REBUTTAL TESTIMONY

of

SHEENA KIGHT-GARLISCH

Finance Department
Financial Analysis Division
Public Utilities Bureau
Illinois Commerce Commission

Aqua Illinois, Inc.

Docket No. 11-0436

September 29, 2011

TABLE OF CONTENTS

Witness Identification

Q1. Please state your name and business address.

A1. My name is Sheena Kight-Garlisch. My business address is 527 East Capitol Avenue, Springfield, Illinois 62701.

Q2. Are you the same Sheena Kight-Garlisch who previously testified in this proceeding?

A2. Yes, I am. I filed direct testimony as ICC Staff Exhibit 3.0.

Q3. What is the purpose of your rebuttal testimony in this proceeding?

A3. I will respond to the rebuttal testimony of Aqua Illinois, Inc. ("Aqua" or the "Company") witness Mr. Harold Walker III (Aqua Exhibits 11.0 through 11.1).[1]

Response to Mr. Walker

The Sample Groups

Q4. Mr. Walker claims that you should have used the same Water Sample as was approved in Docket 09-0319 ("IAWC2009") or Docket No. 10-0194 ("AQUA2010").[2] Please comment.

A4. I used the same methodology in developing my Water Sample as Staff used in IAWC2009 and AQUA2010; however, data availability necessitated a change in

[1] My decision not to respond to any particular argument contained in Mr. Walker's testimony should not be construed as my agreement with that argument.
[2] Aqua Ex. 11.0, p. 2.

the composition of the sample.[3] Since I performed the analyses presented in my direct testimony, the available data has changed again. Therefore, I present an update that adds American States Water Co., California Water Service Group and SJW Corp in my Water Sample.

Q5. Mr. Walker argues that American Water Works Company should be included in your Water Sample because it has published betas. Is he correct?

A5. No. American Water Works Company's published betas are calculated from only three years of data instead of the five years relied on by Staff to calculate beta.[4] Beta measured over shorter time periods are more prone to measurement error arising from short-term changes in risk and investor risk preferences, which can bias the beta estimate. For example, a *decrease* in a company's systematic risk could *increase* its estimated beta even though generally an increasing beta would be interpreted as signaling an *increase* in a company's systematic risk. Conversely, an *increase* in a company's systematic risk could *lower* its calculated beta even though generally a decreasing beta would be interpreted as signaling a *decrease* in a company's systematic risk. Those counter-intuitive results are a consequence of the inverse relationship between risk and stock values. As the risk of a stock declines, its price rises, all else equal. In a rising stock market, the beta calculated will rise for a stock that is declining in risk, all else equal. Conversely, in a declining market, the beta calculated will decline for a stock that is increasing in risk. Consequently, a longer measurement period should be

[3] Docket 09-0319, ICC Staff Ex. 4.0, pp. 2-3; Docket No. 10-0194, ICC Staff Ex. 3.0, pp. 10-12.
[4] Yahoo! Finance, www.yahoo.com, historical prices AWK.

used as a more complete business cycle will include both rising and falling markets, reducing measurement error.

Q6. Mr. Walker claims that your Water Sample would have been larger if you would not have restricted it to companies with Zacks long-term analyst growth rates. Please comment.[5]

A6. Mr. Walker is assuming that credible growth estimates were available through another source for the water companies that I eliminated because they lacked Zacks growth rate estimates. Mr. Walker used three sources for consensus forecast of analyst long-term growth rates.[6] However, one of his sources, Yahoo![7] (First Call), forecast are not reliable because of its policy on updating analyst growth estimates. As shown in Attachment A, Yahoo! indicated that it does not replace or remove analyst growth estimates until a new estimate is provided. Consequently, some of the growth rates that Yahoo! publishes can be out of date.

Q7. Mr. Walker claims that the use of only five companies for my Water Sample is "prone to more error and is less reliable."[8] Please comment.

A7. Mr. Walker is correct that smaller samples are prone to more measurement error. However, expanding a sample would necessitate including companies that are less similar in risk to the target utility. For example, as Schedule 8.01 demonstrates, increasing the size of either Utility Sample necessitates adding

[5] Aqua Ex. 11.0, p. 9.
[6] Value Line does not rely on consensus of analyst forecast for the long-term EPS growth rate. In addition, Value Line estimates are not available for Artesian Resources, Connecticut Water Service Group, Middlesex Water Company or York Water Company.
[7] Mr. Walker's work papers show that he obtained the First Call analyst forecast from Yahoo!.
[8] Aqua Ex. 11.0, p. 7.

companies that are farther and farther away from Aqua in terms of risk.[9] Therefore, one must balance sample size against comparability of risk. Although five companies is a small sample, the Water Sample is more similar to Aqua in terms of risk.[10]

DCF Model

Q8. Mr. Walker argues that Staff should use that same non-constant growth DCF model used in recent water rate cases. Please comment.

A8. As I discussed in my direct testimony, at the time of my analysis the growth rates were sustainable estimates and thus the constant growth DCF model was appropriate.[11] However, as can be seen from the growth rates presented on Schedule 8.02, the updated growth rates for the Water Sample are no longer sustainable and the sustainability of the Utility Samples' updated growth rates is questionable. Therefore, a non-constant DCF is necessary in an updated analysis based on the September 16, 2011 growth rates.

Long-Term Growth of the Economy

Q9. Please summarize your concerns with the growth rates that Mr. Walker used in his DCF analysis.[12]

A9. Mr. Walker's long-term growth rate of 6.08% is based on the historical growth in real GDP of 3.32% from 1929-2009 and a long-term projected inflation rate of

[9] The column "sumdis" presents the distance between each utility in the data base and Aqua. As the value of "sumdis" increases, the difference in risk from Aqua increases.
[10] Staff Ex. 3.0, pp. 30-33.
[11] ICC Staff Ex. 3.0, pp. 14-15.
[12] Aqua Ex. 11.0, p. 21.

2.8%.[13] As discussed in my direct testimony, historical data should not be used to estimate the forward-looking rate of return on common equity.[14] In comparison to forecasted real GDP growth, EIA forecasts real GDP growth will average 2.6% during the 2021-2035 period and Global Insight forecasts real GDP growth will average 2.6% during the 2021-2041 period. These projected growth rates for real GDP indicate that Mr. Walker's historical real GDP growth estimate overstates the level of growth expected over the long-term and thereby overstates his investor-required rate of return.

Q10. Mr. Walker suggests his long-term growth rate is appropriate and consistent with the Commission's decision in Docket No. 10-0467.[15] Please comment.

A10. An economy-wide growth rate, whether 4%, 5%, 6% or even more, is not sustainable on a per share basis if a company is not reinvesting a portion of its earnings. That is, the growth rate per share of a company that pays out 100% of its earnings as dividends equals 0% regardless of the magnitude of economy-wide growth. In this case, Mr. Walker's calculated earnings retention ratios of 29% for his water group and 43% for his gas group are too low for his water and gas group companies to sustain the long-term growth rates he employs.[16]

Together with the dividend payout rate that Mr. Walker assumed, the 6.08% growth rate requires an average ROE of 20.97% for his water group and 14.14%

[13] Aqua Ex. 5.0, Schedule 17.
[14] ICC Staff Ex. 3.0, pp. 35-36.
[15] Aqua Ex. 11.0, pp. 20-21.
[16] Aqua Ex. 5.0, Schedule 16, p. 1.

for his gas group. In contrast, Value Line projects a rate of return on common equity of 12.0% for his water group and 11.7% for his gas group for the 2013-2015 period.[17]

Further, the data Mr. Walker relied upon suggests that the companies composing his sample groups are below average growth companies relative to the overall market. Specifically, relative to the overall market, which has a retention ratio of 67.44%,[18] the retention rate for his water group of 29% and gas groups of 43%[19] are well below average. Further, one would expect utilities overall to earn below average returns due to the below average risk reflected in their below average betas (i.e., betas less than one), such as the 0.72 water group beta and the 0.67 gas group beta Mr. Walker presented.[20] Since growth is a function of those below average earnings retention rates and the below average return on those earnings, one would expect *below average* growth for utilities.

Q11. Do current economic forecasts support use of a 6.00% long-term growth estimate?

A11. No. The 6.00% long-term growth rate based on historical growth in nominal GDP is not supported by professional forecasters. The investor-required rate of return is a function of investor's expectations of the future, not a mish-mash of historical averages.[21] As discussed in my direct testimony and used in calculating the

[17] Aqua Ex. 5.0, Schedule 16, p. 2.
[18] Reuters, www.reuters.com, September 28, 2011.
[19] Aqua Ex. 5.0, Schedule 16, p. 1.
[20] Aqua Ex. 5.0, Schedule 20, p. 4..
[21] In Docket No. 10-0467, the company witness derived his 6% long-term growth rate estimate from an average of ten, twenty, thirty, forty, fifty and sixty-year historical averages all ending 2009. The company witness never explained why that average was better than any other average, particularly, given the slow-

4.80% long-term growth rate, the Energy Information Administration ("EIA") projects nominal economic growth of 4.5% for the 2021-2035 period and Global Insight forecasted nominal economic growth of 4.4% for the 2021-2041 period.[22]

Alleged Exclusive Reliance on the DCF Model

Q12. Please respond to Mr. Walker's allegation that your entire analysis relies exclusively on the DCF, since the market return used in your Risk Premium model was derived through a DCF calculation.[23]

A12. Once again, Mr. Walker is mistaken. My risk premium model uses a DCF calculation only to derive the market return ("R_M"), one of its three inputs. The other two, the risk-free rate (*"R_f"*) and beta (*"β"*), do not appear in the DCF formula. Also, his criticism is disingenuous since in addition to using an historical market return, Mr. Walker's Capital Asset Pricing Model also use DCF-derived market returns.[24]

R_M is forward-looking because it measures investors' rate of return requirement; therefore, R_M can only be estimated through a DCF calculation without resorting to untimely, obsolete historical data. Thus, if contrary to previous Orders, the Commission determines that the DCF-derived R_M should not be applied within the risk premium model, then I would have to substitute a R_M derived from an

down in growth over that 60 years (6.9% for the 40, 50, and 60-year averages, 5.8% per year for the 30-year average, 4.9% for the 20 year average and 4.2% for the 10-year average), let alone why that average was better than the forecasts of professional forecasters such as Global Insight and EIA.

[22] The measurement period for long-term economic growth begins in 2021 since this is the start of the long-term growth stage for my multi-stage DCF analysis.

[23] Aqua Ex. 11.0, pp. 2 and 20.

[24] Aqua Ex. 5.0, p. 50 and Schedule 20. Mr. Walker's Value Line-based market rate of return calculation relies on the familiar constant-growth DCF formula of discount rate equals dividend yield plus growth.

historical risk premium. According to Mr. Walker's direct testimony, the Ibbotson historical risk premium is 6.7%,[25] which added to the 4.4% U.S. Treasury bond yield from my direct testimony would result in an R_M estimate of 11.10%.[26] Thus, my risk premium analysis using the historical R_M would produce cost of common equity estimates of 8.69% for my Water Sample and 9.29% for my Utility Sample, both of which are below the 9.81% and 10.58% estimates I obtained with my methodology.

Small Size

Q13. What is your response to Mr. Walker's claim that you are "penalizing AQUA due to lack of recognition of its small size, because of who owns its common stock…"[27]

A13. Mr. Walker's claim is wrong. The issue is not who owns the stock but the market in which the common stock is bought and sold. Aqua is a wholly owned subsidiary of Aqua America. Therefore, the market for Aqua common stock occurs at the parent level, not the subsidiary level. Since the common equity of Aqua IL is obtained indirectly from investors through Aqua America, a much larger organization, neither Aqua IL nor Aqua America incur the additional costs allegedly associated with smaller companies. Aqua America can pass through common equity capital to Aqua IL without incurring the costs that market-traded companies comparable in size to Aqua IL are alleged to incur. Aqua IL has only

[25] Aqua Ex. 5.0, Schedule 20, p. 3, footnote 5.
[26] ICC Staff Ex. 3.0, p. 20 and Schedule 3.10.
[27] Aqua Ex. 11.0, p. 23-24.

one common equity investor, Aqua America, which incurs costs to raise common equity commensurate with Aqua America's liquidity, not Aqua IL's liquidity.

Commission Authorized Cost of Equity

Q14. Mr. Walker compares your return on equity estimate to the return on equity granted by the Commission in 2010 and "the last 30 months."[28] Please comment.

A14. Mr. Walker's comparisons to recent Commission authorized returns contain two important shortcomings. First, Mr. Walker has provided no evidence to show that Aqua is similar in overall risk to any of the companies whose authorized returns are reflected. Second, he includes ROE's for very small companies with no access to the public equity market, neither directly nor indirectly through affiliates

Further, Mr. Walker fails to consider Staff's most recent cost of equity analysis for a water company. Staff recently recommended and the Proposed Order accepted a cost of common equity of 9.56% in Docket Nos. 11-0059/11-0141/11-0142 Consolidated.[29] The 9.56% cost of equity recommendation is for a subsidiary of a holding company that has financial strength commensurate with a credit rating of Baa3/Ba1.[30]

[28] Aqua Ex. 11.0, p. 13.
[29] Proposed Order, Docket Nos. 11-0059/11-0141/11-0142 Consolidated, September 14, 2011, p. 24.
[30] ICC Staff Ex. 3.0, Docket Nos. 11-0059/11-0141/11-0142 Consolidated, April 26, 2011, pp. 28-29 and 34.

IAWC Financing

Q15. Mr. Walker asserts that your recommended cost of common equity for Aqua is below IAWC's cost of debt.[31] Is he correct?

A15. No. The Order in Docket No. 09-0427 does not approve a specific interest rate for IAWC's debt, just that interest rates will be based on current market interest rates at the time the debt is issued.[32] Mr. Walker's suggested 9.9% cost of debt for IAWC is based on the 550 basis point spread to U.S. Treasuries that the Commission permitted as a maximum limit for the interest rate on debt the Commission authorized IAWC to issue. The U.S. Treasury yield plus 550 basis points was not the expected interest rate on new IAWC debt. The actual interest rate IAWC issued the debt authorized in Docket No. 09-0427 was much lower than the maximum rate set. IAWC issued $14 million 30-year promissory notes at 6% interest rate on December 4, 2009.[33] In late May 2010, IAWC issued $25 million (the remaining authority) of tax exempt revenue bonds with a 5.25% interest rate.[34]

Spot Prices

Q16. Mr. Walker argues that the decline in stock prices between July 6, 2011 and August 18, 2011 "produce increases in dividend yield and an increase in common equity cost rate, all other thing being equal." Please comment.

[31] Aqua Ex. 11.0, p. 25.
[32] Order, Docket No. 09-0427, November 12, 2009, p. 3.
[33] Docket No. 09-0427, Special Report, February 25, 2010.
[34] Docket No. 09-0427, Special Report, September 1, 2010.

A16. Mr. Walker fails to recognize that all else is not equal. During that period, not only did prices change, but growth rates changed, ex-dividend dates passed, and overall market sentiment changed. Additionally, Mr. Walker fails to recognize that Staff's ROE recommendations are based on other factors including a CAPM analysis and the relative risk of the target company vis-à-vis the samples.

Q17. Mr. Walker argues that it is inappropriate "to use a spot date to estimate the cost of common equity for a utility."[35] Do you agree?

A17. No. The market value of common stock equals the cumulative value of the expected stream of future dividends after each is discounted by the investor-required rate of return. New information becomes available every day and investors rethink their projections of future cash flows, the risk level of the company, and the price of risk. Thus, only a current stock price will reflect all information that is available and relevant to the market.

Further, research has found that the last observed stock price is the best time series estimator of future stock prices.[36] The Commission has appropriately adopted costs of capital based on the most recent spot data much more frequently than it has relied on outdated historical data. Indeed, the Commission itself has noted that use of spot data is a practice it has traditionally relied upon and, in fact, is reluctant to deviate from.[37]

[35] Aqua Ex. 11.0, p. 18.
[36] Malkiel, A Random Walk Down Wall Street, 2007, Norton, p. 132; Foster, Financial Statement Analysis, 1978, Prentice Hall, p. 215.
[37] Order, Docket Nos. 07-0241/07-0242 (Cons.), February 5, 2008, p. 92.

Q18. Mr. Walker implies that recent declines in stock prices, which "reflect the extraordinary chaos in the financial markets," would increase the cost of common equity for your samples.[38] Please comment.

A18. As to the behavior of stock prices, I employed a sample to minimize the effects of any such unusual changes in stock prices, as estimates for a sample as a whole are subject to less measurement error than individual company estimates. To demonstrate the limited impact of chaotic stock prices on the sample cost of common equity estimates, I updated my analyses each day during the week of September 12, 2011.[39] Tables 1 and 2 below present the results for my Water and Utility Samples:

Table 1 – Water Sample

Date	DCF	CAPM	Average
9-12-11	9.20%	9.41%	9.31%
9-13-11	9.19%	9.44%	9.32%
9-14-11	9.13%	9.44%	9.29%
9-15-11	9.12%	9.45%	9.29%
9-16-11	9.11%	9.44%	9.28%

Table 2 – Utility Sample

Date	DCF	CAPM	Average
9-12-11	9.81%	10.27%	10.04%
9-13-11	9.76%	10.29%	10.03%
9-14-11	9.72%	10.29%	10.01%
9-15-11	9.67%	10.30%	9.99%
9-16-11	9.63%	10.30%	9.97%

As can be seen from the tables, the volatility of the broader stock market does not have a large impact on the return on common equity for my Water and Utility

[38] Aqua Ex. 11.0, pp.17-20.
[39] The DCF results are based on the updated analysis presented below.

Samples. Over a period of about two months, the average difference between the July 6, 2011 cost of common equity estimate and the September estimates was only 21 basis points for my Water Sample and 12 basis points for my Utility Sample. As noted earlier, during that period, not only did prices change, but growth rates changed, ex-dividend dates passed, and overall market sentiment changed. Use of historical averages would not fully reflect those changes in the cost of common equity. The fact that stock prices changed over the course of two months merely demonstrates that market prices are dynamic and that investors are constantly re-evaluating their expectations. The fact that prices are dynamic highlights the shortcomings of Mr. Walker's use of historical averages, as the stock prices from up to 18 months ago that he used obviously do not capture current investor expectations.[40]

Updated Cost of Equity Analysis

Q19. Please describe the changes to your Samples.

A19. For my updated cost of equity analysis, the building of my Water Sample begins with all companies for which either Zacks' or Reuters' growth rates are available. I then removed Pennichuck Corporation, since it is in the process of being acquired.[41] The remaining companies, American States Water Company, Aqua America, Inc., Artesian Resources, California Water Service Group, Connecticut Water Service, Inc. Middlesex Water Company, SJW Corporation and York Water Company, compose the Water Sample used in my updated analysis.

[40] Aqua Ex. 5.0, Schedule 14.
[41] www.pennichuck.com/press, "Pennichuck Corporation Shareholders Approved Acquisition By Nashua," June 15, 2011.

The only change to my Utility Sample from my direct testimony is the inclusion of NV Energy Inc. I had eliminated it from the Utility Sample in my direct testimony because its growth rate was not sustainable[42]. However, because I am using a non-constant DCF in my updated analysis, I have included NV Energy Inc. in the Utility Sample.

Non-Constant DCF

Q20. Please describe how you modeled your NCDCF analysis.

A20. I modeled three stages of dividend growth. The first, a near-term growth stage, is assumed to last five years. The second stage is a transitional growth period that spans the five-year period from the end of the fifth year through the end of the tenth year. Finally, the third, or "steady-state," growth stage, which begins at the end of the tenth year, is assumed to last into perpetuity. An expected stream of dividends is estimated by applying these stages of growth to the current dividend. The discount rate that equates the present value of this expected stream of cash flows to the company's current stock price equals the investor-required rate of return on common equity. Schedule 8.03 mathematically presents the relationship between the cash flow stream, stock price, and market required rate of return on common equity.

Q21. How did you estimate the growth rate parameters?

A21. For the first stage, which is assumed to last five years, I used the average of Zacks and Reuters growth rate estimates for September 16, 2011. Zacks and

[42] ICC Staff Ex. 3.0, p. 12.

Reuters summarize and publish the 3-5 year earnings growth expectations of financial analysts employed by the research departments of investment brokerage firms.

The growth rate employed in the intervening, five-year transitional stage equals the average of the Zacks and Reuters growth rates used for the first stage and the third stage growth rate.

For the third stage, which begins at the end of the tenth year, I calculated the nominal overall economic growth beginning in 2021 to estimate the long-term growth expectations of investors. The overall economic growth rate is composed of two parts, the expected real growth rate and the expected inflation rate. I estimated the expected real growth rate from the average of the Energy Information Administration's ("EIA") and Global Insight's forecasts of real gross domestic product ("GDP"). EIA forecasts that real GDP will average 2.6% over the 2021-2035 period. Similarly, Global Insight forecasts that real GDP will average 2.6% over the 2021-2041 period.

I extracted an estimate of the expected inflation rate from the difference in yields on U.S. Treasury bonds, which contain a premium for expected inflation, and U.S. Treasury Inflation-Protected Securities ("TIPS"), which do not contain a premium for expected inflation. The formula for this calculation is:

$$\text{Expected inflation} = (1+\text{UST}) / (1+\text{TIPS}) - 1$$

Where UST = yield on U.S. Treasury bonds; and

TIPS = yield on U.S. Treasury Inflation-Protected Securities.

For example, an implied 20-year forward TIPS yield in ten years of 1.58% was derived from the 0.13% 10-year and 1.09% 30-year TIPS rates as of September 16, 2011. An implied 20-year forward U.S. Treasury rate in ten years of 4.01% was derived from the 2.09% 10-year and 3.37% 30-year U.S. Treasury rates as of September 16, 2011. The implied 20-year forward rates were calculated using the following formula:

$$ {}_{20}f_{10} = [(1+{}_{30}r_0)^{30} / (1+{}_{10}r_0)^{10}]^{1/20} - 1 $$

Where ${}_{20}f_{10}$ = the implied 20-year forward rate in ten years;

${}_{30}r_0$ = the current 30-year rate; and

${}_{10}r_0$ = the current 10-year rate.

Therefore, the estimate of long-term expected inflation equals 2.4%:

$$ (1+4.01\%) / (1+1.58\%) - 1 = 2.4\% $$

The two components of nominal overall economic growth were then combined to estimate the long-term growth rate for the third stage, using the following formula:

Nominal overall economic growth= [(1+Real GDP) * (1+Inflation)] - 1

Therefore, from the long-term estimates of real GDP growth of 2.6% and expected inflation of 2.4%, the long-term estimate of overall economic growth equals 5.1%:

Nominal overall economic growth = (1+2.6%) * (1+2.4%) – 1 = 5.1%

I also calculated the nominal economic growth EIA forecasted for the 2021-2035 period (4.50%) and Global Insight forecasted for the 2021-2041 period (4.4%). Finally, I combined the 4.5% average of the EIA and Global Insight forecasts with the 5.1% nominal economic growth estimate described above to derive my long-term estimate of overall economic growth of 4.8%.

Schedule 8.02 presents the growth rate estimates for the companies in the Water Sample and Utility Sample.

Q22. Why is an estimate of the long-term overall economic growth rate a reasonable proxy for the steady-state stage growth for your Samples?

A22. Ideally, company-specific growth rate estimates for the very long term are preferable. Unfortunately, company specific long-term growth rate forecasts are not available. Thus, while the overall economic growth rate might be slightly biased upward for generally low-growth companies such as utilities, it is much closer to the growth rate that investors could reasonably expect utilities to sustain over the long term.

Q23. How did you measure the stock price?

A23. I used the current spot stock price data from September 16, 2011. Those stock prices appear on Schedule 8.04.

Q24. How did you estimate the expected future quarterly dividends?

A24. I estimated expected future quarterly dividends in the same manner as discussed in my direct testimony. ICC Staff Exhibit 3.0, Schedule 3.07 presents the current quarterly dividends for the prior year. ICC Staff Exhibit 3.0, Schedule 3.08 presents the expected quarterly dividends for the coming year. This technique was applied to produce dividend projections for the next 11 years, using the growth rate estimate from the applicable growth stage of my NCDCF analysis.

Q25. Based on your NCDCF analyses, what are the estimated required rates of return on common equity for the Water Sample and the Utility Sample?

A25. My NCDCF analyses estimated that the required rate of return on common equity for the Water Sample and Utility Sample are 9.11% and 9.63%, respectively, as shown on Schedule 8.05. Those results were derived from the growth rates presented on Schedule 8.02, and the stock prices and dividend payment dates presented on Schedule 8.04. The NCDCF estimates the cost of common equity for the Water Sample including American Water Works Company is 9.23%.

CAPM

Q26. What are the current yields on four-week U.S. Treasury bills and thirty-year U.S. Treasury bonds?

A26. Four-week U.S. Treasury bills are currently yielding 0.01%. Thirty-year U.S. Treasury bonds are currently yielding 3.37%. Both estimates are derived from quotes for September 16, 2011.[43] Schedule 8.07 presents the published quotes and effective yields.

[43] The Federal Reserve Board, *Federal Reserve Statistical Release: H.15, Selected Interest Rates, Daily*

Q27. What is the beta estimate for your Utility Sample?

A27. The regression beta estimate for the Utility Sample is 0.69. The average Value Line beta and average Zacks beta for the Utility Sample are 0.73 and 0.74, respectively, as shown in Table 3 below.[44]

Table 3

Company	Value Line Estimate	Zacks Estimate*
Ameren Corp.	0.80	0.76
American Electric Power Co., Inc.	0.70	0.70
Avista Corp.	0.70	0.81
CMS Energy Corp.	0.75	0.70
IdaCorp, Inc.	0.70	0.63
NV Energy, Inc.	0.85	0.79
Pinnacle West Capital Corp.	0.70	0.70
Westar Energy, Inc.	0.75	0.76
Average	0.74	0.73

*After adjustment

The average of the Zacks and regression beta estimates is 0.71. I then averaged that result with the Value Line beta (0.74), which produces a beta for the Utility Sample of 0.73.

Q28. What is the beta estimate for your Water Sample?

A28. The regression beta estimate for the Water Sample is 0.55. The average Value Line beta and average Zacks beta for the Water Sample are 0.71 and 0.59, respectively, as shown in Table 4 below.[45]

Update, www.federalreserve.gov/releases/H15/update/, September 19, 2011.

[44] The Value Line Investment Survey, "Summary and Index," September 16, 2011; Zacks Research Wizard, September 16, 2011.

Table 4

Company	Value Line Estimate	Zacks Estimate*
American States Water Co.	0.75	0.56
Aqua American, Inc.	0.65	0.47
Artesian Resources	0.58	0.58
California Water Service Group.	0.70	0.51
Connecticut Water Service, Inc.	0.78	0.62
Middlesex Water Co.	0.79	0.60
SJW Corp.	0.90	0.75
York Water Co.	0.59	0.62
Average	0.71	0.59

*After adjustment

The average of the Zacks and regression beta estimates is 0.57. I then averaged that result with the Value Line beta (0.71), which produces a beta for the Water Sample of 0.64.

Q29. What required rate of return on common equity does the risk premium model estimate for your Utility Sample?

A29. The risk premium model estimates a required rate of return on common equity of 10.30% for the Utility Sample. The computation of that estimate appears on Schedule 8.07.

Q30. What required rate of return on common equity does the risk premium model estimate for the Water Sample?

[45] The Value Line Investment Survey, "Summary and Index," September 16, 2011 and calculated using Value Line methodology for Artesian Resources, Connecticut Water Service, Middlesex Water Co., and York Water Co.; Zacks Research Wizard, September 16, 2011.

A30. The risk premium model estimates a required rate of return on common equity of 9.44% for the Water Sample whether or not American Water Works is included. The computation of that estimate appears on Schedule 8.07.

Q31. Did the modifications to your Samples change the overall risk of each sample?

A31. Yes. The addition of companies to the samples altered the risk of the Samples. The average credit ratings and principal component scores for each company in my updated Samples are presented in Schedule 8.08. Both the credit ratings and the principal component scores suggest that the Utility Sample is more risky than either Aqua or the Water Sample. While the S&P implied credit rating suggest that Aqua may be slightly less risky than the Water Sample, the principal components scores suggest that it may be slightly more risky.

Q32. Does this conclude your rebuttal testimony?

A32. Yes, it does.

From: Yahoo! Finance
To: Kight-Garlisch, Sheena
Subject: RE: General Question (KMM168289484V80553L0KM)
Date: Saturday, July 10, 2010 12:46:22 PM

Hello Sheena,

Thank you for writing to Yahoo! Finance.

I understand you have some additional questions with regards to our Analyst Estimates data. I'd be happy to further assist you with this.

We add the data Thomson and Morningstar provides us as soon as it becomes available. However, if we are not provided a forecast, it will not be updated. The previously data will be displayed until we get an update. There is no set time the data will remain, once theres an update the old data is replaced. At this time, we do not have a policy for ensuring this data is updated timely, at this is part of our free services not included in the Real-Time Quotes premium subscription.

I hope I have addressed and understood your question or concern. If not, please don't hesitate to reply to this email and we will gladly assist you further.

Thank you again for contacting Yahoo! Finance.

Regards,

Murray

Yahoo! Finance Customer Care

For assistance with all Yahoo! services, please visit:

http://help.yahoo.com/

To ensure a better browsing experience, upgrade to Internet Explorer 8 or Firefox, both optimized for Yahoo!

Download optimized IE8: http://bit.ly/9K5r1D

Download optimize Firefox: http://bit.ly/dyQBE9

Original Message Follows:

Norma,

My question does not concern how often Thomson Financial or MorningStar update their information but on what is Yahoo! Finance's policy for updating the information. For example, Thomson provides an analyst forecast for a Company on January 15, 2009. As of today Thomson has not provided any other forecast for that company, does Yahoo! remove the forecast after 6-month, 12-months, or does the forecast remain until a newer forecast is received? Does Yahoo! have a policy for ensuring that the forecast it publishes are timely?

Thank you,

Sheena Kight-Garlisch

-----Original Message-----
From: Yahoo! Finance [mailto:finance-admin@cc.yahoo-inc.com]
Sent: Thursday, July 08, 2010 2:46 PM
To: Kight-Garlisch, Sheena
Subject: Re: General Question (KMM168221993V34339L0KM)

Hello Sheena,

Thank you for writing to Yahoo! Finance.

I understand you have some questions with regards to our Analyst Estimates, five year growth estimates and updates. I'd be happy to assist you with your inquiry.

Our Analyst Estimates information is provided to us by the Thomson Financial Network and MorningStar, Inc. For details on calculations and updates, you can contact each company and review what they have on file for your company and update that data as necessary per their processes. You can reach each of the companies at these email addresses:

TWMsupport@thomson.com

dataquestions@morningstar.com

If you have any further questions, suggestions, or concerns, please let us know.

Thank you again for contacting Yahoo! Finance.

Regards,

Norma

Yahoo! Finance Customer Care

For assistance with all Yahoo! services, please visit:

http://help.yahoo.com/

New and Improved Yahoo! Mail - better than ever!

To ensure a better browsing experience, upgrade to Internet Explorer 8 or Firefox, both optimized for Yahoo!

Download optimized IE8: http://bit.ly/9K5r1D

Download optimized Firefox: http://bit.ly/dyQBE9

Original Message Follows:

Mail-Id:
w12.help.sp1.yahoo.com-/l/us/yahoo/finance/general.html-1278520700-7232

1. What is your name and Yahoo! ID?

Name: Sheena

Yahoo! ID: mba_cardinal_fan

2. What is your email address?

Email Address: skight@icc.illinois.gov

3. What are you writing about?

Subject: General Question

4. If you are writing about a particular company, which one?

Ticker Symbol:

Company Name:

5. If you are writing about a Portfolio, which one?

Portfolio Name:

6. Please describe the issue you are experiencing

I was inquiring as to how often the analyst next 5 year growth estimates are updated. How long are analyst estimates good for? (e.g. 6 months or until a new estimate is received) How long does Yahoo! keep an estimate before it is removed for timeliness? I noticed that Thomson Financial Network is the source for analyst growth estimates. I looked up several companies on both Yahoo! and Thomson Reuters. Thomson Reuters did not have growth rates available for the companies, however Yahoo! did have 5 yr growth estimates. (examples of compaies: CTWS-Connecticut Water Service Inc.; MSEX- Middlesex Water Co.; PNNW- Pennichuck Corp.; SJW- SJW Corp.; SWWC- Southwest Water Co.; YORW- York Water Co.) Thank you for your time.

Sheena Kight-Garlisch

How often does the problem occur?: Not set by user

While Viewing:
http://feedback.help.yahoo.com/feedback.php?.src=FINANCE&.done=http://finance.yahoo.com

Last URL: http://feedback.help.yahoo.com/feedback.php

Form Name: http://help.yahoo.com/l/us/yahoo/finance/general.html

Yahoo ID: mba_cardinal_fan : Yahoo id from cookie
"https://amt.yahoo.com/amt/dosearch?.token=jJXxXCjoPUpJse9QHv1ngoEq5yKNjyxi5sndccnQGAEXt_Lsrxk-"

Other ID:

Machine: PC

OS: WinXP

Browser: IE 8.0

REMOTE_ADDR: 163.191.149.12

REMOTE_HOST: 163.191.149.12

Date Originated: Wednesday July 7, 2010 - 09:38:20

Cookies: enabled

AOL: no

Comparable Sample
Aqua Illinois

Obs	cnum	Company Name	Industry Classification Code	Stock Ticker Symbol	Exchange	Current S&P Senior Debt Rating	Factor1	Factor2	Factor3	Factor4	sumdis	chgdis
1	000000	Aqua Illinois	4941		.	.	-0.996	0.296	1.126	1.488	0.000	.
2	708254	PENNICHUCK CORP	4941	PNNW	OTC	.	-0.918	0.594	0.420	0.641	1.146	1.146
3	847560	SPECTRA ENERGY CORP	4923	SE	NYSE	BBB+	-0.248	-0.460	0.811	1.172	1.154	0.008
4	987184	YORK WATER CO	4941	YORW	OTC	A-	-0.616	1.189	0.477	2.172	1.353	0.199
5	451107	IDACORP INC	4911	IDA	NYSE	BBB	-0.646	0.490	-0.037	0.437	1.618	0.266
6	025537	AMERICAN ELECTRIC POWER CO	4911	AEP	NYSE	BBB	-0.583	0.370	0.244	0.169	1.642	0.024
7	207797	CONNECTICUT WATER SVC INC	4941	CTWS	OTC	A	-0.762	1.001	-0.390	1.098	1.733	0.091
8	596680	MIDDLESEX WATER CO	4941	MSEX	OTC	A-	-0.822	1.380	0.236	0.474	1.740	0.006
9	67073Y	NV ENERGY INC	4911	NVE	NYSE	BB+	-0.905	0.732	0.047	0.172	1.759	0.019
10	65473P	NISOURCE INC	4931	NI	NYSE	BBB-	-0.422	0.201	0.761	-0.146	1.773	0.014
11	043113	ARTESIAN RESOURCES -CL A	4941	ARTNA	OTC	.	-0.947	1.339	-0.245	1.058	1.776	0.003
12	03836W	AQUA AMERICA INC	4941	WTR	NYSE	.	-0.219	1.315	-0.260	1.384	1.891	0.114
13	023608	AMEREN CORP	4931	AEE	NYSE	BBB-	-0.194	-0.159	0.166	0.081	1.937	0.047
14	95709T	WESTAR ENERGY INC	4931	WR	NYSE	BBB	-0.683	0.983	-0.422	0.502	1.985	0.048
15	844030	SOUTHERN UNION CO	4924	SUG	NYSE	BBB-	-0.847	-0.895	1.123	-0.098	1.989	0.004
16	668074	NORTHWESTERN CORP	4931	NWE	NYSE	BBB	-0.266	0.558	0.370	-0.180	1.989	0.000
17	291641	EMPIRE DISTRICT ELECTRIC CO	4911	EDE	NYSE	BBB-	-0.631	0.152	-0.397	0.130	2.078	0.089
18	125896	CMS ENERGY CORP	4931	CMS	NYSE	BBB-	-1.000	-0.907	0.961	-0.241	2.113	0.035
19	723484	PINNACLE WEST CAPITAL CORP	4911	PNW	NYSE	BBB	0.087	1.183	0.158	0.215	2.125	0.012
20	05379B	AVISTA CORP	4931	AVA	NYSE	BBB	-0.524	0.310	0.521	-0.510	2.141	0.015
21	029899	AMERICAN STATES WATER CO	4941	AWR	NYSE	A+	-0.001	-0.216	-0.033	0.002	2.192	0.052
22	909205	UNISOURCE ENERGY CORP	4911	UNS	NYSE	.	-0.769	-1.290	0.307	0.173	2.229	0.037
23	80589M	SCANA CORP	4931	SCG	NYSE	BBB+	-0.593	0.946	-0.017	-0.300	2.256	0.027
24	12561W	CLECO CORP	4911	CNL	NYSE	BBB	-0.916	-0.171	-0.126	-0.331	2.259	0.003
25	743263	PROGRESS ENERGY INC	4911	PGN	NYSE	BBB+	-0.256	0.577	-0.559	0.196	2.266	0.008
26	001204	AGL RESOURCES INC	4924	AGL	NYSE	A-	0.170	0.101	-0.197	0.057	2.280	0.014
27	209115	CONSOLIDATED EDISON INC	4931	ED	NYSE	A-	-0.647	0.132	-0.063	-0.445	2.302	0.022
28	096627	BOARDWALK PIPELINE PRTNRS-LP	4922	BWP	NYSE	BBB	-0.879	0.472	-0.727	2.838	2.302	0.000
29	842587	SOUTHERN CO	4911	SO	NYSE	A	-0.304	1.181	-0.523	0.280	2.333	0.030
30	872375	TECO ENERGY INC	4931	TE	NYSE	BBB+	-0.365	-0.729	0.153	-0.299	2.365	0.032
31	664397	NORTHEAST UTILITIES	4911	NU	NYSE	BBB+	-0.048	-0.435	-0.002	-0.273	2.411	0.046
32	233331	DTE ENERGY CO	4911	DTE	NYSE	BBB+	0.091	-1.081	0.935	-0.231	2.464	0.053

Comparable Sample
Aqua Illinois

Obs	cnum	Company Name	Industry Classification Code	Stock Ticker Symbol	Exchange	Current S&P Senior Debt Rating	Factor1	Factor2	Factor3	Factor4	sumdis	chgdis
33	69349H	PNM RESOURCES INC	4911	PNM	NYSE	BB-	-0.979	-1.136	0.412	-0.402	2.477	0.014
34	29364G	ENTERGY CORP	4911	ETR	NYSE	BBB	0.622	0.467	-0.096	0.038	2.499	0.022
35	26441C	DUKE ENERGY CORP	4931	DUK	NYSE	A-	-0.165	-0.183	-0.814	0.231	2.503	0.004
36	844895	SOUTHWEST GAS CORP	4923	SWX	NYSE	BBB+	-0.275	1.280	0.738	-0.672	2.511	0.008
37	667655	NORTHWEST NATURAL GAS CO	4924	NWN	NYSE	A+	-0.035	1.450	0.442	-0.432	2.532	0.021
38	337932	FIRSTENERGY CORP	4911	FE	NYSE	BBB-	0.314	-0.673	-0.200	0.072	2.533	0.002
39	465685	ITC HOLDINGS CORP	4911	ITC	NYSE	BBB	-0.218	-0.357	-0.800	2.786	2.535	0.002
40	37244E	GENON ENERGY INC	4911	GEN	NYSE	B	0.136	-1.790	0.469	0.868	2.540	0.004
41	913259	UNITIL CORP	4931	UTL	NYSE	.	-1.262	-0.250	0.148	-0.799	2.562	0.022
42	67019E	NSTAR	4911	NST	NYSE	A+	0.781	0.877	0.937	-0.302	2.596	0.034
43	98389B	XCEL ENERGY INC	4931	XEL	NYSE	A-	-0.310	0.948	-0.309	-0.458	2.597	0.001
44	784305	SJW CORP	4941	SJW	NYSE	.	-0.641	1.145	-0.903	0.148	2.600	0.003
45	816851	SEMPRA ENERGY	4932	SRE	NYSE	BBB+	-0.015	-0.831	-0.115	-0.278	2.625	0.025
46	15189T	CENTERPOINT ENERGY INC	4931	CNP	NYSE	BBB	-0.210	-1.648	0.468	-0.029	2.671	0.046
47	69351T	PPL CORP	4911	PPL	NYSE	BBB	0.291	-1.646	0.516	0.328	2.673	0.002
48	281020	EDISON INTERNATIONAL	4911	EIX	NYSE	BBB-	0.421	-0.112	-0.798	0.163	2.763	0.090
49	744573	PUBLIC SERVICE ENTRP GRP INC	4931	PEG	NYSE	BBB	0.734	-0.539	-0.153	-0.045	2.771	0.008
50	130788	CALIFORNIA WATER SERVICE GP	4941	CWT	NYSE	.	-0.492	1.677	-0.672	-0.046	2.783	0.012
51	713291	PEPCO HOLDINGS INC	4911	POM	NYSE	BBB+	-0.154	-0.730	0.250	-0.800	2.787	0.003
52	902748	UIL HOLDINGS CORP	4911	UIL	NYSE	BBB	-0.188	-0.295	-0.522	-0.559	2.813	0.026
53	391164	GREAT PLAINS ENERGY INC	4911	GXP	NYSE	BBB	-1.496	0.304	-1.351	0.231	2.823	0.010
54	283677	EL PASO ELECTRIC CO	4911	EE	NYSE	BBB	0.129	0.787	-0.696	-0.288	2.825	0.002
55	682680	ONEOK INC	4923	OKE	NYSE	BBB	-0.197	-0.461	-0.283	-0.757	2.871	0.045
56	736508	PORTLAND GENERAL ELECTRIC CO	4911	POR	NYSE	BBB	-0.450	-0.935	-0.726	-0.260	2.881	0.010
57	720186	PIEDMONT NATURAL GAS CO	4924	PNY	NYSE	A	0.345	1.386	0.735	-0.792	2.888	0.007
58	25746U	DOMINION RESOURCES INC	4911	D	NYSE	A-	-0.147	-1.462	-0.629	0.233	2.910	0.022
59	155771	CENTRAL VERMONT PUB SERV	4911	CV	NYSE	.	-0.158	-0.212	0.728	-1.264	2.949	0.039
60	55277P	MGE ENERGY INC	4931	MGEE	OTC	AA-	0.876	1.176	0.378	-0.510	2.972	0.023
61	92240G	VECTREN CORP	4923	VVC	NYSE	A-	0.739	0.809	-0.179	-0.514	2.997	0.026
62	12541M	CH ENERGY GROUP INC	4931	CHG	NYSE	.	0.169	0.306	-0.088	-1.038	3.036	0.039
63	049560	ATMOS ENERGY CORP	4924	ATO	NYSE	BBB+	0.317	0.525	-0.300	-0.883	3.072	0.036
64	505597	LACLEDE GROUP INC	4924	LG	NYSE	A	0.126	1.011	1.647	-1.281	3.117	0.045
65	629377	NRG ENERGY INC	4911	NRG	NYSE	BB-	0.064	-1.650	2.981	0.253	3.143	0.027
66	69331C	PG&E CORP	4931	PCG	NYSE	BBB+	0.807	-0.299	-0.834	-0.075	3.145	0.002

Comparable Sample
Aqua Illinois

Obs	cnum	Company Name	Industry Classification Code	Stock Ticker Symbol	Exchange	Current S&P Senior Debt Rating	Factor1	Factor2	Factor3	Factor4	sumdis	chgdis
67	636180	NATIONAL FUEL GAS CO	4924	NFG	NYSE	BBB	1.457	0.141	-0.185	0.016	3.151	0.005
68	74955L	RGC RESOURCES INC	4924	RGCO	OTC	.	0.454	1.625	0.696	-0.977	3.183	0.032
69	646025	NEW JERSEY RESOURCES CORP	4924	NJR	NYSE	.	-0.022	-0.427	0.865	-1.479	3.216	0.033
70	838518	SOUTH JERSEY INDUSTRIES INC	4924	SJI	NYSE	BBB+	1.263	-0.312	0.214	-0.610	3.272	0.057
71	018802	ALLIANT ENERGY CORP	4931	LNT	NYSE	BBB+	0.820	-0.036	-1.184	-0.242	3.426	0.154
72	68268N	ONEOK PARTNERS -LP	4922	OKS	NYSE	BBB	0.048	-1.104	-0.835	-0.716	3.429	0.003
73	92924F	WGL HOLDINGS INC	4924	WGL	NYSE	A+	0.975	1.041	1.791	-1.161	3.450	0.021
74	686688	ORMAT TECHNOLOGIES INC	4911	ORA	NYSE	.	-1.376	0.133	-1.956	-0.161	3.520	0.070
75	210371	CONSTELLATION ENERGY GRP INC	4931	CEG	NYSE	BBB-	-0.384	-1.333	-0.551	-1.260	3.660	0.140
76	092113	BLACK HILLS CORP	4911	BKH	NYSE	BBB-	0.159	-1.268	-1.457	-0.242	3.667	0.007
77	165303	CHESAPEAKE UTILITIES CORP	4923	CPK	NYSE	.	1.301	1.520	0.168	-0.928	3.678	0.011
78	45822P	INTEGRYS ENERGY GROUP INC	4931	TEG	NYSE	BBB+	0.266	-1.625	1.098	-1.436	3.720	0.042
79	217202	COPANO ENERGY LLC	4922	CPNO	OTC	BB-	-0.719	-1.311	-1.111	-1.018	3.735	0.015
80	670837	OGE ENERGY CORP	4931	OGE	NYSE	BBB+	0.579	0.927	-1.744	-0.351	3.808	0.073
81	226372	CRESTWOOD MIDSTREAM PTNRS LP	4922	CMLP	NYSE	B	1.006	0.670	-1.784	2.936	3.836	0.028
82	552690	MDU RESOURCES GROUP INC	4932	MDU	NYSE	BBB+	1.692	-0.668	-0.523	-0.592	3.900	0.064
83	049392	ATLAS PIPELINE PARTNER LP	4922	APL	NYSE	B+	-3.024	-1.489	0.122	-1.144	3.904	0.004
84	689648	OTTER TAIL CORP	4911	OTTR	OTC	BBB-	-0.053	-0.310	-1.453	-1.371	4.010	0.107
85	969457	WILLIAMS COS INC	4922	WMB	NYSE	BBB-	1.092	-2.153	-0.788	0.051	4.011	0.000
86	28336L	EL PASO CORP	4922	EP	NYSE	BB	0.244	-2.304	-0.945	3.664	4.162	0.151
87	654086	NICOR INC	4924	GAS	NYSE	AA	1.927	1.571	-0.070	-1.366	4.444	0.282
88	30161N	EXELON CORP	4911	EXC	NYSE	BBB	3.284	-1.631	0.440	0.181	4.920	0.476
89	84756N	SPECTRA ENERGY PARTNERS LP	4922	SEP	NYSE	BBB	1.088	0.232	5.440	2.836	4.977	0.057
90	748356	QUESTAR CORP	4923	STR	NYSE	A	5.105	0.010	-1.446	0.822	6.661	1.684

Docket No. 11-0436
ICC Staff Exhibit 8.0
Schedule 8.02

Aqua Illinois, Inc.

Growth Rate Estimates

Water Sample

Company	Zacks Earnings Growth	Zacks Number of Analyst	Reuters Earnings Growth	Reuters Number of Analyst
American States Water Co.	12.00%	1	7.15%	2
Aqua American, Inc.	8.28%	4	7.25%	4
Artesian Resources			5.00%	2
California Water Service Group.	10.00%	1	6.00%	2
Connecticut Water Service, Inc.	4.00%	1	8.00%	1
Middlesex Water Co.	3.00%	1	-5.00%	1
SJW Corp.			14.00%	1
York Water Co.	6.00%	1	6.00%	2

Utility Sample

Company	Zacks Earnings Growth	Zacks Number of Analyst	Reuters Earnings Growth	Reuters Number of Analyst
IdaCorp Inc.	4.67%	3	4.67%	3
Amereican Electric Power Co.	4.00%	3	4.23%	8
Ameren Corp.	4.00%	1	3.00%	2
Westar Energy Inc.	6.09%	3	5.95%	6
CMS Energy Corp.	5.50%	2	5.73%	8
Avista Corp.	4.67%	3	4.67%	3
Pinnacle West Capital Corp.	5.33%	3	6.48%	6
NV Energy Inc.	8.77%	3	10.12%	5

Aqua Illinois, Inc.

The Non-Constant Growth Discounted Cash Flow Model

The formula for measuring the cost of common equity, *k*, when growth, *g*, does not become constant until period φ, is as follows:

$$k = \left[\frac{D_{1,1}(1+k)^{\varphi-0.25} + D_{1,2}(1+k)^{\varphi-0.50} + D_{1,3}(1+k)^{\varphi-0.75} + \ldots + D_{\varphi,4} + P_{\varphi,4}}{P} \right]^{\left(\frac{1}{x+\varphi-0.25} \right)} - 1$$

where: P ≡ the current market value;

$D_{\varphi,q}$ ≡ the expected dividend at the end of quarter *q* in year φ, where *q* = 1 to 4 and φ = the number of periods until the steady-state growth period;

k ≡ the cost of common equity;

x ≡ the elapsed time between the stock observation and first dividend payment dates, in years; and

$P_{\varphi,4}$, the market value at the beginning of the steady-state growth stage, is calculated from the following equation:

$$P_{\varphi,4} = \frac{\sum_{q=1}^{4} D_{\varphi,q}(1+g_l)(1+k)^{1-[x+0.25(q-1)]}}{k-g_l}$$

where: $D_{\varphi,q}$ ≡ the dividend paid in quarter q during the last year of the transitional growth stage; and

g_l ≡ the steady-state growth rate.

Aqua Illinois, Inc.

Prices and Dividends

Water Sample

Company	Current Dividend $D_{0,1}$	$D_{0,2}$	$D_{0,3}$	$D_{0,4}$	Next Dividend (D_1) Payment Date	9/16/2011 Stock Price
American States Water Co.	$ 0.260	$ 0.260	$ 0.280	$ 0.280	12/1/2011	$34.18
Aqua American, Inc.	0.155	0.155	0.155	0.155	12/1/2011	$21.93
Artesian Resources	0.189	0.189	0.190	0.190	11/18/2011	$17.08
California Water Service Group	0.149	0.154	0.154	0.154	11/18/2011	$18.05
Connecticut Water Service, Inc.	0.233	0.233	0.233	0.238	12/15/2011	$26.40
Middlesex Water Co.	0.183	0.183	0.183	0.183	12/1/2011	$17.91
SJW Corp.	0.170	0.173	0.173	0.173	12/1/2011	$22.31
York Water Co.	0.128	0.131	0.131	0.131	10/14/2011	$17.04

Utility Sample

Company	Current Dividend $D_{0,1}$	$D_{0,2}$	$D_{0,3}$	$D_{0,4}$	Next Dividend (D_1) Payment Date	9/16/2011 Stock Price
IdaCorp Inc.	$ 0.300	$ 0.300	$ 0.300	$ 0.300	11/30/2011	$39.05
Amereican Electric Power Co.	0.460	0.460	0.460	0.460	12/11/2011	$37.52
Ameren Corp.	0.385	0.385	0.385	0.385	12/30/2011	$30.42
Westar Energy Inc.	0.310	0.320	0.320	0.320	10/1/2011	$26.24
CMS Energy Corp.	0.210	0.210	0.210	0.210	11/30/2011	$20.31
Avista Corp.	0.250	0.275	0.275	0.275	12/15/2011	$24.45
Pinnacle West Capital Corp.	0.525	0.525	0.525	0.525	12/1/2011	$44.21
NV Energy Inc.	0.120	0.120	0.120	0.120	12/21/2011	$14.74

Aqua Illinois, Inc.

Water Sample

Company	DCF Estimate
American States Water Co.	9.44%
Aqua American, Inc.	8.50%
Artesian Resources	9.61%
California Water Service Group	9.27%
Connecticut Water Service, Inc.	8.85%
Middlesex Water Co.	7.60%
SJW Corp.	10.51%
York Water Co.	9.13%
Average	9.11%

Utility Sample

Company	DCF Estimate
IdaCorp Inc.	8.10%
Amereican Electric Power Co.	9.92%
Ameren Corp.	9.86%
Westar Energy Inc.	10.56%
CMS Energy Corp.	9.54%
Avista Corp.	9.59%
Pinnacle West Capital Corp.	10.34%
NV Energy Inc.	9.13%
Average	9.63%

Docket No. 11-0436
ICC Staff Exhibit 8.0
Schedule 8.06

Aqua Illinois, Inc.

Risk Premium Analysis

Interest Rates as of September 16, 2011

U.S. Treasury Bills		U.S. Treasury Bonds	
Discount Rate	Effective Yield	Equivalent Yield	Effective Yield
0.01%	0.01%	3.34%	3.37%

Risk Premium Cost of Equity Estimates*
Water Sample

Risk-Free Rate		Beta		Risk Premium		Cost of Common Equity
3.37%	+	0.64	*	(12.86% - 3.37%)	=	9.44%

Risk Premium Cost of Equity Estimates*
Utility Sample

Risk-Free Rate		Beta		Risk Premium		Cost of Common Equity
3.37%	+	0.73	*	(12.86% - 3.37%)	=	10.30%

*Risk-Free Rate Proxy is the 30-year U.S. Treasury Bond Yield.

Docket No. 11-0436
ICC Staff Exhibit 8.0
Schedule 8.07

Aqua Illinois, Inc.

Principal Components Analysis Scores for Staff's Samples

		Factor 1	Factor 2	Factor 3	Factor 4
	S&P Credit Rating	*Financial Risk*	*Earnings Stability*	*Constuction Risk*	*Capital Intensity*
Aqua Illinois, Inc.	**A+***	**-1.076**	**0.287**	**1.156**	**1.488**

Water Sample					
American States Water Co.		-0.001	-0.216	-0.033	0.002
Aqua American, Inc.**	A+	-0.219	1.315	-0.260	1.384
Artesian Resources		-0.947	1.339	-0.245	1.058
California Water Service Group**	A+	-0.492	1.677	-0.672	-0.046
Connecticut Water Service, Inc.	A	-0.762	1.001	-0.390	1.098
Middlesex Water Co.	A-	-0.822	1.380	0.236	0.474
SJW Corp.**	A	-0.641	1.145	-0.903	0.148
York Water Co.	A-	-0.616	1.189	0.477	2.172
Average	**A**	**-0.563**	**1.104**	**-0.224**	**0.786**

Utility Sample					
IdaCorp Inc.	BBB	-0.646	0.490	-0.037	0.437
Amereican Electric Power Co.	BBB	-0.583	0.370	0.244	0.169
Ameren Corp.	BBB-	-0.194	-0.159	0.166	0.081
Westar Energy Inc.	BBB	-0.683	0.983	-0.422	0.502
CMS Energy Corp.	BBB-	-1.000	-0.907	0.961	-0.241
Avista Corp.	BBB	-0.524	0.310	0.521	-0.510
Pinnacle West Capital Corp.	BBB	0.087	1.183	0.158	0.215
NV Energy, Inc.	BB+	-0.905	0.732	0.047	0.172
Average	**BBB**	**-0.556**	**0.375**	**0.205**	**0.103**

*Implied Credit rating and credit rating of sister company.

** Subsidiary's credit rating