KENTUCKY-AMERICAN WATER COMPANY
CASE NO. 2012-00520
ATTORNEY GENERAL'S SECOND REQUEST FOR INFORMATION

Witness: Paul R. Herbert

1. RD – Reference KAW's response OAG First Information Request No. 42 in Case No. 2012-00520. Does the Burgess & Niple demand study provide an estimate of the maximum hour demand for residential customers? If so, please identify the page number(s) of the referenced demand study that addresses residential maximum hour demand ratios. If not, please explain how the Company determined the residential maximum hour demand factor used in its class cost-of-service study.

Response:

The Burgess & Niple demand study does not provide an estimate of the maximum hour demand ratio for residential customers. The residential maximum hour demand ratio used in the cost of service study was the demand ratio per the Commission's order for Case No. 2000-120. In the order, the Commission recommends that the Company should use the ratios recommended in AG Witness Scott Rubin's testimony. See page 67 of the attached order. In addition, attached is Mr. Rubin's testimony in Case 2000-120. See Schedule SJR-2, page 2 of 8 (page 53 of PDF) for the AG's recommended maximum hour ratio for the residential class of 2.70.

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF KENTUCKY-AMERICAN WATER COMPANY TO INCREASE ITS RATES	))	CASE NO. 2000-120

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COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

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<u>O R D E R</u>

On April 28, 2000, Kentucky-American Water Company ("Kentucky-American") filed a rate application with the Commission using a forecasted test period, pursuant to 807 KAR 5:001, Section 10(1)(b).[1] Kentucky-American proposed an increase to its rates effective May 29, 2000, to generate additional annual revenues of $5,034,349, an overall increase of approximately 12.56 percent over existing revenues. Kentucky-American revised its requested annual increase to $4,684,988,[2] or 11.69 percent.

To determine the reasonableness of the request, the Commission suspended the proposed rates for 6 months from their effective date pursuant to KRS 278.190(2). The AG, through his Utility and Rate Intervention Division ("AG"), Lexington-Fayette Urban County Government ("LFUCG"), Community Action Council for Lexington-Fayette, Bourbon, Harrison, and Nicholas Counties, and N.O.P.E., Inc. ("NOPE") intervened. A procedural schedule was established, the parties engaged in extensive discovery, and

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[1] At Kentucky-American's request and with the agreement of all other parties, the Commission directed that all documents be submitted in electronic format. This use of electronic filing has reduced the number of copies submitted to the Commission and enhanced the parties' ability to manage the documents within this docket. The Commission has learned valuable lessons regarding electronic filing that we intend to apply to other Commission proceedings. We express our appreciation to the parties for their cooperation and assistance in this endeavor.

[2] Brief of Kentucky-American Water Company at 6.

the intervenors filed testimony. A public hearing was held on October 3 and 4, 2000, to receive evidence relating to Kentucky-American's rate application. Following this hearing, the parties submitted written briefs.

This Order addresses the Commission's findings and determinations on the issues presented and disclosed upon the investigation of Kentucky-American's revenue requirement. Based on those findings, the Commission approves herein new rates to produce an increase in annual operating revenue of $2,517,651, an overall increase of approximately 6.49 percent.

ANALYSIS AND DETERMINATION

Test Period

As authorized by KRS 278.192(1), Kentucky-American utilized the 12 months ending November 30, 2001 as its forecasted test period. The base period used was the 12 months ending July 31, 2000.

Rate Base

Kentucky-American has proposed a forecasted net investment rate base of $142,427,511.[3] This forecasted rate base is accepted with the following exceptions:

Utility Plant In Service - Slippage. Kentucky-American used construction budgets to determine its forecasted utility plant in service ("UPIS") amount of $232,598,563. Its construction budget is segregated into two categories: (1) investment projects, normal recurring plant investment; and (2) special budget projects, non-recurring plant investment. In prior forecasted test period cases, the Commission has adjusted UPIS to

[3] Rate Base Summary as of November 30, 2001, Schedule B-1 at 2 of 2.

reflect 10-year historical trend percentages.[4] These "slippage factors" serve as an indicator of Kentucky-American's accuracy in predicting the cost of its utility plant additions and dates that new plant will be placed into service.

The parties disagree on the use of "slippage factors." Kentucky-American opposes their use and contends that this adjustment requires the Company to manage its operations to meet rate regulation.[5] The AG, in contrast, contends that historical information indicates that the Company's projections in past proceedings have been unreliable and that previous applications of the slippage factor were therefore necessary to correct for these inaccuracies.[6]

In Case No. 95-554,[7] the Commission found that "Kentucky-American's recent history of budget forecasting is not a precise indicator of its future construction expenditures and that [t]he 10 year slippage factor . . . produces a more reliable estimate of the construction projects Kentucky-American will have in service or under construction in the forecasted period." We affirmed these findings in subsequent rate proceedings.[8]

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[4] See e.g., Case No. 97-034, The Application of Kentucky-American Water Company to Increase its Rates (September 30, 1997) at 3.

[5] Brief of Kentucky-American at 7.

[6] Brief of the AG at 4-5.

[7] Case No. 95-554, Notice of the Adjustment of Rates of Kentucky-American Water Company (September 11, 1996) at 5.

[8] See Case No. 97-034, Order of September 30, 1997 at 6.

As Kentucky-American has not changed its budget assumptions, policies and procedures since its last rate proceeding,[9] we find no evidence that Kentucky-American's proposed budgeted amount will be more reliable or that the need for application of slippage factors will be less than in prior cases.

Kentucky-American recalculated UPIS using slippage factors of 97.23 percent for investment projects and 74.871 percent for budgeted projects, resulting in adjusted UPIS of $231,344,013.[10] Accordingly, an adjustment has been made to decrease Kentucky-American's forecasted UPIS by $1,254,550 to account for slippage.

Utility Plant in Service – Boonesboro Water & Sewer Association. In Case No. 97-320[11] the Commission approved Kentucky-American's acquisition of the assets of the Boonesboro Water Association ("BWA"). As a result of that acquisition, Kentucky-American's forecasted UPIS includes $67,945[12] related to BWA's sewer plant. The AG

[9] Kentucky-American's Response to the Commission's Order of April 13, 2000, Item 3.

[10] Kentucky-American's Response to the Commission's Order of June 2, 2000, Item 5.

[11] Case No. 97-320, The Verified Joint Application of Boonesboro Water Association, Inc. and Kentucky-American Water Company for Approval of the Transfer of the Ownership of the Assets of Boonesboro Water Association, Inc. to Kentucky-American Water Company, Order issued October 16, 1997.

[12] Kentucky-American's Response to the AG's Data Request No. 1, Item 76.

Structures & Improvements	$40,126.87
Pumping Equipment	10,707.91
CWIP	17,110.77
Total	$67,945.55

contends that BWA's sewer operations are not relevant to Kentucky-American's water operations and that all related costs should be removed from water operations.[13]

In support of the plant's inclusion, Kentucky-American argues that inclusion would have a minimal effect on Kentucky-American's total revenue requirement and would reduce the level of potential increases in the rates that Kentucky-American must assess for sewer service.[14]

The Commission finds that inclusion of the BWA sewer plant would result in Kentucky-American's water customers subsidizing the operation of the sewer plant and that such subsidy is inappropriate. We, therefore, have eliminated it from Kentucky-American's UPIS.

Utility Plant Acquisition Adjustments. Kentucky-American proposes to amortize over a 10-year period an acquisition adjustment of $184,568 related to its purchase of the BWA assets. The acquisition adjustment includes the following costs:

Purchase Price In Excess of Book Value	$ 33,800
Company Labor	46,350
Legal Fees	87,320
Other	17,188
Total	$184,560

Kentucky-American included a 13-month average balance of the acquisition adjustment of $175,340 in forecasted UPIS.

In Case No. 97-320, the Commission approved Kentucky-American's acquisition of BWA's facilities but took no action upon the rate-making treatment of any acquisition

[13] Brief of the AG at 5.

[14] T.E., Vol. I at 135 – 136.

adjustment that Kentucky-American might record as a result of the transaction.[15] At the time, Kentucky-American advised the Commission that it intended to record an acquisition adjustment of $35,812. Since then Kentucky-American has revised the adjustment to reflect additional expenditures related to the acquisition.[16]

In Case No. 9059,[17] the Commission declared that "the net original cost of plant devoted to utility use is the fair value for rate-making purposes, unless the utility can prove, with conclusive evidence, that the overall operations and financial condition of the utility have benefited from acquisitions at prices in excess of net book value." The Commission further held that the utility seeking the adjustment bears the burden to justify its purchase decision based "on economic and quality of service criteria."[18] These criteria include:

> the purchase price was established upon arms-length negotiations, the initial investment plus the cost of restoring the facilities to required standards will not adversely impact the overall costs and rates of the existing and new customers, operational economies can be achieved through the acquisition, the purchase price of utility and non-utility property can be clearly identified, and the purchase will result in overall benefits in the financial and service aspects of the utility's operations.

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[15] See Final Order.

[16] In December 1997 Kentucky-American recorded an acquisition adjustment of $33, 800. See Kentucky-American's Response to the AG's Data Request No. 2, Item 2. It subsequently revised this amount to $184,568 to reflect additional expenses incurred after the transfer. Kentucky-American's Response to the AG's Data Request No. 1, Item 81.

[17] Case No. 9059, An Adjustment of Rates of Delta Natural Gas Company, Inc. (Ky. PSC Sep. 11, 1985) at 3.

[18] Id.

Kentucky-American contends that its acquisition of BWA meets these criteria. It states that the rates of BWA customers were reduced as a result of the acquisition. It contends that it achieved significant operation savings, that BWA employees filled vacant Kentucky-American job positions, and that no direct increase in the cost of providing service occurred. Moreover, the acquisition increased the number of Kentucky-American's ratepayers and its annual revenues.

Objecting to the proposed adjustment, the AG contends that the purchase of BWA's facilities was merely to enhance shareholder value and that significant benefits did not accrue to Kentucky-American customers as a result of the acquisition. He further argues that several of the proposed adjustment's components are inappropriate as they relate to the acquisition of wastewater facilities or to labor costs that are more appropriately booked as labor expenses.

Based upon our review of the evidence, the Commission finds that Kentucky-American has failed to prove the established criteria for an acquisition adjustment. Aside from increasing the utility's customer base, a feat that virtually every utility acquisition achieves, the BWA acquisition has achieved few benefits. It did not result in any significant labor or operational savings. No Kentucky-American employee positions were eliminated. As Kentucky-American was not connected to portions of BWA's system, it was forced to construct new distribution facilities to connect its system to the former BWA system. Kentucky-American, moreover, has incurred significant legal expenses related to BWA's wastewater facilities and BWA's water supply agreements with Winchester Municipal Utilities ("WMU").

The acquisition has not resulted in any significant increase in the quality of service provided to BWA's former customers. These customers continue to receive water that is purchased from WMU. While they will shortly be receiving their water directly from Kentucky-American, both water suppliers meet state and federal drinking water standards. While slight differences in the quality of the water supplied may exist, they are not significant enough to justify the proposed acquisition adjustment. Moreover, at the time of the acquisition, BWA was providing a reasonable service to its customers.

Our decision not to permit the proposed acquisition adjustment in this matter should not be considered as a retreat from our previous announcements encouraging the development of regional water suppliers and the acquisition of smaller and less efficient utility systems.[19] Our position on that issue remains unchanged. We continue to encourage larger water suppliers to expand their facilities and absorb smaller water systems that are incapable of meeting the rising costs of providing quality water service. We fail to find in the case at bar, however, any facts to suggest that regionalization efforts were advanced by Kentucky-American's acquisition of BWA or that our decision regarding the proposed acquisition adjustment will hinder regionalization efforts in the future.

Accumulated Depreciation. Kentucky-American proposed no adjustment to its forecasted test period accumulated depreciation of $45,671,737. Accumulated

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[19] See e.g., Case No. 89-348, The Notice of Adjustment of the Rates of Kentucky-American Water Company Effective on January 28, 1990 (June 28, 1990).

depreciation, when adjusted for the slippage factor, is $45,636,543,[20] a decrease of $35,194.

The elimination of the BWA's Sewer Plant accumulated depreciation will further reduce this amount by $35,830.[21] Based on these adjustments, the Commission has decreased forecasted accumulated depreciation by $71,024.

Construction Work in Progress ("CWIP"). Kentucky-American proposed no adjustment to its forecasted test period CWIP of $5,454,134. CWIP, when adjusted for the slippage factor, is $4,963,029.[22] Therefore, the Commission has reduced forecasted CWIP by $491,105.

Working Capital Allowance. Kentucky-American proposed forecasted working capital allowance of $1,176,000 based on a lead/lag study. The AG proposed that the company's overall weighted revenue collection lag should be 35.80 days rather than 36.63 days.[23] Kentucky-American agreed with this adjustment and stated that working capital should be decreased by $90,000.[24]

The Commission has further decreased working capital allowance by $31,070 for adjustments made to Kentucky-American's forecasted operation and maintenance

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[20] Kentucky-American's Response to the Commission's Order of June 2, 2000, Item 5.

[21] Kentucky-American's Response to the AG's Data Request No. 1, Item 76.

[22] Kentucky-American's Response to the Commission's Order of June 2, 2000, Item 5.

[23] Kentucky-American's Response to the AG's Data Request No. 1, Item 101.

[24] Kentucky-American's Response to the AG's Data Request No. 1, Item 205 (Update 1).

expenses. The decrease was calculated based on the percentage of forecasted working capital allowance to forecasted operation and maintenance expenses of 5.97 percent,[25] applied to Commission approved forecasted operation and maintenance expenses of $17,683,938.

Other Working Capital Allowance. Kentucky-American proposed forecasted other working capital allowance of $485,820, based on the 13-month average plant materials and chemicals account balance for the period ending February 29, 2000. The AG proposes other working capital of $445,679, a decrease of $40,141, based on the average account balance for the 24-month period ending May 31, 2000. He contends that a 24-month average is consistent with prior Commission Orders and with Kentucky-American's approach to determining most of the balances included in Other Rate Base Elements by using a 24-month period.[26] Objecting to these arguments, Kentucky-American contends that a 24-month average reflects an older balance and does not recognize the need for the increasing volume and prices of plant materials and chemicals required for good operations.[27]

The Commission finds that a 24-month average produces a more reliable trend by minimizing the effect of abnormally high and low months. Kentucky-American has not provided sufficient evidence to persuade the Commission that utilization of the 13-

[25] $1,086,000 ÷ $18,204,761 = .05965

[26] Brief of the AG at 12.

[27] Brief of Kentucky-American at 21.

month average would be a more reliable indicator. Accordingly, we have decreased Other Working Capital Allowance by $24,559. [28]

Contributions in Aid of Construction ("CIAC"). Kentucky-American proposed no adjustment to its forecasted test period CIAC of $23,864,445. CIAC, when adjusted for the slippage factor, is $23,851,122.[29] Therefore, the Commission has reduced forecasted CIAC by $13,323.

Kentucky-American proposed to establish a tapping fee in the amount of $500 for residential service, $900 for one-inch service, and $3,300 for two-inch service. Connections larger than two inches would be made at the actual cost of installation. Kentucky-American included the proposed tap fees in CIAC for the forecasted test period. The proposed tap fees included additional costs related to automatic meter reading ("AMR") in the amount of $193,191.[30] The Commission has included these fees in net operating revenues as a customer charge; therefore, an adjustment has been made to decrease forecasted CIAC.

[28] This differs from the reduction proposed by the AG based on the Commission's calculation of the average plant materials and chemicals account balance for the 24-month period ending May 31, 2000. See Kentucky-American's Response to the AG's Data Request No. 1, Item 90.

[29] Kentucky-American's Response to the Commission's Order of June 2, 2000, Item 5.

[30] Reflects a 3-year average of proposed tap fee collections.

During this proceeding, Kentucky-American made a net adjustment to decrease forecasted test period CIAC by $377,000 based on changes in construction schedules.[31] The Commission accepts this adjustment.

Customer Advances. Kentucky-American proposed forecasted customer advances of $12,411,002. Based on the Commission's application of slippage factors to capital construction budgets, adjustments have also been made to apply slippage factors to customer advance receipts and customer advance refunds. Kentucky-American calculated the appropriate slippage factors to be 93.73 percent and 107.86 percent,[32] respectively. These factors are specific to customer advances and differ from those used for plant in service. Based on these slippage factors, Kentucky-American calculated adjusted forecasted customer advances of $11,841,290.[33]

The AG argues that Kentucky-American should use the same factors used for plant in service because of the Company's failure to provide independent calculations to support the customer advance slippage factors. He further argues that the use of different slippage factors for customer advances is inconsistent with prior Commission decisions.

The Commission finds that the actual slippage factors for customer advance receipts and customer advance refunds should be used. Kentucky-American identified these factors in its responses to discovery requests and provided additional evidence of

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[31] Kentucky-American's Response to the AG's Data Request No. 2, Items 11 & 12 (Update 2).

[32] Kentucky-American's Response to the Commission's Order of June 2, 2000, Item 5.

[33] Id., Sch. B-1 at 2.

these factors in response to requests for production of documents made during the hearing in this matter.[34] Moreover, it presented and used specific customer advance slippage factors in its last rate adjustment proceeding.[35] Therefore, the Commission has included an adjustment to decrease customer advances by $569,712.

Deferred Income Taxes. Kentucky-American included forecasted deferred income taxes of $23,598,127 in rate base. The following adjustments have been made to this account as a result of other rate base adjustments:

KRS II Costs	$ 184,265
KRS Residuals	226,772
BWP Pipeline Costs	1,355,464
Community Education Costs	182,482
Deferred Debits & Acquisition Adjustment	328,445
Slippage	(8,491)
Total Adjustment	$ 2,268,937

Deferred Debits. Kentucky-American included the 13-month average balance of the following deferred debits in rate base[36] and requested amortization of each:

AMR Study	7,050
Disinfection By-product Study I	3,430
Lake Ellerslie Dam Study	1,003
Meter Deviation Application	14,106
Cost-of-Service Study	35,100
Cost of Demand Study	54,000
Sludge Removal I	36,000
Sludge Removal II	30,769
Disinfection By-product Study II	80,370
Deferred Acquisition Costs	32,088
Rockwell WWTP Improvement Study	3,490
Cost Containment Program	20,092
Y2K Compliance	106,802

[34] Kentucky-American's Response to Hearing Data Request No. 1.

[35] Rebuttal Testimony of Edward J. Grubb at 9–10.

[36] W/P 1-12 at 3–4.

Graphical Interface Study	52,892
Automation of KRS	25,442
Reorganization Costs	164,469
Deferred Legal/Settlement Costs	173,750
Deferred Relocation Expenses	43,394
Easement Encroachment	15,980
Total Forecasted Deferred Debits	$900,227

The Commission has permitted the requested rate treatment for the AMR Study, Disinfection By-product Study I, Lake Ellerslie Dam Study, and the Meter Deviation Application in previous cases. The AG has not proposed additional adjustments to these amounts. In light of our previous treatment of these items, no adjustment has been made to eliminate these items from rate base.

Moreover as the Cost-of-Service Study, Cost of Demand Study, Sludge Removal I, Sludge Removal II, and Disinfection By-product Study II are similar in nature to items previously approved, the Commission has made an adjustment to include the unamortized portion of these deferred debits in rate base.

Kentucky-American also included in deferred debits deferred acquisition costs related to its investigation of the acquisition of East Clark County Water District ("East Clark and Logan/Todd"), Logan and Todd County Water Systems, and Georgetown Municipal Water System ("Georgetown"). The AG proposed, and Kentucky-American agreed, to eliminate the costs involving Georgetown because these costs have been recovered through existing rates.[37] The Commission, therefore, has reduced deferred acquisition costs by $14,190.

[37] Brief of the AG at 14.

The Commission has also eliminated expenses of $17,898 related to failed acquisitions of the East Clark County Water District and Logan and Todd County Water Systems. These expenses are prior period expenses whose inclusion would violate the basic principles of forecasted test year rate-making. Contrary to Kentucky-American's contentions,[38] no evidence has been found to indicate that preliminary costs of failed utility acquisitions have been specifically addressed in a prior Commission Order.

Kentucky-American has included in forecasted deferred debits the Rockwell Improvement Study, which is directly related to the Boonesboro Sewer System, at a cost of $3,490. The AG proposes,[39] and the Commission agrees, that these costs should be removed since the study has no relevance to Kentucky-American's water operations.

The remaining deferred debits are prior period expenses that Kentucky-American has singled out for deferral treatment and are summarized below.

Other Deferred Debits

Cost Containment Program. In April 1998, Kentucky-American included the 13-month average balance of $20,092 for a study to assist it in reducing its expenses by changing vendors or negotiating with vendors. Kentucky-American contends that this expenditure represents a prudent decision that has resulted in the reduction of current and future costs. It further contends that its ratepayers only will benefit from the program because the savings delayed the timing of this rate case filing and are reflected

[38] Kentucky-American's response to the AG's Data Request No. 2, Item 25.

[39] Brief of the AG at 14.

in the expenses of the forecasted test period.[40] Rejection of the proposed treatment would discourage Kentucky-American from pursuing efforts to reduce its cost-of-service.

In contrast, the AG argues that these deferred items and related amortization should be disallowed primarily because the corresponding cost savings from the program have more than offset the cost.[41]

Year 2000 ("Y2K") Compliance Costs, Graphical Interface Study ("GIS"), and Automation of Kentucky River Station ("KRS"). Kentucky-American has included, as forecasted deferred debits, costs incurred for Y2K Compliance, completion of the GIS Study, and the Automation of KRS Study in the amount of $185,136. The Y2K Compliance costs involved the company's performance of comprehensive system checks of all critical resources to ensure Y2K readiness.[42] The GIS study reviewed all departmental processes that might benefit from a GIS and the estimated costs associated with integration over the next 5 years. The Automation of KRS Study examined the feasibility of automating the Kentucky River Station.

The AG argues that these costs benefit both ratepayers and stockholders and therefore should be amortized but not included in rate base. Kentucky-American argues that rate base treatment is appropriate because it encourages minimized costs and

[40] Brief of Kentucky-American at 22.

[41] Brief of the AG at 14-15.

[42] Direct Testimony of Edward J. Grubb at 16.

improved service quality.[43] Ultimately, ratepayers benefit through lower utility bills and better service.[44]

Reorganization Costs. Kentucky-American has proposed to include $164,469 in rate base for costs incurred as a result of its reorganization efforts from October 1997 through June 1998.[45] Of the total cost, $47,099 represents the cost of a study to determine whether Kentucky-American should continue to receive full services from an American Water Works Regional Service Company or rely more on local resources to perform certain functions. The remainder of the cost was for the relocation of two associates to Lexington to fill the positions of Vice-President of Operations and Comptroller. The company claims that the savings it has realized as a result of the PeopleTech Study have already offset the costs. Kentucky-American proposes to amortize this expense over a period of 5 years with rate base treatment of the unamortized balance.

The AG's position is that the accumulated cost savings achieved by Kentucky-American as a result of the reorganization more than offset the deferred cost. Therefore, no rate recognition is required.[46]

Kentucky-American argues that the AG is attempting to apply the concept of single-item and retroactive ratemaking in this instance. The savings realized helped to lower Kentucky-American's current and forecasted test year utility operating income,

[43] Testimony of Robert J. Henkes at 35.

[44] Rebuttal Testimony of Edward J. Grubb at 7–8.

[45] Kentucky-American's response to the AG's Data Request No. 1, Item 117.

[46] Testimony of Robert J. Henkes at 31–32.

which directly benefits only the ratepayers. Disallowing rate base recovery of these costs would suggest to Kentucky-American that it should not pursue opportunities to save costs.[47]

With the formation of the Southeast Region in April 2000, it appears that the goal Kentucky-American was trying to achieve through reorganization was, for all practical purposes, eliminated. Kentucky-American states that approximately 8 years ago the American System began a strategy of staffing some water companies with resources, which would eliminate the need for the use of the services of a regional service company.[48] Based on this strategy Kentucky-American went through a reorganization that was completed in June 1998. Less than 2 years later, Kentucky-American moved some of its functions back to a newly formed service company, the Southeast Region. According to Kentucky-American, things change.[49] The Southeast Region is not a full movement away from the recommendations made in the PeopleTech Study but rather a partial movement toward more policy and direction and overview for a region.[50]

The Commission recognizes that Kentucky-American's organizational structure has seen many changes in recent history. Changes of this nature can create operating efficiencies that benefit both the shareholder and ratepayer. Kentucky-American should provide assurance to this Commission that management of operations and policy

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[47] Brief of Kentucky-American at 24-25.

[48] Direct Testimony of Edward J. Grubb at 17.

[49] T.E., Vol. I at 253.

[50] Id. at 256.

decisions will remain under local control and that decisions are made in the best interest of its ratepayers in Kentucky.

Deferred Legal/Settlement Costs. Kentucky-American included $173,750 in forecasted deferred debits for litigation and settlement costs resulting from a lawsuit filed against the Company by two former employees. Kentucky-American proposes to amortize these costs over a period of 5 years with rate base treatment of the unamortized balance. Kentucky-American states that it pursued the least cost solution and did not practice discrimination in either case but took responsible action to solve a business problem. These costs were incurred to improve customer service.[51]

The AG asserts that shareholders, not ratepayers should bear the cost of settlement awards and legal fees associated with lawsuits involving illegal business practices. The investors are being reimbursed for this type of business risk in their authorized return on equity. The AG further states that these costs have nothing to do with the provision of safe, adequate and reliable water service.

In Kentucky-American's rebuttal testimony it states that its actions were in the best interest of its customers and investors and the resulting costs should be recognized in the ratemaking process.[52] Kentucky-American states that it has never been found guilty of discrimination in any form and that it pursued the least cost solution to these lawsuits.[53]

[51] Direct Testimony of Coleman Bush at 13.

[52] Rebuttal Testimony of Edward J. Grubb at 5.

[53] Brief of Kentucky-American at 25.

Deferred Relocation Expenses. During 1999 Kentucky-American incurred relocation costs to fill two management positions with associates who did not reside in the Lexington area. It included these costs in forecasted rate base at the 13-month average level of $43,394. Kentucky-American claims that it advertised locally and interviewed a number of applicants for the positions but the most qualified individuals were not local residents. Kentucky-American believes the costs are fair and reasonable and the experience and expertise of these two individuals brought benefits to the ratepayers that could not be found locally. The Company is proposing to amortize the total cost of $52,073 over a 3-year period with rate base treatment of the unamortized balance.[54]

The AG disagrees with Kentucky-American's proposed treatment of relocation expenses. From 1989 to 1999, Kentucky-American experienced only four other management relocations, two of which were a result of the 1998 reorganization. It is his position that the costs were non-recurring and should have been expensed when incurred rather than deferred.[55] This treatment is consistent with Kentucky-American's treatment of previous relocations and it is the AG's position that the company has not demonstrated a sound basis for altering the treatment for these costs.[56]

Easement Encroachment. Kentucky-American included easement encroachment costs of $15,980 in its forecasted test year deferred debits. These costs were related to the investigation of various easement encroachments on Company

[54] Testimony of Edward J. Grubb at 15.

[55] Testimony of Robert J. Henkes at 33–34.

[56] Brief of the AG at 15.

property. "The purpose of the investigation was to identify the easement encroachments and to protect the Company's assets and to identify any possible liability."[57] Kentucky-American proposed to amortize these costs over three years and to include the unamortized balance in rate base.

The AG proposes to deny any rate recognition for these costs. The AG states that Kentucky-American incurred these costs between 1991 and 1995 (at least 5 years prior to the forecasted test period in this case) and never requested rate recognition for the deferred costs in prior cases. Kentucky-American said it is not likely to have any similar costs for at least 3 more years.[58] Therefore, the AG asserts that the costs are non-recurring in nature. Had Kentucky-American wished to recover these costs through rates, it should have done so in a prior, more timely, proceeding.[59]

Kentucky-American argues that these deferred expenses represent reasonable, prudent expenditures initiated to investigate potential advancements by others onto Company property. The time lapse between the cash outlay and the proposal for inclusion in rates was due to the possibility that additional costs could have been incurred related to the investigation.

The Commission does not agree with Kentucky-American's proposed rate treatment of the aforementioned expenses included as other deferred debits and the deferred acquisition adjustment. The Commission finds that these deferrals are contrary to forecasted test year methodology, may constitute retroactive ratemaking or

[57] Direct Testimony of Edward J. Grubb at 17.

[58] Kentucky-American's response to the AG's Data Request No. 1, Item 114.

[59] Testimony of Robert J. Henkes at 34–35.

single-issue ratemaking, and should therefore be eliminated from forecasted operations entirely.

When using a historical test period, operations are adjusted to reflect a typical or normal 12-month operating period. Under that approach, amortization of expenses is a common way to normalize test year operations for abnormal or non-recurring items. For example, had Kentucky-American filed this case using a historical test year wherein any one of these deferred items were incurred, amortization of the expense would have been appropriate. However, in this case Kentucky-American filed a forecasted test year. The sole purpose of a forecasted test period is to match rates with the expected revenue requirements for a specific future 12-month operating period. In this case the 12-month period is December 1, 2000 through November 30, 2001. Kentucky-American utilized construction and expense budgets to forecast its cost of operations for that 12-month period. The deferred costs are expenses for prior periods. They should have been recognized fully when incurred and not carried forward to the forecasted operations.

Including prior period expenses in current rates constitutes retroactive ratemaking. The items deferred are clearly expenses and not capital items. A utility, pursuant to FASB 71, is entitled to accrue a “regulatory asset” (an expense carried on the books as an asset) if it is probable that the cost will be allowed in rates and the revenue allowed is to recover the previously incurred cost rather than to provide for expected levels for similar future costs. None of these items warrant deferred treatment under FASB 71 due to their immateriality. The largest item listed is the reorganization costs which were initially recorded at a cost of $197,362 and represent only .1386 percent of the proposed rate base of $142,427,511.

By selecting individual expenses to record as deferred debits and subsequently recover in a later rate case, Kentucky-American is, in effect, isolating single issues. Kentucky-American argues, in reference to regulatory expenses, "That the over or under collection of any specific item awarded or not awarded by the Commission historically should have no bearing on the setting of the rates for a forecasted test year."[60] According to Kentucky-American's analysis, expenses incurred historically, whether they were considered by the Commission in a previous case or not, should have no bearing on the rates for a forecasted test year. Kentucky-American goes on to state that single item or retroactive ratemaking is neither fair, just, reasonable nor constitutional.[61] The Commission agrees with Kentucky-American's position and feels that it is applicable, not only to regulatory expenses, but also to certain deferred expenses. Therefore, an adjustment has been made to decrease rate base by $620,719 to reflect the removal of other deferred debits and deferred acquisition costs related to East Clark and Logan/Todd.

The Commission is concerned with Kentucky-American's present practice of deferring expenses as regulatory assets. In the future Kentucky-American shall formally apply for Commission approval before accruing an expense as a regulatory asset, regardless of the ratemaking treatment that the Commission has afforded such expense

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[60] Brief of Kentucky-American at 32.

[61] Id.

in previous rate case proceedings. The Commission will consider each expense independently and with particular regard to materiality.

KRS II Costs. Kentucky-American proposed to include the amortization and rate base treatment of costs for design work associated with Kentucky River Treatment Plant No. 2. These costs were included in forecasted rate base at a 13-month average level of $456,521. In Case No. 89-348,[62] the Commission authorized Kentucky-American to amortize a portion of the costs associated with that project over a period of 5 years without rate base treatment of the unamortized balance. The costs currently in question were deferred at that time due to the possibility of being used in the expansion of the Richmond Road Station.

Kentucky-American's position is that, due to changed water quality regulations and improved technology, the design work can no longer be used. Therefore, the $507,245[63] balance should be amortized over 5 years with rate base treatment.

The AG accepts Kentucky-American's position that the design is not likely to be used and agrees with the 5-year amortization period to be consistent with Commission precedent for this project. However, the AG feels that it is inappropriate to authorize rate base treatment for the unamortized portion because this project has no value to ratepayers, and is not used and useful.[64]

[62] The Notice of Adjustment of the Rates of Kentucky-American Water Company Effective on January 28, 1990 (June 28, 1990).

[63] W/P 1-13 at 1 of 4.

[64] Brief of the AG at 16.

The Commission agrees with the AG's proposed treatment, has eliminated these costs from rate base, and has included a provision for 5-year amortization. This treatment is consistent with the Commission's Order in Case No. 89-348. In addition, since the design work was never used, this would allow a sharing of the cost between ratepayers and shareholders.

KRS Residuals Project Costs. Kentucky-American incurred costs of $624,258 for design work related to future KRS residuals handling facilities. These costs were included in forecasted rate base at a 13-month average level of $561,834. The Commission granted a certificate for the facilities in Case No. 99-299;[65] however, the facilities were never constructed due to persistent requests from Kentucky-American to the Division of Waste Management to allow Kentucky-American to continue its current method of disposal without dewatering.[66] It is Kentucky-American's opinion that these costs were incurred in response to a government directive and that the ratepayers were the exclusive beneficiaries as a result of the project being abandoned because, had the facilities been built, Kentucky-American would have spent $5,000,000 rather than $624,258. Accordingly, abandonment saved the ratepayers a return on $5,000,000.

Kentucky-American declared the project to be abandoned[67] but feels that ratepayers will benefit from these costs if the project is ever undertaken in the future.

[65] The Application of Kentucky-American Water Company for a Certificate of Convenience and Necessity Authorizing the Construction of Additional Residuals Processing Facilities at the Kentucky River Station (September 15, 1999).

[66] Direct Testimony of Linda Bridwell at 10.

[67] Kentucky-American's Response to the Commission's Order of June 2, 2000 Order, Item 33.

Kentucky-American proposes to amortize these costs over a period of 5 years with rate base treatment of the unamortized balance.

The AG agrees that Kentucky-American should be allowed rate amortization of the total cost but asserts that it should be over a period of 10 years rather than 5. The AG disagrees with including the unamortized balance in rate base because it is abandoned.[68]

The Commission finds that these costs are reasonable and were prudently incurred by Kentucky-American and should therefore be recovered through amortization. However, these costs will never fully benefit the ratepayers as the project has been abandoned. Therefore, the costs should be shared between the ratepayers and the shareholders through rate base exclusion.

The Commission utilized a 5-year amortization period, as this will provide for a reasonable recovery of these costs with minimal effects on rates.

Bluegrass Water Project – Pipeline. Kentucky-American incurred costs of $3,534,975 for the design and development of a proposed pipeline to bring treated water from the Ohio River to the Kentucky-American service area in order to address the water supply problem. However, in December of 1999, Kentucky-American fully supported the resolution of the LFUCG council to look to the Kentucky River for an additional increment of raw water supply and, in effect, abandoned its efforts to construct the pipeline.[69] Kentucky-American now proposes to amortize this cost over 10 years with rate base treatment of the unamortized balance or that the cost be

[68] Brief of the AG at 17.

[69] Brief of Kentucky-American at 10.

recovered through a surcharge with interest at a reasonable rate.[70] Kentucky-American contends that "it was ordered to find a solution to the source of supply deficit and any solution would directly benefit the ratepayers with only minor, incidental benefits of a non-monetary nature to the shareholder."[71]

Opposing this proposal, the AG argues that as Kentucky-American declared its pursuit of the pipeline solution to be abandoned, rate base treatment on the unamortized balance is inappropriate.[72] Exclusion of these costs from rate base would properly assign a sharing of the costs to the shareholders. He further proposes to amortize the cost over 20 years rather than 10 years.

NOPE argues that Kentucky-American's actions with regard to the pipeline were neither reasonable nor prudent and that ratepayers should not have to bear any costs associated with the pipeline.[73] It requests that all costs related to the pipeline be excluded in this case or that the Commission dismiss without prejudice the portion of this rate proceeding dealing with the pipeline and Kentucky-American's compliance with the Commission's Order in Case No. 93-434 until Kentucky-American has fully complied with that Order and has resolved the source of supply issue.

The Commission rejects the contention that it directed Kentucky-American to pursue the pipeline option. In our Order of September 30, 1997 in Case No. 93-434, we

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[70] Id. at 14.

[71] Id. at 10 (Emphasis in original).

[72] Brief of the AG at 17.

[73] Brief of NOPE at 10.

directed Kentucky-American to take “the necessary and appropriate measures to obtain sources of supply” to meet its supply deficit. No solution was prescribed. In fact, the Commission went to great effort to suggest that no method was preferred. In several prior rate case proceedings we consistently refused to sanction the use of the pipeline by allowing its costs into rate base. Kentucky-American, moreover, incurred a portion of these expenses associated with the pipeline long before our decision in Case No. 93-434. The decision to pursue the pipeline solution was ultimately a management decision.

The Commission also notes that there is no evidence that Kentucky-American incurred these expenses in bad faith. Since December 1992, it has openly displayed its preference for a pipeline solution. It has postponed its efforts towards such solution to allow for additional studies of the issue. During this entire period, it had no evidence that LFUCG objected or criticized this proposal or indicated a strong preference for a particular solution.

The Commission has given Kentucky-American adequate notice that in Case Nos. 92-452, 95-554, and 97-034, it ruled that costs associated with the pipeline should be accounted for in Account 183 – Preliminary Survey and Investigation Charges, and excluded from rate base. Preliminary construction costs recorded in that account should remain there until actual construction begins. In this instance, the project was abandoned and there is no intent for construction to begin.

In addition, Kentucky-American claims that any benefits to the shareholder from these costs are minor, incidental benefits of a non-monetary nature. It is the Commission’s opinion that the shareholders will directly benefit from a solution to the source of supply problem in that, without an adequate supply of water, Kentucky-American would not have the means to provide service to all of its customers. This would ultimately result in lower earnings for its shareholders. Therefore, the Commission finds it is appropriate that there be a sharing of the costs between ratepayers and shareholders by disallowing the inclusion of these costs in rate base. An adjustment has been made to decrease rate base by $3,358,227, the 13-month average balance included in the forecasted period.

The Commission finds that Kentucky-American's project costs should be recovered through amortization. We further find that a 10-year amortization period should be used. A 10-year period closely coincides with the duration of time the costs were accrued on Kentucky-American's books. We find that this period is not unduly burdensome on shareholders.

We further find that the unamortized portion of these costs should not be included in rate base. By allowing recovery of the expenses but providing no ratemaking treatment of the unamortized portion, we have ensured that both ratepayers and shareholders share equally in the pipeline costs.

<u>Bluegrass Water Project – Community Education</u>. Kentucky-American began a public education campaign in late 1997 after the completion of Case No. 93-434.[74] Kentucky-American accrued community education costs in the amount of $684,870, which it later revised to $655,744.[75] The Company states that the campaign coincided

[74] T.E., Volume II at 33.

[75] Kentucky-American's Response to the LFUCG's Data Request No. 1, Item 16 at 9.

with the Bluegrass Water Project because of the source of supply situation and not to promote the pipeline.[76] Kentucky-American requests that $481,576[77] of those costs be amortized over 5 years with the unamortized balance included in rate base. These costs are included in forecasted rate base at a level of $452,112. Kentucky-American is not requesting rate recovery for the remaining balance of $177,920 as it describes those costs as potentially controversial.[78] They could be construed as political advertising because those expenditures included promotion of the pipeline as the solution to the source of supply problem. [79]

The AG has proposed that the entire amount be eliminated from forecasted operations saying that Kentucky-American has not made a "sufficiently compelling case that the spending should not be considered as political advertising." [80] He states that Kentucky-American has been evasive in presenting evidence relating to the costs in question and that, had these costs been strictly conservation efforts, Kentucky-American would have expensed them when incurred rather than deferring them along with the other Bluegrass Water Project costs.[81]

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[76] Brief of Kentucky-American at 17.

[77] Id. at 16.

[78] Kentucky-American's Response to the AG's Data Request No. 1, Item 132.

[79] Kentucky-American's Response to the Commission's Order of June 30, 2000 Order, Item 5.

[80] Brief of the AG at 23.

[81] Id. at 45 – 46.

NOPE's position is that the disparity in pre-pipeline and post-pipeline advertising expenses infers that the vast majority of these expenditures were made to influence public policy and promote the failed pipeline strategy. Therefore, the costs cannot reasonably be passed on to the ratepayers and should be disallowed.[82]

The entire $655,744 was expended after issuance of the Commission's Order in Case No. 93-434 in 1997. During this time period Kentucky-American was using advertising to heighten public awareness of the water deficit, to promote conservation, and to promote the pipeline as the solution. The entire cost in question was incurred as a part of this campaign.

While some ads of this campaign did not expressly promote the pipeline, all were part of a single, coordinated effort to create the atmosphere that construction of the pipeline was necessary and to build public support for that project. We do not find credible Kentucky-American's arguments that the expenses in question were unrelated to the proposed pipeline.

The Commission notes that the expenses in question were well in excess of the level that Kentucky-American expended for routine conservation advertising for the prior seven years. Kentucky-American's witness testified that adequate amounts were spent during that period on conservation advertising and that amounts budgeted for the forecasted test period for routine water conservation advertising are adequate. These amounts were less than 1/30 of the amount expended during the two years of Kentucky-American's advertising campaign. The massive amount expended in that short period

[82] Brief of NOPE at 10–11.

is at total variance with Kentucky-American's historical and budgeted conservation advertising efforts.

Based on the evidence of record, the Commission finds that the community education costs represent costs incurred to influence public opinion that fall within the prohibition of Administrative 807 KAR 5:016. Kentucky-American was put on notice in Case No. 97-034[83] that such costs would not be allowed for ratemaking purposes. The Commission has removed them from forecasted operations.

Our action should not be misconstrued. The Commission commends Kentucky-American on its continued efforts to promote conservation by including a provision for conservation advertising in its annual budget. However, Kentucky-American should evaluate its current conservation education programs with the goal of developing a comprehensive approach to encouraging water conservation. Water is a finite resource and every effort should be made to promote conservation on a consistent, continuing basis.

Based on the aforementioned adjustments, the Commission has determined Kentucky-American's net investment rate base to be as follows:

[83] Case No. 97-034, Order dated September 30,1997 at 17.

	Kentucky-American Proposed 13-month Avg.	Commission Adjustments	Commission Approved
Utility Plant in Service	232,598,563	(1,254,550)	
		(67,945)	231,276,068
Utility Plant Acquisition Adjustments	175,340	(175,340)	-
Accumulated Depreciation	(45,671,737)	35,194	
		35,830	(45,600,713)
Accumulated Amortization	(7,674)		(7,674)
Net Utility Plant in Service	187,094,492	(1,426,811)	185,667,681
Construction Work in Progress	5,454,134	(491,105)	4,963,029
Working Capital Allowance	1,176,000	(90,000)	
		(31,070)	1,054,930
Other Working Capital Allowance	485,820	(24,559)	461,261
Contributions in Aid of Construction	(23,864,445)	13,323	
		193,191	
		377,000	(23,280,931)
Customer Advances	(12,411,002)	569,712	(11,841,290)
Deferred Income Taxes	(23,598,127)	2,268,937	(21,329,190)
Deferred Investment Tax Credits	(152,717)		(152,717)
Deferred Maintenance	3,671,619		3,671,619
Deferred Debits	900,227	(638,399)	261,828
Other Rate Base Elements	(1,157,187)		(1,157,187)
KRS II Costs	456,521	(456,521)	-
KRS Residuals Project Costs	561,834	(561,834)	-
Bluegrass Water Project - Pipeline	3,358,227	(3,358,227)	-
Community Education Costs	452,115	(452,115)	-
Total	142,427,511	(4,108,477)	138,319,034

Utility Operating Income

Kentucky-American reported base period and forecasted period utility operating income of $11,216,691 and $10,661,141, respectively.[84] Kentucky-American's forecast

[84] Overall Financial Summary, Schedule C-2.

is reasonable and has been accepted for rate-making purposes with the following exceptions:

Operating Revenues

Residential Sales. Both Kentucky-American and the AG agreed that 239 monthly residential bills should be added to each month of the forecasted test year. The Commission has increased annual residential bills by 2,868 resulting in an increase in operating revenue from water sales in the amount of $24,325[85] and an increase in net operating revenue of $14,507.

Industrial Sales. Kentucky-American based its forecasted industrial sales of 1,421,899 ccf on actual sales for 1999. Kentucky-American, in its 2000 Business Plan, estimated that it would sell 1,461,315 ccf during the year 2000. The AG argues that Kentucky-American should base its forecasted industrial sales on the usage estimated in its 2000 Business Plan, which would increase Kentucky-American's test year revenue from water sales in the amount of $46,292.[86]

Kentucky-American offered no compelling argument that the forecasted sales used in the 2000 Business Plan should not be used in this case. The Commission has based forecasted industrial sales on usage of 1,461,315, which is the level set out in the 2000 Business Plan and proposed by the AG. This adjustment results in an increase to net operating income of $27,607.

Other Public Authorities. Kentucky-American proposed to use weather normalized projections made by Dr. Edward Spitznagel for all Other Public Authority

[85] Direct Testimony of Robert J. Henkes, Schedule RJH-11.

[86] Direct Testimony of Robert J. Henkes, Schedule RJH-12.

("OPA") customers with the exception of the Bluegrass Army Station ("BAS"), the University of Kentucky ("UK") and the Federal Medical Center ("FMC"). Kentucky-American used the 1999 sales level for these three customers with a minor adjustment to BAS due to a billing irregularity.

The AG proposes to use a 10-year average for UK and FMC sales and an average of the past 3 year's usage for BAS. The AG contends that it is inappropriate to use a single year in forecasting other public authority sales.

Kentucky-American reported other public authority sales of 1,949,109 ccf in 1998, sales of 1,908,289 ccf in 1999, and 1,855,301 during the base year in this case.[87] Public authority sales have always been difficult to estimate. Based on sales during the past three years it appears that other public authority sales are decreasing. Based on this decline in sales, the Commission accepts Kentucky-American's projected sales of 1,836,074 ccf.

Sales for Resale. Kentucky-American forecasted sales of 567,837 ccf in the sales for resale customer classification. Kentucky-American considered the fact that water usage decreased during 1999 due to warm, dry weather conditions and that almost half the wholesale customers had alternative sources of supply.[88]

The AG contends that sales for resale usage should be based on sales to these customers during the 12 months ending June 30, 2000. This adjustment would result in sales for the sales for resale class of 757,193 ccf.

[87] Brief of Kentucky American at 28.

[88] Rebuttal Testimony of Jerry L. Ware at 5.

Sales for resale have increased each year since 1995.[89] While it is difficult to forecast sales in this classification, there is no indication that sales will decrease as forecasted by Kentucky-American. The Commission recognizes that weather will play a role in the amount of usage, and therefore bases usage for this classification on the average annual usage for the past 3 calendar years. This results in a forecasted usage of 667,437, a decrease to forecasted revenue from sales of $15,333, and a decrease to net operating income of $9,144.

Boonesboro Sewer Operations. As a result of the Commission's decision to remove all revenues and costs associated with the Boonesboro sewer plant from Kentucky-American's water operations, an adjustment has been included to decrease forecasted operating revenues by $28,376.[90] This results in a decrease to net operating income of $16,923.

Kentucky River Authority Withdrawal Fee. Kentucky-American has requested revisions to its Kentucky River Authority Withdrawal Fee to permit an automatic adjustment of that rate annually without customer notice. This rate recovers, as a separate line item on customer bills, the charges assessed to Kentucky-American by the Kentucky River Authority ("KRA") for withdrawals from the Kentucky River. The proposed revisions would dispense with customer notice of changes in the rate and would require the rate to reflect over and under recovery of the rate billed. Currently customer notice of rate changes is required and the KRA Withdrawal Fee makes no

[89] Kentucky-American's Response to the AG's Data Request No. 2, Item 33.

[90] Testimony of Robert J. Henkes, Schedule RJH-19.

provision for the under or over recovery of charges. No party has objected to the proposed revisions.

The Commission finds that Kentucky-American's proposed revisions should be approved. Previous adjustments to the KRA Withdrawal Fee have not been significant. Moreover, given the small amount of such increases, the expense of publishing notice, the limited response to such notice, and the general nature of the rate in question, the Commission finds that publication of changes in the rate may be safely dispensed. The Commission believes that Kentucky-American should, however, publish the proposed fee and the manner in which it was calculated on its internet web site and should include with any tariff revision filing, a statement showing how the revised fee was calculated.

Allowance for Funds Used During Construction ("AFUDC"). In the forecasted test period Kentucky-American included $2,000,162 in CWIP related to the Bluegrass Water Project – Source of Supply Costs. In previous cases Kentucky-American has presented all costs associated with source of supply and the pipeline project as one total project cost. In this proceeding Kentucky-American classified the Bluegrass Water Project costs into three categories: (1) Pipeline, (2) Source of Supply, and (3) Community Education. The source of supply costs represent those costs which deal with the general source of supply and treatment plant deficit issue and which would have been incurred regardless of the selected alternative to the source of supply problem.[91] It includes such expenses as the Aquatic Study, monitoring of the Kentucky River water

[91] Direct Testimony of Linda Bridwell at 20.

quality, Kentucky-American's contribution to the HARZA Study, and Kentucky-American's contribution to the current stability analysis of Dam 10.

Kentucky-American has been carrying these costs on its books for 11 years with no recovery through rates. Kentucky-American recommends the Commission discontinue the booking of AFUDC on the project and thereby approve a current return on these costs.[92] Kentucky-American states that it is important that the Company recover not only its capital but also the carrying charges on that capital for four reasons: (1) it represents investor-provided capital that has a return component, i.e., interest on the debt and earnings on the equity; (2) it provides a positive signal of regulatory support for the Company's financial condition; (3) it provides payment for the use of capital that will not diminish the Company's cash flow, which allows Kentucky-American to raise capital for future expansions; and (4) it is necessary to compensate the Company for 100 percent of its prudently incurred costs.[93]

The AG's position is that the accrual of AFUDC should be continued. The Commission has previously ruled that these same expenditures should not receive rate recognition until completion of the related solution to the source of supply deficit.[94]

Kentucky-American asserts that "continuing to accrue AFUDC on the project until completion of the source of supply solution would result in higher costs for the

[92] Rebuttal Testimony of Edward J. Grubb at 10.

[93] Direct Testimony of Coleman Bush at 5.

[94] Testimony of Robert J. Henkes at 19–20.

ratepayers in future periods through increased return components, depreciation and property taxes."[95]

Both parties make reference to prior Commission Orders as a basis for their arguments. Case No. 93-434 was established to investigate the sources of supply and demand projections of Kentucky. The final Order in that proceeding was issued on August 21, 1997, and stated, "It is therefore ordered that Kentucky-American shall take the necessary and appropriate measures to obtain sources of supply so that the quantity and quality of water delivered to its distribution system shall be sufficient to adequately, dependably, and safely supply the total reasonable requirements of its customers under maximum consumption through the year 2020." As a direct result of that Order, Kentucky-American proceeded to implement the design and attendant issues relating to the construction of the Bluegrass Water Project.[96]

In its final Order issued in Case No. 97-034, dated September 30, 1997, the Commission states, "Until a final decision is rendered on the need for the Ohio River pipeline or an alternative project, the Commission finds that all costs associated with the source of supply are preliminary costs of construction." It is Kentucky-American's position that the "need" for a project to solve the source of supply deficit was determined in Case No. 93-434. The AG contends that the solution to Kentucky-American's source of supply deficit must be completed before these costs can receive rate recognition.

[95] Rebuttal Testimony of Edward J. Grubb at 10.

[96] Direct Testimony of Roy Mundy at 11.

The Commission, in Case No. 97-034,[97] clearly states that a final decision has not yet been rendered on the need for the Ohio River pipeline or an alternative project. This Order was issued after the Order in Case No. 93-434, which established that there was, in fact, a source of supply deficit. To be consistent with its prior ruling, the Commission agrees with the AG that all costs associated with the source of supply are preliminary costs of construction and should accrue AFUDC until a project is undertaken and completed to resolve the source of supply problem.

Based on the Commission's adjustments to Kentucky-American's forecasted test period, the forecasted AFUDC balance should be $516,444. This results in an increase of $178,426 over the forecasted level, or an increase to net operating income of $106,409.

While this Order addresses the ratemaking treatment for issues relating to source of supply, it has not addressed the issue of source of supply, itself, which continues to grow in importance. In our Order of August 21, 1997 in Case No. 93-434, we noted that "additional steps must be taken and financial resources will have to be committed to develop an adequate and reliable source of water supply, not only for the customers of Kentucky-American, but for all the citizens served by the Kentucky River."[98] As of this date no concrete action has been taken to remedy the supply deficit. We remind Kentucky-American that "[t]he responsibility to develop an adequate and reliable source of water supply for Kentucky-American's customers is . . . [its] direct obligation." It should act promptly to develop and implement a viable plan for addressing this problem.

[97] Case No. 97-034, Order dated September 30, 1997 at 16.

[98] Case No. 93-434, Order of August 21, at 6.

We encourage the other parties to this proceeding to work with Kentucky-American in a cooperative effort to resolve this problem in a manner acceptable to the entire community.

Operation and Maintenance Expenses

Labor Expense. Kentucky-American included labor expense of $6,117,348 in its forecasted operating expenses. The AG proposed an adjustment to this expense to eliminate two full-time equivalent positions that are currently vacant and are not expected to be filled.[99]

Kentucky-American did not agree with the specific adjustment proposed by the AG but it did concede that two vacant associate positions, senior financial analyst and part-time accountant, will not be filled and that, accordingly, expenses should be reduced by $90,069.[100] The AG concurs with that adjustment.

The Commission has included an adjustment to decrease labor expense by $90,069, which results in an increase to net operating income of $53,715.

Incentive Compensation. Kentucky-American proposed to include in the forecasted test year $124,200 of expenses for the annual incentive plan and $32,147 for the long-term incentive plan.[101] Kentucky-American later revised the long-term incentive plan to $9,502.[102] This resulted from a change in the long-term incentive plan

[99] Testimony of Robert J. Henkes at 61.

[100] Pre-hearing Memorandum of Kentucky-American at 7.

[101] W/P 3-1 at 44, Kentucky-American's Response to the AG's Data Request No. 1, Item 205 (Update 2).

[102] Kentucky-American's response to the AG's Data Request No. 1, Item 205 (Update 2).

of adopting the use of stock options as a part of the incentive compensation.[103] The AG and the Commission agree with this adjustment. Accordingly, an adjustment has been included to decrease incentive plan expense by $22,645, resulting in an increase to net operating income of $13,505.

In Case No. 97-034, the costs for these two plans were $14,100 and $1,770, respectively.[104] The increase in annual incentive plan expense of $110,100 was due to the addition of seven directors to the plan as a result of Kentucky-American's reorganization.[105] Kentucky-American also included an allocation of incentive costs in forecasted management fees from the Corporate Office in Voorhees, New Jersey and the Southeast Region in Charleston, West Virginia. These costs were $38,028 and $28,518, respectively. This results in total forecasted incentive plan expense of $200,248.

The AG contends that this expense should be shared equally by the ratepayers and shareholders, a position he also held in Case No. 97-034.[106] He states the following reasons to support his recommendation: (1) the size of the incentive compensation claim in this case, (2) the growth in these expenses from the prior case, (3) the fact that these large incentive compensation awards are being given to Kentucky-American officers who have already averaged annual salary increases of 5

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[103] Kentucky-American's Response to the Commission's Order of June 30, 2000, Item 26.

[104] Testimony of Robert J. Henkes, Schedule RJH-16.

[105] T.E., Vol. I at 154.

[106] Brief of the AG at 29.

percent from 1998 through the forecasted period, and (4) 50 percent of the incentive pay is based on meeting financial goals which benefit the shareholders and 50 percent is based on meeting customer service and operational goals that benefit the ratepayers.

Kentucky-American's position is that the Commission approved this expense for ratemaking purposes in prior cases and that there is no difference between this case and prior cases. In Case No. 97-034, the Commission stated that Kentucky-American has shown that it implemented the incentive package in response to a recommendation made in a Commission-mandated management audit. In Case No. 95-554, the Commission found that Kentucky-American had met its burden of proof by showing the cost of its incentive bonus plan as appropriate for ratemaking purposes.

Kentucky-American states that, "The purpose of the Annual Incentive Plan is to ensure Kentucky-American's ability to attract and retain key executive talent capable of successfully managing the operations in a manner that is beneficial to its customers, associates and <u>investors</u> who have provided the capital for Kentucky-American. It has been the trend in the utility industry to provide a portion of the total compensation package for key officers in a performance based, at risk situation. This type of package reinforces AWW's performance-oriented culture and encourages performance at the levels expected by <u>all stakeholders</u>. . . . The goals established under the incentive plan are based on market expectations, industry performance, and reward results that benefit all stakeholders."[107] Kentucky-American testified that "stakeholders" includes both ratepayers and shareholders.[108]

In Case No. 95-554, Kentucky-American demonstrated that it implemented the incentive package in response to a recommendation made in a Commission-mandated audit. In this proceeding Kentucky-American testified that all companies in the American system have identical incentive compensation plans.[109] For this reason, the Commission believes that Kentucky-American would have implemented the compensation plan with or without the management audit recommendation and that recommendation should have no bearing on whether or not the expense should be allowed in rates.

To be consistent with prior Commission Orders, no adjustment has been made to incentive compensation expense. However, based on the evidence of this proceeding, the Commission is reconsidering its position on this issue and is hereby placing Kentucky-American on notice that, in future rate proceedings, it must demonstrate fully why shareholders should not bear a portion of these costs.

Insurance Other Than Group. For the forecasted test period Kentucky-American projected insurance other than group expense of $324,820. For the past eight years Kentucky-American has recorded retroactive adjustments to offset this expense.

[107] Kentucky-American's Response to the Commission's Order of June 30, 2000, Item 25.

[108] T.E., Vol. I at 65.

[109] Id. at 165.

However, no expense credit has been included in the forecasted test period. The AG proposed to include a retroactive adjustment of $100,000 in forecasted operations.[110]

Insurance other than group is administered on a total American Water System basis, the same as group insurance and pensions. The premiums for this coverage are based on an estimate of losses, the charges of the carrier to administer the program, and the cost to insure against individual and total claims above certain limits. The carrier holds the funds until claims are paid and, in the interim, the companies are credited with interest on that money. As losses develop, claims are paid out of these funds.

Kentucky-American's position is that an increase in losses has recently moved the American system from excess to a deficit funding position. This change has eliminated retro refund adjustments for the foreseeable future.[111]

The Commission finds that Kentucky-American has provided sufficient evidence to support its position. Therefore, no adjustment has been made to insurance other than group expense.

<u>Group Insurance Expense</u>. Kentucky-American included group insurance expense of $1,392,281 in its forecasted operations. In the calculation of the forecasted expense Kentucky-American took into consideration a projected increase in group insurance rates. The anticipated increase was delayed due to an increase in the reserves in the trust fund for Kentucky-American's group insurance plan.[112]

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[110] Testimony of Robert J. Henkes at 66-67.

[111] Rebuttal Testimony of Michael Miller at 27.

[112] Kentucky-American's Response AG Data Request No. 1, Item 194.

Accordingly, Kentucky-American has adjusted group insurance by a decrease of $91,103.[113] Both the AG and the Commission are in agreement with this adjustment. This results in an increase to net operating income of $54,332.

Regulatory Expense Adjustment. Kentucky-American projected regulatory expense of $180,705 for the forecasted test period. This represents the amortization of the following expenses:[114]

Rate Case Expense – Case No. 2000-120 ($310,420 amortized over 2 years)	$ 155,210
Cost-of-service Study ($39,000 amortized over 5 years)	7,800
Demand Study ($60,000 amortized over 5 years)	12,000
Depreciation Study (Remaining balance of $5,695 amortized for 9 months – until 8/2001.)	5,695
Total Regulatory Expense	$ 180,705

The AG's position is that Kentucky-American has over-collected prior rate case expenses in instances "where the amounts have been fully amortized yet the collection for the expenses continued."[115] This theoretically occurs when a utility is authorized to amortize an expense over a certain time period and then does not file for another rate adjustment until after that time has expired. The AG proposes to offset forecasted rate

[113] Kentucky-American's Response to the AG's Data Request No. 1, Item 205 (Update 3).

[114] Kentucky-American's Response AG Data Request No. 1, Item 155.

[115] Brief of the AG at 30 – 31.

case expense in this case with over-collections that occurred since Kentucky-American's last rate filing.[116]

Kentucky-American's position is that "The over or under collection of any specific item awarded or not awarded by this Commission historically should have no bearing on the setting of rates for a forecasted test year."[117] This would constitute single-item or retroactive ratemaking and is neither fair, just, reasonable, nor constitutional.[118]

The Commission agrees with Kentucky-American's position and has made no adjustment to forecasted regulatory expense.

Boonesboro Sewer Operations Adjustment. As a result of the Commission's decision to remove all revenues and costs associated with the Boonesboro Sewer from Kentucky-American's water operations, adjustments have been included to decrease forecasted operating expenses by a total of $79,380 to eliminate operation and maintenance expenses and property taxes associated with the sewer operations.[119] This equates to an increase in net operating income of $47,340.

Programmed and Non-Programmed Maintenance. In the past, Kentucky-American has classified routine maintenance expenses as programmed and non-programmed. The Commission, in prior future test period cases, has made adjustments to reduce programmed maintenance expense based on a 10-year average of the actual programmed maintenance to its budgeted level. The assumption was made that

[116] Id. at 31.

[117] Brief of Kentucky-American at 32.

[118] Id.

[119] Testimony of Robert J. Henkes, Schedule RJH-19.

Kentucky-American's budgeted forecast would be as reliable as the historical 10-year average. In Case No. 95-554 the percentage decrease applied was 82.74 percent, and in Case No. 97-034 it was 80 percent. The non-programmed maintenance was never adjusted as the budget variances were never material.

During discovery Kentucky-American was asked to provide the required information to update the historical 10-year average. In response Kentucky-American explained that, as of the end of 1998, with the implementation of the JD Edwards accounting system, the company no longer differentiates between programmed and non-programmed maintenance.[120] All maintenance is grouped together in various accounts. As a result, the costs of actual and budgeted programmed maintenance are no longer available in a format comparable to that of prior years or conducive to the calculation of a variance between budgeted and actual.

In light of this change in Kentucky-American's accounting system, the Commission's ability to review this expense has been severely restricted to the extent that no adjustment has been made. The Commission finds that Kentucky-American should develop and implement a methodology for tracking the costs of actual and budgeted programmed maintenance. The Commission places Kentucky-American on notice that its failure to develop and implement such methodology will be considered at any future rate proceeding when determining whether the Company has adequately demonstrated the reasonableness of its maintenance expense.

[120] Kentucky-American's Response to the Commision's Order of June 2, 2000, Item 74 and Kentucky-American's Response to the AG's Data Request No. 1, Item 102.

Service Company Fees. Kentucky-American included in its forecasted operations, service company fee expense of $1,021,021. These fees are currently allocated to Kentucky-American based upon an agreement entered with American Water Works Service Company in 1989 (“1989 Agreement”). In previous proceedings, the Commission found that Kentucky-American has failed to demonstrate the reasonableness of this Agreement and therefore, the Commission relied upon the provisions of an earlier contract executed between the companies in 1971 (“1971 Agreement”). Kentucky-American now urges the Commission to recognize for ratemaking purposes the 1989 Agreement. As a result of acquisitions and reorganizations by AWW subsidiaries, Kentucky-American asserts the differences between the 1989 Agreement and the 1971 Agreement’s allocations have been significantly reduced. In future years the 1971 Agreement will likely produce higher allocations to Kentucky-American than the 1989 Agreement on a consistent basis.[121]

The Commission finds that Kentucky-American has not presented any significant evidence to disturb its earlier decisions or to warrant the use of the 1989 Agreement. Using the 1971 Agreement, the Commission has reduced operating expenses by $32,499, resulting in an increase to net operating income of $19,382.

Depreciation Expense. Kentucky-American included depreciation expense of $5,409,393 in its forecasted operations. Based on the Commission’s treatment of forecasted rate base with regard to slippage and the Boonesboro Sewer Operations, adjustments have been made to decrease forecasted depreciation expense by $35,578

[121] Kentucky-American’s Response to the Commission’s Order of June 2, 2000, Item 64.

and $2,544, respectively. These adjustments result in a net increase in net operating revenue of $22,735.

Amortization Expense. Kentucky-American included amortization expense of $661,956 in its forecasted operations. Based on the elimination from rate base of the Boonesboro acquisition adjustment, an adjustment has been included to reduce amortization expense by $18,456 for the Boonesboro Acquisition Adjustment. This results in an increase in net operating income of $11,007.

Amortization of Deferred Debits. Kentucky-American included amortization expense for deferred debits in its forecasted operating expenses. Based on the elimination from rate base of certain deferred debits an adjustment has been included to reduce forecasted expenses by $205,484.

Deferred Acquisition Costs	$ 12,835
Rockwell WWTP Improvement Study	1,396
Cost Containment Program	8,037
Y2K Compliance	23,734
Graphical Interface Study	21,157
Reorganization Costs	65,787
Automation of KRS	10,177
Deferred Legal/Settlement Costs	38,611
Deferred Relocation Expenses	17,358
Easement Encroachment	6,392
Total Forecasted Deferred Debits	$205,484

This results in an increase to net operating income of $122,546.

Deferred Tax Expense. Kentucky-American included deferred tax expense associated with community education costs of $8,292 in its forecasted operations. In its pre-hearing memorandum, the Company corrected that amount to be $32,268, an increase of $23,976. The correction of this error increases net operating income by $14,299.

Interest Synchronization. Kentucky-American proposed a forecasted interest expense of $5,739,829 based on forecasted rate base and weighted cost of debt. The Commission has recalculated this expense to be $5,588,089[122] based on the rate base and weighted cost of debt found reasonable herein. This results in a decrease to net operating income of $61,246.

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

	Ky-American Proposed	Commission Adjustments	Commission Approved
Operating Revenues	$ 40,087,019	$ 122,456	$ 40,209,475
Operating Expenses	29,425,878	(297,615)	29,128,263
Net Operating Income	$ 10,661,141	$ 420,071	$ 11,081,212

Rate of Return

Capital Structure. Kentucky-American proposed a capital structure based on the projected 13-month average balances for the forecasted test period. The capital structure consisted of short-term debt of $1,113,427 or .788 percent, long-term debt of $72,418,300 or 51.244 percent, preferred stock of $6,930,821 or 4.904 percent, and common equity of $60,856,850 or 43.063 percent. The costs assigned to these capital components was 6.525, 7.77, 7.77, and 12 percent, respectively.

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[122]

Commission Approved Rate Base	$138,319,034
Commission Approved Weighted Cost of Debt	4.04%
Interest	$ 5,588,089

Short-Term and Long-Term Debt. The AG disputed Kentucky-American's forecasted short-term debt balance but accepted the cost rate. The AG's position is that Kentucky-American should maintain a higher level of short-term debt than proposed in the forecasted test year because short-term debt costs are traditionally lower than other forms of external capital. The AG proposed that the short-term debt balance approved in this case be equal to the average outstanding balance for the year 2000, $6,450,000. Kentucky-American's forecasted short-term debt balance is significantly lower than the proposed average due to a planned conversion to long-term debt in December 2000 and January 2001.

The AG proposed a decrease in the forecasted long-term debt balance to correspond with the short-term debt adjustment. The AG also adjusted the long-term debt cost rate. It argues that Kentucky-American should refinance the 9.37 percent series bonds and utilize the yield to maturity method to determine the cost of long-term debt.

The AG states that refinancing the 9.37 bonds would result in savings of $23,882 if refinanced at 8.4 percent. The AG selected 8.4 percent as the refinanced cost rate because it was the rate on Baa bonds at the end of April 2000.

The AG argues that the yield to maturity method should be used in determining the cost of long-term debt because it considers the present value of issuance cost amortization and it uses the principal amount outstanding as the base.

On rebuttal, Kentucky-American states that it accrues short-term debt to finance construction and other working capital needs until levels have been reached to make it economical and feasible to issue long-term debt. Such a refinancing is scheduled early in the forecasted test year. Kentucky-American argues that the short-term debt balance proposed by the AG ignores this refinancing and is not reflective of the capital that will be deployed during the forecasted test year.

Kentucky-American agreed with the AG that the 9.37 bonds should be refinanced. It further proposed to reflect the refinancing of the 9.83 bonds. Kentucky-American assigned a cost rate of 8.22 percent to these refinancings.[123] Kentucky-American also included an additional long-term debt issue of $4,000,000 to be released on September 15, 2001. A cost rate of 8.22 percent was also assigned to this issue.

Kentucky-American refuted the AG's proposed yield to maturity calculation of debt costs stating that this method does not permit the Company to recoup its true cost-of-service and is contradictory to prior Commission practice. Kentucky-American states that the weighted cost method as used in the application allows for the recovery of debt issuance costs on a dollar-for-dollar basis and has been historically used by this Commission for calculating long-term debt costs.

In conjunction with the amendments to the forecasted long-term debt, Kentucky-American revised the average short-term debt balance for the forecasted test year to be $3,843,000. The cost rate for short-term debt was revised to 6.9 percent to reflect interest rates as of September 1, 2000.

Kentucky-American noted that short-term interest rates fluctuate continually and suggested that the Commission utilize the most current interest rates available when setting rates for the forecasted test period. Kentucky-American states that the current cost of short-term debt is now 6.945 percent (6.62 percent LIBOR + 32.5 basis points),

[123] Brief of Kentucky-American at 38.

which is higher than the short-term debt rate at the time the application was filed. Kentucky-American states that the increase is due to the tightening of credit by the Federal Reserve.

The AG maintains that the short-term interest rates as included in the original application are adequate. The AG states that LIBOR rates do fluctuate but Kentucky-American has never identified the appropriate date for forecasting short-term debt costs. The AG further argues that Kentucky-American has never made an actual adjustment to the rates requested in this case reflecting the 6.9 percent rate and therefore review is not warranted.

In this case Kentucky-American filed a forecasted capital structure that is designed to meet capital requirements for the forecasted test year. The Commission recognizes that Kentucky-American's capital requirements continually change. When setting rates for a forecasted period, the most current information should be utilized to properly match rates with the cost-of-service. Since the application was filed, changes to Kentucky-American's projected capital structure have been noted. These changes should be reflected in the rates approved in this case. Therefore, to determine the weighted cost of capital, the Commission utilized the 13-month average balance of short-term and long-term debt of $3,843,000 and $72,751,207 at cost rates of 6.9 and 7.69 percent, respectively, as determined by Kentucky-American.

The Commission has reduced the short-term and long-term debt amounts by $258,006 and $1,279,786, respectively, to reflect plant slippage factors.

The Commission finds no merit in the use of the Yield To Maturity calculation of debt costs. The weighted cost method allows for a dollar-for-dollar recovery of debt costs and has been used in prior Kentucky-American cases brought before this Commission and has been utilized in this case.

Preferred Stock. In rebuttal, Kentucky-American adjusted the 13-month average balance of preferred stock included in capital to $6,042,630 as a result of the financing changes referred to previously. The cost rate changed to 7.72 percent.

The AG accepted the amounts related to Preferred Stock as included in the original application and filed no comment to the subsequent adjustments made by Kentucky-American.

The Commission finds that the adjustments included in Kentucky-American's rebuttal are reasonable and are reflected in the rates approved herein.

Return on Common Equity. In its application, Kentucky-American estimated its required return on equity ("ROE") using four methods: the discounted cash flow ("DCF") method, the capital asset pricing model ("CAPM"), a risk premium analysis, and a comparable earning analysis. Taking the results of these methods, Kentucky-American determined its return on equity as 12.0 percent.[124]

Since Kentucky-American issues no publicly traded stock, the company used seven water companies covered by The Value Line Investment Survey as proxies in its DCF and CAPM analyses. The company included its parent, American Water Works ("AWW"), as one of the seven proxy companies. Kentucky-American proposed the use of proxy companies for the analysis, rather than relying solely on AWW's stock,

[124] Direct Testimony of Paul R. Moul at 2.

because it believed that use of group average data minimized the effect of any background noise in the market data for an individual company.[125]

Kentucky-American proposed that the Commission allow the Company an opportunity to earn a rate of return that would support an A bond credit rating. The Company argued that the ROE is a critical component considered by bond rating agencies that examine items such as debt leverage and pre-tax interest coverage. The Company further argued that it is the equity return that provides the margin whereby an interest coverage multiple greater than one is realized.[126]

Kentucky-American also discussed the business risks it faces that it believed increased the Company's risk in the eyes of an investor. The main risk centered around the source of supply issue and the recovery of the costs of the now abandoned plan to construct a pipeline to the Louisville Water Company. The Company advocated allowing it to recover the pipeline cost plus its carrying charges because investors expect prudently incurred costs to be included in customer charges. [127]

The Company proposed adding a leverage adjustment of .45 percent to its DCF results in order to compensate the Company for the difference in risk attributable to the Commission's use of the book value of equity when calculating the rate of return. The Company argued that the market price of its stock exceeded the book value, creating a situation where the debt was priced by the market as a much smaller portion of the capitalization. Because of this, market models, such as the DCF, reflect a lower level of

[125] Id. at 5.

[126] Id. at 7.

[127] Id. at 15-6.

risk compared to that shown by book capitalization. The Company contended that failure to adjust for this difference would result in a mismatch of the lower financial risk related to market value used to measure the ROE and the higher financial risk of the book value capital structure used in the rate setting process.[128]

The Company also proposed a flotation adjustment of 20 basis points to its risk premium analysis and CAPM analyses. The Company argued that although it did not incur flotation costs itself, its parent, AWW, did incur flotation costs when it issued equity.[129] The Company also advocated adding an additional size premium of 84 basis points to the CAPM return in addition to the flotation cost adjustment.[130]

The AG criticized Kentucky-American's use of AWW in the proxy group of water companies. The AG argued that Kentucky-American's use of the parent Company was inappropriate because AWW is more than 29 times larger than Kentucky-American. In addition, AWW operates over multiple states thereby reducing its water supply risk through geographic diversification. The AG advocated the use of companies more similar to Kentucky-American.[131] The AG also disagreed with the companies used in the comparable earnings approach. The AG argued that the approach should have used companies with similar P/E ratios.[132]

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[128] Id. at 40-44.

[129] Id. at 45.

[130] Id. at 53-57.

[131] Direct Testimony of Carl G. K. Weaver at 46.

[132] Id.

The AG also contested the financial leverage adjustment that the Company proposed. The AG pointed out that making an adjustment for the difference between book and market value of the equity creates a problem because every time the stock price changed or an interest rate changed, the capital structure changed. Therefore, market value capital structures are unstable. In addition, if the capital structure is based on market value of debt, windfall gains would occur to the equity investors because utilities pay interest based on the book value of the debt, not on its market value. The AG stated that if the cost of capital associated with new investment projects are allowed and if regulatory lag is minimal, the utility will realize an appropriate compensatory return on incremental investment. The AG felt that this eliminated the argument in favor of market value weights discussed by the Company.[133]

Finally, the AG concluded that Kentucky-American should not include flotation costs in its cost of capital because it does not issue its own debt and therefore does not incur any flotation costs.[134]

Responding to the AG's criticisms, Kentucky-American felt that the AG erred when it did not include AWW, Philadelphia Suburban and Southwest Water in its comparison group. The Company referred to a prior Kentucky-American case in 1995 where the AG had included AWW and Suburban in its proxy companies.[135]

The Company reiterated its position that a flotation cost adjustment is always required to compensate a utility for the cost of raising equity. Kentucky-American

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[133] Id. at 44-45.

[134] Id. at 33-34.

[135] Rebuttal Testimony of Paul K. Moul at 6.

argued that flotation costs were present in the proxy group and therefore should have been included in this case. The Company further contended that AWW experiences flotation costs when it issues its stock and will incur them in the future when it will have to issue substantial amounts of capital to expand Kentucky-American's water treatment facilities.[136]

Kentucky-American also addressed the AG's criticism of the Comparable Earnings approach. The Company stated that the approach was established in the ***Bluefield*** & ***Hope*** decisions, which set forth comparability as one of the requirements for a fair return. The Company argued that the actual returns earned by non-regulated companies must be considered by the regulators to ensure that regulated companies can compete effectively in the capital markets.[137]

The AG recommended an ROE range of 9.75 percent to 10.75 percent. The AG relied upon several different methods to estimate Kentucky-American's ROE: two versions of the DCF model, the CAPM, and the bond-yield-plus-risk premium ("bond-risk premium") approach.

Since Kentucky-American does not have publicly traded stock, the AG utilized a sample of other water companies as proxies to represent Kentucky-American in the DCF and CAPM calculations. The proxy companies were judged to possess characteristics similar to Kentucky-American. Unlike the Company, the AG did not include Kentucky-American's parent, AWW, in the sample.

[136] Id. at 13-14.

[137] Id. at 20-22.

The AG used a constant growth and a two stage DCF analysis. A range of constant growth DCF calculations was calculated based upon historical and forecasts for earnings per share, dividends per share, and book values per share. The results ranged from 6.26 percent–11.69 percent. High and low estimation results were eliminated as being unreasonable.[138] The final range was from 8 percent to 9 percent and resulted in an average of 8.43 percent for the four sample companies. The two stage DCF yielded an ROE range for the proxy companies of 10.8 percent to 11.2 percent, with an average ROE of 11.0 percent. [139]

The AG ran 36 CAPM calculations in an attempt to capture the various assumptions that investors might use in estimating ROE. The estimates ranged from 7.38 percent to 13.32 percent, with an average of 10.31 percent. The AG concluded that, after eliminating the unreasonably high and low results, the proper ROE range should be from 9.5 percent to 10.5 percent.[140]

For the bond-risk-premium method, the AG calculated combinations of one year through 9 year holding periods using a composite of long-term interest rates on government securities. The average risk premium for the proxy companies was 5.9 percent. The AG then added this premium to a current 10-year constant maturity government bond rate, a Congressional Budget Office 10-year projected rate and a

[138] Direct Testimony of Carl G.K. Weaver at 33.

[139] Id. at Schedule 23.

[140] Id. at Schedule 24 and 37.

Congressional Budget Office 2-year projected rate. The results were 12.02 percent, 11.81 percent, and 12.34 percent, respectively.[141]

In recommending an ROE in the range of 9.75 percent to 10.75 percent, the AG placed greater emphasis on the constant growth DCF results and the CAPM results. He argued that the two-stage DCF and the bond-risk-premium methods are more difficult for an investor to use and the required data is not as readily available. The AG also made some allowance for the fact he determined that Kentucky-American was slightly less risky than the four proxy companies.[142]

Kentucky-American criticized the AG's ROE estimations on several grounds. First, it argued that the AG mischaracterized its true risk relative and that it was actually a little more risky than the proxy companies. This, in and of itself, justified finding the ROE in the upper portion of the AG's range of ROE estimates.[143] After making what it believes to be justifiable corrections and alterations to the AG's DCF calculations, Kentucky-American obtained an ROE range of 9.59 percent to 11.88 percent, with an average of 10.18 percent.[144] For the two-stage DCF calculation, Kentucky-American argued that the AG failed to use the growth rate appropriate to the size of the proxy companies and that the two additional companies should be added to the proxy group.

[141] Id. at 37-38.

[142] Id. at 38-39.

[143] Rebuttal Testimony of Paul R. Moul at 5-9.

[144] Id. at 12.

Making these adjustments, Kentucky-American obtains an average ROE for the proxy group of 12.2 percent.[145]

Kentucky-American also found several problems with the AG's CAPM and Risk Premium methods of ROE analysis. It argued that the AG inappropriately included short-term yields on government securities as the risk free rate and used unadjusted betas along with adjusted betas in his CAPM calculations. After making adjustments to the AG's calculations of total market returns and correcting for the other perceived shortcomings, Kentucky-American obtains an average return of 11.84 percent for its six proxy companies.[146] Kentucky-American argued that the AG improperly applied the yield on 10-year government bonds as the benchmark and the selected time period was arbitrarily selected. After making adjustments to the AG's calculations, Kentucky-American obtains an average ROE of 13.61 percent for the proxy companies using the risk premium method.[147]

The Commission agrees with the AG's arguments against adjusting the ROE for flotation costs and for a leverage adjustment. The Commission does not ordinarily require customers to pay for flotation costs when the Company does not actually incur them. The instability of the market value of equity creates problems in calculating an adjustment. In addition, investors familiar with the utility industry are also familiar with the Commission's ratemaking policies and practice and therefore should have already incorporated the difference between book and market valuation in its price.

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[145] Id. at 14.

[146] Id. at 14-16.

[147] Id. at 17-19.

The Commission agrees with the Company's arguments regarding awarding an ROE at the bottom of the AG's range. The low end of the range is below bond returns and would not be appropriate for determining the cost of equity. However, taken as a whole, the Commission finds that the upper end of the range produced by the AG's analysis is more reasonable for setting the cost of common equity for Kentucky-American. The Commission finds the Company's recommended ROE is in excess of the return needed to sufficiently allow Kentucky-American to adequately compete for investment capital. Therefore, the Commission finds a range of 10.5 percent to 11.5 percent, with a midpoint of 11 percent to be reasonable.

Weighted Cost of Capital. Applying the rates of 7.69 percent for long-term, 7.72 percent for preferred stock, .069 percent for short-term debt, and 11 percent for common equity to the adjusted capital structure produces an overall cost of capital of 9.09 percent, which the Commission finds to be fair, just, and reasonable.

Authorized Increase

The net operating income found fair, just, and reasonable is $12,573,200.[148] To achieve this level of income Kentucky-American would be entitled to increase its rates and charges to produce additional annual operating revenues of $2,517,651 determined as follows:

Net Operating Income Found Reasonable	$ 12,573,200
Less: Adjusted Net Operating Income	(11,081,210)
Operating Income Deficiency	$ 1,491,990
Multiplied by: Gross-up Factor	1.687445
Required Revenue Increase	$ 2,517,651

[148] $138,319,034 x 9.09 % = $12,573,200.

COST-OF-SERVICE STUDY

Boonesboro Sewer

Both Kentucky-American and the AG agreed that wastewater costs should be excluded from the cost-of-service study. In accordance with the Commission's disallowance of expenses associated with providing service to Boonesboro Sewer, those expenses have been removed from the cost-of-service study.

Community Education Costs

Kentucky-American maintains that community education costs should be allocated based on the number of customers served and their meter size. Kentucky-American's witness stated that the community education costs were related to the Bluegrass Water Project and should be allocated based on the number of customers.[149]

The AG argued that community education costs were associated with the Bluegrass Water Project and that if these costs are allowed to be recovered, they should be allocated based on the consumption of water in the same manner as other costs associated with the project.[150]

The Commission agrees with Kentucky-American that all customers need to be educated on water conservation regardless of the amount of water used. It would be unfair for customers who use a large amount of water but are trying to conserve to pay more for community education costs than the customers who may use less water but do not attempt to conserve. To the extent that community education costs have been

[149] Kentucky-American's Response to the AG's Data Request No. 1, Item 28(L).

[150] Direct Testimony of Scott J. Rubin at 5.

allowed in this case they have been allocated based on the number of customers served by meter size.

Maximum Day and Maximum Hour Ratios

Kentucky-American contracted with the engineering firm of Burgess and Niple to prepare a customer class water demand study for the year 1999. The study was completed in April 2000 at an approximate cost of $60,000.

Kentucky-American also contracted with Gannett Fleming Valuation and Rate Consultants, Inc. to prepare a cost-of-service study. In preparing the cost-of-service study Kentucky-American's witness chose to not use the factors shown in the demand study. He implied that the study was flawed due to an estimated 10 percent failure of recording devices used in the study and because the study made no mention of how the sample sizes were selected or if the study was statistically valid. Mr. Herbert also questioned whether a one year study is representative of the demands placed on a system.[151]

Kentucky-American's witness stated that he used information from studies completed in Pennsylvania and demand factors found in the AWWA Manual M1, as well as the 1999 demand study, to determine his proposed factors.[152]

The AG's witness maintains that the 1999 demand study is valid and that the authors of the study made adjustments for water use restrictions in place when the study was being conducted. The AG further contends that demand studies prepared in Pennsylvania are not necessarily relevant to Kentucky-American. For example,

[151] Rebuttal Testimony of Paul J. Herbert at 4.

[152] Id. at 6.

average monthly consumption is different, and percentages of multi family dwellings can affect average water usage.[153] The AG also notes that the factors used in the AWWA Manual M1 are not intended for a specific water utility but are shown as an example.

The Commission has reviewed the demand study and finds that most areas of concern raised by the AG have been addressed in the study. For residential customers the average maximum day demand was shown to be 165 percent; however, the study noted that normally residential maximum day demand is around 200 percent. The authors contributed this low demand factor to the water use restrictions in place during 1999 and recommended a demand factor of 190 percent.

The authors of the study noted that both maximum day and maximum hour factors will vary from year to year. Because of this variance and the drought of 1999, demand factors were based on the average of the five highest demand factors calculated.[154]

The Commission agrees with the AG that the AWWA Manual M1 is to be used as a guideline when preparing revenue requirements and a cost-of-service study. The Manual M1 states: "For purposes of illustrating the various principles and techniques of ratemaking discussed in this and the following chapters, an elementary example for a hypothetical utility has been developed."[155]

The Commission finds that the AG did not make a compelling argument to deviate from the recommendations set out in the 1999 demand study. While total

[153] Brief of the AG at 47.

[154] 1999 Customer Class Water Demand Study at 4.

[155] AWWA Manual M1, Chapter 1 at 4 and 5.

average monthly usage may be similar for residential customers in Pennsylvania and Kentucky, the Commission is not convinced that those customers place the same demands on a system. Nor is the Commission convinced that weather patterns, income levels and growth are the same in Lexington, Kentucky as in Pittsburgh, Pennsylvania or in Fayette County, Kentucky as in Montgomery County, Pennsylvania.

The factors used by Kentucky-American in its last rate case, and based on its prior demand study, are not significantly different. Based on the closeness of these factors and the lack of a compelling argument by Kentucky-American, the Commission has used the adjusted factors produced by the demand study and recommended by the AG.

Service Line Installations

Kentucky-American's witness used standard cost data for installing service lines as the basis to allocate service line costs.[156] The Company stated that this eliminates any distortion in costs due to line size, terrain or other factors. The AG's witness used actual costs to allocate the cost of installing meters and services.[157] The AG argues that the data shows that it costs 7 times as much to install a 2-inch service line as it does to install a 3-inch service line. However, Kentucky-American's use of generic pipe ratios assumes that it costs only 2 times as much to install the service.[158]

Kentucky-American agreed with using actual costs for the basis of service line installation as long as logical results are produced. The Commission has historically

[156] Rebuttal Testimony of Paul R. Herbert at 7.

[157] Direct Testimony of Scott J. Rubin at 15.

[158] Id. at 15.

used actual costs to allocate service and finds that this method should be used in this case.

RATE DESIGN

Both Kentucky-American and the AG agreed that public and private fire protection rates should not be increased at this time. The Commission agrees and no increase to these rates has been made in this case.

Kentucky-American's current customer charge for a 5/8 inch connection is $6.83 per month and its proposed customer charge for a 5/8-inch connection is $7.50. Kentucky-American acknowledges that this rate recovers excessive revenue from customer charges because the rates for meter sizes larger than 5/8 inch were based on meter capacity ratios applied to the 5/8 inch charge.[159]

TAPPING FEES

Kentucky-American proposed to establish a tapping fee in the amount of $500 for residential service, $900 for one-inch service, and $3,300 for two inch-services. Connections larger than two-inch would be made at the actual cost of installation.

Kentucky-American proposed to base its connection fees on a 3-year average, due to an increase in the number of installations in 1999. Kentucky-American maintained that as the number of installations increase the cost of installing the meters decreases. Kentucky-American also included the purchase cost of an AMR meter in its calculations.

[159] Rebuttal Testimony of Paul R. Herbert at 9.

The AG argued that the tapping fee should be based on the average cost for 1999 instead of a 3-year average.[160] Kentucky-American proposed using a 3-year average to balance the increase in the cost of meter installation with a decrease in overhead costs per installation.[161]

Kentucky-American installed 174 3/4-inch meters in 1997 at an average cost of $381. In 1998, 132 meters were installed at an average cost of $459, and 199 meters were installed in 1999 at an average cost of $331. Based on these average annual costs, the cost per installation decreases as the number of installations increases. The Commission is of the opinion that using a 3-year average of installation costs to determine tapping fees is reasonable and should be approved.

Kentucky-American proposed to include the cost of AMR meters in its connection fee. While all customers will not receive an AMR meter, Kentucky-American contends that all customers will benefit from the AMR meters since meter reading costs will be decreased.

The AG contends that under Kentucky-American's proposal customers who receive AMR meters will have lower meter reading costs yet continue to pay the same customer charge as those without AMR meters. Therefore, the AG argues that AMR costs should not be included in the tapping fee.[162]

The Commission agrees that all customers should receive some benefit from the installation of AMR meters. However, it is unfair to include the cost of these more expensive meters in the connection fee and not make a corresponding adjustment to

[160] Direct Testimony of Scott J. Rubin, p. 30.

[161] Brief of Kentucky-American at 33 - 34.

the customer charge of those customers who pay for an AMR meter. Since having different customer charges for customers with AMR meters is impractical, the Commission finds that the cost of AMR meters should be included in the customer charge for all customers. All customers will contribute equally in the transition to AMR meters and will receive an equal benefit when meter reading costs decrease.

The Commission finds that Kentucky-American's tapping fees should be as follows:

Connection Size	3-Year Average Cost	Less AMR cost	Add Traditional Meter Cost	Tapping Fee*
5/8	500	103	40	440
1	900	197	58	765
2	3,300	412	284	3,175

*Tapping Fees have been rounded

The Commission finds that in order for Kentucky-American to recover the costs of installing AMR meters $193,191 should be added to the customer charge. This will allow all customers to contribute to the cost of installing AMR meters and to receive any benefits derived from the installations. The recovery of $193,191 was determined as follows:

Connection Size	3-Year Average Number of Connections	AMR Cost Less - Traditional Cost	Under Recovery
5/8	2,611	103-40=63	$ 164,493
1	142	197-58=139	19,738
2	70	412-284=128	8,960
Total			$ 193,191

[162] Direct Testimony of Scott J. Rubin at 32.

OTHER ISSUES

Performance Based Regulation

During this proceeding, Kentucky-American officials stated that the Company had not explored the use of performance based regulation as an alternative to traditional ratemaking approaches. The Commission believes that, at minimum, Kentucky-American should consider whether such regulatory approaches may be beneficial to the Company and other stakeholders. We place Kentucky-American on notice that, in its next general rate case proceeding, it will be questioned on its efforts in this area and it will be required to explain why performance based rate-making is not appropriate in its case.

IT IS HEREBY ORDERED that:

1. Except as noted in Ordering Paragraph 2, the rates proposed by Kentucky-American, are denied.

2. Kentucky-American's proposed revisions to its Kentucky River Authority Withdrawal Fee are approved as of the date of this Order.

3. The rates set forth in Appendix A, which is attached hereto and incorporated herein, are approved for service rendered on and after the date of this Order.

4. When making annual revisions to its Kentucky River Withdrawal Fee, Kentucky-American shall include with its revised tariff sheets a detailed statement showing how revisions to the fee were calculated.

5. At the time of filing revisions to its Kentucky River Withdrawal Fee, Kentucky-American shall post upon its Internet Website notice of the proposed revisions and an explanation of how these revisions were calculated.

6. Prior to accruing an expense as a regulatory asset, Kentucky-American shall formally apply to the Commission for approval of such accrual.

7. Within 180 days of the date of this Order, Kentucky-American shall develop and implement a methodology that permits the tracking of its actual and budgeted programmed - maintenance costs.

8. Within 20 days of the date of this Order, Kentucky-American shall file its revised tariff sheets setting forth the rates approved herein.

Done at Frankfort, Kentucky, this 27th day of November, 2000.

By the Commission

ATTEST:

Executive Director

APPENDIX A

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE COMMISSION IN CASE NO. 2000-120 DATED NOVEMBER 27th, 2000

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 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 herein.

Customer Category	Rate Per 1,000 Gallons All Consumption	Rate Per 100 Cubic Feet All Consumption
Residential	$2.25394	$1.69046
Commercial	2.06730	1.55048
Industrial	1.71666	1.28750
Municipal and Other Public Authority	1.97144	1.47858
Sales for Resale	1.93105	1.44829

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	Monthly Service Charge
5/8 Inch	$ 7.26
¾ Inch	10.88
1 Inch	18.14
1-1/2 Inch	36.28
2 Inch	58.05
3 Inch	108.85
4 Inch	181.42
6 Inch	362.83
8 Inch	580.53

SERVICE CLASSIFICATION NO. 3

AVAILABILITY OF SERVICE

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

Fire Service Rates

Size of Service	Rate Per Month	Rate Per Annum
2 Inch Diameter	$ 4.00	$ 48.00
4 Inch Diameter	16.00	192.00
6 Inch Diameter	35.96	431.52
8 Inch Diameter	63.92	767.04
10 Inch Diameter	99.88	1198.56
12 Inch Diameter	143.85	1726.20
14 Inch Diameter	195.82	2349.84
16 Inch Diameter	255.70	3068.40

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 government Agencies or institutions	$24.00	$288.00

Rates for Private Fire Service

	Rate Per Month	Rate Per Annum
For each private fire hydrant Contracted for by industries Or private institutions	$35.96	$431.52

HIDDEN LEAK ADJUSTMENT: A charge of twenty-five percent (25%) of the applicable tariffed rate will be applied to all water usage determined to be the result of a hidden underground leak.

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

Kentucky-American Water Company | Case No. 2000-120

Direct Testimony of
Scott J. Rubin

on Behalf of
the Office of the Attorney General of Kentucky

July 28, 2000

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Scott J. Rubin. My business address is 3 Lost Creek Drive, Selinsgrove, PA.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am an independent attorney and consultant, with a practice limited to matters affecting the public utility industry.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS CASE?

A. I have been asked by the Office of Attorney General ("AG") to review the cost of service study ("COSS") and rate design that have been presented by Kentucky-American Water Company ("KAWC") and to recommend changes that I believe to be appropriate.

Q. WHAT ARE YOUR QUALIFICATIONS TO PROVIDE THIS TESTIMONY IN THIS CASE?

A. I have worked exclusively on matters involving the public utility industry since 1983 when I began working for the Pennsylvania Office of Consumer Advocate. Since I left that office, in January 1994, I have been an independent public utility consultant and attorney. I have developed substantial expertise in matters relating to the economic regulation of public utilities. I have published technical reports and articles relating to regulatory issues. I also serve as a member of the Rates and Charges Subcommittee of the American Water Works Association ("AWWA"). I have testified as an expert witness on several previous occasions in Kentucky, as well as before regulatory commissions in the District of Columbia and in the states of Arizona, Delaware, Maine, New Jersey, Ohio, and Pennsylvania. I also have testified as an expert witness in federal court proceedings in New York and West Virginia, and before a legislative committee in Pennsylvania. In addition, I served as a member of the Editorial Committee for the recent revision and update of Manual M1 (*Principles of Water Rates, Fees, and Charges, 5th Edition*) by the AWWA, which was published earlier this year.

Q. PLEASE SUMMARIZE YOUR RECOMMENDATIONS AND CONCLUSIONS.

First, I have identified five changes that should be made in KAWC's COSS. The result of these changes decreases the allocated cost of service of the Residential class by approximately $550,000 and increases the cost of service of the Commercial, Industrial, and Private Fire classes by approximately $125,000, $175,000, and $175,000, respectively. Minor changes also result in the allocations to other customer classes. I also have included a new cost-of-service classification for Non-jurisdictional Service which consists entirely of the costs and revenues associated with KAWC's wastewater operations. These cost-of-service changes are presented on Schedules SJR-1 and SJR-2.

Second, I conclude that KAWC's existing customer (or meter) charges are more than sufficient to recover the customer- and meter-related cost of service. This is true under both KAWC's COSS and my revisions to the COSS. It is also true under either KAWC's proposed revenue requirement or the AG's proposed revenue requirement. Simply, there is no justification, under any of the proposals made by KAWC or the AG, to increase the meter charges in this case. The existing meter charges recover several hundred thousand dollars more than the associated cost of service and should not be raised any further. This analysis is presented on Schedule SJR-3.

Third, I have designed rates and prepared detailed proofs of revenues under both KAWC's proposed revenue requirement (presented on Schedule SJR-4) and under the

AG's proposed revenue requirement (presented on Schedule SJR-5). My recommended rates are based on the following principles that I recommend for adoption by the Commission:

(1) No class should receive a rate increase that is more than twice the average rate increase.

(2) No class should receive a rate reduction if other classes are receiving a rate increase.

(3) There should be no increase in the customer charges.

(4) Any unrecovered revenue requirement resulting from principle (1) should be recovered from the remaining customer classes that have a revenue deficiency (that is, that have revenues below their cost of service).

(5) If the Commission adopts no increase for public fire service, then any unrecovered revenue requirement should be recovered from the remaining customer classes that have a revenue deficiency and have not reached the maximum rate (twice the system average increase) in proportion to the class's percentage of equivalent 5/8-inch meters.

In my opinion, the application of these rate design principles will result in rates that are fair to all customer classes and that recognize the uncertainties and professional judgment involved in preparing any COSS.

Finally, I have reviewed KAWC's proposed tapping fee. I find that the rates proposed by KAWC for its tapping fee are higher than are necessary to recover the cost of providing a new customer with a service and meter installation. I am recommending that the Commission adopt lower tapping fees that reflect KAWC's actual cost of providing these facilities to a new customer. My proposed tapping fees are shown on Schedule SJR-6.

Q. HAVE YOU PREPARED SCHEDULES TO SUPPORT YOUR RECOMMENDATIONS?

A. Yes, I have. As I mentioned in the summary, attached to this testimony are Schedules SJR-1 through SJR-6. These schedules consist of a total of 37 pages and were prepared by me. I will explain these schedules in detail later in this testimony.

Q. PLEASE DISCUSS THE CHANGES THAT YOU HAVE FOUND TO BE NECESSARY IN KAWC'S COSS.

A. I have identified five changes that should be made in KAWC's COSS. The first two changes involve the process known as *functionalization*. Functionalization is the process of allocating costs to their various functions. In the base-extra capacity method employed by KAWC, these functions include base, maximum day, maximum hour, billing and collecting, and several others. All of the functions are listed in the first column on Schedule SJR-1.

Q. WHAT IS THE FIRST FUNCTIONALIZATION CHANGE THAT YOU HAVE IDENTIFIED?

A. The first change concerns how KAWC has allocated Community Education Costs that it incurred as part of the Bluegrass Water Pipeline Project ("BWPP"). KAWC has allocated the community education costs in a manner that is different from the way that it allocated all other costs of the BWPP. Specifically, KAWC used allocator 11 for these costs, while it used allocator 2 for all other BWPP costs. This allocation can be found on KAWC Exh. 36, Sch. E, page 35 (the last line is for Community Education Costs totaling $452,115, the line immediately above it is for all other BWPP costs totaling $3,358,227). Allocator 11 is used to assign costs associated with the Customer Accounting – Billing and Collecting function (see KAWC Exh. 36, Sch. E, page 29). In effect, these costs are allocated among customer classes based on the number of customers in each class.

Q. WHY HAS KAWC ALLOCATED COMMUNITY EDUCATION COSTS EQUALLY TO EACH CUSTOMER, RATHER THAN AS A COST OF THE BWPP, WHICH IS ALLOCATED AS A SOURCE OF SUPPLY PROJECT?

A. In response to an interrogatory, KAWC witness Herbert provided the following statement: "Community education costs relate to the education of customers concerning the Bluegrass Water Project (see Mr. Bush's testimony, page 4) and are appropriately allocated based on the number of customers." (KAWC response to AG 1-28(L).)

Q. DO YOU AGREE WITH MR. HERBERT'S RATIONALE?

A. No, I do not. These costs were an integral part of the BWPP and concerned KAWC's attempts to convince the public and decision makers that the BWPP was necessary. There is no reason to allocate these costs differently than the costs of the project itself are being allocated. I also should note that I am not suggesting that it is appropriate to recover these costs at all. I understand that AG witness Henkes will be discussing this issue in his testimony. I am only stating that if these costs are included in the cost of service, then they should be allocated in the same fashion as any other BWPP costs that are allowed to be recovered from KAWC's customers.

Q. WHAT IS THE EFFECT OF CHANGING THE WAY IN WHICH THESE COSTS ARE ALLOCATED?

A. The effect of changing the allocation of these costs is summarized on Schedule SJR-1, page 1, by comparing the columns "KAWC" and "Change 1." It can be seen that approximately $65,000 is removed from the Billing and Collecting function and is added to the Base and Extra Capacity-Maximum Day functions.

Q. WHAT IS SHOWN ON SCHEDULE SJR-1, PAGE 2?

A. This schedule provides the detailed support for the summary column that appears on Schedule SJR-1, page 1. This schedule was prepared using KAWC's cost of service computer model and is comparable to KAWC Exh. 36, Sch. B, page 8. Similar schedules will be provided for each of the COSS adjustments that I propose. I will not discuss these supporting schedules in the testimony; they are being provided solely for the reference of the Commission and other interested parties.

Q. PLEASE DESCRIBE THE SECOND CHANGE THAT YOU HAVE MADE TO COST FUNCTIONALIZATION.

A. The second functionalization change concerns the appropriate treatment of costs related to KAWC's provision of wastewater service. KAWC has made it clear that this case involves only the rates and other charges for its provision of water service. For example, in discovery, KAWC was asked whether it was "proposing any changes in the rates, terms, or conditions of service applicable to wastewater service." KAWC's response was a simple, "No." (KAWC response to AG 1-1(B).) It is common practice with utilities that provide more than one type of utility service to segregate costs for each type of service and prepare a COSS and other information separately for each utility type. The AWWA's text, *Water Utility Accounting* (3rd edition, 1995) provides some guidance on this issue:

> **Allocations Between Water, Wastewater, and Other Service Functions**
> Cost allocations include the provision of services from one utility to another. Whether or not the service functions are in separate departments, boards, or commissions, expenses of another service function continue to be a cost and should be allocated between the respective entities. If the service functions exist within the municipality, cost allocations through accounting entry can be done. If they exist in separate legal entities, then cost allocations can be accomplished through billing of services. (p. 42)
>
> * * *
>
> Many government water utilities also offer wastewater service, which adds considerable complexity to the accounting process. Ordinarily, there is an initial need to keep the costs of water service separate from those of wastewater. This separation of service costs frequently is derived from a policy to have each of the services be self-supporting. How the separation of costs is accomplished varies considerably and can have significant impacts on the cost and complexity of the accounting process. The two major bases are
>
> · budget and account for all costs separately …
>
> · budget and account for all costs together and when cost-of-service studies are necessary, a separate cost allocation study is performed to separate water costs from wastewater costs
>
> Many utilities use a combination of the two accounting bases to maintain a balance between service-cost separation and the cost to account for an increased level of detailed data. (p. 239)

Q. ARE YOU SUGGESTING THAT KAWC NEEDS TO KEEP COMPLETELY SEPARATE BOOKS FOR ITS WATER AND WASTEWATER OPERATIONS?

A. That would be my preference, but given the size of KAWC's wastewater operations (fewer than 100 customers, at the present time), it may not be cost-effective for it to do so. If it does not keep completely separate books, then the same result can be achieved through the cost-of-service process, as suggested in AWWA's accounting text.

Q. HOW WOULD YOU IMPLEMENT THE SEPARATION OF WASTEWATER COSTS FROM WATER

COSTS IN THE COSS?

A. I have implemented this change by creating a new cost function for non-jurisdictional costs, which consists solely of wastewater-related costs, rate base, and revenues. I have not attempted to allocate any joint or common costs (such as administrative expenses, overheads, etc.) to wastewater service. I am solely separating out the direct costs and revenues associated with providing that service. The specific costs and revenues that I have identified as being non-jurisdictional to the provision of water service are shown on Schedule SJR-1, page 3.

Q. WHAT IS THE EFFECT OF REMOVING THESE WASTEWATER COSTS FROM KAWC'S COST OF PROVIDING WATER SERVICE?

A. The effect is summarized on Schedule SJR-1, page 1, by comparing the "KAWC" and "Change 2" columns. The jurisdictional cost of service is reduced by $53,556. The effect of removing these costs is seen primarily in a reduction of the Base and Extra Capacity-Maximum Day functions. Most other cost functions see a relatively minor increase in allocated costs due to changes in several of the allocation ratios that occur when the wastewater costs are removed from the calculation of those ratios. The detail of these changes is provided on Schedule SJR-1, page 4.

Q. HAVE YOU DETERMINED THE COMBINED EFFECT OF BOTH FUNCTIONALIZATION CHANGES THAT YOU RECOMMEND?

A. Yes, I have. The combined effect of both changes is shown on Schedule SJR-1, page 1, in the column "Changes 1&2." The support for this column can be found on page 5 of that schedule. When these two changes are combined, the major effect is a reduction of billing and collecting costs of about $50,000, with minor changes in most of the other cost functions (the largest is an approximate $10,000 change in the Extra Capacity-Maximum Day function).

Q. ONCE THE FUNCTIONALIZATION OF COSTS IS COMPLETED, WHAT IS THE NEXT STEP IN THE COSS?

A. The next step is *classification* of costs; that is, to assign each cost function to the various customer classes. The customer classes are shown in the left column of Schedule SJR-2. The only difference in the customer classes is the addition of a new class for non-jurisdictional service, that is wastewater service. This class is simply provided as a placeholder for the costs that were placed in the non-jurisdictional cost function, as discussed above.

Q. BEFORE DISCUSSING SPECIFIC CHANGES THAT YOU HAVE MADE IN THE CLASSIFICATION OF COSTS, PLEASE DESCRIBE SCHEDULE SJR-2, PAGE 1.

A. This page summarizes the various changes that I propose in the classification of costs. The "KAWC" column shows the classification of costs as proposed by KAWC (KAWC Exh. 36, Sch. A ("Cost of Service" column), page 6). The second column shows what the classification would be if only my changes in functionalization are made in the COSS. This column is taken directly from Schedule SJR-1, page 5 (the "Total" row). By comparing the first two columns on Schedule SJR-2, page 1, it can be seen that the effect of my functionalization adjustments (where the major effect was reducing billing and collecting costs) has primarily affected the class with the most customers – the residential class. The effects on other customer classes are relatively minor. The remainder of this page shows the effect of the three classification adjustments that I will discuss in a moment.

Q. WHAT IS YOUR FIRST CHANGE IN THE CLASSIFICATION OF COSTS?

A. The first change concerns the appropriate factors to use to estimate the maximum day and maximum hour demands from each customer class. On Schedule SJR-2, page 2, I show the ratios that KAWC proposes to use in this case, and I compare those ratios to those that KAWC used in its last case and those that were developed in a demand study that was prepared for KAWC earlier this year (based on data collected during 1999).

A simple observation of the data on this page shows that KAWC is proposing very different maximum day and maximum hour ratios than it used in its previous case. Moreover, it is apparent that KAWC's proposal is not based on either its historical experience (as reflected in the last case) or on the results of its recently completed demand study.

Q. IF KAWC DID NOT BASE ITS RECOMMENDATION ON HISTORICAL EXPERIENCE OR ITS RECENT DEMAND STUDY, THEN WHAT WAS THE BASIS FOR ITS PROPOSED RATIOS?

A. KAWC witness Herbert states that he based his recommended ratios on his judgment, using data from several sources, including KAWC's field studies, field studies that Mr. Herbert's firm conducted in Pennsylvania between 1992 and 1998, information from KAWC's last case, and information that appears in AWWA Manual M1 (KAWC response to AG 1-11).

Q. WHAT IS YOUR ASSESSMENT OF THE APPROPRIATENESS OF THESE DATA SOURCES FOR USE IN THIS CASE?

A. There should be a strong preference for using actual information for the specific utility under consideration. The characteristics of service territories can differ dramatically, even within a state, let alone from one state to another. Differences include not only differences in climate, but also different demographic characteristics of the service territories that can affect water-use (such as appliance saturation; size and quality of landscaped area; household size; prevalence of modern, efficient plumbing fixtures; and other factors), different mix of non-residential customers, different seasonal loads (such as the presence of large universities, vacation communities, resorts, or other seasonal operations), and other factors. Thus, I would place great weight on a recently performed study for the specific utility under consideration. I also would consider relying on historical information for the utility, particularly if there is some reason to believe that recent experience may not be representative of the period during which rates will be in effect.

If recent utility-specific information is available, then I would not rely at all on studies that were conducted for other utilities. I also would not rely at all on ratios that are contained in AWWA's Manual M1.

Q. AREN'T THE MAXIMUM DAY AND MAXIMUM HOUR RATIOS IN MANUAL M1 REPRESENTATIVE OF GENERAL INDUSTRY EXPERIENCE?

A. No, they are not. The ratios that are used in the manual are simply an example for a hypothetical utility. They are not based on current experience from any particular utility and are not held out as being an appropriate substitute for utility-specific information. In using the manual, it is important to distinguish between the general principles and the specific illustrations that were constructed for a hypothetical utility. Just as it would be inappropriate to base a utility's revenue requirement on the expenses and investment of the hypothetical utility used in the manual, it would be equally inappropriate to use the maximum day and maximum hour ratios for that non-existent utility. I also would note that, to the best of my knowledge, those ratios have been used in the manual for at least 20 years and, thus, would not reflect any changes in consumption patterns that have resulted from changes in housing stock, plumbing fixtures, household size, or the many other economic, social, and demographic factors that can affect water use.

Q. WHAT DO YOU CONCLUDE ABOUT THE SOURCES RELIED UPON BY KAWC WITNESS HERBERT?

A. I conclude that it is inappropriate to give any weight to the ratios in AWWA Manual M1. I also conclude that there is no reason to rely on studies that range from 2 to 8 years old that were performed for utilities in a different state. Recent information is available for KAWC and that information should be the primary source for maximum day and maximum hour ratios in this case.

Q. WHAT IS THE EFFECT OF USING THIS RECENT KAWC-SPECIFIC INFORMATION?

A. On Schedule SJR-2, page 2, I show the ratios that I recommend for use in this case. They represent the results of the recently completed demand study for KAWC, rounded to the nearest 0.05. The only exception is the residential maximum hour ratio, which was not calculated in KAWC's demand study. To develop this ratio, I assumed that the relationship between maximum day and maximum hour for the residential class is the same as it is for the commercial class. That is, the commercial class's maximum hour (2.62) is approximately 41.6% higher than its maximum day (1.85). So, I assumed that the residential class's maximum hour would also be approximately 41.6% higher than its maximum day, or 1.90 x 1.416 = 2.69, which I rounded to 2.70. I would note that Mr. Herbert's proposed ratios for the residential and commercial class also are roughly the same proportion (both have maximum hour ratios that are approximately 1.5 times the maximum day ratio for that class).

Q. DOES AWWA'S MANUAL M1 PROVIDE ANY GUIDANCE TO DETERMINE THE REASONABLENESS OF MAXIMUM DAY OR MAXIMUM HOUR RATIOS?

A. Yes, Manual M1 does provide a general test for the reasonableness of an estimate of maximum day and maximum hour ratios. The manual (page 69) states:

> A test of the reasonableness of the estimated maximum day and maximum hour capacity factors assigned to the various customer classes, the system-wide diversity ratio should generally fall in the range of 1.10 to 1.40. The diversity ratio is defined as

$$\frac{\text{System Noncoincidental Demand, Less Fire Protection Demand}}{\text{System Coincidental Demand, Less Fire Protection Demand}}$$

Q. HAVE YOU APPLIED THIS TEST OF REASONABLENESS TO THE MAXIMUM DAY AND MAXIMUM HOUR RATIOS PROPOSED BY YOU AND KAWC?

A. I have used this test to check the reasonableness of the maximum day ratios. However, I do not have information on KAWC's actual maximum hour system coincident demand. Therefore, I cannot perform this check for the maximum hour ratios. I have performed the calculation for 1999 and both my recommended maximum day ratios and Mr. Herbert's maximum day ratios fall within the recommended range of 1.1 to 1.4. The following table shows this calculation:

	Avg.	KAWC Max. Day		AG Max. Day	
	Demand	Factor	Demand	Factor	Demand
Residential	16,690	2.00	33,380	1.90	31,711
Commercial	12,234	1.90	23,245	1.85	22,633
Industrial	2,914	1.60	4,662	1.70	4,954
Other Public Authority	3,763	1.80	6,773	1.75	6,585
Sales for Resale	1,164	1.70	1,979	1.70	1,979
Total Noncoincident Demand			70,039		67,862
Actual System Coincident Demand in 1999			61,180		61,180
Ratio of Noncoincident to Coincident			1.14		1.11

Sources:
Average demand from KAWC Exh. 36, Sch. C, page 9
Maximum demand is average demand x max. day factor
Actual system coincident demand in 1999 determined from KAWC response to AG 1-211 (demand on August 11, 1999)

Q. WHAT IS THE EFFECT OF USING THE MAXIMUM DAY AND MAXIMUM HOUR RATIOS THAT YOU RECOMMEND?

A. The effect of using these ratios is summarized on Schedule SJR-2, page 1 and is detailed on page 3 of that Schedule. By comparing the "Change 3" column with the "KAWC after Changes 1 & 2" column on page 1 of Schedule SJR-2, it can be seen that approximately $160,000 is shifted from the residential class to the industrial class, with smaller changes occurring in the cost responsibility of the other water-using classes (that is, the non-fire classes). These changes are not surprising, given the fact that KAWC witness Herbert used factors for the residential class that are higher than those found in KAWC's demand study, while he used factors for the industrial class that are lower than those found in the demand study.

Q. WHAT IS THE SECOND CHANGE THAT YOU HAVE MADE IN THE CLASSIFICATION OF COSTS?

A. The second change is needed to reflect the actual cost of installing meters and service lines on KAWC's system. KAWC's COSS uses ratios based on the cost per foot of obtaining service lines of different sizes (KAWC response to AG 1-26). However, using data solely for the cost of the service line itself ignores major differences in actual installation costs, which can include different lengths of service lines, as well as different requirements for meter installations. Mr. Herbert's method ignores significant differences in the cost of installation.

Q. CAN YOU BE MORE SPECIFIC ABOUT DIFFERENCES IN ACTUAL INSTALLATION COSTS?

A. Yes, I can. KAWC provided information about the actual cost of installing 3/4-inch, 1-inch, and 2-inch services. That information shows that it costs more than 7 times as much to install a 2-inch service as it does to install a 3/4-inch service. Mr. Herbert's use of generic pipe-cost ratios, though, assumes that it costs only 2 times as much to install a 2-inch service. Schedule SJR-2, page 4 shows the difference between the ratios used by Mr. Herbert and KAWC's actual experience (based on an average of KAWC's experience during the last three years, 1997 through 1999).

Q. WHAT DO YOU RECOMMEND?

A. My recommendation is shown on Schedule SJR-2, page 4. I recommend that ratios based on KAWC's actual cost of installing customer services should be used in allocating service-related costs among the customer classes. The effect of using KAWC's actual experience, rather than generic pipe-cost ratios, is summarized on Schedule SJR-2, page 1, and is shown in detail on page 5 of that schedule.

Q. WHAT IS THE IMPACT OF THIS RECOMMENDATION?

A. On Schedule SJR-2, page 1, the impact can be seen by comparing the "Change 4" column with the "KAWC after Changes 1 & 2" column. This change transfers cost responsibility for about $300,000 from the residential class to the commercial and private fire classes, with much smaller changes occurring in other customer classes.

Q. PLEASE DESCRIBE YOUR FINAL CHANGE IN THE CLASSIFICATION OF COSTS.

A. This last change again replaces an estimate used by Mr. Herbert with actual data that reflect KAWC's experience. In this instance, the issue is the allocation of meter reading costs. Mr. Herbert assumed that it costs the same amount to read the meter of any customer, so he allocated meter reading costs on the basis of the number of customers in each class. During discovery, however, KAWC provided information showing that KAWC is able to read more residential meters per person-hour than it can meters of any of the other customer classes (except fire protection). (KAWC response to AG 1-27.) Those data show that, on average, KAWC can read 26 residential meters per person-hour, but only 3 industrial meters per person-hour. My recommendation uses KAWC's actual experience in reading meters and assigns meter-reading costs to the customer classes on that basis. I show the percentage of meter reading costs for each customer class, which is taken directly from KAWC's response to AG 1-27, on Schedule SJR-2, page 6.

Q. WHAT IS THE EFFECT OF USING THESE ACTUAL DATA INSTEAD OF A PER-CUSTOMER ALLOCATION?

A. The effect is summarized on page 1 of Schedule SJR-2 and is shown in detail on page 7 of that schedule. On page 1, a comparison of the "Change 5" column with the "KAWC after Changes 1 & 2" column shows that the responsibility of the residential class for meter reading costs has been overstated by approximately $35,000. This cost is properly assigned primarily to the commercial class of customers, where meters are read less efficiently than in the residential class.

Q. HAVE YOU DETERMINED THE COMBINED EFFECT OF ALL OF YOUR RECOMMENDATIONS ON THE COSS?

A. Yes, I have. Schedule SJR-2, page 1 summarizes the results of all of my recommended changes in the "Changes 1-5" column. The detailed support for this column is shown on page 8 of the schedule. The combined effect of all my recommendations can be determined by comparing the "Changes 1-5" column with the "KAWC" column on page 1 of Schedule SJR-2. It can be seen that these problems with KAWC's COSS resulted in an overstatement in the residential cost of service by more than $550,000, while the cost of serving the commercial, industrial, and private fire classes was understated by approximately $125,000, $175,000, and $200,000, respectively.

Q. HOW WILL YOU USE THE RESULTS OF THE COSS?

A. I will use the results of the COSS as the starting point for designing rates that recover KAWC's revenue requirement. I would emphasize, though, that the COSS is just the starting point. There are other factors that also must be taken into account when designing rates. Two of the most important factors are the need to avoid dramatic rate changes and the need to be fair to all classes of customers.

Q. WHY IS IT IMPORTANT TO AVOID DRAMATIC RATE CHANGES?

A. Many customers, particularly commercial and industrial customers, can make investment decisions based on their expectations of the likely cost of water in the future. While, of course, they don't know exactly how much of a rate increase the utility may request or how the utility's costs may change, there is an expectation that the overall structure of the rates will not be dramatically different in the future. This does not mean that changes cannot be made, only that changes should be made gradually. This is also important for residential and smaller commercial customers where a major concern is with the overall cost of the utility service. If at all possible, major increases in rates should be avoided, or at least tempered by giving customers incentives to use utility services more efficiently so that they can try to avoid some of the increased burden from a rate increase.

Q. HOW DO YOU DETERMINE FAIRNESS?

A. Obviously, different people have different opinions about what is fair. When designing utility rates, however, it should be recognized that despite all of the computer models, there is still a good deal of imprecision and judgment involved in the process. Thus, while the results of a COSS might indicate that one class is entitled to a large rate reduction while another should receive a large rate increase, the analyst must recognize that such results could change significantly if just a few assumptions were varied, or if a customer class's characteristics changed a little next year from what they were last year. Thus, while it is important to make a COSS as accurate as possible, it cannot be forgotten that any such study has its limitations. Fairness, then, is at least in part a recognition that the models and assumptions are imperfect, but the consequences of rate changes can be very real.

Q. HOW DO YOU RECOMMEND PUTTING THESE PRINCIPLES – GRADUALISM AND FAIRNESS – INTO ACTION IN THIS CASE?

A. I recommend that rates established in this case should follow two important principles. First, no customer class should receive a rate increase that is more than twice the overall average level of increase. For example, if the overall increase is 10%, then no class should receive more than a 20% increase. Second, no customer class should receive a rate reduction if other classes are receiving a rate increase. Taken together, these principles recognize the need for gradual rate changes and the need to treat all customers fairly. Customer classes that are paying more than the cost of service, under their existing rates, would not receive a rate increase, but also would not have their rates reduced. Customer classes that are paying substantially less than the cost of service will see a substantial rate increase, but that increase may be less than is required to bring them immediately to the full cost of service.

Q. WHAT IS THE FIRST STEP IN DESIGNING RATES FOR KAWC?

A. The first step is to determine the appropriate level of the customer charge for each meter size. KAWC shows its calculation of the customer charge in Exh. 36, Sch. H, page 40. That schedule purports to show that KAWC's existing customer charges are too low to recover the appropriate elements of the cost of service, which include meters, services, billing and collecting, and meter reading. Thus, KAWC shows that it needs a 5/8-inch customer charge of $7.50, instead of the existing customer charge of $6.83.

Q. IS KAWC CORRECT THAT ITS EXISTING CUSTOMER CHARGE IS INSUFFICIENT TO RECOVER ITS CUSTOMER-RELATED COSTS?

A. No, it is not. KAWC errs on Schedule H because it failed to perform the last step in the process – making sure that the revenues collected are equal to the costs that were used at the outset. In this instance, KAWC's error comes from using different factors to develop the 5/8-inch meter charge than are used to escalate that charge for larger meter sizes. For example, KAWC allocates meter reading costs assuming 99,987 units per month. It then escalates the 5/8-inch meter charge using meter capacity ratios, which have 119,289 units per month. This results in an over-collection of meter reading costs by nearly 20,000 units per month at $1.25 per unit, or more than $250,000 per year.

Q. HAVE YOU DETERMINED THE MAGNITUDE OF KAWC'S PROPOSED OVER-COLLECTION OF CUSTOMER-RELATED COSTS?

A. Yes, I have. I have performed this calculation, using KAWC's data, and the result is that KAWC's proposed customer charges would recover $10.8 million rather than the $9.4 million in costs that it identifies as being appropriate for recovery in the customer charge. This calculation is shown in the following table:

Meter size	Number of Bills	KAWC Proposed Rate	KAWC Proposed Revenue
5/8 inch	1,118,964	7.50	$ 8,392,230
1 inch	42,210	18.75	791,438
1 1/2 inch	2,340	37.50	87,750
2 inch	21,636	60.00	1,298,160
3 inch	12	112.50	1,350
4 inch	936	187.50	175,500
6 inch	144	375.00	54,000
8 inch	24	600.00	14,400
Total			$10,814,828

Source:
Number of bills by size from KAWC Exh. 37, Sch. M-3.2

I have not shown the same table using KAWC's existing rates, but performing the same calculation results in KAWC's existing rates generating customer-charge revenue of $9.8 million, which is still in excess of the customer-related cost of service of $9.4 million.

Q. WHAT ARE THE IMPLICATIONS OF YOUR FINDING?

A. The implications are simple. KAWC’s existing customer charges are more than sufficient to recover all of the customer-related cost of service. Schedule SJR-3 provides additional information in support of this finding. Page 1 of that schedule shows the detailed determination of the number of meters by customer size, as well as a calculation of 5/8-inch equivalent meters that I will use later in designing rates. Page 2 of the schedule summarizes the customer-related cost of service under both KAWC’s COSS and under my revisions to the COSS, both with and without recovery of the revenue deficiency from public fire rates. The total cost of service for recovery through the customer charge ranges between $9.40 million and $9.47 million. At the bottom of that page, I show that in order to recover this cost, given the number of 5/8-inch meter equivalents shown on the first page, requires a 5/8-inch customer charge between $6.52 and $6.57 per month. All of these figures are less than the existing customer charge of $6.83 per month. As I stated, there is absolutely no justification for increasing the existing customer charge; it is already too high by about $400,000. Any further increase would move that charge further away from the cost of providing service.

Q. ARE YOU RECOMMENDING THAT THE CUSTOMER CHARGE SHOULD BE LOWERED TO MATCH THE COST OF SERVICE?

A. No, I am not. While there are some reasons why this might be desirable, I believe that to be consistent with the principles that I outlined above – gradualism and fairness – that the customer charges should remain at their existing levels. The over-collection from the customer charge will then be used to recover any deficiency in revenue from public fire service and will then serve to moderate any increase in the consumption charge.

Q. WHAT IS THE NEXT STEP IN DESIGNING RATES IN THIS CASE?

A. The next step is to compare the cost of service to the revenues that are being collected under existing rates, for each class of customers. I begin this process on Schedule SJR-4, page 1. Before I go further, I should explain that I have designed rates under two scenarios. The first, which I will discuss in detail, is shown on Schedule SJR-4. This scenario assumes KAWC's proposed revenue requirement (less non-jurisdictional items) and the results of my changes in the COSS. The second scenario, which is presented on Schedule SJR-5, assumes the revenue requirement developed by AG witness Henkes and again uses the results of my changes in the COSS. The first scenario, using KAWC's proposed revenue requirement, should not be considered to be an endorsement of that revenue requirement. It is simply presented to make it easy to compare the results of my rate design principles and procedures with those employed by KAWC. Indeed, my final recommendation in this case is that the Commission adopt the rates that I develop in Schedule SJR-5, which are designed to recover the AG's proposed revenue requirement.

Q. PLEASE CONTINUE WITH YOUR DISCUSSION OF SCHEDULE SJR-4.

A. Schedule SJR-4, page 1, compares KAWC's proposed cost of service of $43.75 million to the revenue generated under existing rates (again using KAWC's assumptions) of $38.77 million. If each class of customers were to receive precisely the increase required to achieve 100% of the cost of service, the resulting increases would be the figures shown in the "Potential $ Increase" column. These increases would range from a 1.6% increase for public fire to a 36.8% increase for the industrial class, with an average increase of 12.85%.

Q. PLEASE CONTINUE YOUR DISCUSSION ON PAGE 2 OF SCHEDULE SJR-4.

A. Page 2 of the schedule presents the same information in the first two columns as appeared in the first two columns of page 1. The "Maximum $ Increase" column calculates the highest increase that a class could receive and still remain within my first rate design principle – that no class should receive an increase that is more than twice the system average. In this instance, the industrial class's increase has been reduced to 25.7%, with its unrecovered revenue spread to the other customer classes in proportion to their potential increase, as explained in the note on that schedule. With this limitation, the increases would range from a 1.7% increase for public fire to the 25.7% increase for the industrial class.

Q. PLEASE DESCRIBE PAGE 3 OF SCHEDULE SJR-4.

A. Page 3 shows an application of a further limitation on the rate design. KAWC has proposed that there should be no rate increase for the public fire class. I am advised by counsel that the Office of Attorney General agrees with this recommendation. Therefore, it is necessary to spread the revenue deficiency of the public fire class to the other classes of customers. I have done this using the same method recommended by KAWC witness Herbert (KAWC response to AG 1-15(B)) which spreads the deficiency using each class's share of equivalent 5/8-inch meters. The only deviation from this is for the industrial class, which already is assigned its maximum revenue responsibility (because of the limitation of a percentage increase that is two times the system average increase). Once again, the detailed calculation is set forth in the note on this schedule.

Q. WHAT IS THE RESULT OF GOING THROUGH THESE STEPS ON THE FIRST THREE PAGES OF SCHEDULE SJR-4?

A. The result is a maximum, or “target,” level of revenue from each customer class. This target level of revenue is then carried forward to page 4 of the schedule. This page shows a comparison of the target level of revenue and the revenue that would be collected from each class under my proposed rates. It can be seen from this page that the rates that I have designed would provide KAWC with the target level of revenue from each customer class, except for the inevitable rounding limitations.

Q. WHAT ARE THE SPECIFIC RATES THAT YOU ARE RECOMMENDING UNDER THIS SCENARIO?

A. Under this scenario, where KAWC’s revenue requirement is adopted in its entirety, the rates that I recommend are shown on page 5 of the schedule. This page also shows the existing rates and KAWC’s proposed rates, for comparison purposes. It can be seen that I have not changed the customer charges or the public fire charges. The private fire charges have each been increased by 9.0%, while consumption charges vary by class and have been increased between 12.0% and 26.6%, as necessary to meet each class’s level of target revenue. I show a detailed proof of revenues for each customer class on pages 6-11 of this schedule.

Q. WHAT DO YOU CONCLUDE ABOUT YOUR PROPOSED RATES UNDER THIS SCENARIO?

A. I conclude that these rates are consistent with the rate design principles that I discussed earlier. These rates collect the revenue requirement in this scenario, while being consistent with principles of gradualism and fairness. In addition, they do not exacerbate the current over-recovery of customer-related costs, as would be the case under KAWC's proposal.

Q. PLEASE DESCRIBE HOW YOU DESIGNED RATES TO COLLECT THE REVENUE REQUIREMENT RECOMMENDED BY AG WITNESS HENKES.

A. Mr. Henkes recommends a revenue increase of $638,950 (Sch. RJH-1, line 7). Part of his recommendation includes adjustments to KAWC's level of pro forma sales under existing rates (Sch. RJH-11 through Sch. RJH-14). In order to develop rates to collect the AG's recommended revenue requirement, it is necessary to go through the same process that I described under the scenario that uses KAWC's proposed revenue requirement. I show the results of this process on Schedule SJR-5.

Q. ON PAGE 1 OF SCHEDULE SJR-5, YOU SHOW REVISED FIGURES FOR THE COST OF SERVICE. HOW WERE THESE FIGURES DEVELOPED?

A. The revised cost of service on that page simply reflects the ratio of the AG's recommended revenue requirement to KAWC's proposed revenue requirement. I have not attempted to recalculate the entire cost of service study to reflect each of Mr. Henkes's proposed adjustments. The result, as shown on this page, is that some customer classes have revenue under existing rates that exceeds the cost of service, while other classes have a revenue deficiency.

Q. WHAT IS SHOWN ON PAGE 2 OF SCHEDULE SJR-5?

A. Page 2 continues the process of determining a target level of increase for each customer class. On this page, I apply the principles that I discussed earlier: (1) no class should receive an increase that is more than twice the system average increase and (2) no class should receive a rate decrease if others are receiving a rate increase. These principles are particularly important here because the cost of service results are based on the simplifying assumption that Mr. Henkes's adjustments apply in equal proportion to all elements of the cost of service. In fact, we know that this is not the case. For example, one of his major adjustments is to remove costs associated with the BWPP. These costs have been allocated solely to the base and maximum day functions which are allocated entirely to the classes that use water (that is, none of it is allocated to the fire service classes). Yet, by simply reducing the cost of service proportionally for all customer classes, I have effectively allocated a portion of that adjustment to the fire service classes. I know that this is not entirely accurate and, therefore, what looks like an over-recovery under existing rates for the fire classes does not really exist, at least not to the magnitude shown on page 1 of Schedule SJR-5. This is not problematic because the cost of service study is being used only as a starting point for the design of rates. The key factors that will determine the rate design are the two principles that I mentioned above.

Q. WHAT IS THE RESULT OF YOUR ANALYSIS ON SCHEDULE SJR-5, PAGE 2?

A. The result is that, under the AG's recommended revenue requirement, rates should be increased for only three classes of customers: residential, commercial, and industrial. The rates for all other classes of customers should remain the same as existing rates.

Q. HAVE YOU DESIGNED NEW RATES FOR THE RESIDENTIAL, COMMERCIAL, AND INDUSTRIAL CLASSES?

A. Yes, I have. Page 3 of Schedule SJR-5 shows that the rates I have designed collect the AG's recommended revenue requirement within acceptable rounding limits. The specific rates that I am recommending are shown on page 4 of the schedule, along with KAWC's existing and proposed rates for comparison. It can be seen on this page that all of the increased revenue comes from increasing the consumption charges for the residential, commercial, and industrial classes (by 2.9%, 2.4%, and 3.4%, respectively). Detailed proofs of revenues are provided on pages 5 through 10 of the schedule.

Q. IT APPEARS THAT SOME OF YOUR PROOF OF REVENUE PAGES USE DIFFERENT BILLING UNITS THAN YOU USED ON SCHEDULE SJR-4. WHY IS THAT THE CASE?

A. The different billing units are necessary to implement the adjustments to sales that are recommended by Mr. Henkes for the residential, industrial, other public authority, and sales for resale classes. At the bottom of pages 5 and 7-9 of Schedule SJR-5, I provide notes showing the source in Mr. Henkes's schedules for these adjustments to the billing units. By making these adjustments, I can ensure that the revenue under existing rates is equal to that recommended by Mr. Henkes. This also assures that revenue under my proposed rates will, in fact, collect Mr. Henkes's recommended revenue requirement.

Q. AT THE OUTSET, YOU MENTIONED THAT YOU ALSO WERE MAKING AN ADJUSTMENT TO KAWC'S PROPOSED TAPPING FEE. FIRST, PLEASE EXPLAIN YOUR UNDERSTANDING OF THE TAPPING FEE.

A. As I understand it, KAWC is proposing to implement a new charge, a tapping fee, that would be paid for new connections to its system. I am advised by counsel that Kentucky law permits water utilities to impose such a tapping fee and that the fee "shall include charges for a service tap, meter, meter vault, and installation thereof" (KRS § 278.0152). KAWC has proposed a new tariff, with tapping fees for a standard residential connection and commercial (or larger residential) installations of 1 inch and 2 inches. Larger sized installations would be charged at their actual cost and would not be tariffed. KAWC's proposed charges for residential, 1-inch, and 2-inch installations would be $500, $900, and $3,300, respectively (KAWC Exh. 2, page 5).

Q. HAVE YOU REVIEWED THE CALCULATIONS SUPPORTING KAWC'S PROPOSED TAPPING FEES?

A. Yes, I have reviewed a detailed workpaper and other supporting information provided by KAWC that show the basis for its proposed tapping fees. Based on that information, I conclude that KAWC's proposed tapping fees are higher than are justified by its actual cost of providing and installing a service tap, meter, and meter vault.

Q. WHAT PROBLEMS DID YOU FIND WITH KAWC'S CALCULATION OF THE TAPPING FEES?

A. There are two problems with KAWC's calculation. First, KAWC uses a three-year average of installation costs when its data show that the average cost of installation has been declining. Second, KAWC proposes to include the cost of an automatic meter reading ("AMR") meter in the tapping fee, even though such meters are not being installed for all new customers and even though the new customers will be paying exactly the same customer charge as existing customers.

Q. PLEASE EXPLAIN YOUR FIRST PROBLEM WITH KAWC'S ANALYSIS – THAT IT SHOULD NOT BE USING A THREE-YEAR AVERAGE OF COSTS.

A. In response to an interrogatory (AG 1-10), KAWC provided a detailed workpaper showing its average installation costs for the years 1997-1999 for new residential, 1-inch, and 2-inch customers. In each instance, the installation costs were lower in 1999 than they had been in either of the two previous years, as I summarize in the following table.

	Residential	1 inch	2 inch
1997	$381	$684	$2,549
1998	459	799	3,652
1999	331	608	2,327
Average	$391	$697	$2,843

Source:
KAWC response to AG 1-10

Q. WHAT DO YOU RECOMMEND?

A. I recommend that the installation cost component of the tapping fee should be based on KAWC's most recent experience, in this case, the average installation cost for 1999.

Q. PLEASE DISCUSS YOUR SECOND ISSUE – KAWC'S INCLUSION OF THE COST OF AN AMR

METER.

A. KAWC's calculation of the tapping fee includes the cost of an AMR meter at a cost of $103, $197, and $412 for residential, 1-inch, and 2-inch meters, respectively (KAWC workpaper KAW_R_PSCDR1#1_TappingFee_051800.xls). However, in response to an interrogatory, KAWC states:

> Currently, no new customers receive an AMR meter. KAWC has carefully tried to balance the cost to all customers of the new AMR meters against the labor cost for additional meter readers and has continued to install tradition meters on new meter installations.
>
> KAWC is currently installing AMR meters in rural Clark County to reduce meter reading labor costs. It was determined that this was the most cost effective use initially of AMR meters.
>
> In the future, new homes in new subdivisions will receive AMR meters immediately. New homes in existing subdivisions without AMR meters will receive traditional meters until the entire subdivision is changed. KAWC will install new AMR meters each year equal to the number of new services in its system in the most cost effective manner to hold or reduce meter reading labor costs to all customers. Traditional meters removed from those subdivisions would be reused for new homes in existing subdivisions without AMR meters. (KAWC response to AG 1-10(B).)

Q. WHAT DO YOU CONCLUDE FROM THIS STATEMENT BY KAWC?

A. I conclude that it is unreasonable to include the cost of an AMR meter in the tapping fee. KAWC is not installing AMR meters for all new customers. When and if it does start installing such meters for new customers, it will do so as a way of reducing the cost of meter reading. However, those customers will pay the same customer charge that all other customers will pay. That customer charge includes more than $1.00 per month for meter reading costs. That is, there are two bases for concluding that KAWC's proposal is unreasonable. First, it is based on inaccurate information. New customer installations are not all receiving AMR meters. New customers should not be paying for something that they are not receiving. Second, for those new customers that KAWC projects will receive AMR meters, those customers can be expected to have substantially lower meter reading costs than the average KAWC customer. Yet, those customers would be paying the same customer charge (and that customer charge includes at least $1.00 per month for meter reading costs, as shown in KAWC Exh. 36, Sch. H, page 40). It is not reasonable to require customers to bear the higher up-front capital cost of an AMR meter when they will not receive the benefit of lower meter reading costs through their rates.

Q. WHAT DO YOU RECOMMEND?

A. I recommend that the tapping fee should be calculated based on the cost of a new, traditional meter. The most recent costs provided by KAWC, for 1999, are $40, $58, and $284 for residential, 1-inch, and 2-inch meters, respectively (KAWC response to AG 1-10(B)).

Q. HAVE YOU CALCULATED TAPPING FEES THAT ARE CONSISTENT WITH YOUR RECOMMENDATIONS?

A. Yes, I have. Schedule SJR-6 shows the calculation of tapping fees based on the most recent actual cost of installation and the most recent actual cost of a new, traditional meter. The resulting tapping fees are $375, $670, and $2,615 for residential, 1-inch, and 2-inch installations. I recommend that the Commission adopt these tapping fees as being reasonable and as reflecting KAWC's most recent, actual experience.

Q. PLEASE SUMMARIZE YOUR RECOMMENDED RATE CHANGES.

A. First, I recommend that the Commission permit KAWC to change the following rates:

(1) Residential consumption, increase to $1.59994 per ccf
(2) Commercial consumption, increase to $1.50290 per ccf
(3) Industrial consumption, increase to $1.21427 per ccf

All other existing base rate elements should remain the same.

Second, I recommend that KAWC should be permitted to implement a new tapping fee tariff for new water service connections. The tariff should be revised to apply specifically to water service (since KAWC's tariff also includes wastewater service, but it does not propose to charge a tapping fee for wastewater service). The tapping fee rates should be:

(1) Residential - $375.00
(2) One-inch - $670.00
(3) Two-inch - $2,615.00
(4) Larger than two-inch – actual cost

Q. IF THE COMMISSION DOES NOT ACCEPT THE AG'S PROPOSED REVENUE REQUIREMENT IN ITS ENTIRETY, HOW DO YOU RECOMMEND THAT NEW RATES SHOULD BE DETERMINED?

A. My second rate recommendation above (concerning the tapping fee) would remain the same regardless of the revenue requirement. Only the first recommendation – the base rates for service – would change if the revenue requirement changes.

If the Commission adopts a different revenue requirement than that recommended by AG witness Henkes, then I recommend that the following steps should be followed in designing rates:

(1) Estimate the cost of service for each customer class by taking a ratio of the Commission-determined revenue requirement to the cost of service under KAWC's proposed revenue requirement, as computed on Schedule SJR-2, page 8.

(2) Reflect all adjustments to pro forma revenues under existing rates to determine each class's present revenues.

(3) Calculate the maximum potential increase to each customer class by subtracting step (2) from step (1).

(4) Set the increase for each class with a negative maximum potential increase to zero.

(5) Limit all classes with a revenue deficiency to an increase that is no more than twice the overall system average increase (this probably will affect only the industrial class).

(6) Spread the remaining revenue requirement from step (5) to those classes that would receive a rate increase, in proportion to their maximum potential increase from step (3).

(7) Make no changes in the customer charges.

(8) Make no change in the charge for public fire service.

(9) Increase the consumption charge for each class, and private fire charges, as necessary to achieve each class's revenue target as developed in step (6).

These are the same steps that I followed in developing Schedule SJR-5. In my opinion, following these same steps to design rates should result in rates that meet the following rate design goals: (1) the rates are reasonably reflective of the cost of service, (2) they are changed gradually, (3) the rates recognize the limitations of cost of service analyses, and (4) they are fair to all customers.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.

Appendix A

Scott J. Rubin
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Current Positions

Public Utility Attorney and Consultant, Selinsgrove, PA. 1994 to present. I provide legal, consulting, and expert witness services to various organizations interested in the regulation of public utilities.

Lecturer in Computer Science, Susquehanna University, Selinsgrove, PA. 1993 to present.

Previous Positions

Senior Assistant Consumer Advocate, Office of Consumer Advocate, Harrisburg, PA. 1990 to 1994. I supervised the administrative and technical staff and shared with one other senior attorney the supervision of a legal staff of 14 attorneys.

Assistant Consumer Advocate, Office of Consumer Advocate, Harrisburg, PA. 1983 to 1990.

Associate, Laws and Staruch, Harrisburg, PA. 1981 to 1983.

Law Clerk, U.S. Environmental Protection Agency, Washington, DC. 1980 to 1981.

Research Assistant, Rockville Consulting Group, Washington, DC. 1979.

Current Professional Activities

Member, American Bar Association, Public Utility Law Section.

Member, American Water Works Association, Rates and Charges Subcommittee.

Admitted to practice law before the Supreme Court of Pennsylvania, the New York State Court of Appeals, the United States District Court for the Middle District of Pennsylvania, the United States Court of Appeals for the Third Circuit, and the Supreme Court of the United States.

Previous Professional Activities

Member, Federal Advisory Committee on Disinfectants and Disinfection By-Products in Drinking Water, U.S. Environmental Protection Agency, Washington, DC. 1992 to 1994.

Chair, Water Committee, National Association of State Utility Consumer Advocates, Washington, DC. 1990 to 1994.

Member, Board of Directors, Pennsylvania Energy Development Authority, Harrisburg, PA. 1990 to 1994.

Member, Small Water Systems Advisory Committee, Pennsylvania Department of Environmental Resources, Harrisburg, PA. 1990 to 1992.

Member, Water Committee, National Association of State Utility Consumer Advocates. 1988 to 1990.

Member, Ad Hoc Committee on Emissions Control and Acid Rain Compliance, National Association of State Utility Consumer Advocates, 1991.

Member, Nitrogen Oxides Subcommittee of the Acid Rain Advisory Committee, U.S. Environmental Protection Agency, Washington DC. 1991.

Education

J.D. with Honors, George Washington University, Washington, DC. 1981.

B.A. with Distinction in Political Science, Pennsylvania State University, University Park, PA. 1978.

Publications and Presentations

"Quality of Service Issues," a speech to the Pennsylvania Public Utility Commission Consumer Conference, State College, PA. 1988.

K.L. Pape and S.J. Rubin, "Current Developments in Water Utility Law," in *Pennsylvania Public Utility Law* (Pennsylvania Bar Institute). 1990.

Presentation on Water Utility Holding Companies to the Annual Meeting of the National Association of State Utility Consumer Advocates, Orlando, FL. 1990.

"How the OCA Approaches Quality of Service Issues," a speech to the Pennsylvania Chapter of the National Association of Water Companies. 1991.

Presentation on the Safe Drinking Water Act to the Mid-Year Meeting of the National Association of State Utility Consumer Advocates, Seattle, WA. 1991.

"A Consumer Advocate's View of Federal Pre-emption in Electric Utility Cases," a speech to the Pennsylvania Public Utility Commission Electricity Conference. 1991.

Workshop on Safe Drinking Water Act Compliance Issues at the Mid-Year Meeting of the National Association of State Utility Consumer Advocates, Washington, DC. 1992.

Formal Discussant, Regional Acid Rain Workshop, U.S. Environmental Protection Agency and National Regulatory Research Institute, Charlotte, NC. 1992.

S.J. Rubin and S.P. O'Neal, "A Quantitative Assessment of the Viability of Small Water Systems in Pennsylvania," *Proceedings of the Eighth NARUC Biennial Regulatory Information Conference*, National Regulatory Research Institute (Columbus, OH 1992), IV:79-97.

"The OCA's Concerns About Drinking Water," a speech to the Pennsylvania Public Utility Commission Water Conference. 1992.

Member, Technical Horizons Panel, Annual Meeting of the National Association of Water Companies, Hilton Head, SC. 1992.

M.D. Klein and S.J. Rubin, "Water and Sewer -- Update on Clean Streams, Safe Drinking Water, Waste Disposal and Pennvest," *Pennsylvania Public Utility Law Conference* (Pennsylvania Bar Institute). 1992.

Presentation on Small Water System Viability to the Technical Assistance Center for Small Water Companies, Pa. Department of Environmental Resources, Harrisburg, PA. 1993

"The Results Through a Public Service Commission Lens," speaker and participant in panel discussion at Symposium: "Impact of EPA's Allowance Auction," Washington, DC, sponsored by AER*X. 1993.

"The Hottest Legislative Issue of Today -- Reauthorization of the Safe Drinking Water Act," speaker and participant in panel discussion at the Annual Conference of the American Water Works Association, San Antonio, TX. 1993.

"Water Service in the Year 2000," a speech to the Conference: "Utilities and Public Policy III: The Challenges of Change," sponsored by the Pennsylvania Public Utility Commission and the Pennsylvania State University, University Park, PA. 1993.

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In the Matter of the 1995 Long-Term Electric Forecast Report of the Cincinnati Gas & Electric Company, Public Utilities Commission of Ohio, Case No. 95-203-EL-FOR, and *In the Matter of the Two-Year Review of the Cincinnati Gas & Electric Company's Environmental Compliance Plan Pursuant to Section 4913.05, Revised Cost*, Case No. 95-747-EL-ECP. 1996. Concerning the reasonableness of the utility's long-range supply and demand-management plans, the reasonableness of its plan for complying with the Clean Air Act Amendments of 1990, and discussing methods to ensure the provision of utility service to low-income customers, on behalf of the Office of the Ohio Consumers' Counsel..

In the Matter of Notice of the Adjustment of the Rates of Kentucky-American Water Company, Kentucky Public Service Commission, Case No. 95-554. 1996. Concerning rate design, cost of service, and sales forecast issues, on behalf of the Kentucky Office of Attorney General.

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An Investigation of the Sources of Supply and Future Demand of Kentucky-American Water Company (Phase II), Kentucky Public Service Commission, Docket No. 93-434. 1997. Concerning supply and demand planning, on behalf of the Kentucky Office of Attorney General, Public Service Litigation Branch.

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Bangor Hydro-Electric Company Petition for Temporary Rate Increase, Maine Public Utilities Commission, Docket No. 97-201. 1997. Concerning the reasonableness of granting an electric utility's request for emergency rate relief, and related issues, on behalf of the Maine Public Advocate.

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In the Matter of the Petition of Valley Road Sewerage Company for a Revision in Rates and Charges for Water Service, New Jersey Board of Public Utilities, Docket No. WR92080846J. 1997. Concerning the revenue requirements and rate design for a wastewater treatment utility, on behalf of the New Jersey Division of Ratepayer Advocate.

Bangor Gas Company, L.L.C., Petition for Approval to Furnish Gas Service in the State of Maine, Maine Public Utilities Commission, Docket No. 97-795. 1998. Concerning the standards and public policy concerns involved in issuing a certificate of public convenience and necessity for a new natural gas utility, and related ratemaking issues, on behalf of the Maine Public Advocate.

In the Matter of the Investigation on Motion of the Commission into the Adequacy of the Public Utility Water Service Provided by Tidewater Utilities, Inc., in Areas in Southern New Castle County, Delaware, Delaware Public Service Commission, Docket No. 309-97. 1998. Concerning the standards for the provision of efficient, sufficient, and adequate water service, and the application of those standards to a water utility, on behalf of the Delaware Division of the Public Advocate.

In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of Cincinnati Gas and Electric Co. and Related Matters, Public Utilities Commission of Ohio, Case No. 97-103-EL-EFC. 1998. Concerning fuel-related transactions with affiliated companies and the appropriate ratemaking treatment and regulatory safeguards involving such transactions, on behalf of the Ohio Consumers' Counsel.

Olde Port Mariner Fleet, Inc. Complaint Regarding Casco Bay Island Transit District's Tour and Charter Service, Maine Public Utilities Commission, Docket No. 98-161. 1998. Concerning the standards and requirements for allocating costs and separating operations between regulated and unregulated operations of a transportation utility, on behalf of the Maine Public Advocate and Olde Port Mariner Fleet, Inc.

Central Maine Power Company Investigation of Stranded Costs, Transmission and Distribution Utility Revenue Requirements, and Rate Design, Maine Public Utilities Commission, Docket No. 97-580. 1998. Concerning the treatment of existing rate discounts when designing rates for a transmission and distribution electric utility, on behalf of the Maine Public Advocate.

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In the Matter of Petition of Pennsgrove Water Supply Company for an Increase in Rates for Water Service, New Jersey Board of Public Utilities, Docket No. WR98030147. 1998. Concerning the revenue requirements, level of affiliated charges, and rate design for a water utility, on behalf of the New Jersey Division of Ratepayer Advocate.

In the Matter of Petition of Seaview Water Company for an Increase in Rates for Water Service, New Jersey Board of Public Utilities, Docket No. WR98040193. 1999. Concerning the revenue requirements and rate design for a water utility, on behalf of the New Jersey Division of Ratepayer Advocate.

In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of Ohio Power Company and Columbus Southern Power Company and Related Matters, Public Utilities Commission of Ohio, Case Nos. 98-101-EL-EFC and 98-102-EL-EFC. 1999. Concerning the costs and procedures associated with the implementation of the Clean Air Act Amendments of 1990, on behalf of the Ohio Consumers' Counsel.

In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of Dayton Power and Light Company and Related Matters, Public Utilities Commission of Ohio, Case No. 98-105-EL-EFC. 1999. Concerning the costs and procedures associated with the implementation of the Clean Air Act Amendments of 1990, on behalf of the Ohio Consumers' Counsel.

In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of Monongahela Power Company and Related Matters, Public Utilities Commission of Ohio, Case No. 99-106-EL-EFC. 1999. Concerning the costs and procedures associated with the implementation of the Clean Air Act Amendments of 1990, on behalf of the Ohio Consumers' Counsel.

County of Suffolk, et al. v. Long Island Lighting Company, et al., U.S. District Court for the Eastern District of New York, Case No. 87-CV-0646. 2000. Submitted two affidavits concerning the calculation and collection of court-ordered refunds to utility customers, on behalf of counsel for the plaintiffs.

Northern Utilities, Inc., Petition for Waivers from Chapter 820, Maine Public Utilities Commission, Docket No. 99-254. 2000. Concerning the standards and requirements for defining and separating a natural gas utility's core and non-core business functions, on behalf of the Maine Public Advocate.

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Kentucky-American Water Company
Case No. 2000-120

Cost of Service Study – Changes in Functionalization – Summary of Changes

	KAWC	Change 1	Change 2	Changes 1&2
Base	19,638,644	19,678,917	19,586,411	19,628,639
Extra Capacity - Maximum Day	7,667,942	7,692,042	7,635,030	7,657,162
Extra Capacity - Maximum Hour	4,802,264	4,802,264	4,808,230	4,808,230
Customer Facilities - Meters	2,103,496	2,103,496	2,105,147	2,105,147
Customer Facilities - Services	1,992,734	1,992,734	1,996,864	1,996,864
Billing and Collecting	3,844,518	3,780,145	3,855,867	3,791,507
Meter Reading	1,504,920	1,504,920	1,508,581	1,508,581
Private Fire	490,455	490,455	491,309	491,309
Public Fire	1,756,559	1,756,559	1,760,537	1,760,537
Non-jurisdictional (wastewater)	0	0	53,556	53,556
Total	43,801,532	43,801,532	43,801,532	43,801,532

Change 1: Allocate Community Education Costs in same manner as all other costs of Bluegrass Water Pipeline Project

Change 2: Remove wastewater-related costs, revenues, and rate base as being non-jurisdictional (costs by account from AG 1-23)

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Cost of Service Study – Changes in Functionalization – Results of Change 1 (Changing allocation of Community Education Costs)

Cost Function	Factor Ref.	Cost of Service (Schedule D)	Residential	Commercial	Industrial	Public Authorities	Sales for Resale	Fire Service Private Fire	Fire Service Public Fire
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Base	A	$19,678,918	$8,930,293	$6,547,176	$1,558,570	$2,013,153	$623,822	$1,968	$3,936
Extra Capacity - Maximum Day	B	7,692,042	3,858,328	2,545,297	403,832	696,130	188,455		
Extra Capacity - Maximum Hour	C	4,802,264	2,429,465	1,692,318	212,260	383,701	84,520		
Customer Facilities - Meters	D	2,103,496	1,621,376	379,260	11,359	66,470	5,048	19,983	
Customer Facilities - Services	E	1,992,734	1,688,243	186,321	1,993	20,326	598	95,253	
Billing and Collecting	F	3,780,145	3,398,350	301,656	1,512	25,327	756	51,410	1,134
Meter Reading	G	1,504,920	1,356,534	120,394	602	10,083	301	17,006	
Private Fire	H	490,455						490,455	
Public Fire	I	1,756,559							1,756,559
Total		$43,801,533	$23,282,589	$11,772,422	$2,190,128	$3,215,190	$903,500	$676,075	$1,761,629

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Kentucky-American Water Company
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Cost of Service Study – Changes in Functionalization – Listing of Non-Jurisdictional Costs and Revenues

Account Number and Description		Amount Removed
	Miscellaneous revenues	28,376
354	Collective (sic) system structure SWR	6,083
371	Electric pumping equipment SWR	1,620
	Total rate base removed	7,703
354	Depr. exp. - Collective (sic) system structure SWR	2,004
357	Depr. exp. - Electric pumping equipment SWR	540
507.1	Property taxes	357
640	Treatment Operation Supervision and Engineering	24,730
641	Treatment Chemicals	3,800
642	Treatment Operation Labor and Expenses	8,901
650	Treatment Maintenance Supervision and Engineering	3,201
651	Treatment Maintenance Structures and Improvements	11,600
921	Miscellaneous Office Expenses	600
923	Outside Services	26,200
	Total expenses removed	81,933

Sources:
Revenue from KAWC Exh. 37, Sch. M-3, page 2
Rate base from KAWC Exh. 36, Sch. E, page 34
Expenses from KAWC response to AG 1-23 (accounts 640-923) and PSC 3-19 (depreciation and property taxes)

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Kentucky-American Water Company
Case No. 2000-120

Cost of Service Study – Changes in Functionalization – Results of Change 2 (Remove Non-Jurisdictional Costs and Revenues)

								Fire Service	
Cost Function	Factor Ref.	Cost of Service (Schedule D)	Residential	Commercial	Industrial	Public Authorities	Sales for Resale	Private Fire	Public Fire
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Base	A	$19,586,411	$8,888,313	$6,516,399	$1,551,244	$2,003,690	$620,889	$1,959	$3,917
Extra Capacity - Maximum Day	B	7,635,030	3,829,732	2,526,431	400,839	690,970	187,058		
Extra Capacity - Maximum Hour	C	4,808,230	2,432,483	1,694,420	212,524	384,178	84,625		
Customer Facilities - Meters	D	2,105,147	1,622,647	379,558	11,368	66,523	5,052	19,999	
Customer Facilities - Services	E	1,996,864	1,691,743	186,707	1,997	20,368	599	95,450	
Billing and Collecting	F	3,855,867	3,466,425	307,698	1,542	25,834	771	52,440	1,157
Meter Reading	G	1,508,581	1,359,836	120,686	603	10,107	302	17,047	
Private Fire	H	491,309						491,309	
Public Fire	I	1,760,537							1,760,537
Total		$43,747,976	$23,291,179	$11,731,899	$2,180,117	$3,201,670	$899,296	$678,204	$1,765,611

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Kentucky-American Water Company
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Cost of Service Study – Changes in Functionalization – Results of Changes 1 and 2 Combined

Cost Function	Factor Ref.	Cost of Service (Schedule D)	Residential	Commercial	Industrial	Public Authorities	Sales for Resale	Fire Service Private Fire	Fire Service Public Fire
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Base	A	$19,628,639	$8,907,476	$6,530,448	$1,554,588	$2,008,010	$622,228	$1,963	$3,926
Extra Capacity - Maximum Day	B	7,657,162	3,840,833	2,533,755	402,001	692,973	187,600		
Extra Capacity - Maximum Hour	C	4,808,230	2,432,483	1,694,420	212,524	384,178	84,625		
Customer Facilities - Meters	D	2,105,147	1,622,647	379,558	11,368	66,523	5,052	19,999	
Customer Facilities - Services	E	1,996,864	1,691,743	186,707	1,997	20,368	599	95,450	
Billing and Collecting	F	3,791,507	3,408,566	302,562	1,517	25,403	758	51,564	1,137
Meter Reading	G	1,508,581	1,359,836	120,686	603	10,107	302	17,047	
Private Fire	H	491,309						491,309	
Public Fire	I	1,760,537							1,760,537
Total		$43,747,976	$23,263,584	$11,748,136	$2,184,598	$3,207,562	$901,164	$677,332	$1,765,600

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Kentucky-American Water Company
Case No. 2000-120

Cost of Service Study – Changes in Classification – Summary of Results

		KAWC after	Including Changes 1&2			
	KAWC	Changes 1 & 2	Change 3	Change 4	Change 5	Changes 1-5
Residential	23,310,575	23,263,584	23,104,135	22,949,876	23,227,980	22,754,823
Commercial	11,756,185	11,748,136	11,747,049	11,852,771	11,779,817	11,883,365
Industrial	2,185,700	2,184,598	2,357,511	2,187,993	2,185,956	2,362,264
Public Authorities	3,208,840	3,207,562	3,177,359	3,233,921	3,211,636	3,207,792
Other Water Utilities	901,646	901,164	918,990	902,562	901,164	920,388
Private Fire	676,946	677,332	677,332	855,253	675,823	853,744
Public Fire	1,761,640	1,765,600	1,765,600	1,765,600	1,765,600	1,765,600
Non-jurisdictional (wastewater)	-	53,556	53,556	53,556	53,556	53,556
Total	43,801,532	43,801,532	43,801,532	43,801,532	43,801,532	43,801,532

Change 3: Change max day and max hour to correspond to 1999 demand study
Change 4: Change service installation ratios to match KAWC actual experience
Change 5: Change allocation of meter reading costs to track KAWC actual person-hours

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Kentucky-American Water Company
Case No. 2000-120

Cost of Service Study – Changes in Classification – Comparison of Maximum Day and Maximum Hour Ratios

	Used by KAWC this case	Used by KAWC last case	KAWC 1999 Demand Study	Recommend
Maximum Day Ratios				
Residential	2.00	1.90	1.90 (A)	1.90
Commercial	1.90	1.80	1.85	1.85
Industrial	1.60	1.45	1.69	1.70
Public Authority	1.80	1.60	1.74	1.75
Sales for Resale	1.70	1.90	1.69 (B)	1.70
Maximum Hour Ratios				
Residential	3.00	2.60	N/A	2.70
Commercial	2.90	2.10	2.62	2.60
Industrial	2.00	1.60	2.13	2.15
Public Authority	2.40	2.75	2.08	2.10
Sales for Resale	2.00	2.00	1.91	1.90

Notes:
(A) Observed result was 1.65; study increased to 1.90 because of lower residential water use due to drought restrictions
(B) Study states this result may be too high because of unusual weather conditions, but it is lower than historical information and the lowest of any class of customers, so it appears reasonable to use.

Sources:
Ratios used by KAWC in this case from KAWC Exh. 36, Sch. C, pages 9-10
Ratios used by KAWC in last case from KAWC response to AG 1-11
Ratios from 1999 Demand Study prepared for KAWC from KAWC response to AG 1-11(a) (attachment)
Basis for recommendation – use rounded results from the demand study where available; residential maximum hour ratio applies ratio of commercial maximum hour to maximum day to the residential maximum day ratio, or (2.62/1.85) x 1.90 = 2.69, rounded to 2.70.

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Cost of Service Study – Changes in Classification – Results of Change 3 (Use Maximum Day and Hour from 1999 KAWC Demand Study)

Cost Function	Factor Ref.	Cost of Service (Schedule D)	Residential	Commercial	Industrial	Public Authorities	Sales for Resale	Fire Service Private Fire	Fire Service Public Fire
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Base	A	$19,628,639	$8,907,476	$6,530,448	$1,554,588	$2,008,010	$622,228	$1,963	$3,926
Extra Capacity - Maximum Day	B	7,657,162	3,699,174	2,560,555	502,310	694,505	200,618		
Extra Capacity - Maximum Hour	C	4,808,230	2,414,693	1,666,533	285,128	352,443	89,433		
Customer Facilities - Meters	D	2,105,147	1,622,647	379,558	11,368	66,523	5,052	19,999	
Customer Facilities - Services	E	1,996,864	1,691,743	186,707	1,997	20,368	599	95,450	
Billing and Collecting	F	3,791,507	3,408,566	302,562	1,517	25,403	758	51,564	1,137
Meter Reading	G	1,508,581	1,359,836	120,686	603	10,107	302	17,047	
Private Fire	H	491,309						491,309	
Public Fire	I	1,760,537							1,760,537
Total		$43,747,976	$23,104,135	$11,747,049	$2,357,511	$3,177,359	$918,990	$677,332	$1,765,600

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Cost of Service Study – Changes in Classification – Comparison of Service Cost Ratios

Service Size	Ratio Used by KAWC	Actual KAWC Installation Cost	Ratio Based on Installation Cost	Recommend
3/4"	1.00	391	1.00	1.00
1"	1.17	697	1.78	1.78
1 - 1/2"	1.58			4.53
2"	2.04	2,843	7.27	7.27
4"	2.88			10.26
6"	4.24			15.11
8"	6.98			24.87
10"	9.50			33.86
12"	12.16			43.33
16"	16.69			59.48

Sources:
Ratio used by KAWC from KAWC Exh. 36, Sch. C, page 13
Actual KAWC installation cost is 3-year average (1997-1999) cost to install meter and service line (including cost of service line, but excluding cost of meter) from KAWC tapping fee workpaper and response to AG 1-26
Ratio based on installation cost is ratio of actual cost to 3/4” service cost ($391)
Recommendation is to use ratio based on actual installation cost and estimate results for other service line sizes. For 1.5”, recommendation is average of 1” and 2” ratios. For sizes greater than 2”, recommendation is the relationship of ratios used by KAWC to actual 2” ratio. For example, for 4” service, recommendation is (2.88/2.04) x 7.27 = 10.26.

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Cost of Service Study – Changes in Classification – Results of Change 4 (Use KAWC Actual Service Installation Cost Ratios)

Cost Function	Factor Ref.	Cost of Service (Schedule D)	Residential	Commercial	Industrial	Public Authorities	Sales for Resale	Fire Service Private Fire	Fire Service Public Fire
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Base	A	$19,628,639	$8,907,476	$6,530,448	$1,554,588	$2,008,010	$622,228	$1,963	$3,926
Extra Capacity - Maximum Day	B	7,657,162	3,840,833	2,533,755	402,001	692,973	187,600		
Extra Capacity - Maximum Hour	C	4,808,230	2,432,483	1,694,420	212,524	384,178	84,625		
Customer Facilities - Meters	D	2,105,147	1,622,647	379,558	11,368	66,523	5,052	19,999	
Customer Facilities - Services	E	1,996,864	1,378,035	291,342	5,392	46,727	1,997	273,371	
Billing and Collecting	F	3,791,507	3,408,566	302,562	1,517	25,403	758	51,564	1,137
Meter Reading	G	1,508,581	1,359,836	120,686	603	10,107	302	17,047	
Private Fire	H	491,309						491,309	
Public Fire	I	1,760,537							1,760,537
Total		$43,747,976	$22,949,876	$11,852,771	$2,187,993	$3,233,921	$902,562	$855,253	$1,765,600

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Cost of Service Study – Changes in Classification – Comparison of Meter Reading Cost Ratios

	Used by KAWC	Percent of KAWC Meter-Reading Person-Hours	Recommend
Residential	0.9014	87.78%	0.8778
Commercial	0.0800	10.10%	0.1010
Industrial	0.0004	0.13%	0.0013
Public Authority	0.0067	0.96% (A)	0.0094
Sales for Resale	0.0002		0.0002
Private Fire Protection	0.0113	1.03%	0.0103

Note:
(A) Actual meter-reading person-hours combines public authority and sales for resale classes. Recommendation allocates this amount between public authority and sales for resale using the ratio of the number of customers in those two classes. Public authority recommendation = 668/(668+14) x 0.0096 = 0.0094.

Sources:
Ratios used by KAWC from KAWC Exh. 36, Sch. C, page 14
Percent of KAWC meter-reading person-hours from KAWC response to AG 1-27

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Cost of Service Study – Changes in Classification – Results of Change 5 (Use KAWC Actual Meter Reading Cost Ratios)

Cost Function	Factor Ref.	Cost of Service (Schedule D)	Residential	Commercial	Industrial	Public Authorities	Sales for Resale	Fire Service Private Fire	Fire Service Public Fire
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Base	A	$19,628,639	$8,907,476	$6,530,448	$1,554,588	$2,008,010	$622,228	$1,963	$3,926
Extra Capacity - Maximum Day	B	7,657,162	3,840,833	2,533,755	402,001	692,973	187,600		
Extra Capacity - Maximum Hour	C	4,808,230	2,432,483	1,694,420	212,524	384,178	84,625		
Customer Facilities - Meters	D	2,105,147	1,622,647	379,558	11,368	66,523	5,052	19,999	
Customer Facilities - Services	E	1,996,864	1,691,743	186,707	1,997	20,368	599	95,450	
Billing and Collecting	F	3,791,507	3,408,566	302,562	1,517	25,403	758	51,564	1,137
Meter Reading	G	1,508,581	1,324,232	152,367	1,961	14,181	302	15,538	
Private Fire	H	491,309						491,309	
Public Fire	I	1,760,537							1,760,537
Total		$43,747,976	$23,227,980	$11,779,817	$2,185,956	$3,211,636	$901,164	$675,823	$1,765,600

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Cost of Service Study – Changes in Classification – Results of Changes 3-5 Combined

Cost Function	Factor Ref.	Cost of Service (Schedule D)	Residential	Commercial	Industrial	Public Authorities	Sales for Resale	Fire Service Private Fire	Fire Service Public Fire
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Base	A	$19,628,639	$8,907,476	$6,530,448	$1,554,588	$2,008,010	$622,228	$1,963	$3,926
Extra Capacity - Maximum Day	B	7,657,162	3,699,174	2,560,555	502,310	694,505	200,618		
Extra Capacity - Maximum Hour	C	4,808,230	2,414,693	1,666,533	285,128	352,443	89,433		
Customer Facilities - Meters	D	2,105,147	1,622,647	379,558	11,368	66,523	5,052	19,999	
Customer Facilities - Services	E	1,996,864	1,378,035	291,342	5,392	46,727	1,997	273,371	
Billing and Collecting	F	3,791,507	3,408,566	302,562	1,517	25,403	758	51,564	1,137
Meter Reading	G	1,508,581	1,324,232	152,367	1,961	14,181	302	15,538	
Private Fire	H	491,309						491,309	
Public Fire	I	1,760,537							1,760,537
Total		$43,747,976	$22,754,823	$11,883,365	$2,362,264	$3,207,792	$920,388	$853,744	$1,765,600

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Kentucky-American Water Company
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Determination of Maximum Customer Charge by Meter Size – Number of Bills

	Residential	Commercial	Industrial	OPA	OWU	Total	Ratio	5/8" Equivalents
5/8"	1,063,741	53,567	12	1,644	-	1,118,964	1.0	1,118,964
1"	17,126	23,056	12	2,016	-	42,210	2.5	105,525
1 1/2"	132	1,848	12	348	-	2,340	5.0	11,700
2"	576	17,100	264	3,600	96	21,636	8.0	173,088
3"	-	12	-	-	-	12	15.0	180
4"	-	348	168	372	48	936	25.0	23,400
6"	-	48	36	36	24	144	50.0	7,200
8"	-	24	-	-	-	24	80.0	1,920
Total	1,081,575	96,003	504	8,016	168	1,186,266		1,441,977
5/8" Equivalents	1,111,824	270,447	8,214	48,324	3,168			
Percent of 5/8" Equiv.	77%	19%	1%	3%	0%			

Sources:
Number of bills by size from KAWC Exh. 37, Sch. M-3.2
Meter ratios from KAWC Exh. 36, p. 40

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Kentucky-American Water Company
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Determination of Maximum Customer Charge by Meter Size – Cost of Service to be Recovered through Customer Charge

	Cost of Service per KAWC	Cost of Service per AG
Meters	$ 2,103,496	$ 2,105,147
Services	1,992,734	1,996,864
Billing and Collecting	3,844,518	3,791,507
Meter Reading	1,504,920	1,508,581
Public Fire Deficiency	24,732	28,692
Total with Fire Deficiency	$ 9,470,400	$ 9,430,791
Total without Fire Deficiency	$ 9,445,668	$ 9,402,099

Sources:
KAWC cost of service from KAWC Exh. 36, Sch. H, page 40
AG cost of service calculated in cost of service model after changes 1-5 (see spreadsheet model)

Monthly Customer Charge per Equivalent 5/8" Meter

Calculated by taking cost of service (above) divided by number of 5/8" meter equivalent bills (page 1 of this Schedule)

	Using KAWC Cost	Using AG Cost
Customer Charge with Fire Deficiency	$6.57	$6.54
Customer Charge without Fire Deficiency	$6.55	$6.52

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Kentucky-American Water Company
Case No. 2000-120

Rate Design – KAWC Proposed Revenue Requirement – AG Cost of Service

Comparison of Revenues to Cost of Service

	Cost of Service	Present Revenue	Potential $ Increase	Potential % Increase
Residential	22,754,823	20,228,835	2,517,005	12.44%
Commercial	11,883,365	10,576,536	1,302,132	12.31%
Industrial	2,362,264	1,726,523	634,974	36.78%
OPA	3,207,792	2,910,200	296,300	10.18%
OWU	920,388	785,055	134,984	17.19%
Private Fire	853,744	785,918	67,477	8.59%
Public Fire	1,765,600	1,736,908	27,921	1.61%
Miscellaneous	-	17,208	-	
Total	43,747,976	38,767,183	4,980,793	12.85%

Notes:
Cost of Service amount is jurisdictional (non-wastewater)
Possible increase is Cost of Service - Present Revenue - proportional share of Miscellaneous revenues

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Kentucky-American Water Company
Case No. 2000-120

Rate Design – KAWC Proposed Revenue Requirement – AG Cost of Service

Maximum Rate Increase if Limit to 2 Times Average

	Cost of Service	Present Revenue	Maximum $ Increase	Maximum % Increase
Residential	22,754,823	20,228,835	2,627,818	12.99%
Commercial	11,883,365	10,576,536	1,359,459	12.85%
Industrial	2,362,264	1,726,523	443,646	25.70%
OPA	3,207,792	2,910,200	309,345	10.63%
OWU	920,388	785,055	140,927	17.95%
Private Fire	853,744	785,918	70,448	8.96%
Public Fire	1,765,600	1,736,908	29,150	1.68%
Miscellaneous	-	17,208	-	
Total	43,747,976	38,767,183	4,980,793	12.85%

Notes:
The maximum increase is limited to two times the system average increase or 25.70%. The remaining revenue requirement from the Industrial class ($191,328, which is the difference between its maximum increase on the previous page of 634,974 and the maximum increase shown here of 443,646) is allocated to all other classes in proportion to the Potential Increase shown on page 1 of this Schedule. For example, the Residential class allocation is 191,328 x (2,517,005 / 4,980,793 – 634,974) = 191,328 x 57.918% = 110,813. When this amount is added to the maximum increase shown on page 1 of this Schedule, the result is 2,517,005 + 110,813 = 2,627,818.

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Kentucky-American Water Company
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Rate Design – KAWC Proposed Revenue Requirement – AG Cost of Service

Maximum Rate Increase if No Increase in Public Fire

	Cost of Service	Present Revenue	Maximum $ Increase	Maximum % Increase
Residential	22,754,823	20,228,835	2,650,422	13.10%
Commercial	11,883,365	10,576,536	1,364,957	12.91%
Industrial	2,362,264	1,726,523	443,646	25.70%
OPA	3,207,792	2,910,200	310,327	10.66%
OWU	920,388	785,055	140,991	17.96%
Private Fire	853,744	785,918	70,448	8.96%
Public Fire	1,765,600	1,736,908	-	0.00%
Miscellaneous	-	17,208	-	
Total	43,747,976	38,767,183	4,980,791	12.85%

Notes:
The maximum increase is limited to two times the system average increase or 25.70%, as shown on the previous page. The public fire deficiency (29,150) is allocated to the remaining classes – except the Industrial class – in proportion to the class's percent of equivalent 5/8" meters, as shown on Schedule SJR-3, page 1. For example, the Residential class allocation is 29,150 x 77% x 1.0057 = 22,574. (The factor of 1.0057 is necessary to allocate the Industrial class's share of equivalent 5/8" meters to the other classes.) When this amount is added to the maximum increase shown on page 2 of this Schedule, the result is 2,627.818 + 22,574 = 2,650,422.

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Kentucky-American Water Company
Case No. 2000-120

Rate Design – KAWC Proposed Revenue Requirement – AG Cost of Service

Comparison of Proposed Revenue with Target Revenue

	Target Revenue	AG Proposed Revenue	Difference	Target % Increase	AG Proposed % Increase
Residential	22,879,257	22,879,196	(61)	13.10%	13.10%
Commercial	11,941,493	11,941,494	1	12.91%	12.91%
Industrial	2,170,169	2,170,170	1	25.70%	25.70%
OPA	3,220,527	3,220,533	6	10.66%	10.66%
OWU	926,046	926,048	2	17.96%	17.96%
Private Fire	856,366	856,366	0	8.96%	8.96%
Public Fire	1,736,908	1,736,908	0	0.00%	0.00%
Miscellaneous	17,208	17,208	0		
Total	43,747,974	43,747,923	(51)	12.85%	12.85%
Customer Charge	9,402,099	9,847,000	444,901		
Consumption	31,752,601	31,290,441	(462,160)		
Fire Service	2,593,274	2,593,274	-		

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Kentucky-American Water Company
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Rate Design – KAWC Proposed Revenue Requirement – AG Cost of Service

Comparison of Existing and Proposed Rates (AG and KAWC)

	Existing	KAWC Proposed	% Increase	AG Proposed	% Increase
Customer Charge					
5/8" Monthly	6.83	7.50	9.8%	6.83	0.0%
3/4" Monthly	10.24	11.25	9.9%	10.24	0.0%
1" Monthly	17.06	18.75	9.9%	17.06	0.0%
1 1/2" Monthly	34.13	37.50	9.9%	34.13	0.0%
2" Monthly	54.60	60.00	9.9%	54.60	0.0%
3" Monthly	102.38	112.50	9.9%	102.38	0.0%
4" Monthly	170.63	187.50	9.9%	170.63	0.0%
6" Monthly	341.26	375.00	9.9%	341.26	0.0%
8" Monthly	546.02	600.00	9.9%	546.02	0.0%
Consumption					
Residential	1.55470	1.84700	18.8%	1.88081	21.0%
Commercial	1.46709	1.63300	11.3%	1.69646	15.6%
Industrial	1.17481	1.39900	19.1%	1.48682	26.6%
Other Public Authority	1.40538	1.55100	10.4%	1.57440	12.0%
Sales for Resale	1.34446	1.55100	15.4%	1.59276	18.5%
Hidden Leak					
Residential	0.38868	0.46180	18.8%	0.47020	21.0%
Commercial	0.36677	0.40830	11.3%	0.42410	15.6%
Private Fire					
2" Connections	48.00	48.00	0.0%	52.30	9.0%
4" Connections	192.00	192.00	0.0%	209.21	9.0%
6" Connections	431.52	431.52	0.0%	470.21	9.0%
8" Connections	767.04	767.04	0.0%	835.81	9.0%
10" Connections	1,198.56	1,198.56	0.0%	1,306.01	9.0%
12" Connections	1,726.20	1,726.20	0.0%	1,880.95	9.0%
14" Connections	2,349.84	2,349.84	0.0%	2,560.50	9.0%
16" Connections	3,068.40	3,068.40	0.0%	3,343.48	9.0%
Private Fire Hydrants	431.52	431.52	0.0%	470.21	9.0%
Public Fire Hydrants	287.52	287.52	0.0%	287.52	0.0%

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Kentucky-American Water Company
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Rate Design – KAWC Proposed Revenue Requirement – AG Cost of Service

Detailed Proof of Revenues – Residential Class

		––––––– Existing –––––––		––––– AG Proposed –––––	
	Units	Rate	Revenue	Rate	Revenue
5/8" Monthly	1,063,741	6.8300	$ 7,265,351	6.8300	$ 7,265,351
3/4" Monthly	-	10.2400	-	10.2400	-
1" Monthly	17,126	17.0600	292,170	17.0600	292,170
1 1/2" Monthly	132	34.1300	4,505	34.1300	4,505
2" Monthly	576	54.6000	31,450	54.6000	31,450
3" Monthly	-	102.3800	-	102.3800	-
4" Monthly	-	170.6300	-	170.6300	-
6" Monthly	-	341.2600	-	341.2600	-
8" Monthly	-	546.0200	-	546.0200	-
Subtotal			$ 7,593,476		$ 7,593,476
Consumption	8,121,491	1.55470	$12,626,482	1.88081	$15,274,981
Hidden Leak	22,839	0.38868	8,877	0.47020	10,739
Subtotal	8,144,330		$12,635,359		$15,285,720
Total Revenue			$20,228,835		$22,879,196

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Kentucky-American Water Company
Case No. 2000-120

Rate Design – KAWC Proposed Revenue Requirement – AG Cost of Service

Detailed Proof of Revenues – Commercial Class

		------- Existing -------		----- AG Proposed -----	
	Units	Rate	Revenue	Rate	Revenue
5/8" Monthly	53,567	6.8300	$ 365,863	6.8300	$ 365,863
3/4" Monthly	-	10.2400	-	10.2400	-
1" Monthly	23,056	17.0600	393,335	17.0600	393,335
1 1/2" Monthly	1,848	34.1300	63,072	34.1300	63,072
2" Monthly	17,100	54.6000	933,660	54.6000	933,660
3" Monthly	12	102.3800	1,229	102.3800	1,229
4" Monthly	348	170.6300	59,379	170.6300	59,379
6" Monthly	48	341.2600	16,380	341.2600	16,380
8" Monthly	24	546.0200	13,104	546.0200	13,104
Subtotal			$ 1,846,022		$ 1,846,022
Consumption	5,946,140	1.46709	$ 8,723,523	1.69646	$10,087,389
Hidden Leak	19,060	0.36677	6,991	0.42410	8,083
Subtotal	5,965,200		$ 8,730,514		$10,095,472
Total Revenue			$10,576,536		$11,941,494

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Kentucky-American Water Company
Case No. 2000-120

Rate Design – KAWC Proposed Revenue Requirement – AG Cost of Service

Detailed Proof of Revenues – Industrial Class

		Existing		AG Proposed	
	Units	Rate	Revenue	Rate	Revenue
5/8" Monthly	12	6.8300	$ 82	6.8300	$ 82
3/4" Monthly	-	10.2400	-	10.2400	-
1" Monthly	12	17.0600	205	17.0600	205
1 1/2" Monthly	12	34.1300	410	34.1300	410
2" Monthly	264	54.6000	14,414	54.6000	14,414
3" Monthly	-	102.3800	-	102.3800	-
4" Monthly	168	170.6300	28,666	170.6300	28,666
6" Monthly	36	341.2600	12,285	341.2600	12,285
8" Monthly	-	546.0200	-	546.0200	-
Subtotal			$ 56,062		$ 56,062
Consumption	1,421,899	1.17481	$ 1,670,461	1.48682	$ 2,114,108
Hidden Leak	-		-		-
Subtotal	1,421,899		$ 1,670,461		$ 2,114,108
Total Revenue			$ 1,726,523		$ 2,170,170

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Kentucky-American Water Company
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Rate Design – KAWC Proposed Revenue Requirement – AG Cost of Service

Detailed Proof of Revenues – Other Public Authority Class

		Existing		AG Proposed	
	Units	Rate	Revenue	Rate	Revenue
5/8" Monthly	1,644	6.8300	$ 11,229	6.8300	$ 11,229
3/4" Monthly	-	10.2400	-	10.2400	-
1" Monthly	2,016	17.0600	34,393	17.0600	34,393
1 1/2" Monthly	348	34.1300	11,877	34.1300	11,877
2" Monthly	3,600	54.6000	196,560	54.6000	196,560
3" Monthly	-	102.3800	-	102.3800	-
4" Monthly	372	170.6300	63,474	170.6300	63,474
6" Monthly	36	341.2600	12,285	341.2600	12,285
8" Monthly	-	546.0200	-	546.0200	-
Subtotal			$ 329,818		$ 329,818
Consumption	1,836,074	1.40538	$ 2,580,382	1.57440	$ 2,890,715
Hidden Leak	-		-		-
Subtotal	1,836,074		$ 2,580,382		$ 2,890,715
Total Revenue			$ 2,910,200		$ 3,220,533

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Kentucky-American Water Company
Case No. 2000-120

Rate Design – KAWC Proposed Revenue Requirement – AG Cost of Service

Detailed Proof of Revenues – Sales for Resale Class

		Existing		AG Proposed	
	Units	Rate	Revenue	Rate	Revenue
5/8" Monthly	-	6.8300	$ -	6.8300	$ -
3/4" Monthly	-	10.2400	-	10.2400	-
1" Monthly	-	17.0600	-	17.0600	-
1 1/2" Monthly	-	34.1300	-	34.1300	-
2" Monthly	96	54.6000	5,242	54.6000	5,242
3" Monthly	-	102.3800	-	102.3800	-
4" Monthly	48	170.6300	8,190	170.6300	8,190
6" Monthly	24	341.2600	8,190	341.2600	8,190
8" Monthly	-	546.0200	-	546.0200	-
Subtotal			$ 21,622		$ 21,622
Consumption	567,836	1.34446	$ 763,433	1.59276	$ 904,426
Hidden Leak	-		-		-
Subtotal	567,836		$ 763,433		$ 904,426
Total Revenue			$ 785,055		$ 926,048

Schedule SJR-4
Page 11 of 11

Kentucky-American Water Company
Case No. 2000-120

Rate Design – KAWC Proposed Revenue Requirement – AG Cost of Service

Detailed Proof of Revenues – Public and Private Fire

		------- Existing -------		----- AG Proposed -----	
	Units	Rate	Revenue	Rate	Revenue
Private Fire					
2" Connections	41	48.00	$ 1,968	52.30	$ 2,144
4" Connections	229	192.00	43,968	209.21	47,909
6" Connections	616	431.52	265,816	470.21	289,649
8" Connections	239	767.04	183,323	835.81	199,759
10" Connections	5	1,198.56	5,993	1,306.01	6,530
12" Connections	1	1,726.20	1,726	1,880.95	1,881
14" Connections	-	2,349.84	-	2,560.50	-
16" Connections	1	3,068.40	3,068	3,343.48	3,343
Fire Hydrants	649	431.52	280,056	470.21	305,166
Total Private Fire	1,781		$ 785,918		$ 856,381
Public Fire					
Fire Hydrants	6,041	287.52	$ 1,736,908	287.52	$ 1,736,908

Schedule SJR-5
Page 1 of 10

Kentucky-American Water Company
Case No. 2000-120

Rate Design – AG Proposed Revenue Requirement – AG Cost of Service

Comparison of Revenues to Cost of Service

	Cost of Service	Present Revenue	Potential $ Increase	Potential % Increase
Residential	20,765,983	20,301,762	455,325	2.24%
Commercial	10,844,723	10,576,536	263,553	2.49%
Industrial	2,155,795	1,772,829	382,190	21.56%
OPA	2,927,421	3,054,525	(128,443)	-4.21%
OWU	839,943	1,039,636	(200,149)	-19.25%
Private Fire	779,124	785,918	(7,138)	-0.91%
Public Fire	1,611,281	1,736,908	(126,388)	-7.28%
Miscellaneous	0	17,208	0	
Total	39,924,270	39,285,322	638,950	1.63%

Notes:
Cost of Service amount is based on allocation of AG proposed revenue requirement to cost of service computed on Sch. SJR-2, page 8.
Potential Increase is difference between Cost of Service and Present Revenue less allocated portion of Miscellaneous Revenues.

Schedule SJR-5
Page 2 of 10

Kentucky-American Water Company
Case No. 2000-120

Rate Design – AG Proposed Revenue Requirement – AG Cost of Service

Maximum Rate Increase if Limit to 2 Times Average and No Rate Reductions

	Cost of Service	Present Revenue	Maximum $ Increase	Maximum % Increase
Residential	20,765,983	20,301,762	368,174	1.81%
Commercial	10,844,723	10,576,536	213,108	2.01%
Industrial	2,155,795	1,772,829	57,668	3.25%
OPA	2,927,421	3,054,525	0	0.00%
OWU	839,943	1,039,636	0	0.00%
Private Fire	779,124	785,918	0	0.00%
Public Fire	1,611,281	1,736,908	0	0.00%
Miscellaneous	0	17,208	0	
Total	39,924,270	39,285,322	$638,950	1.63%

Notes:
The maximum increase is limited to two times the system average increase or 3.25%. The remaining revenue requirement from the Industrial class is allocated to all other classes that have a revenue deficiency (residential and commercial) in proportion to the Potential Increase shown on page 1 of this Schedule.

Schedule SJR-5
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Kentucky-American Water Company
Case No. 2000-120

Rate Design – AG Proposed Revenue Requirement – AG Cost of Service

Comparison of Proposed Revenue with Target Revenue

	Target Revenue	AG Proposed Revenue	Difference	Target % Increase	AG Proposed % Increase
Residential	20,669,936	20,669,883	(53)	1.81%	1.81%
Commercial	10,789,644	10,789,637	(7)	2.01%	2.01%
Industrial	1,830,497	1,830,493	(4)	3.25%	3.25%
OPA	3,054,525	3,054,525	-	0.00%	0.00%
OWU	1,039,636	1,039,636	-	0.00%	0.00%
Private Fire	785,918	785,918	-	0.00%	0.00%
Public Fire	1,736,908	1,736,908	-	0.00%	0.00%
Miscellaneous	17,208	17,208	-		
Total	39,924,272	39,924,208	(64)	1.63%	1.63%
Customer Charge	9,402,145	9,904,618	502,473		
Consumption	27,999,301	27,479,556	(519,745)		
Fire Service	2,522,826	2,522,826	-		

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Kentucky-American Water Company
Case No. 2000-120

Rate Design – AG Proposed Revenue Requirement – AG Cost of Service

Comparison of Existing and Proposed Rates (AG and KAWC)

	Existing	KAWC Proposed	% Increase	AG Proposed	% Increase
Customer Charge					
5/8" Monthly	6.83	7.50	9.8%	6.83	0.0%
3/4" Monthly	10.24	11.25	9.9%	10.24	0.0%
1" Monthly	17.06	18.75	9.9%	17.06	0.0%
1 1/2" Monthly	34.13	37.50	9.9%	34.13	0.0%
2" Monthly	54.60	60.00	9.9%	54.60	0.0%
3" Monthly	102.38	112.50	9.9%	102.38	0.0%
4" Monthly	170.63	187.50	9.9%	170.63	0.0%
6" Monthly	341.26	375.00	9.9%	341.26	0.0%
8" Monthly	546.02	600.00	9.9%	546.02	0.0%
Consumption					
Residential	1.55470	1.8470	18.8%	1.59994	2.9%
Commercial	1.46709	1.6330	11.3%	1.50290	2.4%
Industrial	1.17481	1.3990	19.1%	1.21427	3.4%
Other Public Authority	1.40538	1.5510	10.4%	1.40538	0.0%
Sales for Resale	1.34446	1.5510	15.4%	1.34446	0.0%
Hidden Leak					
Residential	0.38868	0.4618	18.8%	0.40000	2.9%
Commercial	0.36677	0.4083	11.3%	0.37570	2.4%
Private Fire					
2" Connections	48.00	48.00	0.0%	48.00	0.0%
4" Connections	192.00	192.00	0.0%	192.00	0.0%
6" Connections	431.52	431.52	0.0%	431.52	0.0%
8" Connections	767.04	767.04	0.0%	767.04	0.0%
10" Connections	1,198.56	1,198.56	0.0%	1,198.56	0.0%
12" Connections	1,726.20	1,726.20	0.0%	1,726.20	0.0%
14" Connections	2,349.84	2,349.84	0.0%	2,349.84	0.0%
16" Connections	3,068.40	3,068.40	0.0%	3,068.40	0.0%
Private Fire Hydrants	431.52	431.52	0.0%	431.52	0.0%
Public Fire Hydrants	287.5200	287.52	0.0%	287.52	0.0%

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Kentucky-American Water Company
Case No. 2000-120

Rate Design – AG Proposed Revenue Requirement – AG Cost of Service

Detailed Proof of Revenues – Residential Class

		-------- Existing --------		----- AG Proposed -----	
	Units	Rate	Revenue	Rate	Revenue
5/8" Monthly	1,072,177	6.8300	$7,322,969	6.8300	$ 7,322,969
3/4" Monthly	-	10.2400	-	10.2400	-
1" Monthly	17,126	17.0600	292,170	17.0600	292,170
1 1/2" Monthly	132	34.1300	4,505	34.1300	4,505
2" Monthly	576	54.6000	31,450	54.6000	31,450
3" Monthly	-	102.3800	-	102.3800	-
4" Monthly	-	170.6300	-	170.6300	-
6" Monthly	-	341.2600	-	341.2600	-
8" Monthly	-	546.0200	-	546.0200	-
Subtotal			$7,651,094		$ 7,651,094
Consumption	8,131,338	1.55470	$12,641,791	1.59994	$13,009,653
Hidden Leak	22,839	0.38868	8,877	0.40000	9,136
Subtotal			$12,650,668		$13,018,789
Total Revenue			$20,301,762		$20,669,883

Units are adjusted per recommendations of AG witness Henkes:
Number of bills is based on Sch. RJH-11, line 3 (total recommended forecast period budget bills); all additional residential bills are assumed to be 5/8” monthly.
Additional consumption is from Sch. RJH-11, line 8

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Kentucky-American Water Company
Case No. 2000-120

Rate Design – AG Proposed Revenue Requirement – AG Cost of Service

Detailed Proof of Revenues – Commercial Class

		Existing		AG Proposed	
	Units	Rate	Revenue	Rate	Revenue
5/8" Monthly	53,567	6.8300	$365,863	6.8300	$ 365,863
3/4" Monthly	-	10.2400	-	10.2400	-
1" Monthly	23,056	17.0600	393,335	17.0600	393,335
1 1/2" Monthly	1,848	34.1300	63,072	34.1300	63,072
2" Monthly	17,100	54.6000	933,660	54.6000	933,660
3" Monthly	12	102.3800	1,229	102.3800	1,229
4" Monthly	348	170.6300	59,379	170.6300	59,379
6" Monthly	48	341.2600	16,380	341.2600	16,380
8" Monthly	24	546.0200	13,104	546.0200	13,104
Subtotal			$1,846,022		$ 1,846,022
Consumption	5,946,140	1.46709	$8,723,523	1.50290	$ 8,936,454
Hidden Leak	19,060	0.36677	6,991	0.37570	7,161
Subtotal			$8,730,514		$ 8,943,615
Total Revenue			$10,576,536		$10,789,637

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Kentucky-American Water Company
Case No. 2000-120

Rate Design – AG Proposed Revenue Requirement – AG Cost of Service

Detailed Proof of Revenues – Industrial Class

		––––––– Existing –––––––		**––––– AG Proposed –––––**	
	Units	Rate	Revenue	Rate	Revenue
5/8" Monthly	12	6.8300	$82	6.8300	$ 82
3/4" Monthly	-	10.2400	-	10.2400	-
1" Monthly	12	17.0600	205	17.0600	205
1 1/2" Monthly	12	34.1300	410	34.1300	410
2" Monthly	264	54.6000	14,414	54.6000	14,414
3" Monthly	-	102.3800	-	102.3800	-
4" Monthly	168	170.6300	28,666	170.6300	28,666
6" Monthly	36	341.2600	12,285	341.2600	12,285
8" Monthly	-	546.0200	-	546.0200	-
Subtotal			$56,062		$ 56,062
Consumption	1,461,315	1.17481	$1,716,767	1.21427	$ 1,774,431
Hidden Leak	-		-		-
Subtotal			$1,716,767		$ 1,774,431
Total Revenue			$1,772,829		$ 1,830,493

Units are adjusted per recommendations of AG witness Henkes:
Consumption from Sch. RJH-12, line 3

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Kentucky-American Water Company
Case No. 2000-120

Rate Design – AG Proposed Revenue Requirement – AG Cost of Service

Detailed Proof of Revenues – Other Public Authority Class

		------- Existing -------		----- AG Proposed -----	
	Units	Rate	Revenue	Rate	Revenue
5/8" Monthly	1,644	6.8300	$11,229	6.8300	$ 11,229
3/4" Monthly	-	10.2400	-	10.2400	-
1" Monthly	2,016	17.0600	34,393	17.0600	34,393
1 1/2" Monthly	348	34.1300	11,877	34.1300	11,877
2" Monthly	3,600	54.6000	196,560	54.6000	196,560
3" Monthly	-	102.3800	-	102.3800	-
4" Monthly	372	170.6300	63,474	170.6300	63,474
6" Monthly	36	341.2600	12,285	341.2600	12,285
8" Monthly	-	546.0200	-	546.0200	-
Subtotal			$329,818		$ 329,818
Consumption	1,938,769	1.40538	$2,724,707	1.40538	$ 2,724,707
Hidden Leak	-		-		-
Subtotal			$2,724,707		$ 2,724,707
Total Revenue			$3,054,525		$ 3,054,525

Units are adjusted per recommendations of AG witness Henkes:
Additional consumption from Sch. RJH-13, line 1

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Kentucky-American Water Company
Case No. 2000-120

Rate Design – AG Proposed Revenue Requirement – AG Cost of Service

Detailed Proof of Revenues – Sales for Resale Class

		––––––– Existing –––––––		––––– AG Proposed –––––	
	Units	Rate	Revenue	Rate	Revenue
5/8" Monthly	-	6.8300	$ -	6.8300	$ -
3/4" Monthly	-	10.2400	-	10.2400	-
1" Monthly	-	17.0600	-	17.0600	-
1 1/2" Monthly	-	34.1300	-	34.1300	-
2" Monthly	96	54.6000	5,242	54.6000	5,242
3" Monthly	-	102.3800	-	102.3800	-
4" Monthly	48	170.6300	8,190	170.6300	8,190
6" Monthly	24	341.2600	8,190	341.2600	8,190
8" Monthly	-	546.0200	-	546.0200	-
Subtotal			$ 21,622		$ 21,622
Consumption	757,193	1.34446	$1,018,014	1.34446	$1,018,014
Hidden Leak	-		-		-
Subtotal			$1,018,014		$1,018,014
Total Revenue			$1,039,636		$1,039,636

Units are adjusted per recommendations of AG witness Henkes:
Consumption from Sch. RJH-14 (top)

Schedule SJR-5
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Kentucky-American Water Company
Case No. 2000-120

Rate Design – AG Proposed Revenue Requirement – AG Cost of Service

Detailed Proof of Revenues – Public and Private Fire

		––––––– Existing –––––––		––––– AG Proposed –––––	
	Units	Rate	Revenue	Rate	Revenue
Private Fire	41	48.00	$ 1,968	48.00	$ 1,968
2" Connections	229	192.00	43,968	192.00	43,968
4" Connections	616	431.52	265,816	431.52	265,816
6” Connections	239	767.04	183,323	767.04	183,323
8” Connections	5	1,198.56	5,993	1,198.56	5,993
10” Connections	1	1,726.20	1,726	1,726.20	1,726
12” Connections	-	2,349.84	-	2,349.84	-
14” Connections	1	3,068.40	3,068	3,068.40	3,068
16” Connections	649	431.52	280,056	431.52	280,056
Fire Hydrants	1,781		$ 785,918		$ 785,918
Total Private Fire					
Public Fire					
Fire Hydrants	6,041	287.52	$ 1,736,908	287.52	$ 1,736,908

Schedule SJR-6
Page 1 of 1

Kentucky-American Water Company
Case No. 2000-120

Tapping Fee

Limit tapping fee to the most recently experienced average cost of installation of the service and meter, plus the cost of a manual meter. The most recent information available is for calendar year 1999, as shown below:

	Installation	Meter	Total Cost	AG Recommendation
Residential Connection	$ 331.00	$ 40.00	$ 371.00	$ 375.00
1" Service Connection	$ 608.00	$ 58.00	$ 666.00	$ 670.00
2" Service Connection	$ 2,327.00	$ 284.00	$ 2,611.00	$2,615.00

Source:
KAWC response to AG 1-10 (attachment) (rounded to nearest $5.00)

KENTUCKY-AMERICAN WATER COMPANY
CASE NO. 2012-00520
ATTORNEY GENERAL'S SECOND REQUEST FOR INFORMATION

Witness: Gary M. VerDouw

2. G – Reference the Company's proposed DSIC Rider in Exhibit No. 2, at page 29 of 29. Please explain how any over- or under-recovery balance of allowable DSIC costs, which exists at the time new base rates are established, would be refunded or recovered from customers, as applicable.

Response:

As stated at the bottom of page 28 of 29 of the DSIC Rider: **"**Within 60 days of the end of each DSIC year, if the Company had a DSIC in effect for all or part of the immediately preceding DSIC year, it shall submit to the Commission an annual reconciliation regarding the results for the previous DSIC year. The annual reconciliation shall be verified by an officer of the Company. The annual reconciliation shall include a calculation of the R formula component necessary to adjust revenue collected under the DSIC Rider in effect for prior DSIC year to an amount equivalent to the actual level of prudently-incurred DSIC cost for the prior DSIC year. Any over or under recovery will be included in the calculation of the next adjustment to the DSIC."

Accordingly, when new Base Rates are established, the Company would be required to file an annual reconciliation for the DISC year, or partial DSIC year, as applicable, which DSIC year ends upon the effective date of new Base Rates. Any over/under recovery amount that is determined will be included in the calculation of the next DSIC year charge, which DSIC year commences upon the conclusion of the Forecast Test Period utilized in establishing the above referenced Base Rates.

KENTUCKY-AMERICAN WATER COMPANY
CASE NO. 2012-00520
ATTORNEY GENERAL'S SECOND REQUEST FOR INFORMATION

Witness: Gary M. VerDouw

3. G – Reference the General Description section of the Company's proposed DSIC Rider in Exhibit No. 2, at page 25 of 29. The referenced tariff language states that the "initial annual prospective DSIC year will be the first full twelve month period following the Forecast Test Period utilized by the Commission in establishing Base Rates of the Company in its prior Base Rate Case proceeding."

   a. Would all DSIC eligible utility plant investment recorded during the initial DSIC year be included in the proposed DSIC formula?

   b. Suppose that a portion of the DSIC eligible investment recorded during the initial DSIC year were previously included in the Forecast Test Period from the Company's last base rate case, i.e., the completion of the applicable projects was delayed beyond the previous Forecast Test Period. Would KAW include such "delayed" investment in its proposed DSIC formula? Please explain your response.

   c. If the response to part (b) is no, please identify the portion(s) of the Company's proposed DSIC Rider that would ensure that ratepayers are not charged a DSIC surcharge for investment that was previously included in base rates via the Company's Forecast Test Period.

Response:

a. The Company will utilize a two step process in developing the amount DSIC eligible utility plant investment for the initial DSIC year for inclusion in the DSIC formula. The first step would be to reflect all DSIC eligible utility plant anticipated to be placed in service during the initial DSIC year net of anticipated associated DSIC retirements. The second step thereafter would be to adjust the amount developed in the first step for the elimination of any IP project(s) or amounts already included in Base Rates by virtue of the DSIC eligible IP project(s) or amount inclusion in the Forecasted Test Year in the prior Base Rate case. Please see the response to part (b) for a further explanation.

b. No, as described in part (a), it is not intended that the investment would be included in the DSIC formula that had previously been included in the forecasted Base Rate Case and would only be included in the DSIC formula if the overall investment amount of rate base from the Forecasted Test Period were incrementally different from the amount anticipated for the initial DSIC year. To clarify this point, Kentucky American anticipates that DSIC eligible investments may be in the form of individual IP projects, or in a total investment in recurring capital budget lines that are not generally detailed with specific project information in a rate case. For an individual DSIC eligible IP project that was included in the Forecasted Test Period and thus Base Rates, but then delayed into the initial DSIC year, only the incremental difference (negative or positive) between the value of that IP project in Base Rates and the amount anticipated to be placed in service during the initial DSIC year would be included in initial DSIC year DSIC formula. For routine projects that are DSIC eligible, for example Item B Main Replacement projects, the Forecasted Test Period in a rate case does not generally identify specific projects, only a total investment amount. If such an investment amount has been included in a forecasted test period in a base rate case and subsequently reflected in base rates resulting from that case, it would not be included in the DSIC process. For example, if the Forecasted Test Period for the rate case includes $1 million in DSIC eligible Item B investment, and due to delays only $500,000 investment in Item B projects are completed, then a $500,000 negative adjustment would be applied against the anticipated DSIC eligible routine projects projected for the initial DSIC year (step 2 in part (a) response). This is intended to specifically avoid a situation where ratepayers are charged a DSIC surcharge for investment that was previously included in base rates.

c. The approach described in response to parts (a & b) above is supported by Mr. VerDouw's pre-filed direct testimony on page 22, beginning on line 11, "The DSIC will apply only to qualified, non-revenue producing plant investment that has not been included in rate base in a prior Base Rate case proceeding." Similar language in found within the proposed DSIC Rider on Original Sheet No. 62.4.

KENTUCKY-AMERICAN WATER COMPANY
CASE NO. 2012-00520
ATTORNEY GENERAL'S SECOND REQUEST FOR INFORMATION

Witness: Linda C. Bridwell

4. RR – With reference to KAWC's response to OAG First Information Request No. 137, the initial reply was nonresponsive. Please itemize the amount of non-rate case legal expense for 2010, 2011 and 2012 to date. For each distinct item over $25,000, show payee, amount, account and indicate what services were performed and what the subject matter of the services was.

   a. Provide copies of all invoices which exceed $25,000. This should be the complete document including a complete description of work performed. (Case No. 2010-00036; OAG 1-390)

Response:

The Company objects to this question on the grounds that legal invoices contain information subject to Attorney/Client Privilege and information applicable to the Work Product Doctrine. Notwithstanding the objection, please see the attached itemized list of vouchers and summary of non-rate case legal fees over $25,000.

Kentucky American Water Company
Case No. 2012-00520
KAW_R_AGDR2_NUM4
Legal Invoices

2010

Account	Date	Vendor	Amount	Document No.
533000	01/21/10	Stoll Keenon Ogden PLLC-PO/REM	2,040	42418963
533000	02/15/10	Stoll Keenon Ogden PLLC-PO/REM	157	42436379
533000	03/11/10	Stoll Keenon Ogden PLLC-PO/REM	3,646	42455388
533000	03/29/10	Greenebaum Doll & McDonald PLL	700	42466502
533000	03/29/10	Greenebaum Doll & McDonald PLL	20,277	42466503
533000	04/21/10	Stoll Keenon Ogden PLLC-PO/REM	2,191	42484787
533000	04/23/10	Greenebaum Doll & McDonald PLL	2,575	42486973
533000	04/29/10	Stoll Keenon Ogden PLLC-PO/REM	460	42491627
533000	05/10/10	Stoll Keenon Ogden PLLC-PO/REM	540	42498925
533000	05/28/10	Greenebaum Doll & McDonald PLL	1,986	42514243
533000	06/03/10	Stoll Keenon Ogden PLLC-PO/REM	3,214	42518946
533000	06/25/10	Stoll Keenon Ogden PLLC-PO/REM	924	42535223
533000	06/30/10	Stoll Keenon Ogden PLLC-PO/REM	462	42538986
533000	07/22/10	Stoll Keenon Ogden PLLC-PO/REM	5,934	42555158
533000	07/22/10	Stoll Keenon Ogden PLLC-PO/REM	5,883	42555169
533000	07/26/10	Greenebaum Doll & McDonald PLL	3,543	42557502
533000	08/09/10	Greenebaum Doll & McDonald PLL	420	42568756
533000	08/30/10	Stoll Keenon Ogden PLLC-PO/REM	1,199	42586599
533000	08/30/10	Stoll Keenon Ogden PLLC-PO/REM	2,084	42586622
533000	08/31/10	Ogletree Deakins Nash Smoak &	193	42590223
533000	09/09/10	Stoll Keenon Ogden PLLC-PO/REM	15,413	42596208
533000	09/09/10	Stoll Keenon Ogden PLLC-PO/REM	7,813	42596213
533000	09/28/10	Greenebaum Doll & McDonald PLL	400	42609689
533000	09/29/10	Stoll Keenon Ogden PLLC-PO/REM	1,517	42610974
533000	09/29/10	Greenebaum Doll & McDonald PLL	300	42610991
533000	09/30/10	Stoll Keenon Ogden PLLC-PO/REM	3,465	42614504
533000	10/04/10	Greenebaum Doll & McDonald PLL	2,530	42616753
533000	10/04/10	Greenebaum Doll & McDonald PLL	110	42616757
533000	10/04/10	Greenebaum Doll & McDonald PLL	5,182	42616761
533000	10/04/10	Stoll Keenon Ogden PLLC-PO/REM	1,791	42616766
533000	10/04/10	Stoll Keenon Ogden PLLC-PO/REM	5,354	42616771
533000	11/17/10	Stoll Keenon Ogden PLLC-PO/REM	6,186	42653123
533000	11/17/10	Stoll Keenon Ogden PLLC-PO/REM	590	42653128
533000	11/24/10	Stoll Keenon Ogden PLLC-PO/REM	2,079	42658957
533000	11/24/10	Greenebaum Doll & McDonald PLL	3,225	42658961
533000	12/20/10	Huffmaster Crisis Response LLC	181	42677001
533000	12/21/10	Stoll Keenon Ogden PLLC-PO/REM	20,812	42678992
533000	12/21/10	Stoll Keenon Ogden PLLC-PO/REM	14,806	42679003
533000	12/21/10	Stoll Keenon Ogden PLLC-PO/REM	891	42679056
533000	12/23/10	Ogletree Deakins Nash Smoak &	373	42680123
533000	12/27/10	Greenebaum Doll & McDonald PLL	200	42683097
533000	12/27/10	Greenebaum Doll & McDonald PLL	67,987	42683873
533000	12/29/10	Stoll Keenon Ogden PLLC-PO/REM	840	42687570
			220,472	

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Legal Invoices

2011

Account	Date	Vendor	Amount	Document No.
533000	01/03/11	Huffmaster Crisis Response LLC	150	42690378
533000	01/24/11	Frost Brown Todd	1,180	42703592
533000	01/24/11	Frost Brown Todd	734	42703593
533000	02/15/11	Stoll Keenon Ogden PLLC-PO/REM	1,365	42721035
533000	02/15/11	Greenebaum Doll & McDonald PLL	590	42721036
533000	02/15/11	Stoll Keenon Ogden PLLC-PO/REM	7,360	42721037
533000	02/15/11	Stoll Keenon Ogden PLLC-PO/REM	2,922	42721038
533000	03/03/11	Frost Brown Todd	490	42733937
533000	03/03/11	Stoll Keenon Ogden PLLC-PO/REM	1,054	42733940
533000	03/03/11	Stoll Keenon Ogden PLLC-PO/REM	10,669	42733942
533000	03/08/11	Frost Brown Todd	601	42736891
533000	03/08/11	Frost Brown Todd	1,390	42736892
533000	03/11/11	Greenebaum Doll & McDonald PLL	18,985	42739736
533000	03/11/11	Stoll Keenon Ogden PLLC-PO/REM	378	42739784
533000	03/31/11	Stoll Keenon Ogden PLLC-PO/REM	12,696	42759667
533000	04/05/11	Stoll Keenon Ogden PLLC-PO/REM	1,848	42765868
533000	04/05/11	Greenebaum Doll & McDonald PLL	8,543	42765875
533000	04/11/11	Frost Brown Todd	2,788	42770166
533000	04/11/11	Frost Brown Todd	1,423	42770173
533000	04/11/11	Stoll Keenon Ogden PLLC-PO/REM	10,726	42770272
533000	05/04/11	Major Lindsey & Africa LLC	18,900	42790606
533000	05/04/11	Frost Brown Todd	1,045	42790607
533000	05/10/11	Huffmaster Crisis Response LLC	1,033	42795355
533000	05/20/11	Steptoe & Johnson PLLC	3,851	42804159
533000	05/24/11	Stoll Keenon Ogden PLLC-PO/REM	8,632	42805848
533000	05/24/11	Frost Brown Todd	4,216	42806634
533000	05/25/11	Stoll Keenon Ogden PLLC-PO/REM	13,687	42807048
533000	05/31/11	Steptoe & Johnson PLLC	337	42813246
533000	05/31/11	Stoll Keenon Ogden PLLC-PO/REM	17,574	42813249
533000	05/31/11	Greenebaum Doll & McDonald PLL	42	42813252
533000	05/31/11	Stoll Keenon Ogden PLLC-PO/REM	666	42813253
533000	05/31/11	Steptoe & Johnson PLLC	510	42813255
533000	05/31/11	Greenebaum Doll & McDonald PLL	1,301	42813369
533000	06/08/11	Frost Brown Todd	698	42819674
533000	07/01/11	Stoll Keenon Ogden PLLC-PO/REM	1,386	42840055
533000	07/06/11	Greenebaum Doll & McDonald PLL	81	42842533
533000	07/06/11	Frost Brown Todd	1,070	42842554
533000	07/06/11	Stoll Keenon Ogden PLLC-PO/REM	18,827	42842557
533000	07/06/11	Stoll Keenon Ogden PLLC-PO/REM	1,468	42842560
533000	07/18/11	Steptoe & Johnson PLLC	270	42851534
533000	08/19/11	Frost Brown Todd	503	42880079
533000	08/19/11	Stoll Keenon Ogden PLLC-PO/REM	8,848	42880081
533000	08/19/11	Stoll Keenon Ogden PLLC-PO/REM	1,580	42880084
533000	08/19/11	Stoll Keenon Ogden PLLC-PO/REM	1,318	42880085
533000	08/19/11	Frost Brown Todd	420	42880086
533000	08/19/11	Stoll Keenon Ogden PLLC-PO/REM	1,195	42880087
533000	08/19/11	Stoll Keenon Ogden PLLC-PO/REM	7,848	42880089
533000	08/31/11	Stoll Keenon Ogden PLLC-PO/REM	1,731	42891151
533000	09/01/11	Greenebaum Doll & McDonald PLL	445	42891713
533000	09/01/11	Greenebaum Doll & McDonald PLL	121	42891717
533000	09/01/11	Greenebaum Doll & McDonald PLL	14,950	42891719
533000	09/01/11	Stoll Keenon Ogden PLLC-PO/REM	308	42891723
533000	09/01/11	Stoll Keenon Ogden PLLC-PO/REM	1,771	42891967
533000	09/06/11	Stoll Keenon Ogden PLLC-PO/REM	5,670	42894077
533000	09/06/11	Stoll Keenon Ogden PLLC-PO/REM	1,629	42894084
533000	10/06/11	Frost Brown Todd	6,211	42919219
533000	11/01/11	Stoll Keenon Ogden PLLC-PO/REM	5,842	42939719
533000	11/01/11	Greenebaum Doll & McDonald PLL	497	42939720
533000	11/01/11	Stoll Keenon Ogden PLLC-PO/REM	7,213	42939722
533000	11/01/11	Stoll Keenon Ogden PLLC-PO/REM	74	42939723
533000	11/01/11	Frost Brown Todd	60	42939729
533000	11/04/11	Greenebaum Doll & McDonald PLL	650	42942302
533000	11/04/11	Greenebaum Doll & McDonald PLL	7,547	42942320
533000	11/04/11	Greenebaum Doll & McDonald PLL	336	42942328
533000	11/21/11	Stoll Keenon Ogden PLLC-PO/REM	481	42955725
533000	11/21/11	Stoll Keenon Ogden PLLC-PO/REM	4,666	42955728
533000	12/08/11	Frost Brown Todd	8,577	42970943
533000	12/08/11	Stoll Keenon Ogden PLLC-PO/REM	20,590	42970953
533000	12/12/11	Greenebaum Doll & McDonald PLL	84	42974078
533000	12/15/11	Stoll Keenon Ogden PLLC-PO/REM	330	42977485
533000	12/30/11	Frost Brown Todd	128	42995322
533000	12/30/11	Frost Brown Todd	401	42995326
533000	12/30/11	Greenebaum Doll & McDonald PLL	14,943	42995660
			308,451	

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2012

Account	Date	Vendor	Amount	Document No.	
533000	01/03/12	Stoll Keenon Ogden PLLC-PO/REM	704	42996823	
533000	02/06/12	Bingham Greenebaum Doll LLP	509	43023691	
533000	02/06/12	Stoll Keenon Ogden PLLC-PO/REM	970	43023692	
533000	02/06/12	Stoll Keenon Ogden PLLC-PO/REM	74	43023698	
533000	02/06/12	Stoll Keenon Ogden PLLC-PO/REM	21,912	43023699	
533000	02/09/12	Frost Brown Todd	243	43026700	
533000	02/17/12	Frost Brown Todd	360	43031947	
533000	02/28/12	Huffmaster Crisis Response LLC	591	43039212	
533000	03/07/12	Bingham Greenebaum Doll LLP	630	43044402	
533000	03/07/12	Bingham Greenebaum Doll LLP	3,433	43044403	
533000	03/07/12	Stoll Keenon Ogden PLLC-PO/REM	5,917	43044446	
533000	03/15/12	Stoll Keenon Ogden PLLC-PO/REM	20,193	43050803	
533000	03/21/12	Gallatin County News	25	43055846	
533000	03/28/12	Frost Brown Todd	1,843	43060540	
533000	04/18/12	Stoll Keenon Ogden PLLC	16,337	43076367	
533000	04/18/12	Frost Brown Todd	2,565	43076371	
533000	04/18/12	Stoll Keenon Ogden PLLC	25,149	43076372	
533000	05/16/12	Bingham Greenebaum Doll LLP	671	43092994	
533000	05/23/12	Stoll Keenon Ogden PLLC	10,787	43097781	
533000	05/23/12	Stoll Keenon Ogden PLLC	2,647	43098353	
533000	06/06/12	Frost Brown Todd	80	43109259	
533000	06/06/12	Stoll Keenon Ogden PLLC	9,178	43109264	
533000	06/28/12	Stoll Keenon Ogden PLLC	4,390	43127111	
533000	07/10/12	Stoll Keenon Ogden PLLC	841	43135084	
533000	07/10/12	Stoll Keenon Ogden PLLC	15,718	43135087	
533000	07/14/12	Frost Brown Todd	30	43137747	
533000	07/25/12	Stoll Keenon Ogden PLLC	1,395	43153010	
533000	07/25/12	Stoll Keenon Ogden PLLC	13,646	43153016	
533000	07/25/12	Stoll Keenon Ogden PLLC	352	43153027	
533000	07/25/12	Stoll Keenon Ogden PLLC	1,425	43153033	
53155000	9/25/2012	STOLL KEENON OGDEN PLLC	28,873	5000001665	
53155000	9/25/2012	STOLL KEENON OGDEN PLLC	6,222	5000001666	
53155000	9/25/2012	STOLL KEENON OGDEN PLLC	6,789	5000001664	
53155000	10/8/2012	Goss Samford, PLLC	975	5000002005	
53155000	10/29/2012	Goss Samford, PLLC	106	5000002514	
53155000	11/8/2012	STOLL KEENON OGDEN PLLC	124	5000002876	
53155000	11/19/2012	STOLL KEENON OGDEN PLLC	379	5000003151	
53155000	11/19/2012	STOLL KEENON OGDEN PLLC	1,102	5000003154	
53155000	11/19/2012	STOLL KEENON OGDEN PLLC	198	5000003157	
53155000	11/19/2012	STOLL KEENON OGDEN PLLC	6,101	5000003155	
53155000	11/19/2012	STOLL KEENON OGDEN PLLC	11,124	5000003152	
53155000	11/19/2012	STOLL KEENON OGDEN PLLC	11,668	5000003153	
53155000	11/19/2012	STOLL KEENON OGDEN PLLC	63,727	5000003158	This voucher was included in error in AGDR1_NUM137. It was subsequently reclassed to another division by a manual journal entry shown below.
53155000	11/30/2012	Tennessee-American Water Co.	(63,727)	100002034	
53155000	11/19/2012	STOLL KEENON OGDEN PLLC	16,340	5000003156	
53155000	11/29/2012	Goss Samford, PLLC	721	5000003340	
53155000	12/21/2012	Tim H. Parson & Bubalo Rotman	2,000	5000004241	
			255,336		

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Legal Invoices over $25,000

Account	Vendor	Document Number	Dated	Amount	Services Rendered	Subject Matter
533000	Greenebaum Doll & McDonald PLL	42683873	12/27/2010	67,987	legal services	Employment Law
533000	Stoll Keenon Ogden PLLC	43076372	4/18/2012	25,149	legal services	General Matters
53155000	Stoll Keenon Ogden PLLC	5000001665	9/25/2012	28,873	legal services	Northern Division Connection
				122,009		

KENTUCKY-AMERICAN WATER COMPANY
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ATTORNEY GENERAL'S SECOND REQUEST FOR INFORMATION

Witness: Scott W. Rungren

5. RR – Please provide a detailed explanation for the following in reference KAWC's response to OAG First Information Request No. 118 in Case No. 2012-00520:

   a. What is the cause of the decline in the amount of tax depreciation in excess of book depreciation on both the federal and state basis from 2010 through 2012?

   b. Is this trend expected to continue?

   c. Provide estimates for 2013 and 2014 if available.

Response:

a. The decline between 2010 and 2011 is primarily due to the Company opting out of taking the 100% bonus depreciation on the 2011 tax return. Having taken bonus depreciation every year possible since 2001, total tax basis is a lot lower than total book basis and therefore total tax depreciation will be lower than it has been and the excess depreciation will be smaller. In addition to bonus depreciation, the method change for the repairs tax deduction has also contributed to this. The repairs deduction is the reason for the state decline because the State of Kentucky does not allow bonus depreciation. By law, bonus depreciation is available for 2012 and 2013 for federal purposes, so federal tax depreciation will be higher than book for those years. The amount shown for 2012 is based on the Company's year end provision and will be trued up later in the year for the tax return. Though the Company is expected to take the available 50% bonus depreciation in 2012, at provision time, we were unable to calculate a reasonable amount of bonus depreciation for KY based on the timing of our year end close process. We can provide a better number after our tax return analysis is complete.

b. The trend is expected to continue once the bonus depreciation deduction goes away, though if projected capital expenditures are substantial, it could reverse this trend.

c. For estimates for 2013 and 2014, please refer to KAWC's supporting income tax workpapers, found in the response to Item 3 of the Commission Staff's First Request for Information, WP-1 pages 26-34 (for book depreciation) and pages 112-122 (for tax depreciation). See also the excel files labeled "KY Tax Depreciation 2012-2014" and "Rate Base KY Capital through 12_31_14".

KENTUCKY-AMERICAN WATER COMPANY
CASE NO. 2012-00520
ATTORNEY GENERAL'S SECOND REQUEST FOR INFORMATION

Witness: Cheryl D. Norton / Keith Cartier / Linda C. Bridwell

6. RR – Please provide the following in reference to KAWC's response to OAG First Information Request No. 158 in Case No. 2012-00520:

   a. What is the new in-service date for the Northern Connection, by component?

   b. Provide a valuation and detailed explanation of all the changes expected to the Company's current rate case as a result of the response to item 1.

Response:

a. The projected in-service date of the Northern Division Connection project of December 28, 2013 has not changed and all components are expected to be placed in-service on the same date.

b. Although the in-service date has not changed, the detailed cash flow has been reforecast now that the Certificate has been approved. Please refer to the response to Item 10 of the Commission Staff's Third Data Request.

KENTUCKY-AMERICAN WATER COMPANY
CASE NO. 2012-00520
ATTORNEY GENERAL'S SECOND REQUEST FOR INFORMATION

Witness: Cheryl D. Norton / Keith Cartier / Linda C. Bridwell

7. RR – Please provide the following in reference to KAWC's response to OAG First Information Request No. 158 in Case No. 2012-00520:

   a. Provide all analyses performed as part of KAWC's "due diligence" regarding the purchase of the Owenton Water Treatment Plant, other facilities and the associated service territory

   b. At the time of purchase was KAWC aware of the numerous operating deficiencies of the Owenton Plant?

   c. If the response to Item 7b is no, when did KAWC become aware of the numerous operating deficiencies of the Owenton Plant and why were the deficiencies not identified at the time of purchase?

   d. By party and date, when did KAWC inform the Commission or other affected parties of the numerous operating deficiencies of the Owenton Plant?

   e. What was the amount KAWC paid for the Owenton Plant?

   f. What was the net book cost of the Owenton Plant (plant, less depreciation, less any contributed funds)?

   g. If Item 7e is not available, what value did KAWC place of the Owenton Plant and how was this value established?

   h. When are the various phases of the Northern Connection and improvements to any Owenton facilities expected to be completed and in-service?

   i. Provide all documentation and analyses supporting the responses to Items 7a through 7h.

Response:

a. Please refer to the response to Item 2 and Item 4 of the Commission Staff's First Request for Information in Case No. 2012-00096 which has been incorporated into this case by Order dated March 6, 2013.

b. As explained in Case No. 2012-00096, the record of which has been incorporated into this case, KAW was aware of deficiencies at the Owenton Water Treatment Plant when it was purchased. As time passed and KAW gained operational experience with the Owenton Water Treatment Plant, KAW became aware of the need to either complete substantial renovations to the plant or to complete the Northern Division Connection.

c. N/A.

d. KAW filed the Engineering Feasibility Study Report for Supplying Kentucky American Water's Northern District Distribution System as an attachment to its Application for a Certificate of Public Convenience and Necessity for the Northern Division Connection on May 31, 2012. This report included a detailed review of the deficiencies of the Owenton Water Treatment Plant. KAW would not suggest that it formally informed the Commission or other affected parties of the scope of the deficiencies of the Owenton plant prior to filing the Application for the Certificate of Convenience and Necessity in Case No. 2012-00096. There have not been any Notices of Violations, significant water outages or disruptions of service, or hazardous material releases that might prompt a formal notification. KAW undertakes an annual Public Service Commission inspection and an annual inspection of the facilities by the Division of Water. Some of the operational challenges at the plant, including the lack of reliability and redundancy, were evident during those inspections. Certainly the condition of the Fairgrounds tank was identified in those inspections. Further, KAW provided Commission Staff, PSC Commissioners, and a representative of the Attorney General's office an opportunity to visit the Kentucky River Station II and Owenton facilities on October 26, 2011. Again, the tour was not intended to serve as a formal notification, but to give interested parties an opportunity to see the facilities for themselves outside of and prior to any evidentiary proceeding.

e. Please refer to the draft agreement and asset list provided in response to Item 2 of the Commission's First Data Request in Case No. 2012-00096 which has been incorporated into this case by Order dated March 6, 2013.

f. Please refer to part e above.

g. N/A.

h. Please refer to the response to Item 6 of this same data request.

i. The record in Case No. 2012-00096, which has been incorporated into this case, is replete with documentation relating to the condition of the Owenton Treatment Plant and the need for the Northern Division Connection. Further, please see the response to part a above.

KENTUCKY-AMERICAN WATER COMPANY
CASE NO. 2012-00520
ATTORNEY GENERAL'S SECOND REQUEST FOR INFORMATION

Witness: Scott W. Rungren

8. RR – Please provide the following in reference to KAWC's response to OAG First Information Request No. 138 in Case No. 2012-00520:

   a. A detailed explanation of the cause of the increase in the cost of maintaining lines of credit.

   b. A summary of the amounts and associated detailed explanation of the uses of the funds available through the lines of credit.

Response:

a. In October 2012, American Water entered into a new 5-year credit facility to replace the old credit revolver put into place in 2007. In doing so, American Water incurred increased costs associated with the new revolver that are reflective of the market conditions at the time of execution such as higher annual fees, upfront fees, and arrangement fees. In addition, the total commitment of the credit facility was increased to allow for added flexibility. KAWC's line of credit increased from $25.0 million in 2012 to $30.0 million in 2013.

b. The line of credit is used for general working capital needs and for financing in between long-term capital issuances. Please see table below which details KAWC's short-term borrowings in the last three months from December 2012 to February 2013.

KAWC's Short-Term Borrowing Summary

	Dec-12	Jan-13	Feb-13
Beginning Balance	($2,627,408.30)	($9,372,315.82)	($10,074,071.70)
ACH Payment	(243,411.06)	(483,377.87)	(525,332.72)
ACH Payment Return		8,708.75	
ACH Record Payment	(347,338.67)	(313,615.85)	(317,712.85)
Allocate Hershy Pst - Pay	(43,914.34)	(48,314.62)	(47,082.04)
AP Cheque Payment - Clear	(2,613,401.85)	(2,910,190.02)	(4,435,476.58)
AP Cheque Payment - Clear - 1200000844	(21,726.78)		
AP Cheque Payment - Clear 1200000704	(182.11)		
AP Cheque Payment - Clear 1200000836	(42.74)		
AP Cheque Payment - Clear 1200001129		(1,611.42)	
AP Cheque Payment - Clear 1200001237		(48.18)	
AP Cheque Payment - Clear 1200001474			(467.01)
Canceled: Payroll Cheque Cleared			1,012.00
Canceled: Service Co Bill Dec Estim		(248,067.17)	
Customer Refund Chk Clear	(27,549.53)	(15,702.55)	(11,942.97)
Employee Stock Purch Pay	(17,081.79)		
IC Outgoing Payment	(3,454,111.94)	(2,162,338.04)	(1,704,195.25)
Intercompany Receivable	430,861.88	297,430.90	1,761,514.03
Interest Loan Increase	(2,125.50)	(5,568.22)	(3,430.69)
Internal Common Stock Pay	(4,686,499.09)		
Lockbox Receivable	6,598,000.57	7,233,643.51	6,440,812.60
Manual Fee	(5,282.19)	(2,616.65)	(2,109.13)
Medicare D Wire	571.93		19,626.82
Payroll ACH	(386,787.41)	(380,907.29)	(374,264.65)
Payroll Cheque Cleared		(964.47)	(6,193.91)
Retiree Benefits	4,807.60	359.60	4,828.10
Service Co Bill Dec Estim	109,458.98	248,067.17	224,418.60
Service Co Bill Decrease	79,587.55	99,772.47	36,302.30
Service Co Bill Inc Estim		(248,067.17)	
Service Co Bill Increase	(1,132,013.73)	(1,400,265.82)	(1,112,377.05)
Wire Payment	(986,727.30)	(368,082.94)	(532,116.42)
Ending Balance	**(9,372,315.82)**	**(10,074,071.70)**	**(10,658,258.52)**

KENTUCKY-AMERICAN WATER COMPANY
CASE NO. 2012-00520
ATTORNEY GENERAL'S SECOND REQUEST FOR INFORMATION

Witness: **Melissa L. Schwarzell**

9. RR – Please provide the following in reference to KAWC's response to OAG First Information Request No. 121 in Case No. 2012-00520:

a. The twelve month period included in each of the Tax Years listed, by taxing authority.

b. The date by which payment must be postmarked for each of the taxing authorities listed.

c. Explain the variance in payment dates from year to year. For example: the largest Kentucky payment was made 9/23/12 for 2012, 1/17/12 for 2011, 12/16/10 for 2010 and 6/24/10 for 2009.

Response:

a. The twelve month period included in each of the Tax Years listed, by taxing authority, was the result of a January-December calendar year.

b. All payments must be postmarked for each of the taxing authorities listed by October 1, 2013. If an extension is granted then the payment must be postmarked by the new due date identified from the taxing authority invoice.

c. Timing of payment due dates can fluctuate from year to year. There are multiple steps in the property tax process, including the filing of the tax report (due April 30), the Department of Revenue assessment, the review period for the Company, and finally the determination of property tax amounts and invoicing by each of the taxing authorities. This process is not always completed on the same timeline, which causes fluctuations. Please see brief explanations below for the largest payments from each year, and the drivers for the variances in date.

Year	Payment Date	Note:
2008	10/13/2008	Due date 10/16/08. Payment mailed on 10/13/08.
2009	6/24/2010	KY Bills were delayed as a result of the 2007-2008 Audit. Bills arrived in 2010.
2010	12/16/2010	Payment originally due October 2010, but an amendment was filed in November 2010. Payment was completed after amended assessment received.
2011	1/17/2012	The KY Department of Revenue finalized the 2011 assessments on 12/27/11, and the new bills came in 01/2012.
2012	9/13/2012	Payments due 10/1/12.

KENTUCKY-AMERICAN WATER COMPANY
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ATTORNEY GENERAL'S SECOND REQUEST FOR INFORMATION

Witness: Scott W. Rungren

10. RR – For each Regulatory Asset listed, please provide the following in reference to KAWC's response to OAG First Information Request No. 119 in Case No. 2012-00520:

a. A detailed explanation of each item and the circumstances that gave rise to its recognition on KAWC's books.

b. A detailed explanation of why it is appropriate to recognize each amount in the determination of revenue requirement in a rate case.

c. The amount of each item included in KAWC's base period and forecast period.

Response:

a. Upon adoption of FAS109, deferred tax assets and liabilities were required to be created for all temporary differences. FAS 109 is a balance sheet approach to calculating taxes as opposed to an income statement approached done previously. For regulated companies, a regulatory asset or liability was set up, as offset to the deferred taxes, for example, for plant items previously flowed through to customers. These regulatory assets and liabilities are then amortized to tax expense over the life of the underlying assets in order to recognize recovery through future rate revenues. Accounting for these items has been recorded so that annual income tax expense is unchanged from what it would have been had FAS 109 not been adopted.

Regulated assets were also created for AFUDC. FAS 109 requires recognition of a deferred tax asset for the equity component of the allowance for funds used during construction which had been a permanent item. Account 18504500 is for other small items other than plant or AFUDC. Account 18505500 is just the amortization of accounts 18503000 and 18503500. Rather than being included within those accounts, it is separate.

b. The rate base treatment of regulatory assets and liabilities recorded must be consistent with the treatment in rate base of the associated deferred tax. Either both are included or both are excluded. The regulatory assets and liabilities are not included in rate base for the Company and therefore should not be included in the deferred tax portion of rate base.

c. The base period includes $6,636,915 and the forecast period includes $6,022,518. Please see supporting workpapers found in response to Item 3 of the

Commission's First Request for Information, WP-1, pages 99-100 and pages 104-111 for amortization information.

KENTUCKY-AMERICAN WATER COMPANY
CASE NO. 2012-00520
ATTORNEY GENERAL'S SECOND REQUEST FOR INFORMATION

Witness: Linda C. Bridwell / Gary M. VerDouw

11. RR – Please reference KAWC's response to OAG First Information Requests Nos. 88 and 169 in Case No. 2012-00520:

a. Are the BT costs allocated/charged to KAWC as discussed in IR 169 (specifically page 5 of 17) included in the amounts provided in response to IR 88 (page 2 of 2)?

b. If the response to item 11a is yes, please identify amounts by IR 169 category that were/will be allocated/charged to IR 88 category, by year for 2009 through 2014.

c. If the response to item 11a is no, please identify how BT costs were/will be allocated/charged to KAWC, by year, by account for 2009 through 2014.

Response:

a. No. The BT related costs identified in response to IR 169 are the capital costs associated with the development and deployment of the BT assets. The costs identified in IR 88 are the operation and maintenance expenses for the ongoing maintenance of the BT assets (e.g., ongoing software and hardware license and maintenance fees) once the assets have been placed in service.

b. N/A.

c. BT costs are allocated to KAWC based on KAWC's share of the total, AW system-wide regulated utilities' customer count at the end of each year in accordance with the Kentucky-American Water / AW Service Company Agreement.

KENTUCKY-AMERICAN WATER COMPANY
CASE NO. 2012-00520
ATTORNEY GENERAL'S SECOND REQUEST FOR INFORMATION

Witness: Linda C. Bridwell / Gary M. VerDouw

12. RR – Please reference KAWC's response to OAG First Information Requests Nos. 88 and 169 in Case No. 2012-00520:

    a. What were the total costs allocated/charged to KAWC by American Water affiliates in 2009 through 2012, in as much detail as available?

    b. What amount of total costs from American Water affiliates is included in the base and future periods in the current rate case? Provide amounts in as much detail as available.

    c. What amount of total costs from American Water affiliates was included in the cost of service in KAWC's last two rate cases, by case, by base and future period, in as much detail as available?

Response:

a. The operating expenses allocated/charged to KAWC by AWWSC were $8,147,526, $8,848,594, $7,751,264, and $9,114,913 in 2009 through 2012, respectively. Please see the attached for the detail of the operating expenses by function for 2009. The remaining 2010 through 2012 detail is referenced in the response to Item 88 of the Attorney General's First Request for Information. In order to make the historical years more comparable, the functional hierarchy in effect for the period end December 31, 2012 was applied to the historical years.

b. Kentucky American only includes the operating expense portion of AWWSC in the rate filings, which are represented in the attachment to response Item 88 of the Attorney General's First Request for Information. Refer to the columns, Budget 2013 and the 12 months ended 7/31/2014 in that attachment.

c. The costs from AWWSC included in KAWC's last two rate cases reflected operating expenses only. Per the respective orders, the 2008 rate case cost included was $7,125,576 and the 2010 rate case cost included was $8,440,749.

Kentucky American Water
Attachment to Response KAW_R_AGDR2_NUM12
American Water Service Company Total Costs - Operating Expense

Subpart A
For years 2010-2012: See attachment KAW_R_AGDR1_NUM88

Function	2009
Administration	$85,267
Audit	60,213
Business Development	200,428
Business Services	-
Central Laboratory	193,954
Customer Service Center (CSC)	1,858,988
External Affairs	303,738
Finance	1,064,846
Human Resources	313,622
Informational Technology Systems (ITS)	1,428,368
Business Transformation	16
BT Controls/OI	-
Investor Relations	19,363
Legal	349,564
Operations Services	346,558
Property	419,097
Regulated Ops	791,114
Regulatory	23,766
Shared Services Center (SSC)	596,735
Supply Chain	91,887
Total	**$8,147,526**

KENTUCKY-AMERICAN WATER COMPANY
CASE NO. 2012-00520
ATTORNEY GENERAL'S SECOND REQUEST FOR INFORMATION

Witness: **Scott W. Rungren**

13. RR – Please provide the following in reference to KAWC's response to OAG First Information Request No. 167 in Case No. 2012-00520:

a. By what amount has the accumulated deferred income tax balances included in the base and future periods been reduced as a result of the recognition of uncertain tax positions according to FIN 48?

b. Provide an explanation and valuation of all the effects on KAWC's rate case of the recognition of FIN 48, by item.

c. Provide all rationale for including the effects on revenue requirement discussed in Items 13a and 13b in the current rate case?

d. Provide all documentation, analyses and authoritative treatises relied on by KAWC supporting Item 13c.

Response:

a. For the base period, ADIT was reduced for FIN 48 by $2,646,706 and for the future period, the ADIT was reduced for FIN 48 by $3,922,247.

b. FIN 48 reduces the Company's deferred tax liability (related to its repairs deduction) and increases a long term liability. A reduction in the deferred tax liability increases rate base.

c. A FIN 48 liability is required to be booked when it is more likely than not that a position, taken on a tax return, will not be sustained under audit. A company is required to show the realizable balance of deferred taxes and record the uncertainty in a long term liability account. The benefit of taking an uncertain tax position, in this case regarding repairs, has incremental benefits to the customer. The repairs deduction decreases the current amount payable to the IRS. Rate base is lower for the additional deferred tax liability created. The uncertain part is only a portion of the whole and therefore once the final benefit is decided, it can be passed on, if applicable. It is not reasonable to pass on to the customer any benefit before it is finally determined

d. A portion of FIN 48 is attached. See under Recognition paragraph 6 & 7 and under Measurement paragraph 8.

FASB Interpretation No. 48

Accounting for Uncertainty in Income Taxes

an interpretation of FASB Statement No. 109

June 2006

Financial Accounting Standards Board
of the Financial Accounting Foundation
401 MERRITT 7, PO BOX 5116, NORWALK, CONNECTICUT 06856-5116

FASB Interpretation No. 48

Accounting for Uncertainty in Income Taxes

an interpretation of FASB Statement No. 109

June 2006

INTRODUCTION

1. This Interpretation clarifies the accounting for uncertainty in income taxes recognized in an enterprise's financial statements in accordance with FASB Statement No. 109, *Accounting for Income Taxes*. Statement 109 does not prescribe a recognition threshold or measurement attribute for the financial statement recognition and measurement of a tax position taken in a tax return. Consistent with Statement 109, the term *enterprise* is used throughout this Interpretation because accounting for income taxes is primarily an issue for business enterprises. However, the requirements of this Interpretation apply to not-for-profit organizations. This Interpretation also applies to pass-through entities and entities whose tax liability is subject to 100 percent credit for dividends paid (for example, real estate investment trusts and registered investment companies) that are potentially subject to income taxes.

2. Diversity in practice exists in the accounting for income taxes. To address that diversity, this Interpretation clarifies the application of Statement 109 by defining a criterion that an individual tax position must meet for any part of the benefit of that position to be recognized in an enterprise's financial statements. Additionally, this Interpretation provides guidance on measurement, derecognition, classification, interest and penalties, accounting in interim periods, disclosure, and transition.

INTERPRETATION

Scope

3. This Interpretation applies to all tax positions accounted for in accordance with Statement 109.

4. The term *tax position* as used in this Interpretation refers to a position in a previously filed tax return or a position expected to be taken in a future tax return that is reflected in measuring current or deferred income tax assets and liabilities for interim or annual periods.

A tax position can result in a permanent reduction of income taxes payable, a deferral of income taxes otherwise currently payable to future years, or a change in the expected realizability of deferred tax assets. The term *tax position* also encompasses, but is not limited to:

a. A decision not to file a tax return
b. An allocation or a shift of income between jurisdictions
c. The characterization of income or a decision to exclude reporting taxable income in a tax return
d. A decision to classify a transaction, entity, or other position in a tax return as tax exempt.

Recognition

5. The appropriate unit of account for determining what constitutes an individual tax position, and whether the more-likely-than-not recognition threshold is met for a tax position, is a matter of judgment based on the individual facts and circumstances of that position evaluated in light of all available evidence. The determination of the unit of account to be used in applying the provisions of this Interpretation shall consider the manner in which the enterprise prepares and supports its income tax return and the approach the enterprise anticipates the taxing authority will take during an examination.

6. An enterprise shall initially recognize the financial statement effects of a tax position when it is more likely than not, based on the technical merits, that the position will be sustained upon examination. As used in this Interpretation, the term *more likely than not* means a likelihood of more than 50 percent; the terms *examined* and *upon examination* also include resolution of the related appeals or litigation processes, if any. The more-likely-than-not recognition threshold is a positive assertion that an enterprise believes it is entitled to the economic benefits associated with a tax position. The determination of whether or not a tax position has met the more-likely-than-not recognition threshold shall consider the facts, circumstances, and information available at the reporting date.

7. In assessing the more-likely-than-not criterion as required by paragraph 6 of this Interpretation:

a. It shall be presumed that the tax position will be examined by the relevant taxing authority that has full knowledge of all relevant information.
b. Technical merits of a tax position derive from sources of authorities in the tax law (legislation and statutes, legislative intent, regulations, rulings, and case law) and their applicability to the facts and circumstances of the tax position. When the past administrative practices and precedents of the taxing authority in its dealings with the

enterprise or similar enterprises are widely understood, those practices and precedents shall be taken into account.

c. Each tax position must be evaluated without consideration of the possibility of offset or aggregation with other positions.

Measurement

8. A tax position that meets the more-likely-than-not recognition threshold shall initially and subsequently be measured as the largest amount of tax benefit that is greater than 50 percent likely of being realized upon ultimate settlement with a taxing authority that has full knowledge of all relevant information. Measurement of a tax position that meets the more-likely-than-not recognition threshold shall consider the amounts and probabilities of the outcomes that could be realized upon ultimate settlement[1] using the facts, circumstances, and information available at the reporting date. As used in this Interpretation, the term *reporting date* refers to date of the enterprise's most recent statement of financial position.

Tax-Planning Strategies

9. When a tax-planning strategy is contemplated as a source of future taxable income to support the realizability of a deferred tax asset under paragraph 21(d) of Statement 109, paragraphs 5–8 of this Interpretation shall be applied in determining the amount of available future taxable income.

Subsequent Recognition, Derecogniton, and Measurement

10. If the more-likely-than-not recognition threshold is not met in the period for which a tax position is taken or expected to be taken, an enterprise shall recognize the benefit of the tax position in the first interim period that meets any one of the following three conditions:

a. The more-likely-than-not recognition threshold is met by the reporting date.
b. The tax matter is ultimately settled through negotiation or litigation.
c. The statute of limitations for the relevant taxing authority to examine and challenge the tax position has expired.

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[1]For further explanation and illustration, see the illustrative examples in paragraphs A19–A30.

KENTUCKY-AMERICAN WATER COMPANY
CASE NO. 2012-00520
ATTORNEY GENERAL'S SECOND REQUEST FOR INFORMATION

Witness: Linda C. Bridwell

14. RR – Please provide a detailed explanation for the following in reference KAWC's response to OAG First Information Request No. 88 in Case No. 2012-00520:

a. All explanations and support for the increase in Information Technology Systems costs.

b. All explanations and support for the increase in Customer Service center costs.

Response:

a. Information Technology Systems (ITS) expenses were adjusted to reflect projected merit increases, inflation and additional business transformation, depreciation and interest costs in the future periods not included in the historical base year figures. ITS labor and labor related charges were adjusted for projected merit increases of 3% in both 2013 and 2014. The 2014 merit increase was prorated for the applicable number of days in the pro forma period (April-July = 122 days) or 122/365 = 33.42%.

Other costs were adjusted for inflation rates of 1.8% in 2013 and 1.9% in 2014. 2013 inflation was normalized for the period of April through December 2013 (1.8% x 75.34%), and 2014 inflation was prorated for the period of January through July 2014 at (1.9% x 58.08%).

Adjustments were also added for business transformation costs not included in the base year figures. Please see the attached memo for a description total Service Company BT costs added to the Information Technology function for 2013 to 2016. Kentucky's portion of these costs was computed based on their customer percentage of 3.85% after the effects of projected merit increases and inflation. Please see the tab labeled ITS BT Increases in the attached spreadsheet for Kentucky's share of the BT adjustments.

ITS depreciation and capital lease interest were also increased by $24,532 and $5,300 respectively for the net of asset and capital lease additions and retirements in 2013 and 2014.

b. Customer Service Center (CSC) labor expenses were adjusted to reflect projected merit increases and inflation for 2013 and 2014. CSC labor and labor related charges were adjusted for projected merit increases of 3% in both 2013 and 2014 with the exception union employees at the Alton and Pensacola locations. The 2014 merit increase was prorated for the applicable number of days in the pro forma period (April-July = 122 days) or 122/365 = 33.42%. Union employees merit increases were calculated based on the current negotiated wage rates in their contracts. Please see the tab labeled CSC adjustment in the attached Excel spreadsheet for the calculation of the merit increases for union and non-union Customer Service Center cost centers.

Customer Service Center expenses were also adjusted to bring them in line with Kentucky's 2013 budget amounts. 2013 budget amounts were based on Kentucky's higher level of direct charges resulting from the new call handling direct charging mechanism. Labor and labor related charges were increased by $149,175 and other costs were increased by $25,930 to bring them to 2013 Kentucky budgeted levels.

INFORMATION TECHNOLOGY SERVICES

AMERICAN WATER

Business Transformation's Relationship to ITS Cost Increases

The term "Business Transformation" or "BT" refers to the development and system-wide deployment of new, integrated information technology systems and the process of implementing the new systems in a manner that properly aligns business processes with the increased capabilities of the new systems. The scope of the BT program includes a range of core functional areas, including: human resources, finance and accounting, purchasing and inventory management, capital planning, cash management, and customer and field services. There are four distinct areas of cost related to the Business Transformation project: (i) the initial planning studies (ii) physical assets (e.g., primarily servers, networking equipment, etc.), (iii) software licenses, and (iv) capitalized labor costs required to design, modify the base software package as required, develop transition routines to transfer historical data from existing systems, modify business processes to be compatible with the new software, implement the go-live use of the software, and train employees on the use of the new software, and (iv).

After the new BT information technology systems are deployed, there will be ongoing costs of operating and maintaining the new systems. The increase in ITS Department costs from the original 2012 - 2016 ITS Business Plan to the revised 2012 - 2016 ITS Business plan are a direct result of the ongoing costs required to operate and maintain the new IT systems implemented by BT. These O&M cost increases can be broken down into three areas: Consulting, Maintenance, and Labor. More detail on each area is provided below, starting with a summary of the costs, and followed by an explanation of each cost category in the summary.

Cost Summary**

	FY12	FY13	FY14	FY15	FY16
Consulting					
Backfill Resources	$ 1,446	$ 853	$ -	$ -	$ -
SAP Support	$ 3,855	$ 9,818	$ 10,795	$ 10,574	$ 10,574
Proof-of-Concepts	$ 169	$ 57	$ 149	$ -	$ -
	$ 5,470	$ 10,728	$ 10,944	$ 10,574	$ 10,574
Maintenance					
Software	$ 95	$ 394	$ 541	$ 541	$ 541
Hardware	$ 680	$ 1,428	$ 1,757	$ 1,831	$ 1,898
	$ 775	$ 1,822	$ 2,298	$ 2,372	$ 2,439
Labor					
AW ITS	$ 806	$ 1,321	$ 2,402	$ 2,475	$ 2,550
Total BT Costs (Opex Fees)	**$ 7,051**	**$ 13,871**	**$ 15,644**	**$ 15,421**	**$ 15,563**

The costs of maintaining the new systems are allocated to each of the American Water regulated utilities based on the percentage of their customer counts to the overall regulated utility customer count of American Water, as provided for in the Service Company Agreement.

Consulting

Consulting is composed of three sub-areas: Backfill resources, Accenture Support, and Proof-of-Concepts:

Backfill Resource - Backfill resources are contract employees engaged in 2012 and 2013 to fill in the day-to-day functions of the ITS resources that moved to BT as full-time resources. There was not one-to-one replacement of backfill resources for ITS resources that moved to BT. Rather, some activities/projects were scaled back to accommodate for the reduced staffing level of ITS. The following list are the categories of backfill positions that are required in ITS during BT:

- Business Analysts
- Project Managers
- Programmer Analysts
- Developers
- Mobile Technology Lean
- Engineers
- Architects

- Beginning in late 2012, some resources will shift back to ITS from BT. As a result, the number of backfill resources required will decrease and will continue to decrease down to zero in 2014.
- After completion of the EAM/CIS implementation (2013), most ITS resources will transition back from BT to ITS.

SAP Support **-** Accenture will provide a managed services/outsourced solution for application development and configuration management and help desk. Although the initial term of this agreement is 38 months, the Cost Summary includes cost projections through 2016 in the likely event that additional months of service will be needed to support SAP. The rational for this arrangement includes the following:

- It is a cost effective means to provide experienced SAP Application functional consultants - via a telephone service (help) desk, secure remote data link or on-site visits. These caliber personnel are required to efficiently provide the day-to-day availability, reliability, and performance of the SAP processing capability and the delivery of its services.
- The services being provided require skills and experience that the existing staff do not have and/or do not have in the quantity required in order to provide application maintenance and help desk support. These skills are critical in providing the required support for the new SAP systems and developing these skills internally by the timeframe needed for SAP deployment is not practical. Additionally, due to the need to scale up and back for volume fluctuations in help desk calls, it is more cost effective to utilize service desk capabilities of Accenture as they can load balance between clients as required.
- The contract for these Accenture services is not signed yet but is expected to be signed by the end of November 2011.
- This arrangement covers incremental needs as a result of the SAP deployment.

Proof-of-Concepts **-** Proof-of-Concepts (PoCs) are performed by ITS to determine the strategy, roadmap and innovation for a specific technology(ies). In this case, there are three SAP-focused PoCs planned:

- The overall SAP upgrade roadmap,
- The implementation of the first SAP upgrade to ERP, and
- Assess the integration between SAP and Operational Reporting.

Maintenance

Maintenance includes Hardware and Software maintenance for both Core BT systems (e.g. ERP, CIS, and EAM) and BT Enabling systems (e.g. Kronos, myCareerSolutions, GIS).

Maintenance agreements serve as an insurance policy to protect American Water from the high costs of unexpected repairs. They keep American Water from being at the mercy of the market place in times of an emergency. The company carries maintenance contracts for 'Water Infrastructure Network Repairs' because pipes and hydrants break and valves inevitably fail. Similarly, we need maintenance agreements to prevent or correct technology system failures or ensure reasonable response times for vendor support and repair of OEM issues.

Contracts typically cover services from "around-the-clock" technical support and labor to next business day support, as well as immediately and locally available parts. Technology system maintenance takes the form of security patches to protect from newly released viruses, malicious code releases, and identified vulnerabilities, equipment monitoring, inspections, and security upgrades, as well as physical repairs and replacements. Such maintenance reduces our risks of not being able to provide customer information, issue bills and collect payments. Increased maintenance is a direct result of the additions of new applications and systems and is a contractual obligation both of the SAP and Accenture outsourcing agreements

Labor

The Labor amounts in the cost summary represent the American Water ITS resources needed to support SAP and the other non-SAP Enabling systems BT is implementing. This group is composed of resources that have been moved to BT and will be returning beginning in late 2012, as well as additional American Water ITS resources that do not currently exist at AW. These numbers **do not** represent the total American Water ITS staff needed to support the IT needs of American Water. Specifically, the following categories of resources are needed:

- Enterprise Infrastructure Engineer
- Business Analysts
- SAP Programmer Analysts
- Application Development Manager
- Middleware Programmer Analysts
- Business Intelligence Programmer Analyst
- Quality Analysts
- Data Architect
- Data Modelers
- Enterprise Architect (Midrange Systems)
- Application Enterprise Architect
- Service Support Specialist
- Basis/Environment Lead

2012 ITS - Total Service Company BT-Related Budget increases ($'s in thousands)

	FY12	FY13	FY14	FY15	FY16		FY13	FY14 (7 mths)
							April-Dec Base yr thru March Pro-rated (275/365 days) **75.34%**	*Jan-July Pro-rated (212/365 days)* **58.08%**
Consulting								
Backfill Resources	$1,446	$853	$0	$0	$0			
SAP Support	3,855	9,818	10,795	10,574	10,574			
Proof-of Concepts	169	57	149	0	0			
	$5,470.0	$10,728	$10,944	$10,574	$10,574			
		$5,258	**$216**	**($370)**	**$0**		$152.5	$4.8
Maintenance								
Software	$95	$394	$541	$541	$541			
Hardware	680	1,428	1,757	1,831	1,898			
	$775	$1,822	$2,298	$2,372	$2,439			
		$1,047	**$476**	**$74**	**$67**		$30.4	$10.6
							$182.9	$15.5
Labor								
AW ITS	$806	$1,321	$2,402	$2,475	$2,550			
		$515	**$1,081**	**$73**	**$75**		$14.9	$24.2
Total BT Costs (OPEX Fees)	**$7,051**	**$6,820**	**$1,773**	**($223)**	**$142**		**$197.8**	**$39.6**
KY Customer %age		3.85%	3.85%					
KY's estimated portion		**$262.6**	**$68.3**					

KY's Portion
Adjusted Down for Merit & Inflation in Proforma

Sum of 2013	FY13 Adjustmt	*Sum of 2014*	FY14 (7mths) Adjustmt
$182.9	**$179,654**	*$15.5*	**$15,474**
2013% inc		*2014% inc*	
3.00%		*1.26%*	
	$14,503		**$23,185**

Customer Call Center - Union Contract Rates

	Per Contract		% Pro-rated		% Pro-rated		% Pro-rated	
	2013	2014	10/12-12/31	1/1-10/11	11/1-12/31	1/1-10/31	1/1-7/31	4/1-7/31
Alton - Oct 12	2.25%		21.86%	78.08%			58.08%	
Pensacola -Nov 1	2.00%	2.25%			16.67%	83.29%	58.08%	
NON-Union	3.00%	3.00%						33.42%

Kentucky American Water Company
2012 Service Company Expenses - OPEX
Customer Service Center Labor & Related by SAP Cost Center

		Customer Service Center - SAP Cost Center																			
			Union	Union	Union												Union				
SAP GL Account	GL Account Description	334005	334070	334071	334072	334073	334074	334075	334076	335203	335204	335303	335304	335503	336003	337005	337070	337073	337075	337076	Grand Total
50100000	Labor Natural Account	7,420.27	112,397.56	97,308.64	22,194.30	10,453.98	8,439.24	4,789.90	10,947.17	43,596.25	26,624.61	2,364.72	0.00	557.52		729.23	131,146.76	3,428.87	2,439.61	1,479.01	486,317.63
50100001	Labor Expense Accrual	853.15	9,086.76	5,054.03	1,445.96	1,034.99	856.74	463.68	979.31	378.78	5,631.64	1,011.51				43.75	11,784.40	356.73	169.94	121.91	39,273.27
50101100	Labor	12,660.22	150,544.35	84,225.65	25,876.05	13,533.27	13,720.67	7,239.13	15,659.18	31,059.44	3,717.03	94,464.32		11,263.01	(4.66)	1,989.05	191,524.02	4,971.34	4,342.64	1,995.87	668,780.58
50110000	Labor Non-scheduled		1,364.26	28.75	1.12			15.73		83.85	53.87	1.83	0.00			0.72	1,691.67				3,241.78
50111100	Labor Non Scheduled Overtime											216.77									216.77
50120000	Labor Overtime - Nat	14.65	4,125.93	2,480.16	41.27	23.85		2.01	127.15	(3.56)						4.14	6,709.66	29.25		21.72	13,576.24
50121100	Labor Overtime	26.68	8,862.16	3,201.52	0.23	72.78	13.01		118.98								12,869.99	127.17		11.13	25,303.67
50171000	Incentive Plan-Off-Annual	2,986.07	2,912.86	1,595.55	968.12	1,434.56	2,181.54	513.58	394.88	3,300.86	155.92	5,690.65	0.00	(2,764.58)	(689.78)	(4.91)	3,629.03	402.19	302.17	(6.11)	23,002.60
50171600	Compensation Exp-Options	922.84								126.30											1,049.14
50171800	Compensation Exp-Restricted Stock Units	1,614.21								126.30											1,740.51
50185000	Labor - Severance											20,095.54									20,095.54
50421000	401k	480.08	3,839.58	2,930.98	782.61	528.80	420.00	221.58	390.66	723.18	644.55	1,592.51	0.00	(761.16)	(56.90)	52.40	4,419.59	127.52	144.55	39.48	16,520.02
50422000	Defined Contribution Plan	159.01	1,049.87	(79.22)	262.14	302.88	(18.39)	121.41	57.20	1,175.27	1,346.25	4,006.19	0.00	(1,693.75)	(30.74)	110.86	1,363.50	168.94	83.52	(2.52)	8,382.41
50510000	PBOP Expense	348.29	4,153.80	4,815.65	969.68	440.67	503.68	217.59	625.10	1,367.73		9.97	0.00			32.44	4,905.41	129.69	143.19	101.22	18,764.11
50510100	PBOP	465.44	3,748.72	4,452.48	1,172.21	675.03	824.26	353.65	898.37	1,056.60		563.10				49.82	3,465.47	199.45	288.03	154.68	18,367.32
50550000	Group Ins Maintenance	2,357.14	72,681.08	59,537.80	14,876.27	5,297.72	3,314.33	2,845.15	6,556.01	16,947.56	5,765.15	17,724.17	0.00	(5,255.02)	(3,685.26)	1,181.65	103,248.85	2,181.99	938.35	1,104.01	307,616.96
50610000	Pension Expense	1,881.15	22,513.61	26,071.06	5,241.07	2,377.43	2,715.70	1,173.23	3,374.24	7,372.20		53.25	0.00			174.94	26,604.94	699.40	770.04	545.87	101,568.15
50610100	Pension	2,485.73	20,020.31	23,778.75	6,260.27	3,605.04	4,402.00	1,888.67	4,797.79	5,642.84		3,007.29				266.06	18,507.56	1,065.20	1,538.26	826.09	98,091.85
68532000	FUTA	10.39	1,565.90	487.25	96.32	32.95	13.04	12.23	32.94	249.49	28.92	72.10	0.00	(137.68)	(86.32)	4.29	2,525.60	11.06	7.77	5.96	4,932.22
68533000	FICA	1,174.41	20,253.42	15,491.86	3,893.80	2,070.22	1,974.73	1,033.08	2,302.60	6,153.67	2,254.61	6,137.10	0.00	(1,764.98)	(1,199.79)	229.88	26,729.46	729.28	631.17	370.99	88,465.51
68535000	SUTA	196.50	10,037.05	4,952.70	1,110.04	398.50	189.46	151.17	457.10	2,746.54	158.00	471.83	0.00	(784.06)	(831.66)	38.15	13,627.23	96.43	60.15	52.49	33,127.61
Grand Total		**36,056.25**	**449,157.24**	**336,333.62**	**85,191.46**	**42,282.69**	**39,550.00**	**21,041.78**	**47,718.70**	**122,103.31**	**46,380.53**	**157,482.86**	**0.00**	**(1,340.70)**	**(6,585.12)**	**4,902.47**	**564,753.13**	**14,724.53**	**11,859.37**	**6,821.81**	**1,978,433.91**

Union/Non-Union Merit Increase Calculations

	334005	334070	334071	334072	334073	334074	334075	334076	335203	335204	335303	335304	335503	336003	337005	337070	337073	337075	337076	Grand Total	
Labor -12 mths end 3/31/12	20,975.00	286,381.00	192,299.00	49,559.00	25,119.00	23,030.00	12,510.00	27,832.00	75,115.00	36,027.00	98,059.00	-	11,821.00	(5.00)	2,767.00	355,726.00	8,913.00	6,952.00	3,630.00	1,236,710.00	
Normalized																				-	
Adjusted base year	20,975.00	286,381.00	192,299.00	49,559.00	25,119.00	23,030.00	12,510.00	27,832.00	75,115.00	36,027.00	98,059.00	-	11,821.00	(5.00)	2,767.00	355,726.00	8,913.00	6,952.00	3,630.00	1,236,710.00	
2013 Merit increase non-union @ 3.00%	629.00				754.00	691.00	375.00	835.00	2,253.00	1,081.00	2,942.00	-	355.00	-	83.00		267.00	209.00	109.00	10,583.00	
Alton union (10/12/13-12/31/13= 2.25%)		1,409.00	946.00	244.00																2,599.00	
Pensacola union (11/1/13-12/31/13=2.00%)																1,186.00				1,186.00	14,368.00
RYE 12/31/2013 Projected Labor	**21,604.00**	**287,790.00**	**193,245.00**	**49,803.00**	**25,873.00**	**23,721.00**	**12,885.00**	**28,667.00**	**77,368.00**	**37,108.00**	**101,001.00**	**-**	**12,176.00**	**(5.00)**	**2,850.00**	**356,912.00**	**9,180.00**	**7,161.00**	**3,739.00**	**1,251,078.00**	
2014 Merit increase non-union @ 3.00% -pro-r	217.00				259.00	238.00	129.00	287.00	776.00	372.00	1,013.00	-	122.00	-	29.00		92.00	72.00	37.00	3,643.00	
Alton union (1/1/14-7/31/14)		3,761.00	2,525.00	651.00																6,937.00	
Pensacola union (1/1/14-7/31/14)																4,146.00				4,146.00	14,726.00
RYE 8/31/2014 Projected Labor	**21,821.00**	**291,551.00**	**195,770.00**	**50,454.00**	**26,132.00**	**23,959.00**	**13,014.00**	**28,954.00**	**78,144.00**	**37,480.00**	**102,014.00**	**-**	**12,298.00**	**(5.00)**	**2,879.00**	**361,058.00**	**9,272.00**	**7,233.00**	**3,776.00**	**1,265,804.00**	
Labor related -12 mths end 3/31/12	15,081.00	162,776.00	144,035.00	35,633.00	17,164.00	16,520.00	8,531.00	19,887.00	46,989.00	10,353.00	59,424.00	-	(13,161.00)	(6,580.00)	2,136.00	209,027.00	5,811.00	4,907.00	3,192.00	741,725.00	
Normalized																				-	
Adjusted base year	15,081.00	162,776.00	144,035.00	35,633.00	17,164.00	16,520.00	8,531.00	19,887.00	46,989.00	10,353.00	59,424.00	-	(13,161.00)	(6,580.00)	2,136.00	209,027.00	5,811.00	4,907.00	3,192.00	741,725.00	
2013 Merit increase non-union @ 3.00%	452.00				515.00	496.00	256.00	597.00	1,410.00	311.00	1,783.00	-	(395.00)	(197.00)	64.00		174.00	147.00	96.00	5,709.00	
Alton union (10/12/13-12/31/13= 2.25%)		801.00	708.00	175.00																1,684.00	
Pensacola union (11/1/13-12/31/13=2.00%)																697.00				697.00	8,090.00
RYE 12/31/2013 Projected Labor Related	**15,533.00**	**163,577.00**	**144,743.00**	**35,808.00**	**17,679.00**	**17,016.00**	**8,787.00**	**20,484.00**	**48,399.00**	**10,664.00**	**61,207.00**	**-**	**(13,556.00)**	**(6,777.00)**	**2,200.00**	**209,724.00**	**5,985.00**	**5,054.00**	**3,288.00**	**749,815.00**	
2014 Merit increase non-union @ 3.00% -pro-r	156.00				177.00	171.00	88.00	205.00	485.00	107.00	614.00	-	(136.00)	(68.00)	22.00		60.00	51.00	33.00	1,965.00	
Alton union (1/1/14-8/31/14)		2,138.00	1,892.00	468.00																4,498.00	
Pensacola union (1/1/14-8/31/14)																2,436.00				2,436.00	8,899.00
RYE 8/31/2014 Projected Labor Related	**15,689.00**	**165,715.00**	**146,635.00**	**36,276.00**	**17,856.00**	**17,187.00**	**8,875.00**	**20,689.00**	**48,884.00**	**10,771.00**	**61,821.00**	**-**	**(13,692.00)**	**(6,845.00)**	**2,222.00**	**212,160.00**	**6,045.00**	**5,105.00**	**3,321.00**	**758,714.00**	

KENTUCKY-AMERICAN WATER COMPANY
CASE NO. 2012-00520
ATTORNEY GENERAL'S SECOND REQUEST FOR INFORMATION

Witness: **Linda C. Bridwell**

15. RR – Please provide the following Internal Audit reports and supporting documentation in reference KAWC's response to OAG First Information Request No. 59 in Case No. 2012-00520:

a. 07/16/2010 REGULATED OPERATIONS & SERVICE COMPANY
Chemical Procurement Process

b. 07/29/2010 ALL
2009 Annual Incentive Plan Review

c. 12/23/2010 SERVICE COMPANY
Service Company Cost Distribution

d. 12/23/2010 REGULATED OPERATIONS
Business Transformation Program Governance Report

e. 02/22/2011 ALL
Travel and Business Expenses

f. 04/18/2011 REGULATED OPERATIONS & SERVICE COMPANY
Disbursements

g. 10/17/2011 ALL
Board of Directors and Executive Management Travel and Business Expenses

h. 11/17/2011 ALL
2010 AIP and 2011 LTIP Review

i. 10/08/2012 ALL
2011 AIP/ 2012 LTIP Review

Response:

a. Please see the attached report, which contains confidential information. Therefore, the Company has filed a Petition for Confidential Treatment contemporaneously with these responses. The Company will provide copies of the requested documents to all parties in this case upon execution of an appropriate confidentiality agreement.

b. The company objects to the request based on relevance, as Kentucky American is not seeking recovery of any expenses related to the Annual Incentive Plan for any American Water employees in this case.

c. Please see the attached report, which contains confidential information. Therefore, the Company has filed a Petition for Confidential Treatment contemporaneously with these responses. The Company will provide copies of the requested documents to all parties in this case upon execution of an appropriate confidentiality agreement.

d. Please see the attached report, which contains confidential information. Therefore, the Company has filed a Petition for Confidential Treatment contemporaneously with these responses. The Company will provide copies of the requested documents to all parties in this case upon execution of an appropriate confidentiality agreement.

e. Please see the attached report, which contains confidential information. Therefore, the Company has filed a Petition for Confidential Treatment contemporaneously with these responses. The Company will provide copies of the requested documents to all parties in this case upon execution of an appropriate confidentiality agreement.

f. Please see the attached report, which contains confidential information. Therefore, the Company has filed a Petition for Confidential Treatment contemporaneously with these responses. The Company will provide copies of the requested documents to all parties in this case upon execution of an appropriate confidentiality agreement.

g. Please see the attached report, which contains confidential information. Therefore, the Company has filed a Petition for Confidential Treatment contemporaneously with these responses. The Company will provide copies of the requested documents to all parties in this case upon execution of an appropriate confidentiality agreement.

h. The company objects to the request based on relevance, as Kentucky American is not seeking recovery of any expenses related to the Annual Incentive Plan or Long Term Incentive Plan for any American Water employees in this case.

i. The company objects to the request based on relevance, as Kentucky American is not seeking recovery of any expenses related to the Annual Incentive Plan or Long Term Incentive Plan for any American Water employees in this case.

This entire attachment is confidential and has been provided under seal pursuant to a Petition for Confidential Treatment.