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January 9, 2008

Public Utilities Commission Of Ohio
PUCO Docketing
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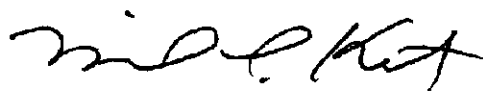Columbus, Ohio 43215

In Re: **Case Nos. 07-551-EL-AIR, 07-552-EL-ATA, 07-553-EL-AAM AND 07-554-EL-UNC**

Dear Sir/Madam:

Please find enclosed an original and twenty (20) copies of the DIRECT TESTIMONY AND EXHIBITS OF RICHARD A. BAUDINO, LANE KOLLEN AND STEPHEN J. BARON FILED ON BEHALF OF THE OHIO ENERGY GROUP filed in the above-referenced matter.

Copies have been served on all parties on the attached certificate of service. Please place this document of file.

Respectfully Yours,

David F. Boehm, Esq.
Michael L. Kurtz, Esq.
Kurt J. Boehm, Esq.
BOEHM, KURTZ & LOWRY

Mlkkew
Encl.

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BEFORE THE

PUBLIC UTILITIES COMMISSION OF OHIO

IN RE: IN THE MATTER OF THE APPLICATION)
OF OHIO EDISON COMPANY, THE)
CLEVELAND ELECTRIC ILLUMINATING) CASE NO. 07-551-EL-AIR
COMPANY, AND THE TOLDEDO EDISON) CASE NO. 07-552-EL-ATA
COMPANY FOR AUTHORITY TO) CASE NO. 07-553-EL-AAM
INCREASE RATES FOR DISTRIBUTION) CASE NO. 07-554-EL-UNC
SERVICE, MODIFY CERTAIN)
ACCOUNTING PRACTICE AND FOR)
TARIFF APPROVALS)

DIRECT TESTIMONY

AND EXHIBITS

OF

RICHARD A. BAUDINO

ON BEHALF OF THE

OHIO ENERGY GROUP

J. KENNEDY AND ASSOCIATES, INC.
ROSWELL, GEORGIA

JANUARY 2008

BEFORE THE

PUBLIC UTILITIES COMMISSION OF OHIO

IN RE:	IN THE MATTER OF THE APPLICATION	)
	OF OHIO EDISON COMPANY, THE	)
	CLEVELAND ELECTRIC ILLUMINATING	) CASE NO. 07-551-EL-AIR
	COMPANY, AND THE TOLDEDO EDISON	) CASE NO. 07-552-EL-ATA
	COMPANY FOR AUTHORITY TO	) CASE NO. 07-553-EL-AAM
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DIRECT TESTIMONY OF RICHARD A. BAUDINO

I. QUALIFICATIONS AND SUMMARY

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

2

3   A.   My name is Richard A. Baudino. My business address is J. Kennedy and Associates,

4   Inc. ("Kennedy and Associates"), 570 Colonial Park Drive, Suite 305, Roswell, Georgia

5   30075.

6

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

8

9   A.   I am a consultant to Kennedy and Associates.

10

J. Kennedy and Associates, Inc.

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

2

3   A.   I received my Master of Arts degree with a major in Economics and a minor in Statistics

4   from New Mexico State University in 1982. I also received my Bachelor of Arts Degree

5   with majors in Economics and English from New Mexico State in 1979.

6

7   I began my professional career with the New Mexico Public Service Commission Staff

8   in October 1982 and was employed there as a Utility Economist. During my

9   employment with the Staff, my responsibilities included the analysis of a broad range of

10   issues in the ratemaking field. Areas in which I testified included cost of service, rate of

11   return, rate design, revenue requirements, analysis of sale/leasebacks of generating

12   plants, utility finance issues, and generating plant phase-ins.

13

14   In October 1989, I joined the utility consulting firm of Kennedy and Associates as a

15   Senior Consultant where my duties and responsibilities covered substantially the same

16   areas as those during my tenure with the New Mexico Public Service Commission Staff.

17   I became Manager in July 1992 and was named Director of Consulting in January 1995.

18   Currently, I am a consultant with Kennedy and Associates.

19

20   Exhibit ____(RAB-1) summarizes my expert testimony experience.

21

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

23

1   A.   I am testifying on behalf of the Ohio Energy Group ("OEG").

2

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

4

5   A.   The purpose of my testimony is to address the allowed return on equity for Ohio Edison

6   Company ("OEC"), The Cleveland Electric Illuminating Company ("CEIC"), and the

7   Toledo Edison Company ("TEC"). Throughout the remainder of my testimony I will

8   refer to these three companies collectively as "the Companies".

9

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

11

12   A.   I recommend that the Public Utilities Commission of Ohio ("PUCO" or "Commission")

13   approve a rate of return on equity for the Companies of 9.70%. This recommendation is

14   based on the results of my Discounted Cash Flow ("DCF") analyses for a comparison

15   group of electric and gas distribution companies based on the group of companies used

16   in the PUCO Staff reports for the Companies. I modified the Staff's group by

17   eliminating companies that had less than 50% regulated electric or gas revenues.

18

19   Based on my review of the testimony of the Companies' witness Vilbert, I recommend

20   that the Commission reject the Companies' requested cost of equity of 11.75%. Dr.

21   Vilbert's application of the DCF and risk positioning models systematically overstated

22   the investors' required return on equity for BBB/Baa rated electric distribution

1   companies such as OEC, CEIC, and TEC. Dr. Vilbert's proposed ROE of 11.75%

2   harms ratepayers and unduly benefits shareholders.

3

4   With respect to the PUCO Staff reports for the Companies, I conclude that the cost of

5   common equity range of 10.06% - 11.09% is overstated, although the lower end of range

6   is relatively close to my recommended cost of equity of 9.70%. The Staff overstated its

7   DCF results due to the use of forecasted earnings in the first five years of its non-

8   constant growth analysis. Value Line's forecasted dividend growth for the electric and

9   gas group is lower than the analysts' earnings forecasts over the next five years. The

10   Staff should have used forecasted dividend growth in the first five years of its DCF

11   analysis.   Staff's Capital Asset Pricing Model ("CAPM") results are also likely

12   overstated due to the use of Value Line betas. Furthermore, recent research by Ibbotson

13   and Chen suggest that the historical risk premium used by Staff is also overstated.

J. Kennedy and Associates, Inc.

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

2

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

4   **years?**

5   .

6   A.   Exhibit____(RAB-2) presents a graphic depiction of the trend in interest rates from

7   January 1997 through November 2007. The interest rates shown are for the 20-year U.S.

8   Treasury Bond and the average public utility bond from the Mergent Bond Record.

9   Exhibit____(RAB-2) shows that the yields on long-term treasury and utility bonds have

10   declined significantly since early 1997, although rates have been quite volatile.

11   Increased bond market volatility actually began in the early 1970s, when inflation

12   became more of a sustained long-term concern.

13

14   Yields trended downward from 2002 through 2006, with the 20-year Treasury bond

15   yield declining from 5.69% to 4.78% at the end of December 2006. The yield on the

16   average public utility bond also decreased significantly over that time, falling from

17   7.83% in March 2002 to 5.83% in December 2006, a decline of 200 basis points. Public

18   utility bond yields fell far more than long-term Treasury yields over the last four years.

19

20   2007 saw a rise in interest rates over the first few months of the year, fueled in part by

21   investors' concerns over turmoil and defaults associated with the sub-prime lending

22   market. The 20-year Treasury yield rose from 4.81% in March to 5.29% in June, but has

23   since declined significantly to 4.56% at the end of November. The average public utility

1   bond yield rose from 5.87% in March to 6.34% in June, but likewise has fallen to 6.04%

2   at the end of November 2007.

3

4   Current bond yields are either at or near their lowest levels in recent history. Since

5   1997, public utility bond yields are near their lowest level over a ten-year historical

6   period. I also reviewed the Mergent Public Utility Manual and found that average public

7   utility bond yields have not been as low as they are now since the 1967-68 time period,

8   nearly 40 years ago.

9

10   Q.   **What effect does the current interest rate environment have on utility stocks?**

11

12   A.   The decline in bond yields over the last ten years suggests a related decline in the

13   required return on equity on the part of the investing public. In general, utility stocks are

14   *interest rate sensitive, meaning that as bond yields decline, utility company dividend*

15   yields also fall, leading to a decline in the return on equity. The results of my return on

16   equity analysis in the subsequent section of my Direct Testimony are consistent with

17   these historically low bond yields.

18

19   Q.   **In 2003, Congress enacted a change in tax policy that lowered the tax rate on**

20   **dividends and capital gains. Please explain the effect of this tax change on utility**

21   **common stocks and on investor required returns for utilities.**

22

1 A.   Other things being equal, the dividend tax rate reduction means that investors should

2   require lower pre-tax rates of return for utilities. This is because after-tax dividend

3   streams have now become more valuable due to the reduction in federal taxation. Thus,

4   for a given stock price, investors will discount the future dividend payments at a lower

5   return on equity. The stock prices that I use in my cost of equity analyses fully

6   incorporate the effects of this change in tax rates and on the expected returns for

7   utilities.

8

9   This also means that investors require lower risk premiums for stocks compared to

10   utility bonds. This is because there was no change in the tax treatment given to bonds.

11   Since expected stock returns are now lower relative to bond yields, the expected risk

12   premium of utility stocks over bonds should be lower than in the past.

13

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

15   **whole?**

16 A.   The November 30, 2007 report of the Value Line Investment Survey had the following

17   comments about the electric utility industry:

18

19   With recent interest rate cuts, investors have bid up utility stocks, driving down
20   risk-adjusted yield premiums in the process. Recent volatility in the stock market
21   likely also has given the group a lift, as investors seek out "safe havens". That
22   said, a majority of these stocks are now trading within our three- to five-year
23   Target Price Ranges. *This suggests that future returns will mainly come from*
24   dividends.
25   .
26 Q.   **Mr. Baudino, what is your view regarding the state of the electric industry today?**

27

1   A.   Regulated utilities are still considered safe-harbor investments. Further, the electric

2   industry is entering a more stable, less risky environment than it experienced during the

3   last few years. Many electric companies have exited more risky unregulated operations

4   and have strengthened their financial position over the last decade. This means that

5   companies that focus on core electric operations will be lower risk than those with

6   unregulated and/or deregulated operations and investments.

7

8   Q.   **Briefly describe OEC, CEIC, and TEC.**

9

10   A.   The Companies are regulated transmission and distribution operating subsidiaries of

11   FirstEnergy Corporation. OEC serves 1.042 million customers in northern and central

12   Ohio. CEIC and TEC serve 762,000 and 314,000 customers, respectively, in

13   northeastern Ohio. In 2005, the Ohio companies completed generation asset transfers to

14   FirstEnergy Generation Corp. and FirstEnergy Nuclear Generation Corp. pursuant to

15   restructuring legislation in Ohio. Thus, the Companies derive their principle revenue

16   sources from the sale of electricity that is purchased or generated from Power Supply

17   Management Services within FirstEnergy or purchased from independent suppliers. The

18   Companies also derive revenue from transition cost recovery.

19

20   The Ohio companies also serve as providers of last resort ("POLR") for their customers,

21   which means that those customers who do not choose an alternative electric supplier

22   must be supplied by the distribution companies.

23

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

2

3   A.   The Companies' most recent bond ratings from Standard and Poor's ("S&P") and

4   Moody's are as follows:

	S&P	Moody's
Ohio Edison: Senior Unsecured	BBB-	Baa2
Cleveland Electric Illuminating:		
Senior Unsecured	BBB-	Baa3
Senior Secured	BBB	Baa2
Toledo Edison:		
Senior Unsecured	BBB-	Baa3
Senior Secured	BBB	Baa2

16   According to S&P's January 3, 2007 report on FirstEnergy, the ratings of the Ohio

17   companies reflect the consolidated creditworthiness of the holding company. Credit

18   strengths for FE are:

19   •   Low-cost base load power generation in Ohio and Pennsylvania;

20   •   Lower-risk T&D operations;

21   •   Generally constructive regulatory relationships; and,

22   •   Free cash flow generation, good liquidity, stable financial profile.

23

24   Credit weaknesses noted by the S&P report are:

25   •   Exposure of generation cash flows to increasing market risk;

26   •   Uneven historical operating performance for FE's nuclear fleet;

27   •   Significant environmental expenditures nor recoverable through regulated rates;

28   •   POLR risks in Pennsylvania; and,

1   •   Cost pressures on the base load, coal fired plants.

2

3   S&P's report noted that FE's business risk profile is rated '7", which is considered

4   "weak". This is due to "an aggressive business strategy on the generation side, relatively

5   weak nuclear operations, a difficult regulatory relationship in New Jersey, an uncertain

6   regulatory situation in the long term, high environmental spending, and supply and

7   regulatory risk in Pennsylvania after 2008", according to the report.

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   **OEC, CEIC, and TEC.**

5

6   **A.**   I employed a Discounted Cash Flow ("DCF") analysis for a group of comparison electric

7   and gas distribution companies to estimate the cost of equity for the Companies'

8   regulated electric operations. I also employed several Capital Asset Pricing Model

9   ("CAPM") analyses, although I did not directly incorporate the results into my

10   recommendation.

11

12   **Q.**   **What are the main guidelines to which you adhere in estimating the cost of equity**

13   **for a firm?**

14

15   **A.**   Generally speaking, the estimated cost of equity should be comparable to the returns of

16   other firms with similar risk structures and should be sufficient for the firm to attract

17   capital. These are the basic standards set out in *Federal Power Comm'n v. Hope Natural*

18   *Gas Co., 320 U.S. 591 (1944)* and *Bluefield W.W. & Improv. Co. v. Public Service*

19   *Comm'n., 262 U.S. 679 (1922).*

20

21   From an economist's perspective, the notion of "opportunity cost" plays a vital role in

22   estimating the return on equity. One measures the opportunity cost of an investment

23   equal to what one would have obtained in the next best alternative. For example, let us

1   suppose that an investor decides to purchase the stock of a publicly traded electric

2   utility. That investor made the decision based on the expectation of dividend payments

3   and perhaps some appreciation in the stock's value over time; however, that investor's

4   opportunity cost is measured by what she or he could have invested in as the next best

5   alternative. That alternative could have been another utility stock, a utility bond, a

6   mutual fund, a money market fund, or any other number of investment vehicles.

7

8   The key determinant in deciding whether to invest, however, is based on comparative

9   levels of risk. Our hypothetical investor would not invest in a particular electric

10   company stock if it offered a return lower than other investments of similar risk. The

11   opportunity cost simply would not justify such an investment. Thus, the task for the rate

12   of return analyst is to estimate a return that is equal to the return being offered by other

13   risk-comparable firms. Failing this, the subject firm will be impaired in its ability to

14   attract capital.

15

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

17

18   A.   In general, risk associated with the holding of common stock can be separated into three

19   major categories: business risk, financial risk, and liquidity risk. Business risk refers to

20   risks inherent in the operation of the business. Volatility of the firm's sales, long-term

21   demand for its product(s), the amount of operating leverage, and quality of management

22   are all factors that affect business risk. The quality of regulation at the state and federal

23   levels also plays an important role in business risk for regulated utility companies.

1

2   Financial risk refers to the impact on a firm's future cash flows from the use of debt in

3   the capital structure. Interest payments to bondholders represent a prior call on the

4   firm's cash flows and must be met before income is available to the common

5   shareholders. Additional debt means additional variability in the firm's earnings, leading

6   to additional risk.

7

8   Liquidity risk refers to the ability of an investor to quickly sell an investment without a

9   substantial price concession. The easier it is for an investor to sell an investment for

10   cash, the lower the liquidity risk will be. Stock markets, such as the New York and

11   American Stock Exchanges, help ease liquidity risk substantially. Investors who own

12   stocks that are traded in these markets know on a daily basis what the market prices of

13   their investments are and that they can sell these investments fairly quickly. Many

14   electric utility stocks are traded on the New York Stock Exchange and are considered

15   liquid investments.

16

17 Q. **Are there any indices available to investors that quantify the total risk of a**

18   **company?**

19

20 A. Yes. Bond ratings are a good tool that investors may utilize to determine the risk

21   comparability of firms. Bond rating agencies such as Moody's and Standard and Poor's

22   perform detailed analyses of factors that contribute to the business and financial risks of

1   a particular investment. The end result of their analyses is a bond rating that reflects

2   these risks.

3

4   **Discounted Cash Flow ("DCF") Method**

5

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

7   A.   The basic DCF approach is rooted in valuation theory. It is based on the premise that

8   the value of a financial asset is determined by its ability to generate future net cash

9   flows. In the case of a common stock, those future cash flows take the form of

10   dividends and appreciation in stock price. The value of the stock to investors is the

11   discounted present value of future cash flows. The general equation then is:

12

13
$$V = \frac{R}{(1+r)} + \frac{R}{(1+r)^2} + \frac{R}{(1+r)^3} + ... \frac{R}{(1+r)^n}$$

14   *Where:*   *V = asset value*
15   *R = yearly cash flows*
16   *r = discount rate*
17

18

19   This is no different from determining the value of any asset from an economic point of

20   view; however, the commonly employed DCF model makes certain simplifying

21   assumptions. One is that the stream of income from the equity share is assumed to be

22   perpetual; that is, there is no salvage or residual value at the end of some maturity date

23   (as is the case with a bond). Another important assumption is that financial markets are

24   reasonably efficient; that is, they correctly evaluate the cash flows relative to the

1   appropriate discount rate, thus rendering the stock price efficient relative to other

2   alternatives. Finally, the model I employ also assumes a constant growth rate in

3   dividends. The fundamental relationship employed in the DCF method is described by

4   the formula:

5

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

6

7   *Where:* D_1 = *the next period dividend*
8   P_0 = *current stock price*
9   g = *expected growth rate*
10   k = *investor-required return*
11

12

13   Under the formula, it is apparent that "k" must reflect the investors' expected return.

14   Use of the DCF method to determine an investor-required return is complicated by the

15   need to express investors' expectations relative to dividends, earnings, and book value

16   over an infinite time horizon. Financial theory suggests that stockholders purchase

17   common stock on the assumption that there will be some change in the rate of dividend

18   payments over time. We assume that the rate of growth in dividends is constant over the

19   assumed time horizon, but the model could easily handle varying growth rates if we

20   knew what they were. Finally, the relevant time frame is prospective rather than

21   retrospective.

22

23   Q.   **What was your first step in conducting your DCF analysis for the Companies?**

24

1   A.   My first step was to construct a comparison group of companies with a risk profile that

2   is reasonably similar to the Companies. Since the Companies have consistent bond

3   ratings, my estimated cost of equity will apply to all three Companies.

4

5   Q.   **Please describe your approach for selecting a comparison group of electric**

6   **companies.**

7

8   A.   First, I reviewed the group of companies used by the PUCO Staff in its reports on the

9   Companies. According the to Staff reports, its group consisted of companies that are

10   publicly traded on the New York Stock Exchange and categorized in the sectors of

11   electric utilities, gas distribution utilities, and gas and electric utilities. The Companies

12   in the group have market capitalizations of greater than $1.5 billion, Value Line betas of

13   1.0 or less. For purposes of this case, I initially accepted Staff's group as a starting

14   point.

15

16   From Staff's group of 23 companies, I then eliminated those companies that derived less

17   than 50% of total revenues from electric operations. In my view, it is important to

18   include companies that derive at least half their revenues from regulated utility

19   operations. Unregulated operations could tend to be higher risk and have required

20   returns higher than those required by investors for safer, less risky regulated operations.

21

22   The resulting group of comparison electric companies I used in my analysis is shown in

23   the table below. The percentage of regulated revenues and bond ratings were taken from

J. Kennedy and Associates, Inc.

1   the January 2008 issue of *AUS Monthly Utility Report* published by AUS Utility

2   Reports.[1]

3

4

OHIO EDISON, CLEVELAND ELECTRIC, TOLEDO EDISON COMPARISON GROUP

		S&P Rating	Moody's Rating
1 AGL Resources	65%	A-	A3
2 Atmos Energy	57%	BBB	Baa3
3 Consolidated Edison	61%	A	A1
4 DPL, Inc.	100%	A-	A2
5 DTE Energy	51%	A-	A3
6 Entergy Corp.	80%	A-	Baa2
7 Exelon Corp.	58%	A-	A3
8 FirstEnergy Corp.	89%	BBB	Baa1
9 FPL Group	77%	A	Aa3
10 Piedmont Natural Gas	82%	A	A3
11 Pinnacle West	82%	BBB-	Baa2
12 PS Enterprise Gp.	63%	A-	A3
13 Southern Co.	98%	A	A1
14 WGL Holdings	57%	AA-	A2
15 Wisconsin Energy	64%	A-	Aa3
16 Xcel Energy	78%	A-	A3

5

6

7 **Q.   What was your first step in determining the DCF return on equity for the**

8   **comparison group?**

9

10 A.   I first determined the current dividend yield, D_0/P_0, from the basic equation. My general

11   practice is to use six months as the most reasonable period over which to estimate the

12   dividend yield. The six-month period I used covered the months from July through

---

1   Xcel Energy's latest Value Line beta is 1.05, which slightly exceeds Staff's criterion of 1.0. However, Xcel was included due to its bond ratings and high percentage of regulated electric revenues.

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1   December 2007. I obtained historical prices and dividends from Yahoo! Finance. The

2   annualized dividend divided by the average monthly price represents the average

3   dividend yield for each month in the period.

4

5   The resulting average dividend yield for the group is 3.70%. These calculations are

6   shown in Exhibit____(RAB-3).

7

8 **Q.** **Having established the average dividend yield, how did you determine the**

9   **investors' expected growth rate for the electric comparison group?**

10

11 **A.** The investors' expected growth rate, in theory, correctly forecasts the constant rate of

12   growth in dividends. The dividend growth rate is a function of earnings growth and the

13   payout ratio, neither of which is known precisely for the future. We refer to a perpetual

14   growth rate since the DCF model has no arbitrary cut-off point. We must estimate the

15   investors' expected growth rate because there is no way to know with absolute certainty

16   what investors expect the growth rate to be in the short term, much less in perpetuity.

17

18   In this analysis, I relied on three major sources of analysts' forecasts for growth. These

19   sources are Value Line, Zacks, and First Call/Thomson Financial.

20

21 **Q.** **Please briefly describe Value Line, Zacks, and First Call/Thomson Financial.**

22

1   A.   Value Line is an investment survey that is published for approximately 1,700

2   companies, both regulated and unregulated. It is updated quarterly and probably

3   represents the most comprehensive and widely used of all investment information

4   services. It provides both historical and forecasted information on a number of

5   important data elements. Value Line neither participates in financial markets as a broker

6   nor works for the utility industry in any capacity of which I am aware.

7

8   According to Zacks' website, Zacks "was formed in 1978 to compile, analyze, and

9   distribute investment research to both institutional and individual investors." Zacks

10   gathers opinions from a variety of analysts on earnings growth forecasts for numerous

11   firms including regulated electric utilities. The estimates of the analysts responding are

12   combined to produce consensus average and median estimates of earnings growth.

13

14   Like Zacks, First Call/Thomson Financial also provides detailed investment research on

15   numerous companies. First Call/Thomson also compiles and reports consensus analysts'

16   forecasts of earnings growth. I obtained the First Call/Thomson forecasts from Yahoo!

17   Finance.

18

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

20

21   A.   Return on equity analysis is a forward-looking process. Five-year or ten-year historical

22   growth rates may not accurately represent investor expectations for future dividend

23   growth. Analysts' forecasts for earnings and dividend growth provide better proxies for

1   the expected growth component in the DCF model than historical growth rates.

2   Analysts' forecasts are also widely available to investors and one can reasonably assume

3   that they influence investor expectations.

4

5   Q.   **How did you utilize your data sources to estimate growth rates for the comparison**

6   **group?**

7

8   A.   Exhibit____(RAB-4), pages 1-5, presents the details of the calculations for the Value

9   Line, Zacks, and First Call/Thomson Financial forecasted growth estimates. The Value

10   Line growth estimates are based on five-year forecasts for dividend growth and six-year

11   forecasts for earnings growth. The Zacks and First Call/Thomson Financial earnings

12   growth estimates are forecasts for the next five years. These earnings and dividend

13   growth estimates for the comparison group are summarized on Columns (1) through (5)

14   of page 1 of Exhibit____(RAB-4).

15

16   I also utilized the sustainable growth formula in estimating the expected growth rate.

17   The sustainable growth method, also known as the retention ratio method, recognizes

18   that the firm retains a portion of its earnings to fuel growth in dividends. These retained

19   earnings, which are plowed back into the firm's asset base, are expected to earn a rate of

20   return. This, in turn, generates growth in the firm's book value, market value, and

21   dividends.

22

23   The sustainable growth method is calculated using the following formula:

1
$$G = B \times R$$
2

3   *Where: G = expected retention growth rate*
4   *B = the firm's expected retention ratio*
5   *R = the expected return*
6

7   In its proper form, this calculation is forward-looking. That is, the investors' expected

8   retention ratio and return must be used in order to measure what investors anticipate will

9   happen in the future. Data on expected retention ratios and returns may be obtained

10   from Value Line.

11

12   The expected sustainable growth estimates for the comparison group are presented in

13   Column (3) on page 1 of Exhibit____(RAB-4). The data came from the Value Line

14   forecasts for the comparison group.

15

16 Q. **Mr. Baudino, do you have any concerns with respect to the analysts' forecasts**

17   **shown in Exhibit ____(RAB-4)?**

18

19 A. Yes. Certain electric utilities in my comparison group have excessive double-digit

20   dividend and earnings growth forecasts. Notably, Entergy, Exelon, Public Service

21   Enterprise Group and FPL Group have consensus growth forecasts of 10% or greater.

22   Value Line is also forecasting double digit earnings growth for DPL, Exelon, FPL

23   Group, and Public Service Enterprise Group.

24

1   In my opinion, these double-digit five to six-year forecasts do not reflect long-term

2   dividend and earnings growth for these companies. With respect to Entergy, Value

3   Line's report noted that improved nuclear operations, recovery of Hurricane Katrina

4   costs, fewer common shares, and rate increases will push 2007 earnings to record levels.

5

6   As for Exelon, Value Line noted that the expiration of below-market power contract in

7   Illinois in 2007 will benefit the company. Exelon is also buying back common stock,

8   thus reducing the base upon which earning per share is calculated.

9

10   Value Line also shows substantially higher earnings over the next few years for FPL

11   Group, which may be driving the consensus forecast of 10.6% from Zacks. Contributing

12   factors cited by Value Line are improved conditions for wholesale sales and the lack of

13   costs from the company's failed merger attempt with Constellation Energy.

14

15   In the case of Public Service Enterprise Group, Value Line is forecasting a 80% increase

16   in earnings from 2006 to 2007. Value Line cited higher electric and gas transmission

17   rates and the absence of merger related costs from last year's failed merger with Exelon

18   as contributing factors to this huge earnings increase.

19

20   In conclusion, I believe that the double-digit growth forecasts for certain companies in

21   my comparison group are due to special circumstances in the near term and do not

22   represent long-term earnings or dividend growth expectations beyond the next five year

23   period.

1

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

3

4   **A.**   For purposes of this case, I looked at three different methods for calculating the expected

5   growth rates for my comparison group.

6

7   For Method 1, I calculated the average of all the growth rates for the Companies in my

8   comparison group using Value Line, Zacks, and First Call/Thomson.

9

10   For Method 2, I calculated the median growth rates for my comparison group. The

11   median value represents the middle value in a data range and is not influenced by

12   excessively high or low numbers in the data set. The median growth rate for each

13   forecast provides additional valuable information regarding expected growth rates for

14   the group.

15

16   For Method 3, I omitted double-digit growth rates and growth rates that were near zero

17   (less than or equal to 1%) from the calculation of the averages. This is similar to

18   omitting the high and low values from the calculation. These calculations are shown on

19   page 1 of Exhibit ____(RAB-4). The expected growth rates produced by all three

20   methods range from 3.86% to 7.82%.

21

22   **Q.**   **How did you proceed to determine the DCF return of equity for the electric**

23   **comparison group?**

1

2   A.   To estimate the expected dividend yield (D_1) for the group, the current dividend yield

3   must be moved forward in time to account for dividend increases over the next twelve

4   months. I estimated the expected dividend yield by multiplying the current dividend

5   yield by one plus one-half the expected growth rate. I should note that for Method 3, I

6   excluded the dividend yields for companies whose growth rates were excluded from

7   each respective source.

8

9   I then added the expected growth rates to the expected dividend yield. The calculations

10   of the resulting DCF returns on equity for both methods are presented on page 5 of

11   Exhibit ____(RAB-4).

12

13   Q.   **Please explain how you calculated your DCF cost of equity estimates.**

14

15   A.   Page 5 of Exhibit ____(RAB-4) presents the DCF results utilizing three different

16   methods. Method 1 utilizes the average growth rates for the comparison group. I used

17   the Value Line earnings and dividend growth forecasts and the consensus analysts'

18   forecasts. The average DCF cost of equity result is 10.56%. The midpoint of the four

19   growth rates is 10.27%.

20

21   Method 2 employs the median growth rates from Value Line, Zacks, and First

22   Call/Thomson. The average DCF return on equity is 9.15% and the midpoint of the

23   results is 8.98%

1

2   Method 3 employs the growth rates for the group excluding double digit growth

3   forecasts and forecasts less than or equal to 1.0%. The average of these growth rates

4   results in a DCF estimate of 9.40%. The midpoint of the growth rates results in a DCF

5   estimate of 9.14%.

6

7   When considered in total, Methods 1, 2, and 3 produce a range of returns from 8.98% to

8   10.56%. The midpoint of this range is 9.77%.

9

10   Based on these results, I recommend that the Commission adopt a return on equity for

11   the Companies of 9.70%.

12

13   **Capital Asset Pricing Model**

14

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

16

17   **A.**   The theory underlying the CAPM approach is that investors, through diversified

18   portfolios, may combine assets to minimize the total risk of the portfolio.

19   Diversification allows investors to diversify away all risks specific to a particular

20   company and be left only with market risk that affects all companies. Thus, the CAPM

21   theory identifies two types of risks for a security: company-specific risk and market risk.

22   Company-specific risk includes such events as strikes, management errors, marketing

23   failures, lawsuits, and other events that are unique to a particular firm. Market risk

1   includes inflation, business cycles, war, variations in interest rates, and changes in

2   consumer confidence. Market risk tends to affect all stocks and cannot be diversified

3   away. The idea behind the CAPM is that diversified investors are rewarded with returns

4   based on market risk.

5

6   Within the CAPM framework, the expected return on a security is equal to the risk-free

7   rate of return plus a risk premium that is proportional to the security's market, or

8   nondiversifiable risk. Beta is the factor that reflects the inherent market risk of a

9   security and measures the volatility of a particular security relative to the overall market

10   for securities. For example, a stock with a beta of 1.0 indicates that if the market rises

11   by 15%, that stock will also rise by 15%. This stock moves in tandem with movements

12   in the overall market. Stocks with a beta of 0.5 will only rise or fall 50% as much as the

13   overall market. So with an increase in the market of 15%, this stock will only rise 7.5%.

14   Stocks with betas greater than 1.0 will rise and fall more than the overall market. Thus,

15   beta is the measure of the relative risk of individual securities vis-à-vis the market.

16

17   Based on the foregoing discussion, the equation for determining the return for a security

18   in the CAPM framework is:

19   $$K = Rf + \beta(MRP)$$

20   *Where:*   *K*   *= Required Return on equity*
21   *Rf*   *= Risk-free rate*
22   *MRP = Market risk premium*
23   *β*   *= Beta*
24

1   This equation tells us about the risk/return relationship posited by the CAPM. Investors

2   are risk averse and will only accept higher risk if they receive higher returns. These

3   returns can be determined in relation to a stock's beta and the market risk premium. The

4   general level of risk aversion in the economy determines the market risk premium. If

5   the risk-free rate of return is 3.0% and the required return on the total market is 15%,

6   then the risk premium is 12%. Any stock's required return can be determined by

7   multiplying its beta by the market risk premium. Stocks with betas greater than 1.0 are

8   considered riskier than the overall market and will have higher required returns.

9   Conversely, stocks with betas less than 1.0 will have required returns lower than the

10   market as a whole.

11

12   **Q.**   **In general, are there concerns regarding the use of the CAPM in estimating the**

13   **return on equity?**

14

15   **A.**   Yes. As briefly discussed earlier, there is some controversy surrounding the use of the

16   CAPM.[2] There is evidence that beta is not the primary factor in determining the risk of

17   a security. For example, Value Line's "Safety Rank" is a measure of total risk, not its

18   calculated beta coefficient. Beta coefficients usually describe only a small amount of

19   total investment risk. Finally, a considerable amount of judgment must be employed in

20   determining the risk-free rate and market return portions of the CAPM equation. The

21   analyst's application of judgment can significantly influence the results obtained from

---

[2]   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.

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1   the CAPM. My past experience with the CAPM indicates that it is prudent to use a wide

2   variety of data in estimating returns. Of course, the range of results may also be wide,

3   indicating the difficulty in obtaining a reliable estimate from the CAPM.

4

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

6

7   **A.**   The first source I used was the Value Line Investment Survey for Windows for

8   December 7, 2007. Value Line provides a summary statistical report detailing, among

9   other things, forecasted growth in dividends, earnings, and book value for the

10   Companies Value Line follows. I have presented these three growth rates and the

11   average on page 3 of Exhibit ____(RAB-5). The average growth rate is 11.70%.

12   Combining this growth rate with the average expected dividend yield of the Value Line

13   companies of 1.42% results in an expected market return of 13.12%. The detailed

14   calculations are shown on pages 1 and 2 of Exhibit ____(RAB-5).

15

16   I also considered a supplemental check to this market estimate. Morningstar publishes a

17   study of historical returns on the stock market in its *Stocks, Bonds, Bills, and Inflation*

18   *2007 Yearbook.* Some analysts employ this historical data to estimate the market risk

19   premium of stocks over the risk-free rate. The assumption is that a risk premium

20   calculated over a long period of time is reflective of investor expectations going

21   forward. Exhibit ____(RAB-6) presents the calculation of the market return using the

22   historical data.

23

1   Q.   **Please address the use of historical earned returns to estimate the market risk**

2   **premium.**

3

4   A.   The use of historic earned returns on the S&P 500 to estimate the current market risk

5   premium is rather suspect because it naively assumes that investors currently expect

6   historic risk premiums to continue unchanged into the future regardless of present or

7   forecasted economic conditions. Brigham, Shome, and Vinson noted the following with

8   respect to the use of historic risk premiums calculated using the returns as reported by

9   Ibbotson and Sinquefield (referred to in the quote as "I&S"):

10

11   There are both conceptual and measurement problems with using I&S
12   data for purposes of estimating the cost of capital. Conceptually, there
13   is no compelling reason to think that investors expect the same relative
14   returns that were earned in the past. Indeed, evidence presented in the
15   following sections indicates that relative expected returns should, and
16   do, vary significantly over time. Empirically, the measured historic
17   premium is sensitive both to the choice of estimation horizon and to the
18   end points. These choices are essentially arbitrary, yet can result in
19   significant differences in the final outcome.[3]
20

21   In summary, the use of historic earned returns should be viewed with a great deal of

22   caution. There is no real support for the proposition that an unchanging, mechanically

23   applied historical risk premium is representative of current investor expectations and

24   return requirements.

25

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

---

[3]   Brigham, E.F., Shome, D.K. and Vinson, S.R., "The Risk Premium Approach to Measuring a Utility's Cost of

1

2   A.   I used the average yields on the 20-year Treasury bond and five-year Treasury note over

3   the six-month period from June through November 2007[4]. The 20-year Treasury bond is

4   often used by rate of return analysts as the risk-free rate, but it contains a significant

5   amount of interest rate risk. The five-year Treasury note carries less interest rate risk

6   than the 20-year bond and is more stable than three-month Treasury bills. Therefore, I

7   have employed both of these securities as proxies for the risk-free rate of return. This

8   approach provides a reasonable range over which the CAPM may be estimated.

9

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

11

12 A.   Exhibit ____(RAB-5), line 9 of page 1, presents my estimates of the market risk

13   premium based on a DCF analysis applied to current market data. The market risk

14   premium is 8.17% using the 20-year Treasury bond and 8.72% using the five-year

15   Treasury bond.

16

17   Utilizing the historical Ibbotson data on market returns, the market risk premium ranges

18   from 5.20% to 7.10%. This is shown on Exhibit ____(RAB-6).

19

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

21

Equity," *Financial Management*, Spring 1985, pp. 33-45.
4   The Federal Reserve data did not include the December 2007 yields at the time this analysis was
    prepared.

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1   A.   I obtained the betas for the Companies in the electric company comparison group from

2   most recent Value Line reports and from First Call/Thomson. The average of the Value

3   Line and First Call/Thomson betas for the electric group is .86 and .68, respectively.

4   I should note that the First Call/Thomson betas are based on 152 weeks of data and are

5   unadjusted for the tendency of historical betas to revert to 1.0. Therefore, I adjusted the

6   raw betas using the following adjustment formula:

7

8   *Adjusted beta = .3333 + (.6666 * Unadjusted beta)*[5]

9

10   Making this adjustment raises the First Call Thomson average beta from 0.51 to 0.68.

11

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

13

14 A.   The CAPM results using the 20-year and five-year Treasury bond yields and Value Line

15   market return data range from 10.29% to 11.95% (See line 14 of pages 1 and 2 of

16   Exhibit ____(RAB-5)).

17

18   The CAPM results using the historical Ibbotson data range from 8.46% to 11.03%.

19   These results are shown on Exhibit ____(RAB-6).

20

21 <u>**Conclusions and Recommendations**</u>

---

5   The formula may be found in the text *New Regulatory Finance* by Roger A Morin, pg. 74.

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1

2 Q. **Please summarize the cost of equity you recommend the Commission adopt for**

3   **Ohio Edison, Cleveland Electric Illuminating, and Toledo Edison.**

4

5 A. I recommend that the Commission adopt the DCF model I developed and the cost of

6   equity estimates for the comparison group of electric and gas utility companies that I

7   compiled. The results for the comparison group using the constant-growth DCF model

8   and the expected growth rate forecasts ranged from 8.98% to 10.56%. Based on this

9   range of results, I recommend that the Commission adopt a 9.70% return on equity for

10   the Companies in this proceeding.

11

12   My recommendation in this case is based on a DCF growth rate analysis that is

13   somewhat different from the approach I have taken in past cases. As I mentioned earlier

14   in my testimony, there are a number of double-digit growth forecasts for certain

15   companies in my comparison group that are not expected to hold for the long term.

16   Including all of these growth rates in the analysis will overstate the DCF results.

17   Therefore, I presented three alternative growth rate scenarios that provide a broader and

18   more realistic range of possible investor required returns. My recommendation of

19   9.70% is near the midpoint of all three methods and conservatively mitigates the effects

20   of some of these excessive growth forecasts.

21

22 Q. **Many of your CAPM results are higher than your DCF results. Why did you not**

23   **take this into account in your recommended return on equity?**

1

2   A.   Although I would note that my proposed rate of return on equity of 9.70% falls well

3   within the CAPM range, it is my opinion that the CAPM results for the comparison

4   group are likely overstated at this time for a number of reasons.

5

6   First, this overstatement is due, in part, to the application of Value Line's beta for the

7   group of .86. Value Line determines its betas based on five years of historical price

8   data. Over the last five years, utility share prices in general have been quite volatile due

9   to restructuring, deregulation, the California energy crisis, and the increase of

10   unregulated investments that were more risky than core electric operations. These

11   factors may have increased Value Line's historical betas for electric utilities, other

12   things being equal. It now appears that the industry will be more stable going forward

13   and, in my opinion, historical betas are likely to fall from their current level. In fact,

14   First Call/Thomson shows adjusted betas for the comparison companies that are

15   significantly lower than Value Line's betas, supporting a much lower range of CAPM

16   results than the Value Line betas.

17

18   Second, a recent study by Ibbotson and Chen[6] suggests that the historical risk premiums

19   I presented in Exhibit____(RAB-6) may be too high. The Ibbotson/Chen study

20   estimated a revised risk premium that factors out rising price/earnings ("P/E") ratios

21   over time, which inflated achieved historical returns. The assumption in this analysis is

---

6   *Stocks, Bonds, Bills, and Inflation 2007 Yearbook*, Morningstar, pp. 172 - 176.

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1   that price/earnings ratios would not be expected to rise continuously into the future. The

2   results of the study indicate a revised historical risk premium of 4.33% to 6.35%, well

3   below the historical risk premiums of 5.2% to 7.1% shown in Exhibit ____(RAB-6).

4   Incorporating the lower revised risk premiums from the Ibbotson/Chen study would

5   result in CAPM estimates of 7.86% to 10.39%, which would place my proposed rate of

6   return on equity of 9.70% above the midpoint of that range. These results are also

7   shown on Exhibit ____(RAB-6).

8

9   **Q.   In Section II of your Direct Testimony, you mention the passage of the 2003 tax bill**

10   **that reduced taxes on qualifying dividends to 15%. Do you believe that this**

11   **reduced tax rate on dividends has affected the investor required returns for electric**

12   **utility companies?**

13

14 A.   *Yes. As I stated earlier, I believe that the new favorable tax rate on dividends has*

15   reduced the investors' required pre-tax cost of equity for electric utilities. Basic

16   economic theory supports this proposition.

17

18   Prior to the passage of the 2003 tax bill, dividends were taxed at the normal tax rates,

19   which could be as high as 35%. These same dividends are now being taxed at a much

20   lower 15% rate. What this means is that for a given after-tax rate of return, such as 7%

21   for example, an investor would now require a lower pre-tax return in order to earn that

22   7% after-tax return. In the realm of regulation, experts must estimate, and commissions

1   must set, a pre-tax rate of return on equity that will be applied to a company's rate base.

2   With lower tax rates on dividends, these pretax returns will inevitably decline.

3

4   In conclusion, other things being equal, the reduction in dividend taxation should lead to

5   lower required returns for investors. When viewed from this perspective, a 9.70% return

6   on equity for OEC, CEIC, and TEC is quite reasonable.

7

1   **IV. RESPONSE TO COMPANIES' WITNESS VILBERT**
2   **AND THE PUCO STAFF REPORT**
3

4   *Response to Dr. Vilbert*

5 **Q.**   **Please summarize your conclusions with respect to the Direct Testimony of the**

6   **Companies witness Michael Vilbert.**

7 **A.**   My conclusions with respect to Dr. Vilbert's testimony are as follows.

8

9   Dr. Vilbert's use of the market-value capital structure as an input for estimating the

10   return on equity for the Companies is inappropriate, inconsistent with good ratemaking

11   policy, financially harmful to ratepayers, and should be rejected in total by the

12   Commission.

13

14   Dr. Vilbert's use of the market-value capital structure and the after-tax weighted average

15   cost of capital ("ATWACC") for his proxy group inflated his return on equity estimates

16   for the Companies.

17

18   Dr. Vilbert's risk positioning results are overstated due to the use of Value Line

19   historical betas and a high market premium.

20

21   Dr. Vilbert's DCF results are overstated because of unsustainably high earnings growth

22   forecasts, a failure to use dividend growth forecasts, and the use of quarterly

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1   compounding.

2

3   <u>**Market-value Capital Structure**</u>

4 **Q.** **Briefly describe how Dr. Vilbert applied the market-value capital structure**

5   **concept in estimating the return on equity for the Companies.**

6 **A.** Dr. Vilbert began by calculating market values for equity and debt for each company in

7   his proxy group of electric companies. Regarding common equity, he calculated a 5-

8   year average market value common equity ratio for each company and used that value in

9   his risk positioning analysis. For his DCF ATWACC calculations, Dr. Vilbert used 4th

10   quarter 2006 balance sheet information and applied each company's stock price based

11   on a 15-day average of closing prices.

12

13   The 5-year average market value equity ratio for his proxy group of companies was

14   58%. The DCF average market value equity ratio for his proxy group was 65%. The

15   market-to-book ("M/B") ratios of common equity ranged from 1.41 to 3.07 in his DCF

16   capital structure.

17

18   Dr. Vilbert then estimated the return on equity for his comparison group using his risk

19   positioning approaches and two DCF approaches. He calculated the ATWACC for his

20   companies using the formula presented on page 14 of his Direct Testimony.

21

1   Finally, Dr. Vilbert backed into the return on equity for the Companies by applying his

2   ATWACC values for the group to the Companies' capital structure. The calculations

3   are shown on Table Nos. MJV-8 and MJV-12. Because the Companies' book equity

4   ratio (49%) was less than the market-value equity ratios for his electric group, the fallout

5   return on equity for the Companies was substantially higher than the return on equity for

6   his group. I will provide more detail on this later in my testimony.

7 **Q.** **Is it appropriate to estimate the return on equity for the Companies using market**

8   **value capitalization for a proxy group of companies?**

9 A. No. This practice is highly inappropriate for the following reasons.

10

11   First, setting the allowed cost of capital for ratemaking purposes properly utilizes book

12   values of common equity, preferred stock, and long-term debt. The actual book values

13   of capitalization support the utility's investment in plant in service. With respect to the

14   allowed return on common equity, commissions utilize market returns on book value in

15   order to fairly compensate the equity investor for the use of his or her capital. Market-

16   based returns are used for common equity because unlike debt, there is no contractual

17   cost for common equity. *Thus, the return on equity must be determined using current*

18   *market data, and then applied to the percentage of equity in capital structure based on*

19   *book value.*

20

21   The market value of equity is calculated in a different manner than the book value of

22   equity. Book value is based on the proceeds of common stock issuances and on retained

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1   earnings by the firm. The market value of common equity is calculated by multiplying

2   the total number of common shares by the current stock price.

3

4   Given the vicissitudes of the stock market, the market value of common equity is far less

5   stable than the book value of equity. The market value of common equity can fluctuate

6   widely due to numerous economic factors that affect stock prices. From a ratemaking

7   perspective, then, it is not only more appropriate, but also more desirable to use the book

8   value of common stock as the basis for calculating the return on equity.

9

10   In his book *New Regulatory Finance*, Dr. Roger Morin pointed out the following with

11   respect to the use of market-value weights in measuring the cost of capital for regulated

12   utilities:

13

14   The usage of book value weights is defended on additional grounds. First, the
15   relationship of debt and equity at book value is an expression of the utility's
16   long-term target capital structure policy. If incremental funds are raised in
17   proportions such that a target debt/equity ratio in book value terms is
18   maintained, the earnings requirements to cover capital costs must be computed
19   using the actual weights in which funds are raised, that is, book value weights.
20   Second, book value proportions are much more stable relative to market value.
21   Hence their presentation to regulatory authority avoids the vagaries introduced
22   by variability of market values. Lastly, if regulation performs adequately, the
23   book value and market value of equity will eventually be driven toward equality
24   under ideal conditions.
25
26   One serious drawback of using market values is the circularity issues, that is, by
27   awarding a utility its market-value based ATWACC, the regulator is forced to
28   rubberstamp existing market values that may in turn reflect unfair and
29   unreasonable rates. Since market value depends on how investors expect the
30   regulators to act, it should be the end result and not the starting point. Adopting
31   market values amounts to a commitment to confirm investors' expectations
32   regardless of what they are based on. A regulator's fundamental responsibility is

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1   the setting of fair and reasonable rates and not the creation or destruction of

2   shareholder value.[7]

3

4   **Q.**   **Please continue.**

5

6   A.   Second, Dr. Vilbert's application of his ATWACC formula will always overstate the

7   return on equity for his subject company whenever the M/B ratio is greater than 1.0 for

8   his proxy companies. This is because the ATWACC is calculated using the ROE from

9   each of Dr. Vilbert's methods multiplied by the market-value percentage of equity, not

10   the book value. When Dr. Vilbert applied his group ATWACC to the Companies, the

11   fallout ROE for the Companies is significantly higher than the average ROE for the

12   group. A comparison of Dr. Vilbert's group average ROEs and the ROE that falls out

13   for the Companies from the application of his ATWACC formula is as follows:

14

15		Proxy Group	Companies
16	CAPM	10.6% - 10.8%	11.8% - 12.1%
17	ECAPM	10.7% - 11.2%	11.9% - 12.5%
18	Simple DCF	11.0%	13.4%
19	Multi-stage DCF	9.5%	11.2%

20

21   The higher ROEs for the Companies are driven by the application of the ATWACC

22   numbers for Dr. Vilbert's proxy group, which has a higher average equity ratio because

23   it is based on market values, not book values. For example, referring to Table No. MJV-

24   7, Panel A, the market value equity ratio for the proxy group is 65%, compared to the

---

7   Roger A. Morin (2006), *New Regulatory Finance*, Public Utilities Reports, Inc., pp. 452 - 453.

1   Companies' book value equity ratio of 49%. When Dr. Vilbert applies the ATWACC of

2   8.5% to the Companies' capital structure in Table No. MJV-8, the fallout return on

3   equity is 13.4%, *an increase of 240 basis points for the Companies compared to the*

4   *proxy group.* This is just simple arithmetic and shows the effect of the mismatch

5   between market values and book values inherent in Dr. Vilbert's analysis.

6

7   Clearly, it is the market-to-book ratios for the proxy group that are driving Dr. Vilbert's

8   ROE recommendation for the Companies. If the market-to-book ratios for this group

9   had been close to 1.0, the ATWACC would have been much lower, as would the

10   resulting fallout ROE for the Companies.

11 **Q.**   **Is it appropriate to increase ROE estimates from the DCF and CAPM to account**

12   **for market-to-book ratios that are greater than 1.0?**

13 **A.**   No. It is inappropriate to inflate market-based ROE calculations from the DCF or

14   CAPM with an adjustment for market-to-book ratios that are greater than 1.0. Market

15   prices can deviate from book value for any number of reasons. For example, investors

16   may expect utilities to earn more than their required rate of return on equity, which

17   would cause an increase in market stock prices above book value per share. In uncertain

18   times, investors may view regulated utilities as safe investments, causing a flight to

19   quality and thereby bidding up stock prices.

20

21   Market based cost of equity estimates applied to the book value of equity is the

22   appropriate means in setting a fair rate of return on invested capital for a regulated

1   utility. This is consistent with commonly accepted regulatory practice. Results from the

2   DCF and CAPM should not be adjusted upward to account for or to prop up high

3   market-to-book ratios, as Dr. Vilbert has done in this case. Dr. Vilbert's market-value

4   capital structure approach is biased in favor of shareholders and results in financial harm

5   to ratepayers.

6   **Q.   Does it make economic sense that the Companies would have a required ROE 120**

7   **to 240 basis points greater than Dr. Vilbert's proxy group?**

8   A.   No, it makes no economic sense whatsoever. Dr. Vilbert selected his group based on

9   overall risk comparability to the Companies. Dr. Vilbert's group has a mixture of BBB

10   and A rated companies, with MDU having a AA rating. This compares to the Ohio

11   Companies' bond ratings of BBB/Baa, which is quite close to his group's average bond

12   rating. Further, Dr. Vilbert's Workpaper #1 to Table No. MJV-11 shows only a 26 basis

13   point (0.26%) difference in the average yield of A-rated and BBB-rated bonds. The 120

14   to 240 basis point difference between the ROEs for Dr. Vilbert's group and his fallout

15   ROE for the Companies is unreasonable, unjustified, and should be rejected by the

16   Commission.

17   **Q.   Have you evaluated the book equity ratios for Dr. Vilbert's proxy group of electric**

18   **companies?**

19   A.   Yes. I calculated the book equity ratios for Dr. Vilbert's group using the 2006 book

20   values for common and preferred equity and long-term debt that he presented in Table

1   No. MJV-3. The equity ratios for each company and the average for the group are

2   presented below.

3

4

VILBERT PROXY GROUP 2006 BOOK EQUITY RATIOS	
Cleco Corp	55.96%
Consolidated Edison Inc	47.32%
Empire District Electric Co/The	49.38%
Entergy Corp	45.86%
MGE Energy Inc	59.80%
NSTAR	37.09%
Pinnacle West Capital Corp	51.59%
PPL Corp	38.63%
Southern Co	42.19%
Average	47.54%

5

6

7   Interestingly, the group average common equity ratio for Dr. Vilbert's group is *lower*

8   than the ratemaking equity ratio proposed by the Company of 49%.

9

10   Using the actual book value capital structures for Dr. Vilbert's proxy group, the

11   Companies have lower financial risk than the proxy group. This is the proper

12   comparison to make with respect to relative financial risk between the Companies and

13   the proxy group. Dr. Vilbert's analysis mismatches market value equity ratios for his

14   group with the book value equity ratio for the Companies, suggesting that the

1 Companies have higher financial risk than the proxy group. This is erroneous and

2 should be rejected by the Commission.

3 Q. **Is it likely that investors would use Dr. Vilbert's ATWACC calculations in the**

4 **determination of their required ROE?**

5 A. No. I doubt that investors would take the complicated and circuitous route to required

6 return on equity that Dr. Vilbert proposed in his Direct Testimony. Instead, it is much

7 more likely that investors would take a more direct approach and use market data on

8 stock prices and expected growth to estimate a DCF return on equity.

9

10 **Risk Positioning**

11 Q. **On page 2 of his Direct Testimony, Dr. Vilbert testified that he relied more on the**

12 **risk positioning method because he does not believe that the DCF method is**

13 **completely reliable at this time. Please respond to this position.**

14 A. As I demonstrated in Section III and as I will show subsequently, it is the risk

15 positioning and CAPM approaches that are far less reliable than the DCF model. Just

16 choosing a market risk premium ("MRP") involves evaluating a very wide range of

17 possibilities. Many of these possible choices for the MRP likely overstate current

18 investor requirements. The correct beta factor is also problematic given the historical

19 data upon which this factor is based. Although judgment must also be applied when

20 using the DCF, it is a far more reliable and straightforward exercise than formulating a

1   risk premium or CAPM analysis. I will show why this is the case in the following

2   discussion of Dr. Vilbert's risk positioning analyses.

3 Q. **On page C-16 of Appendix C, Dr. Vilbert described how he used Value Line betas**

4   **in his CAPM calculations, which ranged from 0.70 to 1.30. Please comment on his**

5   **use of Value Line betas.**

6 A. For the reasons I stated in Section III of my testimony, I believe that current Value Line

7   betas may overstate investors' expected beta. The CAPM, like other methods of

8   estimating the cost of equity, should be forward-looking. Now that the regulated electric

9   industry is entering a more stable environment compared to the last few years, it is my

10   view that expected betas should be lower than historical betas that are calculated based

11   on five years of historical information. Thus, Dr. Vilbert's average proxy group beta of

12   0.88 most likely does not reflect lower expected risk of regulated electric operations.

13 Q. **After reviewing a number of articles and other market data, Dr. Vilbert chose to**

14   **use an estimate of 6.5% for the market risk premium for average risk stocks over**

15   **long-term government bonds in his CAPM analysis (page C-8). Please comment on**

16   **the appropriateness of this estimate.**

17 A. In my opinion, Dr. Vilbert's MRP estimate of 6.5% is overstated.

18

19   I described the problem with using historical risk premiums earlier in my testimony.

20   This approach naively assumes that earned returns and the resulting risk premiums in an

21   historical period are reflective of current investor expectations. Such assumptions

1   should be viewed with a good deal of skepticism. Given changing investor expectations

2   over time, it is risky to assume that investors base their current required returns on an

3   unchanging historical risk premium. Finance literature has shown that historical risk

4   premiums change over time. Although historical risk premiums may provide rough

5   guides to estimating current required returns, I believe that it is preferable to place

6   greater weight on DCF calculations that employ current, rather than historic, data.

7

8   It should also be noted that the recent change in dividend taxation should reduce the

9   expected risk premium of utility stock returns over bonds going forward, other things

10   being equal. As I stated earlier in my testimony, reduced taxation on dividends should

11   lower the investor's required pre-tax return on equity. Since there was no change in the

12   tax treatment of bond income, the required equity premium over bonds should decline

13   going forward. Thus, historical risk premiums likely overstate the current required risk

14   premiums of utility stocks over bonds.

15

16   I would also point to my CAPM analyses, which included MRPs that were substantially

17   lower than 6.5%, notably the Ibbotson/Chen study that suggested a MRP in the range of

18   4.3% - 6.35% using geometric and arithmetic historical returns, respectively.

19   Q.   Should the geometric mean risk premium be considered in a CAPM/risk premium

20   analysis?

21   A.   Yes. The geometric mean of historical returns should be included in estimating the

22   CAPM. The geometric mean provides important information to the investor about the

1   actual yearly return of the market over a long period of time. In my opinion, this published

2   and widely available information is valuable to investors and should be used in

3   conjunction with the arithmetic mean in estimating a range for the investor expected risk

4   premium going forward. Of course, the concerns I stated in my Direct Testimony

5   regarding the use of historical risk premiums are still valid.

6 Q. **On pages C-4 through C-8, Dr. Vilbert summarized some recent finance literature on**

7   **the MRP. Please comment on this section of his Appendix C.**

8 A.   The Harris and Marston study cited by Dr. Vilbert estimates a MRP over long-term

9   government bonds of 7.14% based on a study period of 1982 - 1998. Dr. Vilbert also

10   cited a study by Kaplan and Ruback, which estimated a MRP of 7.78% - 7.97% based on

11   a very short time period of 1983 - 1989. The problem with these studies is that risk

12   premiums measured over such short time periods may not give meaningful results to

13   present investor expected risk premiums going forward. Risk premiums can change

14   significantly over time given changes in the economy and in investor preferences. In my

15   opinion, it is ill advised to consider such short-term risk premiums in the estimation of

16   return on equity for the Companies.

17

18   With respect to the surveys by Professor Ivo Welch, Dr. Vilbert himself cautioned that

19   "the outcome is likely to change quickly with changing market circumstances." If this is

20   the case, then it is difficult to make firm conclusions about the MRP range from these

21   surveys of 5.5% to 7.1%. It is interesting to note that the most recent survey put the

22   MRP at 5.5%, the lowest of all three survey results.

1   Q.   **On pages 19 through 20 of his Direct Testimony, Dr. Vilbert explains his use of the**

2   **Empirical CAPM ("ECAPM") to estimate the cost of equity for the Companies.**

3   **Please comment on the use of the ECAPM.**

4   A.   The ECAPM is supposed to account for the possibility that the CAPM understates the

5   return on equity for companies with betas less than 1.0. I believe it is highly unlikely

6   that investors use the ECAPM equation shown by Dr. Vilbert on page 21 to "correct"

7   CAPM returns for electric utilities. To the extent investors use the CAPM to estimate

8   their required returns, I believe it is much more likely that they use the traditional

9   CAPM equation that I used in Section III of my testimony. Dr. Vilbert presented no

10   evidence that investors use the Alpha factors (0.5% - 3.0%) contained in his ECAPM

11   analyses.

12

13   Moreover, the use of the Alpha factor to "correct" the CAPM results for companies with

14   betas less than 1.0 shows just how fragile the CAPM can be in estimating the investor

15   required return for regulated electric companies.

16

17   **<u>DCF</u>**

18   Q.   **Please summarize Dr. Vilbert's approach to the DCF model and its results.**

19   A.   Using a proxy group of nine electric companies, Dr. Vilbert utilized a constant growth

20   approach and a multi-stage growth model in his DCF calculations. He employed analysts'

21   forecasts of earnings growth from Value Line and Bloomberg to estimate the growth

22   component of the constant growth model. His multi-stage growth method uses analysts'

1   earnings forecasts for the first five years, then expected growth in Gross Domestic Product

2   of 5.1% for the long-term growth component. Dr. Vilbert's DCF results ranged from 9.5%

3   to 11.0%.

4   Q.   **Did Dr. Vilbert consider dividend growth forecasts in his DCF analysis?**

5   A.   No. Dr. Vilbert failed to include lower dividend growth forecasts from Value Line in his

6   analysis. Recent comments by Value Line underscore the importance of dividend growth

7   for investors:

8   The current average dividend yield for the stocks in this industry
9   is around 3.4%. That's less income than an investor would
10   receive by buying a 10-year U.S. Treasury note, but stocks also
11   offer the prospect of dividend growth. Many of the stocks in this
12   industry offer good dividend-growth potential over the 3- to 5-
13   year period. Note, though, that some of this growth is coming
14   off a reduced base, and some dividends won't return anytime
15   soon to the level where they were cut. (Value Line Investment
16   Survey, Electric Utilities (West), November 10, 2006)

17

18   In my view, this Value Line article points out the fact that expected "good" dividend

19   growth for electric utilities is valued by investors and is likely taken into account in their

20   expected market returns. I do not believe it is appropriate to exclude dividend growth

21   forecasts merely because they are somewhat lower than earnings growth forecasts at this

22   time.

23

24   As I pointed out in Section III of my testimony, there is evidence to suggest that earnings

25   growth forecasts for certain companies may be overstated at this time. Therefore, it is

1   prudent to consider a full range of dividend and earnings growth forecasts in estimating the

2   cost of equity for the Companies.

3 **Q.**   **Did you calculate Value Line's forecasted dividend growth for the Companies in Dr.**

4   **Vilbert's group?**

5 **A.**   Yes. The following table presents Value Line's forecasted dividend growth rates for the

6   Companies in Dr. Vilbert's proxy group. I calculated the average and the median growth

7   rates for this group.

VALUE LINE FORECASTED DIVIDEND GROWTH DR. VILBERT'S PROXY ELECTRIC GROUP	
Cleco Corp.	6.50%
Consolidated Edison	1.00%
Empire District	1.00%
Entergy Corp.	10.00%
MGE Energy	0.50%
NSTAR	7.00%
Pinnacle West	4.00%
PPL Corp.	15.00%
Southern Co.	4.00%
Average	5.44%
Median	4.00%
Source: Value Line Investment Survey, Nov. 9 & 30, December 28, 2007	

8

9

10   The average forecasted dividend growth rate for Dr. Vilbert's proxy group is 5.44%,

11   with a median value of 4.0%. These growth rates are much lower than the 7.00%

12   average of his earnings growth forecasts. For the reasons I cited earlier, lower near-term

13   expected dividend growth rates should be factored into the DCF analysis. Failing to

1   include forecasted dividend growth in his analysis caused Dr. Vilbert to overstate the

2   return on equity in his DCF models.

3   Q. **What is your conclusion with respect to Dr. Vilbert's multi-stage DCF analysis?**

4   A. I recommend that Dr. Vilbert's multi-stage DCF analysis be rejected.

5

6   First, Dr. Vilbert's multi-stage analysis fails to include forecasted dividend growth,

7   which is expected to be lower than earnings growth over the next five years. Since this

8   is the case, it makes sense to use forecasted dividend growth for the first stage, not an

9   average of analysts' earnings growth forecasts. Using forecasted earnings growth will

10   overstate the first stage of the growth rate.

11

12   Second, I generally do not agree with using a forecast of GDP as a proxy for expected

13   electric utility dividend growth, although the GDP forecast at this time is actually less

14   than expected earnings growth. It is preferable to use utility specific growth forecasts

15   whenever possible as the best proxies for investors' growth rate expectations.

16 Q. **Did Dr. Vilbert use quarterly compounding in the calculation of his "Simple DCF**

17   **Method" on Table No. MJV-6?**

18 A. Yes. For each company in his proxy group, Dr. Vilbert calculated a quarterly dividend

19   yield, multiplied the quarterly dividend yield by 1 plus a quarterly growth rate, then

20   added the quarterly growth rate to the quarterly dividend yield. This result was raised to

21   the 4th power, or compounded over 4 quarters, to obtain the DCF result.

1   Q.   **Is it appropriate to use quarterly compounding in calculating the DCF return on**

2   **equity?**

3   A.   No. Including quarterly compounding overstates the DCF results. This is because the

4   constant growth model applies the expected growth rate in dividends to the current

5   dividend, D_0, to obtain the next year's dividend, D_1. Quarterly compounding actually

6   increases D_1 by more than the expected growth rate in an attempt to capture the quarterly

7   reinvestment of dividends. However, reinvestment of dividends should already be

8   accounted for in the current stock price, assuming that the shareholder is able to reinvest

9   at his or her rate of return on equity. In my view, including quarterly compounding as

10   Dr. Vilbert has done double counts the compounding effect. I estimate that Dr. Vilbert's

11   Simple DCF results are overstated by 18 basis points because of quarterly compounding.

12   Q.   **On page D-12 of Appendix D, Dr. Vilbert testified that he used a 15-day average of**

13   **closing prices for each company in his proxy group. Do you agree with the use of**

14   **such a short time period?**

15   A.   No. A 15-day period is too short a time period for a reliable DCF result. This is

16   because the stock market can be quite volatile, with prices changing significantly in

17   response to news events, changes in economic variables, and so forth. A 15-day period

18   could include anomalously low or high prices depending on events in the national and

19   world economy. A six-month period helps smooth out extreme price fluctuations and

20   produces a more reliable and stable DCF result for regulatory purposes.

21

1

2 Q.   **Earlier in your Direct Testimony you stated that you omitted certain companies**

3   **from Staff's proxy group. Please elaborate further.**

4

5 A.   Staff's utility group contains several utilities that derive only a minority of their

6   revenues from regulated utility operations. A reasonable screening factor for Staff's

7   group would be to eliminate companies that derive less than 50% of revenues from

8   regulated operations. This screen would eliminate companies that are engaged in

9   significant unregulated operations and, as a result, have a higher required return on

10   equity than the Companies, whose primary business is the regulated transmission and

11   distribution of electricity. The companies that should be eliminated from Staff's group

12   on this basis are as follows (with the percentage of regulated revenues as reported by

13   AUS Utility Reports in parentheses):

14

15   • CenterPoint Energy (19%)
16   • Constellation Energy (11%)
17   • Energen Corp. (44%)
18   • National Fuel Gas (49%)
19   • MDU Resources (5%)
20   • OGE Energy Corp. (47%)
21   • Questar (35%)
22

23 Q.   **Please comment on the Staff's formulation of the CAPM.**

24

25 A.   Staff failed to consider geometric mean returns in its CAPM formulation. As I stated in

26   my response to Dr. Vilbert, the geometric mean should definitely be included in a

27   CAPM formulation that estimated the MRP based on historic average return. Including

1   geometric mean returns in the CAPM formula used by the Staff results in the following

2   CAPM return:

3

4                              $4.85\% + 0.85 * 5.0\% = 9.10\%$

5

6   Including the geometric mean return in Staff's CAPM results in an ROE range of 9.10%

7   - 10.39%. The midpoint of this range is 9.75%.

8

9   **Q.   Please comment on the Staff's beta factor of 0.85.**

10

11   A.   Consistent with my testimony regarding the use of historic Value Line betas, Staff's beta

12   factor of 0.85 could overstate the expected beta for First Energy's regulated electric

13   operations. This could lead to an overstatement of Staff's CAPM results. I have

14   covered this issue both in my testimony on my CAPM estimate and in my response to

15   Dr. Vilbert's CAPM analyses.

16

17   **Q.   Please comment on Staff's non-constant DCF approach.**

18

19   A.   Staff's non-constant growth rate mistakenly assumes that dividend growth and earnings

20   growth are the same. In fact, Value Line forecasts show that dividend growth is

21   expected to be much lower than earnings growth over the next 5 year period. Since Staff

22   used the higher earnings growth forecasts, rather than dividend growth forecasts, for the

23   first five years of its analysis, Staff's DCF cost of equity result of 10.29% is overstated.

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1

2   Using my proxy group, a comparison of forecasted dividend and earnings growth rates

3   shows that the overstatement of Staff's DCF result is significant. Excluding the seven

4   companies listed above, the average dividend growth forecast from Value Line is 5.06%,

5   shown in Exhibit ___(RAB-4). The average of the earnings growth estimates is 7.29%,

6   which is 2.23%, or 223 basis points, greater than the dividend growth forecast for the

7   group. This demonstrates quite clearly that Staff's assumption of the equality of

8   dividend and earnings growth over the next five years is erroneous and will result in a

9   significant overstatement of Staff's non-constant DCF result.

10

11   **Q.   Do you agree with Staff's inclusion of a flotation cost adjustment?**

12

13   A..   No. The Staff used a "generic issuance cost factor" of 3.5% in its final calculation of its

14   recommended cost of equity range. This issuance cost factor is inappropriate and should

15   be disallowed by the Commission.

16

17   First, Staff provided no evidence that FirstEnergy issued any equity for purposes of

18   investment in or on behalf of OEC, CEIC, and TEC. Adding a flotation cost adjustment to

19   recover costs that were not actually incurred by the utility would be inappropriate and

20   should be disallowed by the Commission.

21

22   Second, it is inappropriate to use a generic flotation cost percentages to estimate a flotation

23   cost adjustment for the Company. Staff failed to provide any specific information on

1   flotation costs actually incurred by the Companies. Thus, the 3.5% adjustment is not tied

2   to any actual flotation cost incurred by the Companies, either now or in the past.

3

4   Third, in my opinion it is likely that flotation costs are already accounted for in current

5   stock prices and that adding an adjustment for flotation costs amounts to double counting.

6   A DCF model using current stock prices should already account for investor expectations

7   regarding the collection of flotation costs, if any. Multiplying the dividend yield by a 3.5%

8   flotation cost adjustment essentially assumes that the current stock price is wrong and that

9   it must be adjusted downward to increase the dividend yield and the resulting cost of

10   equity. I do not believe that this is an appropriate assumption. Current stock prices most

11   likely already account for flotation costs, to the extent that such costs are even taken into

12   account by investors.

13

14   **Q.**   **Please comment on the Staff's 100 basis point "range of uncertainty.**

15

16   **A.**   The Staff provided no foundation or support for its 100 basis point "range of

17   uncertainty". Thus, I recommend that the Commission reject it.

18

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

20

21   **A.**   Yes.

BEFORE THE

PUBLIC UTILITIES COMMISSION OF OHIO

IN RE: IN THE MATTER OF THE APPLICATION)
       OF OHIO EDISON COMPANY, THE)
       CLEVELAND ELECTRIC ILLUMINATING) CASE NO. 07-551-EL-AIR
       COMPANY, AND THE TOLDEDO EDISON) CASE NO. 07-552-EL-ATA
       COMPANY FOR AUTHORITY TO) CASE NO. 07-553-EL-AAM
       INCREASE RATES FOR DISTRIBUTION) CASE NO. 07-554-EL-UNC
       SERVICE, MODIFY CERTAIN)
       ACCOUNTING PRACTICE AND FOR)
       TARIFF APPROVALS)

EXHIBITS

OF

RICHARD A. BAUDINO

ON BEHALF OF THE

OHIO ENERGY GROUP

J. KENNEDY AND ASSOCIATES, INC.
ROSWELL, GEORGIA

JANUARY 2008

RESUME OF RICHARD A. BAUDINO

EDUCATION

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

New Mexico State University, B.A.
Economics
English

Twenty four 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

J. KENNEDY AND ASSOCIATES, INC.

RESUME OF RICHARD A. BAUDINO

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

J. KENNEDY AND ASSOCIATES, INC.

Expert Testimony Appearances
of
Richard A. Baudino
As of September 2007

Date	Case	Jurisdict.	Party	Utility	Subject
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	Public Service Co.	Financial effects of

J. KENNEDY AND ASSOCIATES, INC.

Expert Testimony Appearances
of
Richard A. Baudino
As of September 2007

Date	Case	Jurisdict.	Party	Utility	Subject
			Service Commission	of New Mexico	restructuring, reorganization.
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.

J. KENNEDY AND ASSOCIATES, INC.

Expert Testimony Appearances
of
Richard A. Baudino
As of September 2007

Date	Case	Jurisdict.	Party	Utility	Subject
09/92	92-032-U	AR	Arkansas Gas Consumers	Arkansas Louisiana Gas Co.	Cost of equity, rate of 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, transportation 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.

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Expert Testimony Appearances
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As of September 2007

Date	Case	Jurisdict.	Party	Utility	Subject
5/94	R-00942993	PA	PG&W Industrial Intervenors	Pennsylvania Gas & Water Co.	Analysis of recovery of transition costs.
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	FERC	Louisiana Public	Systems Energy	Return on Equity.

J. KENNEDY AND ASSOCIATES, INC.

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As of September 2007

Date	Case	Jurisdict.	Party	Utility	Subject
	-000		Service Commission	Resources, Inc.	
11/95	I-940032	PA	Industrial Energy Consumers of Pennsylvania	State-wide - all utilities	Investigation into Electric Power Competition.
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 Intervenors	Cost allocation.
8/98	U-17735	LA	Louisiana Public Service Commission	Cajun Electric Power Cooperative	Revenue requirements.

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Date	Case	Jurisdict.	Party	Utility	Subject
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 Service Commission	SWEPCO, CSW and AEP	Analysis of proposed merger.
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.

J. KENNEDY AND ASSOCIATES, INC.

Expert Testimony Appearances
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As of September 2007

Date	Case	Jurisdict.	Party	Utility	Subject
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	Atlanta Gas Light	Capital structure.

J. KENNEDY AND ASSOCIATES, INC.

Expert Testimony Appearances
of
Richard A. Baudino
As of September 2007

Date	Case	Jurisdict.	Party	Utility	Subject
			Service Commission		
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

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Expert Testimony Appearances
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As of September 2007

Date	Case	Jurisdict.	Party	Utility	Subject
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-2327	LA	Louisiana Public Service Commission	Southwestern Electric Power Company	Return on equity.
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
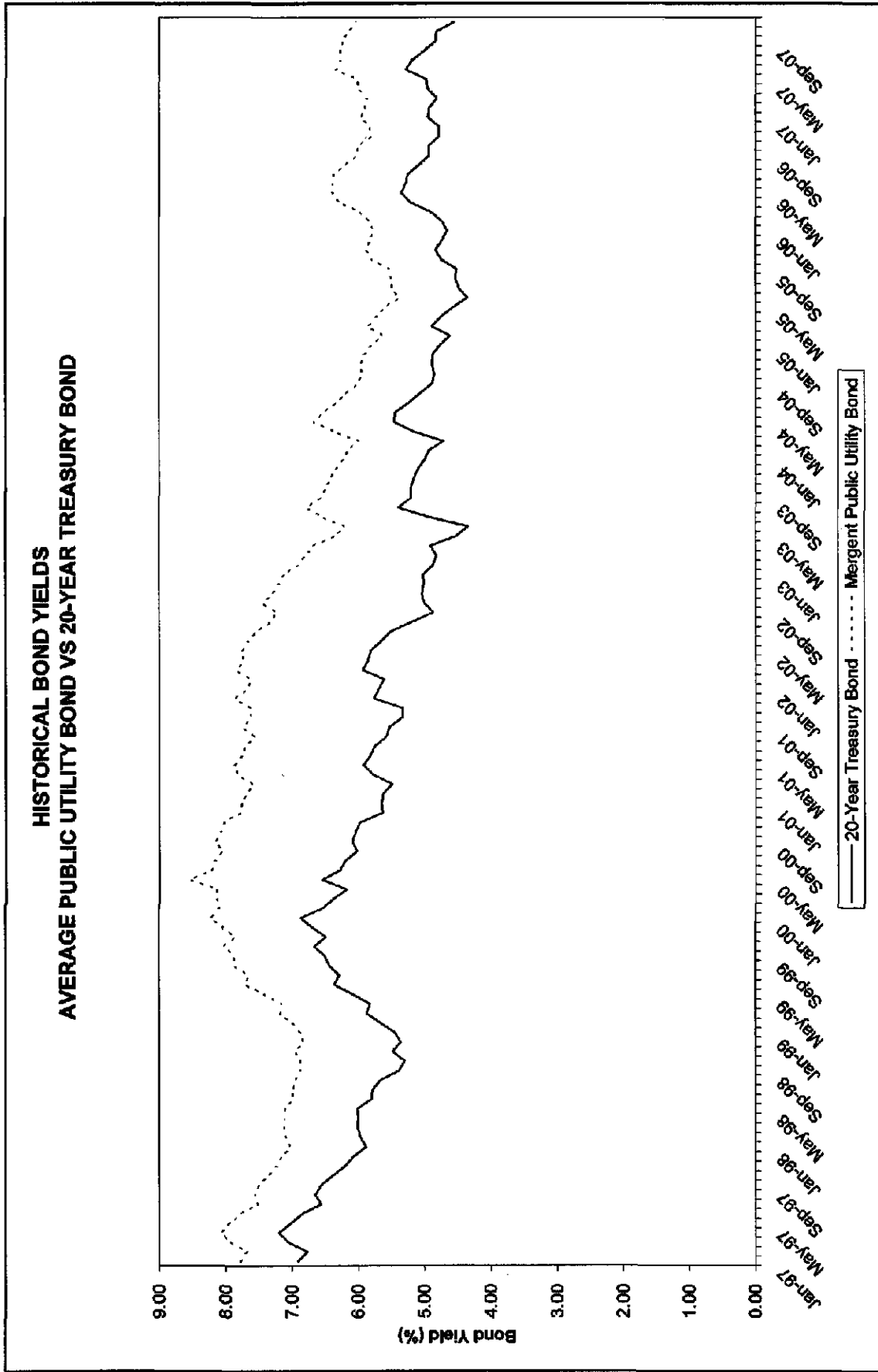
J. KENNEDY AND ASSOCIATES, INC.

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

Exhibit___(RAB-2)

OHIO EDISON, CLEVELAND ELECTRIC, TOLEDO EDISON
COMPARISON GROUP
AVERAGE PRICE, DIVIDEND AND DIVIDEND YIELD

		Dec-07	Nov-07	Oct-07	Sep-07	Aug-07	Jul-07
AGL Resources	High Price ($)	38.650	39.210	41.160	40.350	40.250	41.510
	Low Price ($)	35.420	35.850	36.650	38.530	35.240	37.660
	Avg. Price ($)	37.035	37.530	38.905	39.440	37.745	39.585
	Dividend ($)	0.410	0.410	0.410	0.410	0.410	0.410
	Mo. Avg. Div.	4.43%	4.37%	4.22%	4.16%	4.34%	4.14%
	6 mos. Avg.	4.28%					
Atmos Energy	High Price ($)	28.830	28.180	29.630	28.730	28.900	30.840
	Low Price ($)	26.100	26.010	27.540	27.280	23.870	28.010
	Avg. Price ($)	27.465	27.095	28.585	28.005	26.385	29.425
	Dividend ($)	0.325	0.325	0.320	0.320	0.320	0.320
	Mo. Avg. Div.	4.73%	4.80%	4.48%	4.57%	4.85%	4.35%
	6 mos. Avg.	4.63%					
Consolidated Edison	High Price ($)	50.550	49.150	47.830	47.530	46.570	46.260
	Low Price ($)	48.020	45.950	44.570	44.750	43.680	43.100
	Avg. Price ($)	49.285	47.550	46.200	46.140	46.125	44.680
	Dividend ($)	0.580	0.580	0.580	0.580	0.580	0.580
	Mo. Avg. Div.	4.71%	4.88%	5.02%	5.03%	5.03%	5.19%
	6 mos. Avg.	4.98%					
DPL, Inc.	High Price ($)	31.000	30.480	29.040	26.820	29.490	29.750
	Low Price ($)	29.200	28.700	25.710	25.980	25.410	26.380
	Avg. Price ($)	30.100	29.590	27.375	26.400	27.450	28.065
	Dividend ($)	0.260	0.260	0.260	0.260	0.260	0.260
	Mo. Avg. Div.	3.46%	3.51%	3.80%	3.94%	3.79%	3.71%
	6 mos. Avg.	3.70%					
DTE Energy	High Price ($)	51.150	50.000	51.190	49.980	50.530	51.740
	Low Price ($)	43.960	46.950	47.050	47.100	45.260	46.010
	Avg. Price ($)	47.555	48.475	49.120	48.540	47.895	48.875
	Dividend ($)	0.530	0.530	0.530	0.530	0.530	0.530
	Mo. Avg. Div.	4.46%	4.37%	4.32%	4.37%	4.43%	4.34%
	6 mos. Avg.	4.38%					
Entergy Corp.	High Price ($)	123.390	125.000	120.890	111.950	105.700	111.400
	Low Price ($)	114.740	114.040	108.210	102.120	91.940	96.050
	Avg. Price ($)	119.065	119.520	114.550	107.035	98.820	103.72
	Dividend ($)	0.750	0.750	0.750	0.750	0.750	0.540
	Mo. Avg. Div.	2.52%	2.51%	2.62%	2.80%	3.04%	2.08%
	6 mos. Avg.	2.59%					
Exelon Corp.	High Price ($)	86.830	84.920	83.000	79.380	77.360	82.600
	Low Price ($)	80.540	77.560	73.760	71.660	64.730	67.850
	Avg. Price ($)	83.685	81.240	78.380	75.520	71.045	75.225
	Dividend ($)	0.440	0.440	0.440	0.440	0.440	0.440
	Mo. Avg. Div.	2.10%	2.17%	2.25%	2.33%	2.48%	2.34%
	6 mos. Avg.	2.28%					
FirstEnergy Corp.	High Price ($)	74.980	69.760	69.920	66.180	65.190	68.310
	Low Price ($)	68.100	66.310	63.390	61.080	58.750	59.100
	Avg. Price ($)	71.540	68.035	66.655	63.630	61.970	63.705
	Dividend ($)	0.500	0.500	0.500	0.500	0.500	0.500
	Mo. Avg. Div.	2.80%	2.94%	3.00%	3.14%	3.23%	3.14%
	6 mos. Avg.	3.04%					

OHIO EDISON, CLEVELAND ELECTRIC, TOLEDO EDISON
COMPARISON GROUP
AVERAGE PRICE, DIVIDEND AND DIVIDEND YIELD

		Dec-07	Nov-07	Oct-07	Sep-07	Aug-07	Jul-07
FPL Group	High Price ($)	72.770	70.140	68.480	63.490	64.200	60.630
	Low Price ($)	67.520	65.530	60.260	58.230	56.630	54.610
	Avg. Price ($)	70.145	67.835	64.370	60.860	60.415	57.620
	Dividend ($)	0.410	0.410	0.410	0.410	0.410	0.410
	Mo. Avg. Div.	2.34%	2.42%	2.55%	2.69%	2.71%	2.85%
	6 mos. Avg.	2.59%					
Piedmont Natural Gas	High Price ($)	27.980	26.560	26.720	26.790	27.500	25.770
	Low Price ($)	25.740	24.370	24.030	24.480	23.090	22.000
	Avg. Price ($)	26.860	25.465	25.375	25.635	25.295	23.885
	Dividend ($)	0.250	0.250	0.250	0.250	0.250	0.250
	Mo. Avg. Div.	3.72%	3.93%	3.94%	3.90%	3.95%	4.19%
	6 mos. Avg.	3.94%					
Pinnacle West	High Price ($)	44.500	43.640	42.620	40.700	41.760	41.300
	Low Price ($)	42.000	39.040	39.500	39.480	36.790	37.230
	Avg. Price ($)	43.250	41.340	41.060	40.090	39.275	39.265
	Dividend ($)	0.525	0.525	0.525	0.525	0.525	0.525
	Mo. Avg. Div.	4.86%	5.08%	5.11%	5.24%	5.35%	5.35%
	6 mos. Avg.	5.16%					
Public Svc. Enterprise Gp	High Price ($)	99.760	98.610	95.790	91.000	90.990	93.310
	Low Price ($)	94.410	89.600	86.960	82.670	77.320	80.240
	Avg. Price ($)	97.085	94.105	91.375	86.835	84.155	86.775
	Dividend ($)	0.585	0.585	0.585	0.585	0.585	0.585
	Mo. Avg. Div.	2.41%	2.49%	2.56%	2.69%	2.78%	2.70%
	6 mos. Avg.	2.60%					
Southern Company	High Price ($)	39.350	38.750	37.230	37.480	37.700	35.300
	Low Price ($)	37.360	35.150	35.160	35.040	33.160	33.510
	Avg. Price ($)	38.355	36.950	36.195	36.260	35.430	34.405
	Dividend ($)	0.403	0.403	0.403	0.403	0.403	0.403
	Mo. Avg. Div.	4.20%	4.38%	4.45%	4.45%	4.55%	4.69%
	6 mos. Avg.	4.45%					
WGL Holdings	High Price ($)	34.500	34.390	35.080	34.600	35.010	33.440
	Low Price ($)	31.820	32.020	32.170	31.550	29.790	29.790
	Avg. Price ($)	33.160	33.205	33.625	33.075	32.400	31.615
	Dividend ($)	0.343	0.343	0.343	0.343	0.343	0.343
	Mo. Avg. Div.	4.14%	4.13%	4.08%	4.15%	4.23%	4.34%
	6 mos. Avg.	4.18%					
Wisconsin Energy	High Price ($)	50.480	49.330	48.200	46.810	45.560	45.780
	Low Price ($)	47.460	46.200	44.350	43.530	41.060	42.250
	Avg. Price ($)	48.970	47.765	46.275	44.670	43.310	44.015
	Dividend ($)	0.250	0.250	0.250	0.250	0.250	0.250
	Mo. Avg. Div.	2.04%	2.09%	2.16%	2.24%	2.31%	2.27%
	6 mos. Avg.	2.19%					

**OHIO EDISON, CLEVELAND ELECTRIC, TOLEDO EDISON
COMPARISON GROUP
AVERAGE PRICE, DIVIDEND AND DIVIDEND YIELD**

		Dec-07	Nov-07	Oct-07	Sep-07	Aug-07	Jul-07
Xcel Energy	High Price ($)	23.500	23.130	22.620	22.410	21.400	21.350
	Low Price ($)	22.490	21.350	20.700	20.300	19.590	19.980
	Avg. Price ($)	22.995	22.240	21.660	21.355	20.495	20.655
	Dividend ($)	0.230	0.230	0.230	0.230	0.230	0.230
	Mo. Avg. Div.	4.00%	4.14%	4.25%	4.31%	4.49%	4.45%
	6 mos. Avg.	4.27%					

Average Dividend Yield   3.70%

Source: Yahoo! Finance

OHIO EDISON, CLEVELAND ELECTRIC, TOLEDO EDISON
COMPARISON GROUP
DCF Growth Rate Analysis

Company	(1) Value Line DPS	(2) Value Line EPS	(3) Value Line B x R	(4) Zacks	(5) First Call/ Thomson
AGL Resources	3.99%	3.70%	5.87%	4.75%	4.97%
Atmos Energy	1.39%	4.87%	3.83%	5.75%	5.63%
Consolidated Edison	0.85%	4.08%	2.87%	3.87%	3.75%
DPL, Inc.	5.06%	10.45%	9.31%	8.00%	8.88%
DTE Energy	2.90%	4.06%	2.83%	6.00%	5.75%
Entergy Corp.	11.37%	9.35%	7.36%	13.00%	10.60%
Exelon Corp.	5.07%	10.53%	15.23%	12.00%	8.71%
FirstEnergy Corp.	6.21%	8.93%	7.07%	7.50%	8.80%
FPL Group	10.76%	11.02%	6.75%	10.60%	9.89%
Piedmont Natural Gas	4.08%	3.70%	3.44%	5.67%	4.75%
Pinnacle West	3.83%	3.64%	2.19%	6.67%	5.73%
PS Enterprise Gp.	2.98%	11.63%	8.33%	18.50%	19.67%
Southern Co.	3.74%	2.96%	3.36%	4.40%	5.03%
WGL Holdings	2.55%	1.90%	3.41%	4.00%	4.00%
Wisconsin Energy	11.70%	8.10%	6.59%	9.40%	8.17%
Xcel Energy	4.56%	5.44%	3.90%	5.20%	6.00%
Averages	5.06%	6.52%	5.76%	7.82%	7.52%
Median Growth Rates	4.03%	5.16%	4.89%	6.34%	5.88%
Average Excluding Rates ≥ 10% & ≤1%	3.86%	5.06%	5.13%	5.92%	6.43%

Sources: Zack's and First Call/Thomson Earnings Reports retrieved December 28, 2007
Value Line Investment Survey, November 9, November 30, December 14, and December 28, 2007

OHIO EDISON, CLEVELAND ELECTRIC, TOLEDO EDISON
COMPARISON GROUP

Value Line Projected Dividend Per Share Growth

Company	2006 DPS		Projected DPS		Compound Growth Rate
AGL Resources	$	1.48	$	1.80	3.99%
Atmos Energy	$	1.26	$	1.35	1.39%
Consolidated Edison	$	2.30	$	2.40	0.85%
DPL, Inc.	$	1.00	$	1.28	5.06%
DTE Energy	$	2.08	$	2.40	2.90%
Entergy Corp.	$	2.16	$	3.70	11.37%
Exelon Corp.	$	1.64	$	2.10	5.07%
FirstEnergy Corp.	$	1.85	$	2.50	6.21%
FPL Group	$	1.50	$	2.50	10.76%
Piedmont Natural Gas	$	0.95	$	1.16	4.08%
Pinnacle West	$	2.03	$	2.45	3.83%
PS Enterprise Gp.	$	2.28	$	2.64	2.98%
Southern Co.	$	1.54	$	1.85	3.74%
WGL Holdings	$	1.34	$	1.52	2.55%
Wisconsin Energy	$	0.92	$	1.60	11.70%
Xcel Energy	$	0.88	$	1.10	4.56%
Average					5.06%

OHIO EDISON, CLEVELAND ELECTRIC, TOLEDO EDISON
COMPARISON GROUP
DCF Growth Rate Analysis

Value Line Projected Earnings Per Share Growth

Company	3-Year Avg. EPS		Projected EPS	Compound Growth Rate
AGL Resources	$	2.49	$ 3.10	3.70%
Atmos Energy	$	1.77	$ 2.35	4.87%
Consolidated Edison	$	2.75	$ 3.50	4.08%
DPL, Inc.	$	1.27	$ 2.30	10.45%
DTE Energy	$	2.76	$ 3.50	4.06%
Entergy Corp.	$	4.56	$ 7.80	9.35%
Exelon Corp.	$	3.15	$ 5.75	10.53%
FirstEnergy Corp.	$	3.14	$ 5.25	8.93%
FPL Group	$	2.67	$ 5.00	11.02%
Piedmont Natural Gas	$	1.29	$ 1.60	3.70%
Pinnacle West	$	2.66	$ 3.30	3.64%
PS Enterprise Gp.	$	3.20	$ 6.20	11.63%
Southern Co.	$	2.10	$ 2.50	2.98%
WGL Holdings	$	2.01	$ 2.25	1.90%
Wisconsin Energy	$	2.35	$ 3.75	8.10%
Xcel Energy	$	1.27	$ 1.75	5.44%
Average				6.52%

OHIO EDISON, CLEVELAND ELECTRIC, TOLEDO EDISON
COMPARISON GROUP

Sustainable Growth Calculation

Company	Forecasted Payout Ratio	Forecasted Retention Ratio	Expected Return	Growth Rate
AGL Resources	58.06%	41.94%	14.00%	5.87%
Atmos Energy	57.45%	42.55%	9.00%	3.83%
Consolidated Edison	68.57%	31.43%	8.50%	2.67%
DPL, Inc.	55.65%	44.35%	21.00%	9.31%
DTE Energy	68.57%	31.43%	9.00%	2.83%
Entergy Corp.	47.44%	52.56%	14.00%	7.36%
Exelon Corp.	36.52%	63.48%	24.00%	15.23%
FirstEnergy Corp.	47.62%	52.38%	13.50%	7.07%
FPL Group	50.00%	50.00%	13.50%	6.75%
Piedmont Natural Gas	72.50%	27.50%	12.50%	3.44%
Pinnacle West	74.24%	25.76%	8.50%	2.19%
PS Enterprise Gp.	42.58%	57.42%	14.50%	8.33%
Southern Co.	74.00%	26.00%	13.00%	3.38%
WGL Holdings	67.56%	32.44%	10.50%	3.41%
Wisconsin Energy	42.67%	57.33%	11.50%	6.59%
Xcel Energy	62.86%	37.14%	10.50%	3.90%
Average	60.65%	39.35%	11.42%	5.76%

RETURN ON EQUITY CALCULATION
OHIO EDISON, CLEVELAND ELECTRIC, TOLEDO EDISON

	(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
Method 1:					
Dividend Yield	3.70%	3.70%	3.70%	3.70%	3.70%
Growth Rate	5.06%	6.52%	7.82%	7.52%	6.73%
Expected Div. Yield	3.80%	3.82%	3.85%	3.84%	3.83%
DCF Return on Equity	*8.86%*	*10.34%*	*11.67%*	*11.36%*	*10.56%*
Midpoint of Results					*10.27%*
Method 2:					
Dividend Yield	3.70%	3.70%	3.70%	3.70%	3.70%
Median Growth Rate	4.03%	5.16%	6.34%	5.88%	5.35%
Expected Div. Yield	3.78%	3.80%	3.82%	3.81%	3.80%
DCF Return on Equity	*7.81%*	*8.96%*	*10.16%*	*9.69%*	*9.15%*
Midpoint of Results					*8.98%*
Method 3:					
Dividend Yield	3.91%	4.01%	4.10%	3.86%	3.97%
Growth Rate Excluding Rates ≥ 10% & ≤1%	3.86%	5.06%	5.92%	6.43%	5.32%
Expected Div. Yield	3.99%	4.11%	4.22%	3.99%	4.08%
DCF Return on Equity	*7.85%*	*9.17%*	*10.14%*	*10.42%*	*9.40%*
Midpoint of Results					*9.14%*

OHIO EDISON, CLEVELAND ELECTRIC, TOLEDO EDISON
Capital Asset Pricing Model Analysis
Comparison Group

20-Year Treasury Bond, Value Line Beta

Line No.		Value Line
1	Market Required Return Estimate	
2	Expected Dividend Yield	1.42%
3	Expected Growth	11.70%
4	Required Return	13.12%
5	Risk-free Rate of Return, 20-Year Treasury Bond	
6	Average of Last Six Months	4.95%
8	Risk Premium	
9	@ 6 Month Average RFR (Line 4 minus Line 6)	8.17%
10	Comparison Group Beta	0.86
11	Comparison Group Beta * Risk Premium	
12	@ 6 Month Average RFR (Line 10 * Line 9)	7.00%
13	CAPM Return on Equity	
14	@ 6 Month Average RFR (Line 12 plus Line 6)	11.95%

5-Year Treasury Bond, Value Line Beta

Line No.		Value Line
1	Market Required Return Estimate	
2	Expected Dividend Yield	1.42%
3	Expected Growth	11.70%
4	Required Return	13.12%
5	Risk-free Rate of Return, 5-Year Treasury Bond	
6	Average of Last Six Months	4.40%
8	Risk Premium	
9	@ 6 Month Average RFR (Line 4 minus Line 6)	8.72%
10	Comparison Group Beta	0.86
11	Comparison Group Beta * Risk Premium	
12	@ 6 Month Average RFR (Line 9 * Line 10)	7.47%
13	CAPM Return on Equity	
14	@ 6 Month Average RFR (Line 12 plus Line 6)	11.87%

OHIO EDISON, CLEVELAND ELECTRIC, TOLEDO EDISON
Capital Asset Pricing Model Analysis
Comparison Group

20-Year Treasury Bond, First Call/Thomson Beta

Line No.		Value Line
1	Market Required Return Estimate	
2	Expected Dividend Yield	1.42%
3	Expected Growth	11.70%
4	Required Return	13.12%
5	Risk-free Rate of Return, 20-Year Treasury Bond	
6	Average of Last Six Months	4.95%
8	Risk Premium	
9	@ 6 Month Average RFR (Line 4 minus Line 6)	8.17%
10	Comparison Group Beta	0.68
11	Comparison Group Beta * Risk Premium	
12	@ 6 Month Average RFR (Line 10 * Line 9)	5.52%
13	CAPM Return on Equity	
14	@ 6 Month Average RFR (Line 12 plus Line 6)	10.47%

5-Year Treasury Bond, First Call/Thomson Beta

Line No.		Value Line
1	Market Required Return Estimate	
2	Expected Dividend Yield	1.42%
3	Expected Growth	11.70%
4	Required Return	13.12%
5	Risk-free Rate of Return, 5-Year Treasury Bond	
6	Average of Last Six Months	4.40%
8	Risk Premium	
9	@ 6 Month Average RFR (Line 4 minus Line 6)	8.72%
10	Comparison Group Beta	0.68
11	Comparison Group Beta * Risk Premium	
12	@ 6 Month Average RFR (Line 9 * Line 10)	5.89%
13	CAPM Return on Equity	
14	@ 6 Month Average RFR (Line 12 plus Line 6)	10.29%

OHIO EDISON, CLEVELAND ELECTRIC, TOLEDO EDISON
Capital Asset Pricing Model Analysis
Comparison Group

Supporting Data for CAPM Analyses

20 Year Treasury Bond Data	Avg. Yield	5 Year Treasury Bond Data	Avg. Yield
June-07	5.29%	June-07	5.03%
July-07	5.19%	July-07	4.88%
August-07	5.00%	August-07	4.43%
September-07	4.84%	September-07	4.20%
October-07	4.83%	October-07	4.20%
November-07	4.56%	November-07	3.67%
6 month average	4.95%	6 month average	4.40%

Source: Federal Reserve Statistical Release, H.15 Selected Interest Rates

Value Line Market Growth Rate Data:		Comparison Group Betas:	Value Line	First Call/ Thomson
Forecasted Data:				
Earnings	13.68%	AGL Resources	0.85	0.34
Book Value	11.19%	Atmos Energy	0.85	0.84
Dividends	10.24%	Consolidated Edison	0.75	0.25
		DPL, Inc.	0.85	0.11
Average	11.70%	DTE Energy	0.80	0.69
Source: Value Line Investment Survey		Entergy Corp.	0.85	0.59
for Windows, December 7, 2007		Exelon Corp.	0.90	0.40
		FirstEnergy Corp.	0.85	0.46
		FPL Group	0.75	0.56
		Piedmont Natural Gas	0.85	0.53
		Pinnacle West	1.00	0.68
		PS Enterprise Gp.	0.95	NMF
		Southern Co.	0.70	0.24
		WGL Holdings	0.85	1.04
		Wisconsin Energy	0.85	0.46
		Xcel Energy	1.05	0.51
		Average	0.86	0.51
		Adjusted First Call		0.68

Sources: Value Line Investment Reports,
Nov. 9, Nov. 30, Dec. 14, and Dec. 28 2007;
First Call/Thomson reports retrieved on Dec. 28, 2007