872,731.

FORECASTED TEST PERIOD

The 1992 General Assembly authorized filing a rate case based on a future test year. Designated KRS 278.192, the statute specifies the future test year to be the first 12 months the proposed rates would be in effect after the maximum statutory suspension period. The AG/LFUCG argue that this statute is unconstitutional because it requires ratepayers to pay a return on nonexistent plant, although they concede such plant may exist at the end of the test year.

The premise for this argument is misplaced. Kentucky-American has not requested, and the Commission has not authorized, rates based on rate base valuation at the end of the future test year. Rather, the Commission has utilized a 13 month average rate base which ensures that during the future test period ratepayers will pay only for the investment that will exist during that time period.

Rates are made on an annual, not monthly basis. It would be impossible to establish rates that vary for each month of the test period to reflect monthly changes in rate base. Consequently, the only practical and fair method is to average the rate base over the future period and set rates to recover the average.

As authorized by KRS 278.192(1), the forecasted test period is the twelve months ending August 31, 1994. The base period upon which the reasonableness of the forecasted period is to be determined is the 12 months ended April 30, 1993.

The AG/LFUCG also argue that the financial information presented by Kentucky-American is flawed and speculative for a number of reasons. They object to Kentucky-American's use of its budget as the basis for its forecasted test period. The AG/LFUCG contend that accepting the budget for rate-making purposes could result in excessive earnings,¹ because Kentucky-American's parent, AWWC, Inc., requires Kentucky-American stay within its budget. This requirement, they contend, encourages Kentucky-American to inflate its budget.

¹ Brief of the AG/LFUCG, filed July 30, 1993, pages 7 and 8.

They also argue that the process used in the forecasted test period is flawed because the period between the base and forecasted periods (May 1, 1993 through August 31, 1993), is allegedly of no apparent relevance to the case and that Kentucky-American made forecasts and merely backed into the adjustments to bridge the gap between the base and forecasted periods. Furthermore, they note that 807 KAR 5:001, Section 10(8)(d), would not allow Kentucky-American to alter the forecasted test period financial statements when the base period is updated to reflect the actual results.²

The AG/LFUCG also find fault with Kentucky-American's failure to forecast correctly the base period, which contained 6 months actual and 6 months forecasted information. The updated actual results for the base period, filed June 14, 1993, indicated that only two out of ten operating expense accounts had results as expected and both of those had zero dollar balances.³

Finally, the AG/LFUCG stated that prior to enactment of the forecasted test period legislation the utilities complained of regulatory lag, but that Kentucky-American made no allowance to eliminate the regulatory lag risk in its requested return on capital.

For these various reasons the AG/LFUCG contend that Kentucky-American's forecasted test period numbers are too speculative and unreliable to provide a basis for the Commission to act in setting rates. They, therefore, recommend rejection of Kentucky-American's

² Id., page 8.

³ Id.

proposed forecasted test period and suggest use of the historical test period ending April 30, 1993.

The Commission has fully considered all of the AG/LFUCG's objections to the forecasted test period utilized in this rate case. To the extent the budgeted accounts have been shown to be overstated, appropriate reductions have been made.

Utilizing a base period that ends four months prior to the start of the forecasted period creates no inherent flaws in the rate-making process. To the contrary, the forecasted test year parameters set forth in KRS 278.192 establish a practical and reasonable scheme for rate-making. A base period ending April 30, 1993 afforded the parties and the Commission an opportunity to review, prior to the June 30, 1993 hearing, the actual results of the originally estimated months of the base period. In addition, the use of a forecasted test year beginning September 1, 1993 allowed the rates to be based on the 12 months immediately following the end of the suspension of Kentucky-American's proposed rates. Thus, the rates here established are designed to recover costs to be incurred during the first 12 months that the rates will be in effect.

The proscription against updating test period forecasts to reflect actual results is designed to ensure that neither the parties nor the Commission waste valuable time and resources investigating a moving target. Once forecasted financial statements are filed, the applicant can propose no changes, unless the limited exceptions specified in the regulations are applicable.

Kentucky-American is the first utility to seek a general rate increase using a forecasted test period pursuant to KRS 278.192 and 807 KAR 5:001, Section 10. The statutory and regulatory requirements have been closely followed by Kentucky-American and this case has imposed significant demands on the resources of all parties.

Kentucky-American's support for and presentation of its case left room for improvement. However, based on all the evidence of record, the Commission finds that Kentucky-American has met its burden to support the forecasted test period. Its ability to forecast correctly individual operating expense accounts is of no consequence. What is significant is Kentucky-American's overall ability to forecast total revenues and expenses, as it is the totals that affect rates. In forecasting these totals, Kentucky-American has been highly accurate over the years. To the extent that the record supports modifications to Kentucky-American's construction budgets and other individual accounts, those modifications have been adopted as explained below. Furthermore, irrespective of an explicit risk adjustment by Kentucky-American to reflect the use of a forecasted test year, the Commission has fully considered this reduction in risk in establishing a reasonable return.

ANALYSIS AND DETERMINATION

Valuation Method

Kentucky-American has proposed a net investment rate base ("rate base") of \$107,756,654.⁴ This rate base is accepted with the following exceptions:

Utility Plant In Service. Kentucky-American adjusted its actual October 31, 1992 utility plant in service ("utility plant") of \$130,593,727⁵ by its forecasted monthly utility plant additions and retirements. A 13-month average for the period of August 1993 through August 1994 was used to arrive at Kentucky-American's forecasted utility plant of \$153,025,213.⁶

The forecasted plant additions, comprised of recurring projects and specific budget projects, are claimed by Kentucky-American as its best estimate of both the cost and timing of its plant construction. Anticipated cost variances and timing differences were not incorporated into Kentucky-American's forecasted plant additions.⁷

Historically, Kentucky-American's specific budget projects, which account for 66 percent of the total construction budget, have proven an inaccurate indicator of the utility plant that will be completed and placed in service. Between 1986 and 1992, its

⁴ Rate Base Summary as of August 31, 1994, Schedule B-1, page 2 of 2.

⁵ Workpaper W/P-1-1.3.

⁶ Rate Base Summary as of August 31, 1994, Schedule B-1, page 2.

⁷ Response to Commission's March 4, 1993 Order, Item 115.

budgets included estimated completion dates for 84 specific budget projects. Of these, one was completed ahead of schedule, four were completed on time, and the remaining 78, almost 93 percent, were completed behind schedule.⁸ For specific budget projects during this period, Kentucky-American's ratio of actual to budgeted construction spending, labelled the "slippage factor," was 73.97 percent.⁹ For recurring projects during this period, the slippage factor was 97.7 percent.¹⁰

The AG/LFUCG argue that Kentucky-American's forecasts and budgets are overstated and unreliable. They contend that Kentucky-American overestimated its operation and maintenance expense and construction budgets and, as a result, Kentucky-American's forecasted utility plant should be reduced by the amounts of its historical overestimation.¹¹

According to Kentucky-American, budgeting is not an exact science and no reasonable person would expect its investment between September 1, 1993 and August 31, 1994 to be exactly \$12,906,486. Rather, the construction budget is its "very best estimate" of what it will spend and there was no evidence proving that the budgeted projects will not be completed as forecasted.¹²

⁸ Transcript of Evidence, Vol. III, pages 126 and 127.

⁹ Response to the Commission's April 8, 1993 Order, Item 46, page 2.

¹⁰ Id.

¹¹ Brief of the AG/LFUCG, pages 32 and 33.

¹² Brief of Kentucky-American, page 29.

As a forecasted rather than a historical test period was used, Kentucky-American argues that historical data cannot be used to adjust budgeted construction, and that doing so would be arbitrary and financially devastating.¹³ It further states that the slippage factor for the specific budget projects includes three major projects that were delayed for reasons beyond its control: the Jacks Creek Project, the Chemical Feed Building, and the Clays Mill 3 million gallon Pumped Storage facility. Kentucky-American does not expect the delay of these projects to recur and, therefore argues that, the 73.97 percent slippage factor should not be applied to its specific budget projects.¹⁴

Budgeting being an inexact science, it is imperative that the historical relationship between the budgets and actual results be reviewed to determine what projects Kentucky-American is likely to have in service or under construction in the forecasted period. A forecasted period does not preclude the examination of historic data and trends but, rather, compels their examination to test the historic to forecasted relationships. Nor will an adjustment based on the historical slippage factor have a devastating impact on Kentucky-American's earning potential. Such an adjustment will have a minimal impact on revenue requirements by eliminating a return on utility plant not in service during the forecasted period due to delayed investment.

¹³ Id.

¹⁴ Rebuttal Testimony of Robert A. Edens, page 6.

While Kentucky-American cited three construction projects delayed for reasons beyond its control, numerous others were similarly delayed between 1986 and 1992.¹⁵ Recognizing this, Kentucky-American could not explain its contention that the forecasted construction projects would differ from the historical trend and be completed on schedule.¹⁶ The slippage factor for specific budget projects during the forecasted portion of the base period, November 1992 to April 1993, was 76.4 percent, further demonstrating Kentucky-American's assertion to be unsubstantiated.¹⁷

As shown by the historical slippage factor, Kentucky-American's "very best estimate(s)" of construction spending for specific budget projects has not proven accurate. On the contrary, it has shown a pervasive pattern of overbudgeting for its construction.

Therefore, the Commission accepts AG/LFUCG's recommendation to reduce Kentucky-American's forecasted utility plant by the historical overestimation. This has been accomplished by reducing the recurring and specific budgeted projects by the respective slippage factors to arrive at a forecasted plant in service of

¹⁵ Transcript of Evidence, Vol. I, pages 119 through 125.

¹⁶ Id., pages 122 through 124.

¹⁷ Id., page 125.

\$151,355,296.¹⁸ This results in a reduction of \$1,669,917 to Kentucky-American's 13-month average utility plant balance.

Accumulated Depreciation. Kentucky-American's accumulated depreciation forecast was developed in a fashion similar to that used to forecast its utility plant. The actual accumulated depreciation balance of October 31, 1992 was adjusted by the monthly forecasted depreciation expense, forecasted retirements, and the projected cost of plant removal net of any salvage value. A 13-month average of the accumulated depreciation balances for the period of August 1993 through August 1994 was used to arrive at forecasted accumulated depreciation of \$20,469,082.¹⁹

Given that the amount of accumulated depreciation depends on the amount of utility plant, reducing utility plant by the overestimated plant additions has a correlative effect on the balance of accumulated depreciation. To be consistent, accumulated depreciation must be reduced to reflect the adjustments to utility plant, a decrease of \$26,052.

Construction Work In Progress ("CWIP"). Kentucky-American analyzed its construction projects not in service as of August 1994 and calculated a 13-month average for August 1993 through August 1994 to forecast CWIP of \$3,564,801. This amount includes

¹⁸ Kentucky-American Response to Commission Order dated May 26, 1993, Item 3(b).

¹⁹ Prefiled testimony of Edward J. Grubb, page 9.

approximately \$1,421,740²⁰ in design and development costs associated with the Louisville Pipeline project.

According to the AG/LFUCG, these costs were improperly classified as CWIP because no Certificate of Convenience and Necessity has been granted to construct the pipeline. They maintain that the pipeline costs should be recorded in Account No. 183 - Preliminary Survey and Investigation Charges and excluded from rate recovery.²¹

Kentucky-American asserts that the construction of the pipeline began with its first meeting with the Louisville Water Company. It then refers to Account No. 105 - CWIP of the Uniform System of Accounts for Class A and B Water Companies ("USoA") to show that the pipeline costs are the same type as those included in the "cost of construction,"²² while no other balance sheet account would accommodate them. Furthermore, as the pipeline is feasible, Kentucky-American is capable of constructing it, and the necessary funds would be expended to benefit the ratepayers, Kentucky-American argues that this project should remain in CWIP.

The USoA requires that Account 183 - Preliminary Survey and Investigation Charges,

²⁰	90-14 Evaluate Source of Supply Options	\$ 319,623
	92-12 Develop Additional Source of Supply	+ 1,102,115
	Total Louisville Pipeline Costs	<u>\$ 1,421,738</u>

Source: Workpaper W/P-1-5.6.

²¹ Brief of the AG/LFUCG, page 35.

²² Brief of Kentucky-American, pages 21 and 22.

shall be charged with all expenditures for preliminary surveys, plans, investigations, etc., made for the purpose of determining the feasibility of projects under contemplation. If construction results this account shall be credited and the appropriate utility account debited. If the work is abandoned, the debit shall be to Account 426 - Miscellaneous Nonutility Expenses, or to the appropriate operating expense account unless ordered by the Commission.²³

The key phrase of this definition is "if construction results." Kentucky-American has acknowledged that the Louisville pipeline would not be built if a satisfactory source of supply can be obtained from the Kentucky River.²⁴ Because the Kentucky River Authority intends to reexamine the Kentucky River water supply deficit, Kentucky-American announced at the June 30, 1993 hearing that it would postpone for 6 months the pipeline design.²⁵ Under these circumstances, it at least puts into question whether the pipeline will be constructed.

Contrary to its position that construction began when it first met with the Louisville Water Company, Kentucky-American also stated that construction does not begin until a contract is signed, the pipe is purchased, and the pipe is placed in the ground.²⁶ Kentucky-American also stated that it does not intend to seek a Certificate of Public Convenience and Necessity until late 1994.

²³ USoA, page 79.

²⁴ Transcript of Evidence, Vol. I, pages 22 and 23.

²⁵ Id., page 13.

²⁶ Transcript of Evidence, Vol. I, pages 91 and 92.

Hence, actual construction will not begin, if at all, until after the forecasted test period.

Given the nature of the pipeline costs, the USOA requirements, and the uncertainty surrounding construction, the Commission finds that the pipeline costs should be removed from rate base. Doing so reduces CWIP by \$1,421,740.

As with utility plant, CWIP is dependent upon Kentucky-American's construction forecasts and budgets. Therefore, Kentucky-American's forecasted level of CWIP should also be reduced by the slippage factors, which results in a further reduction of CWIP by \$172,695.

Deferred Maintenance. Kentucky-American's 13-month average of unamortized deferred maintenance reflects maintenance projects completed and deferred, and projects that are forecasted to be deferred. Kentucky-American developed a 13-month average of these deferred maintenance items totaling \$3,021,190.²⁷

Kentucky-American subsequently indicated that the cost to paint the Hall standpipe was under budget by \$74,811.²⁸ To reflect this cost properly, the unamortized deferred maintenance has been reduced by \$71,483, operating expenses decreased by \$4,992, and net operating income increased by \$3,023.

Deferred Income Tax. Kentucky-American analyzed ten separate deferred taxes that have been approved in previous rate cases. It calculated 13-month averages for each tax separately, then combined

²⁷ Prefiled Testimony of Edward J. Grubb, page 23.

²⁸ Transcript of Evidence, Vol. III, page 6.

them to arrive at a forecasted deferred income tax balance of \$13,224,652.²⁹

The Tax Reform Act of 1986 required the excess deferred taxes that resulted from the decrease in the federal income tax rate from 46 to 34 percent to be credited to the income statement over the assets' book lives, which resulted in an annual amortization of \$59,223.³⁰ In Case No. 90-321³¹, Kentucky-American modified the service lives of various plant accounts, resulting in an increased level of excess deferred tax amortization of \$83,971.³² Upon review of the record in Case No. 90-321, the Commission finds that the unamortized balance of deferred taxes should be decreased by \$11,243.

Kentucky-American correctly adjusted the unamortized deferred tax balance by the amortization of excess deferred taxes and the reduction for contribution in aid of construction. However, a corresponding adjustment to deferred income tax expense was not

²⁹ Prefiled Testimony of Edward J. Grubb, page 22.

³⁰ Prefiled Testimony of Edwin Oxley, page 7.

³¹ Case No. 90-321, Notice of Adjustment of the Rates of Kentucky-American Water Company Effective of December 27, 1990, Order issued May 30, 1991.

³² Case No. 90-321, Response to Commission Order dated January 9, 1991, Item 35.

made.³³ To correct this error, the Commission has reduced deferred income tax expense by \$110,169.³⁴

The previous reductions to utility plant and deferred maintenance result in an overall decrease to deferred income tax of \$113,981 and a decrease to deferred income tax expense of \$41,522.

Contractor Retentions and Extension Deposit Refunds. The AG/LFUCG contend that Kentucky-American has overstated rate base by the amount of contractor retentions and extension deposit refunds. According to them, these accounts take on new meaning in a projected rate case and, therefore, they should be eliminated.³⁵

Kentucky-American states that the balances in the extension deposit accounts represent its obligations to the initial contributors of the funds. Field checks and accounting delays are the only reasons that these accounts have a reported balance. Thus, Kentucky-American concludes that there is absolutely no logic to the assertion that the balance should be deducted from rate base.³⁶

The Commission previously rejected an identical AG/LFUCG proposal, finding that "Kentucky-American has incurred a liability to the extent of the customer advance which may be refunded and that the ratepayers receive the benefit associated with the

³³ Workpaper W/P 6-3 and Schedule E-1.3, page 2.

³⁴ Amortization of Excess Deferred Income Tax \$ 83,971
Reduction of CIAC Property + 26,198
Reduction to Deferred Income Tax Exp. \$ 110,169

³⁵ Brief of the AG/LFUCG, pages 32 and 33.

³⁶ Brief of Kentucky-American, page 36.

increased number of customers."³⁷ Upon rehearing of the issue,³⁸ the Commission also found that the original fund contributors provided Kentucky-American an interest free loan which, when combined with the increased number of customers, resulted in lower rates to existing customers.

The evidence presented by the AG/LFUCG is unclear and unpersuasive. In light of the decision in Case No. 10481, the AG/LFUCG's proposed adjustment is denied.

Cash Working Capital. Kentucky-American proposed a cash working capital allowance of \$2,137,000³⁹ based on the lead/lag study performed on the historical data for the 12-months ended March 31, 1992.⁴⁰ Kentucky-American gave this description of its lead/lag method:

This method measures the net time lag between the date when the customers receive services from the Company and the date when they pay for those services (revenue lag) and the lag between the date the Company receives goods and services and the date they pay for those goods and services (expense lag).⁴¹

Net earnings and non-cash items such as depreciation, amortization, and deferred taxes were included in the lead/lag

³⁷ Case No. 10481, Notice of Adjustment of the Rates of Kentucky-American Water Company Effective February 2, 1989, Order dated August 22, 1989, page 12.

³⁸ Case No. 10481, Notice of Adjustment of the Rates of Kentucky-American Water Company Effective February 2, 1989, Rehearing Order dated March 7, 1990.

³⁹ Prefiled Testimony of Edward J. Grubb, page 12.

⁴⁰ Id., page 10.

⁴¹ Id., page 11.

study, each assigned a zero expense lag. The following reasons were given for including these items.

Kentucky-American's investors provided the cash to fund the plant investment. The depreciation expense represents their recovery of that investment from the customers over the respective plant lives. There is a considerable delay in the recovery of depreciation charges from the customers. Kentucky-American explained that with a 58 day lag between customers' receipt of service and payment, depreciation will similarly not be collected from the customer as cash for 58 days. If this 58 day depreciation expense lag is not reflected in rate base, investors will not have an opportunity to earn a return on their full investment.⁴²

According to Kentucky-American, deferred taxes are similar to depreciation. Using the same 58 day expense lag, when Kentucky-American makes a cash expenditure for an asset, it begins recording deferred taxes. However, there is a 58 day delay between the recording of deferred taxes and the collection from customers.⁴³

Amortization represents various expenses that are pro-rated over time for book and rate-making purposes. As with depreciation and deferred taxes, Kentucky-American's investors are entitled to recover amortization expenses on a daily basis.⁴⁴

As water service is rendered, net earnings will be retained and reinvested until paid to investors as dividends. Investors are

⁴² Id., pages 17 and 18.

⁴³ Id., page 19.

⁴⁴ Id., pages 16 and 17.

entitled to receive a return on their reinvested earnings on a daily basis.⁴⁵

Kentucky-American noted that similar lead/lag studies were previously accepted by the Commission and in two prior cases the Commission's adoption of Kentucky-American's working capital calculation was affirmed by the Franklin Circuit Court.⁴⁶ Kentucky-American also cited the following discussion by the Commission:

A cash working capital allowance, in appropriate instances, is approved in recognition of the fact that investor-supplied cash is needed to finance operating costs during the time lag before revenues are collected. The most accurate way to measure this is a lead/lag study.⁴⁷

The lead/lag study being new, the AG/LFUCG recommend exclusion of any expenses not requiring a cash payment. Because the study included the revenue lag and expense lead/lags, they argue that including net income is double counting. The AG/LFUCG recommend that net working capital be no greater than \$1,399,000 to reflect the elimination of depreciation, amortization, deferred taxes, and net income. Finally, they question why the lead/lag study produces about the same result as the formula method.⁴⁸

The AG/LFUCG are correct that depreciation, amortization, and deferred taxes are noncash items, but noncash items can produce a

⁴⁵ Id., page 16.

⁴⁶ Brief of Kentucky-American, pages 32 through 35.

⁴⁷ Case No. 91-217, Adjustment of Rates of the Salem Telephone Company, Inc., Order dated February, 28, 1992.

⁴⁸ Brief of the AG/LFUCG, pages 18 through 21.

need for cash working capital. Depreciation expense does not require a cash payment, although cash was expended at the time the property was acquired, and the recorded depreciation is used to offset the investment in property even though it has yet to be received from the customer through rates.⁴⁹ The same applies to amortization and deferred taxes.

Theoretically, net earnings are earned when customer service is provided, and become the property of the stockholders. This requires that a cash working capital requirement should be recognized for the lag in receipt of operating income.⁵⁰

The lead/lag study here is similar to the one performed in Case No. 8314.⁵¹ While in that case the Commission expressed concern with certain expense lead/lag days, Kentucky-American's methodology was found to be appropriate.⁵²

Although some commissions exclude them, the record evidence persuades the Commission that including net earnings and noncash items is theoretically sound. Furthermore, the lead/lag study and the formula method should produce similar results due to Kentucky-American's use of quarterly billing cycles.

Therefore, Kentucky-American's lead/lag study is accepted. The cash working capital allowance has been increased \$31,000 to

⁴⁹ Accounting for Public Utilities, 5.08[2], pages 5-20.

⁵⁰ Id., 5.08[5], page 5-22.

⁵¹ Case No. 8314, Notice of Adjustment of Rates of Kentucky-American Water Company, Order dated February 8, 1992.

⁵² Id., page 6.

reflect Commission adjustments to Kentucky-American's forecasted operations.

Average Rate Base. Kentucky-American analyzed its actual rate base elements as of October 31, 1992 and used projections to develop its 13-month average rate base for the forecasted period ending August 31, 1994.⁵³

The AG/LFUCG contend that if depreciation is not removed from Kentucky-American's lead/lag study, the use of a 13-month average rate base allows double earnings on depreciation. They claim that an end of period rate base would be more theoretically sound and avoid double earnings.⁵⁴

All rate applications supported by a fully forecasted test period must conform to 807 KAR 5:001, Section 10(8)(c), which requires that, "Capitalization and net investment rate base shall be based on a 13-month average for the forecasted period." The Commission finds no merit in the argument that Kentucky-American will collect double earnings on depreciation. The request to use an end-of-period rate base is not permitted by Commission regulation.

The Commission has determined Kentucky-American's rate base to be as follows:

⁵³ Prefiled Testimony of Edward J. Grubb, page 7.

⁵⁴ Brief of the AG/LFUCG, page 19.

Utility Plant in Service	\$ 151,355,296
CWIP	1,970,366
Deferred Maintenance	2,949,707
Deferred Debits	72,252
Cash Working Capital Allowance	2,168,000
Other Working Capital Allowance	479,135
Subtotal	<u>\$ 158,994,756</u>
Less:	
Accumulated Depreciation Reserve	\$ 20,443,030
Accumulated Amortization Reserve	7,869
Utility Plant Acquisition Adjustment	579,567
Contributions In Aid Of Construction	9,129,549
Customer Advances for Construction	10,924,691
Deferred Income Taxes	13,099,428
Unamortized Investment Tax Credit	207,527
Subtotal	<u>\$ 54,391,661</u>
Rate Base	<u>\$ 104,603,095</u>

Revenues

Forecasted Test Year Revenues. Kentucky-American has projected revenues for the forecasted test year to be \$29,182,279. This projection is based on a methodology regularly used by Kentucky-American to forecast revenues in the preparation of its annual operating budgets.⁵⁵ Kentucky-American has shown that this revenue forecasting methodology has been very accurate over the past decade.⁵⁶ Therefore, the projected test year operating revenues should be approved.

Nonetheless, the Commission is concerned that Kentucky-American did not sufficiently adjust forecasted test year revenues for the affects of abnormal weather. Although some utilities use

⁵⁵ Direct Testimony of Edwin L. Oxley, filed on January 22, 1993, pages 4-5.

⁵⁶ Kentucky-American's Response to Item 81 of the Commission's Order dated March 4, 1993 and Kentucky-American's Response to Item 114 of the Commission's Order dated April 8, 1993.

econometric models to forecast water sales and adjust revenues for normal weather, Kentucky-American believes its budgeting process, which is a system-wide approach that implicitly considers usage patterns, customer growth, and weather factors, is a reasonable means upon which to base its rate request.⁵⁷ Even though this budgeting process has performed well in the past, Kentucky-American should begin immediately to develop in-house expertise in weather normalization models and econometric techniques in order to improve its short-term revenue forecasting capabilities.

Nor has Kentucky-American made any attempt to determine the impact of water management and conservation programs on its future water sales. It merely projects water savings to continue at 1992 levels throughout the forecasted test year.⁵⁸ Regrettably, given the limited nature of Kentucky-American's conservation efforts and the fact that no new programs will be implemented during the test year, Kentucky-American's assumption of static water savings is probably reasonable. By the time of its next rate case, Kentucky-American should markedly improve its ability to forecast the impact on water sales of conservation programs and its commitment to water conservation efforts.

⁵⁷ Kentucky-American's Response to Item 27 of the Commission's Order dated April 8, 1993.

⁵⁸ Transcript of Evidence, Vol. II, pages 343-344; Kentucky-American's Response to Item 87 of the Commission's Order dated March 4, 1993; and Kentucky-American's Response to Item 29 of the Commission's Order dated April 8, 1993.

Kentucky-American was questioned about its methodologies to make assumptions, adjustments and projections underlying its revenue forecast due to a lack of clear and concise information in the testimony, workpapers and exhibits. Should Kentucky-American again utilize a future test period, the process used to forecast revenues must be clearly described and illustrated.

Allowance for Funds Used During Construction ("AFUDC"). Kentucky-American included AFUDC of \$203,824 in its forecasted operating revenues. The Commission has recalculated AFUDC of \$101,152 based on adjusted CWIP available for AFUDC and the rate of return found reasonable herein. This results in a decrease to operating revenue of \$102,672 and a decrease to net operating income of \$62,173.

Expenses

Kentucky-American reported base period utility operating income of \$8,615,890⁵⁹ and forecasted utility operating income of \$8,964,969.⁶⁰ The forecast is reasonable and has been accepted for rate-making purposes with the following exceptions:

Fuel and Power. Kentucky-American applied its forecasted pumpage to a 6-year average of actual kwh per million gallons to arrive at total kwh required. In some instances, Kentucky-American used operational judgement to adjust the averages. The forecasted

⁵⁹ Kentucky-American Exhibit 38, Schedule A, page 1 of 1.

⁶⁰ Id.

kwh were then priced at Kentucky Utilities Company's ("KU") rates to arrive at forecasted fuel and power expense of \$1,367,592.⁶¹

Between 1987 and 1992 Kentucky-American's actual fuel and power expense was 92 percent of its budgeted levels. During that same period, Kentucky-American annually budgeted its fuel and power expense below the previous year's actual expense and still the actual expense continued to be less than budgeted.

Kentucky-American stated that fuel and power expense do not always vary directly with water sales because of its need to keep the Jacobson Reservoir full during periods of peak customer demand. Water is pumped from the Kentucky River when available and then stored in the reservoir.⁶²

As previously discussed, Kentucky-American's budgets have historically exceeded its actual results. Given this historic relationship, and the fact that fuel and power expense does not always track water sales, the forecasted fuel and power expense should be reduced to 92 percent of the amount forecasted. This results in a reduction to forecasted fuel and power expense of \$109,407 and an increase to net operating income of \$66,251.

KU Refund. The AG/LFUCG claim that Kentucky-American will receive a refund as a result of the KU - South East Coal litigation and a windfall will result if the refund is not recognized in the forecasted test period.⁶³

⁶¹ Prefiled Testimony of Edward J. Grubb, page 25.

⁶² Brief of Kentucky-American, page 47.

⁶³ Brief of the AG/LFUCG, page 35.

The Commission established Case No. 93-113⁶⁴ to determine the methodology by which KU will refund to its customers the fuel cost savings that resulted from the litigation. The AG/LFUCG are correct that Kentucky-American will receive a refund from KU. However, because a final decision has not been rendered in Case No. 93-113, the amount and timing of the refund is unknown.

The customers should receive the benefit of the KU refund. Therefore, Kentucky-American should record the KU refund from Case No. 93-113 in a liability account and use the proceeds to offset electric expense in its next rate case.

Chemicals. Kentucky-American applied its forecasted pumpage to the average actual chemical usage per million gallons to forecast chemical usage in pounds. In some instances, these averages were tempered by operational judgment. The forecasted September 1993 usage was priced at the current contract prices and the remaining usage was priced at the October 1993 contract prices adjusted by an inflation factor of 3.5 percent. The forecasted chemicals expense total was \$559,439.⁶⁵

Effective July 1, 1993 Kentucky-American experienced a four cent increase in the cost of chlorine, an increase of 36.4 percent. If this increase is applied, it would result in an increase of \$28,453 to forecasted chemical expense.⁶⁶

⁶⁴ Case No. 93-113, Application of Kentucky Utilities Company to Amortize, by Means of Temporary Decrease in Rates, Net Fuel Cost Savings Recovered in Coal Contract Litigation.

⁶⁵ Prefiled Testimony of Edward J. Grubb, pages 25-26.

⁶⁶ Transcript of Evidence, Vol. III, page 5.

Kentucky-American's average annual chemical cost increase for the period of 1981 through 1992 was approximately 2.88 percent while the consumer price index for that period was 3.88 percent.⁶⁷ Kentucky-American used the anticipated inflation rate because it represented management's best estimate of the direction and magnitude of the 1993 chemical expense increase, and not because the inflation rate would be more accurate than the 11 year historical average.⁶⁸

Nonetheless, Kentucky-American's 11 year historical chemical cost increase rate of 2.88 percent appears to be a more accurate indicator of Kentucky-American's forecasted chemical expense than the consumer price index. Kentucky-American has not adequately documented that its cost of chemicals other than chlorine will increase at a greater rate.

Kentucky-American's forecasted chemical expense should therefore be increased by \$22,757 by using the historical chemical rate increase of 2.88 percent and the July 1993 chlorine price increase. This results in a decrease to net operating income of \$13,781.

Group Insurance. Kentucky-American seeks recovery of Group Insurance expense in the amount of \$1,491,764. This includes an increase in base period group insurance premiums of 12 percent and an accrual of the insurance portion of Other Post Retirement

⁶⁷ Response to the Commission's March 4, 1993 Order, Item 129.

⁶⁸ Response to Commission's April 8, 1993 Order, Item 57(a).

Employee Benefits ("OPEB") as required by Statement of Financial Accounting Standard No. 106 ("SFAS 106").

The Commission accepts the proposed 12 percent insurance premium adjustment and has included an adjustment to account for the SFAS 106 accrual.

SFAS 106. Kentucky-American asks that, for rate-making purposes, it be allowed to record its OPEB liability and related expense on an accrual basis, as required by SFAS 106. OPEB liability arises from Kentucky-American's current and past promises to pay its employees retirement benefits other than pensions. Most of these costs are for retiree medical benefits, with a small fraction for retiree insurance premiums. These benefits are an integral part of the employees' overall compensation package and are offered in exchange for current or past services rendered.

Historically, Kentucky-American has recorded its OPEB costs on a cash or "Pay as You Go" ("PAYGO") basis. Due to the significant financial liabilities created by these benefits, the accounting profession, through SFAS 106, has mandated that OPEB costs be recorded on the accrual basis. Thus, for accounting purposes, Kentucky-American can no longer delay recognition of this liability until paid. Rather, it must be recognized as the services are rendered. The Commission ruled in Case No. 92-043⁶⁹ that the

⁶⁹ Case No. 92-043, The Joint Petition of Kentucky Power Company, Kentucky Utilities Company, Louisville Gas and Electric Company, and Union Light, Heat and Power Company for Certain Accounting and Rate-Making Authority Associated with the Implementation of Statement of Financial Accounting Standards No. 106.

rate-making treatment of SFAS 106 costs should only be considered in a utility specific rate case.

Kentucky-American stated that absent accrual rate-making treatment, its earnings will deteriorate with the recording of the OPEB cost as an expense in 1993, with no offsetting revenues or deferrals. It further argues that the accrual basis is preferable because it matches the current cost of providing service with the revenues generated by that service. It bases its matching argument on the premise that post-retirement benefits are not gratuities but are part of an employee's compensation for services rendered.

The AG/LFUCG argue that the cash or PAYGO basis should be retained for rate-making purposes. They point out that the difference between the two bases is merely one of timing similar to the timing difference between accelerated depreciation and straight line depreciation. Believing that Kentucky-American's employee benefits are too high, they assert that use of PAYGO will encourage the company to contain the costs of the benefits.

The AG/LFUCG further argue that these costs are estimates and too speculative for use in setting revenue requirements. They also fear that ratepayers will be overcharged in significant amounts and point out that if current ratepayers are overcharged for services received, there is no mechanism proposed to refund those dollars.

The Commission finds that, for OPEB costs, the accrual basis better reflects the true cost of providing service to current customers. The PAYGO methodology requires current customers to pay the cost of employee services rendered in the past. This timing

difference distorts the true cost of today's utility service and should be eliminated.

There is no merit in the claim that the level of employee benefits are too high or that these expenses are speculative. Employee benefits cannot be viewed in isolation but must be considered as an integral part of the employee's overall compensation package. The evidence does not convince us that Kentucky-American's employee compensation level is excessive. The OPEB liability and resulting expense are based upon actual historic experience adjusted by actuarial assumptions. Although the actuarial assumptions are subjective, they are readily identifiable and capable of being tested. Under SFAS 106, any gains and losses resulting from changes in the benefits offered by Kentucky-American, as well as the effects of changes in actuarial assumptions, are reflected in the computation of the annual OPEB expense. Kentucky-American will receive an actuarial estimate of its SFAS 106 costs annually and if the projected costs are too high, they will be adjusted annually. This will ensure that over time Kentucky-American recovers only its actual incurred costs. The Commission therefore adopts SFAS 106 for rate-making purposes for Kentucky-American.

Kentucky-American's updated SFAS 106 expense in excess of PAYGO for the forecasted test year is \$512,996.⁷⁰ This is an \$18,602⁷¹ increase over the amount in the original application.

The AG/LFUCG did not question the computation of the SFAS 106 expense but did suggest that the amortization of the transition obligation and the interest on the transition obligation should at least be shared with shareholders. However, no justification or other details were provided to support this position.⁷²

The Commission accepts Kentucky-American's updated computation of the SFAS 106 expense for the forecasted test period but has made the following adjustment involving the medical trend rates.

Medical Trend Rates. On behalf of Kentucky-American, Towers, Perrin, Foster & Crosby ("TPF&C") proposed a medical cost trend rate starting at 19 percent in 1991 and descending to 6 percent by 2011 based on past experience of the American Water Works System and its insurer, Aetna Life Insurance Company. Kentucky-American argues that TPF&C is the only actuary expressing an opinion and that it would be inappropriate to suggest a different rate without an actuarial opinion.⁷³ Assuming this argument to be true, it does not preclude further discussion of this issue. The survey results of other Kentucky utilities subject to FASB 106 prepared by

⁷⁰ Updated Exhibit RLF-C, page 2 of 2.

⁷¹ \$512,996 updated Exhibit RLF-C, page 2 of 2
-494,394 original application Exhibit RLF-C, page 2 of 2
18,602 increase due to updated information

⁷² Brief of the AG/LFUCG pages 17-18.

⁷³ Brief of Kentucky-American Water Company, page 42-43.

Commission Staff reflected medical cost trend rates that were similarly supported by actuarial opinions.⁷⁴

Kentucky-American's 1991 and 1992 medical cost trend rates were estimated to be 19 percent and 17 percent, respectively, but later proved to be 17.99 percent and 13.05 percent respectively.⁷⁵ These are not insignificant differences. For 1993, Kentucky-American has estimated the trend rate to be 15 percent.

The Commission has historically recognized reasonable employee benefit costs and intends to continue to do so. However, it is not reasonable to charge today's ratepayers for estimated costs based on excessive medical cost trend rates with the expectation that future customers will reap the benefit of any overcharges. Furthermore, jurisdictional utilities, like unregulated industries, must contain these costs. The record reflects that Kentucky-American has made only nominal attempts to reduce its OPEB costs, while other utilities have implemented major changes to control and reduce similar costs.

The results of the FASB 106 survey conducted by Commission Staff indicated that Kentucky-American's trend rate was among the highest and that there was a wide range of rates. The average for the surveyed utilities was 12.18 percent. Kentucky-American itself maintained that, absent geographic differences, there would not be wide variability in health care cost inflation rates.⁷⁶ The

⁷⁴ Staff Cross Exhibit No. 1.

⁷⁵ Transcript of Evidence, Vol. II, page 278.

⁷⁶ Transcript of Evidence, Vol. II, page 225.

Commission agrees and finds that Kentucky American should adopt a medical cost trend rate that falls more in line with the average of the survey results.

Given Kentucky-American's comparatively high assumed trend rates and the lack of evidence of cost containment of health care costs to date, a 3 percent reduction in that rate, to 12 percent for the forecasted test period, is reasonable. This reduced rate is closer to the Kentucky survey average,⁷⁷ and the trend of Kentucky-American's actual increases in recent years. Kentucky-American acknowledged that the Commission may exercise its judgment in setting reasonable assumptions in providing for SFAS 106 costs, so long as it is the Commission's intent to recognize SFAS 106 costs in customer rates.⁷⁸ The Commission finds that the reduced accrual levels are more reasonable than those proposed by Kentucky-American. Based on testimony that a 1 percent reduction in the rate would produce a 13 percent reduction of the accrual, this adjustment will produce a 39 percent⁷⁹ or \$237,072⁸⁰ reduction in this expense for the forecasted test period.

SFAS 106 Deferral. Kentucky-American sought to defer the accrual of the SFAS 106 expense in excess of PAYGO from the time it

⁷⁷ Staff Cross Examination Exhibit No. 1

⁷⁸ Transcript of Evidence, Vol. I, pages 226-227.

⁷⁹ Transcript of Evidence, Vol. II, page 211-212.

⁸⁰ KAWS OPEBS \$706,834
Gross Reduction \$275,665
Less: Capitalization (38,593)
Adjustment \$237,072

was required to implement SFAS 106 for accounting purposes on January 1, 1993, until the beginning of the forecasted test year. It proposed recovery of this deferral of \$343,833⁸¹ in rates over a three year period for an annual expense of \$114,611.⁸² This is an annual increase of \$3,028 over the amount in the original application. To support this adjustment, Kentucky-American stated that absent rate recovery its earnings would deteriorate and if the accrual of OPEB expense is reasonable and allowed in rates, the expense incurred for eight months prior to the test year should also be recovered.⁸³

The AG/LFUCG object because Kentucky-American failed to prove it did not earn a fair return during that period. They argue that in Case No. 92-043 failure to earn a fair return was established as a requirement for recovery of a regulatory asset and that Kentucky-American's request should at least be delayed until its return for the period can be determined.⁸⁴

The Order in Case No. 92-043 stated that the need for recovery of deferred expenses could be considered in future rate cases.

⁸¹ \$515,749 1993 expense, updated Exhibit RLF-C, page 1 of 2
 + 12 months
 42,979 monthly expense
 x 8 months in stub portion
 \$343,833 proposed deferral

⁸² \$343,833 proposed deferral
 + 3 year amortization
 \$114,611 annual expense

⁸³ Kentucky-American's response to Item 12 of the Commission's fourth data request.

⁸⁴ Brief of the AG/LFUCG, page 17.

Kentucky-American presented no evidence of financial impairment if recovery of this out-of-test period deferral is denied. A reduction in earnings is insufficient to justify this extraordinary rate request. Therefore, the deferral is denied.

These adjustments will decrease Kentucky-American's Group Insurance expenses by \$330,758 and increase net operating income by \$200,291.

Funding. Kentucky-American proposes to fund OPEBs through voluntary employee beneficiary associations ("VEBAs") to the extent that such contributions are tax deductible. The Commission accepts Kentucky-American's funding plans as proposed.

Pension Expense. Kentucky-American seeks approval to defer past and current pension costs as calculated under SFAS 87 and to recover these costs through rates as they become tax deductible under the Employee Retirement Income Security Act of 1974 ("ERISA"). Kentucky-American's share of the accrued pension costs for 1990 and 1991 is \$74,481 and \$121,792, respectively, while its share of the 1992 and 1993 projected accrued pension costs is \$228,100 and \$267,800, respectively.

Kentucky-American is required by Generally Accepted Accounting Principals ("GAAP") to report current pension expense under SFAS 87. To depart from GAAP for financial reporting purposes, SFAS 71 requires Kentucky-American to determine that the future recovery of these costs is probable. Kentucky-American did not seek permission to defer these costs at the time they were incurred, claiming then that the amount of the costs was not material. Kentucky-American

now seeks approval of a retroactive deferral so that these costs can be recovered in future rates.

A retroactive deferral would result in retroactive rate-making and should be denied. The inclusion of pension expense in rates as calculated under SFAS 87 will ensure that the consumers who are currently deriving the benefit of an employee's services will pay the proper cost of that service. Therefore, Kentucky-American's request to defer current pension costs is denied. The only annual pension expense that has been properly supported by Kentucky-American is the actual 1992 calendar year expense of \$198,860. Accepting this amount decreases net operating income by \$120,420.

Service Company Charges. During the forecasted test period, Kentucky-American projects that it will be billed \$1,862,412 for services performed by an affiliate, the American Water Works Service Company ("Service Company").⁸⁵ These charges were calculated in conformity with the agreement entered into by Kentucky-American and the Service Company on January 1, 1989 ("1989 Agreement").⁸⁶

Kentucky-American gave the following reasons to explain development of the 1989 Agreement:

(1) The services now offered by the Service Company were not described in the 1971 Service Company agreement ("1971 Agreement") or were grouped in other service categories.

⁸⁵ Prefiled Testimony of Cecil Sasher, Exhibit CES-1.

⁸⁶ Brief of Kentucky-American, page 47.

(2) The 1989 Agreement provided a more detailed description of the services offered by the Service Company.

(3) The allocation methodology used in the 1971 Agreement was cumbersome, complicated, and resulted in disproportionate allocations to some subsidiaries.⁸⁷

The difference between the two agreements, in Kentucky-American's opinion, is the methodology for billing indirect Service Company charges. Kentucky-American argues that it is reasonable and logical to allocate those charges on the basis of customers as they are the most important "cost-requiring" factor. Because all other American Water Works Company operating subsidiaries required to obtain approval of the 1989 Agreement have received it, Kentucky-American contends that its use of the 1989 Agreement for rate-making purposes should also be approved.⁸⁸

Kentucky-American states that customers cause costs and that the number of customers should be used to allocate indirect Service Company costs. However, it failed to produce any study or evidence to support its position. Kentucky-American merely repeated the arguments it presented and the Commission rejected in Case No. 90-321.

There, the Commission recognized that the 1989 Agreement was a less-than-arms-length transaction and expressed concern that an oversimplified allocation was selected that did not accurately track the costs but allocated them without separate consideration

⁸⁷ Prefiled Testimony of Cecil Sasher, pages 10 and 11.

⁸⁸ Brief of Kentucky-American, page 48.

of the underlying characteristics of each cost. As Kentucky-American presented no new evidence here to support the 1989 Agreement, the record supports the prior decision that the 1971 Agreement should be used for rate-making purposes. Therefore, operating expenses have been decreased by \$89,928, for an increase in net operating income of \$54,455.

Using the 1989 Agreement, the Service Company allocated \$100,368 of its OPEB costs to Kentucky-American. To be consistent with the treatment of Kentucky-American's OPEB cost and using the 1971 Agreement, the OPEB portion of the Service Company allocation has been decreased by \$67,599 resulting in an increase to net operating income of \$40,935.

The AG/LFUCG questioned the reasonableness of some of the costs allocated by the Service Company to Kentucky-American, including business travel for employees and spouses. They contend that these expenses provide no quantifiable benefit to the ratepayers and should be eliminated for rate-making purposes.⁶⁹ Except for the denial of \$3,700 for spousal travel, the other questioned expenses should be allowed. They are legitimate business expenses and properly included for rate-making purposes. This results in a \$2,241 increase to net operating income.

Regulatory Expense. Kentucky-American's forecasted regulatory expense is based on a 2-year amortization of current rate case expenses estimated to be \$189,700. Kentucky-American also included

⁶⁹ Brief of the AG/LFUCG, page 34.

the amortization of past Commission cases and studies to arrive at \$248,172.⁹⁰

Kentucky-American stated that actual rate case expenditures totalled \$238,000 and an additional \$50,000 would likely be spent, approximately \$100,000 greater than the original estimate. It attributed the increase to the number of data requests, the increased number of intervenors, and the complexity of a forecasted test period.⁹¹

Based upon the post hearing information filed July 9, 1993, the Commission will accept the increased rate case cost which should be amortized over a 2-year period. Therefore, regulatory expense has been increased by \$49,316, for a decrease of \$29,863 to net operating income.

Insurance Other than Group. Kentucky-American proposed a forecasted level of insurance other than group expense of \$387,880, based on actual insurance premiums paid in October 1992. The premiums were reduced by retroactive adjustments for workers' compensation of \$47,918, general liability of \$116,880, and all risk property of \$5,420.⁹²

In response to the Commission's June 9, 1993 Order, Kentucky-American provided its actual 1993 retrospective adjustments and 1993 workers' compensation experience modification, which would result in a further reduction of \$58,230 to forecasted insurance

⁹⁰ Prefiled Testimony of Edward J. Grubb, page 27.

⁹¹ Transcript of Evidence, pages 5 and 6.

⁹² Prefiled Testimony of Edward J. Grubb, page 28.

other than group insurance. This reduction is accepted and results in an increase to net operating income of \$35,261.

Property Tax. Kentucky-American proposed a forecasted level of property tax expense of \$891,452, based upon the ratio of actual 1992 tax payments to the December 31, 1991 tax base. The resulting rate was applied to the December 31, 1992 and December 31, 1993 projected tax bases to arrive at the forecasted property tax expense.⁹³

Several of the Commission's rate base adjustments affect the calculation of property tax, which the Commission has determined to be \$879,419. Therefore, operating expenses have been decreased by \$12,033 and net operating income increased by \$7,287.

Public Service Commission Assessment ("PSC assessment"). Kentucky-American proposed a forecasted level of PSC assessment expense of \$41,557, based upon the ratio of the 1992 PSC assessment payment to 1991 revenues applied to total forecasted revenues.⁹⁴ The actual 1993 PSC assessment rate of 0.1599 percent should be used in the calculation, resulting in a PSC assessment expense of \$46,337, an increase of \$4,782 above Kentucky-American's proposed level. Therefore, net operating income has been decreased by \$2,896.

Depreciation. To arrive at forecasted depreciation expense of \$3,203,814, Kentucky-American multiplied the average level of utility plant by the depreciation rates approved by the Commission

⁹³ Id., pages 31 and 32.

⁹⁴ Id., page 32.

In Case No. 90-321. As with accumulated depreciation, depreciation expense is directly dependent on the level of utility plant. The reduction to utility plant will result in a decrease of \$52,996 to depreciation expense and an increase to net operating income of \$32,092. An additional adjustment has been made to reduce depreciation by \$3,520 to reflect an error acknowledged by Kentucky-American.⁹⁵ This increases net operating income by \$2,131.

Toyota Main Depreciation. The AG/LFUCG proposed to exclude the depreciation expense associated with the Toyota water main because it was paid for by a customer advance. The AG/LFUCG argue that Kentucky-American expects to make no further refunds of this customer advance.⁹⁶

This adjustment has been proposed in previous Kentucky-American rate cases. In those cases, the Commission found that the Toyota main is supported by cost-free debt in the form of a customer advance.

Customer advances are offset against rate base to ensure that investment supported by cost-free capital does not earn a return. However, the Commission's main extension regulation, 807 KAR 5:066, Section 11, creates a liability for Kentucky-American to refund the customer advance for a 10-year period if additional customers connect to the Toyota main. Thus, for rate-making purposes, the

⁹⁵ Transcript of Evidence, Vol. III, page 87.

⁹⁶ Brief of the AG/LFUCG, page 35.

associated depreciation expense is included in the revenue requirement calculation.

The Commission views the Toyota customer advance as being no different than any other customer advance and, therefore, it should be given the same rate-making treatment. The fact that only a small portion of the Toyota customer advance has been refunded to date is of no consequence. Kentucky-American has a 10-year refund liability and depreciation expense is a proper charge during that period.

The AG/LFUCG have presented no new evidence in support of their position. The Commission, having thoroughly reviewed this issue, finds no reason to depart from established rate-making practice and the adjustment should be denied.

Tax Depreciation. As with accumulated depreciation, tax depreciation is directly related to utility plant. A reduction to utility plant requires a corresponding reduction to both the state and federal tax depreciation. As utility plant has been reduced, corresponding adjustments to the tax depreciation results in a reduction to net operating income of \$29,530.

Interest Synchronization. Kentucky-American proposed interest expense for tax purposes of \$5,333,954 based on the forecasted rate base and weighted cost of debt. The Commission has recalculated this expense to be \$5,004,488 based on the rate base and weighted cost of debt found appropriate herein. This results in a decrease to net operating income of \$129,958.

The Commission, after consideration of the forecasted revenues and expenses and applicable income tax effects, has determined Kentucky-American's adjusted net operating income to be as follows:

Operating Revenues	\$29,079,607
Operating Expenses	19,907,602
Net Operating Income	<u>\$ 9,172,005</u>

RATE OF RETURN

Capital Structure

Kentucky-American proposed a capital structure consisting of 54.856 percent long-term debt, 2.054 percent short-term debt, 6.822 percent preferred stock, and 36.268 percent common equity. The proposed capital structure is based on projected 13-month averages of the various components of its capital structure for the period ending August 31, 1994. The long-term debt component includes an issuance planned for December 1993. The Commission finds that Kentucky-American's proposed capital structure is reasonable and should be approved.

Cost of Debt and Preferred Stock

Kentucky-American proposed a short-term debt cost of 4.55 percent; a long-term debt cost of 8.56 percent, including an anticipated December 1993 bond issuance at 7 percent; and an embedded cost of preferred stock of 7.77 percent. Costs of long-term debt and preferred stock were calculated by Kentucky-American using carrying values and net proceeds, respectively, as of August 31, 1994. The use of end of forecasted period carrying values and net proceeds results in lower revenue requirements than the use of 13-month average forecasted period amounts. The

Commission finds that the proposed costs are reasonable and should be approved.

Return on Equity

Kentucky-American initially proposed a return on common equity ("ROE") of 12 percent, but later reduced its request to 11.4 percent. The AG/LFUCG recommended a ROE in the range of 9.55 to 9.75 percent.

Kentucky-American derives certain benefits from its subsidiary relationship with American Water Works, such as a ready market for its common equity. There are also benefits associated with use of a forward-looking test period in setting rates which tend to decrease the risk that Kentucky-American will not earn its allowed return. Kentucky-American's proposed construction program is surrounded by uncertainty, but Kentucky-American itself has created the risk with its self-imposed pipeline completion deadline.

Based on all evidence, including current economic conditions, an ROE in the range of 10.6 to 11.2 percent is fair, just, and reasonable. This range will allow Kentucky-American to attract capital at a reasonable cost and maintain its financial integrity, ensuring continued service. It will provide for necessary expansion to meet future requirements and result in the lowest possible cost to ratepayers. A return of 10.9 percent will best meet the above objectives.

Rate of Return Summary

Applying the rates of 8.56 percent for long-term debt, 7.77 percent for preferred stock, 4.55 percent for short-term debt, and

10.9 percent for common equity to the capital structure produces an overall cost of capital of 9.27 percent, which the Commission finds to be fair, just, and reasonable.

AUTHORIZED INCREASE

The net operating income found fair, just, and reasonable is \$9,696,707.⁹⁷ To achieve this level of income Kentucky-American is entitled to increase its rates and charges to produce additional revenues on an annual basis of \$872,731 determined as follows:

Net Operating Income Found Reasonable	\$ 9,696,707
Less: Adjusted Net Operating Income	- 9,172,005
Operating Income Deficiency	\$ 524,702
Times: Gross-up Factor	x 1.66328825
Revenue Increase required, Inclusive of Income Taxes, PSC Fee, and Uncollectible	\$ 872,731

Revenue Allocation and Rate Design

Kentucky-American offered no changes to its existing rate design, proposing an across-the-board equal percentage increase for all rates except bulk sales. Kentucky-American's existing rates consist of one rate schedule for all metered consumption which includes customer charges based on the size of the customer's meter and a two-step declining block usage rate applicable to all customers' water consumption. The vast majority of such customers are billed on a quarterly basis. Kentucky-American also maintains separate rate schedules for private and public fire protection services with monthly and annual rates based on meter size. Kentucky-American proposed to increase its returned check charge

⁹⁷ \$104,603,095 x 9.27% = \$9,696,707.

from \$9 to \$12 and its charge for reconnecting service during normal business hours from \$15 to \$24.

Talwalkar and the Sierra Club recommended that Kentucky-American be required to pursue conservation measures, including rate design changes that would send more appropriate price signals to customers. Talwalkar suggested that a more equitable rate structure would entail different rate designs and price levels for different customer classes. Both of these intervenors contend that inverted block rates and seasonal rates would send appropriate price signals and encourage conservation.

In addressing the type of rate design changes recommended by the intervenors, Kentucky-American opines that such changes must be approached with extreme caution.⁹⁸ While recognizing the objectives of those rate designs, Kentucky-American contends that its practice of billing its customers on a quarterly basis will diminish the impact or price signal of such rates. It also contends that its estimated \$958,000 cost of converting to monthly billing is prohibitive.⁹⁹

The proposed pipeline will have a major impact on revenue requirements if it becomes part of Kentucky-American's rate base in the future. Demand side management measures, including rate design changes, could affect when the pipeline will be needed or, depending on decisions by the Kentucky River Authority, if it will

⁹⁸ Response to the Commission's Order dated March 4, 1993, Items 88 and 89.

⁹⁹ Transcript of Evidence, Vol. II of III, June 30, 1993, at 311.

be needed at all. Kentucky-American is willing to incur the costs of the pipeline and pass those costs on to its customers; however, it is reluctant to implement rate design changes that have the potential to change its customers' consumption patterns due to the impact such changes might have on its own revenue levels.

Given the impact the planned pipeline project will have on Kentucky-American's revenue requirements, cost-effective reductions in demand should be pursued as a means of deferring or eliminating the need for the project. To the extent that rate design changes can play a role in achieving demand reductions, certain changes are needed in Kentucky-American's rate structure. Recognizing Kentucky-American's concerns to be grounded in the concepts of gradualism, rate continuity, and revenue stability, the Commission will take a gradual approach to making these changes while requiring Kentucky-American to conduct its own analysis and research on these issues prior to filing its next general rate case.

The following changes should be viewed at this time as initial steps in the restructuring of Kentucky-American's rates. These changes consist of (1) disaggregating Kentucky-American's single usage rate into five separate usage rates--one for each customer class (i.e. residential, commercial, industrial, sales for resale and municipal and other public authorities) and (2) implementing a flat usage rate for each separate customer class reflecting an equal across-the-board percentage increase for all customer classes. Separate customer classes will allow class-by-class cost

allocation and more equitable revenue allocation and rate design in future cases. Flat rates, while not having the impact of inverted rates, will send a more appropriate price signal than the existing declining block rates.

A gradual approach on these changes is appropriate because of the potentially disruptive impact major rate design changes can have on both a utility and its customers. The Commission is also concerned about the impact Kentucky-American's quarterly billing might have on the effectiveness of such changes. Therefore, prior to filing its next rate case, Kentucky-American should perform (1) a detailed cost/benefit analysis of the impact of converting to monthly meter reading and billing; (2) a detailed cost/benefit analysis of the impact of converting to bi-monthly meter reading and billing; (3) a detailed study of the impact converting to monthly billing under inverted block rates would have on usage patterns and revenues; and (4) a detailed cost/benefit analysis on the use of interruptible rates for large commercial and industrial customers.

Billing and consumption data will be necessary to determine usage levels and consumption patterns by customer class in increments that will allow for the development of new rate designs if the Commission finds such rate designs reasonable. Kentucky-American should maintain its billing records in such a way that usage increments can be ascertained by customer class and used to develop inverted block rates or seasonal rates if the Commission finds that such rates are warranted.

The overall increase in annual revenues granted herein is \$872,731. We have accepted Kentucky-American's proposed increases in its returned check fee and reconnection fee. These increases produce additional annual revenues of \$78,390 leaving \$794,341 in additional revenues to be generated from rates. Based on Kentucky-American's forecasted revenues from present rates of \$28,787,012, these additional revenues produce an overall increase of 2.76 percent. This percentage increase was allocated to each customer class based on each class's revenues at present rates. All customer charges except bulk sales were increased by approximately 2.76 percent while each class's usage rate was set at an amount that produces an approximate 2.76 percent increase in total revenues for that customer class.

Tariff Changes

Kentucky-American proposed to change the text of its Service Classification No. 6 Tariff. The existing tariff provides for customers' bills to show, as a separate item, an amount equal to the proportionate part of any license, franchise, or similar fee or tax imposed on Kentucky-American by local taxing authorities. Kentucky-American proposed to modify the text to include fees or charges imposed by the Kentucky River Authority. As final approval of any such fees or charges may be imminent, Kentucky-American's proposed tariff change is reasonable and should be approved.

Tariff Filings

On September 3, 1993, Kentucky-American filed revised tariff sheets setting out its proposed rates and charges which were placed

in effect August 24, 1993, subject to refund. These tariffs, except for Sheet No. 56--Reconnection Charge, and Sheet No. 57--Returned Check Fee, should be refiled to reflect the rates approved. Given that Tariff Sheets 56 and 57 already include the approved reconnection charge and returned check fee, those tariffs need not be refiled.

Refund Requirements

On August 24, 1993, Kentucky-American placed its proposed rates in effect subject to refund as permitted by KRS 278.190(2). With the increase granted herein equaling less than one third of the amount requested by Kentucky-American, refunds will be required. Refunds should be made for all rates and charges exceeding the rates and charges prescribed in this Order. Kentucky-American should file a schedule detailing the amount of excess revenues collected from August 24, 1993 through the day before the date of this Order, along with a plan to make refunds based on each customer's usage while the proposed rates were in effect. The plan should also include interest for the period the excess revenues were collected at the average of the Three-Month Commercial Paper Rate as reported in the Federal Reserve Bulletin and the Federal Reserve Statistical Release. The refunds may be made as a one-time credit to customers' bills or by check but, in any event, must be made within 60 days pursuant to KRS 278.190(4).

AG's Motion to Establish Docket to Study Pipeline

As ordered by the Commission on July 15, 1993, Kentucky-American responded to the AG's July 7, 1993 motion requesting the

Commission to establish a docket to investigate Kentucky-American's plan to construct a treated water pipeline from Louisville to Lexington and to explore all alternatives. Although it termed the AG's motion as groundless, Kentucky-American indicated that it would cooperate with the Commission and intervenors if such an investigation is found to be necessary. In that event, Kentucky-American urged the Commission to conduct its investigation expeditiously "so as not to impede Kentucky-American's efforts to resolve the existing significant supply deficit."¹⁰⁰

The Kentucky River Authority filed a motion on September 3, 1993 requesting limited intervention for the sole purpose of filing comments in support of the Commission's establishment of an investigation of the need for the pipeline. Good cause having been shown, the Commission will grant the motion for limited intervention.

In his motion the AG contended that, given the approximately \$50 million cost of the pipeline and the fact that Kentucky-American is already spending money on the project, a proceeding is needed immediately to determine the necessity of the project and to examine feasible alternatives. The AG claims that during previous discussions of Kentucky-American's supply deficit the Commission has heard only "the company's side of the story" and that adversarial input is now needed. This comment is perplexing in light of the extensive testimony in this case by other intervenors

¹⁰⁰ Kentucky-American Brief dated August 2, 1993, page 27.

challenging the need for the pipeline. Further, meetings were held in 1991 and 1992 among the AG, LFUCG, Kentucky-American, and Commission Staff, at which Kentucky-American described the compilation of its updated Least Cost/Comprehensive Planning Study which was finalized and filed with the Commission in July 1992.

During this proceeding, Kentucky-American was queried concerning its consideration of demand-side management and other supply-side alternatives to the pipeline. Its responses indicate that Kentucky-American has not sufficiently considered the potentially beneficial impacts that an aggressive demand-side management plan could have on its long-range planning decisions or how favorable decisions by the Kentucky River Authority could affect its need for the pipeline. Furthermore, Kentucky-American's self-imposed deadline for completion of the pipeline in 1996 should not preclude it from carefully considering all alternatives.

Because of these concerns and others expressed by the intervenors, an investigation into Kentucky-American's sources of supply and future demand, including demand-side management, can provide valuable information pertaining to the need and timing of the pipeline. Kentucky-American, the AG/LFUCG, Talwalkar, Sierra Club, and Kentucky River Authority will be deemed parties to the investigation.

While an investigation of this magnitude may take months, there is no reason to delay implementation of conservation measures pending the outcome. Assuming that Kentucky-American's projected supply deficit is accurate, aggressive conservation measures may

not be sufficient to eliminate the deficit. They can nonetheless effectively and dramatically reduce demand. Due to the relatively long lead time required to implement them, these measures must be vigorously pursued now. Kentucky-American should immediately develop an aggressive water conservation plan and file a program implementation schedule with the Commission no later than January 28, 1994.

SUMMARY

After consideration of all matters of record and being otherwise sufficiently advised, the Commission finds that:

1. The rates in Appendix A are the fair, just, and reasonable rates to be charged by Kentucky-American for service rendered on and after August 24, 1993.

2. The recurring rates proposed by Kentucky-American would produce revenue in excess of that found reasonable herein and should be denied as unreasonable. The non-recurring charges proposed by Kentucky-American are found reasonable and should be approved.

3. The rate of return granted herein is fair, just, and reasonable and will provide for the financial obligations of Kentucky-American with a reasonable amount remaining for equity growth.

4. Kentucky-American should file within 20 days of the date of this Order its report of excess revenues collected under the rates placed in effect August 24, 1993 and its proposed plan for refunding those excess revenues.

IT IS THEREFORE ORDERED that:

1. The rates in Appendix A be and they hereby are approved for service rendered by Kentucky-American on and after August 24, 1993.

2. The recurring rates proposed by Kentucky-American be and they hereby are denied. The non-recurring charges proposed by Kentucky-American be and they hereby are approved.

3. Kentucky-American shall file its report of excess revenues and its proposed refund plan within 20 days from the date of this Order.

4. Within 30 days from the date of this Order, Kentucky-American shall file with the Commission revised tariff sheets setting out the rates approved herein.

5. Kentucky-American shall file its water conservation plan and program implementation schedule no later than January 28, 1994.

6. The Kentucky River Authority's motion for limited intervention be and it hereby is granted.

7. Kentucky-American shall maintain its billing records in such a way that usage increments can be ascertained by customer class and used to develop inverted block rates or seasonal rates if the Commission finds that such rates are warranted.

8. The AG's motion to establish an investigation of Kentucky-American's supply planning process, demand-side management and supply-side alternatives to the Louisville pipeline be and it hereby is granted.

Done at Frankfort, Kentucky, this 19th day of November, 1993.

PUBLIC SERVICE COMMISSION


Chairman


Vice Chairman


Commissioner

ATTEST:



Executive Director

APPENDIX A

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE
COMMISSION IN CASE NO. 92-452 DATED NOVEMBER 19, 1993.

The following rates and charges are prescribed for the customers in the area served by Kentucky-American Water Company. All other rates and charges not specifically mentioned herein shall remain the same as those in effect under authority of this Commission prior to the date of this Order.

SERVICE CLASSIFICATION NO. 1

METER RATES

The following shall be the rates for consumption, in addition to the service charges provided for herein.

<u>Customer Category</u>	<u>Rate Per 1,000 Gallons All Consumption</u>	<u>Rate Per 100 Cubic Feet - All Consumption</u>
Residential	\$1.85440	\$1.39080
Commercial	\$1.79641	\$1.34731
Industrial	\$1.49991	\$1.12493
Municipal and Other Public Authority	\$1.57975	\$1.18481
Sales for Resale	\$1.50148	\$1.12611

SERVICES CHARGES

All metered general water service customers shall pay a service charge based on the size of meter installed. The service charge will not entitle the customer to any water.

<u>Size of Meter</u>	<u>Service Charge</u>	
	<u>Per Month</u>	<u>Per Quarter</u>
5/8 Inch	\$ 5.54	\$ 16.62
3/4 Inch	8.29	24.88
1 Inch	13.81	41.44
1-1/2 Inch	27.62	82.87
2 Inch	44.19	132.57
3 Inch	82.85	248.56
4 Inch	138.09	414.28
6 Inch	276.19	828.58
8 Inch	441.92	1,325.76

SERVICE CLASSIFICATION NO. 3

AVAILABILITY OF SERVICE

Available for municipal or private fire connections used exclusively for fire protection purposes.

RATES

<u>Size of Service</u>	<u>Rate Per Month</u>	<u>Rate Per Annum</u>
2" Diameter	\$ 3.44	\$ 41.28
4" Diameter	13.77	165.24
6" Diameter	30.99	371.88
8" Diameter	55.08	660.96
10" Diameter	86.08	1,032.96
12" Diameter	123.95	1,487.40
14" Diameter	168.69	2,024.28
16" Diameter	220.35	2,644.20

SERVICE CLASSIFICATION NO. 4

RATES FOR PUBLIC FIRE SERVICE

	<u>Rate Per Month</u>	<u>Rate Per Annum</u>
For each public fire hydrant contracted for or ordered by urban county, county, state or federal governmental agencies or institutions	\$21.56	\$258.72

RATES FOR PRIVATE FIRE SERVICE

For each private fire hydrant contracted for by industries or private institutions	\$30.99	\$371.88
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