COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

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In the Matter of:

NOTICE OF ADJUSTMENT OF THE RATES OF KENTUCKY-AMERICAN WATER COMPANY) CASE NO. 9283

O R D E R

PROCEDURAL BACKGROUND

On March 29, 1985, Kentucky-American Water Company ("Kentucky-American") filed its notice with the Commission seeking to increase its rates and charges effective April 19, 1985, to produce an annual increase in revenue of $2,740,298, an increase of approximately 18 percent. On July 1, 1985, Kentucky-American amended its application to reflect changes that had occurred subsequent to its filing date. After the hearing Kentucky-American again revised its filing to account for changes in Kentucky income tax laws. As a result of these changes Kentucky-American reduced its requested annual increase in revenue to $2,703,518.

In order to determine the reasonableness of the request, the Commission suspended the proposed rates and charges for 5 months after the proposed effective date and scheduled a public hearing for August 8, 1985. On its own initiative, Kentucky-American held a public meeting at its offices in Lexington, Kentucky, to receive public comments on its requested rate increase. The Commission commends Kentucky-American for holding this meeting to explain its requested rate increase to its customers.

A hearing was held on August 8, 1985, in the Commission's offices in Frankfort, Kentucky, following notice given pursuant to the Commission's regulations. The Consumer Protection Division of the Attorney General's Office ("AG") and the Lexington-Fayette Urban County Government ("Urban County") intervened in this matter and participated in the hearings. In addition, Don Wiggins, President of Concerned Citizens and Businessmen of Central Kentucky, Inc., and Rep. Margaret Stewart, 76th District, Fayette County, appeared before the Commission and made comments pertinent to this case.

Witnesses for Kentucky-American prefiling testimony and appearing at the hearing were: Robert A. Edens, Vice President and General Manager of Kentucky-American; Edward J. Grubb, an employee of American Water Works Company; Dillard L. Edgemon, Vice President and Treasurer of Kentucky-American; John S. Young, Jr, Director-Planning and Engineering Concepts, American Water Works Company; and John D. Ober, an engineer with Burgess and Niple Engineers and Architects, Columbus, Ohio. Witnesses for Urban County were Hugh Larkin, Jr. of Larkin and Associates, CPAs, Livonia, Michigan, and Troy A. Doby, Consulting Engineer, Raleigh, North Carolina. The AG called no witnesses.

This Order addresses the Commission's findings and determinations on issues presented and disclosed in the hearing and investigation of Kentucky-American's revenue requirements. The Commission has granted rates and charges to produce an annual increase of $1,061,127 herein. Simultaneous briefs were filed on September 3, 1985, and all requested information has been submitted.

Civic Involvement

In June 1985 Kentucky-American joined the National Child Watch Program with the insertion of missing children's photographs and pertinent information in water bills to its customers. The Commission commends Kentucky-American's investors for their participation in this very worthwhile endeavor.

ANALYSIS AND DETERMINATION

Test Period

Kentucky-American proposed and the Commission has accepted the 12-month period ending December 31, 1984, as the test period in this proceeding.

Committed Construction

Kentucky-American proposed a net investment rate base of $48,528,691. Included in the original filing was a $3,669,262 estimate for planned construction of a 24-inch reinforcing main in the eastern portion of Kentucky-American's distribution system, and for the painting of water treatment structures at the Kentucky River Station. The Commission, in Case No. 9169,[1] issued a Certificate of Convenience and Necessity to Kentucky-American for the construction of the reinforcing main. Construction of the

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1 Application of Kentucky-American Water Company For a Certificate of Convenience and Necessity Authorizing the Construction of a Twenty-Four Inch Distribution Main and Related Facilities.

main commenced in February 1985 and it was completed and placed in service on July 8, 1985. Mr. Edens testified at the hearing that only one filter at the Kentucky River Station remained to be painted.[2] In July 1985, Kentucky-American amended its filing, reducing the amount of committed construction to $3,365,786.

A fundamental approach to accounting and rate-making is recognition of the fact that an asset contributes to the generation of revenue throughout its useful life. In this filing, Kentucky-American proposed to include the cost of an asset in the rate base and earn a return on it, but made no adjustments to its revenues to reflect any gains that would be associated with the upgrading of its distribution system. The Commission finds this approach to be inadequate.

In prefiled testimony in this case and in Case No. 9169, as well as in testimony at the hearing in this proceeding, Kentucky-American witnesses stated that this construction was necessary because of low pressure in this area. As a result of pressure problems Mr. Edens said that Kentucky-American was unable to meet the demands of many customers in the eastern quadrant of its service area.[3] In fact, Mr. Edens testified that demand exceeded distribution capabilities.

It would be reasonable for Kentucky-American or the Commission to assume that if a customer's demand for a product exceeds the availability of that product, the customer's

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2 Transcript of Evidence ("T.E."), August 8, 1985, page 33.

3 T.E., page 29.

consumption would grow when availability is increased. Accordingly, an increase in consumption would generate an increase in revenue. Although Kentucky-American made no adjustments to revenues in conjunction with the committed construction, it has, contrary to Mr. Edens' hearing testimony, adjusted for some of the expenses associated with this construction. In this filing Kentucky-American has increased depreciation expense, property tax expense, and deferred income taxes to match the inclusion of the committed construction in the rate base. A basic accounting principle is the matching principle which dictates that revenues and expenses should be matched and allocated to the proper accounting period. If Kentucky-American intends to recognize expenses associated with this construction in both current and future periods then it must also recognize the fact that this asset will contribute to the generation of revenue, and appropriately match these revenues and expenses.

By using a historical test year, the Commission already recognizes some mismatch in capital and earnings by using end-of-period capital while at the same time accepting in most instances average revenues and expenses incurred throughout the test year. To further extend this mismatch of capital and earnings by adding post test-year capital and expenses without a full analysis of all operations at the date the capital is added is not appropriate. To include capital additions added outside the historical test year would require a forecasted or future test year that would take into account all operating factors at some future time. The Commission considers the use of a future test year to be undesirable since historical data generally provide more reliable results. For these reasons, Kentucky-American's proposed adjustment to capital and expenses due to $3,365,786 in committed construction is denied.

KENTUCKY RIVER STATION TREATMENT FACILITIES

In this case Kentucky-American has proposed inclusion of the portion of costs of the Kentucky River Station expansion program that was disallowed in Case No. 8571[4] in the amount of $903,037. Inclusion of the additional plant in rate base at this time is based primarily on the demand for water projected by Kentucky-American. Mr. Young has chosen to use the Base Forecast Plus Potential Outlying Regions, which would yield a demand of 59.5 million gallons per day ("MGD") in 1990. This forecast includes the demands of the Urban County and service to adjacent counties. From an engineering perspective Mr. Young believes that all the Kentucky River Station should now be included in rate base because Kentucky-American's demand projections show that all treatment plant capacity will be required to meet projected demand by 1990. In his opinion, availability of treatment plant capacity 4 years prior to actual need is within a reasonable planning zone from an engineering perspective.[5]

The Commission has had a continuing concern about the need for this expansion, in particular Phase Two of the expension.

4 In the Matter of Notice of Adjustment of the Rates of Kentucky-American Water Company Effective On and After September 17, 1982.

5 T.E., pages 119-120.

Phase Two consisted of constructing two additional purification units to increase capacity an additional 8 MGD to 40 MGD. In granting the certificate in Case No. 7757,[6] the Commission put Kentucky-American on notice that "the cost of unreasonable, excessive plant capacity may be excluded from consideration in the Utility's future applications for rate adjustments."[7]

In Case No. 8571, the Commission based its decision to exclude a portion of the costs of the Kentucky River Treatment Plant on the capacity of the transmission system. The Commission concluded that the portion of the treatment capacity which exceeded transmission capacity was excessive. Mr. Edens indicated that Kentucky-American's original plans included construction of a 36-inch transmission main from the plant to the central distribution system in 1981.[8] Due to lower growth in demand for water, however, the decision was made to defer construction of this transmission line until "around 1987."[9] In Case No. 8571, the Commission found that Kentucky-American's decision to defer construction of the transmission line until at least 1987 was reasonable and appropriate. In this case, Kentucky-American's consulting firm, Camp, Dresser and McKee, Inc., ("CDM") has revised its water demand projections downward since those used in

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6 Application of Kentucky-American Water Company for a Certificate of Convenience and Necessity Authorizing Expansion of the Kentucky River Station.

7 Order, Case No. 7757, entered June 6, 1980, page 3.

8 Order, Case No. 8571, entered February 17, 1983, page 5.

9 Ibid.

Case No. 8571. The letter from CDM states, "Our results show water demands that are slightly lower than originally forecast (2 MGD lower for the year 2000); the reduction is solely attributable to the lower population projections."[10] This information adds increased support to Kentucky-American's decision to defer installation of the 36-inch transmission line.

As for Kentucky-American's demand forecasting methods, the Commission is encouraged by the progress that the company has made in improving its forecasting techniques within the Urban County service area through its use of the Urban Studies Center population projections and the transition Water Demand Model.

However, the Commission is concerned about the procedures used to develop the projected demand for the potential outlying regions. The Commission reviewed the current service contracts and Kentucky-American's basis for projections of water demand in the potential outlying regions. The Commission also considered data provided by Kentucky-American's consulting firm, CDM, on water demand by other counties.[11]

In reviewing this information the Commission noted a number of weaknesses and inconsistencies in Kentucky-American's approach to forecasting demand outside the Urban County. In his prefiled testimony Mr. Young states that "Versailles, South Woodford District, Spears Water District and South Elkhorn Water District have either negotiated agreements for additional purchased water

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10 Staff Request No. 2, Item 6.

11 *Ibid*.

or may have contracts negotiated in the future."[12] In a data request and during the hearing Mr. Edens was asked to provide more detailed information on these contracts and the projected demand. Mr. Edens stated that the proposed contract with Versailles does not include any criteria on the volume of water that Versailles will use.[13] In Mr. Eden's words, "they are not obligated to take any water."[14]

During the hearing Mr. Edens indicated that he was not aware that South Woodford District had applied for a Certificate of Convenience and Necessity in Case No. 9344 for Commission approval to construct new water distribution facilities, issue securities, and increase water rates. Despite this application, he thought the possibility still existed that South Woodford might approach Kentucky-American in the future.[15] Mr. Eden's testimony indicated that he based his projected 10-fold increase in water demand by Spears on a telephone inquiry.[16] With regard to South Elkhorn, Mr. Edens stated that he projected additional growth based on a visual inspection and the filing of an application by the district for federal funds for system expansion.[17]

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12 Young Testimony, page 10.

13 T.E., page 41.

14 T.E., page 43.

15 T.E., page 44.

16 T.E., page 45.

17 T.E., page 46.

In summary, the record indicates the projected demand by Versailles is overstated. The potential contract with the South Woodford District and the projected 10-fold increase in demand by Spears are speculative. The basis for the increase in demand by the South Elkhorn District is weak.

Of additional concern to the Commission is the lack of coordination or sharing of information among the parties involved in the development and use of the projection data for adjacent counties. In his testimony Mr. Young stated that he was not responsible for developing demand projections and that he relies on Mr. Edens to obtain that information.[18] After he receives the data, he determines the necessary system capacity to meet the demand as established by Mr. Edens.[19] Mr. Edens' testimony indicated uncertainty about whether projected demand by Midway was included in the forecasting information accompanying Mr. Young's testimony.[20] Mr. Young's testimony indicated that demand by Midway is included[21] at Mr. Edens' direction.[22]

After reviewing the demand projections for other counties prepared for Kentucky-American by CDM, it appears that Kentucky-American is repeating the mistakes of the past. For example, CDM projects a water demand of 0.04 MGD in 1990 by the Spears

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18 T.E., page 135.

19 T.E., page 136.

20 T.E., page 52.

21 T.E., page 135.

22 T.E., page 136.

District. Mr. Edens is projecting an increase in water demand by the Spears District of 0.3 MGD by 1986.

In view of the emphasis the Commission has placed on improving forecasting methods within the Urban County service area, the Commission is disappointed by the weak basis for Mr. Edens' demand projections for outlying regions, by the unquestioning reliance of Mr. Young on Mr. Edens' projections, and by the rejection by Kentucky-American of the CDM projections for the outlying regions. For these reasons the Commission considers that portion of the forecast unreliable. The Commission concludes that the record in this case does not support the use of the Base Forecast Plus Potential Outlying Regions. The Commission rejects it as a basis for projecting water demand in the adjacent counties and as justification for including the remainder of the Kentucky River Station in rate base at this time.

In the record of this case, Kentucky-American also presented information on the relationship of maximum daily demands to treatment plant capacity for major water utilities in Kentucky.[23] Information was presented for four municipally owned systems. The ratio of Maximum Demand Day to Plant Capacity ranged from 17.6 for Frankfort to 52.4 for Louisville.[24] During the hearing Mr. Young said, "From an engineering standpoint and from a reliability standpoint, I don't think there is any need to

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23 Young Testimony, pages 11 and 12.

24 Ibid.

differentiate between a municipal system and an investor owned system."[25] Mr. Young concludes his statement by saying, "Kentucky-American has significantly less reserve capacity than a number of other water systems." The ratio of Maximum Demand Day to Plant Capacity for Kentucky-American is 17.4.[26] The Commission does not consider comparisons with municipally owned systems an appropriate basis for allowing additional reserve capacity into Kentucky-American's rate base at this time. Municipally owned water supply systems use different planning criteria than investor-owned systems, which makes this comparison inappropriate.

The Commission finds that Kentucky-American has not revised its plans concerning the construction of the 36-inch transmission line and thus treatment capacity at the Kentucky River Plant continues to exceed transmission capacity. In addition, the reduction in population projections for the Urban County by the Urban Studies Center and the resulting reduction in projected water demand indicate that the existing treatment plant capacity of 59.5 MGD will not be needed until the 1990's. The Commission finds that the demand forecast for the potential outlying regions is overstated. For these reasons the Commission has chosen to continue the exclusion of a portion of costs of the Kentucky River Station.

The Commission accepts Mr. Young's proposed demand period of 4 years in the future as a reasonable planning zone for

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25 T.E., page 154.

26 Young Testimony, page 11.

determination of needed treatment plant capacity. The use of this planning period and CDM's base forecast would produce a Maximum Day Demand of approximately 57 MGD by 1990. Treatment plant capacity of this magnitude would be adequate to meet Kentucky-American's historical peak of 51 MGD and to allow sufficient reserve treatment plant capacity to handle operational contingencies. In addition, a portion of the reserve capacity would be available for increased sales to outlying regions. Mr. Young testified that Kentucky-American can transmit, and in fact has transmitted, 37 MGD from its Kentucky River Station by hydraulically exceeding the rated 34 MGD capacity of the transmission main. Kentucky-American, therefore, can use at least 37 MGD of the Kentucky River Station's existing 40 MGD capacity during peak demand periods.

For these reasons the Commission has determined that 3 MGD of the 6 MGD treatment plant capacity removed in Case No. 8571 is reasonably necessary to provide adequate and efficient service at this time. As it did in Case No. 8571, the Commission finds it reasonable to require Kentucky-American's ratepayers to share the costs of the resulting 3 MGD excess treatment plant capacity with the shareholders. In that case the Commission determined that the cost of the excess capacity equated to $301,013 per MGD. The Commission continues to believe that calculation is accurate and thus the cost of the 3 MGD capacity found to be excessive in this case is determined to be $903,039. For stockholders and ratepayers to share this cost equally, $451,519 must be removed from the rate base proposed by Kentucky-American.

The record in this case, in Case No. 9360,[27] and in Case No. 9359,[28] indicates that Kentucky-American intends to expand its service area outside the Urban County. The Commission commends Kentucky-American for pursuing the goal of serving as a regional water supplier. The Commission encourages Kentucky-American to pursue supply contracts with the adjacent districts as a way of using its excess treatment capacity and as an efficient method of providing basic water service within the region. But as a leader in Kentucky in the development of a regional water supply system, Kentucky-American must also look at the accompanying issues that this objective raises for the Commission. These issues include equity in cost allocation of treatment plant capacity and distribution capacity among service areas. The Commission is also concerned about the appropriate rate design for customer classes outside the Urban County. Kentucky-American should be aware that the cost allocation and rate design method approved for the Urban County will not automatically be considered appropriate by the Commission for service to other counties.

The Commission notes that in this case Kentucky-American attempted to justify inclusion of the entire Kentucky River Treatment Plant in rate base by using projected demand for other

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27 Application of Kentucky-American Water Company for a Certificate of Public Convenience and Necessity Authorizing the Construction of 9,800 Feet of 16-inch Water Main to Serve the City of Versailles, Kentucky.

28 Application of Kentucky-American Water Company for a Certificate of Public Convenience and Necessity Authorizing the Construction of an 8-inch Distribution Main and Related Facilities to Serve Midway, Kentucky.

counties, but did not include associated revenues. The Commission considers it inequitable for Kentucky-American to charge the customers within the Urban County for the costs of the excess Kentucky River Treatment Plant and not use the revenues from customers in other counties to offset these costs. The Commission expects Kentucky-American to fulfill its commitment to base its demand projections in the next rate case on the meter-route-specific model.[29] The Commission also expects Kentucky-American to improve its methods of forecasting the demand by other counties and submit recommendations on the most equitable methods of cost allocation and the appropriate rate design for service to these areas.

VALUATION METHODS

Net Investment

Kentucky-American proposed a net investment rate base at December 31, 1984, of $48,528,691 including estimated committed construction beyond the end of the test period. Amendments to the original application reflecting the actual cost of the committed construction reduced the proposed rate base to $48,236,163.[30] The Commission has accepted the proposed rate base with the following exceptions.

The major exception that the Commission takes to the rate base as proposed is the inclusion of $3,365,786 of committed construction and $903,037 of the cost of Kentucky-American's

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29 T.E., pages 149-151.

30 Updated Exhibit 4, Schedule 3.

Kentucky River Station. The Commission has disallowed $451,519 of the Kentucky River Station and all the committed construction. Concurrent adjustments have been made to the proposed rate base to reflect related changes to the depreciation reserve on the committed construction, the Kentucky-River Station, and deferred federal and state taxes of $57,631, $18,850 and $48,844, respectively. These issues are discussed in detail in other sections of this Order. In addition the cash working capital allowance of $1,295,000 proposed by Kentucky-American has been reduced by $36,000 to reflect Commission adjustments to Kentucky-American's proposed operation and maintenance expenses.

The Commission has determined Kentucky-American's net investment rate base at December 31, 1984, to be as follows:

Utility Plant in Service	$65,992,531
Construction Work in Progress	403,570
Prepayments	24,189
Materials and Supplies	288,177
Deferred Tank Painting	225,926
Cash Working Capital	$ 1,259,000
Subtotal	$68,193,393
Less:	
Reserve for Depreciation and Amortization	$ 9,798,814
Customer Advances for Construction	2,281,241
Contributions in Aid of Construction	4,165,866
Deferred Federal and State Taxes	5,231,995
Unamortized Investment Tax Credit	262,689
Subtotal	$46,452,788

Adjustment for Excess Capacity in the Kentucky River Station	432,669
Net Original Cost Rate Base	$46,020,119
Less:	
Plant Acquisition Adjustment	1,511,936
Net Investment	44,508,183

Capital

Kentucky-American is a wholly-owned subsidiary of American Water Works Company, Inc. ("American"). Kentucky-American proposed to use its actual end-of-period capital adjusted for proposed issues of common equity and long-term debt to be issued late in 1985. In Case No. 9387,[31] the Commission authorized Kentucky-American to issue $2,000,000 of common stock to its parent, American, and $3,000,000 of long-term debt to Provident Life and Accident Insurance Company. In addition, Kentucky-American proposed to reduce the stated levels of its long-term debt and preferred stock by the balance of unamortized debt expenses and sinking fund provisions. Kentucky-American also proposed to reduce its capitalization for expected capital expenditures to be funded by the proposed 1985 financing not included in the rate base, and property held for future use.

31 Application of Kentucky-American Water Company for an Order Authorizing the Issuance and Sale of Its General Mortgage Bonds, 10.875% Series Due September 1, 1995, In the Principal Amount of $3,000,000.00 and for the Issuance and Sale of 81,364 Shares of Common Stock for a Consideration of $2,000,000.00.

These adjustments to Kentucky-American's end-of-period capital resulted in an adjusted capitalization of $48,514,840 including Job Development Investment Tax Credits ("JDIC") of $2,179,964.[32]

Consistent with the Commission's Order in Case No. 8836,[33] Mr. Larkin reinstated the unamortized expenses of $278,957 associated with Kentucky-American's long-term debt and preferred stock resulting in a capitalization of $48,793,797.

The Commission, concurrently with the adjustments made to the rate base for committed construction and the Kentucky River Station, has reduced Kentucky-American's capitalization by $3,669,262[34] and $451,519. This results in an adjusted capitalization of $44,673,016. During examination of Kentucky-American's proposed capital, the Commission noted, and Kentucky-American agreed, that JDIC had been overstated by $7,000. Therefore, Kentucky-American's proposed capitalization has been reduced by this amount. Thus, the Commission has found the reasonable level of capitalization for Kentucky-American at the end of the test period to be $44,666,016.

In further calculations, the Commission assigns the overall cost of capital to JDIC as required by Section 46 of the Internal Revenue Code. This treatment is consistent with decisions in

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32 Exhibit No. 5, Schedule 1.

33 Notice of Adjustment of the Rates of Kentucky-American Water Company.

34 The original estimate is used due to the fact that when the revised filing was made, Kentucky-American made no adjustments to capital.

previous Kentucky-American Orders, Orders in other utilities' cases and a recent decision by the Supreme Court of Kentucky.[35]

Discussion

In this case as in previous cases, Kentucky-American's capitalization exceeds its rate base. As was the case in Kentucky-American's previous rate proceeding, temporary cash investments are the apparent reason for capital exceeding rate base, although, as Mr. Edgemon stated during cross-examination there may be many reasons for these differences.[36] However, Kentucky-American's temporary cash investments for the test period averaged approximately $1.1 million and Kentucky-American earned interest income of $160,588.[37]

Based on these facts, the Commission is of the opinion that Kentucky-American's capitalization may be supporting, to some degree, temporary cash investments. Mr. Edgemon agreed during cross-examination that a return should not be awarded on temporary cash investments.[38]

The Commission, therefore, is of the opinion that in this instance net investment rate base is the appropriate measure of Kentucky-American's investment in utility operations on which to

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35 Public Service Commission of Kentucky v. Continental Telephone Company of Kentucky, Ky., -- S.W. 2nd --, rendered July 3, 1985.

36 T.E., page 110.

37 T.E., pages 112-113.

38 T.E., pages 113-114.

base revenue requirements necessary to produce the rate of return allowed herein.

REVENUE AND EXPENSES

Kentucky-American had net operating income of $4,463,243 for the test period.[39] In order to reflect more current operating conditions, Kentucky-American proposed in its filings several adjustments to its test period revenues and expenses which resulted in an adjusted net operating income of $4,169,587.[40] The Commission is of the opinion that the proposed adjustments are generally proper and acceptable for rate-making purposes with the following exceptions:

Depreciation Expense

Kentucky-American reported test-year depreciation expense of $918,348.[41] Adjustments to this figure resulted in a proposed level of depreciation expense of $1,195,887. Included in this amount are adjustments for changes in depreciation rates granted by this Commission in Case No. 9093.[42] Also included is depreciation expense on $3.3 million of committed construction and $451,519 of costs related to the Kentucky River Station. As discussed in other sections of this Order the Commission is, in part, disallowing the inclusion of these two items in Kentucky-

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39 Updated Exhibit 4, Schedule 1.

40 Ibid.

41 Ibid.

42 Application of Kentucky-American Water Company for Certification of Depreciation.

American's proposed rate base, and has adjusted the proposed depreciation expense accordingly. The Commission has reduced Kentucky-American's depreciation expense by $57,631[43] to reflect depreciation on committed construction and $9,030[44] to reflect depreciation on excess plant capacity related to the Kentucky River Station. These adjustments result in a reduction to depreciation expense in the amount of $66,661, or an increase to net operating income of $33,387.[45]

In its review of Kentucky-American's proposed depreciation expense the Commission noted that tank painting had been included as a line item. Since this particular line item was not included in the depreciation rates approved in Case No. 9093, the Commission advises Kentucky-American that tank painting should not be included as part of the determination of depreciation expense, but rather included as part of the amortization expense in order to maintain continuity with the remaining life depreciation rates approved in Case No. 9093.

Property Taxes

By adjusting property taxes Kentucky-American proposed an increase in operating expenses amounting to $26,806. Kentucky-American proposed to include in its property tax base both the committed construction and the $451,519 costs associated with the

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43 Updated Exhibit 4, Schedule 17.

44 $451,519 x 2% = $9,030 (2% is the rate applicable to treatment plant).

45 The Commission has determined an income factor of .50085 based on state and federal tax rates of 7.25% and 46%, respectively.

Kentucky River Station. The Commission has denied Kentucky-American's proposals to include these items in the rate base. Accordingly, the Commission has decreased Kentucky-American's operating expenses by $31,364 with adjustments to property taxes pertaining to the disallowed items of plant. This adjustment results in an increase to net operating income of $15,709.

Amortization of Investment Tax Credit

Kentucky-American proposed a level of $52,768 for amortization of investment tax credit ("ITC"). Included in this figure was an amount for amortization of ITC associated with committed construction. The Commission has made an adjustment reducing this level of amortization by $3,798 to reflect the Commission's decision to disallow inclusion of the committed construction in the rate base.[46] As stated earlier, Kentucky-American was allowed to increase its composite depreciation rate in Case No. 9093. Mr. Larkin, in his prefiled testimony, proposed an adjustment to increase the amortization of ITC to reflect the shortened service lives allowed in Case No. 9093. Mr. Larkin proposes an increase of 26 percent in the amortization rate, effecting an increased ITC flowback of $6,798.

Kentucky-American's accounting witness, Mr. Grubb, testified at the hearing that Kentucky-American had not made this adjustment and he would accept Mr. Larkin's proposal. The Commission agrees with Mr. Larkin that such an adjustment should be

46 Exhibit 4, Schedule 25.

made and has accepted the proposed adjustment. These adjustments to ITC result in an increase to net operating income of $3,000.

Salaries and Wages

Kentucky-American proposed to increase salaries and wages by $226,976, to reflect increases of 5 percent to union personnel effective prior to the end of the test year, to reflect increases of 5 percent to non-union personnel effective prior to the hearing, and to reflect the inclusion of two additional employees.[47] The Commission has accepted the proposed adjustment with the exception of the additional employees.

Kentucky-American proposes to hire an additional engineer at a charge to operating expense of $14,000 annually and a manager trainee at an annual salary of $22,000. At the hearing Mr. Edens testified that the engineer had been on staff for 6 weeks to 2 months and that the manager trainee was not on staff but anticipated the hiring by October 1, 1985.[48]

It is the Commission's opinion that since the hiring of the engineer took place well beyond the test period and the hiring of the manager trainee is to be beyond the hearing date, the proposal to include the costs associated with these employees should be rejected. The Commission concludes that at the end of the test period the hiring date of both these employees was speculative, and indeed at the date of the hearing the hiring date of the manager trainee was still unknown. While the engineer was hired

47 Exhibit 4, Schedule 5.

48 T.E., pages 52, 53.

prior to the hearing date this represents a new position rather than a replacement in an existing position. The Commission is concerned that Kentucky-American has chosen to include only the salary expense of these new employees in its pro forma operations and not the impact that the employees will have on income, whether represented by actual revenue contributions or increased productivity gains to Kentucky-American's overall operations. This results in a mismatch of revenues and expenses; thus the Commission has excluded this proposed wage expense for rate-making purposes. The Commission also notes that the duties of these employees appear to be duplications of duties presently performed by outside consultants or affiliated companies. The Commission is aware that the impact of this adjustment on net income is minimal; however, it is necessary to consistently apply an important accounting and rate-making principle. Therefore, the Commission has reduced Kentucky-American's operating expenses by $36,000. Furthermore the Commission has reduced associated payroll taxes by $2,874. This results in an increase to operating income of $19,470.

Non-recurring Expenses

Mr. Larkin in his prefiled testimony concluded that Kentucky-American had included in its operating and maintenance expenses three items of expense that were of a non-recurring nature.[49] The Commission concurs with Mr. Larkin that these items should be amortized over future periods, and has reduced Kentucky-

49 Larkin Testimony, page 16.

American's operating and maintenance expenses by $97,050. This results in an increase to net operating income of $48,607 through adjustments to the following expense items:

Roof Repairs

Kentucky-American reported expenditures for roof repairs totaling $72,301 for the test year. During 1983 Kentucky-American made no expenditures for roof repairs.[50] Mr. Grubb testified at the hearing that these items were of a recurring nature because Kentucky-American planned more roof repair during the 15 months subsequent to the date that any new rates would go into effect. The estimated expenditures for these future roof repairs are $41,424.[51]

While the Commission accepts the probability that Kentucky-American will incur additional roof repair expenses subsequent to this Order, it does not believe that this supports the argument that these expenses are of a recurring nature. The Commission can only assume that since Kentucky-American had no expenditures for roof repairs during the 12 months preceding the test period and proposes significant expenditures in the 15 months subsequent to this Order, Kentucky-American has embarked upon a program of roof repair. This would, therefore, necessitate normalization over some period of time.

The Commission is of the opinion that for rate-making purposes these expenditures are non-recurring and should be

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[50] Staff Request No. 2, Other Item 1.

[51] T.E., pages 86-87.

amortized over a 3-year period and has reduced Kentucky-American's maintenance expenses by $48,201.

Main Cleaning

Kentucky-American incurred an expenditure of $40,372 for main cleaning during the test period. Kentucky-American reported that prior to the test period no main cleaning had taken place since 1968.[52] Mr. Grubb testified that Kentucky-American plans additional expenditures of $35,126 for main cleaning within 15 months after the date of this Order.[53] The Commission is of the opinion that these expenditures are non-recurring in nature and for rate-making purposes should be amortized over a 5-year period, thus reducing Kentucky-American's maintenance expenses in the amount of $32,298. The Commission has chosen the longer period in this instance due to the lapse of 16 years since this expense was last incurred.

Overhaul of Air Conditioning System

Kentucky-American had expenditures of $20,689 for a major overhaul of an air conditioning system. The Commission is of the opinion that this expenditure is non-recurring in nature and will benefit future periods. For rate-making purposes the expenditure should be amortized over a 5-year period. This results in a reduction to maintenance expenses of $16,551.

Kentucky-American's accounting witness, Edward J. Grubb, was questioned extensively by the Commission concerning the costs

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52 Larkin Testimony, page 15.

53 T.E., page 87.

associated with roof repair, main cleaning and air conditioning overhaul. The Commission does not take exception to the propriety of these expenditures, only the accounting treatment.

Service Company Expenses

Kentucky-American reported test year service company expenses of $700,836.[54] This figure represents an increase over the previous year of 11.53 percent. Urban County objected to this increase in service company expenses and Mr. Larkin took exception to the increase alleged by Kentucky-American. In both his prefiled testimony and his testimony at the hearing Mr. Larkin insisted that the correct increase was approximately 24 percent. At the hearing Kentucky-American introduced a revised schedule of service company charges (Grubb-Exhibit 3). Kentucky-American made adjustments to the 1983 service company billings to allocate expenses from the Authorizations and Maintenance account to the specific service categories deemed appropriate. Kentucky-American used this exhibit to support its contention that service company charges increased only 11.53 percent.

In responses to data requests by both the Commission and Urban County, Kentucky-American stated that the major reason for the increase in service company charges was increased management fees that resulted primarily from a reorganization among American and its subsidiaries, which allowed certain corporate officers to devote more time to each subsidiary. Kentucky-American also stated that the cost of American's office space increased from

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54 Staff Request No. 1, Item 45(c).

$5.08 per square foot to $9.89 per square foot and that some subsidiaries would show increases while others would show decreases.[55]

It is the Commission's opinion that an 11 percent increase is excessive, given the fact that the Consumer Price Index rose only 3.55 percent during the test year. However, the Commission realizes that most of the service company expenses are labor-related and will allow an increase in these expenses comparable to wage increases given by Kentucky-American to its employees. In 1984 Kentucky-American's average wage increase for employees was approximately 5 percent. Therefore, the Commission is allowing service company expenses of $659,824, a 5 percent increase over 1983. This results in a reduction of $41,012 to Kentucky-American's operation expenses, for an increase to net operating income of $20,541.

The Commission is aware of the fact than in a corporate reorganization, such as American has undertaken, additional costs will be incurred. However, these costs should be nonrecurring, and the Commission expects to see a substantial reduction in future service company expenses as a result of more efficient management and productivity gains. The Commission is concerned about the rate of increase in these expenses, and they will be the subject of close scrutiny in future rate cases.

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55 Staff Request No. 3, Item 9.

Charitable Contributions

Kentucky-American included in its operating expenses charitable contributions in the amount of $1,450. Kentucky-American did not demonstrate that ratepayers benefited from the contributions. In accordance with past practice, the Commission is of the opinion that these expenses should properly be borne by Kentucky-American stockholders. Thus the Commission has increased Kentucky-American's operating income by $726 in disallowing these expenditures.

Rate Case Expenses

Kentucky-American has estimated rate case expenses for this proceeding at $86,000. Kentucky-American proposed to amortize this expense over a 15-month period because it considers that to be the estimated life of the rates in this case.

The Commission disagrees with Kentucky-American's proposal to amortize the rate case expenses over a 15-month period. Kentucky-American can only speculate as to the life of the rates from this or any other case. It is the Commission's opinion that the rate case expenses be amortized over a 3-year period and it has accordingly reduced Kentucky-American's operating expenses by $40,133. This results in an increase to net operating income of $20,101.

Although the Commission has accepted the estimated level of rate case expenses in this case, it wishes to again express concern over the level of this expense. Estimated expenses for this case represent an increase of approximately 7.5 percent over Case

No. 8836. In future rate cases Kentucky-American must demonstrate that it is doing everything possible to minimize these costs.

Allowance For Funds Used During Construction ("AFUDC")

Kentucky-American reported $17,365 for AFUDC during the test period. Consistent with prior Orders of the Commission, Kentucky-American made an adjustment to transfer this amount to net operating income. Kentucky-American also included this amount in its income tax calculation, however, which erroneously reduced net operating income by $8,668, since AFUDC is not recognized for tax purposes. Therefore, the Commission has increased Kentucky-American's adjusted net operating income by $8,668.

In addition, Kentucky-American had construction work in progress ("CWIP") eligible for the computation of AFUDC at the end of the test period of $270,531. The Commission is of the opinion that AFUDC should be adjusted to match Kentucky-American's rate base and net operating income. Thus, the Commission has assigned the overall cost of capital of 10.85 percent to the end of period CWIP eligible for AFUDC for an adjusted level of $29,353. This results in an increase to net operating income of $11,988.

Interest Synchronization

Kentucky-American proposed interest expense for tax purposes of $2,643,565 based on its proposed level of debt and proposed cost of debt.[56] Mr. Edgemon stated in his direct testimony that he had chosen to assign the overall rate of return

56 Updated Exhibit 4, Schedule 22.

to JDIC.[57] However, Kentucky-American's adjusted level of interest expense does not recognize any adjustment for the debt portion of JDIC. Therefore, the Commission, consistent with its past Orders, has determined interest expense based on the net investment rate base found reasonable herein to be $2,536,326.[58] This results in a decrease to net operating income of $53,528.[59]

Capital Structure

Mr. Edgemon recommended an adjusted end-of-test year capital structure containing 56.65 percent long-term debt, 7.24 percent preferred stock, 4.34 percent JDIC and 31.77 percent common equity.[60] Mr. Edgemon included in his capital structure an adjustment for $5 million of a proposed issuance of common stock and general mortgage bonds. Mr. Larkin recommended an adjusted end-of-test year capital structure using the amount of capital outstanding rather than the carrying amount. He recommended 59.31 percent long-term debt, 7.68 percent preferred stock, and 33.01 percent common stock.[61]

The Commission is of the opinion that the amount outstanding rather than the carrying value of long-term debt and preferred stock should be used in determining the capital structure. Mr. Edgemon's adjustments to include the $5 million of financing

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57 Edgemon Testimony, page 9-10.

58 $44,508,183 X .5936 X .096 = $2,536,326.

59 $107,239 X .49915 = $53,528.

60 Exhibit 5, Schedule 1, page 1.

61 Larkin Testimony, page 3.

beyond the test year are reasonable, and are included in the capital structure approved by the Commission, which is as follows:

Long-Term Debt	59.36%
Preferred Stock	7.74%
Common Stock	32.90%
	100.00%

RATE OF RETURN

Cost of Capital

Kentucky-American proposed a 9.86 percent rate based on carrying value for long-term debt and a 7.29 percent rate based on net proceeds for preferred stock.[62] Mr. Larkin recommended a cost of capital of 9.78 percent for long-term debt and 7.15 percent for preferred stock, using outstanding rather than carrying values.[63] The Commission is of the opinion that the rates should be based on the amounts outstanding and, therefore, finds a rate of 9.6 percent reasonable for long-term debt and a rate of 7.02 percent reasonable for preferred stock. The Commission's embedded cost of long-term debt includes the 10.875 percent interest rate on the $3 million bond issuance. The Commission's embedded cost of preferred stock does not include sinking fund requirements, as do Mr. Edgemon's and Mr. Larkin's cost of preferred stock.

Mr. Edgemon proposed a 15.5 percent return on equity and supported that recommendation with a discounted cash flow ("DCF")

62 Exhibit 5, Schedule 1, page 1.

63 Larkin Testimony, page 3.

analysis and the capital asset pricing model ("CAPM").[64] He performed the DCF analysis using a composite of seven water utilities with regularly traded stock, as well as two additional smaller companies. The DCF analysis of the first seven companies resulted in a required return of 16.45 percent.[65] The required return using the two smaller companies was 18.54 percent.[66] Of the seven companies Mr. Edgemon used as his primary basis of comparison to Kentucky-American, United Water Resources, which has the highest historical dividend growth rate of the composite, was identified by Value Line as a company whose market price and dividend yield have been inflated by speculation in undervalued land holdings.[67] The two smaller companies, Southwest Water Company and Dominguez Water Corporation, are both publicly held but not actively traded. Both companies have so few stockholders that their stocks cannot have true market-determined values and are, therefore, not appropriate to use in a DCF analysis.

Mr. Edgemon's CAPM resulted in a required return of 14.44 percent.[68] Using the current 6-month treasury bill rate, the CAPM calculated cost of equity is lower.

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64 Edgemon Testimony, page 16.

65 Edgemon Testimony, page 16.

66 Edgemon Testimony, page 14.

67 Value Line, April 26, 1985.

68 Edgemon Testimony, page 14.

Mr. Larkin did not present rate of return testimony but recommended that the Commission assign Kentucky-American the same cost of common equity as in Case No. 8836.[69]

Kentucky-American derives certain benefits from its subsidiary relationship with American, such as a ready market for its common equity. The Commission is of the opinion that the risk of Kentucky-American does not warrant the return on equity that Mr. Edgemon recommends. Therefore, after having considered all the evidence including current economic conditions, the Commission is of the opinion that a return on common equity in the range of 13.5 to 14.5 percent is fair, just, and reasonable. A return on equity in this range will not only allow Kentucky-American to attract capital at reasonable costs to ensure continued service and provide for necessary expansion to meet future requirements, but will also result in the lowest possible cost to the ratepayers. Within this range of returns, the Commission finds that a return on common equity of 14 percent will allow Kentucky-American to meet its operating expenses and best attain the above objectives.

Rate of Return Summary

Applying rates of 14 percent for common equity, 7.02 percent for preferred stock, and 9.6 percent for long-term debt to the capital structure approved herein produces an overall cost of capital of 10.85 percent. The additional revenue granted will provide a rate of return on net investment of 10.85 percent. The

69 Larkin Testimony, page 4.

Commission finds this overall cost of capital to be fair, just, and reasonable.

Authorized Increase

The required net operating income, based on a rate of return on net investment of 10.85 percent found fair, just, and reasonable herein, is approximately $4,829,138. To achieve this level of operating income, Kentucky-American is entitled to increase its rates and charges to produce additional revenues on an annual basis of $1,061,127 determined as follows:

Adjusted Net Operating Income	$ 4,298,256
Net Operating Income Found Reasonable	$ 4,829,138
Operating Income Deficiency	$ 530,882
Deficiency Adjusted for Income Taxes and P.S.C. Fees[70]	$ 1,061,127

COST OF SERVICE

As in prior cases before the Commission, Kentucky-American filed a cost-of-service study in this case. The study is an updated version of a study by Burgess and Niple, Limited, Engineers and Architects, originally filed in Case No. 8571, as a result of a Commission Order in Case No. 8314[71] and is based on a base-extra demand approach to cost allocation.

Any type of cost-of-service study will employ certain assumptions. These assumptions may lead to disagreements, as they have in this case between Kentucky-American and the Urban County. The Kentucky-American study assumes that "the primary purpose of

70 $530,882 ÷ .5003

71 Notice of Adjustment of Rates of Kentucky-American Water Company.

the water system is to provide general water service. Fire service is an added benefit that can conveniently be provided."[72] This assumption leads to allocations of costs associated with fire hydrants, as well as other investment and common operating expenses, that the Urban County finds objectionable.

A cost-of-service study is a guide to rate structure and pricing. That is, it provides an objective basis on which to deviate from historical or non-cost based revenue allocations or to implement changes in rate design. In addition to cost-based rate design, which should promote economic efficiency, the Commission must consider other regulatory objectives, such as equity, rate continuity, and rate understandability. These additional considerations allow the Commission to mitigate adverse economic impacts that may result from strictly cost-based rate design.

In the case of the Urban County, implementation of strictly cost-based fire protection service rates would have an adverse economic impact on the Urban County. Therefore, the Commission will continue its past practice of a gradual implementation of cost-based fire protection service rates.

The Commission finds the updated cost-of-service study filed by Kentucky-American in this case to be a reasonable study in that it provides a reasonable basis for rate design, except as discussed above and elsewhere in this Order.

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72 Ober Testimony, page 7.

RATE DESIGN

Cost of Service Adjustments

In the prefiled testimony of John Ober, Kentucky-American proposed a cost-of-service adjustment for 8-inch and smaller distribution mains. Specifically, Kentucky-American reallocated costs associated with 8-inch and smaller mains from industrial customers to residential and commercial customers. The amount of the adjustment was approximately $175,000.[73]

Kentucky-American contended that this adjustment was appropriate because, as a class, industrial customers do not use significant 8-inch and smaller distribution mains.[74] At the hearing, Kentucky-American indicated that this adjustment was based on judgment and that, since Kentucky-American's system is an integrated one, industrial customers do in fact use and derive economic benefit from the presence of 8-inch and smaller distribution mains.[75]

The Commission is of the opinion that since industrial customers use and derive consumer benefit from 8-inch and smaller distribution mains, the adjustment made by Mr. Ober to Kentucky-American's cost of service is not reasonable and should not be allowed.

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73 Ober Testimony, Exhibit 7, Schedule 8.

74 Ibid., page 10.

75 T.E., page 170.

Consolidated Billing

In an information request filed with the Commission on May 31, 1985, the Urban County asked Kentucky-American to supply a list of customers that were under a consolidated billing plan. Kentucky-American submitted a list of 10 customers.[76] At the hearing, Kentucky-American indicated that the University of Kentucky was inadvertantly excluded from the list and should be included as a customer under a consolidated billing plan.[77]

Kentucky-American filed two billing calculations for each customer. The first calculated billing under the consolidated billing plan. The second calculated billing under a non-consolidated billing plan. The same information for the University of Kentucky was later provided by Kentucky-American. The combined charges for water usage under a consolidated billing plan totaled $891,635. The combined charges for water usage under a non-consolidated billing plan totaled $930,256. The combined savings for customers with multiple meters under a consolidated billing plan totaled $38,621.

In the opinion of the Commission, the savings to customers under a consolidated billing plan are <u>de minimis</u> from the standpoint of Kentucky-American's total revenues and would not significantly affect rate design. Furthermore, offering a consolidated billing plan to customers is within the boundaries of management discretion. However, Kentucky-American's rules and regulations as

76 Urban County Supplemental Data Request, Item 22.

77 T.E., page 49.

filed with the Commission are unclear on the matter of consolidated billing plans. Therefore, Kentucky-American should take action to clarify its tariff. In particular, some revision to Kentucky-American's Terms and Conditions of Billing and Payment, tariff section 23, paragraph J, appears to be in order, indicating that customers located on a campus-like premises may be eligible for a consolidated billing plan.

Fire Protection Service

Kentucky-American proposed fire protection service revenue in the amount of $1,505,809, or an increase over existing revenue in the amount of $442,652. The Commission will allow fire protection service revenue in the amount of $1,149,867, or an increase over existing revenue in the amount of $75,899. This increase is consistent with the overall increase in revenue allowed in this case.

The Urban County raised several objections to Kentucky-American's allocation of revenue requirement to fire protection service. These objections included:

1. Costs associated with hydrants should not be totally allocated to fire protection service, because such an allocation "ignores the use of fire hydrants as a source of water for construction and other projects"[78] and "ignores substantial non-fire protection benefits provided to the system by the presence and placement of fire hydrants."[79]

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78 Brief of Urban County, page 12.

79 Ibid.

2. The allocation of 11 percent of Kentucky-American's storage capacity to fire protection service should not be allowed, because Kentucky-American's cost-of-service study methodology "does not measure the amount of water needed for a particular fire event,"[80] rather, it measures "only the water supposedly available for a fire event."[81] Furthermore, according to the Urban County, the cost-of-service study "does not measure either actual fire protection needs or reserves for general water service growth."[82]

3. The allocation to fire protection service of costs associated with 10-inch and larger mains, and all mains located outside the political boundaries of the Urban County, should not be allowed.[83]

Neither the brief of Kentucky-American nor the brief of the AG directly addresses the Urban County's objections to fire protection service revenue requirement allocations.

In general, the Commission is of the opinion that the base-extra demand methodology used by Kentucky-American is a reasonable basis on which to allocate fire protection service revenue requirement. Based on the revenue authorized in this case, strict use of Kentucky-American's methodology would result in a revenue requirement allocation to fire protection service of approximately $1,308,000. As indicated above and for reasons discussed

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80 Ibid., page 14, Emphasis in the brief.

81 Ibid.

82 Ibid.

83 Ibid., pages 15-18.

elsewhere in this Order, the Commission has allocated a lesser amount of revenue requirement to fire protection service. This action should mitigate the Urban County's concern over potentially erroneous allocations of storage and distribution capacity to fire protection service. In the case of hydrant cost allocation, it is the view of the Commission that hydrants are installed primarily for fire protection service, often under requirements contained in local ordinances, and that other uses for hydrants are incidental. Recognition of these incidental uses, such as construction site service and system flushing, would not appear to substantially alter any allocation of revenue requirement to fire protection service.

The Urban County's objections to Kentucky-American's allocation of fire protection service revenue requirement involve doubts as to the validity of certain assumptions integral to Kentucky-American's cost-of-service study. The status of disagreements that may arise from assumptions contained in cost-of-service studies has been discussed elsewhere in this Order. In at least one area, however, the Commission is of the opinion that the Urban County may have a valid point. That area involves the allocation of costs associated with distribution facilities located outside the political boundaries of the Urban County to fire protection service. Therefore, the Commission advises Kentucky-American that it must address the matter of an adjustment to fire protection service for distribution facilities located outside the political boundaries of the Urban County in any future cost-of-service presentation before the Commission.

General Water Service

Kentucky-American proposed to increase general water service rates and charges in the amount of $2,295,046. The Commission will allow an increase in the amount of $985,228.

The only issue raised relative to general water service by intervenors in this case concerned Kentucky-American's proposed 10 percent reduction in its usage rate step 3. This reduction has not been allowed. In the opinion of the Commission, Kentucky-American's cost-of-service study allocated insufficient revenue requirement to usage rate step 3. The Commission's reallocation of revenue requirement results in an increase in usage rate step 3 consistent with the increases authorized in rate steps 1 and 2.

CONSERVATION

In Case No. 8314, due to discrepancies in Kentucky-American's population projections and the revised projections of the Urban Studies Center, and the failure of Kentucky-American to present tangible evidence of the necessity for the expansion of its Kentucky River treatment facilities, the Commission ordered a thorough review by an independent consulting firm. In June 1982 Energy Systems Research Group, Inc., ("ESRG") was selected to review and evaluate the decision of Kentucky-American Water Company to expand its aggregate treatment capacity by 25 percent.

As a result of recommendations in ESRG's report Kentucky-American continues to make improvements in forecasting techniques as previously discussed in this Order. In evaluating the system-planning approach used by Kentucky-American, ESRG also evaluated programs to reduce demand. These programs included the use of cost-effective conservation measures and the potential role of rate structure reform in reducing both peak and average demand. Programs for reducing demand were considered because investment in conservation programs that encourage efficient use of resources is preferable to allowing demand to grow unchecked, requiring additional costly plant investment. Programs to reduce demand as well as increase supply are increasingly common in many sectors of the utility industry. A number of utilities have developed "demand management" strategies after recognizing that investment in particular conservation measures compete favorably with the cost of increasing production.

The ESRG report included a conservation case forecast for Kentucky-American after the implementation of conservation programs. With conservation programs in place the maximum day demand for 2000 was projected by ESRG to be 53.7 MGD.[84] Kentucky-American's most recent base forecast projection for the maximum day for 2000 is 60.2 MGD.[85] Thus initiating more aggressive conservation programs now may delay the need for capital investment in treatment plant capacity in the future with resulting benefits to the ratepayers. More efficient use of Kentucky-American's product will also allow allocation of a larger portion of treatment system capacity to serve the needs of the

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84 Review of the Kentucky-American Water Company Capacity Expansion Program - Final Report by Energy Systems Research Group, Inc., October 1982 - Annex C, page 10.

85 Young Testimony, Exhibit 1.

region, and will be consistent with Kentucky-American's efforts to increase its role as a regional water supplier.

The record in this case indicates that Kentucky-American considers water conservation techniques to be an option available only to its customers. Kentucky-American has not incorporated programs to reduce demand into its system planning, nor implemented an aggressive program to encourage the efficient use of water. Mr. Edens stated, "as related to conservation, I think the efficiency simply comes from the utilization of the product by the customer."[86] Exhibits provided during the hearing indicate Kentucky-American has prepared a certain amount of literature on techniques to reduce water consumption.[87]

Testimony presented by Mr. Edens during the hearing indicates that unless there is a supply problem, management is not particularly interested in water conservation programs. According to Mr. Edens, the conservation concept "is addressed only when there is a source of supply situation and that is not the case at Kentucky-American Water Company."[88] He also stated that "until such time as there is a source of supply problem the conservation issue, up until now, has not been applicable to Kentucky-American."[89]

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86 T.E., page 21.

87 T.E., Edens Exhibit No. 2.

88 T.E., page 21.

89 T.E., page 37.

This attitude extends into Kentucky-American's choice of a declining block rate structure. In response to a data request, Mr. Edens identified the implementation of cost-based rates for water consumption as a method of encouraging water conservation. Mr. Edens stated during the hearing, "I believe that the cost itself will address the issue as to whether or not they wish to conserve." In response to the question, "Do you think the use of a declining block rate structure encourages water conservation?" Mr. Edens responded, "I don't really believe that a declining rate would necessarily encourage conservation for those people who used water in the second and/or third rate blocks. I do think though that the cost of any product has a bearing on how much you will use or how much you will purchase."[90]

In response to a question by the Urban County, Mr. Edens stated that he had not considered the impact on usage of a 10 percent reduction in the third block of Kentucky-American's rates which the company proposed.[91] Mr. Edens also stated that he has not considered a rate structure that is conservation oriented.[92] During the hearing Mr. Edens said Kentucky-American has not considered conservation as an investment control tool.[93]

The Commission notes that the ESRG Report identified conservation programs in Elmhurst, Illinois, and Lynfield Central

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90 T.E., page 38.

91 T.E., page 22.

92 T.E., page 38.

93 T.E., page 39.

Water District, Mass., that resulted in a 12 percent and a 30 percent reduction, respectively, in peak demands during the summer of 1978.[94] In addition, the U. S. Department of Housing and Urban Development has recently released a report describing the results of a 3-year study that verified the value of residential water conservation programs.[95] The record in this case indicates that Kentucky-American has made little effort to evaluate the effects on the ratepayers of programs to reduce demand as recommended by ESRG.

For these reasons the Commission directs Kentucky-American to reevaluate its role in encouraging the efficient use of water resources and to evaluate the role of programs to reduce demand in the system planning process. This evaluation should consider the costs and benefits to the ratepayers of programs to reduce demand and the effect of the programs on Kentucky-American's rates. Within 90 days of the date of this Order Kentucky-American should submit a plan detailing the process and schedule for this reevaluation. The plan shall identify the conservation programs Kentucky-American intends to evaluate, the milestones in the schedule for evaluation, and the components of the evaluation process. In preparing the plan Kentucky-American shall consider:

-- An evaluation of water conservation and curtailment programs during periods of peak demand;

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94 ESRG Final Report - Annex C, page 2.

95 NARUC Bulletin, September 10, 1984.

-- An examination of the impact on water consumption of the declining block rate structure;

-- An evaluation of alternative rate designs and their impact on the efficient use of water;

-- Development of a program to encourage the construction industry to install more water efficient plumbing fixtures and appliances;

-- Development of an aggressive public education campaign by Kentucky-American to cultivate a conservation ethic in its customers;

-- A summary of conservation programs initiated by other water companies that might be relevant to Kentucky-American's efforts; and

-- The anticipated role of the Kentucky-American Consumer Advisory Council in aggressively encouraging the efficient use of water.

The primary purpose of the report is to evaluate the costs and benefits to the ratepayers of programs to encourage water conservation and to determine the value of incorporating programs to reduce demand into the system planning process. When Kentucky-American files its next rate case, it should also file the final report.

SUMMARY

The Commission, after consideration of the evidence of record and being advised, is of the opinion and finds that:

1. The rates proposed by Kentucky-American produce annual revenues in excess of those found reasonable herein and should be denied upon application of KRS 278.030.

2. The rates allowed in this matter on a test period basis will permit Kentucky-American to cover its operating expenses, pay its interest, and provide for a reasonable dividend and a reasonable amount of surplus for equity growth.

3. The rates in Appendix A are the fair, just and reasonable rates to be charged for water service by Kentucky-American.

4. The updated cost-of-service study filed by Kentucky-American in this case is a reasonable basis for rate design.

5. The adjustment made by Mr. Ober to Kentucky-American's cost of service is not reasonable and should not be allowed.

6. Kentucky-American's rules and regulations are unclear in regard to consolidated billing, and therefore should be clarified.

7. Kentucky-American should address the matter of an adjustment to fire protection service for distribution facilities located outside the political boundaries of the Urban County in any future cost-of-service presentation before the Commission.

8. Kentucky-American's proposed 10 percent reduction in its usage rate step 3 should be denied.

IT IS THEREFORE ORDERED that the proposed rates sought by Kentucky-American be and they hereby are denied upon application of KRS 278.030.

IT IS FURTHER ORDERED that the rates in Appendix A be and they hereby are approved as the fair, just, and reasonable rates for water service rendered by Kentucky-American on and after September 19, 1985.

IT IS FURTHER ORDERED that, within 30 days from the date of this Order, Kentucky-American shall file with this Commission its revised tariff sheets setting out the rates for water service approved herein.

IT IS FURTHER ORDERED that Kentucky-American's cost-of-service adjustment be and it hereby is denied.

IT IS FURTHER ORDERED that Kentucky-American shall clarify its tariff in regard to consolidated billing.

IT IS FURTHER ORDERED that Kentucky-American shall address the matter of an adjustment to fire protection service for distribution facilities located outside the political boundaries of the Urban County in any future cost-of-service presentation before the Commission.

IT IS FURTHER ORDERED that Kentucky-American's proposed 10 percent reduction in its usage step 3 be and is hereby denied.

IT IS FURTHER ORDERED that Kentucky-American shall conduct a thorough reevaluation of its role in encouraging the efficient use of water resources by its customers and shall evaluate the role of programs to reduce demand in the system planning process.

IT IS FURTHER ORDERED that Kentucky-American shall file a preliminary plan detailing the schedule and the process it intends to use to evaluate demand reduction techniques within 90 days of the date of this Order.

IT IS FURTHER ORDERED that Kentucky-American shall file its demand reduction techniques study in its next general rate application.

Done at Frankfort, Kentucky this 1st day of October, 1985.

PUBLIC SERVICE COMMISSION

Chairman

Vice Chairman

Did not participate
Commissioner

ATTEST:

Secretary

APPENDIX A

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE COMMISSION IN CASE NO. 9283 DATED OCTOBER 1, 1985

The following rates and charges are prescribed for 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 effective 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:

	1000 Gallons Per Month	Rates Per 1000 Gallons	100 Cubic Feet Per Month	Rate Per 100 Cubic Feet
For the first	12	$ 1.22666	16	$ 0.920
For the next	588	.96266	784	.722
For all over	600	.86533	800	.649

	1000 Gallons Per Quarter	Rates Per 1000 Gallons	100 Cubic Feet Per Quarter	Rate Per 100 Cubic Feet
For the first	36	$ 1.22666	48	$ 0.920
For the next	1764	.96266	2352	.722
For all over	1800	.86533	2400	.649

SERVICE 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.

Size of Meter	Service Charge Per Month	Per Quarter
5/8"	$ 4.21	$ 12.63
3/4"	6.32	18.96
1"	10.53	31.59
1-1/2"	21.05	63.15
2"	33.68	101.04
3"	63.15	189.45
4"	105.25	315.45
6"	210.50	631.50
8"	336.80	1010.40

SERVICE CLASSIFICATION NO. 3

RATES

Size of Service	Rate Per Month	Rate Per Annum
4" Diameter	$ 7.80	$ 93.60
6" Diameter	17.55	210.60
8" Diameter	31.21	374.52
12" Diameter	70.20	842.40

SERVICE CLASSIFICATION NO. 4

RATES FOR PUBLIC FIRE SERVICE

	Rate Per Month	Rate Per Annum
For each public fire hydrant contracted for or ordered by Urban County, County, State, or Federal Governmental Agencies or Institutions	$ 17.55	$ 210.60

RATES FOR PRIVATE FIRE SERVICE

For each private fire hydrant contracted for by Industries or Private Institutions	$ 17.55	$ 210.60