

**BEFORE THE NEW YORK STATE PUBLIC SERVICE COMMISSION**

In the matter of:

APPLICATION OF CONSOLIDATED )  
EDISON COMPANY OF NEW YORK, INC. )  
FOR AN INCREASE IN ELECTRIC RATES )

CASE NO. 09-E-0428

REBUTTAL TESTIMONY  
OF  
ROGER A. MORIN, PhD

September 2009

**CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.**

**REBUTTAL TESTIMONY OF DR. ROGER A. MORIN**

1 **Q. PLEASE STATE YOUR NAME, ADDRESS, AND OCCUPATION.**

2 A. My name is Dr. Roger A. Morin. My business address is Georgia State  
3 University, Robinson College of Business, University Plaza, Atlanta, Georgia,  
4 30303. I am Emeritus Professor of Finance at the College of Business, Georgia  
5 State University and Professor of Finance for Regulated Industry at the Center for  
6 the Study of Regulated Industry at Georgia State University. I am also a principal  
7 in Utility Research International, an enterprise engaged in regulatory finance and  
8 economics consulting to business and government.

9 **Q. DID YOU FILE DIRECT TESTIMONY IN THIS PROCEEDING ON**  
10 **BEHALF OF CONSOLIDATED EDISON COMPANY OF NEW YORK,**  
11 **INC.?**

12 A. Yes, I did.

13 **Q. WHAT IS THE PURPOSE OF THIS REBUTTAL TESTIMONY?**

14 A. I will respond to certain statements contained in the direct testimony of: 1) Ms.  
15 Prylo and Mr. Henry ("Finance Panel") on behalf of the New York State  
16 Department of Public Service ("DPS Staff or "Staff"), 2) Mr. Niazi on behalf of  
17 the New York State Consumer Protection Board ("CPB"), and 3) Mr. Liberty and  
18 Mr. Radigan on behalf of the County of Westchester ("Westchester").

19 **Q. PLEASE DESCRIBE HOW YOUR REBUTTAL TESTIMONY IS**  
20 **ORGANIZED.**

21 A. My rebuttal testimony is organized in three sections, corresponding to each of the  
22 aforementioned testimonies.

1 **Q. PLEASE SUMMARIZE THE RATE OF RETURN RECOMMENDATIONS**  
2 **OF THE THREE WITNESSES YOU ARE REBUTTING IN THIS CASE.**

3 A. The rate of return on common equity capital (“ROE”) recommended by each  
4 party I am rebutting in this case is as follows:

5	Staff	10.1%
6	CPB	10.0%
7	Westchester	8.7%

8 My comments on the rate of return testimony offered by the panel of  
9 Messrs. Liberty & Radigan on behalf of Westchester are extremely brief, given  
10 that they did not perform any rate of return modeling and given that, as they  
11 admitted in Consolidated Edison Company of New York, Inc.’s (“CECONY” or  
12 the “Company”) last electric case (i.e., Case 08-E-0539), neither author is an  
13 expert in the areas of either cost of capital or utility capital structure. Given that  
14 CPB witness Mr. Niazi’s testimony is almost an exact duplicate of Staff’s  
15 testimony, most of my rebuttal comments are directed to the latter and are  
16 applicable to Mr. Niazi’s testimony as well.

17 **I. COMMENTS ON MESSRS. LIBERTY & RADIGAN’S TESTIMONY**

18 **Q. PLEASE SUMMARIZE MESSRS. LIBERTY & RADIGAN’S RATE OF**  
19 **RETURN ON EQUITY RECOMMENDATION.**

20 A. Messrs. Liberty & Radigan recommend that a return allowance of only 8.7% be  
21 applied to CECONY’s common equity capital for ratemaking purposes. No rate  
22 of return evidence is presented other than a forecast of the Company’s realized  
23 ROE if their recommendations are adopted by the Commission. Not only is this

1 approach highly circular, but it stands in sharp contrast with the estimation  
2 practices of expert witnesses on cost of capital who have provided detailed,  
3 factually supported, professional testimony setting forth the results of rigorous  
4 analysis. The Commission, investment analysts, finance experts, corporate  
5 analysts, and finance professionals normally rely on a variety of such scholarly  
6 financial analyses and models, employing methodologies such as DCF,  
7 Prospective Risk Premium, Historical Risk Premium, Comparable Earnings and  
8 the CAPM.

9 **Q. DID MESSRS. LIBERTY & RADIGAN INDEPENDENTLY DEVELOP**  
10 **ANY SAMPLES OF COMPARABLE RISK COMPANIES IN ORDER TO**  
11 **ARRIVE AT THEIR RECOMMENDATION?**

12 A. No, they did not.

13 **Q. DID MESSRS. LIBERTY & RADIGAN PERFORM A DCF ANALYSIS IN**  
14 **ORDER TO ARRIVE AT THEIR RECOMMENDATION?**

15 A. No, they did not.

16 **Q. DID MESSRS. LIBERTY & RADIGAN PERFORM A CAPM ANALYSIS**  
17 **IN ORDER TO ARRIVE AT THEIR RECOMMENDATION?**

18 A. No, they did not.

19 **Q. DID MESSRS. LIBERTY & RADIGAN PERFORM AN INDEPENDENT**  
20 **RISK PREMIUM ANALYSIS IN ORDER TO ARRIVE AT THEIR**  
21 **RECOMMENDATION?**

22 A. No, they did not.

1 **Q DID MESSRS. LIBERTY & RADIGAN PERFORM A COMPARABLE**  
2 **EARNINGS ANALYSIS IN ORDER TO ARRIVE AT THEIR**  
3 **RECOMMENDATION?**

4 A. No, they did not.

5 **Q. WHAT DO YOU CONCLUDE FROM THE RATE OF RETURN**  
6 **RECOMMENDATION OF MESSRS. LIBERTY & RADIGAN?**

7 A. In view of the deficiencies outlined above, the Commission should ignore their  
8 draconian recommendation.

9 **II. COMMENTS ON MR. NIAZI'S TESTIMONY**

10 **Q. PLEASE SUMMARIZE MR. NIAZI'S RATE OF RETURN ON EQUITY**  
11 **RECOMMENDATION.**

12 A. Mr. Niazi recommends that a return allowance of 10.0% be applied to  
13 CECONY's common equity capital for ratemaking purposes.

14 **Q DO YOU HAVE ANY GENERAL COMMENT ON MR. NIAZI'S**  
15 **TESTIMONY?**

16 A. In determining the cost of equity, Mr. Niazi's testimony is virtually identical to  
17 Staff's testimony in all respects, down to the number and identity of comparable  
18 companies. The only substantial difference between Staff's and Mr. Niazi's  
19 testimony is a downward risk adjustment to the ROE on the grounds that  
20 CECONY is less risky than the members of the proxy group. Specifically, Mr.  
21 Niazi (pp. 17-18) recommends a credit quality adjustment of 46 basis points,  
22 rather than the 31 basis points recommended by Staff (p. 85). Given the striking

1 similarity between the two testimonies, all the rebuttal comments directed at Staff  
2 are equally applicable to Mr. Niazi's testimony.

3 Also, both Mr. Niazi and Staff direct very similar criticisms of my own  
4 direct testimony, namely on the issue of the Risk Premium methodology and  
5 choice of comparable companies. Given the nearly identical nature of both  
6 testimonies, my responses to Staff's criticisms are equally applicable to Mr.  
7 Niazi's testimony.

### 8 III. REBUTTAL OF STAFF'S TESTIMONY

9 **Q. PLEASE SUMMARIZE STAFF'S RATE OF RETURN**  
10 **RECOMMENDATION.**

11 A. Staff recommends that a ROE allowance of 10.1% be employed on the common  
12 equity capital of CECONY. In determining CECONY's cost of common equity  
13 capital, Staff applies a two-stage Discounted Cash Flow ("DCF") analysis to a  
14 group of thirty-three electric utilities. For the first-stage growth component of the  
15 DCF analysis, Staff relies on Value Line's forecast dividend estimates over the  
16 next few years. For the more important second-stage growth component that  
17 produces the majority of the value calculated by the DCF analysis, Staff uses the  
18 earnings retention method, also known as the "sustainable growth" method, again  
19 using Value Line estimates as input data.

20 Staff also applies a Capital Asset Pricing Model ("CAPM") and an  
21 Empirical CAPM ("ECAPM") (also referred to as a "zero beta" CAPM) analysis  
22 to the same group of companies, using an average of 10-year and 30-year  
23 Treasury bond yields as proxies for the risk-free rate, and Value Line beta

1 estimates. Staff's estimate of the market risk premium ("MRP") component of  
2 the CAPM is based on a Merrill Lynch estimate. Applying a weight of two-thirds  
3 to the DCF results and one-third to the CAPM-ECAPM average result, Staff  
4 concludes that CECONY's cost of common equity capital is 10.1%, inclusive of a  
5 flotation cost allowance of 8 basis points and after a return decrement of 31 basis  
6 points in order to account for CECONY's superior credit quality.

7 **Q. WHAT IS YOUR GENERAL REACTION TO STAFF'S COST OF**  
8 **COMMON EQUITY RECOMMENDATION?**

9 A. There is a degree of substantial agreement between Staff and myself and between  
10 our respective recommendations. Under current capital market conditions, I agree  
11 generally with: (i) the use of several methodologies in estimating a fair return on  
12 common equity; (ii) the sample of electric utility companies in the DCF and  
13 CAPM analyses; (iii) the magnitude of the beta estimates in the CAPM analyses;  
14 (iv) the magnitude of the estimate of the market risk premium (MRP) in the  
15 CAPM analyses under current market circumstances; and (v) the underweighting  
16 of the CAPM results in the current financial environment.

17 I have the following four major disagreements: 1) the second stage growth  
18 rate in Staff's Two-Step DCF approach, which would increase Staff's  
19 recommended ROE by 140 basis points; 2) the stale risk-free rate in Staff's  
20 CAPM analyses, 3) the downward return adjustment in order to account for credit  
21 quality differences between CECONY and the comparable group, which would  
22 increase Staff's recommended ROE by 31 basis points, and 4) the insufficient  
23 allowance for flotation costs, which would increase Staff's recommended ROE by

1 15-20 basis points.

2 **Q. WHAT ARE YOUR BASIC CONCLUSIONS REGARDING STAFF'S**  
3 **COST OF EQUITY TESTIMONY?**

4 A. Inclusion of a proper growth rate and flotation cost allowance into the DCF  
5 results, inclusion of a current risk-free rate into the CAPM analyses, and  
6 elimination of the inappropriate credit quality adjustment would bring Staff's  
7 recommendation very close to my own.

8 **Q. PLEASE SUMMARIZE YOUR COMMENTS ON STAFF'S TESTIMONY.**

9 A. I have the following specific disagreements with Staff's testimony:

10 **1. DCF Earnings Retention Growth.** Staff's principal, and in fact only,  
11 technique for estimating the second-stage growth component of the DCF model is  
12 the earnings retention growth technique. There is a logical inconsistency in the  
13 retention growth technique because Staff is forced to assume the answer to  
14 implement the method. From Staff's own evidence, investors expect substantially  
15 higher returns for utilities than what Staff recommends.

16 **2. DCF Growth Rates: Analysts' Forecasts.** Investors are expecting  
17 substantially higher growth rates than Staff's growth rates for the sample  
18 companies. Using analysts' consensus growth forecast instead of Staff's would  
19 increase the DCF estimate of the cost of common equity by a minimum of 140  
20 basis points (1.4%), that is, from 10.35% to 11.75%.

21 **3. DCF Growth Rates: Long-term Economic Growth.** Staff's long-term  
22 growth forecast for the comparable group of electric utilities, based on the  
23 earnings retention growth method, understates the long-term expected GDP

1 nominal growth by approximately 140 basis points.

2 **4. CAPM Risk-Free Rate.** Staff's risk-free rate proxy is not only stale but also  
3 relies on the yield on 10-year and 30-year Treasury bonds instead of just the yield  
4 on 30-year Treasury bonds. Using the appropriate risk-free rate, Staff's CAPM  
5 estimates must be raised by 78 basis points from this correction alone.

6 **5. Flotation Costs.** Staff's DCF estimates of equity costs are downward-biased  
7 by approximately 15-20 basis points to the extent that not all the flotation costs  
8 associated with past equity issues have been expensed or recovered in the past.

9 **6. Return Adjustments.** Staff's downward ROE adjustment for credit quality  
10 differences should be rejected by the Commission.

11 **7. Criticisms of my testimony.** Staff's criticisms of my ROE recommendation  
12 are without foundation.

13 **1. EARNINGS RETENTION GROWTH METHOD**

14 **Q. WHAT SPECIFIC DCF METHODOLOGY DID STAFF EMPLOY TO**  
15 **DETERMINE THE COST OF EQUITY?**

16 A. Staff applied a two-stage DCF analysis to a sample of 33 electric utilities, using  
17 the earnings retention growth method as a proxy for the expected long-term  
18 growth component in the second stage. Using a median retention growth rate of  
19 4.1% [Column W of Exhibit \_ (FP-5) page 2], and not the 4.75% reported by Staff  
20 (p. 59), produced an average DCF cost of equity estimate of 10.35% reported on  
21 the last column of the same exhibit.

22

23

1 **Q. PLEASE COMMENT ON STAFF'S GROWTH ESTIMATE IN THE DCF**  
2 **MODEL.**

3 A. Staff relies exclusively on the earnings retention growth method in the crucial  
4 second stage of the DCF analysis, where the growth rate is based on the equation  
5  $g = b(\text{ROE})$ , where  $b$  is the percentage of earnings retained and ROE is the  
6 expected ROE. The impact of external stock financing on growth is also  
7 accounted for by adding an external growth term ( $g = sv$ ).

8 I disagree with the earnings retention growth technique for four reasons:  
9 1) the method is logically circular, 2) inconsistency with the empirical evidence as  
10 demonstrated in academic research, 3) the potential lack of representativeness of  
11 Value Line's forecasts as proxies for the market consensus, and 4) a technical  
12 error.

13 **Q. ARE THE GROWTH RATES USED BY STAFF CONSISTENT WITH ITS**  
14 **RATE OF RETURN RECOMMENDATION?**

15 A. No, they are not. Staff's retention growth methodology contains a puzzling  
16 logical contradiction. The contradiction arises because the method requires an  
17 explicit assumption on the ROE expected from the retained earnings that produce  
18 future growth. Staff bases its ROE estimate on Value Line's forecast ROE for the  
19 2013 period (Column P on Exhibit \_\_ (FP-5) page 2). But the ROEs used by  
20 Staff in calculating the retention growth rate do not match Staff's ROE  
21 recommendation. Table 1 below replicates the ROE forecasts used by Staff in  
22 deriving the retention growth rates.

23

1  
2

**Table 1 Staff's Forecast ROE**

1	ALLETE	9.62
2	Alliant Energy	10.54
3	Amer. Elec. Power	8.29
4	Ameren Corp.	10.79
5	Avista Corp.	8.26
6	Black Hills	8.3
7	Cleco Corp.	11.26
8	Consol. Edison	9.29
9	DPL Inc.	19.87
10	DTE Energy	9.88
11	Duke Energy	7.96
12	Edison Int'l	11.23
13	Empire Dist. Elec.	11.59
14	Entergy Corp.	13.72
15	FPL Group	13.83
16	FirstEnergy Corp.	14.67
17	G't Plains Energy	6.77
18	Hawaiian Elec.	10.43
19	IDACORP Inc.	7.92
20	MGE Energy	13.12
21	NSTAR	15.19
22	Northeast Utilities	9.17
23	PG&E Corp.	12.3
24	Pinnacle West Capital	8.9
25	Portland General	9.19
26	Progress Energy	9.96
27	Sempra Energy	12.04
28	Southern Co.	13.83
29	TECO Energy	12.22
30	Vectren Corp.	10.16
31	Westar Energy	8.14
32	Wisconsin Energy	12.24
33	Xcel Energy Inc.	10.77

**AVERAGE 10.95%**

**MEDIAN 10.54%**

Source: Staff Exhibit \_(FP-5) Page 2 Column P

3  
4  
5

1           The average expected ROE of 10.9% used in Staff's retention growth  
2 computation and reported on Exhibit (FP-5) Page 2 Column P exceeds Staff's  
3 recommended 10.10%. Staff's analysis thus assumes that the earned returns  
4 (ROE) of the sample companies exceed what it has determined to be their cost of  
5 equity forever. That is, Staff is assuming that these companies will earn a ROE  
6 higher than that granted by their regulators and reflected in their rates.

7           While this scenario implicit in Staff's retention growth method may be  
8 imaginable for an unregulated company, it is implausible to assume for a  
9 regulated company whose rates are continually re-set by its regulator at a level  
10 designed to permit the company to earn a return equal to its cost of capital. This  
11 logical flaw compromises the integrity of Staff's analysis, and should be a  
12 sufficient basis for rejecting the results Staff produced by this method, which  
13 constitute the cornerstone of its ROE recommendation. In essence, by using an  
14 ROE that differs from its final recommended cost of equity, Staff requires the  
15 Commission to make two inconsistent findings regarding ROE. I am perplexed as  
16 to why Staff assumes that its group of comparable electric utilities is expected to  
17 earn 10.9% forever, while at the same time it recommends an ROE of 10.10% for  
18 CECONY. The only way that these utilities can earn an ROE of 10.9% is if rates  
19 are set so that they will in fact earn 10.9%. The only logical conclusion to be  
20 drawn from the data is that the group's cost of equity is 10.9%, since these are the  
21 returns implied in Staff's retention growth analysis.

1 **Q. IS THE RETENTION GROWTH RATE TECHNIQUE CONSISTENT**  
2 **WITH THE EMPIRICAL EVIDENCE PRESENTED IN PUBLISHED**  
3 **ACADEMIC FINANCIAL RESEARCH?**

4 A. No, it is not. The second difficulty with the retention growth rate approach is that  
5 the empirical finance literature demonstrates that this particular method of  
6 determining growth is a very poor explanatory variable of market value, and is not  
7 as significantly correlated to measures of value, such as stock price and  
8 price/earnings ratios.

9 **Q. ARE VALUE LINE'S ROE AND RETENTION RATIO ESTIMATES**  
10 **REPRESENTATIVE OF THE MARKET CONSENSUS?**

11 A. No, not necessarily. The third difficulty with Staff's retention growth rates is that  
12 exclusive reliance on a Value Line forecast of ROE and retention ratio runs the  
13 risk that Value Line forecasts are not representative of investors' consensus  
14 forecast. As discussed below, averages of sell-side equity analysts' growth  
15 forecasts are reliable estimates of the investors' consensus expectations likely to  
16 be impounded in stock prices.

17 **Q. PLEASE DISCUSS THE FOURTH PROBLEM WITH STAFF'S**  
18 **RETENTION GROWTH ESTIMATES.**

19 A. The fourth difficulty with Staff's retention growth approach is that the forecasts of  
20 the expected return on equity published by Value Line are based on end-of-period  
21 book equity rather than on average book equity. The following formula,  
22 discussed and derived in Chapter 9 of my latest book, The New Regulatory  
23 Finance, adjusts the reported end-of-year values so that they are based on average

1 common equity, which is the common regulatory practice:

$$2 \quad r_a = r_t \frac{B_t}{B_t + B_{t-1}}$$

- 3  
4  
5  
6 Where:  $r_a$  = return on average equity  
7  $r_t$  = return on year-end equity as reported  
8  $B_t$  = reported year-end book equity of the current year  
9  $B_{t-1}$  = reported year-end book equity of the previous year  
10

11 The result of this error is that Staff's DCF estimates are understated by  
12 some 10-20 basis points, depending on the magnitude of the book value growth  
13 rate.

## 14 2. DCF GROWTH RATES: ANALYSTS' FORECASTS

15 **Q. WHAT DOES THE PUBLISHED ACADEMIC LITERATURE SAY ON**  
16 **THE SUBJECT OF GROWTH RATES IN THE DCF MODEL?**

17 A. Published studies in the academic literature demonstrate that growth forecasts  
18 made by analysts are reasonable indicators of investor expectations, and that  
19 investors rely on the analysts' forecasts.

20 **Q DO YOU SEE ANY DANGERS IN RELYING ON VALUE LINE AS AN**  
21 **EXCLUSIVE SOURCE OF FORECASTS IN APPLYING THE DCF**  
22 **MODEL?**

23 A. Yes, I do. Staff relies exclusively on Value Line forecasts for its major inputs  
24 into the DCF analysis, including short-term dividend forecasts, expected return,  
25 new stock issues, and expected retention ratio. Staff's exclusive reliance on Value  
26 Line growth forecasts runs the real risk that such forecasts are not representative

1 of investors' consensus forecast. Staff's sole reliance on Value Line is surprising  
2 in light of its own admission (p. 62) that, "the simple fact remains that earnings  
3 forecasts, even in the relatively stable electric utility industry, can be very difficult  
4 to predict, because of the impact of important unpredictable events." One would  
5 expect that averages of a myriad analysts' growth forecasts such as those  
6 contained in First Call, Thomson, Multex, and/or Zacks, rather than one particular  
7 analyst's in-house forecast, are more reliable estimates of the investors' consensus  
8 expectations likely to be impounded in stock prices.

9 **Q. ARE INVESTORS EXPECTING GROWTH RATES EQUAL TO STAFF'S**  
10 **RANGE?**

11 A. No. The best evidence shows that investors are expecting growth rates higher  
12 than Staff has found. For its group of 33 electric utilities, Staff has relied [see  
13 Columns N and W of Exhibit \_ (FP-5) page 2] on median growth rates of 4.1%  
14 for both stages of the DCF analysis. Table 2 below reports the long-term growth  
15 forecast from Value Line and the consensus long-term growth forecast reported  
16 by Zacks Investment Research. It is transparent from the table that the expected  
17 growth rates lie in a 5.5% - 6.0% range, as evidenced from the average and  
18 median results. These growth estimates are 140-170 basis points (1.4% - 1.7%)  
19 above Staff's long-term growth estimate of 4.1%.

20 **Q. HOW WOULD STAFF'S DCF RESULT CHANGE USING ANALYSTS'**  
21 **GROWTH FORECAST INSTEAD OF THE COMPROMISED EARNINGS**  
22 **RETENTION GROWTH METHOD IN ITS DCF ANALYSIS?**

23 A. The Value Line growth forecast and the analysts consensus growth forecast range

1 from 5.5% to 6.0% versus Staff's 4.1% in Staff's Exhibit (FP-5). Even if we  
 2 take the bottom end of the reported growth range of 5.5%- 6.0% on Table 2  
 3 versus Staff's 4.1%, a difference of 1.4%, the DCF estimate of the cost of  
 4 common equity increases from 10.35% to above 11.75%.

5 Table 2 Staff's Comparable Companies  
 6 Analysts' Growth Forecasts

Company	Value Line Projected Growth	Zacks Analysts Growth
1 ALLETE	-1.0	4.0
2 Alliant Energy	4.5	4.3
3 Amer. Elec. Power	3.0	3.8
4 Ameren Corp.	2.5	3.7
5 Avista Corp.	6.5	8.7
6 Black Hills	10.0	6.0
7 Cleco Corp.	9.5	14.5
8 Consol. Edison	3.0	3.8
9 DPL Inc.	8.0	4.5
10 DTE Energy	7.5	4.0
11 Duke Energy	5.0	4.5
12 Edison Int'l	3.5	6.0
13 Empire Dist. Elec.	8.5	
14 Entergy Corp.	6.0	6.3
15 FPL Group	7.5	8.7
16 FirstEnergy Corp.	4.0	6.0
17 G't Plains Energy	-0.5	3.0
18 Hawaiian Elec.	7.0	6.0
19 IDACORP Inc.	4.5	5.0
20 MGE Energy	4.0	5.0
21 NSTAR	8.0	5.7
22 Northeast Utilities	8.0	7.7
23 PG&E Corp.	6.5	7.0
24 Pinnacle West Capital	3.0	6.5
25 Portland General	3.5	
26 Progress Energy	6.0	4.6
27 Sempra Energy	5.5	6.5
28 Southern Co.	5.0	7.9
29 TECO Energy	4.5	10.3
30 Vectren Corp.	5.5	6.8
31 Westar Energy	4.0	5.7

32 Wisconsin Energy	8.0	8.5
33 Xcel Energy Inc.	6.5	5.2
<b>Average</b>	<b>5.4%</b>	<b>6.1%</b>
<b>Median</b>	<b>5.5%</b>	<b>6.0%</b>

Source: Value Line Investment Analyzer 08/09  
Zacks Investment Research 08/09

1  
2  
3

4 **Q. DOES MERRILL LYNCH PROVIDE LONG-TERM GROWTH RATE**  
5 **PROJECTIONS?**

6 A. Yes, it does. Staff relies on a Merrill Lynch publication shown as Staff Exhibit \_\_  
7 (FP-13) for a key input into its CAPM analysis, namely, the MRP estimate.  
8 However, Staff chose not to rely on the same Merrill Lynch publication for the  
9 inputs into its DCF estimates for electric utilities. On page 46 of the  
10 aforementioned publication, a long-term growth projection of 6.0% is reported for  
11 electric utilities, the same estimate as the analysts' consensus growth rate reported  
12 in Table 3 above. Once more, this growth rate exceeds Staff's 4.1% growth  
13 estimate in both stages of the DCF analysis.

14 **Q. HOW WOULD STAFF'S DCF RESULT CHANGE IF STAFF HAD USED**  
15 **MERRILL LYNCH'S GROWTH FORECAST INSTEAD OF STAFF'S**  
16 **4.1% ESTIMATE IN THE DCF ANALYSIS?**

17 A. Using Merrill Lynch's growth forecast of 6.0% for electric utilities instead of  
18 Staff's 4.1% would increase the DCF estimate of the cost of common equity by  
19 approximately 200 basis points (6.0% - 4.1% = 1.9%), that is, from 10.35% to  
20 above 12%.

21 **Q. WHAT WOULD BE THE RESULT OF A SIMPLE DCF ANALYSIS**  
22 **USING THE MERRILL LYNCH DATA OF STAFF EXHIBIT FP-13?**

23 A. Performing a simple plain vanilla DCF analysis on the electric utilities group

1 using the Merrill Lynch dividend yield (4.9%) and growth (6.0%) data, a DCF  
2 estimate of 10.9% (4.9% + 6.0%) is obtained, the same ROE requested by the  
3 Company, the same expected return by Value Line for Staff's group reported  
4 earlier in Table 2.

### 5 3. DCF GROWTH: LONG-TERM ECONOMIC GROWTH

6 **Q. DO YOU AGREE WITH STAFF'S DCF GROWTH RATE**  
7 **COMPARISONS WITH THAT OF THE OVERALL ECONOMY?**

8 A. No, I do not. In order to assess the reasonableness of its DCF growth rates, Staff  
9 (p. 60) compares its growth estimates with growth estimates of the overall  
10 economy, and bases the latter on the March 2009 Blue Chip Economic Indicators  
11 consensus economic projections of the five-year 2016-2020 period nominal GDP  
12 growth rate estimate of 4.9%.

13 **Q. DO YOU AGREE WITH THOSE ESTIMATES?**

14 A. No. Staff should have compared the utility growth rate forecasts with the  
15 historical long-term growth of the economy as a whole and/or the long-range  
16 growth forecasts in GDP projected for the very long-term. Staff's comparison to  
17 a short-term growth rate forecast (only five years) is inappropriate because the  
18 growth term of the DCF model is perpetual in nature.

19 As discussed below, a long-term forecast of nominal growth in GDP can be  
20 formulated by combining a long-term inflation estimate (2.1%) with a long-term real  
21 growth rate forecast (3.4%), and the long-term expected GDP nominal growth is  
22 approximately 5.5% (3.4% + 2.1% = 5.5%), which is the same as the analysts'  
23 consensus growth forecast discussed earlier. In other words, as was the case

1 earlier, Staff's long-term growth forecast of 4.1% for its comparable group of  
2 electric utilities understates the long-term expected GDP nominal growth by  
3 approximately 140 basis points.

4 **Q. HOW WOULD STAFF'S DCF RESULTS CHANGE IF THE**  
5 **APPROPRIATE LONG-TERM GDP GROWTH FORECAST IS USED IN**  
6 **THE TWO-STAGE DCF ANALYSIS?**

7 A. Use of the GDP long-term growth forecast of 5.5% in Staff's second-stage DCF  
8 analysis instead of the medium-term forecast of 4.1% would raise Staff's DCF  
9 estimates by 140 basis points, from 10.35% to approximately 11.75%.

10 **Q. IS STAFF'S CHOICE OF GROWTH RATES CONSISTENT WITH THE**  
11 **LONG-TERM GROWTH OF THE U.S. ECONOMY?**

12 A. No, it is not. Staff's average growth rates of 4.1% are inconsistent with the very  
13 long-term growth of the economy. Because the growth term of the DCF model is  
14 perpetual in nature, it is quite reasonable to assume that a utility's long-term  
15 growth profile will match the long-term growth of the overall economy.

16 Long-term forecasts of nominal growth in GDP are available from  
17 commercial sources, such as Standard & Poor's, DRI and Blue Chip Forecast.  
18 Additionally, a long-term forecast of nominal growth in GDP can be formulated by  
19 combining a long-term inflation estimate with a long-term real growth rate forecast  
20 as follows:

21 
$$\text{GDP Nominal Growth} = \text{GDP Real Growth} + \text{Expected Inflation}$$

22 The growth rate in U.S. real GDP has been reasonably stable over time.

23 Therefore, its historical performance is a reasonable estimate of expected long-

1 term future performance. The growth in real GDP for the 1929-2008 period was  
2 approximately 3.4%. The long-term expected inflation rate can be obtained by  
3 comparing the yield on long-term U.S. Treasury bonds with the yield on inflation-  
4 adjusted bonds of the same maturity. The difference between the yield on 20-  
5 year Treasury bonds and the yield on inflation-adjusted bonds ("Treasury  
6 Inflation Protected Securities," or "TIPS") for the same maturity is 2.1% for  
7 August 2009, implying an approximate expected inflation rate of 2.1%.

8 Using the above formula, the long-term expected GDP nominal growth is  
9 approximately 5.5% (3.4% + 2.1% = 5.5%). In sum, Staff's growth forecast of  
10 4.1% for its comparable group of electric utilities understates the long-term  
11 expected GDP nominal growth by approximately 140 basis points.

#### 12 **4. CAPM: RISK-FREE RATE**

##### 13 **Q. WHAT INPUTS DOES STAFF USE IN ITS CAPM ANALYSIS?**

14 A. Three inputs are required in order to implement the CAPM: the risk-free rate, the  
15 beta risk measure, and the MRP. As shown on Exhibit \_\_ (FP-5) Page 3, for the  
16 risk-free rate, Staff uses 3.74%; for beta, Staff uses 0.70, based on Value Line  
17 beta estimates for its sample of electric companies; and for the MRP, Staff uses  
18 8.7%.

##### 19 **Q. DO YOU AGREE WITH STAFF'S BETA ESTIMATES?**

20 A. Yes, I do.

##### 21 **Q. DO YOU AGREE WITH STAFF'S MRP ESTIMATE?**

22 A. Yes, I agree with the magnitude (i.e., 8.7%), although not the derivation, of  
23 Staff's MRP.

1 **Q. DO YOU AGREE WITH STAFF’S RISK-FREE RATE ESTIMATE?**

2 A. No, I do not. As a proxy for the risk-free rate, Staff uses the average yield on 10-  
3 year and 30-year bonds over the April 2009 – June 2009 three-month period,  
4 which is 3.74%. I disagree for two reasons. First, only the yields on 30-year  
5 bonds are relevant proxies in the CAPM. Second, Staff’s estimates are stale,  
6 with averages computed over a period reaching back to April 2009 and ending in  
7 June 2009 in a testimony dated August 2009.

8 **Q. WHAT IS THE APPROPRIATE PROXY FOR THE RISK-FREE RATE IN**  
9 **A CAPM ANALYSIS?**

10 A. The appropriate proxy for the risk-free rate in the CAPM is the return on the  
11 longest term Treasury bond possible. This is because common stocks are very  
12 long-term instruments more akin to very long-term bonds rather than to short-  
13 term or intermediate-term Treasury notes, for example, 10-year Treasury notes.  
14 Since common stock is a very long-term investment because the cash flows to  
15 investors in the form of dividends last indefinitely, the yield on the longest-term  
16 possible government bonds, (i.e., yield on 30-year Treasury bonds) is the best  
17 measure of the risk-free rate for use in the CAPM. Moreover, utility asset  
18 investments generally have very long-term useful lives and should  
19 correspondingly be matched with very long-term maturity financing instruments.

20 Another reason for using the longest maturity Treasury bond possible is  
21 that common equity has an infinite life span, and the inflation expectations  
22 embodied in its market-required rate of return will therefore be equal to the  
23 inflation rate anticipated to prevail over the very long-term. The same

1 expectation should be embodied in the risk-free rate used in applying the CAPM  
2 model. It stands to reason that the yields on 30-year Treasury bonds will more  
3 closely incorporate within their yields the inflation expectations that influence the  
4 prices of common stocks than do short-term or intermediate-term U.S. Treasury  
5 notes.

6 In short, 30-year Treasury bonds have the longest term to maturity and  
7 Staff should have relied on the yield on such securities as proxies for the risk-free  
8 rate in applying the CAPM.

9 **Q. WHAT IS THE AVERAGE YIELD ON 30-YEAR TREASURY BONDS**  
10 **REPORTED BY STAFF IN ITS CAPM ANALYSIS?**

11 A. On Exhibit \_\_ (FP-5) page 3, Staff reports the average yield on 30-year Treasury  
12 bonds over the April 2009 – June 2009 period as being 4.2%.

13 **Q. SHOULD STAFF HAVE RELIED ON THE 4.2% AVERAGE YIELD ON**  
14 **30-YEAR TREASURY BONDS?**

15 A. No, that estimate is stale, as it is based on a three-month old average reaching  
16 back three months to April 2009 in a testimony dated August 2009. In order to  
17 be current and in keeping with the tenets of market efficiency, Staff should have  
18 relied on the most current yield estimate reported on Exhibit \_\_ (FP-5) page 3,  
19 namely, the June 2009 estimate of 4.52%.

20 **Q. HOW WOULD STAFF'S CAPM RESULTS CHANGE IF THE**  
21 **APPROPRIATE RISK-FREE RATE PROXY WAS USED IN THE CAPM**  
22 **ANALYSIS?**

23 A. Use of the appropriate risk-free rate of 4.52% in Staff's CAPM analysis instead of

1 the 3.74% stale estimate based in part on 10-year Treasury yields raises Staff's  
2 traditional CAPM estimates by 78 basis points (4.52% - 3.74%), from 9.80% to  
3 10.58%.

4 **Q. HOW WOULD STAFF'S ZERO-BETA CAPM RESULTS CHANGE IF**  
5 **THE APPROPRIATE RISK-FREE RATE PROXY WAS USED IN THAT**  
6 **ANALYSIS?**

7 A. Use of the appropriate risk-free rate of 4.52% in Staff's Zero-Beta CAPM  
8 analysis raises Staff's Zero-Beta CAPM estimates by 78 basis points (4.52% -  
9 3.74%), from 10.45% to 11.23%. Averaging the two CAPM estimates, Staff's  
10 final generic CAPM ROE reported on Exhibit \_\_ (FP-5) page 3 becomes 10.91%  
11 and not the 10.13% reported.

## 12 5. FLOTATION COSTS

13 **Q. IN YOUR DIRECT TESTIMONY, YOU STATED THAT THE RETURN**  
14 **ON EQUITY SHOULD BE ADJUSTED TO INCLUDE AN ALLOWANCE**  
15 **FOR FLOTATION COSTS. PLEASE COMMENT ON FLOTATION**  
16 **COSTS.**

17 A. Flotation costs are very similar to the closing costs on a home mortgage. In the  
18 case of issues of new equity, flotation costs represent the discounts that must be  
19 provided to place the new securities. Flotation costs have a direct and an indirect  
20 component. The direct component represents monetary compensation to the  
21 security underwriter for marketing/consulting services, for the risks involved in  
22 distributing the issue, and for any operating expenses associated with the issue  
23 (e.g., printing, legal, prospectus). The indirect component represents the

1 downward pressure on the stock price as a result of the increased supply of stock  
2 from the new issue. The latter component is frequently referred to as "market  
3 pressure."

4 Flotation costs for common stock are analogous to the flotation costs  
5 associated with past debt issues which, as a matter of routine regulatory policy,  
6 continue to be amortized over the life of the debt, even though no new debt issues  
7 are contemplated. In the case of common stock, which has no finite life, flotation  
8 costs are not amortized. Therefore, the recovery of flotation cost requires an  
9 upward adjustment to the allowed return on equity.

10 As demonstrated in my original testimony, the expected dividend yield  
11 component of the DCF model must be adjusted for flotation cost by dividing it by  
12  $(1 - f)$ , where  $f$  is the flotation cost factor.

13 **Q. WHAT FLOTATION COST TREATMENT DOES STAFF RECOMMEND**  
14 **IN THIS CASE?**

15 A. Both Staff and I agree on the need for a flotation cost adjustment, but we disagree  
16 on its magnitude. Staff recommends an allowance of 8 basis points versus my 30  
17 basis points. The magnitude of the flotation cost adjustment formula used by  
18 Staff is only correct if the flotation costs associated with all past common equity  
19 issues have been recovered. The standard flotation cost allowance used in my  
20 direct testimony is designed to recover the flotation costs associated with all past  
21 issues that were not expensed, but rather written off against common equity.

22 By analogy, in the case of a debt issue, flotation costs are amortized over  
23 the life of the debt, and the annual amortization charge usually is embedded in the

1 cost of debt for ratemaking purposes. This is done whether the company intends  
2 to issue debt in the future or not and/or whether the company has issued debt in  
3 the past or not. The recovery of debt flotation expense continues year after year  
4 irrespective of whether the company issues new debt capital until recovery is  
5 complete, in the same way that the recovery of past investments in plant and  
6 equipment through depreciation allowances continues in the future even if no new  
7 construction is contemplated. In the case of common stock, which has no finite  
8 life, flotation costs are not amortized to a specific issuance as is the case for a  
9 bond. However, the recovery of flotation costs requires a similar upward  
10 adjustment to the return on equity that is allowed for ratemaking purposes.  
11 Unlike the case of bonds, common stock has no finite life so that flotation costs  
12 cannot be amortized and must therefore be recovered via an upward adjustment to  
13 the allowed return on equity. As in the case of bonds, the recovery continues year  
14 after year regardless of whether the utility raises new equity capital until the  
15 recovery process is terminated.

16 To the extent that CECONY's flotation costs associated with past common  
17 equity issues have not been recovered, the only recovery mechanism available for  
18 the recovery of such costs is an upward adjustment to the return on equity as was  
19 used in my direct testimony.

20 In short, Staff's DCF estimates of equity costs are downward-biased by  
21 approximately 15-20 basis points to the extent that the flotation costs associated  
22 with past equity issues have not been expensed or recovered in the past.

23

1 **6. RETURN ADJUSTMENT**

2 **Q. DID STAFF PROPOSE A RETURN ADJUSTMENT TO THEIR ROE**  
3 **RESULTS TO ACCOUNT FOR CREDIT QUALITY DIFFERENCES?**

4 A. Yes, it did. Staff proposes (pp. 82-85) that CECONY's ROE be reduced by 31  
5 basis points (0.31%) to account for credit quality differences between CECONY  
6 and the proxy group. The details of the calculation are provided in Exhibit\_\_\_\_  
7 (FP-6). Staff argues that CECONY is less risky than the comparable group  
8 because its debt ratings are slightly higher than those of the comparable  
9 companies. My first reaction is that Staff was possibly not aware of Moody's  
10 downgrading of the Company's bonds on June 29, 2009 when Staff's testimony  
11 was prepared, and that such an adjustment is really a moot issue.

12 **Q. WHAT IS THE BASIS FOR STAFF'S DOWNWARD ROE**  
13 **ADJUSTMENT?**

14 A. The adjustment is based on the yield differentials between utility bonds rated A  
15 and BBB over the past five years. I note that in past recent testimonies, the  
16 adjustment was based on a six-month period rather than a five-year period.

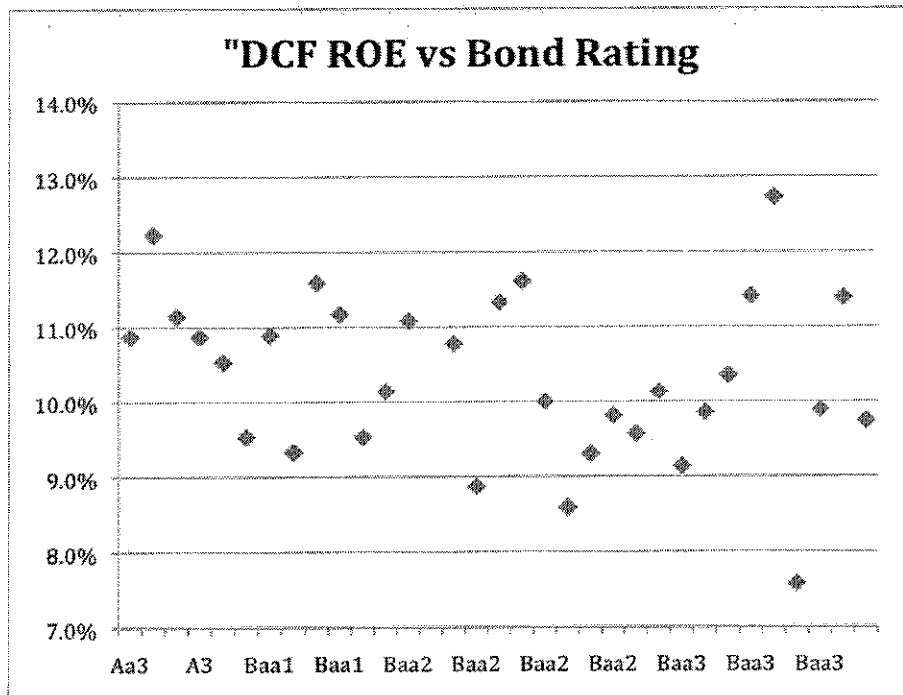
17 **Q. DO YOU AGREE WITH STAFF'S 31 BASIS POINTS DOWNWARD**  
18 **RETURN ADJUSTMENT?**

19 A. No, I do not. First, it is based on debt yield differentials and not on common  
20 stock return differentials. It should be noted that credit ratings and debt rate  
21 differentials are not directly related to required equity returns. Staff does not offer  
22 any evidence of any relationship, let alone a causal relationship, between credit  
23 quality and required or observed equity returns in the utility industry. Also, Staff

1 provides no evidence of a relationship between credit quality and observed returns  
2 in the market as a whole.

3 Staff's own data contradict the proposed adjustment. As shown on the  
4 graph below, there is no correlation between the Staff's DCF results for the  
5 companies in its sample group and the ratings of these companies.

6



7

8

9 The table below displays Staff's DCF results for each bond rating group,  
10 taken directly from Staff Exhibit\_\_\_(FP-4) and Exhibit\_\_\_(FP-5). If Staff were  
11 correct, one would observe a positive relationship between return and declining  
12 credit quality. No such relationship exists. There is no relationship at all  
13 between equity returns and bond rating.

14

15

Bond Rating	DCF Estimates	Beta Estimates
Aa3	10.87%	0.65
A2	11.69%	0.70
A3	10.70%	0.60
Baa1	10.31%	0.71
Baa2	10.67%	0.70
Baa3	10.22%	0.76

1

2

3

4

5

6

Thus, the notion that the DCF results should be adjusted not only lacks a theoretical foundation but it is refuted by Staff's own data. I also point out that there is no correlation between equity risk as measured by beta and the credit ratings of the companies in Staff's sample group as evidenced by the data in the last column in the above table.

7

8

9

10

11

12

13

Second, the Company's ability to tap capital markets and attract funds on reasonable terms occurs at a crucial point in time when CECONY has an ambitious capital expenditures program and will require external financing. CECONY's large capital expenditure program over the next several years increases its dependence on capital markets which have become volatile and more unpredictable. This is certainly no time to apply a return decrement and reduce the Company's return relative to its industry peers.

14

15

In short, Staff's downward ROE adjustment of 31 basis points should be rejected by the Commission.

16

## 7. RESPONSE TO STAFF'S CRITICISMS

17

### Comparable Group

18

**Q. HOW DO YOU RESPOND TO STAFF'S CRITICISM OF YOUR**

19

**COMPARABLE GROUP OF ELECTRIC UTILITIES?**

1 A. Staff expresses concern (p. 96-97) that my comparable group of electric utilities is  
2 riskier than CECONY on the grounds that CECONY's bond rating is superior to  
3 the average bond rating for my comparable groups. I disagree. Earlier, I showed  
4 that there is little correspondence between bond ratings and equity risk. Credit  
5 ratings examine risk from a bondholder viewpoint rather than from a shareholder  
6 viewpoint. The former is concerned mainly with ability to service debt and  
7 creditworthiness while the latter is concerned with variability and uncertainty of  
8 return. Moreover, I showed earlier that Staff's beta estimate for CECONY of  
9 0.70 is virtually identical to the average beta of my two groups and, therefore, is  
10 comparable in risk to the two groups.

11 Staff also criticizes my two groups of companies on the grounds that I  
12 employed a 50% minimum regulated revenues screening criterion instead of 70%.  
13 Again, this criticism is vacuous given that the average percentage of regulated  
14 electric revenues in my two comparable groups of utilities are 71% and 74%,  
15 respectively, above the 70% threshold and within the Commission's 70% utility  
16 revenue criterion.

17 **Historical Risk Premium**

18 **Q. DO YOU AGREE WITH STAFF'S FIRST CRITICISM OF YOUR**  
19 **HISTORICAL RISK PREMIUM STUDY?**

20 A. No, I do not. Staff argues (pp. 105-106) that I have not demonstrated whether  
21 CECONY is more or less risky than the companies that make up Moody's Electric  
22 Utility Index over the time period. I disagree. First, over most of the long period  
23 that covers my historical risk premium study, the electric utility was relatively

1 homogenous in risk and under the umbrella protection of regulation for all of its  
2 functions (power generation, transmission, distribution). Second, as previously  
3 stated, Staff's estimated beta for Consolidated Edison, Inc. ("ConEd") of 0.70 is  
4 virtually identical to the average beta of the two groups of electric utilities used in  
5 my direct testimony, suggesting that indeed ConEd's risk profile is comparable to  
6 the group averages.

7 **Q. DO YOU AGREE WITH STAFF'S SECOND CRITICISM OF YOUR**  
8 **HISTORICAL RISK PREMIUM STUDY?**

9 A. No, I do not. Staff critiques (p. 105) the risk premium method on the grounds that  
10 the method assumes that the risk premium is constant over time, that is, that the  
11 risks of Treasury securities have remained at the same level relative to the risks of  
12 the electric utility stocks.

13 This criticism is unwarranted. To the extent that the historical equity risk  
14 premium estimated follows what is known in statistics as a random walk, one  
15 should expect the equity risk premium to remain at its historical mean. The best  
16 estimate of the future risk premium is the historical mean. As I explained in my  
17 direct testimony, since I found no evidence that the market price of risk or the  
18 amount of risk in common stocks has changed over time, at least prior to the  
19 2008-9 financial crisis, that is, no significant serial correlation in the successive  
20 market risk premiums from year to year, it is reasonable to assume that these  
21 quantities will remain stable in the future under normal circumstances.

22 Moreover, my historical risk premium analysis provides a very  
23 conservative downward-biased estimate of the current risk posture of the industry

1 and CECONY given that the risk of the electric utility industry has intensified  
2 steadily in the past decade and given the devastating effect of the financial crisis  
3 on investor risk aversion.

4 **Q. IS THE RISK PREMIUM METHODOLOGY CONSISTENT WITH**  
5 **FINANCIAL THEORY?**

6 A. It certainly is. The Risk Premium approach is conceptually sound and firmly rooted  
7 in the conceptual framework of Capital Market Theory. It is widely used by  
8 analysts, investors, and expert witnesses. Most college-level corporate finance  
9 and/or investment management texts contain detailed conceptual and empirical  
10 discussion of the risk premium approach.<sup>1</sup> The latter is typically recommended as  
11 one of the three leading methods of estimating the cost of capital.<sup>2</sup> Techniques of  
12 risk premium analysis are widespread in investment community reports.  
13 Professional certified financial analysts are certainly well versed in the use of this  
14 method.

15 Data requirements to implement the method are not prohibitive. The  
16 methodology is responsive to changes in capital market conditions and provides a  
17 timely signaling device for current interest rate trends in contrast to the DCF  
18 method, which may be sluggish in detecting changes in return requirements,  
19 especially when based on historical data. One advantage of risk premium over DCF  
20 is that the former takes a broader time-series perspective rather than a snapshot  
21 point-in-time viewpoint, and is therefore less vulnerable to the vagaries of any one

---

<sup>1</sup> See Bodie, Z., Kane, A., and Marcus, A. J., *Investments*, McGraw-Henry Irwin, 6<sup>th</sup> ed., 2005, a recommended textbook for Chartered Financial Analyst certification and examination.

<sup>2</sup> See Brigham and Ehrhardt (2005), *Corporate Finance: A Focused Approach*, 2<sup>nd</sup> ed., Thomson 2006.

1 particular capital market environment.

2 **DCF Growth Rates**

3 **Q. PLEASE COMMENT ON STAFF'S CRITICISM OF YOUR DCF**  
4 **ANALYSIS.**

5 A. Staff criticizes (pp. 98-99) my DCF earnings growth rates on the grounds that I  
6 have not addressed how these earnings growth estimates relate to the dividend  
7 payout policies of my companies and whether they are sustainable over time. I  
8 totally disagree with this point of view. First, one of the key assumptions that  
9 underlies the DCF model is that earnings, dividends, book value, and market price  
10 all grow at a constant rate forever. In other words, the dividend payout ratio  
11 remains constant over time. That is the assumption I made, and that is the  
12 assumption that Staff also made in the second stage of its DCF analysis. Second,  
13 in my direct testimony and earlier in my rebuttal, I discussed the merits of using  
14 consensus analysts' earnings growth forecasts in the DCF model and the  
15 supportive empirical literature.

16 **Q. DO YOU AGREE WITH STAFF'S VIEWS ON DIVIDEND GROWTH?**

17 A. No, I do not. Staff, argues (p. 63) that the DCF calculation requires dividend  
18 growth rather than earnings growth because dividends constitute the cash flows  
19 received by the investor, and that I should have relied on dividend growth instead  
20 of earnings growth. I disagree. First, it is clear that dividend growth can only be  
21 sustained if there is growth in earnings. Since the ability to pay dividends stems  
22 from a company's ability to generate earnings, growth in earnings per share can be  
23 expected to strongly influence the market's dividend growth expectations.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23

Second, from a practical perspective, casual inspection of the Zacks Investment Research, First Call Thompson, and Multex Web sites, among others, reveals that earnings per share forecasts dominate the information provided. There are few, if any, dividend growth forecasts. Only Value Line provides comprehensive long-term dividend growth forecasts. The wide availability of earnings forecasts is not surprising. There is an abundance of evidence attesting to the importance of earnings in assessing investors' expectations. The sheer volume of earnings forecasts available from the investment community relative to the scarcity of dividend forecasts attests to their importance. The fact that these investment information providers focus on growth in earnings rather than growth in dividends indicates that the investment community regards earnings growth as a superior indicator of future long-term growth.

Third, Staff argues (p. 63) that I have discounted earnings, thus overstating stock value. This is completely erroneous. What I did is rely on earnings *growth* forecasts as proxies for dividend *growth* for the reasons stated above. In point of fact, the standard DCF model assumes that earnings and dividends grow at the same rate.

Staff argues (p. 63) that analysts' growth forecasts are notoriously inaccurate. No foundation, support, reference, study, or published literature is provided to back up this claim. Moreover, this claim is likely to be false for utility stocks. The magnitude of the bias for large rate-regulated companies in stable segments of an industry, if any, is likely to be very small. Empirically, the

1 severity of the optimism problem is unclear for regulated utilities, if a problem exists  
2 at all.

3 **Q. HOW DO YOU RESPOND TO STAFF'S CRITICISM (PP. 98-99) THAT**  
4 **YOU DID NOT RELY ON THE SUSTAINABLE GROWTH APPROACH**  
5 **ENDORSED BY THE COMMISSION?**

6 A. For reasons discussed at length earlier, I did not rely on the sustainable growth  
7 approach because of its inherent circularity and inconsistency with the empirical  
8 evidence.

9 **Q. DR. MORIN, DOES THE DCF METHODOLOGY RESULTS OVERSTATE**  
10 **INVESTOR RETURNS TO THE EXTENT THAT THEY REFLECT THE**  
11 **QUARTERLY COMPOUNDING OF DIVIDENDS?**

12 A. No, of course not. Staff argues (p. 100) that my DCF estimates are overstated as a  
13 result of the quarterly compounding of dividends. Staff's criticism is misplaced.  
14 First, both Staff and I have relied on the annual version of the DCF model, rather  
15 than on the quarterly version of the DCF model. Second, failure to use account for  
16 the quarterly nature of dividend payments understates investor returns, contrary to  
17 Staff's view.

18 **Q. WHAT IS THE APPROPRIATE FORM OF THE DCF MODEL?**

19 A. The annual DCF model used by Staff and myself ignores the time value of  
20 quarterly dividend payments and assumes that dividends are paid once a year at  
21 the end of the year. Since investors are aware of the quarterly timing of dividend  
22 payments, this knowledge is reflected in stock prices.

23

1           As I show in Chapter 11 of my book, *The New Regulatory Finance*, the  
2 use of the annual version of the DCF model understates the cost of equity by  
3 approximately 20 basis points, depending on the magnitude of the dividend yield  
4 component. This is plain common sense. By analogy, a bank rate on deposits  
5 that does not take into consideration the timing of the interest payments  
6 understates the true yield if you receive the interest payments more than once a  
7 year. The actual yield will exceed the stated nominal rate. To illustrate, if an  
8 investor has a choice between investing \$1,000 in a bank account which promises  
9 a return of 10% compounded annually and another bank account which promises  
10 a return of 10% but compounded quarterly, he will clearly select the latter. Due  
11 to the quarterly compounding of interest, the investor earns an effective return of  
12 10.38% on the latter bank account versus 10% on the former. The same is true for  
13 the return on common stocks. Staff is plain wrong in its view that the DCF results  
14 are understated as a result of the quarterly compounding of dividends. In fact, the  
15 opposite is true; the annual version of the DCF model understates investor return by  
16 some 20 basis points.

17 **Q. DR. MORIN, HOW DO YOU RESPOND TO STAFF'S CRITICISM THAT**  
18 **YOU HAVE RELIED ON SPOT STOCK PRICES IN YOUR DCF**  
19 **ANALYSIS?**

20 A. Staff argues (p. 99) that the use of spot stock prices in implementing the DCF  
21 model is inappropriate because of the undue volatility that such a single point-in-  
22 time estimate injects into the DCF calculation.

23

1           The proper stock price to employ is the current price of the security at the  
2 time of estimating the cost of equity, rather than some historical average stock  
3 price reaching back three months, as Staff did. The reason is that the analyst is  
4 attempting to determine a utility's cost of equity in the future, and since current  
5 stock prices provide a better indication of expected future prices than any other  
6 price according to the basic tenets of the Efficient Market Hypothesis, the most  
7 relevant stock price is the most recent one. The Efficient Market Hypothesis,  
8 which is widely accepted, states that capital markets, at least as a practical matter,  
9 incorporate into security prices relevant publicly available information, such that  
10 current security prices reflect the most recent information and thus are the best  
11 representation of investor expectations. Use of any other price violates market  
12 efficiency principles.

13           There is yet another justification for using current stock prices. In  
14 measuring the cost of equity as the sum of dividend yield and growth, the period  
15 used in measuring the dividend yield component must be consistent with the  
16 estimate of growth with which it is paired. Since the current stock price is caused  
17 by the growth foreseen by investors at the present time and not at any other time,  
18 it is clear that the use of spot prices is preferable. In contrast, Staff has essentially  
19 mismatched a stale average stock price reaching as far back as April 2009 with a  
20 current estimate of expected growth. This not only violates market efficiency  
21 principles, but also constitutes a mismatch in the application of the DCF model.

22           An analogy with interest rates will clarify this point. If, for example,  
23 interest rates have climbed from 5% to 6% over the past three months, it would be

1 incorrect to state that the current interest rate is in the range of 5% to 6% just  
2 because this is the interest rate range for the past six months. Analogously, it is  
3 incorrect to state that the cost of equity, which has also risen along with interest  
4 rates, is in some given six-month range. Just as the current interest rate is 6%, the  
5 cost of equity estimate is that which is obtained from the standard DCF using  
6 current spot prices.

7 As to the volatility issue raised by Staff, the use of large groups of  
8 comparable companies mitigates the impact of possible measurement errors and  
9 vagaries in individual companies' market data.

#### 10 **ALLOWED RETURNS**

11 **Q. IS STAFF'S RATE OF RETURN RECOMMENDATION COMPATIBLE**  
12 **WITH CURRENTLY ALLOWED RETURNS IN THE UTILITY**  
13 **INDUSTRY?**

14 A. No, it is not. Allowed returns, while certainly not a precise indication of a  
15 company's cost of equity capital, are nevertheless important determinants of  
16 investor growth perceptions and investor expected returns. They also serve to  
17 provide some perspective on the validity and reasonableness of Staff's  
18 recommendation.

19 I have examined the ROEs currently allowed for the 33 electric utilities in  
20 Staff's comparable group as reported in the AUS Utility Reports survey for  
21 August 2009. The currently authorized ROEs for Staff's sample of electric  
22 utilities, shown in Table 1 below, average 10.9%, the same ROE requested by the  
23 Company.

24

1  
2  
3

Table 3 Authorized ROEs  
Staff's Comparable Group

	Company Name	Allowed ROE
1	ALLETE	10.74
2	Alliant Energy	11.02
3	Amer. Elec. Power	10.71
4	Ameren Corp.	10.64
5	Avista Corp.	10.20
6	Black Hills	10.71
7	Cleco Corp.	11.25
8	Consol. Edison	9.91
9	DPL Inc.	11.00
10	DTE Energy	11.00
11	Duke Energy	10.89
12	Edison Int'l	10.71
13	Empire Dist. Elec.	10.80
14	Entergy Corp.	10.76
15	FPL Group	11.75
16	FirstEnergy Corp.	10.67
17	G't Plains Energy	10.45
18	Hawaiian Elec.	10.82
19	IDACORP Inc.	10.50
20	MGE Energy	10.80
21	NSTAR	12.50
22	Northeast Utilities	9.72
23	PG&E Corp.	11.35
24	Pinnacle West Capital	10.75
25	Portland General	10.80
26	Progress Energy	12.42
27	Sempra Energy	11.46
28	Southern Co.	11.93
29	TECO Energy	11.00
30	Vectren Corp.	10.43
31	Westar Energy	10.00
32	Wisconsin Energy	10.75
33	Xcel Energy Inc.	10.74

**AVERAGE** 10.88%  
Source: AUS Utility Reports 08/2009

4  
5

1           The average ROE currently allowed for the overall combination gas and  
2 electric industry and for the overall electric utility industry is 10.7% versus Staff's  
3 recommendation of 10.1%.

4           In short, Staff's ROE recommendation is outside the mainstream of the  
5 allowed rates of return that were current during the period in which Staff  
6 performed its analysis, lies outside the zone of recently authorized ROEs for  
7 electric utilities and for its sample of companies, and would constitute among the  
8 lowest ROE allowance in the country for a major utility. All but 8 of the 60  
9 electric utilities covered in the AUS Utility Report had higher allowed ROEs than  
10 10.1%. The Commission is not bound by decisions of other regulators regarding  
11 allowed ROE, but one cannot overlook the obvious difference between Staff's  
12 recommendation and the returns currently allowed for the same firms that Staff  
13 deems comparable in risk.

14           Unreasonable rate treatment for a New York utility, if implemented, may  
15 have serious public policy implications and repercussions for the State of New  
16 York, which are not mentioned in Staff's testimony. For example, the quality of  
17 regulation and the reasonableness of rate of return awards clearly have  
18 implications for regulatory climate, economic development and job creation in a  
19 given territory. The consistency of regulation in a given state has similar  
20 implications. It is my belief that Staff's recommended return has negative  
21 implications on these grounds and is not consistent with the economic well-being  
22 of the State.

1 **CONCLUSIONS**

2 **Q. WHAT RETURNS ARE INVESTORS EXPECTING FOR STAFF'S**  
3 **GROUP OF COMPANIES?**

4 A. As shown in Table 1, investors are expecting an average ROE of 10.9%.

5 **Q. WHAT IS THE AVERAGE AUTHORIZED ROE FOR STAFF'S GROUP**  
6 **OF COMPANIES?**

7 A. As shown in Table 3, the average authorized ROE for these comparable  
8 companies is 10.9%.

9 **Q. WHAT ROE DOES STAFF RECOMMEND?**

10 A. Staff's recommended ROE is 10.10%.

11 **Q. WHAT ROE SHOULD STAFF'S ANALYSIS PRODUCE WHEN**  
12 **ADJUSTED FOR THE REASONS YOU HAVE EXPLAINED?**

13 A. Applying the various changes and corrections I have outlined in my rebuttal,  
14 Staff's analysis indicates a return in excess of 11%, as shown below.

15 **Q. WHAT DO YOU CONCLUDE FROM STAFF'S COST OF CAPITAL**  
16 **TESTIMONY?**

17 A. There is a degree of substantial agreement between Staff and myself and between  
18 our respective recommendations. Under current capital market conditions, I agree  
19 generally with Staff's: (i) use of several methodologies in estimating a fair return  
20 on common equity; (ii) sample of electric utility companies; (iii) beta estimate in  
21 the CAPM; (iv) MRP estimate in the CAPM analyses under current market  
22 circumstances; and (v) underweighting of the CAPM results in the current  
23 financial environment.

1 My general conclusions are:

2 **1. DCF Earnings Retention Growth.** There is a logical inconsistency in the  
3 retention growth technique because Staff is forced to assume the answer to  
4 implement the method. From Staff's own evidence, investors expect substantially  
5 higher returns for utilities than what Staff recommends.

6 **2. DCF Growth Rates: Analysts' Forecasts.** Investors are expecting  
7 substantially higher growth rates than Staff's 4.1% first-stage growth rate and  
8 4.1% second-stage growth rate for the sample companies. Using Value Line's  
9 growth forecast and the analysts' consensus growth forecast increases Staff's  
10 DCF estimates by a minimum of 140 basis points.

11 **3. DCF Growth Rates: Long-term Economic Growth.** Staff's long-term  
12 growth forecast of 4.1% for its comparable group of electric utilities based on the  
13 earnings retention growth method understates the long-term expected GDP  
14 nominal growth by approximately 140 basis points.

15 **4. CAPM Risk-Free Rate.** Staff's proxy for the risk-free rate is stale and relies  
16 on the wrong Treasury bond maturity. Using the appropriate risk-free rate proxy  
17 from its testimony, Staff's CAPM estimates would be raised by 78 basis points  
18 from this correction alone.

19 **5. Flotation Costs.** Staff's DCF estimates of equity costs are downward-biased  
20 by approximately 15-20 basis points to the extent that not all the flotation costs  
21 associated with past equity issues have been expensed or recovered in the past.

22 **6. Return Adjustments.** Staff's downward ROE adjustments for credit quality  
23 differences should be rejected by the Commission.

1           **7. Criticisms of my testimony.** Staff's criticisms of my direct testimony are  
2           without foundation.

3   **Q.   WHAT IS YOUR MAJOR CONCLUSION FROM STAFF'S ROE**  
4   **RECOMMENDATION?**

5   A.   Staff's recommended ROE is understated. Reliance on analysts' growth forecasts  
6       in the DCF analysis (140 basis points) would raise its DCF estimate from 10.35%  
7       to 11.75%, even without flotation costs. Recognition of the appropriate risk-free  
8       rate in the CAPM analysis raises Staff's CAPM estimates by 78 basis points, from  
9       10.13% to 10.91% without flotation costs. Giving a two-third weight to the  
10      amended DCF result of 11.75% and a one-third weight to the amended CAPM  
11      result of 10.91% brings Staff's recommendation to above 11.0%.

12   **Q.   DOES THIS COMPLETE YOUR REBUTTAL TESTIMONY?**

13   A.   Yes, it does.