

Application of Kentucky-American Water Company  
For an Adjustment of Rates  
Case No. 2015-00418  
The Attorney General and Lexington-Fayette Urban County Government's  
Responses to the Kentucky Public Service Commission's First Request for Information

WITNESS/RESPONDENT RESPONSIBLE

Andrea C. Crane

REQUEST No.1

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Refer to the Direct Testimony of Andrea Crane ("Crane Testimony"), pages 18–21. List and provide a copy of each state utility regulatory commission decision or opinion in which the ratemaking treatment of a reserve created to meet the requirements of Financial Accounting Standards Board Interpretation No. 48 is discussed. This listing should include the name of the state commission, case number, case style, and date of decision or opinion.

RESPONSE:

Ms. Crane has not conducted a study to determine each state utility regulatory commission decision or opinion in which the ratemaking treatment of a reserve created to meet the requirements of Financial Accounting Standards Board Interpretation No. 48 was discussed.

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For each statement below, state whether Ms. Crane agrees or disagrees. If she does not agree, explain why.

- a. "Theoretically, net earnings are earned when customer service is provided, and become the property of the stockholders. This requires that a cash working capital requirement should be recognized for the lag in receipt of operating income."<sup>1</sup>
- b. "While it is true that recording depreciation does not require the expenditure of cash at the time the expense is recorded and charged to the customer, cash was expensed at the time the property was acquired, the recorded depreciation is used to reduce the investment in that property even though approximately one-and-one half month's depreciation (equivalent to the revenue lag) has not yet been received from the customer."<sup>2</sup>

RESPONSE:

- a. To the extent that the provision of customer service results in net earnings, then Ms. Crane agrees that net earnings are earned when the service is provided. However, she does not agree that these earnings result in a cash working capital requirement at that time. Nor does she agree that a cash working capital requirement should be recognized for the lag in receipt of operating income. A cash working capital requirement should only be recognized when there is a requirement for cash – and the recognition of earnings does not create a need for cash.

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<sup>1</sup> Case No. 92-452, *Notice of Adjustment of the Rates of Kentucky American Water Company* (Ky. PSC Nov. 19, 1993) at 20.

<sup>2</sup> Robert L. Hahne and Gregory E. Aliff, *Accounting for Public Utilities* 5 5 08[2] (Matthew Bender Nov. 1991).

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- b. Ms. Crane agrees that recording depreciation does not require the expenditure of cash at the time the expense is recorded and charged to the customer. Ms. Crane also agrees that cash is generally used (but not expensed) when the property is acquired (since plant is usually capitalized and not expensed). Ms. Crane agrees that recorded depreciation is used to reduce the investment in that property monthly. Ms. Crane does not agree that there is any resulting cash working capital requirement due to any lag in receiving the associated revenues, since rates are not reduced each month to reflect the declining rate base. In fact, for any particular asset, ratepayers are generally paying rates that reflect a rate base valuation that is higher than the actual monthly valuation because utility rates are only adjusted in a base rate case.

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State whether Ms. Crane believes that the use of the 1/8 formula approach to calculate Kentucky-American Water Company's ("KAWC") cash working capital requirements is a reasonable alternative to the use of a lead/lag study. Explain the response.

RESPONSE:

Ms. Crane does not believe that the 1/8 formula approach to calculate Kentucky-American Water Company's ("KAWC") cash working capital requirements is a reasonable alternative to the use of a lead/lag study. The 1/8 formula is an imprecise estimate and will always result in a positive cash working capital requirement – even though a utility may not have a positive cash working capital requirement. She does believe that 1/8 formula method may be acceptable for a small utility that does not have the resources to perform a lead/lag study. However, clearly KAWC has these resources.

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State whether the AG/LFUCG agree that the use of slippage adjustments is appropriate in general adjustment rate proceedings in which a fully forecasted test period is used to account for the effect of capital construction budget variances for the ten years prior to the forecasted period.

RESPONSE:

Ms. Crane believes that the use of historic completion rates can be a valuable tool in evaluating a company's future test year construction claim. However, she does not believe that it is appropriate to increase a utility's claimed rate base (and therefore rates) to reflect a higher than projected construction estimate, especially when the utility already has the advantage of filing for a future test year.

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Refer to KAWC's response to Commission Staff's Second Request for Information, Item 37. State whether the AG/LFUCG agree with the slippage adjustments set forth in that response.

RESPONSE:

See the response to Question 4, above.

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Explain why the AG/LFUCG witnesses have not proposed or recommended slippage adjustments in this proceeding.

RESPONSE:

See the response to Question 4, above.

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Refer to the Crane Testimony, page 27. Ms. Crane provides an example of when excess contributions in a utility's pension fund do not benefit its ratepayers. Provide any evidence that has been presented in this proceeding to show that this example is applicable for KAWC and/or American Water Works Company in the instant case.

RESPONSE:

Ms. Crane does not believe that there is ever an advantage to ratepayers if they are required to provide a return on excess contributions to the pension fund. If a regulatory commission chooses to determine the pension cost for ratemaking purposes based on FAS 87 (ACS 715-30), then it should not provide the company with an incentive to turn pension funding into a profit center. Otherwise, utilities have an incentive to maximize such contributions (in some cases even borrowing to do so) in order to increase shareholder returns.



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Refer to KAWC's response to Commission Staff's Third Request for Information ("Staff's Third Request"), Item 30. Provide a discussion of the accuracy of Dr. Spitznagel's consumption projections from previous cases.

RESPONSE:

Ms. Crane did not participate in all of the cases included in the referenced response and therefore she does not have detailed knowledge of the methodologies used by Dr. Spitznagel in each case. However, she has no reason to question the calculations that Dr. Spitznagel provided in response to Staff 3-30.

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Refer to the Crane Testimony, Appendix A.

- a. Provide the weather normalization testimony from the March 2008 New Mexico Generic Commission Investigation shown on page 4.
- b. State whether Ms. Crane has testified regarding weather normalization in any proceedings other than the March 2008 New Mexico proceeding. If so, provide a list of cases containing the date, case number, and the location of her testimony in the case dockets.

RESPONSE:

- a. The requested testimony is provided in the Crane New Mexico Generic Commission Investigation Testimony 2008.
- b. Ms. Crane has not provided testimony in any other generic weather normalization proceeding. However, she has testified on weather normalization as part of her revenue requirement analysis in numerous cases. She does not retain a list of topics discussed in each of her testimonies.

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REQUEST No.10

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Refer to KAWC's responses to Staff's Third Request, Items 31.d. and 33.a. State whether the conclusion reached in Item 31.d., that using shorter periods for temperature normalization does not apply to water consumption, is reasonable, given the Cooling Degree Day and water utilization projections shown in the response to Item 33.a.

RESPONSE:

There are two aspects to weather normalization. The first is the period of time over which to determine "normal" weather. Ms. Crane believes that the 30 year period used by the National Oceanic and Atmospheric Administration ("NOAA") should continue to be utilized unless and until NOAA adopts a different standard. A second issue is the appropriate period over which to measure changes in utility usage that result from changes in weather. Ms. Crane believes that it may be appropriate to utilize a period shorter than 30 years to measure this response to changes in weather variations.

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Refer to the Crane Testimony, page 33. Ms. Crane states that the data for the past three years suggests that the declining per-customer consumption may have stopped. Provide the information that Ms. Crane relied on to support this claim.

RESPONSE:

Please see the 2013-2015 data shown in the excel file to Schedule ACC-9, which was provided in response to KAWC 1-3, and uploaded as Crane Excel Workpapers.

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Refer to the Crane Testimony, page 46. Ms. Crane states that the proposed adjustment would result in subsidies to customers who pay with credit cards from customers who pay by other means.

- a. Does Ms. Crane agree that there are costs associated with paying by cash, check, or credit card?
- b. If the response to part a. above is yes, explain whether each customer should be responsible for paying a "fee" depending on the method of payment that customer uses.
- c. Explain how the separate customer fees would be calculated?

RESPONSE:

- a. Yes, Ms. Crane agrees that there are costs associated with paying by cash, check, or credit card.
- b. Ms. Crane does not agree that every customer should be responsible for paying a fee depending on the method of payment. However, she does recognize that some customers prefer to use a credit card for reasons that have nothing to do with utility service, i.e., in order to maximize rewards offered by credit card companies for usage. Therefore, these customers have an incentive that is not present with customers that pay by cash or check.
- c. Not applicable – see the response to part b, above.

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Refer to the Crane Testimony, Schedule ACC-9, Water Sales Revenue. Provide the work papers, calculations, and assumptions used by Ms. Crane to calculate the \$0.51 incremental cost used in her schedule.

RESPONSE:

The requested calculation is shown in the excel file to Schedule ACC-9, which was provided in response to KAWC 1-3, and uploaded as Crane Excel Workpapers.

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Dr. J. Randall Woolridge

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Refer to KAWC's response to Staff's Third Request, Item 29, Table 4. State whether, in Dr. Woolridge's opinion, investors are aware of these authorized Returns on Equity ("ROE") for American Water subsidiaries, and whether their expectations for KAW's ROE are likely to be influenced by this information.

RESPONSE:

Dr. Woolridge believes that investors are aware of these authorized ROEs. However, there are several issues with these decisions: (1) a number of these decisions are dated (going back to 2012) and do not reflect today's lower capital cost rates; (2) two of the decisions (PA, MO) are imputed ROEs and therefore are not actual ROEs; (3) a number of these ROEs include common equity ratios that are below KYAM's proposed 47% common equity ratio; and (4) given AWK's market-to-book ratio, these authorized ROEs are above investor return requirements. Additionally, in Dr. Woolridge's opinion many of these decisions were made during a time period when economists were forecasting higher interest rates. These interest rates clearly did not increase as forecasted.

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Dr. J. Randall Woolridge

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Refer to the Direct Testimony of J. Randall Woolridge, Ph.D. ("Woolridge Testimony"), page 21, line 16, and Exhibits JRW-10 and JRW-11. Confirm that, although Piedmont Natural Gas Company is listed as a member of the gas proxy group on page 21, it is not listed as a member of the gas proxy group in the Exhibits.

RESPONSE:

Piedmont Natural Gas Company should not be listed as a member of the proxy group due to its pending merger with Duke Energy. Piedmont Natural Gas Company is not used as a member of the proxy group in the exhibits and equity cost rate studies.



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Dr. J. Randall Woolridge

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Refer to the Woolridge Testimony, page 37, line 18, through page 38, line 8, which discusses the model that some analyst use to adjust the dividend yield by some fraction of the long-term expected growth rate, and states that the growth rate is adjusted by one-half. Explain why one-half was chosen.

RESPONSE:

As Dr. Woolridge notes on pages 37-38 of his testimony, according to the DCF theory, the dividend yield in the DCF model is calculated by: (1) multiplying the expected dividend over the coming quarter by 4, and (2) dividing this dividend by the current stock price to determine the appropriate dividend yield for a firm that pays dividends on a quarterly basis. However, the application of this methodology is complicated because firms tend to announce changes in dividends at different times during the year. As a result, it is common for analysts to adjust the dividend yield by some fraction of the long-term expected growth rate. Dr. Woolridge has adjusted the dividend yield by one-half (1/2) of the expected growth so as to reflect growth over the coming year. This is the approach employed by the Federal Energy Regulatory Commission ("FERC").<sup>3</sup>

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<sup>3</sup> Opinion No. 414-A, *Transcontinental Gas Pipe Line Corp.*, 84 FERC ¶61,084 (1998).

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Dr. J. Randall Woolridge

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Refer to the Woolridge Testimony, Exhibit JRW-10.

- a. Refer to page 2 of 6. Provide a copy of the source documents for the annual dividends and 30-, 60-, and 180-day dividend yields. If any are calculated, provide the calculations used.
- b. Refer to page 3 of 6.
  - (1) Confirm that the data source is from 2013. If confirmed, explain why the most recent data was not used and provide the information shown on this page using the most recent data available.
  - (2) Explain why the median values produce more meaningful estimates than mean values.
  - (3) Explain how averaging median values produces meaningful estimates.
- c. Refer to page 5 of 6. Provide copies of the source documents for the Yahoo, Reuters, and Zack's projected EPS growth-rate estimates.

RESPONSE:

- a. The requested data is provided in the Woolridge Excel Workpaper "Water and Gas Proxy Groups - Dividend Yields - - 4-15-16.wks."
- b. (1) The Exhibit should read "2016." The data is from 2016.

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(2) As Dr. Woolridge notes in his initial testimony, he uses the median as a measure of central tendency to minimize the impact of outlier observations. This widely accepted practice is explained in the following statistical text:<sup>4</sup>

Another time when we usually prefer the median over the mean (or mode) is when our data is skewed (i.e., the frequency distribution for our data is skewed). If we consider the normal distribution - as this is the most frequently assessed in statistics - when the data is perfectly normal, the mean, median and mode are identical. Moreover, they all represent the most typical value in the data set. However, as the data becomes skewed the mean loses its ability to provide the best central location for the data because the skewed data is dragging it away from the typical value. However, the median best retains this position and is not as strongly influenced by the skewed values.

(3) As discussed in response to (2), the use of the median reduces the impact of outliers. Dr. Woolridge then uses the mean of these median values to estimate growth in earnings, dividends, and book value. This is intended to produce an overall measure of central tendency.

c. The requested data is provided in the Woolridge Excel Workpaper "Water and Gas Earnings Estimates - 4-15-16.wks."

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<sup>4</sup><https://statistics.laerd.com/statistical-guides/asures-central-tendency-mean-mode-median.php>.

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Dr. J. Randall Woolridge

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Refer to the Woolridge Testimony, page 59, lines 17–23, and to Exhibit JRW-12. The testimony on page 59 states that 8.50 percent is consistent with authorized ROE for other water companies. Provide support for this conclusion given the 2014 and 2015 results for authorized ROE for publicly held water companies shown on pages 1 and 2 of Exhibit JRW-12.

RESPONSE:

There are a number of reasons that Dr. Woolridge believes his 8.50% ROE recommendation is consistent with the authorized and earned ROEs of water companies: (1) some of the authorized water company ROEs are dated and do not reflect today's lower capital cost rates; (2) as shown in Exhibit JRW-8, regulated utilities, including water, electric, and gas, are among the lowest risk industries in the U.S. and therefore have among the lowest required rate of return; (3) in Dr. Woolridge's opinion, the water company ROE decisions were made during a time period when economists were forecasting higher interest rates and capital costs. These interest rates clearly did not increase as forecasted. To the extent that commissions relied upon these interest rate forecasts in setting authorized ROEs, these ROEs have been overstated; (4) as discussed on pages 60-61 of Dr. Woolridge's testimony, authorized ROEs for electric and gas companies have declined in recent years, and now are below the average for water companies. But even these authorized ROEs, in Dr. Woolridge's opinion, are artificially high for water companies because (a) some states have refused to authorize ROEs below 10%, (b) state commissions' reliance on forecasts of higher interest rates and capital costs, and (c) water companies are less risky than electric and gas companies; and (d), in recent years, water companies have earned ROEs in the 8.0% to 10.0% range, and sold at

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market-to-book ratios in excess of 1.50X. This is a clear indication that the authorized and earned ROEs of water companies are well in excess of the return investors require on equity.

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Dr. J. Randall Woolridge

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Refer to the Woolridge Testimony, page 86, lines 8–11, which discuss Dr. Vander Weide's use of a 4.24 percent risk-free interest rate in his CAPM calculations, calling it overstated, given the current 2.24 percent risk-free rate on 20-year Treasury bonds. Confirm that page 50 of the Woolridge Testimony indicates that a risk-free rate of 4 percent was used in Dr. Woolridge's CAPM calculation.

RESPONSE:

Dr. Woolridge used a 30-year Treasury rate of 4.0% in his CAPM. This was based on the recent range of these yields of 2.5% to 4.0%, and allowed for the possibility of higher future interest rates.