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**BEFORE THE  
PUBLIC SERVICE COMMISSION OF KENTUCKY**

**IN RE: APPLICATION OF KENTUCKY UTILITIES )  
COMPANY FOR AN ADJUSTMENT OF ) CASE NO. 2009-00548  
BASE RATES )**

**APPLICATION OF LOUISVILLE GAS AND )  
ELECTRIC COMPANY FOR AN ) CASE NO. 2009-00549  
ADJUSTMENT OF ITS ELECTRIC AND )  
GAS BASE RATES )**

**DIRECT TESTIMONY  
AND EXHIBITS  
OF  
RICHARD A. BAUDINO**

**ON BEHALF OF THE  
KENTUCKY INDUSTRIAL UTILITY CONSUMERS**

**J. KENNEDY AND ASSOCIATES, INC.  
ROSWELL, GEORGIA**

**April 2010**

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**DIRECT TESTIMONY OF RICHARD A. BAUDINO**

**I. QUALIFICATIONS AND SUMMARY**

1 **Q. Please state your name and business address.**

2 A. My name is Richard A. Baudino. My business address is J. Kennedy and Associates,  
3 Inc. ("Kennedy and Associates"), 570 Colonial Park Drive, Suite 305, Roswell,  
4 Georgia 30075.

5 **Q. What is your occupation and by whom are you employed?**

6 A. I am a consultant with Kennedy and Associates.

7

8 **Q. Please describe your education and professional experience.**

9 A. I received my Master of Arts degree with a major in Economics and a minor in  
10 Statistics from New Mexico State University in 1982. I also received my Bachelor  
11 of Arts Degree with majors in Economics and English from New Mexico State in  
12 1979.

13

14 I began my professional career with the New Mexico Public Service Commission  
15 Staff in October 1982 and was employed there as a Utility Economist. During my

1 employment with the Staff, my responsibilities included the analysis of a broad range  
2 of issues in the ratemaking field. Areas in which I testified included cost of service,  
3 rate of return, rate design, revenue requirements, analysis of sale/leasebacks of  
4 generating plants, utility finance issues, and generating plant phase-ins.

5  
6 In October 1989, I joined the utility consulting firm of Kennedy and Associates as a  
7 Senior Consultant where my duties and responsibilities covered substantially the  
8 same areas as those during my tenure with the New Mexico Public Service  
9 Commission Staff. I became Manager in July 1992 and was named Director of  
10 Consulting in January 1995. Currently, I am a consultant with Kennedy and  
11 Associates.

12  
13 Exhibit \_\_\_\_ (RAB-1) summarizes my expert testimony experience.

14 **Q. On whose behalf are you testifying?**

15 A. I am testifying on behalf of the Kentucky Industrial Utility Consumers (“KIUC”).

16 **Q. What is the purpose of your Direct Testimony?**

17 A. The purpose of my direct testimony is to address the allowed return on equity for  
18 Louisville Gas and Electric Company (“LGE”) and Kentucky Utilities (“KU”).  
19 Throughout the rest of my testimony I will refer to both LGE and KU as  
20 “Companies.”

21 **Q. Please summarize your Direct Testimony.**

1 A. Based on my independent analysis in this case, I recommend that the Public Service  
2 Commission of Kentucky (“KPSC” or “Commission”) adopt an allowed return on  
3 equity (“ROE”) of 9.70% for LGE and KU. My recommendation is based on the  
4 results of several Discounted Cash Flow (“DCF”) analyses for a comparison group  
5 of electric utilities. The utilities in this groups have bond ratings of A from either  
6 Standard and Poor’s or Moody’s. I also performed two Capital Asset Pricing Model  
7 Analyses but did not incorporate them into my recommendation. My review of all of  
8 the results from my DCF and CAPM analyses show that a 9.70% ROE for LGE and  
9 KU is reasonable in today’s market.

10  
11 Turning to the Company's testimony, the Commission should reject the return on  
12 equity recommendation of 11.50% of Dr. William Avera, witness for the Companies.  
13 As I will explain in detail in Section IV of my Direct Testimony, Dr. Avera's  
14 subjective approach greatly overstates the required return on equity for the  
15 Companies. Even more importantly, however, the results from Dr. Avera's  
16 quantitative analyses on his electric utility proxy group do not support his 11.50%  
17 ROE recommendation. Dr. Avera’s recommended equity return significantly  
18 exceeds most of the ROE results for his utility proxy group. Dr. Avera's  
19 recommended ROE range of 10.5% - 12.5% is supported only by the ROE results  
20 from a group of unregulated non-utility companies whose investor required returns  
21 are higher than the required return for a regulated electric companies like LGE and  
22 KU. This non-utility group completely fails to reflect the stable, lower-risk regulated  
23 utility operations of LGE and KU. Dr. Avera's recommended return on equity of

1           11.50% would also harm Kentucky ratepayers because it would result in excessive  
2           rate levels and, at the same time, provide investors an inflated return on equity.

1                   **II. REVIEW OF ECONOMIC AND FINANCIAL CONDITIONS**

2   **Q.    Mr. Baudino, what has the trend been in long-term capital costs over the last**  
3   **few years?**

4   A.    Exhibit \_\_\_\_ (RAB-2) presents a graphic depiction of the trend in interest rates from  
5           January 2000 through December 2009. The interest rates shown are for the 20-year  
6           U.S. Treasury Bond and the average public utility bond from the Mergent Bond  
7           Record. Exhibit \_\_\_\_ (RAB-2) shows that the yields on long-term Treasury and  
8           utility bonds have declined since early 2000, although rates have been quite volatile.  
9           Yields trended downward from 2002 through 2006, with the 20-year Treasury bond  
10          yield declining from 5.69% to 4.78% at the end of December 2006. The yield on the  
11          average public utility bond also decreased significantly over that time, falling from  
12          7.83% in March 2002 to 5.83% in December 2006, a decline of 200 basis points.  
13          Public utility bond yields fell far more than long-term Treasury yields over the last  
14          four years.

15  
16          2007 saw a rise in bond yields, fueled in part by investors' concerns over turmoil and  
17          defaults associated with the sub-prime lending market. This accelerated in 2008, a  
18          year in which world financial markets experienced tumultuous changes and volatility  
19          not seen since the Great Depression. As noted in the SBBI 2009 Yearbook, both  
20          large and small company stocks declined around 37% for the year.<sup>1</sup> Investors, in a

---

1           *2009 Ibbotson SBBI Classic Yearbook*, Morningstar, page 11.

1 flight to quality and safety, also pulled their funds out of those corporate bonds that  
2 were perceived to be higher risk and invested in the safety of Treasury securities.<sup>2</sup>  
3 The 2009 SBBI Yearbook reported that long-term Treasury Bonds returned 25.87%  
4 during 2008, while long-term corporate bonds returned 8.78%. Thus, bonds  
5 significantly outperformed stocks in 2008.

6  
7 The stocks of electric utilities did not fare well during the financial market upheaval  
8 of 2008. The Dow Jones Utility Average was down from its opening level in  
9 January 2008 of 532.50 to 370.76 at the end of December, a decline of 30.4%. This  
10 decline was smaller than the decline in the overall stock market. Utility bond yields  
11 also increased significantly during the year, rising from 6.08% in January to a high  
12 of 7.80% in November. And as investors flocked to the safety of Treasury securities,  
13 the yield spread between long-term Treasury securities and the index of public utility  
14 bonds widened from 1.73% in January to 3.69% in December, the highest spread  
15 during the entire period shown in Exhibit \_\_\_(RAB-2).

16  
17 In 2009, utility bond yields fell significantly from November 2008 levels as did the  
18 spread between public utility bond yields and long-term Treasuries. The average  
19 utility bond yield in December 2009 was 5.86%, a decline of almost 200 basis points  
20 from November 2008. At the end of December the yield spread between utility  
21 bonds and the long-term Treasury bond declined substantially to 1.46%. This is  
22 much closer to the historical spread.

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So far in 2010, interest rates and bond yields have stayed near the levels seen at the end of 2009. On April 1, 2010, the average public utility bond yield was 5.77%, according to Moody's Credit Trends. And at the end of March 2010 the 20-year Treasury yield was 4.55%.

**Q. How does the investment community regard the electric utility industry as a whole?**

A. In its February 5, 2010, report on the Electric Utility – West group of companies, Value Line noted that:

In 2009, the Value Line Utility Average (which includes all utilities, not just electrics) rose 5.3%. By contrast, the Value Line Geometric Average soared 36.8%. This was a reversal of the previous year, in which the utilities fell sharply, but only about half as much as the broad market averages, which declined around 40%. So far in 2010, the Value Line Utility Average has fallen 3.6% while the Value Line Composite Average has fallen 1.3%. With the economy in recovery, investors are apparently focusing less attention on industries that are known for their defensive characteristics, such as utilities.

\* \* \*

We estimate that earnings will recover nicely in 2010. We base our estimates on a return to normal weather conditions, which would help the second- and third-quarter profit comparisons for many utilities. Also, with the economy recovering, sales to commercial and industrial customers should rebound, particularly since the comparisons are easy. The low interest rate environment benefits this industry as well. As long as utilities maintain investment-grade credit ratings, they can usually refinance maturing borrowings at lower rates. And rates on many issues of variable-rate debt are now below 1%.

In its February 26, 2010 report on the Electric Utility – West group of companies, Value Line also noted the following:

1 All told, the main draw for electric utility stocks is the prospect of consistent income.  
2 Each utility in this issue offers a dividend, which for the most part is quite generous  
3 in relation to those in other industries.  
4

5 Standard and Poor's also opined on the outlook for the regulated electric utility  
6 industry in a recent article entitled *Slightly Positive Outlook for U.S. Regulated*  
7 *Electric Utilities Supports Ratings Stability* dated February 2, 2010. This S&P report  
8 noted that the "vast majority of U.S. investor-owned electric utility companies we  
9 rate have stable outlooks on their ratings", reflecting an industry that "despite the  
10 overall U.S. economy, is slightly positive in our base case." The report also stated  
11 that the industry's credit fundamentals "indicate that most, if not all, electric utilities  
12 should continue to have ample access to capital markets and credit." S&P also  
13 reported that banks were willing to renegotiate credit facilities, but at more demand  
14 terms than in the past.  
15

16 **Q. Briefly describe Louisville Gas and Electric Company and Kentucky Utilities.**

17 A. Both LGE and KU are operated together by E.ON US, a subsidiary of E.ON AG.  
18 LGE and KU supply 940,000 Kentucky customers with electricity and 321,000 with  
19 natural gas service. E.ON US operates both Companies as a single integrated  
20 system. The vast majority of generation for the Companies consists of coal-fired  
21 capacity (97%).  
22

23 With respect to financing, the Companies receive all their equity from parent  
24 company E.ON. Most of the Companies' debt capital also comes from E.ON,  
25 though LGE and KU also issue tax-exempt debt.

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**Q. How are the Companies viewed by the major bond rating agencies?**

A. LGE and KU carry what can be termed as a split rating from the major bond rating agencies of Standard and Poor's ("S&P") and Moody's. LGE's senior unsecured bonds are rated BBB+ by S&P. KU's senior unsecured debt carries ratings of BBB+ and A from S&P. Moody's assigned both companies an issuer rating of A2, solidly in the middle of the A range.

In response to discovery in this proceeding, LGE provided the parties with recent bond rating reports from S&P and Moody's. In its February 12, 2010 reports on LGE and KU, S&P noted the following credit strengths for the Company:

- Implicit credit support from parent E.ON AG.
- Stable and relatively predictable utility operations and cash flows.
- Constructive regulatory environment in Kentucky.
- Competitive rates and high customer satisfaction.

Credit weaknesses included the following:

- Little fuel diversity.
- Heavy construction program to meet environmental requirements and new generating capacity.
- Rate relief needs during a time of economic weakness.

1 In its January 29, 2010 rating reports on LGE and KU, Moody's noted that the  
2 Companies possessed a "strong financial profile" and enjoyed a constructive  
3 regulatory environment. Moody's also cited the Companies' large capital  
4 expenditure program. Trimble County construction will be completed as the power  
5 station begins commercial operation in the summer of 2010, but capital expenditures  
6 are expected to be significant going forward (\$690 million for the three-year period  
7 ending December 2011). However, Moody's stable outlook for LGE reflects the  
8 expectation that the Company will continue to show strong fundamentals and be  
9 provided financial support from E.ON AG.

10  
11 **Q. Mr. Baudino, what is your conclusion regarding the financial health and overall**  
12 **risk of LGE and KU?**

13 A. LGE and KU are financially healthy utility companies with a strong and stable  
14 financial outlook and supportive regulation in Kentucky. With the imminent  
15 commercial operation of Trimble County, both LGE and Kentucky Utilities will  
16 begin to generate significantly more cash flow. Although both LGE and KU face  
17 significant future construction expenditures related to environmental costs, these  
18 costs are collected through an environmental cost recovery mechanism that  
19 eliminates regulatory lag and substantially reduces the risk of collection of such  
20 costs. The current BBB+/A2 bond ratings are strong, stable, well supported and  
21 likely to improve with the commercial operation of Trimble County.

22  
23 **Q. Mr. Baudino, given the Companies' current split ratings and overall financial**  
24 **health, how will you approach estimating the cost of equity for LGE and KU?**

1 A. For purposes of this case, I will use a comparison group of companies that is rated A  
2 by either Moody's or S&P. Although the Companies unsecured debt is rated BBB+  
3 by S&P at this point, Moody's currently rates the Companies at A2, solidly in the  
4 middle of the A rating range. Further, as Mr. Arbough stated in his testimony, the  
5 Companies are committed to a capital structure that meets S&P's guidelines for an A  
6 rating. Thus, using a comparison group of companies rated A by either S&P or  
7 Moody's makes sense and is consistent with the risk/return relationship currently  
8 present in the Companies' operations.

1                                   **III. DETERMINATION OF FAIR RATE OF RETURN**

2

3   **Q.    Please describe the methods you employed in estimating a fair rate of return for**  
4   **LGE and KU.**

5   A.    I employed a Discounted Cash Flow (“DCF”) analysis for a group of comparison  
6    electric companies to estimate the cost of equity for the Companies’ regulated  
7    electric operations. I also employed several Capital Asset Pricing Model (“CAPM”)  
8    analyses using both historical and forward-looking data.

9

10 **Q.    What are the main guidelines to which you adhere in estimating the cost of**  
11 **equity for a firm?**

12 A.    Generally speaking, the estimated cost of equity should be comparable to the returns  
13    of other firms with similar risk structures and should be sufficient for the firm to  
14    attract capital. These are the basic standards set out by the United States Supreme  
15    Court in *Federal Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 591 (1944) and  
16    *Bluefield W.W. & Improv. Co. v. Public Service Comm'n*, 262 U.S. 679 (1922).

17

18    From an economist’s perspective, the notion of “opportunity cost” plays a vital role  
19    in estimating the return on equity. One measures the opportunity cost of an  
20    investment equal to what one would have obtained in the next best alternative. For  
21    example, let us suppose that an investor decides to purchase the stock of a publicly  
22    traded electric utility. That investor made the decision based on the expectation of

1 dividend payments and perhaps some appreciation in the stock's value over time;  
2 however, that investor's opportunity cost is measured by what she or he could have  
3 invested in as the next best alternative. That alternative could have been another  
4 utility stock, a utility bond, a mutual fund, a money market fund, or any other  
5 number of investment vehicles.

6  
7 The key determinant in deciding whether to invest, however, is based on  
8 comparative levels of risk. Our hypothetical investor would not invest in a particular  
9 electric company stock if it offered a return lower than other investments of similar  
10 risk. The opportunity cost simply would not justify such an investment. Thus, the  
11 task for the rate of return analyst is to estimate a return that is equal to the return  
12 being offered by other risk-comparable firms.

13 **Q. What are the major types of risk faced by utility companies?**

14 A. In general, risk associated with the holding of common stock can be separated into  
15 three major categories: business risk, financial risk, and liquidity risk. Business risk  
16 refers to risks inherent in the operation of the business. Volatility of the firm's sales,  
17 long-term demand for its product(s), the amount of operating leverage, and quality of  
18 management are all factors that affect business risk. The quality of regulation at the  
19 state and federal levels also plays an important role in business risk for regulated  
20 utility companies.

21  
22 Financial risk refers to the impact on a firm's future cash flows from the use of debt  
23 in the capital structure. Interest payments to bondholders represent a prior call on the

1 firm's cash flows and must be met before income is available to the common  
2 shareholders. Additional debt means additional variability in the firm's earnings,  
3 leading to additional risk.

4  
5 Liquidity risk refers to the ability of an investor to quickly sell an investment without  
6 a substantial price concession. The easier it is for an investor to sell an investment  
7 for cash, the lower the liquidity risk will be. Stock markets, such as the New York  
8 and American Stock Exchanges, help ease liquidity risk substantially. Investors who  
9 own stocks that are traded in these markets know on a daily basis what the market  
10 prices of their investments are and that they can sell these investments fairly quickly.  
11 Many electric utility stocks are traded on the New York Stock Exchange and are  
12 considered liquid investments.

13 **Q. Are there any indices available to investors that quantify the total risk of a**  
14 **company?**

15 A. Bond ratings are tools that investors use to assess the risk comparability of firms.  
16 Bond rating agencies such as Moody's and Standard and Poor's perform detailed  
17 analyses of factors that contribute to the risk of a particular investment. The end  
18 result of their analyses is a bond rating that reflects these risks. This information can  
19 then be used to select a comparison group for use in the Discounted Cash Flow  
20 model.



1 **Discounted Cash Flow (“DCF”) Model**

2 **Q. Please describe the basic DCF approach.**

3 A. The basic DCF approach is rooted in valuation theory. It is based on the premise that  
4 the value of a financial asset is determined by its ability to generate future net cash  
5 flows. In the case of a common stock, those future cash flows take the form of  
6 dividends and appreciation in stock price. The value of the stock to investors is the  
7 discounted present value of future cash flows. The general equation then is:

8 
$$V = \frac{R}{(1+r)} + \frac{R}{(1+r)^2} + \frac{R}{(1+r)^3} + \dots + \frac{R}{(1+r)^n}$$

9 *Where:*  $V = \text{asset value}$   
10  $R = \text{yearly cash flows}$   
11  $r = \text{discount rate}$

12

13 This is no different from determining the value of any asset from an economic point  
14 of view; however, the commonly employed DCF model makes certain simplifying  
15 assumptions. One is that the stream of income from the equity share is assumed to  
16 be perpetual; that is, there is no salvage or residual value at the end of some maturity  
17 date (as is the case with a bond). Another important assumption is that financial  
18 markets are reasonably efficient; that is, they correctly evaluate the cash flows  
19 relative to the appropriate discount rate, thus rendering the stock price efficient  
20 relative to other alternatives. Finally, the model I employ also assumes a constant  
21 growth rate in dividends. The fundamental relationship employed in the DCF  
22 method is described by the formula:

23

$$k = \frac{D_1}{P_0} + g$$

1                   Where:         $D_1$  = the next period dividend  
2                                    $P_0$  = current stock price  
3                                    $g$  = expected growth rate  
4                                    $k$  = investor-required return

5           Under the formula, it is apparent that “k” must reflect the investors’ expected return.  
6           Use of the DCF method to determine an investor-required return is complicated by  
7           the need to express investors’ expectations relative to dividends, earnings, and book  
8           value over an infinite time horizon. Financial theory suggests that stockholders  
9           purchase common stock on the assumption that there will be some change in the rate  
10          of dividend payments over time. We assume that the rate of growth in dividends is  
11          constant over the assumed time horizon, but the model could easily handle varying  
12          growth rates if we knew what they were. Finally, the relevant time frame is  
13          prospective rather than retrospective.

14

15   **Q.     What was your first step in conducting your DCF analysis for LGE and KU?**

16   A.     My first step was to construct a comparison group of companies with a risk profile  
17          that is reasonably similar to LGE and KU.

18   **Q.     Please describe your approach for selecting a comparison group of electric**  
19          **companies.**

20   A.     In this case, I chose to construct a comparison group of electric companies that were  
21          rated A by either S&P or Moody’s. I explained the reasons for this in Section II of  
22          my testimony. I also excluded any companies that had Aa/AA ratings from Moody’s  
23          or S&P as these companies would be less risky than the Companies.

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From that group, I selected companies that had at least 50% of their revenues from electric operations and that had long-term earnings growth forecasts from Value Line and either Zacks Investment Research ("Zacks") or First Call/Thomson Financial. I will describe Zacks and First Call/Thomson Financial later in my testimony. From this group, I then eliminated companies that had recently cut or eliminated dividends, were recently or currently involved in merger activities, or had recent experience with significant earnings fluctuations. Companies that did not pass these screens are not appropriate candidates to which one can apply the DCF formula because of unrepresentative market prices (in terms of companies that are merger candidates) or non-constant growth in earnings or dividends. I also eliminated any companies that had recently been restructured.

For the comparison group of A-rated companies, I also eliminated several companies that did not pass the 50% revenue screen in the March 2010 issue of AUS Utility Reports. These companies were PPL Corporation, SCANA Energy, and SEMPRA Energy. Since these companies have revenues that fluctuate below the 50% screen in some months, I chose to omit them from my analysis in this case.

The screening process I just described resulted in the comparison group of companies listed in the table below.

**TABLE 1**  
**A-RATED ELECTRIC UTILITY COMPARISON GROUP**

	<u>S&amp;P</u>	<u>Moody's</u>
1 ALLETE, Inc.	A-	A2
2 Alliant Energy Corporation	A-	A2
3 Consolidated Edison, Inc.	A-	A3
4 DTE Energy Company	A-	A2
5 Edison International	A	A1
6 Entergy Corporation	A-	Baa1
7 Exelon Corporation	A-	A3
8 IDACORP, Inc.	A-	NR
9 Northeast Utilities	BBB+	A3
10 Pepco Holdings, Inc.	A-	A3
11 PG&E Corporation	BBB+	A3
12 Progress Energy Inc.	A-	A1
13 Public Service Enterprise Group	A-	A2
14 Southern Company	A	A2
15 Wisconsin Energy Corporation	A-	A1
16 Xcel Energy Inc.	A-	A2

1

2

3 **Q. What was your first step in determining the DCF return on equity for the**  
4 **comparison group?**

5 A. I first determined the current dividend yield,  $D_1/P_0$ , from the basic equation. My  
6 general practice is to use six months as the most reasonable period over which to  
7 estimate the dividend yield.

8

9 **Q. Why is that your general practice?**

10 A. A six-month period smoothes out price fluctuations and provides a representative  
11 “average” stock price for determining the dividend yield. This is especially  
12 important now considering the recent volatility in the stock market.

13

1 **Q. Which six-month period did you use and what were the results?**

2 A. The six-month period I used covered the months from October 2009 through March  
3 2010. I obtained historical prices and dividends from "Yahoo! Finance." The  
4 annualized dividend divided by the average monthly price represents the average  
5 dividend yield for each month in the period.

6

7 The average dividend yield for the comparison group is 4.71%. These calculations  
8 are shown on Exhibit \_\_\_(RAB-3).

9

10 **Q. Mr. Baudino, did the dividend yield for your comparison group exhibit**  
11 **volatility over the six-month period you used in your analysis?**

12 A. Yes. Page 3 of Exhibit \_\_\_(RAB-3) shows the monthly average yields for the  
13 comparison groups. The yields ranged from 4.54% to 4.88% for the comparison  
14 group. Obviously, increased volatility in the stock market affected utility stock  
15 prices as well.

16 **Q. Having established the average dividend yield, how did you determine the**  
17 **investors' expected growth rate for the electric comparison group?**

18 A. The investors' expected growth rate, in theory, correctly forecasts the constant rate of  
19 growth in dividends. The dividend growth rate is a function of earnings growth and  
20 the payout ratio, neither of which is known precisely for the future. We refer to a  
21 perpetual growth rate since the DCF model has no arbitrary cut-off point. We must  
22 estimate the investors' expected growth rate because there is no way to know with

1 absolute certainty what investors expect the growth rate to be in the short term, much  
2 less in perpetuity.

3

4 In this analysis, I relied on three major sources of analysts' forecasts for growth.  
5 These sources are Value Line, Zacks, and Thomson Financial.

6 **Q. Please briefly describe Value Line, Zacks, and Thomson Financial.**

7 A. Value Line is an investment survey that is published for approximately 1,700  
8 companies, both regulated and unregulated. It is updated quarterly and probably  
9 represents the most comprehensive and widely used of all investment information  
10 services. It provides both historical and forecasted information on a number of  
11 important data elements. Value Line neither participates in financial markets as a  
12 broker nor works for the utility industry in any capacity of which I am aware.

13

14 According to Zacks' website, Zacks "was formed in 1978 to compile, analyze, and  
15 distribute investment research to both institutional and individual investors." Zacks  
16 gathers opinions from a variety of analysts on earnings growth forecasts for  
17 numerous firms including regulated electric utilities. The estimates of the analysts  
18 responding are combined to produce consensus average and median estimates of  
19 earnings growth.

20

21 Like Zacks, Thomson Financial also provides detailed investment research on  
22 numerous companies. Thomson also compiles and reports consensus analysts'  
23 forecasts of earnings growth. I also obtained these forecasts from Yahoo! Finance.

1 **Q. Why did you rely on analysts' forecasts in your analysis?**

2 A. Return on equity analysis is a forward-looking process. Five-year or ten-year  
3 historical growth rates may not accurately represent investor expectations for  
4 dividend growth. Analysts' forecasts for earnings and dividend growth provide  
5 better proxies for the expected growth component in the DCF model than historical  
6 growth rates. Analysts' forecasts are also widely available to investors and one can  
7 reasonably assume that they influence investor expectations.

8 **Q. How did you utilize your data sources to estimate growth rates for the**  
9 **comparison group?**

10 A. Exhibit\_\_\_\_(RAB-4) presents the Value Line, Zacks, and Thomson Financial  
11 forecasted growth estimates. These earnings and dividend growth estimates for the  
12 comparison group are summarized on Columns (1) through (5) of Exhibit  
13 \_\_\_\_ (RAB-4).

14

15 I also utilized the sustainable growth formula in estimating the expected growth rate.  
16 The sustainable growth method, also known as the retention ratio method, recognizes  
17 that the firm retains a portion of its earnings to fuel growth in dividends. These  
18 retained earnings, which are plowed back into the firm's asset base, are expected to  
19 earn a rate of return. This, in turn, generates growth in the firm's book value, market  
20 value, and dividends. The sustainable growth method is calculated using the  
21 following formula:

22

$$G = B * R$$

1                    *Where:            G = expected retention growth rate*  
2    *B = the firm's expected retention ratio*  
3    *R = the expected return*

4  
5                    In its proper form, this calculation is forward-looking. That is, the investors'  
6                    expected retention ratio and return must be used in order to measure what investors  
7                    anticipate will happen in the future. Data on expected retention ratios and returns  
8                    may be obtained from Value Line.

9  
10                   The expected sustainable growth estimates for the comparison group are presented in  
11                   Column (3) on page 1 of Exhibit \_\_\_\_ (RAB-4). The data came from the Value Line  
12                   forecasts for the comparison group.

13    **Q.    How did you approach the calculation of earnings growth forecasts in this case?**

14    A.    For purposes of this case, I looked at three different methods for calculating the  
15                    expected growth rates for my comparison group.

16  
17                   For Method 1, I calculated the average of all the growth rates for the companies in  
18                   my comparison group using Value Line, Zacks, and Thomson. I excluded negative  
19                   values because they are inconsistent with the assumption of constant positive growth  
20                   in the DCF formula.

21  
22                   For Method 2, I calculated the median growth rates for my comparison group. The  
23                   median value represents the middle value in a data range and is not influenced by  
24                   excessively high or low numbers in the data set. The median growth rate for each



1 forecast provides additional valuable information regarding expected growth rates  
2 for the group.

3  
4 For Method 3, I omitted double-digit growth rates and growth rates that were near  
5 zero (less than 1%) from the calculation of the averages. This is similar to omitting  
6 the high and low values from the calculation. These calculations are shown on page  
7 1 of Exhibit \_\_\_\_ (RAB-4).

8  
9 The expected growth rates produced by these three methods range from 3.50% to  
10 5.45%.

11  
12 **Q. Why did you eliminate high and low growth rate forecasts in Method 3?**

13 A. With respect to growth rates near zero, it is reasonable to conclude that investors  
14 expect positive long-term earnings and dividend growth over time. Including growth  
15 rates of 1% or less may understate expected growth for the comparison group.  
16 Regarding double-digit growth rates, it is highly unlikely that investors would expect  
17 such high growth rates over the long run for electric utilities. Indeed, the vast  
18 majority of growth forecasts is in the single digits and reflects the more conservative,  
19 less risky financial profile of a regulated industry.

20 **Q. How did you proceed to determine the DCF return of equity for the electric**  
21 **comparison group?**

22 A. To estimate the expected dividend yield ( $D_1$ ) for the group, the current dividend  
23 yield must be moved forward in time to account for dividend increases over the next

1 twelve months. I estimated the expected dividend yield by multiplying the current  
2 dividend yield by one plus one-half the expected growth rate. I should note that for  
3 Method 3, I excluded the dividend yields for companies whose growth rates were  
4 excluded from each respective source.

5  
6 I then added the expected growth rates to the expected dividend yield. The  
7 calculations of the resulting DCF returns on equity for each method are presented on  
8 page 2 of Exhibit \_\_\_\_ (RAB-4).

9 **Q. Please explain how you calculated your DCF cost of equity estimates and**  
10 **summarize the results.**

11 A. Page 2 of Exhibit \_\_\_\_ (RAB-4) presents the DCF results utilizing the three different  
12 methods. Method 1 utilizes the average growth rates for the comparison group. I  
13 used the Value Line earnings and dividend growth forecasts and the consensus  
14 analysts' forecasts. The average DCF result is 9.62% and the midpoint of the range  
15 is 9.46%.

16  
17 Method 2 employs the median growth rates from Value Line, Zacks, and Thomson.  
18 For the comparison group, the average DCF result is 9.43% and the midpoint of the  
19 results is 9.16%

20  
21 Method 3 employs the growth rates for the group excluding double digit growth  
22 forecasts and forecasts less than or equal to 1.0%. For the comparison group, the  
23 average of the DCF results is 9.82% and the midpoint of the results is 9.53%.

1 **Capital Asset Pricing Model**

2 **Q. Briefly summarize the Capital Asset Pricing Model ("CAPM") approach.**

3 A. The theory underlying the CAPM approach is that investors, through diversified  
4 portfolios, may combine assets to minimize the total risk of the portfolio.  
5 Diversification allows investors to diversify away all risks specific to a particular  
6 company and be left only with market risk that affects all companies. Thus, the  
7 CAPM theory identifies two types of risks for a security: company-specific risk and  
8 market risk. Company-specific risk includes such events as strikes, management  
9 errors, marketing failures, lawsuits, and other events that are unique to a particular  
10 firm. Market risk includes inflation, business cycles, war, variations in interest rates,  
11 and changes in consumer confidence. Market risk tends to affect all stocks and  
12 cannot be diversified away. The idea behind the CAPM is that diversified investors  
13 are rewarded with returns based on market risk.

14  
15 Within the CAPM framework, the expected return on a security is equal to the risk-  
16 free rate of return plus a risk premium that is proportional to the security's market, or  
17 non-diversifiable, risk. Beta is the factor that reflects the inherent market risk of a  
18 security and measures the volatility of a particular security relative to the overall  
19 market for securities. For example, a stock with a beta of 1.0 indicates that if the  
20 market rises by 15%, that stock will also rise by 15%. This stock moves in tandem  
21 with movements in the overall market. Stocks with a beta of 0.5 will only rise or fall  
22 50% as much as the overall market. So with an increase in the market of 15%, this  
23 stock will only rise 7.5%. Stocks with betas greater than 1.0 will rise and fall more

1 than the overall market. Thus, beta is the measure of the relative risk of individual  
2 securities vis-à-vis the market.

3  
4 Based on the foregoing discussion, the equation for determining the return for a  
5 security in the CAPM framework is:

$$K = R_f + \beta(MRP)$$

6  
7 *Where:*         $K$     = *Required Return on equity*  
8                     $R_f$     = *Risk-free rate*  
9                     $MRP$  = *Market risk premium*  
10                    $\beta$      = *Beta*

11  
12 This equation tells us about the risk/return relationship posited by the CAPM.  
13 Investors are risk averse and will only accept higher risk if they receive higher  
14 returns. These returns can be determined in relation to a stock's beta and the market  
15 risk premium. The general level of risk aversion in the economy determines the  
16 market risk premium. If the risk-free rate of return is 3.0% and the required return  
17 on the total market is 15%, then the risk premium is 12%. Any stock's required  
18 return can be determined by multiplying its beta by the market risk premium. Stocks  
19 with betas greater than 1.0 are considered riskier than the overall market and will  
20 have higher required returns. Conversely, stocks with betas less than 1.0 will have  
21 required returns lower than the market as a whole.

22 **Q. In general, are there concerns regarding the use of the CAPM in estimating the**  
23 **return on equity?**

1 A. Yes. As briefly discussed earlier, there is some controversy surrounding the use of  
2 the CAPM.<sup>3</sup> There is evidence that beta is not the primary factor in determining the  
3 risk of a security. For example, Value Line's "Safety Rank" is a measure of total  
4 risk, not its calculated beta coefficient. Beta coefficients usually describe only a  
5 small amount of total investment risk. Finally, a considerable amount of judgment  
6 must be employed in determining the risk-free rate and market return portions of the  
7 CAPM equation. The analyst's application of judgment can significantly influence  
8 the results obtained from the CAPM. My past experience with the CAPM indicates  
9 that it is prudent to use a wide variety of data in estimating returns. Of course, the  
10 range of results may also be wide, indicating the difficulty in obtaining a reliable  
11 estimate from the CAPM.

12  
13 **Q. Is it nonetheless a useful tool?**

14 A. The CAPM is often presented in utility rate proceedings as one alternative method of  
15 estimating the investor required return on equity. And, in my opinion, it provides  
16 some useful supplemental evidence that may be considered by the analyst. However,  
17 the DCF is a superior tool in the cost of capital toolbox, and I recommend that the  
18 Commission place primary reliance on it in this proceeding.

19  
20 **Q. Turning to the formula above, where did you start your analysis?**

---

3 For a more complete discussion of some of the controversy surrounding the use of the CAPM, refer to  
*A Random Walk Down Wall Street* by Burton Malkiel, pp. 229 – 239, 1999 edition.

1 A. I started by calculating the market risk premium, which is the required return on the  
2 market as a whole less the risk free rate of return.

3 **Q. How did you estimate the market return portion of the CAPM?**

4 A. The first source I used was the Value Line Investment Survey for Windows for  
5 March 15, 2010. Value Line provides a summary statistical report detailing, among  
6 other things, forecasted growth in dividends, earnings, and book value for the  
7 companies Value Line follows. I have presented these three growth rates and the  
8 average on page 2 of Exhibit \_\_\_\_ (RAB-5). The average growth rate is 8.14%.  
9 Combining this growth rate with the average expected dividend yield of the Value  
10 Line companies of 2.27% results in an expected market return of 10.41%. The  
11 detailed calculations are shown on page 1 Exhibit \_\_\_\_ (RAB-5).

12  
13 I also considered a supplemental check to this market estimate. Morningstar  
14 publishes a study of historical returns on the stock market in its *Ibbotson S&P 500 2010*  
15 *Valuation Yearbook*. Some analysts employ this historical data to estimate the  
16 market risk premium of stocks over the risk-free rate. The assumption is that a risk  
17 premium calculated over a long period of time is reflective of investor expectations  
18 going forward. Exhibit \_\_\_\_ (RAB-6) presents the calculation of the market return  
19 using the historical data.

20 **Q. Please address the use of historical earned returns to estimate the market risk**  
21 **premium.**

1 A. The use of historic earned returns on the S&P 500 to estimate the current market risk  
2 premium is rather suspect because it naively assumes that investors currently expect  
3 historic risk premiums to continue unchanged into the future regardless of present or  
4 forecasted economic conditions. Brigham, Shome, and Vinson noted the following  
5 with respect to the use of historic risk premiums calculated using the returns as  
6 reported by Ibbotson and Sinquefeld (referred to in the quote as "I&S"):

7

8           There are both conceptual and measurement problems with  
9           using I&S data for purposes of estimating the cost of capital.  
10          Conceptually, there is no compelling reason to think that  
11          investors expect the same relative returns that were earned in  
12          the past. Indeed, evidence presented in the following sections  
13          indicates that relative expected returns should, and do, vary  
14          significantly over time. Empirically, the measured historic  
15          premium is sensitive both to the choice of estimation horizon  
16          and to the end points. These choices are essentially arbitrary,  
17          yet can result in significant differences in the final outcome.<sup>4</sup>

18

19          In summary, the use of historic earned returns should be viewed with a great deal of  
20          caution. There is no real support for the proposition that an unchanging,  
21          mechanically applied historical risk premium is representative of current investor  
22          expectations and return requirements.

23 **Q. How did you determine the risk free rate?**

24 A. I used the average yields on the 20-year Treasury bond and five-year Treasury note  
25 over the six-month period from October 2009 through March 2010. The 20-year

---

4          Brigham, E.F., Shome, D.K. and Vinson, S.R., "The Risk Premium Approach to Measuring a Utility's Cost of Equity," *Financial Management*, Spring 1985, pp. 33-45.

1 Treasury bond is often used by rate of return analysts as the risk-free rate, but it  
2 contains a significant amount of interest rate risk. The five-year Treasury note  
3 carries less interest rate risk than the 20-year bond and is more stable than three-  
4 month Treasury bills. Therefore, I have employed both of these securities as proxies  
5 for the risk-free rate of return. This approach provides a reasonable range over  
6 which the CAPM may be estimated.

7 **Q. What is your estimate of the market risk premium?**

8 A. Exhibit \_\_\_\_ (RAB-5), line 9 of page 1, presents my estimates of the market risk  
9 premium based on a DCF analysis applied to current market data. The market risk  
10 premium is 6.03% using the 20-year Treasury bond and 8.05% using the five-year  
11 Treasury bond.

12  
13 Utilizing the historical Ibbotson data on market returns, the market risk premium  
14 ranges from 4.70% to 6.60%. This is shown on Exhibit \_\_\_\_ (RAB-6).

15 **Q. How did you determine the value for beta?**

16 A. I obtained the betas for the companies in the electric company comparison group  
17 from most recent Value Line reports. The average of the Value Line betas for the  
18 electric group is .70.

19 **Q. Please summarize the CAPM results.**

20 A. The CAPM results using the 20-year and five-year Treasury bond yields and Value  
21 Line market return data range from 7.97% to 8.58%.



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The CAPM results using the historical Ibbotson data range from 7.65% to 8.98%.  
These results are shown on Exhibit \_\_\_\_ (RAB-6).

**Conclusions and Recommendations**

**Q. Please summarize the cost of equity you recommend the Commission adopt for LGE and KU.**

A. I recommend that the Commission adopt the DCF model I developed and the cost of equity estimates for the comparison group of electric utility companies that I compiled. Based on the DCF results for the comparison group of companies I constructed, my recommended ROE range is 9.45% - 9.85%. I recommend that the Commission adopt a 9.70% return on equity for the Companies in this proceeding. This recommendation is near the middle of the range of results for DCF analyses. I offer this recommendation to the Commission as a just and reasonable estimate of investor return on equity requirements for financially strong and lower risk electric utility companies such as LGE and KU.

I should note that the CAPM results are far lower than the DCF results in this proceeding. This is the case with both the forward-looking and the historical versions of the CAPM. I do not rely on the CAPM for my ROE recommendation, but these results suggest that the DCF estimate is certainly reasonable in this case.

1 **Q. Will you address the Company's capital structure?**

2 A. No. Mr. Kollen, witness for KIUC, will address the Companies' capital structures in  
3 detail. Mr. Kollen is recommending equity ratios of 53.57% for KU and 51.49% for  
4 LGE. I have reviewed Mr. Kollen's adjustments and recommendations regarding  
5 capital structure for the Companies in this case, find his recommendations consistent  
6 with my recommended ROE, and I support his recommended capital structures for  
7 LGE and KU.

8

9 **Q. Mr. Baudino, how do the equity ratios for the companies in your comparison**  
10 **group compare to the equity ratios that you and Mr. Kollen support in this**  
11 **proceeding for LGE and KU?**

12 A. Table 2 shows the 2009 long-term debt and equity percentages for the companies in  
13 my comparison group. I obtained these numbers from the Value Line reports I used  
14 in my ROE analyses. The average equity ratio for the comparison group is 49.1%,  
15 which is lower than the percentages Mr. Kollen supports in his testimony.

**TABLE 2**  
**COMPARISON GROUP CAPITAL STRUCTURES**

	<u>Debt %</u>	<u>Equity %</u>
1 ALLETE, Inc.	42.8%	57.2%
2 Alliant Energy Corporation	44.3%	55.7%
3 Consolidated Edison, Inc.	49.0%	51.0%
4 DTE Energy Company	53.9%	46.1%
5 Edison International	51.5%	48.5%
6 Entergy Corporation	55.3%	44.7%
7 Exelon Corporation	47.2%	52.8%
8 IDACORP, Inc.	46.0%	54.0%
9 Northeast Utilities	58.5%	41.5%
10 Pepco Holdings, Inc.	53.0%	47.0%
11 PG&E Corporation	51.0%	49.0%
12 Progress Energy Inc.	54.0%	46.0%
13 Public Service Enterprise Group	50.0%	50.0%
14 Southern Company	53.5%	46.5%
15 Wisconsin Energy Corporation	51.9%	48.1%
16 Xcel Energy Inc.	52.0%	48.0%
Average	50.9%	49.1%

Source: Value Line Investment Survey

1

1 **IV. RESPONSE TO LGE AND KU TESTIMONY**

2

3 **Q. Have you reviewed the Direct Testimony of Dr. William Avera?**

4 A. Yes.

5

6 **Q. Please summarize your conclusions with respect to Dr. Avera's testimony and**  
7 **return on equity recommendation.**

8 A. My conclusions regarding Dr. Avera's testimony and return on equity recommendation  
9 are as follows.

10

11 First, Dr. Avera's recommended 11.50% return on equity is substantially overstated and  
12 should be rejected by the Commission. His recommendation fails to track the results of  
13 his Utility Proxy Group analyses, all but one of which range from 10.1% to 10.5%. The  
14 one result that is based on stock price growth, 11.4%, is inconsistent with DCF theory  
15 and practice and should be rejected.

16

17 Second, Dr. Avera failed to include forecasted dividend growth in his DCF analyses.  
18 Failing to include this important information led to a significant overstatement of his  
19 DCF results.

20

21 Third, Dr. Avera overstated the Market Risk Premium in his CAPM analysis because of  
22 a faulty approach to estimating the market return portion of the CAPM. My CAPM  
23 results suggest much lower expected returns.

1 Fourth, Dr. Avera's expected earnings approach is inappropriate and should be rejected  
2 by the Commission.

3  
4 Fifth, Dr. Avera's consideration of an adjustment for flotation costs is inappropriate and  
5 should be rejected.

6  
7 **Dr. Avera's ROE Range and Recommendation**

8  
9 **Q. Please summarize the results of Dr. Avera's ROE analyses.**

10 A. Dr. Avera used three methods to estimate the cost of equity for LGE and KU: the DCF  
11 model, the CAPM, and an expected earning approach. He used two groups of  
12 companies to estimate the cost of equity, one composed of regulated electric utilities  
13 ("Utility Proxy Group") and another using unregulated companies ("Non-Utility Proxy  
14 Group"). The Non-Utility Proxy group completely excluded regulated utility  
15 operations. The results from his various methods are as follows:

16  
17 Utility Proxy Group:

18 DCF - 10.1% to 10.5%

19 DCF Stock Price – 11.4%

20 CAPM – 9.6%

21 Expected earnings, electric industry - 10.5% - 11.5%

22  
23  
24 Non-Utility Proxy Group:

25 DCF – 12.0% - 13.7%

26 CAPM – 10.3%

1 Based on these results, Dr. Avera recommended a range for LGE's and KU's cost of  
2 equity of 10.50% - 12.50%. Dr. Avera did not make a specific adjustment for  
3 flotation, although he recommended that flotation costs be considered in the  
4 Companies' cost of equity. His recommended ROE is 11.50%.

5  
6 **Q. In your opinion, do the results of Dr. Avera's various analyses support his  
7 recommended 11.50% ROE for the Companies?**

8 A. No. Most of Dr. Avera's results suggest a much lower ROE, more in the range of  
9 10.0% - 10.5% if the Utility Proxy Group results are used. Only the Non-Utility  
10 Proxy Group results support anything significantly above 11.0%. In my view, Dr.  
11 Avera essentially discarded the results from his Utility Proxy Group in favor of cost  
12 of equity results from a group of unregulated companies.

13  
14 **Q. Is it appropriate to use a group of unregulated companies to estimate a fair  
15 return on equity for regulated electric companies such as LGE and KU?**

16 A. No, not at all. Dr. Avera's use of unregulated non-utility companies to estimate a fair  
17 rate of return for the Company is completely inappropriate and should be rejected by  
18 the Commission.

19  
20 Utilities have protected markets (i.e., service territories), enjoy full recovery of  
21 prudently incurred costs, and may increase their rates to cover increases in costs. In  
22 fact, in the case of both LGE and KU, the Companies have approved rate adjustment  
23 mechanisms such as the fuel adjustment charge and the environmental surcharge,  
24 something that unregulated firms do not have. Generally, the non-utility companies

1 simply do not have these benefits and must compete with other firms for sales and  
2 for customers. Obviously, the non-utility companies have higher overall risk  
3 structures than lower risk electric companies like LGE and KU and will have higher  
4 required returns from their shareholders. It is not at all surprising that Dr. Avera's  
5 ROE results for his Non-Utility Proxy Group were substantially higher than the  
6 results for his Utility Proxy Group. Given the higher business risk for the non-utility  
7 group of companies, this is exactly the result that would have been expected;  
8 however, these results do not form any kind of reasonable basis to estimate the  
9 investor required ROE for LGE and KU in this proceeding. On the contrary, the  
10 returns from the non-utility proxy group are a good measure of returns that are, by  
11 definition, substantially in excess of those to be expected in the utility segment.

12  
13 **Q. Earlier you mentioned that using a stock price forecast resulted in a DCF ROE**  
14 **of 11.4%. Please explain why this formulation of the DCF should be rejected.**

15 A. Dr. Avera used Value Line's stock price forecast over the next 5 years to estimate  
16 the growth rate for his Utility Proxy Group. Using a stock price forecast is  
17 inconsistent with the principle embodied in the DCF model that the investor expects  
18 certain cash flows that grow over time. Those cash flows are based on earnings and  
19 dividends, not a forecast of what a company's stock price might be in a few years.  
20 Stock price forecasts may have nothing whatsoever to do with the actual expected  
21 cash flows, i.e., dividends. Stock price forecasts can be influenced by the  
22 vicissitudes of the market. For example, stock price growth forecasts could be  
23 relatively high if a recovery from a severely depressed market is expected. The  
24 market as a whole lost over 30% of its value in 2008, so the high ROE of 11.4%

1 might include some expectation of stock price recovery over the next few years.  
2 Certainly, Dr. Avera's stock price DCF result of 11.4% greatly exceeds all of his  
3 other DCF results for his Utility Proxy Group, so much so that it should be  
4 considered an outlier and be rejected.

5  
6 **Q. Do you have any concluding remarks for this section of your response to Dr.**  
7 **Avera?**

8 A. Yes. In my response to Dr. Avera's DCF and CAPM analyses, I will confine my  
9 remarks to the results from his Utility Proxy Group analyses. I will not further  
10 address the Non-Utility Proxy Group because I have already explained why the  
11 Commission should reject the use of this group in estimating the cost of equity for  
12 LGE and KU.

13  
14 **DCF Analyses and Dividend Growth Forecasts**

15  
16 **Q. Please summarize Dr. Avera's approach to the DCF model and its results.**

17 A. Dr. Avera utilized the constant growth form of the DCF model to estimate the fair  
18 return on equity. He employed analysts' earnings growth forecasts from Value Line,  
19 First Call, IBES, and Zacks to estimate the growth component of the model. As I  
20 mentioned earlier, Dr. Avera also included Value Line's stock price growth forecast  
21 from Value Line as one of his growth rates.

22  
23 **Q. Did Dr. Avera consider dividend growth forecasts in his DCF analysis?**

24 A. No. Dr. Avera failed to include lower dividend growth forecasts in his analysis.



1  
2 On page 32 of his Direct Testimony, Dr. Avera opined that dividend growth rates "are  
3 not likely to provide a meaningful guide to investors' current growth expectations." In  
4 support of this opinion, he cited articles from the Association for Investment  
5 Management and Research, the *Financial Analysts Journal* and Value Line's  
6 description of its Timeliness Rank.

7  
8 **Q. Should Dr. Avera have included dividend growth forecasts in his DCF analyses?**

9 A. Yes. Dr. Avera erred in failing to include dividend growth forecasts from Value Line in  
10 his DCF analyses. With respect to regulated utility companies, dividend growth  
11 provides the primary source of cash flow to the investor. It is certainly the case that  
12 earnings growth fuels dividend growth and should be considered in estimating the ROE  
13 using the DCF model; however, Value Line's dividend growth forecasts are widely  
14 available to investors and can reasonably be assumed to influence their expectations  
15 with respect to growth. I weighted earnings growth 75% and dividend growth 25% in  
16 my average growth calculations, so I agree to some extent with Dr. Avera that earnings  
17 growth is the primary factor considered by investors. But it should not be considered  
18 the only factor.

19  
20 Regarding the article from the *Financial Analysts Journal* cited by Dr. Avera on page  
21 34 of his testimony, it is not surprising that earnings and cash flow are considered more  
22 important than book value and dividends, particularly for non-utility companies that  
23 may not pay out much in the way of dividends; however, this is certainly not the case  
24 for utility companies.

1

2 **Q. What is the average dividend growth rate for Dr. Avera's Utility Proxy Group?**

3 A. The average dividend growth rate forecast from Value Line is 4.35%. I have included  
4 these forecasts in Exhibit \_\_\_\_ (RAB-7). As shown in Exhibit \_\_\_\_ (RAB-7), including  
5 Value Line's dividend growth forecast results in a DCF cost of equity of 8.92% for Dr.  
6 Avera's Utility Proxy Group. This result is relatively close to my DCF ROE using  
7 average dividend growth for the comparison group of 8.77%.

8

9 As I mentioned earlier in my testimony, lower near-term dividend growth rates must be  
10 considered and incorporated in the DCF analysis. Although earnings growth forecasts  
11 are currently higher, the lower dividend growth rates expected over the next few years  
12 will be incorporated into investors' expected return for the electric utility industry.  
13 Relying on earnings growth rates alone, as Dr. Avera has done, will overstate investors'  
14 required returns and lead to an inflated ROE recommendation.

15

16 **Capital Asset Pricing Model**

17

18 **Q. Please present your conclusions regarding the results of Dr. Avera's CAPM**  
19 **analysis.**

20 A. I disagree with Dr. Avera's formulation of the CAPM. Dr. Avera estimated the  
21 market return portion of the CAPM by estimating the current market return for  
22 dividend paying stocks in the S&P 500. This limited his so-called "market" return to  
23 only 348 companies.

24

1 The market return portion of the CAPM should represent the most comprehensive  
2 estimate of the total return for all investment alternatives, not just a small subset of  
3 publicly traded stocks. In practice, of course, finding such an estimate is difficult  
4 and is one of the more thorny problems in estimating an accurate ROE when using  
5 the CAPM. If one limits the market return to stocks, then there are more  
6 comprehensive measures of the stock market available, such as the Value Line  
7 Investment Survey that I used in my CAPM analysis. Value Line's projected  
8 earnings growth used a sample of over 1400 stocks, its book value growth estimate  
9 used over 1500 stocks, and its dividend growth estimate used over 800 stocks. These  
10 are much broader samples than Dr. Avera's limited sample of dividend paying stocks  
11 from the S&P 500.

12  
13 The forward-looking CAPM results I present in Exhibit \_\_\_(RAB-6) using a broader  
14 market index suggest much lower required rates of return than Dr. Avera  
15 recommends in his testimony.

16  
17 **Q. Dr. Avera did not present historical market returns in his CAPM analysis. Has**  
18 **Dr. Avera used historic return in his past ROE testimonies?**

19 **A.** Yes. Dr. Avera used to present historical market returns from the SBBI Yearbook in  
20 his past testimonies. In this case, Dr. Avera did not use historic market returns.

21  
22 As I previously testified, I have concerns regarding the use of historical market  
23 returns to estimate the investor required return on equity for electric utilities. It  
24 should be noted, however, that the historical market return data I presented in Exhibit

1       \_\_\_(RAB-7) suggests much lower CAPM ROEs than the 9.6% - 10.3% number that  
2       Dr. Avera recommended in his testimony. Furthermore, my alternative forward-  
3       looking CAPM results also underscore Dr. Avera's overstatement of the CAPM  
4       results.

5  
6       **Expected Earning Approach**

7  
8       **Q.     Please comment on Dr. Avera's expected earning approach.**

9       A.     Dr. Avera's expected earnings approach should be rejected by the Commission.

10  
11       All Dr. Avera did in this analysis was report Value Line's forecasted returns on book  
12       equity for 2009, 2010 and the period 2012 - 2014. He did not use any market-based  
13       model such as the DCF or CAPM. Forecasted earned returns on book equity may have  
14       nothing whatsoever to do with investors' required returns in the marketplace. For  
15       example, if earned returns on book equity exceed the market-based DCF return on  
16       equity, then investors may expect a company to earn more on book equity than the  
17       market-based required rate of return. Instead, I recommend that the Commission utilize  
18       a range of returns generated by the DCF model in setting the Companies' cost of equity  
19       in this case.

20  
21       **Flotation Costs**

1 **Q. Beginning on page 48 of his Direct Testimony, Dr. Avera discussed his**  
2 **recommendation for considering a flotation cost adjustment in the cost of equity**  
3 **for LGE and KU. Do you agree with a flotation cost adjustment?**

4 A. No, I do not. I do not recommend that the Commission consider such an adjustment in  
5 setting the cost of equity for the Companies.

6

7 In my opinion it is likely that flotation costs are already accounted for in current stock  
8 prices and that adding an adjustment for flotation costs amounts to double counting. A  
9 DCF model using current stock prices should already account for investor expectations  
10 regarding the collection of flotation costs. Multiplying the dividend yield by a 3%  
11 flotation cost adjustment, for example, essentially assumes that the current stock price is  
12 wrong and that it must be adjusted downward to increase the dividend yield and the  
13 resulting cost of equity. I do not believe that this is an appropriate assumption. Current  
14 stock prices most likely already account for flotation costs, to the extent that such costs  
15 are even accounted for by investors.

16

17 **Q. Does this complete your testimony?**

18 A. Yes.

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In The Matter Of: :  
: Case No. 2009-00548  
Application Of Kentucky Utilities Company For An :  
Adjustment of Base Rates :

In The Matter Of: :  
: Case No. 2009-00549  
Application Of Louisville Gas And Electric :  
Company For An Adjustment of Base Rates :

AFFIDAVIT OF RICHARD A. BAUDINO

STATE OF NORTH CAROLINA )  
COUNTY OF Davidson )

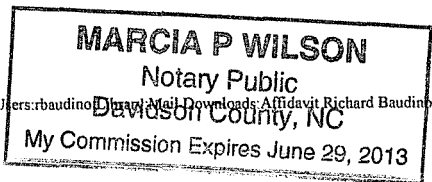
Richard A. Baudino being first duly sworn, deposes and states that:

1. He is a consultant with J. Kennedy & Associates;
2. He is the witness who sponsors the accompanying testimony entitled "Direct Testimony and Exhibits of Richard A. Baudino;"
3. Said testimony was prepared by him and under his direction and supervision;
4. If inquiries were made as to the facts and schedules in said testimony he would respond as therein set forth; and
5. The aforesaid testimony and schedules are true and correct to the best of his knowledge, information and belief.

Richard A. Baudino  
Richard A. Baudino

Subscribed and sworn to or affirmed before me this 20 day of April, 2010, by Richard A. Baudino.

Marcia P. Wilson  
Notary Public



**BEFORE THE**

**PUBLIC SERVICE COMMISSION OF KENTUCKY**

**IN RE: APPLICATION OF KENTUCKY UTILITIES )  
COMPANY FOR AN ADJUSTMENT OF ) CASE NO. 2009-00548  
BASE RATES )**

**APPLICATION OF LOUISVILLE GAS AND )  
ELECTRIC COMPANY FOR AN ) CASE NO. 2009-00549  
ADJUSTMENT OF ITS ELECTRIC AND )  
GAS BASE RATES )**

**EXHIBITS  
OF  
RICHARD A. BAUDINO**

**ON BEHALF OF THE**

**KENTUCKY INDUSTRIAL UTILITY CONSUMERS**

**J. KENNEDY AND ASSOCIATES, INC.  
ROSWELL, GEORGIA**

**April 2010**

**RESUME OF RICHARD A. BAUDINO**

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**EDUCATION**

**New Mexico State University, M.A.**  
Major in Economics  
Minor in Statistics

**New Mexico State University, B.A.**  
Economics  
English

Twenty five years of experience in utility ratemaking. Broad based experience in revenue requirement analysis, cost of capital, utility financing, phase-ins, auditing and rate design. Has designed revenue requirement and rate design analysis programs.

**REGULATORY TESTIMONY**

Preparation and presentation of expert testimony in the areas of:

Electric and Gas Utility Rate Design  
Cost of Capital for Electric, Gas and Water Companies  
Ratemaking Treatment of Generating Plant Sale/Leasebacks  
Electric and Gas Utility Cost of Service  
Revenue Requirements  
*Gas industry restructuring and competition*  
Fuel cost auditing



## RESUME OF RICHARD A. BAUDINO

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### EXPERIENCE

1989 to

**Present:** Kennedy and Associates: **Consultant** - Responsible for consulting assignments in the area of revenue requirements, rate design, cost of capital, economic analysis of generation alternatives, gas industry restructuring and competition.

1982 to

**1989:** New Mexico Public Service Commission Staff: **Utility Economist** - Responsible for preparation of analysis and expert testimony in the areas of rate of return, cost allocation, rate design, finance, phase-in of electric generating plants, and sale/leaseback transactions.

### CLIENTS SERVED

#### Regulatory Commissions

Louisiana Public Service Commission  
Georgia Public Service Commission  
New Mexico Public Service Commission

#### Industrial Groups

Ad Hoc Committee for a Competitive  
Electric Supply System  
Air Products and Chemicals, Inc.  
Arkansas Electric Energy Consumers  
Arkansas Gas Consumers  
Armco Steel Company, L.P.  
Association of Business Advocating  
Tariff Equity  
CF&I Steel, L.P.  
Climax Molybdenum Company  
General Electric Company  
Industrial Energy Consumers  
Kentucky Industrial Utility Consumers  
Large Electric Consumers Organization  
Newport Steel  
Northwest Arkansas Gas Consumers  
Maryland Industrial Group  
Occidental Chemical  
PSI Industrial Group  
Taconite Intervenors (Minnesota)

Tyson Foods  
West Virginia Energy Users Group

**Expert Testimony Appearances  
of  
Richard A. Baudino  
As of April 2010**

<b>Date</b>	<b>Case</b>	<b>Jurisdict.</b>	<b>Party</b>	<b>Utility</b>	<b>Subject</b>
3/83	1780	NM	New Mexico Public Service Commission	Boles Water Co.	Rate design, rate of return.
10/83	1803, 1817	NM	New Mexico Public Service Commission	Southwestern Electric Coop	Rate design.
11/84	1833	NM	New Mexico Public Service Commission	El Paso Electric Co.	Service contract approval, rate design, performance standards for Palo Verde nuclear generating system
1983	1835	NM	New Mexico Public Service Commission	Public Service Co. of NM	Rate design.
1984	1848	NM	New Mexico Public Service Commission	Sangre de Cristo Water Co.	Rate design.
02/85	1906	NM	New Mexico Public Service Commission	Southwestern Public Service Co.	Rate of return.
09/84	1907	NM	New Mexico Public Service Commission	Jornada Water Co.	Rate of return.
11/85	1957	NM	New Mexico Public Service Commission	Southwestern Public Service Co.	Rate of return.
04/86	2009	NM	New Mexico Public Service Commission	El Paso Electric Co.	Phase-in plan, treatment of sale/leaseback expense.
06/86	2032	NM	New Mexico Public Service Commission	El Paso Electric Co.	Sale/leaseback approval.
09/86	2033	NM	New Mexico Public Service Commission	El Paso Electric Co.	Order to show cause, PVNGS audit.
02/87	2074	NM	New Mexico Public Service Commission	El Paso Electric Co.	Diversification.
05/87	2089	NM	New Mexico Public Service Commission	El Paso Electric Co.	Fuel factor adjustment.
08/87	2092	NM	New Mexico Public Service Commission	El Paso Electric Co.	Rate design.
10/88	2146	NM	New Mexico Public Service Commission	Public Service Co. of New Mexico	Financial effects of restructuring, reorganization.

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**J. KENNEDY AND ASSOCIATES, INC.**

**Expert Testimony Appearances  
of  
Richard A. Baudino  
As of April 2010**

<b>Date</b>	<b>Case</b>	<b>Jurisdic.</b>	<b>Party</b>	<b>Utility</b>	<b>Subject</b>
07/88	2162	NM	New Mexico Public Service Commission	El Paso Electric Co.	Revenue requirements, rate design, rate of return.
01/89	2194	NM	New Mexico Public Service Commission	Plains Electric G&T Cooperative	Economic development.
1/89	2253	NM	New Mexico Public Service Commission	Plains Electric G&T Cooperative	Financing.
08/89	2259	NM	New Mexico Public Service Commission	Homestead Water Co.	Rate of return, rate design.
10/89	2262	NM	New Mexico Public Service Commission	Public Service Co. of New Mexico	Rate of return.
09/89	2269	NM	New Mexico Public Service Commission	Ruidoso Natural Gas Co.	Rate of return, expense from affiliated interest.
12/89	89-208-TF	AR	Arkansas Electric Energy Consumers	Arkansas Power & Light Co.	Rider M-33.
01/90	U-17282	LA	Louisiana Public Service Commission	Gulf States Utilities	Cost of equity.
09/90	90-158	KY	Kentucky Industrial Utility Consumers	Louisville Gas & Electric Co.	Cost of equity.
09/90	90-004-U	AR	Northwest Arkansas Gas Consumers	Arkansas Western Gas Co.	Cost of equity, transportation rate.
12/90	U-17282 Phase IV	LA	Louisiana Public Service Commission	Gulf States Utilities	Cost of equity.
04/91	91-037-U	AR	Northwest Arkansas Gas Consumers	Arkansas Western Gas Co.	Transportation rates.
12/91	91-410-EL-AIR	OH	Air Products & Chemicals, Inc., Armco Steel Co., General Electric Co., Industrial Energy Consumers	Cincinnati Gas & Electric Co.	Cost of equity.
05/92	910890-EI	FL	Occidental Chemical Corp.	Florida Power Corp.	Cost of equity, rate of return.
09/92	92-032-U	AR	Arkansas Gas	Arkansas Louisiana	Cost of equity, rate of

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**J. KENNEDY AND ASSOCIATES, INC.**

**Expert Testimony Appearances  
of  
Richard A. Baudino  
As of April 2010**

<b>Date</b>	<b>Case</b>	<b>Jurisdct.</b>	<b>Party</b>	<b>Utility</b>	<b>Subject</b>
			Consumers	Gas Co.	return, cost-of-service.
09/92	39314	ID	Industrial Consumers for Fair Utility Rates	Indiana Michigan Power Co.	Cost of equity, rate of return.
09/92	92-009-U	AR	Tyson Foods	General Waterworks	Cost allocation, rate design.
01/93	92-346	KY	Newport Steel Co.	Union Light, Heat & Power Co.	Cost allocation.
01/93	39498	IN	PSI Industrial Group	PSI Energy	Refund allocation.
01/93	U-10105	MI	Association of Businesses Advocating Tariff Equality (ABATE)	Michigan Consolidated Gas Co.	Return on equity.
04/93	92-1464- EL-AIR	OH	Air Products and Chemicals, Inc., Armco Steel Co., Industrial Energy Consumers	Cincinnati Gas & Electric Co.	Return on equity.
09/93	93-189-U	AR	Arkansas Gas Consumers	Arkansas Louisiana Gas Co.	Transportation service terms and conditions.
09/93	93-081-U	AR	Arkansas Gas Consumers	Arkansas Louisiana Gas Co.	Cost-of-service, transporta- tion rates, rate supplements; return on equity; revenue requirements.
12/93	U-17735	LA	Louisiana Public Service Commission Staff	Cajun Electric Power Cooperative	Historical reviews; evaluation of economic studies.
03/94	10320	KY	Kentucky Industrial Utility Customers	Louisville Gas & Electric Co.	Trimble County CWIP revenue refund.
4/94	E-015/ GR-94-001	MN	Large Power Intervenors	Minnesota Power Co.	Evaluation of the cost of equity, capital structure, and rate of return.
5/94	R-00942993	PA	PG&W Industrial Intervenors	Pennsylvania Gas & Water Co.	Analysis of recovery of transition costs.

**Expert Testimony Appearances  
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Richard A. Baudino  
As of April 2010**

<b>Date</b>	<b>Case</b>	<b>Jurisdct.</b>	<b>Party</b>	<b>Utility</b>	<b>Subject</b>
5/94	R-00943001	PA	Columbia Industrial Intervenors	Columbia Gas of Pennsylvania	Evaluation of cost allocation, rate design, rate plan, and carrying charge proposals.
7/94	R-00942986	PA	Armco, Inc., West Penn Power Industrial Intervenors	West Penn Power Co.	Return on equity and rate of return.
7/94	94-0035- E-42T	WV	West Virginia Energy Users' Group	Monongahela Power Co.	Return on equity and rate of return.
8/94	8652	MD	Westvaco Corp.	Potomac Edison Co.	Return on equity and rate of return.
9/94	930357-C	AR	West Central Arkansas Gas Consumers	Arkansas Oklahoma Gas Corp.	Evaluation of transportation service.
9/94	U-19904	LA	Louisiana Public Service Commission	Gulf States Utilities	Return on equity.
9/94	8629	MD	Maryland Industrial Group	Baltimore Gas & Electric Co.	Transition costs.
11/94	94-175-U	AR	Arkansas Gas Consumers	Arkla, Inc.	Cost-of-service, rate design, rate of return.
3/95	RP94-343- 000	FERC	Arkansas Gas Consumers	NorAm Gas Transmission	Rate of return.
4/95	R-00943271	PA	PP&L Industrial Customer Alliance	Pennsylvania Power & Light Co.	Return on equity.
6/95	U-10755	MI	Association of Businesses Advocating Tariff Equity	Consumers Power Co.	Revenue requirements.
7/95	8697	MD	Maryland Industrial Group	Baltimore Gas & Electric Co.	Cost allocation and rate design.
8/95	95-254-TF U-2811	AR	Tyson Foods, Inc.	Southwest Arkansas Electric Cooperative	Refund allocation.
10/95	ER95-1042 -000	FERC	Louisiana Public Service Commission	Systems Energy Resources, Inc.	Return on Equity.
11/95	I-940032	PA	Industrial Energy Consumers of	State-wide - all utilities	Investigation into Electric Power Competition.

**Expert Testimony Appearances  
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Richard A. Baudino  
As of April 2010**

<b>Date</b>	<b>Case</b>	<b>Jurisdic.</b>	<b>Party</b>	<b>Utility</b>	<b>Subject</b>
			Pennsylvania		
5/96	96-030-U	AR	Northwest Arkansas Gas Consumers	Arkansas Western Gas Co.	Revenue requirements, rate of return and cost of service.
7/96	8725	MD	Maryland Industrial Group	Baltimore Gas & Electric Co., Potomac Electric Power Co. and Constellation Energy Corp.	Return on Equity.
7/96	U-21496	LA	Louisiana Public Service Commission	Central Louisiana Electric Co.	Return on equity, rate of return.
9/96	U-22092	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Return on equity.
1/97	RP96-199-000	FERC	The Industrial Gas Users Conference	Mississippi River Transmission Corp.	Revenue requirements, rate of return and cost of service.
3/97	96-420-U	AR	West Central Arkansas Gas Corp.	Arkansas Oklahoma Gas Corp.	Revenue requirements, rate of return, cost of service and rate design.
7/97	U-11220	MI	Association of Business Advocating Tariff Equity	Michigan Gas Co. and Southeastern Michigan Gas Co.	Transportation Balancing Provisions
7/97	R-00973944	PA	Pennsylvania American Water Large Users Group	Pennsylvania-American Water Co.	Rate of return, cost of service, revenue requirements.
3/98	8390-U	GA	Georgia Natural Gas Group and the Georgia Textile Manufacturers Assoc.	Atlanta Gas Light	Rate of return, restructuring issues, unbundling, rate design issues.
7/98	R-00984280	PA	PG Energy, Inc.	PGE Industrial Intervenor	Cost allocation.
8/98	U-17735	LA	Louisiana Public Service Commission	Cajun Electric Power Cooperative	Revenue requirements.
10/98	97-596	ME	Maine Office of the Public Advocate	Bangor Hydro-Electric Co.	Return on equity, rate of return.
10/98	U-23327	LA	Louisiana Public	SWEPCO, CSW and	Analysis of proposed merger.

**Expert Testimony Appearances  
of  
Richard A. Baudino  
As of April 2010**

<b>Date</b>	<b>Case</b>	<b>Jurisdic.</b>	<b>Party</b>	<b>Utility</b>	<b>Subject</b>
			Service Commission	AEP	
12/98	98-577	ME	Maine Office of the Public Advocate	Maine Public Service Co.	Return on equity, rate of return.
12/98	U-23358	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Return on equity, rate of return.
3/99	98-426	KY	Kentucky Industrial Utility Customers, Inc.	Louisville Gas and Electric Co	Return on equity.
3/99	99-082	KY	Kentucky Industrial Utility Customers, Inc.	Kentucky Utilities Co.	Return on equity.
4/99	R-984554	PA	T. W. Phillips Users Group	T. W. Phillips Gas and Oil Co.	Allocation of purchased gas costs.
6/99	R-0099462	PA	Columbia Industrial Intervenors	Columbia Gas of Pennsylvania	Balancing charges.
10/99	U-24182	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Cost of debt.
10/99	R-00994782	PA	Peoples Industrial Intervenors	Peoples Natural Gas Co.	Restructuring issues.
10/99	R-00994781	PA	Columbia Industrial Intervenors	Columbia Gas of Pennsylvania	Restructuring, balancing charges, rate flexing, alternate fuel.
01/00	R-00994786	PA	UGI Industrial Intervenors	UGI Utilities, Inc.	Universal service costs, balancing, penalty charges, capacity assignment.

**Expert Testimony Appearances  
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Richard A. Baudino  
As of April 2010**

<b>Date</b>	<b>Case</b>	<b>Jurisdic.</b>	<b>Party</b>	<b>Utility</b>	<b>Subject</b>
01/00	8829	MD	Maryland Industrial Gr. & United States	Baltimore Gas & Electric Co.	Revenue requirements, cost allocation, rate design.
02/00	R-00994788	PA	Penn Fuel Transportation	PFG Gas, Inc., and	Tariff charges, balancing provisions.
05/00	U-17735	LA	Louisiana Public Service Comm.	Louisiana Electric Cooperative	Rate restructuring.
07/00	2000-080	KY	Kentucky Industrial Utility Consumers	Louisville Gas and Electric Co.	Cost allocation.
07/00	U-21453 U-20925 (SC), U-22092 (SC) (Subdocket E)	LA	Louisiana Public Service Comm.	Southwestern Electric Power Co.	Stranded cost analysis.
09/00	R-00005654	PA	Philadelphia Industrial And Commercial Gas Users Group.	Philadelphia Gas Works	Interim relief analysis.
10/00	U-21453 U-20925 (SC), U-22092 (SC) (Subdocket B)	LA	Louisiana Public Service Comm.	Entergy Gulf States, Inc.	Restructuring, Business Separation Plan.
11/00	R-00005277 (Rebuttal)	PA	Penn Fuel Transportation Customers	PFG Gas, Inc. and North Penn Gas Co.	Cost allocation issues.
12/00	U-24993	LA	Louisiana Public Service Comm.	Entergy Gulf States, Inc.	Return on equity.
03/01	U-22092	LA	Louisiana Public Service Comm.	Entergy Gulf States, Inc.	Stranded cost analysis.
04/01	U-21453 U-20925 (SC), U-22092 (SC) (Subdocket B) (Addressing Contested Issues)	LA	Louisiana Public Service Comm.	Entergy Gulf States, Inc.	Restructuring issues.
04/01	R-00006042	PA	Philadelphia Industrial and Commercial Gas Users Group	Philadelphia Gas Works	Revenue requirements, cost allocation and tariff issues.
11/01	U-25687	LA	Louisiana Public Service Comm.	Entergy Gulf States, Inc.	Return on equity.
03/02	14311-U	GA	Georgia Public Service Commission	Atlanta Gas Light	Capital structure.



**Expert Testimony Appearances  
of  
Richard A. Baudino  
As of April 2010**

<b>Date</b>	<b>Case</b>	<b>Jurisdict.</b>	<b>Party</b>	<b>Utility</b>	<b>Subject</b>
08/02	2002-00145	KY	Kentucky Industrial Utility Customers	Columbia Gas of Kentucky	Revenue requirements.
09/02	M-00021612	PA	Philadelphia Industrial And Commercial Gas Users Group	Philadelphia Gas Works	Transportation rates, terms, and conditions.
01/03	2002-00169	KY	Kentucky Industrial Utility Customers	Kentucky Power	Return on equity.
02/03	02S-594E	CO	Cripple Creek & Victor Gold Mining Company	Aquila Networks – WPC	Return on equity.
04/03	U-26527	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Return on equity.
10/03	CV020495AB	GA	The Landings Assn., Inc.	Utilities Inc. of GA	Revenue requirement & overcharge refund
03/04	2003-00433	KY	Kentucky Industrial Utility Customers	Louisville Gas & Electric	Return on equity, Cost allocation & rate design
03/04	2003-00434	KY	Kentucky Industrial Utility Customers	Kentucky Utilities	Return on equity
4/04	04S-035E	CO	Cripple Creek & Victor Gold Mining Company, Goodrich Corp., Holcim (U.S.) Inc., and The Trane Co.	Aquila Networks – WPC	Return on equity.
9/04	U-23327, Subdocket B	LA	Louisiana Public Service Commission	Southwestern Electric Power Company	Fuel cost review
10/04	U-23327 Subdocket A	LA	Louisiana Public Service Commission	Southwestern Electric Power Company	Return on Equity

**Expert Testimony Appearances  
of  
Richard A. Baudino  
As of April 2010**

<b>Date</b>	<b>Case</b>	<b>Jurisdic.</b>	<b>Party</b>	<b>Utility</b>	<b>Subject</b>
06/05	050045-EI	FL	South Florida Hospital and HealthCare Assoc.	Florida Power & Light Co.	Return on equity
08/05	9036	MD	Maryland Industrial Group	Baltimore Gas & Electric Co.	Revenue requirement, cost allocation, rate design, Tariff issues.
01/06	2005-0034	KY	Kentucky Industrial Utility Customers, Inc.	Kentucky Power Co.	Return on equity.
03/06	05-1278-E-PC-PW-42T	WV	West Virginia Energy Users Group	Appalachian Power Company	Return on equity.
04/06	U-25116	LA	Louisiana Public Service Commission	Entergy Louisiana, LLC	Transmission Issues
07/06	U-23327	LA	Louisiana Public Service Commission	Southwestern Electric Power Company	Return on equity, Service quality
08/06	ER-2006-0314	MO	Missouri Office of the Public Counsel	Kansas City Power & Light Co.	Return on equity, Weighted cost of capital
08/06	06S-234EG	CO	CF&I Steel, L.P. & Climax Molybdenum	Public Service Company of Colorado	Return on equity, Weighted cost of capital
01/07	06-0960-E-42T	WV	West Virginia Energy Users Group	Monongahela Power & Potomac Edison	Return on Equity
01/07	43112		AK Steel, Inc.	Vectren South, Inc.	Cost allocation, rate design
05/07	2006-661		Maine Office of the Public Advocate	Bangor Hydro-Electric	Return on equity, weighted cost of capital.
09/07	07-07-01		Connecticut Industrial Energy Consumers	Connecticut Light & Power	Return on equity, weighted cost of capital
10/07	05-UR-103		Wisconsin Industrial Energy Group, Inc.	Wisconsin Electric Power Co.	Return on equity
11/07	29797		Louisiana Public Service Commission	Cleco Power :LLC & Southwestern Elec. Power	Lignite Pricing, support of settlement
01/08	07-551-EL-AIR		Ohio Energy Group	Ohio Edison, Cleveland Electric, Toledo Edison	Return on equity
03/08	07-0585, 07-0585,	IL	The Commercial Group	Ameren	Cost allocation, rate design

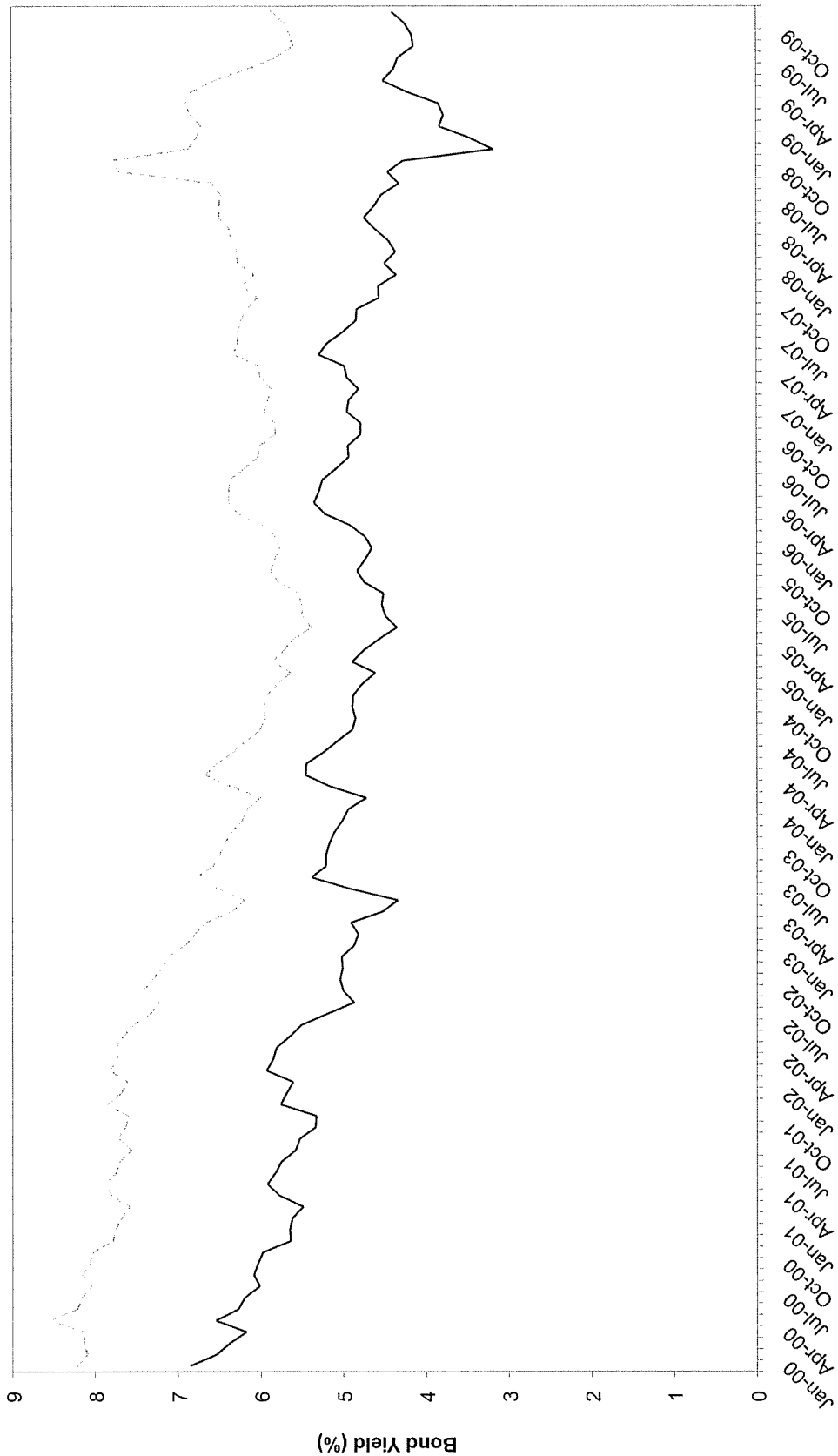
**Expert Testimony Appearances  
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Richard A. Baudino  
As of April 2010**

<b>Date</b>	<b>Case</b>	<b>Jurisdic.</b>	<b>Party</b>	<b>Utility</b>	<b>Subject</b>
	07-0587, 07-0588, 07-0589, 07-0590, (consol.)				
04/08	07-0566	IL	The Commercial Group	Commonwealth Edison	Cost allocation, rate design
06/08	R-2008- 2011621	PA	Columbia Industrial Intervenors	Columbia Gas of PA	Cost and revenue allocation, Tariff issues
07/08	R-2008- 2028394	PA	Philadelphia Area Industrial Energy users Group	PECO Energy	Cost and revenue allocation, Tariff issues
07/08	R-2008- 2039634	PA	PPL Gas Large Users Gp.	PPL Gas	Retainage, LUFG Pct.
08/08	6680-UR- 116	WI	Wisconsin Industrial Energy Group	Wisconsin P&L	Cost of Equity
08/08	6690-UR- 119	WI	Wisconsin Industrial Energy Group	Wisconsin PS	Cost of Equity
09/08	ER-2008- 0318	MO	The Commercial Group	AmerenUE	Cost and revenue allocation
10/08	R-2008- 2029325	PA	U.S. Steel & Univ. of Pittsburgh Med. Ctr.	Equitable Gas Co.	Cost and revenue allocation
10/08	08-G-0609	NY	Multiple Intervenors	Niagara Mohawk Power	Cost and Revenue allocation
12/08	27800-U	GA	Georgia Public Service Commission	Georgia Power Company	CWIP/AFUDC issues, Review financial projections
03/09	ER08-1056	FERC	Louisiana Public Service Commission	Entergy Services, Inc.	Capital Structure
04/09	E002/GR-08-1065		The Commercial Group	Northern States Power	Cost and revenue allocation and rate design
05/09	08-0532		The Commercial Group	Commonwealth Edison	Cost and revenue allocation
07/09	080677-EI		South Florida Hospital and Health Care Assn.	Florida Power & Light	Cost of equity, capital structure, Cost of short-term debt
07/09	U-30975	LA	Louisiana PSC	Cleco LLC, Southwestern Public Service Co.	Lignite mine purchase

**Expert Testimony Appearances  
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Richard A. Baudino  
As of April 2010**

<b>Date</b>	<b>Case</b>	<b>Jurisdct.</b>	<b>Party</b>	<b>Utility</b>	<b>Subject</b>
10/09	4220-UR-116WI		Wisconsin Industrial Energy Group	Northern States Power	Class cost of service, rate design
10/09	M-2009-2123945	PA	PP&L Industrial Customer Alliance	PPL Electric Utilities	Smart Meter Plan cost allocation
10/009	M-2009-2123944	PA	Philadelphia Area Industrial Energy Users Group	PECO Energy Company	Smart Meter Plan cost allocation
10/09	M-2009-2123951	PA	West Penn Power Industrial Intervenors	West Penn Power	Smart Meter Plan cost allocation
11/09	M-2009-2123948	PA	Duquesne Industrial Intervenors	Duquesne Light Company	Smart Meter Plan cost allocation
11/09	M-2009-2123950	PA	Met-Ed Industrial Users Gp. Penelec Industrial Customer Alliance, Penn Power Users Group	Metropolitan Edison, Pennsylvania Electric Co., Pennsylvania Power Co.	Smart Meter Plan cost allocation
03/10	09-1352-E-42T	WV	West Virginia Energy Users Gp.	Monongahela Power, Potomac Edison	Return on equity, rate of return
03/10	E015/GR-09-1151	MN	Large Power Intervenors	Minnesota Power	Return on equity, rate of return
04/10	2009-00459	KY	Kentucky Industrial Utility Consumers	Kentucky Power	Return on equity
04/10	2009-00548 2009-00549	KY	Kentucky Industrial Utility Consumers	Louisville Gas and Electric, Kentucky Utilities	Return on equity

### HISTORICAL BOND YIELDS AVERAGE PUBLIC UTILITY BOND VS 20-YEAR TREASURY BOND



— "20-Year Treasury Bond"      - - - - - Mergent Public Utility Bond

**LOUISVILLE GAS AND ELECTRIC AND KENTUCKY UTILITIES  
A-RATED COMPARISON GROUP  
AVERAGE PRICE, DIVIDEND AND DIVIDEND YIELD**

		Mar-10	Feb-10	Jan-10	Dec-09	Nov-09	Oct-09
<b>ALLETE</b>	High Price (\$)	34.000	32.940	33.170	35.290	34.110	35.190
	Low Price (\$)	31.590	30.200	29.990	32.630	32.230	32.570
	Avg. Price (\$)	32.795	31.570	31.580	33.960	33.170	33.880
	Dividend (\$)	0.440	0.440	0.440	0.440	0.440	0.440
	Mo. Avg. Div.	5.37%	5.57%	5.57%	5.18%	5.31%	5.19%
	6 mos. Avg.	5.37%					
<b>Alliant Energy</b>	High Price (\$)	33.870	32.820	33.320	31.530	28.070	28.400
	Low Price (\$)	31.780	30.120	30.240	27.540	26.080	26.400
	Avg. Price (\$)	32.825	31.470	31.780	29.535	27.075	27.400
	Dividend (\$)	0.395	0.395	0.395	0.375	0.375	0.375
	Mo. Avg. Div.	4.81%	5.02%	4.97%	5.08%	5.54%	5.47%
	6 mos. Avg.	5.15%					
<b>Consolidated Edison</b>	High Price (\$)	44.910	44.160	46.450	46.350	42.990	42.250
	Low Price (\$)	42.810	42.090	43.070	42.720	40.610	40.150
	Avg. Price (\$)	43.860	43.125	44.760	44.535	41.800	41.200
	Dividend (\$)	0.595	0.595	0.590	0.590	0.590	0.590
	Mo. Avg. Div.	5.43%	5.52%	5.27%	5.30%	5.65%	5.73%
	6 mos. Avg.	5.48%					
<b>DTE Energy Co.</b>	High Price (\$)	45.930	44.990	44.420	44.960	40.730	39.070
	Low Price (\$)	43.660	41.250	41.910	40.460	36.650	33.750
	Avg. Price (\$)	44.795	43.120	43.165	42.710	38.690	36.410
	Dividend (\$)	0.530	0.530	0.530	0.530	0.530	0.530
	Mo. Avg. Div.	4.73%	4.92%	4.91%	4.96%	5.48%	5.82%
	6 mos. Avg.	5.14%					
<b>Edison International</b>	High Price (\$)	34.920	34.500	35.820	36.720	34.440	34.020
	Low Price (\$)	32.880	31.880	33.280	34.270	31.420	31.540
	Avg. Price (\$)	33.900	33.190	34.550	35.495	32.930	32.780
	Dividend (\$)	0.315	0.315	0.315	0.315	0.310	0.310
	Mo. Avg. Div.	3.72%	3.80%	3.65%	3.55%	3.77%	3.78%
	6 mos. Avg.	3.71%					
<b>Entergy</b>	High Price (\$)	82.110	80.180	83.090	84.440	80.300	81.820
	Low Price (\$)	75.970	75.250	76.230	78.870	76.100	76.560
	Avg. Price (\$)	79.040	77.715	79.660	81.655	78.200	79.190
	Dividend (\$)	0.750	0.750	0.750	0.750	0.750	0.750
	Mo. Avg. Div.	3.80%	3.86%	3.77%	3.67%	3.84%	3.79%
	6 mos. Avg.	3.79%					

**LOUISVILLE GAS AND ELECTRIC AND KENTUCKY UTILITIES  
A-RATED COMPARISON GROUP  
AVERAGE PRICE, DIVIDEND AND DIVIDEND YIELD**

		Mar-10	Feb-10	Jan-10	Dec-09	Nov-09	Oct-09
<b>Exelon Corp.</b>	High Price (\$)	45.750	46.450	49.880	51.980	48.510	51.170
	Low Price (\$)	42.970	42.970	45.600	48.280	45.900	46.430
	Avg. Price (\$)	44.360	44.710	47.740	50.130	47.205	48.800
	Dividend (\$)	0.525	0.525	0.525	0.525	0.525	0.525
	Mo. Avg. Div.	4.73%	4.70%	4.40%	4.19%	4.45%	4.30%
	6 mos. Avg.	4.46%					
<b>IDACORP</b>	High Price (\$)	35.690	34.180	33.320	32.830	30.280	29.650
	Low Price (\$)	33.060	29.980	31.210	29.750	27.710	28.000
	Avg. Price (\$)	34.375	32.080	32.265	31.290	28.995	28.825
	Dividend (\$)	0.300	0.300	0.300	0.300	0.300	0.300
	Mo. Avg. Div.	3.49%	3.74%	3.72%	3.84%	4.14%	4.16%
	6 mos. Avg.	3.85%					
<b>Northeast Utilities</b>	High Price (\$)	28.000	26.830	26.620	26.480	24.600	24.010
	Low Price (\$)	25.720	24.680	25.100	24.160	22.200	22.640
	Avg. Price (\$)	26.860	25.755	25.860	25.320	23.400	23.325
	Dividend (\$)	0.256	0.256	0.238	0.238	0.238	0.238
	Mo. Avg. Div.	3.81%	3.98%	3.68%	3.76%	4.07%	4.08%
	6 mos. Avg.	3.90%					
<b>Pepco Holdings</b>	High Price (\$)	17.400	17.320	17.570	17.510	16.350	15.580
	Low Price (\$)	16.580	15.740	16.240	16.250	14.580	14.240
	Avg. Price (\$)	16.990	16.530	16.905	16.880	15.465	14.910
	Dividend (\$)	0.270	0.270	0.270	0.270	0.270	0.270
	Mo. Avg. Div.	6.36%	6.53%	6.39%	6.40%	6.98%	7.24%
	6 mos. Avg.	6.65%					
<b>PG&amp;E</b>	High Price (\$)	43.420	43.350	45.630	45.790	43.000	43.210
	Low Price (\$)	41.890	40.580	42.180	42.560	40.400	39.740
	Avg. Price (\$)	42.655	41.965	43.905	44.175	41.700	41.475
	Dividend (\$)	0.455	0.420	0.420	0.420	0.420	0.420
	Mo. Avg. Div.	4.27%	4.00%	3.83%	3.80%	4.03%	4.05%
	6 mos. Avg.	4.00%					
<b>Progress Energy</b>	High Price (\$)	40.130	39.530	41.350	42.200	39.380	39.130
	Low Price (\$)	38.410	37.040	38.320	39.010	36.910	36.670
	Avg. Price (\$)	39.270	38.285	39.835	40.605	38.145	37.900
	Dividend (\$)	0.620	0.620	0.620	0.620	0.620	0.620
	Mo. Avg. Div.	6.32%	6.48%	6.23%	6.11%	6.50%	6.54%
	6 mos. Avg.	6.36%					

**LOUISVILLE GAS AND ELECTRIC AND KENTUCKY UTILITIES  
A-RATED COMPARISON GROUP  
AVERAGE PRICE, DIVIDEND AND DIVIDEND YIELD**

		Mar-10	Feb-10	Jan-10	Dec-09	Nov-09	Oct-09
<b>P.S. Enterprise Gp.</b>	High Price (\$)	31.340	31.370	33.750	34.140	31.750	31.790
	Low Price (\$)	29.040	29.010	30.320	31.570	29.200	29.290
	Avg. Price (\$)	30.190	30.190	32.035	32.855	30.475	30.540
	Dividend (\$)	0.333	0.333	0.333	0.333	0.333	0.333
	Mo. Avg. Div.	4.41%	4.41%	4.16%	4.05%	4.37%	4.36%
	6 mos. Avg.	4.29%					
<b>Southern Co.</b>	High Price (\$)	33.500	32.490	33.730	34.470	32.360	33.780
	Low Price (\$)	31.830	30.850	31.850	32.150	30.890	31.130
	Avg. Price (\$)	32.665	31.670	32.790	33.310	31.625	32.455
	Dividend (\$)	0.438	0.438	0.438	0.438	0.438	0.438
	Mo. Avg. Div.	5.36%	5.53%	5.34%	5.26%	5.54%	5.40%
	6 mos. Avg.	5.41%					
<b>Wisconsin Energy</b>	High Price (\$)	51.410	50.020	50.890	50.620	45.890	45.560
	Low Price (\$)	48.640	46.880	48.210	45.280	42.890	43.380
	Avg. Price (\$)	50.025	48.450	49.550	47.950	44.390	44.470
	Dividend (\$)	0.400	0.400	0.338	0.338	0.338	0.338
	Mo. Avg. Div.	3.20%	3.30%	2.73%	2.82%	3.05%	3.04%
	6 mos. Avg.	3.02%					
<b>Xcel</b>	High Price (\$)	21.690	21.200	21.760	21.940	20.610	20.030
	Low Price (\$)	20.860	19.820	20.410	20.300	18.530	18.790
	Avg. Price (\$)	21.275	20.510	21.085	21.120	19.570	19.410
	Dividend (\$)	0.245	0.245	0.245	0.245	0.245	0.245
	Mo. Avg. Div.	4.61%	4.78%	4.65%	4.64%	5.01%	5.05%
	6 mos. Avg.	4.79%					
<b>Average Dividend Yield</b>	4.71%						
<b>Monthly Group Average</b>		4.65%	4.76%	4.58%	4.54%	4.86%	4.88%

Source: Yahoo! Finance



**LOUISVILLE GAS AND ELECTRIC COMPANY AND KENTUCKY UTILITIES  
COMPARISON GROUP  
DCF Growth Rate Analysis**

<u>Company</u>	(1) Value Line <u>DPS</u>	(2) Value Line <u>EPS</u>	(3) Value Line <u>B x R</u>	(4) <u>Zacks</u>	(5) First Call/ <u>Thomson</u>
ALLETE, Inc.	1.00%	-0.50%	2.00%	3.67%	5.33%
Alliant Energy Corporation	5.50%	7.00%	5.00%	4.00%	5.60%
Consolidated Edison, Inc.	1.00%	2.50%	3.50%	3.00%	3.28%
DTE Energy Company	3.00%	7.00%	3.50%	5.00%	5.00%
Edison International	4.00%	3.50%	7.50%	5.00%	2.03%
Entergy Corporation	4.00%	5.00%	7.00%	4.00%	6.68%
Exelon Corporation	2.00%	1.50%	8.50%	0.50%	-0.04%
IDACORP, Inc.	2.50%	4.50%	3.50%	5.00%	5.00%
Northeast Utilities	7.00%	7.00%	4.00%	7.91%	7.81%
Pepco Holdings, Inc.	1.00%	0.50%	2.50%	5.33%	5.33%
PG&E Corporation	7.50%	6.50%	6.00%	7.67%	7.00%
Progress Energy Inc.	1.00%	4.50%	2.50%	4.00%	3.72%
Public Service Enterprise Group	4.00%	7.50%	9.00%	1.00%	2.18%
Southern Company	4.00%	4.50%	4.00%	7.37%	5.05%
Wisconsin Energy Corporation	13.00%	8.00%	6.00%	8.67%	9.50%
Xcel Energy Inc.	3.00%	6.50%	5.00%	5.70%	6.18%
Averages excluding negative values	3.97%	5.07%	4.97%	4.86%	5.31%
Median Values	3.50%	4.75%	4.50%	5.00%	5.19%
Averages excl. > or =10% & < or = 1%	4.23%	5.39%	4.97%	5.45%	5.31%

**Sources: Zack's and First Call/Thomson Earnings Reports, retrieved April 16, 2010  
Value Line Investment Survey, February 5 and 26, and March 26, 2010**

**RETURN ON EQUITY CALCULATION  
LOUISVILLE GAS AND ELECTRIC COMPANY AND KENTUCKY UTILITIES**

	(1) Value Line Dividend Gr.	(2) Value Line Earnings Gr.	(3) Zack's Earning Gr.	(4) First Call Earning Gr.	(5) Average of All Gr. Rates
<u>Method 1:</u>					
Dividend Yield	4.71%	4.71%	4.71%	4.71%	4.71%
Growth Rate	3.97%	5.07%	4.86%	5.31%	4.80%
Expected Div. Yield	<u>4.80%</u>	<u>4.83%</u>	<u>4.82%</u>	<u>4.84%</u>	<u>4.82%</u>
<b>DCF Return on Equity</b>	<b>8.77%</b>	<b>9.90%</b>	<b>9.68%</b>	<b>10.15%</b>	<b>9.62%</b>
<b>Midpoint of Results</b>					<b>9.46%</b>
<u>Method 2:</u>					
Dividend Yield	4.71%	4.71%	4.71%	4.71%	4.71%
Median Growth Rate	3.50%	4.75%	5.00%	5.19%	4.61%
Expected Div. Yield	<u>4.79%</u>	<u>4.82%</u>	<u>4.83%</u>	<u>4.83%</u>	<u>4.82%</u>
<b>DCF Return on Equity</b>	<b>8.29%</b>	<b>9.57%</b>	<b>9.83%</b>	<b>10.02%</b>	<b>9.43%</b>
<b>Midpoint of Results</b>					<b>9.16%</b>
<u>Method 3:</u>					
Dividend Yield	4.41%	4.52%	4.76%	4.73%	4.60%
Growth Rate Excl. Rates > 10% & < or = 1%	4.23%	5.39%	5.45%	5.31%	5.10%
Expected Div. Yield	<u>4.50%</u>	<u>4.65%</u>	<u>4.89%</u>	<u>4.85%</u>	<u>4.72%</u>
<b>DCF Return on Equity</b>	<b>8.73%</b>	<b>10.04%</b>	<b>10.34%</b>	<b>10.16%</b>	<b>9.82%</b>
<b>Midpoint of Results</b>					<b>9.53%</b>

**LOUISVILLE GAS AND ELECTRIC COMPANY AND KENTUCKY UTILITIES  
Capital Asset Pricing Model Analysis  
Comparison Group**

**20-Year Treasury Bond, Value Line Beta**

<u>Line No.</u>		<u>Value Line</u>
1	Market Required Return Estimate	
2	Expected Dividend Yield	2.27%
3	Expected Growth	<u>8.14%</u>
4	Required Return	10.41%
5	Risk-free Rate of Return, 20-Year Treasury Bond	
6	Average of Last Six Months	4.38%
8	Risk Premium	
9	@ 6 Month Average RFR (Line 4 minus Line 6)	6.03%
10	Comparison Group Beta	0.70
11	Comparison Group Beta * Risk Premium	
12	@ 6 Month Average RFR (Line 10 * Line 9)	4.20%
13	CAPM Return on Equity	
14	@ 6 Month Average RFR (Line 12 plus Line 6)	8.58%

**5-Year Treasury Bond, Value Line Beta**

1	Market Required Return Estimate	
2	Expected Dividend Yield	2.27%
3	Expected Growth	<u>8.14%</u>
4	Required Return	10.41%
5	Risk-free Rate of Return, 5-Year Treasury Bond	
6	Average of Last Six Months	2.36%
8	Risk Premium	
9	@ 6 Month Average RFR (Line 4 minus Line 6)	8.05%
10	Comparison Group Beta	0.70
11	Comparison Group Beta * Risk Premium	
12	@ 6 Month Average RFR (Line 9 * Line 10)	5.61%
13	CAPM Return on Equity	
14	@ 6 Month Average RFR (Line 12 plus Line 6)	7.97%

**LOUISVILLE GAS AND ELECTRIC COMPANY AND KENTUCKY UTILITIES**  
**Capital Asset Pricing Model Analysis**  
**Comparison Group**

**Supporting Data for CAPM Analyses**

20 Year Treasury Bond Data

	<u>Avg. Yield</u>
October-09	4.16%
November-09	4.24%
December-09	4.40%
January-10	4.50%
February-10	4.48%
March-10	4.49%
6 month average	4.38%

5 Year Treasury Bond Data

	<u>Avg. Yield</u>
October-09	2.33%
November-09	2.23%
December-09	2.34%
January-10	2.48%
February-10	2.36%
March-10	2.43%
6 month average	2.36%

Value Line Market Growth Rate Data:

Forecasted Data:	
Earnings	9.26%
Book Value	8.18%
Dividends	6.99%
Average	8.14%
Source: Value Line Investment Survey for Windows, March 15, 2010	

Comparison Group Betas:

	<u>Value Line</u>
ALLETE, Inc.	0.70
Alliant Energy Corporation	0.70
Consolidated Edison, Inc.	0.65
DTE Energy Company	0.75
Edison International	0.80
Entergy Corporation	0.70
Exelon Corporation	0.85
IDACORP, Inc.	0.70
Northeast Utilities	0.70
Pepco Holdings, Inc.	0.80
PG&E Corporation	0.55
Progress Energy Inc.	0.60
Public Service Enterprise Group	0.80
Southern Company	0.55
Wisconsin Energy Corporation	0.65
Xcel Energy Inc.	0.65
Average	0.70

**LOUISVILLE GAS AND ELECTRIC COMPANY AND KENTUCKY UTILITIES**  
**Capital Asset Pricing Model Analysis**  
**Historic Market Premium**

	<u>Geometric Mean</u>	<u>Arithmetic Mean</u>
Long-Term Annual Return on Stocks	9.80%	11.80%
Long-Term Annual Income Return on Long-Term Government Bonds	<u>5.10%</u>	<u>5.20%</u>
Historical Market Risk Premium	4.70%	6.60%
Comparison Group Beta, Value Line	<u>0.70</u>	<u>0.70</u>
Beta * Market Premium	3.28%	4.60%
Current 20-Year Treasury Bond Yield	<u>4.38%</u>	<u>4.38%</u>
<b>CAPM Cost of Equity, Value Line Beta</b>	<b><u>7.65%</u></b>	<b><u>8.98%</u></b>

Source: *Ibbotson S&P 2010 Valuation Yearbook*, Morningstar

Exhibit \_\_\_\_ (RAB-7)

**AVERA UTILITY PROXY GROUP  
DCF ANALYSIS WITH VALUE LINE DIVIDEND GROWTH FORECASTS**

	<u>Avera Div. Yield</u>	<u>Value Line Div. Growth</u>	<u>DCF ROE</u>
1 ALLETE	5.20%	1.00%	6.20%
2 Alliant Energy	5.20%	5.50%	10.70%
3 Consolidated Edison	5.20%	1.00%	6.20%
4 Dominion Resources	4.80%	5.50%	10.30%
5 Duke Energy Corp.	5.60%	NMF	NMF
6 Entergy Corp.	3.60%	4.00%	7.60%
7 Exelon Corp.	4.10%	2.00%	6.10%
8 PG&E Corp.	3.90%	7.50%	11.40%
9 Progress Energy	6.00%	1.00%	7.00%
10 SCANA Corp.	5.10%	2.00%	7.10%
11 Sempra Energy	3.00%	8.50%	11.50%
12 Vectren Corp.	5.50%	2.50%	8.00%
13 Wisconsin Energy	3.20%	13.00%	16.20%
14 Xcel Energy	4.70%	3.00%	7.70%
Average	4.58%	4.35%	8.92%

Note: Averages exclude Duke Energy Corp.

Source: 2010 Value Line Reports