

BEFORE THE
STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

In the Matter of
Consolidated Edison Company of New York, Inc.
Case 06-G-1332
March 2007

Prepared Testimony of:

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State of New York
Department of Public Service
Three Empire State Plaza
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- 1 Q. Please state your name and business address.
- 2 A. My name is Craig E. Henry. My business address
3 is New York State Department of Public Service,
4 Three Empire State Plaza, Albany, New York
5 12223.
- 6 Q. By whom are you employed and in what capacity?
- 7 A. I am employed by the New York State Department
8 of Public Service as an Associate Utility
9 Financial Analyst in the Office of Accounting
10 and Finance.
- 11 Q. Please describe your educational background and
12 professional experience.
- 13 A. I received a Bachelor of Science Degree in
14 Business Administration from the University of
15 Florida in 1981. In 1985 I received a Master's
16 Degree in Business Administration with a
17 concentration in Finance from the School of
18 Management at the State University of New York
19 at Binghamton. Before joining the Department of
20 Public Service in August 1988, I was employed by
21 Norstar Bank, N.A. as a Manager Trainee.
- 22 Q. What are your responsibilities in the Office of
23 Accounting and Finance?
- 24 A. My primary areas of responsibility include

1 analyzing and making recommendations to the New
2 York State Public Service Commission concerning
3 rate of return levels and financing requests. I
4 also examine and make recommendations with
5 regard to other utility finance-related
6 activities, such as merger requests.

7 Q. Have you previously testified in regulatory
8 proceedings regarding the appropriate capital
9 structure and cost of capital?

10 A. Yes. I have testified in numerous electric, gas
11 and water rate cases before the New York State
12 Public Service Commission since 1988, and once
13 before the Federal Energy Regulatory Commission.

14

15 **PURPOSE OF TESTIMONY**

16 Q. What is the purpose of your testimony in this
17 proceeding?

18 A. The purpose of my testimony is to determine the
19 cost of equity for Con Edison Company of New
20 York, Inc. (Con Edison or the Company). My cost
21 of equity determination is then used by the
22 Finance Panel to develop the rate of return on
23 rate base which is used to determine Con
24 Edison's gas revenue requirement for the rate

1 year ending September 30, 2008. I will also
2 explain why the Commission should reject certain
3 aspects of Company witness Rosenberg's
4 testimony.

5 Q. Please describe the exhibits that you are
6 sponsoring in this proceeding.

7 A. I am sponsoring one exhibit under a cover page
8 titled "Exhibit Referred to in the Prepared
9 Testimony of Craig E. Henry." It consists of
10 ten pages labeled: Exhibit__(CEH-1) through
11 Exhibit__(CEH-5).

12

13 **FAIR RATE OF RETURN DISCUSSION**

14 Q. What is a fair rate of return for a regulated
15 utility?

16 A. As one of the costs of providing service, the
17 cost of financial capital supplied by investors
18 is subject to one of the governing principles of
19 regulation, which states that customers should
20 pay no more than the reasonable cost of the
21 services they use. A fair overall rate of
22 return, therefore, allows the utility to provide
23 its customers safe and adequate service, and at
24 the same time allows its investors the

1 opportunity to earn a return commensurate with
2 the risk of their investment.

3 Q. Would you please elaborate as to what you
4 believe represents a fair rate of return for Con
5 Edison?

6 A. A fair rate of return for a regulated company
7 such as Con Edison is one that enables it to
8 provide safe and adequate service to its
9 customers, while assuring it continuing support
10 in the capital markets for both its debt and
11 equity securities, at terms that are reasonable
12 given the company's risk. While investors in a
13 given utility's debt securities receive a
14 relatively fixed income stream pursuant to
15 contractual obligations with the utility, the
16 income stream received by its common equity
17 investors is not contractual. Instead, its
18 common equity investors may share in, but are
19 not guaranteed, a portion of the utility's
20 residual earnings in the form of dividends. The
21 fair rate of return, therefore, allows the
22 utility to recover its prudently incurred cost
23 of debt, while providing its common equity
24 investors with the opportunity to earn a return

1 commensurate with the risk of their investment.
2 Q. How is a fair rate of return calculated?
3 A. Generally, in New York State, the fair rate of
4 return for a utility company is calculated
5 through a weighted average of the individual
6 cost components of its expected capitalization
7 during the first year that its new rates will be
8 in effect (typically the "rate year").
9 Determining the proper capital structure for
10 setting rates thus involves forecasting and
11 reconciling a company's sources of capital
12 together with its capital requirements. The
13 Finance Panel will be addressing the appropriate
14 capital structure as well as the cost rates of
15 all of the individual components other than
16 common equity.

17 As previously mentioned the common equity
18 component is neither contractual nor prescribed
19 by the Commission. Its calculation is further
20 complicated by the fact that it can not be
21 directly observed. It is important to remember
22 that while both debt and equity holders supply
23 the utility with the funds it needs to build and
24 operate its system, the equity investors only

1 earn a return after the payment of all other
2 expenses. Because these investors run the risk
3 that their achieved returns will not equal their
4 expectations, the return required by equity
5 investors is usually (I say "usually" because in
6 periods of volatile inflation and high interest
7 rates such as 1980-82, utility bonds had yields
8 that were at least as high as the return we were
9 allowing and far above the returns most
10 Commissions were allowing) higher than that of
11 the utility's debt holders.

12 The expected return requirements of a
13 utility's common equity investors can only be
14 gleaned through a cost of equity analysis.
15 Generally, methodologies such as the Discounted
16 Cash Flow (DCF) and the Capital Asset Pricing
17 Model (CAPM) are employed to estimate the return
18 required by equity investors.

19

20 **SUMMARY OF ROE RECOMMENDATION**

21 Q. What methodology did you use to determine your
22 recommended return on equity (ROE)?

23 A. I utilized the basic framework recommended by
24 the Administrative Law Judges (ALJs) in the

1 Recommended Decision (RD) in the Generic Finance
2 Proceeding (Case 91-M-0509, Proceeding on Motion
3 of the Commission to Consider Financial
4 Regulatory Policies for New York State
5 Utilities, Recommended Decision issued July 19,
6 1994) (GFC), and estimated the cost of equity for
7 a proxy group of electric utility companies. I
8 then compared the specific financial and
9 business risks facing Con Edison with those of
10 the proxy group on average, and adjusted the
11 proxy group's indicated return to reflect those
12 differences.

13 Once again, the rationale for this
14 adjustment is based upon the fundamental concept
15 that the return requirements of common equity
16 investors are commensurate with the riskiness of
17 their investment. Finally, I adjusted this
18 result to reflect the common equity issuance
19 expenses that the Company is projected to incur
20 during the rate year.

21 Q. Please describe the GFC and why the basic
22 framework of the approach advocated in the GFC
23 RD is appropriate here.

24 A. The purpose of the GFC was to limit the

1 controversy associated with ROE calculations by
2 developing a methodology that addressed the
3 issues of many parties and achieved a consensus
4 approach for determining a utility's ROE. In
5 their RD in the GFC, the ALJs determined that a
6 generic ROE should be calculated based upon the
7 results of a proxy group DCF model analysis and
8 the average result of two proxy group CAPM
9 analyses (the traditional CAPM and the zero beta
10 CAPM). The RD concluded that the generic ROE
11 determination should be the sum of two-thirds of
12 the DCF result and one-third of the average CAPM
13 result.

14 While no formal resolution of the GFC was
15 promulgated, the consensus principles that
16 surfaced in the case have been a mainstay of the
17 Commission's ROE determinations in the years
18 since.

19 Q. What is your cost of equity recommendation for
20 Con Edison?

21 A. Utilizing the methodology outlined above, I
22 determined that the company should be allowed
23 the opportunity to earn an 8.8% return on its
24 common equity. A summary of my cost of equity

1 determination is illustrated in Exhibit__ (CEH-
2 2).

3

4 **PROXY GROUP: RATIONALE AND APPLICATION**

5 Q. Why do you believe it is appropriate to use a
6 proxy group to determine Con Edison's cost of
7 equity?

8 A. In this particular case, there are two good
9 reasons. First, as pointed out by Company
10 witness Rosenberg, use of a proxy group for
11 determining Con Edison's cost of equity is
12 necessary because the Company is a wholly-owned
13 subsidiary of Consolidated Edison, Inc. and thus
14 has no publicly traded stock of its own. There
15 is a fairly lengthy history of the Commission's
16 use of proxy groups under these circumstances.

17 Second, and perhaps the best reason for
18 employing a proxy group, is that it has the
19 benefit of diminishing the impact of biased or
20 inaccurate beta and growth estimates for any one
21 company. In fact, because of this benefit, a
22 proxy group approach is desirable even when
23 setting rates for a utility whose stock is
24 publicly traded. This benefit, clearly

1 emphasized by the parties and the RD in the GFC,
2 is also a rationale used by Company witness
3 Rosenberg in support of his proxy group
4 approach.

5 Q. What are the most important considerations for
6 selecting a proxy group?

7 A. While this may seem obvious, it is important to
8 determine the specific industry classification
9 of the company being examined in order to
10 identify its true peers. Once the appropriate
11 group of peer companies is established, careful
12 consideration must be given to determining an
13 appropriate screening criteria in order to
14 achieve a group of companies that: 1) is large
15 enough without becoming unwieldy and 2) has
16 similar risks to the company in question.

17 A careful balance must be struck between
18 these two potentially conflicting goals. While
19 the objective is to select a group of companies
20 whose risks closely match those of the company
21 being examined, it is of no less importance to
22 select a group that is also large enough in
23 order that that we may have sufficient
24 confidence in its results.

1 Q. How did you apply these considerations to
2 determine the appropriate proxy group for Con
3 Edison?

4 A. Because Con Edison's parent Consolidated Edison
5 Inc. is categorized as an "electric utility" by
6 Value Line, I focused on all of the 61 companies
7 that *Value Line* categorizes as electric
8 utilities as the appropriate group of peer
9 companies from which I could draw my proxy
10 group. The full group of 61 companies is listed
11 on page 1 of Exhibit__ (CEH-1). Company witness
12 Rosenberg also used the same 61 companies as the
13 starting point for selecting a proxy group, his
14 cost of equity estimate is based on results from
15 an unreasonably small six-company proxy group.
16 A preponderance (53) of the 61 companies are
17 "holding companies," most (35) of which are also
18 commonly referred to as "combination utilities"
19 due to their gas utility operations. Finally,
20 nearly all of the 61 companies are involved in
21 non-regulated activities to varying degrees.

22 With respect to matching this group's risks
23 with those of Con Edison, I considered two
24 variables, or screening criteria; credit quality

1 (debt rating) and percentage of regulated
2 revenue. Con Edison's debt is rated A by
3 Standard & Poor's (S&P) and A1 by Moody's, and
4 as a utility operating unit of a holding company
5 100% of its revenues are from regulated
6 activities. By contrast, only eight out of the
7 61 electric utility holding companies followed
8 by Value Line had debt rated A/A or higher, and
9 nearly all derived some revenue from unregulated
10 investments.

11 Mindful of my goals of achieving a group of
12 companies that is both sufficiently large and
13 with similar risks to Con Edison, together with
14 the current characteristics of the electric
15 utility holding companies, I selected only those
16 companies with investment-grade debt ratings and
17 whose operating revenues from regulated
18 operations were at least 70% of its total
19 revenue. This left me with 30 companies to form
20 my proxy group. I believe that the application
21 of these two screening criteria in this
22 particular manner help me to strike the right
23 balance, namely a reasonably sized group of
24 companies whose results can be satisfactorily

1 relied upon and whose risks are substantially
2 similar to Con Edison. Furthermore, these
3 screening criteria are similar to those employed
4 recently by other Staff witnesses.

5 Q. Does the selection process you used for your
6 proxy group strictly adhere to the approach
7 advocated in the GFC?

8 A. Strictly speaking, no. The GFC recommended
9 employing a proxy group consisting of "A" rated
10 utility companies that derived a significant
11 portion of their operating revenues from
12 regulated operations. While I believe that my
13 stipulation that companies derive at least 70%
14 of their revenues from regulated operations is
15 consistent, I will explain later why my use of a
16 broader credit quality criterion is a necessary
17 and reasonable departure from the GFC approach.

18 Q. How does your selection process compare with the
19 approach utilized by Staff in the Company's most
20 recent rate proceeding?

21 A. In Case 05-S-1376, Staff filed testimony in
22 February 2006 that also deviated, albeit
23 slightly, from the GFC approach and advocated a
24 proxy group of ten electric utilities that was

1 predicated upon minimum debt ratings of
2 BBB+/Baa1. Staff's proxy group was also limited
3 to companies with revenues from regulated
4 activities of at least 70% of total operating
5 revenues - the same screen I propose here.
6 Today, this approach yields only eight
7 candidates.

8 Q. Please explain why it is necessary to depart
9 from the GFC's specific proxy group selection
10 process.

11 A. The decision to utilize a lower, and hence more
12 encompassing debt rating screening criterion, is
13 both an inescapable and appropriate response to
14 a confluence of events that have transpired
15 since the GFC RD and have steadily reduced the
16 number of candidate companies over time. When
17 the GFC RD was issued there were between 25 and
18 33 A-rated electric utilities that were suitable
19 for the proxy group. Today that number has
20 dwindled to between three and six, depending
21 upon the specific interpretation of what is
22 implied by "substantial" with respect to
23 regulated revenues.

24 The preeminent event has been the steady

1 decline in credit quality of U.S. corporations
2 in general over the past 25 years. This broader
3 trend, together with an orientation in the
4 electric utility industry towards consolidation
5 through mergers and an increase in unregulated
6 activities, means that lowering the credit
7 quality threshold is the most logical and
8 reasonable response in order to maintain an
9 adequate number of candidate companies.
10 Moreover, as discussed later in my testimony, it
11 is a relatively straightforward exercise to
12 quantify any credit quality discrepancy between
13 the company being examined and the proxy group.

14 Q. Please describe the specific steps you took to
15 determine your proxy group.

16 A. As discussed earlier and illustrated on page 1
17 of Exhibit__ (CEH-1), I began with the 61
18 electric utility companies included in Value
19 Line's ongoing investment survey. In order to
20 select companies whose credit quality was
21 reasonably comparable to Con Edison, I
22 eliminated any company whose debt was rated
23 below investment grade by either S&P or Moody's
24 and was left with 47 companies. These companies

1 are illustrated on page 2 of Exhibit__ (CEH-1).

2 Next, in order to ensure that the holding
3 company parents in my proxy group would
4 generally approximate the risks of a combination
5 electric and gas utility such as Con Edison, I
6 eliminated any company that derived a
7 significant amount of its operating revenue from
8 non-utility sources. To accomplish this I
9 determined the percentage of utility revenue for
10 each of the 47 investment grade electric
11 utilities based upon their 2005 annual report to
12 the Securities and Exchange Commission, Form 10-
13 K's. I then eliminated any company whose
14 operating revenues from regulated operations
15 were less than 70% of its total revenue, which
16 left me the 30 companies illustrated on page 3
17 of Exhibit__ (CEH-1).

18 Q. Did you make any additional adjustments to your
19 proxy group?

20 A. Yes. I removed four companies due to merger-
21 related activity. Removing these companies is
22 reasonable because of the potential for such
23 activity to distort their stock prices and hence
24 their individual cost of equity estimates. The

1 four companies I removed are Exelon Corp., FPL
2 Group, Inc., Duquesne Light Holdings Inc. and
3 Green Mountain Power Corp. Relevant information
4 about the remaining 26 dividend paying companies
5 that comprise my proxy group is shown on page 4
6 of Exhibit__(CEH-1).

7

8 **DISCOUNTED CASH FLOW METHODOLOGY**

9 Q. Please describe your DCF methodology and its
10 result.

11 A. The calculation of my DCF return on equity for
12 my proxy group is shown on pages 1 through 3 of
13 Exhibit__(CEH-3). As seen on page 1, I
14 determined a six-month average stock price for
15 each of the companies in the proxy group by
16 averaging the high and low share prices for each
17 month. I used the six-month period ending
18 January 2007. The model also utilizes Value
19 Line data for the beta, earnings per share,
20 dividends per share, book value per share and
21 the forecasted amount of common stock shares of
22 each of the companies.

23 I then used this data to estimate the
24 future dividends for each company. The

1 foundation of the DCF methodology is that
2 investors price common stock to reflect the
3 present value of the future dividends. Here the
4 average stock price over a six-month period
5 represents the price that investors are willing
6 to pay for the expected dividend stream. The
7 rate of return that investors are expecting for
8 each company is determined by calculating the
9 discount rate required to turn the string of
10 expected dividend payments into the current
11 stock price.

12 Q. Please explain how the model projects each
13 company's dividends to change over time?

14 A. The model is premised upon two stages of
15 dividend growth. Value Line estimates are used
16 in the near-term or first stage. For the second
17 stage, which here is generally 2011 and beyond,
18 Value Line data is used to calculate a
19 "sustainable growth" rate for each company,
20 based upon its projected retention of earnings
21 and growth in common stock balances.

22 Q. What is your proxy group's cost of equity using
23 the DCF methodology?

24 A. As shown on page 3 of Exhibit___ (CEH-3), the

1 median return on equity of the proxy group is
2 7.99%. This figure is the appropriate measure
3 of the DCF-derived cost of equity of the proxy
4 group.

5

6 **CAPITAL ASSET PRICING MODEL METHODOLOGY**

7 Q. Please describe the methodology used to
8 determine your CAPM results.

9 A. The CAPM is premised upon a specific set of
10 assumptions about how capital markets work, and
11 if one holds these assumptions to be true, it
12 can be reasonably applied to determine a
13 company's cost of equity. To this end, a CAPM
14 analysis is largely a matter of establishing the
15 level of systematic risk associated with a
16 company's stock, and calculating the return
17 requirement of its investors for accepting that
18 level of risk. I used the traditional and zero-
19 beta CAPM approaches recommended in the GFC to
20 estimate the cost of equity. The CAPM result is
21 the average of these two estimates.

22 Q. Please describe the inputs to the CAPM model.

23 A. Both the traditional and zero beta CAPM models
24 calculate a required return based upon the

1 following three inputs: 1) the rate of return of
2 a risk-free investment (R_f); 2) the level of
3 systematic risk associated with a particular
4 investment (B or β); and 3) the expected risk
5 premium associated with the expected return of
6 the market (R_p). The traditional CAPM
7 calculation can be represented as follows:
8 Required return = $R_f + (B * R_p)$, while the zero
9 beta formulation can be represented as: Required
10 return = $R_f + (.75 * B * R_p) + (.25 * R_p)$.

11 Q. Please describe how you determined the first
12 input, the risk-free investment rate.

13 A. The GFC RD called for using a risk-free rate
14 determined by averaging the 10-year and 30-year
15 Treasury bonds for a recent six-month period.
16 As shown in Exhibit__ (CEH-4), I calculated the
17 risk free rate for the six month period ended
18 January 2007 to be 4.76%.

19 Q. How did you determine the second input, the
20 proxy group's beta?

21 A. I used the methodology set forth in the GFC,
22 which calls for averaging the most recent Value
23 Line reported betas of each company in the proxy
24 group. As shown on page 2 of Exhibit__ (CEH-3),

1 the proxy group's average beta is .92.

2 Q. With respect to the final input, how did you
3 determine what risk premium to use, and what was
4 your result?

5 A. The risk premium is determined by calculating
6 the difference between the expected return on
7 the market (the market return) and the risk-free
8 investment rate. For the market return, I
9 utilized 11.3%, which is Merrill Lynch's
10 estimate for the S&P 500 as published in its
11 January 2007 edition of Quantitative Profiles.
12 Finally, by subtracting the 4.76% risk-free rate
13 from the 11.30% market return, I calculated a
14 risk premium of 6.54%.

15 Q. How does your risk premium determination differ
16 from the approach employed in the GFC RD?

17 A. While the GFC RD utilized historic risk premium
18 data from *Ibbotson Associates*, it noted that its
19 acceptance of the Ibbotson data would not
20 preclude the use of a current assessment of the
21 market's required return provided that
22 information was widely available to investors.
23 Soon after the GFC RD, Merrill Lynch began
24 publishing its S&P 500 market required return.

1 Staff has advocated use of this data in its CAPM
2 calculation for many years, as I am in this
3 case.

4 Q. Please explain the shortcomings of relying on
5 the Ibbotson data and why your approach is
6 better.

7 A. The fundamental problem with using the Ibbotson
8 data is that it is stale. Specifically, this
9 historical risk premium is based upon the
10 average spread differentials between stock
11 returns and treasury security yields over a very
12 long period commencing all the way back in 1926.
13 While the data does include recent spreads, it
14 also encompasses periods that are much different
15 from today, and hence simply fails to capture
16 the current investing climate. By contrast,
17 Merrill Lynch's *Quantitative Profiles* provides a
18 more accurate and up-to-date assessment of what
19 today's investors require because it is based
20 upon the current expected market return, which
21 takes into account only the current business
22 climate.

23 Q. Has the Commission ever expressed a preference
24 for using the Merrill Lynch data for calculating

1 the risk premium?

2 A. Yes, in Case 95-G-1034, Central Hudson Gas &
3 Electric Corporation, Order and Opinion No. 96-
4 28 (issued October 3, 1996), the Commission
5 said, "...the Judge's market return calculation
6 based on Merrill Lynch data is a reasonable
7 method of deriving a risk premium; and it avoids
8 the problems of stale data in the Ibbotson
9 estimate, or the circularity of the implied risk
10 premium approach in relying on other
11 commissions' return allowances." (Page 14)

12 Q. What cost of equity estimate did you conclude
13 from your CAPM analysis of the proxy group?

14 A. As illustrated in Exhibit__ (CEH-4), the
15 traditional CAPM analysis indicates a 10.75%
16 cost of equity and the zero beta CAPM produces a
17 10.89% estimate. The average of these two CAPM
18 approaches is 10.82%.

19

20 **RETURN ON EQUITY CONCLUSION**

21 Q. Please explain how you determined your overall
22 cost of equity for the proxy group.

23 A. Using the GFC methodology, I weighted the DCF
24 model (7.99%) as two-thirds of the total and the

1 CAPM average (10.82%) as one-third of the total,
2 which resulted in an 8.93% cost of equity.

3 These calculations can be seen in Exhibit__ (CEH-
4 2).

5 Q. Are there any credit quality differences between
6 Con Edison and the proxy group?

7 A. Yes, the major bond rating agencies regularly
8 assess both the business and financial risks of
9 the utilities they rate and assign their credit
10 ratings accordingly. Con Edison is rated A1 by
11 Moody's and A by S&P. By contrast, page 4 of
12 Exhibit__ (CEH-1), shows that the credit quality
13 of the proxy group is not as strong. The
14 average Moody's rating for the proxy group is
15 somewhat below a Baal rating - about a quarter
16 of the way from a Baal rating to a Baa2. The
17 average S&P bond rating of the proxy group is
18 halfway between BBB+ and BBB.

19 Q. Please explain the approach you used to reflect
20 the proxy group's higher credit risk.

21 A. As illustrated in Exhibit__ (CEH-5), I began by
22 calculating six month average spreads for Aa-
23 rated debt versus A-rated debt and for A-rated
24 debt versus Baa-rated debt, using Moody's

1 monthly data for seasoned utility bonds. Based
2 upon these spreads I then extrapolated implied
3 bond yields for both Con Edison and the proxy
4 group, and determined that the required bond
5 yield for Con Edison's securities was 24 basis
6 points less than the yield for the riskier proxy
7 group.

8 In order to be conservative in my
9 adjustment I made the simplifying assumption
10 that a linear relationship exists between the
11 return requirements of the respective debt and
12 equity investors. Therefore, I reduced my proxy
13 group's 8.93% cost of equity to 8.69% to reflect
14 the lower return requirements of a Con Edison
15 common equity investor. This adjustment is
16 illustrated in Exhibit__ (CEH-2).

17 Q. Please explain the adjustment you made to
18 reflect the Company's proposed common equity
19 issuance during the rate year?

20 A. The Company's financial forecast indicates that
21 it will issue \$376 million of new equity to
22 support its regulated operations during the rate
23 year. Additionally, Company witness Rosenberg
24 testified that Con Edison incurred issuance

1 costs of about 2.0% on its most recent stock
2 offering; an amount that is in-line with such
3 costs approved in previous Con Edison
4 financings.

5 Based upon these projections, the Company
6 can reasonably be expected to incur issuance
7 costs of about \$7.52 million for its projected
8 rate year offering of \$376 million. Given
9 Staff's projection that about \$8.4 billion of
10 average common equity will be deployed to
11 support regulated operations during the rate
12 year, I increased the cost of equity by .09% to
13 recover these reasonably expected costs in the
14 traditional manner prescribed by the Commission.
15 By increasing the authorized ROE by .09%, the
16 Company's shareholders will be able to
17 recover/earn an additional \$7.52 million on the
18 \$8.4 billion of common equity they supplied, on
19 average, during the rate year.

20 This .09% adjustment, together with my
21 credit quality adjustment, resulted in a cost of
22 equity of 8.78%, which I rounded to 8.8%.
23 Therefore, as shown in Exhibit__ (CEH-2), I
24 recommend that Con Edison should be allowed the

1 opportunity to earn an 8.8% return on its
2 average common equity during the rate year.

3

4 **CRITIQUE OF THE COMPANY'S ROE PRESENTATION**

5 **PROXY GROUP SELECTION**

6 Q. What concerns do you have with the method
7 Company witness Rosenberg used to select his
8 proxy group?

9 A. I am concerned that his proxy group is simply
10 too small to produce reliable results. Mr.
11 Rosenberg's six-company proxy group consists of
12 just five A/A rated electric utilities and one
13 rated AA/Aa. Acknowledging the shrinking number
14 of candidate companies out of the 61 company
15 "pool" of Value Line electric utilities, Mr.
16 Rosenberg folded companies with an "AA/Aa"
17 rating into his "A/A" rated proxy group. With
18 respect to the risks added via unregulated
19 investments, he adopted an approach that is
20 similar to Staff, and included only companies
21 whose unregulated operations were not deemed
22 "significant".

23 While the use of six companies seems too
24 small to consistently produce reliable results,

1 it is arguable that not all of the six are
2 comparable to Con Edison. More specifically,
3 two of his companies (CH Energy Group and SCANA
4 Corporation), based upon their 2005 10-K's, had
5 regulated revenues that were below 70% of their
6 total operating revenues, thus calling into
7 question their suitability for consideration.

8

9 **DISCOUNTED CASH FLOW METHODOLOGY**

10 Q. Please explain company witness Rosenberg's DCF
11 approach and your concerns with his analysis?

12 A. In a clear departure from the GFC approach of
13 relying solely upon sustainable growth to
14 forecast the long-term dividend growth rates of
15 the proxy group companies, Mr. Rosenberg uses
16 three measures of growth instead: a sustainable
17 growth rate derived from Value Line data for
18 each of the companies in his proxy group; long-
19 term growth in nominal Gross Domestic Product
20 (GDP) and long-term earnings growth for the
21 electric industry.

22 Mr. Rosenberg testifies that his approach
23 is warranted because it is difficult to
24 ascertain investor growth expectations at the

1 current time. I will first explain why his
2 basic premise is faulty, and then describe how
3 the flaws in each of his three analyses render
4 his DCF results unreliable.

5 Q. Why do you disagree with Mr. Rosenberg's view
6 that additional growth estimates are needed
7 because of the absence of a clear picture of
8 long-term future growth specific to electric
9 utilities?

10 A. Investor uncertainty is not something that
11 suddenly appeared on the horizon. In fact, just
12 like all other investors of U.S. stocks past,
13 present and future, investors in electric
14 utility shares today can and do incorporate
15 uncertainty into their buying and selling
16 decisions. Simply put, Mr. Rosenberg offers no
17 compelling reason to look beyond sustainable
18 growth rates for estimating long-term dividend
19 growth rates.

20 Q. Why is his first DCF analysis using sustainable
21 growth problematic?

22 A. I have relatively minor concerns with the manner
23 in which Mr. Rosenberg calculated the cost of
24 equity estimates for each of the six companies

1 in his proxy group using this approach.
2 However, I am very concerned with his decision
3 to increase the cost of equity resulting from
4 this approach from 9.3% to 9.7% by throwing out
5 a third of his results. In fact, his decision
6 to throw out these results because he believes
7 they are too low relative to the yield on
8 utility bonds belies the basic rationale for
9 using a proxy group in the first place.
10 Moreover, his need to resort to such an
11 arbitrary exercise of judgment in order to
12 increase his cost of equity estimate supports my
13 claim that his proxy group is simply too small
14 to yield meaningful results.

15 Q. Is Mr. Rosenberg's second DCF analysis, using
16 GDP growth suitable for consideration?

17 A. No. This approach contains several flaws. The
18 Commission has long accepted the premise that
19 long run utility dividend growth is a product of
20 a company's future expected returns on equity
21 and its dividend payout policy. Mr. Rosenberg's
22 testimony, however, fails to address how GDP
23 growth captures these company-specific factors.
24 He also does not explain why a macroeconomic

1 measure of economic output is applicable,
2 particularly in an industry whose business
3 customers have clear incentives to minimize
4 their consumption.

5 Q. Do you agree with Mr. Rosenberg's third DCF
6 approach, using long-term electric utility
7 earnings growth as a proxy for the long-run DCF
8 growth rate?

9 A. No. This growth rate estimate shares the same
10 infirmities as his GDP growth rate analysis
11 because it fails to consider the unique
12 circumstances facing each company in the proxy
13 group.

14

15 **CAPITAL ASSET PRICING MODEL METHODOLOGY**

16 Q. Please explain Company witness Rosenberg's CAPM
17 approach and your primary concerns with it.

18 A. Mr. Rosenberg performed four CAPM analyses.
19 While I have reservations with the manner he
20 used to calculate the risk-free rate he employed
21 in all four of his CAPM analyses (his exact
22 methodology is not specified), my major concerns
23 are with the derivation of his risk premium and
24 expected market return. In addition, I

1 completely disagree with his derivation of a 100
2 basis point "size" premium which he added to his
3 CAPM results.

4 As discussed earlier in my testimony, the
5 third and final input in a CAPM analysis is a
6 determination of the appropriate risk premium.
7 The risk premium itself is determined by
8 calculating the expected return on the market
9 and the risk-free investment rate. Next, I will
10 explain the infirmities of the two separate
11 approaches he utilized to determine his risk
12 premium.

13 Q. What concerns do you have with the historical
14 risk premium that Mr. Rosenberg used in two of
15 his CAPM analyses?

16 A. In two of his CAPM analyses Mr. Rosenberg
17 utilized a 7.1% figure from Ibbotson Associates
18 that represents the historical spread between
19 stock returns and treasury securities for the
20 1926-2005 period. As explained earlier in my
21 testimony the fundamental problem with using the
22 Ibbotson data is that it is stale and not
23 representative of the current business climate.

24 Q. What concerns do you have with Company witness

- 1 Rosenberg's use of a single-stage DCF model to
2 calculate the expected market return for the S&P
3 500 that Mr. Rosenberg uses in his other two
4 CAPM analyses?
- 5 A. Mr. Rosenberg applies a single-stage DCF model
6 to the S&P 500, which assumes a grossly
7 exaggerated 12.0% dividend growth estimate in
8 addition to a dividend yield of 1.9%. This rate
9 far exceeds the actual growth rate (2.1% above
10 inflation) in dividends of the S&P 500 index for
11 the period 1946-1999 ("The Shrinking Equity
12 Premium", Jeremy Siegel, *The Journal of*
13 *Portfolio Management*, Fall 1999, page 14).
14 Moreover, it even exceeds the 11.3% Merrill
15 Lynch market return forecast. Given that Mr.
16 Rosenberg has provided no evidence to
17 demonstrate how a 12.0% dividend growth for the
18 S&P 500 is sustainable, these CAPM results are
19 seriously overstated and unreliable.
- 20 Q. Please describe the nexus of Mr. Rosenberg
21 "size" premium and why you believe his arguments
22 are erroneous.
- 23 A. Mr. Rosenberg recommends adding 100 basis points
24 to his CAPM results because of the fact that two

1 of his companies are characterized by Ibbotson
2 Associates as "mid-capitalization" and two are
3 considered "low-capitalization," and per
4 Ibbotson, require higher returns than indicated
5 by his CAPM results.

6 Mr. Rosenberg's approach, however, fails to
7 explain why Con Edison's customers should have
8 to support a return requirement that is inflated
9 by supposed risks faced by "small" companies, of
10 which Con Edison most certainly is not. The
11 Commission has never accepted such a specious
12 argument on the behalf of its major utilities,
13 and Mr. Rosenberg offers no new reason why the
14 Commission should do so now.

15

16 **RISK PREMIUM ANALYSIS**

17 Q. Do you agree with Company witness Rosenberg's
18 use of a risk premium analysis to determine the
19 Company's cost of equity?

20 A. No. The CAPM approach is a market risk premium
21 approach; the use of another risk premium
22 approach is redundant. Moreover, the risk
23 premium approach offered by Mr. Rosenberg has
24 already been considered and rejected by both the

1 ALJs in the GFC and the Commission itself. In
2 Case 95-G-1034, Central Hudson Gas & Electric
3 Corporation, Order and Opinion No. 96-28 (issued
4 October 3, 1996), the Commission stated on page
5 13: "...we have avoided reliance on the risk
6 premium approach because it reflects allowed
7 returns which are an inferior alternative to a
8 direct estimate of a company's own cost of
9 equity."

10 Q. Are there any other deficiencies or flaws in his
11 risk premium approach?

12 A. Yes. Mr. Rosenberg makes no attempt to
13 determine the extent to which Con Edison is more
14 or less risky than the average electric utility
15 contained in the Moody's electric utility common
16 stock index for the period 1932 to 2005. He
17 also provides no evidence about whether the
18 risks of the bonds used to calculate the yield
19 for Moody's composite index have remained at the
20 same level relative to the risks of the electric
21 utility stocks comprising the Moody's electric
22 utility common stock index, for the 1932 to 2005
23 study period. Finally, Mr. Rosenberg has not
24 provided evidence indicating that the risks of

1 utility bonds have remained at the same level
2 relative to Treasury securities over this time
3 period.

4 Mr. Rosenberg's use of Regulatory
5 Associates *Regulatory Focus* to determine an
6 average allowed return is also seriously flawed
7 primarily because no attempt is made to assure
8 the comparability of those returns with the
9 particular risks facing Con Edison and the
10 return that those risks imply. Specifically,
11 Mr. Rosenberg makes no attempt to factor in the
12 particular risks associated with any of these
13 ROE decisions, nor does he differentiate for
14 ROEs that are for multi-year rate plans and as
15 such, likely include stayout premiums.

16 In summary, Mr. Rosenberg's risk premium
17 analysis should be rejected because he has
18 offered no support that it is applicable to Con
19 Edison and because he makes no assurances that
20 the risk premium hasn't changed over time.

21

22 **COMPARABLE EARNINGS ANALYSIS**

23 Q. Do you agree with Mr. Rosenberg's use of a
24 comparable earnings analysis to determine Con

1 Edison's cost of equity?

2 A. No. As with the Risk Premium Analysis, the ALJs
3 in the GFC and the Commission have already
4 considered and rejected the comparable earnings
5 approach.

6 In Case 95-G-1034, Central Hudson Gas &
7 Electric Corporation, Order and Opinion No. 96-
8 28 (issued October 3, 1996), the Commission
9 stated on page 13: "...we have consistently found
10 the comparable earnings approach unreliable
11 because it does not adequately reflect the cost
12 of equity of the companies in the proxy group."

13 The ALJs in the GFC were very specific
14 about their reasons for rejecting this approach.
15 On page 47 of their RD they stated: "...that
16 approach, for a number of reasons has almost
17 nothing to do with determining the cost of
18 equity, even for competitive firms.
19 Observations of reported book earnings have only
20 a tenuous link to the cost of equity in any
21 given year, and the inclusion of six
22 observations - one forecast, one current, and
23 four historical - does not cure that defect.
24 Investors in the 'comparable' group do not earn

1 the returns included in the analysis; they earn
2 returns based on the prices they paid for their
3 investments."

4 Applying that insight to the testimony in
5 this case, the 16.0% to 17.0% returns calculated
6 by Mr. Rosenberg are not the returns expected by
7 investors on their investment, but rather
8 returns on book value. Further, these results
9 are unreasonable on their face. It is simply
10 incomprehensible that rational investors in any
11 company resembling Con Edison (the highest Value
12 Line safety rating and a very low S&P business
13 risk profile) would expect to earn a return that
14 exceeds the 11.3% Merrill Lynch market return by
15 at least 470 basis points!

16

17 **STAYOUT PREMIUM**

18 Q. The Company's revenue requirement is based upon
19 an 11.6% cost of equity, including a 0.35%
20 stayout premium for a three year rate plan. Do
21 you propose that a stayout premium be applied to
22 your results?

23 A. No. My 8.8% cost of equity determination is
24 specifically for the rate year ending September

1 30, 2008.

2 Q. Do you recommend updating the cost of equity?

3 A. Yes. Prior to a decision by the Commission in
4 this case, I recommend that my methodology be
5 updated.

6 Q. Does this conclude your testimony?

7 A. Yes it does.

8

9

10

11

BEFORE THE
STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

In the Matter of
Consolidated Edison Company of New York, Inc.

Case 06-G-1332

March 2007

Prepared Exhibit of:

Craig E. Henry
Associate Utility Financial
Analyst
Office of Accounting, Finance
and Economics
State of New York
Department of Public Service
Three Empire State Plaza
Albany, New York 12223-1350

Value Line Electric Utility Industry (Dec 2006)

Company	S&P Rating	S&P Score	Business Profile	Moody's Rating	Moody's Score
CENTRAL					
1 ALLETE Inc.	BBB+	8	6	Baa2	9
2 Alliant Energy Corp	BBB	8	5	Baa1	8
3 Ameren Corp	BBB	9	7	Baa1	8
4 American Electric Power Co., Inc	BBB	9	5	Baa2	9
5 Aquila, Inc	B	15	6	B2	15
6 CMS Energy Corp.	BB	12	6	Ba3	13
7 Center Point Energy Inc	BBB	9	3	Ba1	11
8 Cleco Corp.	BBB	9	6	Baa2	10
9 DPL Inc.	BB+	11	6		10
10 DTE Energy Company	BBB	9	6		9
11 Empire District Electric Company	BBB	10	6		9
12 Entergy Corp.	BBB	9	6		10
13 Great Plains Energy Inc.	BBB	8	7		9
14 MGE Energy Inc	A-	4	4		4
15 NiSource Inc	BBB	9	4		10
16 OGE Energy Corp.	BBB	8	6		8
17 Otter Tail Corp.	BBB	8	8		7
18 TXU Corp	A-	10	7	Ba1	11
19 Vectren Corp.	A-	7	4		N/A
20 WPS Resources Corp	A-	6	5		5
21 Westar Energy Inc.	BB+	11	5		10
22 Wisconsin Energy Corporation	BBB	8	5		7

Bond Rating		"Score"
Moody's	S&P	
Aaa	AAA	1
Aa1	AA+	2
Aa2	AA	3
Aa3	AA-	4
A1	A+	5
A2	A	6
A3	A-	7
Baa1	BBB+	8
Baa2	BBB	9
Baa3	BBB-	10
Ba1	BB+	11
Ba2	BB	12
Ba3	BB-	13
B1	B+	14
B2	B	15

Company	S&P Rating	S&P Score	Business Profile	Moody's Rating	Moody's Score
EAST					
1 Allegheny Energy Inc	BB+	11	7	Ba2	12
2 CH Energy Group, Inc.	A-	6	3		6
3 Central Vermont Public Svc Corp.	BB+	11	5	Baa3	10
4 Consolidated Edison Inc.	BBB	6	2		6
5 Constellation Energy Group Inc.	BBB+	8	7		8
6 Dominion Resources Inc.	BBB	9	7		9
7 Duke Energy Corp.	BBB	9	6		9
8 Duquesne Light Holdings, Inc.	BBB	9	4		10
9 Energy East Corp.	BBB	8	3		9
10 Exelon Corp.	BBB	8	7		9
11 FPL Group, Inc	A	6	8	A2	6
12 First Energy Corp.	BBB	9	7	Baa1	10
13 Green Mountain Power Corp.	BBB	9	5	Baa2	9
14 Northeast Utilities	BBB	9	4	Baa2	9
15 NSTAR	A-	5	1	A2	6
16 PPL Corporation	BBB	9	7	Baa2	9
17 PEPCO Holdings, Inc.	BBB	9	5	Baa1	10
18 Progress Energy	BBB	9	5	Baa2	9
19 Public Service Enterprise Group	BBB	9	7	Baa2	9
20 SCANA Corp	A-	7	4	A3	7
21 Southern Company	A	6	4	A3	7
22 TECO Energy Inc.	BB	12	5	Ba2	12
23 UIL Holdings	N/A	N/A	N/A	Baa3	10

Company	S&P Rating	S&P Score	Business Profile	Moody's Rating	Moody's Score
WEST					
1 Avista Corporation	BB+	11	6	Ba1	11
2 Black Hills Corporation	BBB	10	8	Baa3	10
3 Edison International	BBB	10	6	Baa2	9
4 El Paso Electric Company	BBB	9	6	Baa3	10
5 Hawaiian Electric Industries Inc.	BBB	9	6	Baa2	9
6 IDACORP Inc.	BBB+	8	5	Baa2	9
7 MDU Resources	BBB+	8	N/A	A3	7
8 PG&E Corporation	BBB	9	5	Baa3	10
9 PNM Resources	BBB	9	6	Baa3	10
10 Pinnacle West Capital Corp.	BBB	10	6	Baa3	10
11 Portland General Electric Co	BBB+	8	5	Baa2	9
12 Puget Energy, Inc	BBB	10	4	Ba1	11
13 Sempra Energy	BBB+	8	7	Baa1	8
14 Sierra Pacific Resources	BB-	13	6	B1	14
15 UniSource Energy	N/A	N/A	N/A	Ba2	12
16 Xcel Energy	BBB	9	5	Baa1	8

AVERAGE: 8.86 5.47 9.17

Value Line Investment Grade Electrics (Dec 2006)

Company	S&P Rating	S&P Score	Business Profile	Moody's Rating	Moody's Score	% Util Revenue
1 ALLETE Inc.	BBB+	8	6	Baa2	9	78.1%
2 Alliant Energy Corp.	BBB	8	5	Baa1	8	94.3%
3 Ameren Corp.	BBB	9	7	Baa1	8	87.9%
4 American Electric Power Co., Inc.	BBB	9	5	Baa2	9	96.2%
5 Cleco Corp.	BBB	9	6	Baa3	10	95.0%
6 DTE Energy Company	Baa1	9	6	Baa2	9	73.2%
7 Empire District Electric Company	Baa1	10	6	Baa2	9	93.2%
8 Entergy Corp.	BBB	9	6	Baa3	10	84.4%
9 Great Plains Energy Inc.	Baa1	9	7	Baa2	9	44.2%
10 MGE Energy Inc	A-	4	4	A-	4	99.6%
11 NiSource Inc	BBB	9	4	Baa1	10	86.7%
12 OGE Energy Corp.	Baa1	8	6	Baa1	8	28.9%
13 Otter Tail Corp.	Baa1	8	8	Baa1	7	29.9%
14 Vectren Corp.	A-	7	4	Baa2	8	87.9%
15 WPS Resources Corp.	A-	6	5	A-	5	21.9%
16 Wisconsin Energy Corporation	Baa1	8	5	Baa1	7	99.4%
17 CH Energy Group, Inc.	A-	6	3	A-	6	69.6%
18 Consolidated Edison Inc.	A-	6	2	A-	6	86.4%
19 Constellation Energy Group Inc.	Baa1	8	7	Baa1	8	18.0%
20 Dominion Resources Inc.	Baa1	9	7	Baa1	9	53.0%
21 Duke Energy Corp.	Baa1	9	6	Baa1	9	54.3%
22 Duquesne Light Holdings, Inc.	BBB	9	4	Baa1	10	83.8%
23 Energy East Corp.	Baa1	8	3	Baa1	9	91.0%
24 Exelon Corp.	BBB	8	7	Baa1	9	72.8%
25 FPL Group, Inc	A-	6	8	A-	6	99.0%
26 First Energy Corp.	BBB	9	7	Baa3	10	48.0%
27 Green Mountain Power Corp.	BBB	9	5	Baa2	9	96.1%
28 Northeast Utilities	BBB	9	4	Baa2	9	74.4%
29 NSTAR	A-	5	1	A-	6	96.0%
30 PPL Corporation	BBB	9	7	Baa2	9	53.9%
31 PEPCO Holdings, Inc.	BBB	9	5	Baa3	10	58.3%
32 Progress Energy	BBB	9	5	Baa2	9	78.6%
33 Public Service Enterprise Group	BBB	9	7	Baa2	9	62.2%
34 SCANA Corp.	A-	7	4	A3	7	69.4%
35 Southern Company	A-	6	4	A3	7	98.0%
36 Black Hills Corporation	BBB	10	8	Baa3	10	21.5%
37 Edison International	BBB	10	6	Baa2	9	80.2%
38 El Paso Electric Company	BBB	9	6	Baa3	10	58.2%
39 Hawaiian Electric Industries Inc.	BBB	9	6	Baa2	9	81.5%
40 IDACORP Inc.	BBB+	8	5	Baa2	9	97.5%
41 MDU Resources	BBB+	8	N/A	A3	7	16.4%
42 PG&E Corporation	BBB	9	5	Baa3	10	100.0%
43 PNM Resources	BBB	9	6	Baa3	10	99.9%
44 Pinnacle West Capital Corp.	BBB	10	6	Baa3	10	74.9%
45 Portland General Electric Co.	BBB+	8	5	Baa2	9	88.2%
46 Sempra Energy	BBB+	8	7	Baa1	8	60.7%
47 Xcel Energy	BBB	9	5	Baa1	8	99.2%
AVERAGE:		<u>8.23</u>	<u>5.46</u>		<u>8.43</u>	<u>73.2%</u>

Value Line Electrics (Dec 2006)
(Investment Grade AND Minimum 70% Utility Revenue)

Page 3

Company	S&P Rating	S&P Score	Business Profile	Moody's Rating	Moody's Score	% Util Revenue
1 ALLETE Inc.	BBB+	8	6	Baa2	9	78.1%
2 Alliant Energy Corp.	BBB	8	5	Baa2	8	94.3%
3 Ameren Corp.	BBB	9	7	Baa2	8	87.9%
4 American Electric Power Co., Inc.	BBB	9	5	Baa2	9	96.2%
5 Cleco Corp.	BBB	9	6	Baa2	10	95.0%
6 DTE Energy Company	BBB	9	6	Baa2	9	73.2%
7 Empire District Electric Company	BBB	10	6	Baa2	9	93.2%
8 Entergy Corp.	BBB	9	6	Baa2	10	84.4%
9 MGE Energy Inc	BBB	4	4	Baa2	4	99.6%
10 NiSource Inc	BBB	9	4	Baa2	10	86.7%
11 Vectren Corp.	BBB	7	4	Baa2	8	87.9%
12 Wisconsin Energy Corporation	BBB	8	5	Baa2	7	99.4%
13 Consolidated Edison Inc.	BBB	6	2	Baa2	6	86.4%
14 Duquesne Light Holdings, Inc.	BBB	9	4	Baa2	10	83.8%
15 Energy East Corp.	BBB	8	3	Baa2	9	91.0%
16 Exelon Corp.	BBB	8	7	Baa2	9	72.8%
17 FPL Group, Inc	BBB	6	8	Baa2	6	99.0%
18 Green Mountain Power Corp.	BBB	9	5	Baa2	9	96.1%
19 Northeast Utilities	BBB	9	4	Baa2	9	74.4%
20 NSTAR	BBB	5	1	Baa2	6	96.0%
21 Progress Energy	BBB	9	5	Baa2	9	78.6%
22 Southern Company	BBB	6	4	Baa2	7	98.0%
23 Edison International	BBB	10	6	Baa2	9	80.2%
24 Hawaiian Electric Industries Inc.	BBB	9	6	Baa2	9	81.5%
25 IDACORP Inc.	BBB	8	5	Baa2	9	97.5%
26 PG&E Corporation	BBB	9	5	Baa2	10	100.0%
27 PNM Resources	BBB	9	6	Baa2	10	99.9%
28 Pinnacle West Capital Corp.	BBB	10	6	Baa2	10	74.9%
29 Portland General Electric Co.	BBB	8	5	Baa2	9	88.2%
30 Xcel Energy	BBB	9	5	Baa1	8	99.2%
AVERAGE:		<u>8.20</u>	<u>5.03</u>		<u>8.50</u>	<u>89.1%</u>

Staff Electric Utility Proxy Group (Dec 2006)

Page 4

Company	S&P Rating	S&P Score	Business Profile	Moody's Rating	Moody's Score	% Util Revenue
1 ALLETE Inc.	BBB+	8	6	Baa2	9	78.1%
2 Alliant Energy Corp.	BBB	8	5	Baa3	8	94.3%
3 Ameren Corp.	BBB	9	7	Baa1	8	87.9%
4 American Electric Power Co., Inc.	BBB	9	5	Baa2	9	96.2%
5 Cleco Corp.	BBB	9	6	Baa3	10	95.0%
6 DTE Energy Company	BBB	9	6	Baa2	9	73.2%
7 Empire District Electric Company	BBB	10	6	Baa1	9	93.2%
8 Entergy Corp.	BBB	9	6	Baa3	10	84.4%
9 MGE Energy Inc	BBB	4	4	Baa3	4	99.6%
10 NiSource Inc	BBB	9	4	Baa3	10	86.7%
11 Vectren Corp.	BBB	7	4	Baa3	8	87.9%
12 Wisconsin Energy Corporation	BBB	8	5	Baa3	7	99.4%
13 Consolidated Edison Inc.	BBB	6	2	Baa3	6	86.4%
14 Energy East Corp.	BBB	8	3	Baa3	9	91.0%
15 Northeast Utilities	BBB	9	4	Baa3	9	74.4%
16 NSTAR	BBB	5	1	Baa3	6	96.0%
17 Progress Energy	BBB	9	5	Baa3	9	78.6%
18 Southern Company	BBB	6	4	Baa3	7	98.0%
19 Edison International	BBB	10	6	Baa3	9	80.2%
20 Hawaiian Electric Industries Inc.	BBB	9	6	Baa3	9	81.5%
21 IDACORP Inc.	BBB	8	5	Baa3	9	97.5%
22 PG&E Corporation	BBB	9	5	Baa3	10	100.0%
23 PNM Resources	BBB	9	6	Baa3	10	99.9%
24 Pinnacle West Capital Corp.	BBB	10	6	Baa3	10	74.9%
25 Portland General Electric Co.	BBB	8	5	Baa3	9	88.2%
26 Xcel Energy	BBB	9	5	Baa3	8	99.2%
AVERAGE:		8.23	4.88		8.50	89.3%

Bond Rating		
Moody's	S&P	
Aaa	AAA	1
Aa1	AA+	2
Aa2	AA	3
Aa3	AA-	4
A1	A+	5
A2	A	6
A3	A-	7
Baa1	BBB+	8
Baa2	BBB	9
Baa3	BBB-	10
Ba1	BB+	11
Ba2	BB	12
Ba3	BB-	13
B1	B+	14
B2	B	15

Summary of Staff Cost of Equity Recommendation

Merril Lynch Cost of Market	11.30% (January 2007)	
<u>Treasury Rates</u>		
	<u>10 year</u>	<u>30 year</u>
Aug-06	4.88%	5.00%
Sep-06	4.72%	4.85%
Oct-06	4.73%	4.85%
Nov-06	4.60%	4.69%
Dec-06	4.56%	4.68%
Jan-07	4.76%	4.85%
Average	4.71%	4.82%
Risk Free Rate (8/06 - 1/07)	4.76%	
Proxy Group Beta	0.9160	
Proxy Group DCF ROE	7.99%	
Traditional CAPM ROE	10.75%	
Zero Beta CAPM ROE	10.89%	
Generic CAPM ROE	10.82%	
Proxy Group Cost of Equity (2/3 DCF 1/3 CAPM Wt.)	<u>8.93%</u>	
Adjustments:		
Credit Quality Differential	-0.24%	
Rate Year C.E. Issuance Costs	0.09%	
Recommended ROE:	<u>8.80%</u>	

Company	Six-month Price		Aug-06		Sep-06		Oct-06		Nov-06		Dec-06		Jan-07	
	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
1 ALLETE Inc.	\$45.76		47.52	44.25	46.29	43.26	45.39	42.55	46.88	45.09	47.84	45.97	48.55	45.53
2 Alliant Energy Corp	\$37.31		36.98	34.98	37.18	35.08	39.44	35.69	39.96	37.92	39.49	37.70	38.22	35.21
3 Ameren Corp	\$53.30		53.69	49.80	53.77	51.81	55.24	52.19	54.80	53.26	55.08	53.25	54.33	52.41
4 American Electric Power Co.	\$39.76		37.30	35.84	37.02	35.64	41.85	36.49	41.98	40.68	43.13	41.54	43.90	41.69
5 Clcco Corp.	\$25.22		25.12	24.00	25.90	24.27	26.20	25.09	26.20	24.78	25.96	25.03	25.85	24.28
6 Consolidated Edison Inc.	\$47.30		47.06	44.70	46.96	44.93	48.70	46.04	48.88	47.73	49.28	47.55	48.70	47.07
7 DTE Energy Company	\$44.70		42.75	40.44	41.95	40.26	45.97	41.37	47.25	45.55	49.24	46.98	49.42	45.25
8 Edison International	\$43.97		43.79	40.96	43.78	40.70	44.94	41.69	46.87	43.95	47.15	44.79	46.28	42.76
9 Empire District Electric Company	\$23.34		23.09	21.70	22.95	21.80	24.20	21.61	24.37	23.22	25.10	23.59	25.00	23.45
10 Energy East Corp	\$24.35		25.20	23.72	24.51	23.37	24.84	23.62	24.63	23.72	25.66	24.39	24.98	23.60
11 Entergy Corp	\$85.14		79.70	76.55	80.00	76.29	86.94	78.38	91.58	83.99	94.03	90.50	94.16	89.60
12 Hawaii Electric Industries	\$27.30		28.94	26.75	27.45	26.07	28.18	27.00	28.10	26.50	27.79	26.89	27.49	26.45
13 IDACORP, Inc.	\$38.38		38.58	36.04	38.81	37.27	40.17	37.61	40.15	38.03	39.96	38.35	39.19	36.38
14 IJGE Energy Inc.	\$33.89		33.83	31.02	34.09	32.24	34.83	32.17	34.99	32.32	37.00	33.80	36.82	33.60
15 iSource Inc.	\$22.98		23.03	21.00	21.88	20.88	23.66	21.48	24.76	23.05	24.80	23.72	24.49	23.04
16 Northeast Utilities	\$25.37		23.11	22.33	23.70	22.71	25.03	23.28	28.08	24.99	28.90	26.73	28.47	27.15
17 NSTAR	\$33.91		32.94	31.02	34.07	32.23	35.90	33.26	35.51	34.50	35.74	33.94	35.08	32.68
18 PG&E Corporation	\$43.91		42.37	40.40	42.51	40.72	43.65	41.49	46.05	42.58	48.17	45.66	47.95	45.34
19 PNM Resources Inc.	\$29.19		28.94	26.37	28.80	27.44	29.08	27.47	30.89	27.76	32.07	30.23	31.57	29.62
20 Pinnacle West Capital Corp.	\$47.42		45.99	42.91	45.99	43.95	48.93	45.12	49.35	47.07	51.00	48.96	51.67	48.09
21 Portland General Electric Co.	\$26.10		26.60	24.40	25.80	24.35	26.10	24.17	28.65	25.12	28.05	26.95	27.50	25.56
22 Progress Energy	\$46.32		44.68	43.13	46.22	42.74	46.31	44.40	48.50	45.63	49.55	47.68	50.00	47.05
23 Southern Company	\$35.52		34.32	33.13	35.00	33.70	36.60	34.49	36.73	35.41	37.40	36.16	37.25	36.10
24 Veicren Corp	\$27.91		28.40	26.90	27.75	26.00	29.25	26.67	29.19	27.61	29.15	28.06	28.54	27.43
25 Wisconsin Energy Corporation	\$45.13		43.06	40.86	43.79	41.84	46.99	43.75	47.00	45.27	48.70	46.55	48.04	45.67
26 Xcel Energy	\$21.84		20.93	19.95	21.05	19.90	22.15	20.56	22.99	21.81	23.63	22.71	23.62	22.78

CALCULATION OF STAFF PROXY GROUP DCF

Company	Beta	Price	EPS			DPS			EPS			DPS			DPS Growth 2009-11
			2009-11	2006	2007	2009-11	2006	2007	2009-11	2006	2007	2009-11	2006	2007	
ALLETE Inc.	0.90	\$45.76	3.75	1.45	1.64	2.10	21.30	22.90	28.00	30.65	32.00	32.00	30.65	28.00	8.59%
Alliant Energy Corporation	0.95	\$37.31	2.60	1.15	1.27	1.57	20.80	22.75	26.10	115.00	116.00	116.00	115.00	26.10	7.32%
Ameren Corporation	0.75	\$53.30	3.20	2.54	2.54	2.54	31.09	32.25	34.65	207.20	216.80	216.80	207.20	34.65	0.00%
American Electric Power Co.	1.35	\$39.76	3.75	1.50	1.59	2.00	23.08	25.50	30.25	396.00	404.00	404.00	396.00	30.25	7.95%
Cleco Corp.	1.30	\$25.22	2.00	0.90	0.90	1.20	13.69	15.66	18.25	58.00	62.00	62.00	58.00	18.25	10.06%
Consolidated Edison Inc.	0.75	\$47.30	3.05	2.30	2.32	2.38	29.80	31.40	33.65	255.00	263.00	263.00	255.00	33.65	0.85%
DTE Energy	0.75	\$44.70	3.50	2.08	2.14	2.32	32.44	34.25	36.25	177.00	168.00	168.00	177.00	36.25	2.73%
Edison International	1.15	\$43.97	3.45	1.10	1.18	1.40	20.30	24.55	30.80	326.00	326.00	326.00	326.00	30.80	5.86%
Empire District Electric Company	0.80	\$23.34	1.75	1.28	1.28	1.28	15.08	15.80	17.00	30.25	33.00	33.00	30.25	17.00	0.00%
Energy East Corp	0.90	\$24.35	2.00	1.17	1.21	1.40	19.45	19.75	21.25	147.75	147.75	147.75	147.75	21.25	4.98%
Entergy Corp	0.85	\$85.14	6.20	2.16	2.16	2.88	35.71	43.20	54.00	208.20	215.80	215.80	208.20	54.00	10.06%
Hawaii Electric Industries	0.70	\$27.30	1.75	1.24	1.24	1.24	15.02	15.45	17.00	81.20	82.00	82.00	81.20	17.00	0.00%
IDACORP, Inc.	1.00	\$38.38	2.40	1.20	1.20	1.20	24.04	26.65	30.20	43.90	46.10	46.10	43.90	30.20	0.00%
MGE Energy Inc.	0.75	\$33.89	2.45	1.39	1.40	1.44	16.82	17.45	18.95	20.70	20.70	20.70	20.70	18.95	0.94%
NISource Inc.	0.95	\$22.98	1.75	0.92	0.92	1.00	18.09	18.75	21.00	273.00	275.00	275.00	273.00	21.00	2.82%
Northeast Utilities	0.90	\$25.37	1.70	0.73	0.78	0.93	18.46	17.35	19.55	154.20	158.20	158.20	154.20	19.55	5.04%
NSTAR	0.80	\$33.91	2.75	1.21	1.33	1.65	14.37	15.65	19.00	106.81	106.81	106.81	106.81	19.00	7.45%
PG&E Corporation	1.15	\$43.91	3.00	1.34	1.42	1.66	19.60	22.55	26.90	374.00	386.00	386.00	374.00	26.90	5.34%
PNM Resources Inc.	1.00	\$29.19	2.00	0.86	0.92	1.10	18.70	20.75	25.00	70.50	74.50	74.50	70.50	25.00	6.14%
Pinnacle West Capital Corp.	1.00	\$47.42	3.70	2.03	2.13	2.43	34.57	37.20	41.05	99.60	100.00	100.00	99.60	41.05	4.49%
Portland General Electric Co.	0.90	\$26.10	2.00	0.68	0.98	1.20	19.60	20.35	22.25	62.50	62.50	62.50	62.50	22.25	6.98%
Progress Energy	0.70	\$46.32	2.90	2.44	2.46	2.52	31.90	32.50	33.95	254.00	261.00	261.00	254.00	33.95	0.81%
Southern Company	0.90	\$35.52	2.50	1.54	1.60	1.80	14.41	15.80	18.25	747.00	770.00	770.00	747.00	18.25	4.00%
Voctren Corporation	0.80	\$27.91	1.90	1.23	1.27	1.39	15.01	15.80	17.40	76.20	76.60	76.60	76.20	17.40	3.06%
Wisconsin Energy Corporation	0.80	\$45.13	3.25	0.92	0.96	1.10	22.91	26.10	31.00	117.00	117.00	117.00	117.00	31.00	4.64%
Xcel Energy Inc.	0.90	\$21.84	1.75	0.88	0.93	1.10	13.37	14.40	16.00	406.00	440.00	440.00	406.00	16.00	5.76%

AVERAGE BETA: 0.92

CALCULATION OF STAFF PROXY GROUP DCF

Company	Retention Return on Equity		B x R	Increase in Shares		PBR 2005	S-Factor	V-Factor	SxV	Sustainable Long-Term Growth	ROE
	2010	2010		2010	2005						
ALLETE Inc.	44.00%	13.84%	6.09%	1.08%	2.15	0.02	0.53	1.24%	7.33%	11.19%	
Alliant Energy Corporation	39.62%	10.19%	4.04%	0.22%	1.79	0.00	0.44	0.17%	4.21%	8.04%	
Ameren Corporation	20.63%	9.35%	1.93%	1.14%	1.71	0.02	0.42	0.81%	2.74%	7.16%	
American Electric Power Co.	46.67%	12.75%	5.95%	0.50%	1.72	0.01	0.42	0.36%	6.31%	10.32%	
Cleco Corp.	40.00%	11.24%	4.50%	1.68%	1.84	0.03	0.46	1.42%	5.91%	10.08%	
Consolidated Edison Inc.	21.97%	9.17%	2.01%	0.78%	1.59	0.01	0.37	0.46%	2.47%	7.18%	
DTE Energy	33.71%	9.75%	3.29%	-1.30%	1.38	-0.02	0.27	-0.49%	2.80%	7.64%	
Edison International	59.42%	11.62%	6.91%	0.00%	2.17	0.00	0.54	0.00%	6.91%	6.06%	
Empire District Electric Company	26.86%	10.42%	2.80%	2.20%	1.55	0.03	0.35	1.20%	4.00%	8.93%	
Energy East Corp	30.00%	9.53%	2.86%	0.00%	1.25	0.00	0.20	0.00%	2.86%	8.24%	
Energy Corp	53.55%	11.91%	6.38%	0.90%	2.38	0.02	0.58	1.25%	7.62%	10.45%	
Hawaii Electric Industries	29.14%	10.46%	3.05%	0.25%	1.82	0.00	0.45	0.20%	3.25%	7.40%	
IDACORP, Inc.	50.00%	8.11%	4.06%	1.23%	1.60	0.02	0.37	0.73%	4.79%	7.51%	
MGE Energy Inc.	41.22%	13.11%	5.40%	0.00%	2.02	0.00	0.50	0.00%	5.40%	9.08%	
NISource Inc.	42.86%	8.49%	3.64%	0.18%	1.27	0.00	0.21	0.05%	3.69%	7.65%	
Northeast Utilities	45.29%	8.87%	4.02%	0.64%	1.37	0.01	0.27	0.24%	4.26%	7.57%	
NSTAR	40.00%	14.94%	5.98%	0.00%	2.36	0.00	0.58	0.00%	5.98%	10.20%	
PG&E Corporation	44.67%	11.48%	5.13%	0.79%	2.24	0.02	0.55	0.98%	6.11%	9.36%	
PNM Resources Inc.	45.00%	8.25%	3.71%	1.39%	1.56	0.02	0.36	0.78%	4.49%	7.88%	
Pinnacle West Capital Corp.	34.32%	9.16%	3.14%	0.10%	1.37	0.00	0.27	0.04%	3.18%	7.94%	
Portland Generat Electric Co.	40.00%	9.12%	3.65%	0.00%	1.33	0.00	0.25	0.00%	3.65%	7.89%	
Progress Energy	13.10%	8.60%	1.13%	0.68%	1.45	0.01	0.31	0.31%	1.44%	6.68%	
Southern Company	28.00%	14.03%	3.93%	0.76%	2.47	0.02	0.59	1.12%	5.04%	9.51%	
Vectren Corporation	26.84%	11.10%	2.98%	0.13%	1.86	0.00	0.46	0.11%	3.09%	7.71%	
Wisconsin Energy Corporation	66.15%	10.78%	7.13%	0.00%	1.97	0.00	0.49	0.00%	7.13%	9.12%	
Xcel Energy Inc.	37.14%	11.13%	4.13%	2.03%	1.63	0.03	0.39	1.29%	5.42%	9.84%	
									Median	7.99%	

INPUTS AND CALCULATIONS FOR STAFF CAPM

Merril Lynch Cost of Market	(January 2007)	11.30%
Proxy Group Beta		0.92
<u>Treasury Rates</u>		
	<u>10 year</u>	<u>30 year</u>
Aug-06	4.88%	5.00%
Sep-06	4.72%	4.85%
Oct-06	4.73%	4.85%
Nov-06	4.60%	4.69%
Dec-06	4.56%	4.68%
Jan-07	4.76%	4.85%
Average	4.71%	4.82%
Risk Free Rate (8/06 - 1/07)	4.76%	

Traditional CAPM Calculation

Risk Free Rate + (Beta * (Market Return - Risk Free Rate))

Traditional CAPM ROE 10.75%

Zero Beta CAPM Calculation

Risk Free Rate + (.75*Beta * (Market Return - Risk Free Rate))+(.25*(Market Return - Risk Free Rate))

Zero Beta CAPM ROE 10.89%

Staff Bond Yield Analysis and Credit Quality Adjustment

Moody's Long-Term Corporate Bond Yield Averages (Seasoned Utility Bonds, 20Yr +)			
Month	Aa	A	Baa
August	5.51%	5.66%	6.01%
September	5.39%	5.53%	5.84%
October	5.39%	5.54%	5.82%
November	5.22%	5.39%	5.64%
December	5.21%	5.39%	5.62%
January	5.38%	5.55%	5.76%
6 Mo. Avg:	5.35%	5.51%	5.78%

Avg Spread		
Aa vs A	A vs Baa	
0.16%	0.27%	

Moody's	Rating Scales S&P	6 Mo Avg Yield	
Aaa1	AAA+		
Aaa2	AAA		
Aaa3	AAA-		
Aa1	AA+		
Aa2	AA	5.35%	
Aa3	AA-	5.40%	
A1	A+	5.46%	
A2	A	5.51%	5.49% <i>Con Ed</i>
A3	A-	5.60%	
Baa1	BBB+	5.69%	5.73% <i>Proxy group</i>
Baa2	BBB	5.78%	
Baa3	BBB-		<u>0.24%</u> <i>Implied Credit Quality Adjustment</i>

ConEdNY is rated "A1" and Stable by Moody's
 ConEdNY is rated "A" with a "Negative Outlook" by S&P

Proxy Group average bond ratings calculated on CEH-1, Page 4