PECO ENERGY COMPANY
STATEMENT NO. 5-R

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

PECO ENERGY COMPANY – ELECTRIC DIVISION

DOCKET NO. R-2010-2161575

REBUTTAL TESTIMONY

WITNESS: PAUL R. MOUL

SUBJECTS: PECO'S OVERALL RATE OF RETURN INCLUDING CAPITAL STRUCTURE RATIOS AND THE COST OF EQUITY

DATED: AUGUST 3, 2010

TABLE OF CONTENTS

Page

REBUTTAL TESTIMONY
OF
PAUL R. MOUL

I. INTRODUCTION AND PURPOSE OF TESTIMONY

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

A. My name is Paul Ronald Moul. My business address is 251 Hopkins Road, Haddonfield, NJ 08033-3062.

2. Q. Mr. Moul, have you previously submitted direct testimony in this proceeding?

A. Yes. My direct testimony was submitted with the Company's case-in-chief on March 31, 2010 and was pre-marked as PECO Statement No. 5.

3. Q. What is the purpose of your rebuttal testimony?

A. PECO Energy Company ("PECO" or the "Company") has requested that I comment on and rebut the rate of return testimony presented by Ms. Amanda Gordon, a witness appearing on behalf of the Office of Trial Staff ("OTS"); Mr. David C. Parcell, a witness appearing on behalf of the Office of Consumer Advocate ("OCA"); Mr. Richard A. Baudino, a witness appearing on behalf of the Philadelphia Area Industrial Energy Users Group ("PAIEUG"); Mr. Brian Kalcic, a witness appearing on behalf of the Office of Small Business Advocate ("OSBA"); and Mr.

James T. Selecky, a witness appearing on behalf of The Commercial Group.

4. Q. Please identify the principal areas of controversy concerning the Company's requested rate of return in this proceeding.

A. Capital structure ratios and the appropriate return on common equity represent the principal areas of dispute in this case. All witnesses have accepted the Company's proposed embedded costs of long-term debt and preferred stock. Mr. Parcell has proposed hypothetical capital structure ratios based upon his proxy group companies. Mr. Parcell is alone in his proposal to use hypothetical capital structure ratios. The other rate of return witnesses have accepted the Company's proposed capital structure ratios, or have expressed no opinion on them. Indeed, Ms. Gordon and Mr. Baudino have expressly adopted the Company's proposed capital structure ratios.

For reasons that I will discuss later in my rebuttal testimony, the capital structure ratios proposed by Mr. Parcell are inappropriate and should be rejected. As to the cost of equity, the central areas of dispute involve: (i) the return level that will be acceptable to the financial community (ii) the selection of proxy group companies to measure the cost of equity, (iii) the determination of a reasonable Discounted Cash Flow (DCF) cost rate, (iv) whether an adjustment to the DCF is necessary in a ratesetting context where the market-derived equity return rate is applied to a capital structure

measured at book value, and (v) the extent to which the results of other methods of determining the cost of equity, such as the risk premium, CAPM and comparable earnings approaches, should be considered.

5. Q. Please summarize your assessment of the opposing party witnesses' cost of equity proposals.

A. In my opinion, the rates of return on common equity proposed by Messrs. Parcell, Baudino, and Selecky and Ms. Gordon, as set forth below, are inadequate to provide the Company with the opportunity to earn its cost of capital during the rate effective period and, as a consequence, would not generate the earnings required by investors:

	Range			Proposal
Ms. Gordon	10.54%	to	10.86%	10.54%
Mr. Selecky				<10.48%
Mr. Baudino	9.25%	to	9.85%	9.60%
Mr. Parcell	9.0%	to	10.0%	9.25%

Mr. Kalcic did not submit an independent analysis of the Company's rate of return. Instead, he opines that the Company's proposed equity cost rate is too high based upon a 2004 Commission Order in a PPL Electric rate proceeding and the general decline in interest rates and capital costs that occurred subsequently. As I discuss below, the most recent cost of equity finding by the Commission was 11.0%, which is above the 10.7% return that Mr. Kalcic argues is adequate for PECO. In addition, the cost of equity today is higher than it was at the time of the PPL case.

6. Q. How has Mr. Selecky approached the cost of equity issue?

A. Mr. Selecky has not submitted a typical cost of equity analysis that includes the standard models (e.g., DCF, Risk Premium, CAPM, Comparable Earnings). Instead, his analysis relies principally upon the outcome of rate cases for other utilities. There are many problems with this approach. First, the historical periods selected by Mr. Selecky to analyze the regulatory allowed returns are arbitrary and reflect unusually low risk premiums over public utility bond yields. For example, the indicated risk premiums for 2005 through 2009 were as follows:

Average	Treas, RP	Baa- Public Utility Bond Yields	Risk Premium
2005	10.54%	5.93%	4.61%
2006	10.43%	6.32%	4.11%
2007	10.36%	6.33%	4.03%
2008	10.46%	7.24%	3.22%
2009	10.48%	7.06%	3.42%

As Mr. Selecky argues in his testimony, recent performance associated with the economic downturn should be normalized due to government intervention to deal with the recession. It is, therefore, inconsistent for Mr. Selecky to argue for a 10.48% return established by other regulatory agencies that reflect the second lowest risk premium noted above. A more reasonable approach would be to select a return that is associated with a more normal risk premium that existed in 2005. Those data would pre-date the financial crisis that concerns Mr. Selecky. Hence, using his data, a 10.54% return would be indicated.

7. Q. Are there other problems associated with using the data provided by Mr. Selecky in determining the cost of equity for PECO?

A. Yes. There is no telling how the "authorized electric returns" may have been influenced by regulatory policy or political factors. A regulatory agency may employ the "authorized electric returns" as a tool to reflect policy decisions in other ratesetting areas such as: interim rates, rates collected subject to refund, use of historic or future test periods, use of average or year-end rate bases, various procedures to calculate depreciation, allowances or disallowances of certain operating costs, and a host of other regulatory practices. Moreover, it is well known that regulatory agencies have used the "authorized electric returns" as a means of accomplishing certain goals, such as rewarding or penalizing management performance. In short, it is impossible to determine whether these "authorized electric returns" in fact represent investor-required returns for the time periods in which those decisions were rendered.

In addition, it seems unlikely that the historically derived "authorized electric returns" could be reflective of the new risks facing the electric utility industry today, such as evolving conservation and renewable mandates.

8. Q. Mr. Selecky also argues that PECO's purported low operating risk warrants a lower return. Do you agree?

A. No. My approach of measuring the Company's cost of equity rests upon the returns derived from the standard models of the cost of equity applied with market evidence derived from my proxy group (i.e., Electric Group) of other electric companies that have risks comparable to PECO. Indeed, Mr. Selecky has not challenged the composition of my Electric Group insofar that it reflects the risks of an electric delivery utility. Hence, whatever risks that Mr. Selecky has in mind for PECO, they are already reflected in the results for my Electric Group.

9. Q. What are the principal deficiencies in the analyses presented by Messrs. Parcell and Baudino and Ms. Gordon?

A. The infirmities in their analyses include:

- Consideration by Mr. Parcell of data for companies that are not comparable to PECO.
- A series of DCF calculations by Mr. Parcell that is inconsistent with his final recommendation.
- The witnesses' failure to adjust their market-determined cost rates (i.e., DCF and CAPM) to reflect the far different (i.e., higher) financial risk associated with a book value ratesetting capital structure.
- CAPM results that do not capture investor expectations.
- Inadequate consideration of the results generated by the Risk Premium and Comparable Earnings methods.

10. Q. You previously mentioned a recent 11.0% equity cost rate finding. Please elaborate.

A. In its July 31, 2008 Order at Docket No. R-00072711, the Commission provided Aqua Pennsylvania, Inc. with an 11.00% return on equity. Since then, and as described in my direct testimony, the financial markets have experienced the worst financial crisis since the Great Depression. While capital markets have stabilized, as revealed by declining yield spreads between public utility and Treasury bonds that I will address further below, the volatility of the stock market continues to exceed that which existed prior to the crisis. Stock market variability can be measured by the Chicago Board Options Exchange ("CBOE") Volatility Index (i.e., "VIX"). The VIX is based on real-time prices of options on the S&P 500 Index, and is designed to reflect investors' consensus view of future (30-day) expected stock market volatility. It is well-established that greater volatility indicates higher risk, which, all else equal, translates into a higher cost of equity.

11. Q. What has been the recent performance of the VIX?

A. During the first half of 2010, the VIX averaged 23.23, which substantially exceeds the pre-financial crisis VIX levels. These data along with the annual VIX for the years 2005-2009 are shown below.

Year	VIX	Month	VIX
2005	12.81	January-10	20.77
2006	12.81	February-10	22.54
2007	17.54	March-10	17.77
2008	32.69	April-10	17.42
2009	31.48	May-10	31.93
		June-10	29.92

II. CAPITAL STRUCTURE

12. Q. How does the Company's capital structure proposal differ from that advocated by Mr. Parcell?

A. The Company has proposed the use of its projected capital structure at future test year end. In contrast, Mr. Parcell has constructed a hypothetical capital structure based on his review of historic data for a group of proxy companies. The specific capital structure ratios recommended by the Company and OCA are as follows:

Types of Capital	PECO	OCA
Long-Term Debt	45.19%	51.1%
Preferred Stock	1.63%	0.9%
Common Equity	53.18%	48.0%

13. Q. Do you agree with Mr. Parcell's use of historic proxy group data?

A. No, I do not. In a recent Initial Decision in Duquesne Light Company's smart meter proceeding at Docket No. M-2009-2123948, former Administrative Law Judge Robert P. Meehan observed: "[W]hile the Commission has used hypothetical capital structures in rate cases, such a use has been predicated on evidence tending to show that the actual capital

structure of a particular utility is so far beyond the range of a reasonable capital structure that the utility's actual capital structure is unreasonable for ratemaking purposes."

14. Q. Does the evidence in this case suggest that PECO's projected December 31, 2010 capital structure is "far beyond the range of a reasonable capital structure"?

A. No, quite to the contrary. In fact, Ms. Gordon notes that the Company's claimed capital structure "efficiently balances the needs of the Company shareholders while protecting the interests of the ratepayers" (OTS St. 1, p. 18).

15. Q. Do the proxy group data relied upon by Mr. Parcell suggest that PECO's proposed capital structure is "far beyond the range of a reasonable capital structure"?

A. No, they do not. As can be seen by reference to Mr. Parcell's Schedule 7, the common equity ratios for his proxy companies ranged from 41.8% to 57.4%. Further the Value Line forecasts of the common equity ratios are:

Company	2010	2011	2013-15
American Electric Power	45.0%	45.5%	47.5%
Consolidated Edison	51.5%	51.5%	51.5%
Duke Energy	56.0%	56.0%	50.5%
Edison International	46.0%	48.0%	46.0%
Entergy	41.5%	42.0%	40.5%
FirstEnergy	42.0%	42.0%	43.0%
PG&E	49.0%	51.0%	53.5%
Progress Energy	46.0%	46.0%	47.5%
Public Service Enterprise	60.5%	61.5%	60.0%
Southern Company	43.5%	43.5%	43.5%
Average	48.1%	48.7%	48.4%

Source: The Value Line Investment Survey, May 7, 2010, May 28, 2010, and June 25, 2010

From the table presented above, there are a number of instances where common equity ratios exceed the Company's proposal in this case.

16. Q. Do you have any other problems with Mr. Parcell's proposed hypothetical capital structure?

A. Yes, I do. First, his proxy group ratios are calculated at December 31, 2009, which makes them dated and inappropriate for use in this case. Second, his hypothetical capital structure proposal is inconsistent with his use of PECO's actual embedded costs of long-term debt and preferred stock. If a greater percentage of long-term debt is assumed hypothetically, then the additional hypothetical debt would likely carry a higher cost rate.

III. COMPARABLE COMPANIES

17. Q. Have proxy groups of companies been employed in this case to determine the Company's cost of equity?

A. Yes. Messrs. Parcell and Baudino, Ms. Gordon, and I have all used proxy groups of companies to measure the cost of equity for PECO. Ms. Gordon adopted my proxy group for her cost of equity analysis with one exclusion, while Mr. Parcell and Mr. Baudino did not.

18. Q. You previously suggested that you did not consider Mr. Parcell's barometer group comparable to PECO. Please explain.

A. The principal problem I have with his group is that most of Mr. Parcell's barometer group companies are integrated electric companies. These companies are inappropriate proxies because PECO has no generation.

19. Q. Mr. Baudino selected a group of twenty utilities to measure his cost of equity. Are all of these companies valid candidates?

A. No. Many of these companies were inappropriately included in Mr. Baudino's proxy group for the same reason most of Mr. Parcell's companies are inappropriate. Indeed, Mr. Baudino has essentially developed a generic cost of equity because the selection criteria that he used to assemble his comparison group results in an overly broad-based group of electric utilities. His only meaningful exclusion criterion was bond ratings where he removed lower rated utilities from his group.

However, most of his companies are integrated electric utilities or utilities that have meaningful electric generating assets. Finally, fourteen of his companies (i.e., 70%) operate in states that have not restructured their electric business, unlike Pennsylvania.

20. Q. Has Ms. Gordon made a modification to the proxy group companies that were used by you to measure the Company's cost of equity?

A. Yes. Ms. Gordon used most of the companies that I included in my proxy group. But, by removing CH Energy, she has reduced the size of the Barometer Group to just six companies, which reduces the reliability of the proxy group data due to smaller sample size. She did this because CH Energy does not have a five-year forecasted earnings per share growth rate available to her from a second source. But this reason is entirely arbitrary and does not warrant the exclusion of CH Energy. The reason that this exclusion criteria is unnecessary is because the growth rates for the proxy group are averaged across the sample, which minimizes gaps in forecasts that exist for a particular company. For example, Ms. Gordon shows a gap in four entries for Central Vermont on Schedule 10 of OTS Exhibit No. 1. Yet Central Vermont is only one of the six companies included in her Barometer Group. Moreover, the addition of CH Energy would increase the number of companies in the Barometer Group, thereby making it less susceptible to anomalous results. Further, the gaps in data for CH Energy are similar to Central Vermont.

IV. DISCOUNTED CASH FLOW METHOD

21. Q. The DCF model has been used by most rate of return witnesses to measure the cost of equity. What is your position concerning the use of the DCF method?

A. While Mr. Parcell has considered additional methods in his analysis, Ms. Gordon and Mr. Baudino essentially base their proposed cost of equity on the DCF. Although they cite to the results of the CAPM, they do so solely to support their DCF findings rather than giving the CAPM any independent weight. In my view, the use of more than one method provides a superior foundation for the cost of equity determination. This is particularly true today given the wide swings in share values and the overall financial market uncertainty experienced recently, as measured by the VIX that I described previously. Since all cost of equity methods contain certain unrealistic and overly restrictive assumptions, the use of more than one method will capture the multiplicity of factors that motivate investors to commit capital to an enterprise (i.e., current income, capital appreciation, preservation of capital, level of risk bearing, etc.). For that reason, the investment community uses DCF in combination with other models in its analysis of common stocks. Likewise, many regulators follow a practice that includes the review of the results of multiple methods. While the Commission has certainly used the DCF method in many prior rate case decisions, the results of other methods have also been considered.

In addition, and as I pointed out in my direct testimony, there is an element of circularity in the DCF model when applied in public utility rate cases. This is because investors' expectations for the future depend upon regulatory decisions. Therefore, the use of the DCF in rate cases ensures that regulators will continue to provide high growth utilities with a return which sustains that performance. On the other hand, the use of the DCF for low growth companies perpetuates that performance and hinders any improvement. Due to this circularity, the DCF model may not fully reflect the true risk of a particular utility.

22. Q. What form of the DCF model has been employed in this case?

A. The constant growth form of the DCF model has been used by Mr. Parcell, Ms. Gordon, Mr. Baudino, and me. It must be recognized, however, that the constant growth form of the DCF model is not without its limitations because many of the assumptions which must be made to utilize this model are simply not realistic. According to the theory of the constant growth form of the DCF, future earnings per share, dividends per share, book value per share, and price per share will all appreciate at the same constant rate absent any change in dividend payout and price-earnings multiple. There is no evidence that these conditions actually prevail in the equity markets.

V. DCF DIVIDEND YIELD

23. Q. Ms. Gordon challenges the ex-dividend adjustment that you made in calculating dividend yields. Please respond.

A. First, Ms. Gordon claims that my adjustment is retroactive. This assertion is incorrect because the ex-dividend adjustment is made to each month's current price (not the previous month asserted by Mr. Gordon) to account for the dividend that has been accumulated up through the end of the current month. The ex-dividend adjustment is necessary in order to completely synchronize the accumulation of the dividend that is reflected in the stock price since the last ex-dividend date. Ms. Gordon also claims that the adjustment assumes that there is a stock price movement that is equal to the dividend, and that it is impossible to know if that stock price movement is attributed to the approaching ex-dividend date or for other factors. I acknowledge that the price of stock moves for many reasons, i.e., changes in market sentiment, changes in P-E multiples, changes in risk fundamentals, etc., but it is nearly impossible to quantify those factors individually. What can be quantified in a precise way is the accumulation of the quarterly dividend payment in the stock price as the ex-dividend date approaches. My adjustment procedure is performed in a precise and methodical way to isolate the impact of that factor.

Second, Ms. Gordon claims that there is no academic support for the adjustment. Contrary to her belief, there has been extensive academic

research on the impact of the ex-dividend on stock prices. In fact, I am aware of numerous academic studies that indicate that stock prices react to the ex-dividend date.[1]

Third, she claims that she is unaware of any financial publications that provide ex-dividend adjusted yields. In fact, the ex-dividend dates are routinely reported in the financial press, and they are widely available on the internet. Moreover, the Barron's source that Ms. Gordon has used for her stock prices, as well as The Wall Street Journal, provides a list of stocks that trade ex-dividend. The importance of the ex-dividend adjustment is shown by the fact that while there is a change in the price of stock equal to the amount of the dividend payment when the stock trades without its dividend on the ex-dividend date, there is no net change from the prior day's stock price shown in the daily change column. The Wall Street Journal signifies the lack of pricing change related to the dividend

[1] Avner Kalay, "The Ex-Dividend Day Behavior of Stock Prices: A Re-examination of the Clientele Effect," Journal of Finance, 37 (September 1982), 1059-70; Keneth M. Eades, Patrick J. Hess, and E. Han Kim, "On Interpreting Security Returns During the Ex-Dividend Period," Journal of Financial Economics, 13 (March 1984), 3-34; Patrick J. Hess, "The Ex-Dividend Day Behavior of Stock Returns: Further Evidence on Tax Effects," Journal of Finance, 37 (May 1982), 445-56: James M. Poterba and Lawrence H. Summers, "New Evidence That Taxes Affect the Valuation of Dividends." Journal of Finance, 39 (December 1984), 1397-1416; Michael Barclay, "Tax Effects with No Taxes? Further Evidence on the Ex-Dividend Day Behavior of Common Stock Prices," working paper, Stanford University (September 1984); and Costas P. Kaplanis, "Options, Taxes, and Ex-Dividend Day Behavior," Journal of Finance, 41 (June 1986), 411-24.

See Kalay, "The Ex-Dividend Day Behavior of Stock Prices"; Jerry Green, "Taxation and the Ex-Dividend Day Behavior of Common Stock Prices" working paper. National Bureau of Economic Research, Cambridge, Mass (1980); and Hess, "The Ex-Dividend Day Behavior of Stock Returns." Black and Scholes, "The Effects of Dividend Yield and Dividend Policy on Common Stock Prices and Returns."

Miller and Scholes, "Dividends and Taxes." See Marshall Blume, "Stock Returns and Dividend Yields: Some More Evidence." Review of Economics and Statistics, 62 (November 1980), 567-77.

Edwin J. Elton and Martin J. Gruber, "Marginal Stockholder Tax Rates and the Clientele Effect," Review of Economics and Statistics, 52 (February 1970), 68-74.

by the "x" notation in its stock listings. In addition, the Securities and Exchange Commission ("SEC") has recognized the significance of the ex-dividend adjustment, stating:

> "With a significant dividend, the price of a stock may move up by the dollar amount of the dividend as the ex-dividend date approaches and then fall by that amount after the ex-dividend date. A stock that has gone ex-dividend is marked with an "x" in newspapers on that day." http://www.sec.gov/answers/dividen.htm

24. Q. Mr. Baudino opines that your dividend yield is based on stale data. Does this observation diminish the cost of equity that you propose for PECO?

A. No. The dividend yields that I employed in my direct testimony were the most current that were available when that testimony was being prepared. As time progress, subsequent data always becomes available that is more current. Regardless, the dividend yields that I used were appropriately synchronized with the growth rate data that I considered. So the relevant consideration is that the dividend yields are correctly matched with the growth rates that are employed in the DCF calculation.

VI. DCF GROWTH RATE

25. Q. As to the DCF growth component, what financial variables should be given greatest weight when assessing investor expectations?

A. The theory of the DCF holds that (1) the value of a firm's equity (i.e., share price) will grow at the same rate as earnings per share and (2) dividend growth will equal earnings growth with a constant payout ratio. Therefore, to properly reflect investor expectations within the limitations of the DCF model, earnings per share growth, which is the basis for the capital gains yield and the source of dividend payments, must be given greatest weight.

26. Q. Can you show how the DCF model is often misapplied in a utility rate case?

A. Yes. The major infirmity of the DCF method becomes apparent when viewing the model in its retention growth rate form. Mr. Parcell has employed the "b x r" approach, i.e., the retention growth method, in his DCF analysis (see page 2 of Schedule 9 of Exhibit __(DCP-1)). This special form of the DCF merely adjusts an assumed return on book common equity by the difference between the dividend yield on book value and the dividend yield on market value. This form of the DCF cannot be viewed as a full market model because it mixes accounting returns and market returns in the following manner:

E/B
-D/B
+D/P
ROE

where: E = earnings per share
D = dividend per share
B = book value per share
P = price per share
ROE = return on equity

In reality, a true market model should be represented by the formula:

where: D = dividend per share
P_0 = current price per share
P_1 = appreciated price per share
k = cost of equity

$$K = \frac{D_1}{P_0} + \frac{P_2 - P_0}{P_0}$$

The retention growth form of the DCF does not adequately reflect investor expectations of total returns (dividend yield + capital gains yield). Since retention growth is intended to describe growth in book value, this method is inappropriate because investors do not necessarily realize growth in the value of their investment at the retention growth rate because utility share prices do not always trade at book value.

27. Q. Please explain.

A. The average forecast return for the years 2010, 2011, and 2013-15 (see page 1 of Schedule 12 of Exhibit (DCP-1)), converts into a DCF return rate for Mr. Parcell's comparison group as follows:

	Comparison Group	Moul Electric Group
E/B	11.07%	9.07%
-D/B	-6.27%	-6.47%
+D/P	5.3%	5.5%
ROE	10.1%	8.1%

The calculations provided above illustrate how an assumed achieved return on equity ("E/B") is reduced significantly in the context of a DCF return that is founded on the retention growth method. It seems obvious that if the DCF return authorized in a rate case produces earnings that are well below those that investors expect, investors will adjust the price of stock downwards to reflect a new set of expectations. Under these circumstances, the stock price will be subject to disequilibrium and the resulting DCF return will have no meaning. In addition, a DCF return of 8.1% is totally out of the range of reasonable equity returns. With the yield on A-rated public utility bonds of 5.46% in June 2010, such DCF return provides an inadequate spread between the cost of debt and the cost of equity that would adequately reflect the higher risk associated with common equity.

28. Q. Apart from these theoretical deficiencies, have Messrs. Parcell and Baudino properly applied the retention growth/sustained growth method?

A. No. In presenting their retention growth rates, Messrs. Parcell and Baudino relied upon the Value Line source. The retention growth rates published by Value Line are calculated with year-end book values, rather than average book values. When using the Value Line returns, it is necessary to convert those figures from year-end to average book common equity. The failure to do so creates a downward bias in the results because, assuming some retention growth, the average book value will be less than the year-end book value. When the Federal Energy Regulatory Commission ("FERC") employs these data, it adjusts the year-end returns to derive the average yearly return. Generally speaking, this adjustment would increase the retention growth rate.

29. Q. Did Messrs. Parcell and Baudino include external financing growth in their internal growth/sustainable growth analyses?

A. No. This omission results in a further downward bias in their retention growth rate analyses. Forecasts indicate future growth from external stock financing will add to the growth in equity for the Value Line electric companies.

30. Q. Mr. Parcell asserts that your proposed DCF growth rate substantially exceeds investor expectations and is not supported by the data you present. Please respond.

A. My 5.50% DCF growth rate is entirely within investor growth expectations for the electric utilities and is adequately supported by my data. As shown on Schedule 10 of Exhibit PRM-1, the analysts' forecasts of earnings growth for the electric utilities are 6.10% by FirstCall/IBES and 5.50% by Zacks. In this regard, Mr. Parcell's observation that my recommended growth rate exceeds certain historical averages is entirely irrelevant. In developing a forecast of future earnings growth, an analyst would first apprise himself/herself of the historical performance of a company. Hence, there is no need to separately consult historical growth rates because historical performance is already reflected in analysts' forecasts.

31. Q. Mr. Parcell contends that analysts' forecasts should not be the primary factor in the DCF analysis. Please respond.

A. Mr. Parcell asserts that it is customary and proper to use alternative measures of growth, not just EPS projections. In fact, this is the process that I used in my direct testimony. That said, Professor Myron Gordon has established that analysts' growth forecasts are the best measure of investor expectations in the DCF model. Mr. Parcell further states that Value Line publishes a large number of individual company data and

ratios for consideration by investors. However, I have not ignored these data in the development of my 5.50% investor expected growth rate. To the contrary, I reported a variety of other Value Line data on Schedules 9 and 10 of Exhibit PRM-1.

32. Q. Mr. Baudino suggests that your DCF growth rate failed to adequately reflect dividend growth. Please respond.

A. Mr. Baudino asserts that dividend growth provides the primary source of cash flow to the investors. Yet, according to the constant growth assumption of the DCF model, dividends per share are expected to grow in the long-run at the same rate as earnings per share with a constant dividend payout ratio, and that stock price will grow in the long-run at the same rate as earnings per share with a constant price-earnings multiple. Hence, earnings per share growth is the correct growth rate to be used in the DCF model. Mr. Baudino seems to suggest his approach that weighs dividends per share growth by 25% has merit. But this approach is misguided because with a forecast decline in dividend payout ratios earnings and stock price will grow at a faster rate with a constant price-earnings multiple.

33. Q. Mr. Baudino uses three separate methods to express his growth rates and resulting DCF returns. Please comment.

A. In his method 1, Mr. Baudino calculates an average of all the growth rates he considered from Value Line, Zacks, and Thomson/First Call. In

method 2, he used median values. And in method 3, he eliminates the high and low values from the calculation. In each of these methods, however, Mr. Baudino considers the dividend per share growth rate published by Value Line. In my view, only the three earnings per share growth rate are valid inputs.

34. Q. On page 2 of his Exhibit (RAB 4), Mr. Baudino presents his DCF results. Are the calculations shown on this schedule valid?

A. No. The results of method 3 using the three earnings per share forecasts can be considered. The average of these results is 10.15% (9.97% + 10.19% + 10.28% = 30.44% ÷ 3). To that return must be added the leverage adjustment of 0.70%, thereby providing a 10.85% cost of equity for this case.

35. Q. Please address Ms. Gordon's proposed DCF growth rate of 5.23%.

A. Her growth rate is fairly close to the growth rate that I used which was 5.50%. Were it not for the fact that the Value Line forecasts serve to drag-down the averages, Ms. Gordon would have arrived at the same growth rate that I had used. Indeed, the average growth rate is 5.59% (6.43% + 5.38% + 5.38% + 5.38% + 5.36% = 27.93% ÷ 5) using the group average data calculated from Yahoo, Clear Station Smart Money, MSN, and MorningStar values that she reports (see Schedule 10 of OTS Exhibit No. 1).

36. Q. What DCF return would be indicated with this growth rate?

A. Using Ms. Gordon's dividend yield calculation, the 5.59% growth rate developed above, and the 0.70% leverage adjustment that I developed in my direct testimony, the following DCF return is indicated.

D/P	+	g	+	$lev.$	=	k
5.43%	+	5.59%	+	0.70%	=	11.72%

VII. LEVERAGE ADJUSTMENT

37. Q. Please respond to the opposing party witnesses' criticism of your leverage adjustment.

A. As in many (but not all) prior cases, I have proposed an adjustment to reflect the difference in risk attributed to changes in leverage that occurs when the book value capital structure, rather than the market value capital structure, is used to compute the weighted average cost of capital. This modification to the DCF model must be recognized in order to make the DCF results relevant to the book value capital structure. Mr. Parcell contends that such an adjustment is unnecessary because, he claims, investors are aware that rates are set on the basis of book value. Yet, if that were the extent of a rate of return analysis, it would be a simple matter to just impose the earned returns that utilities are forecast to achieve based upon the book value of their equity. As Mr. Parcell has acknowledged, those returns for his Comparison Group would be 11.2%, 11.1% and

10.9% for the years 2010, 2011, and 2013-15 as shown on page 1 of Schedule 12 of Exhibit___(DCP-1). However, these are not market determined cost rates in the same sense as the DCF and CAPM returns. As such, the market derived cost rates generated by the DCF and CAPM models must be adjusted for the leverage risk differences. Otherwise, a misspecified rate of return on common equity would ensue. The Commission has recognized this important point in many prior rate case decisions.

38. Q. Please respond to Ms. Gordon's criticisms of your leverage adjustment.

A. Ms. Gordon attempts to link the leverage adjustment to the market/book ("MB") ratios although she acknowledges that there is no particular market-to-book factor in the adjustment. Undeterred, she then expounds on her understanding of M/B ratios, although they play no role in the leverage adjustment. In fact, my approach does not express the DCF return in terms of any particular market-to-book ratio. Rather, as I derive it, the rate of return on common equity is the unleveraged cost of capital (or equity return at 100% equity) plus a term(s) reflecting the increase in financial risk resulting from the use of leverage in the capital structure.

39. Q. At page 29 of her testimony, Ms. Gordon contends that your proposed leverage adjustment contains flaws related to a repetition of the "ku" factor in the formula. Is she correct?

A. No. The reason that the unlevered cost of equity (i.e., "ku") is shown twice in the formula is because the excess return over the marginal cost of debt and preferred stock must be addressed in solving for the value. If there were no preferred stock in the capital structure, then "ku" would have been shown only once. But because preferred stock is present in the capital structure, it is necessary to solve for the excess return for both debt and preferred stock. This is particularly important because the interest expense on debt is deductible for income tax purposes, but dividends on preferred stock are not.

40. Q. Ms. Gordon also questions your leverage adjustment by reference to an old Blue Mountain case in which you testified. Please comment.

A. The Commission has consistently recognized that the Blue Mountain decision, which is now 30 years old, and the environment in which it was issued, are distinguishable in a number of important respects.

First, that case was not decided using the DCF method. Rather, the Commission relied heavily on earnings/price ratios to set the return on equity in the context of a fair value rate base. Second, in its decision on remand, the Commission noted that over a period of years it was relatively easy to discern the trends in market-to-book ratios which, when compared

to performance as measured by other financial ratios, can indicate the return levels the Commission must award to assure reasonable access by public utilities to the capital markets. Notably, the trends in market-to-book ratios during that period were substantially different from today. At the time that case was litigated, market-to-book ratios for the broader market generally approximated 1:1. That is to say, market prices in the late 1970s were about equal to book value.

41. Q. Mr. Baudino also questions the propriety of your leverage adjustment. Please respond.

A. Mr. Baudino attempts to make four arguments against my leverage adjustment. First, he says my leverage adjustment is incompatible with the use of book values of common equity, preferred stock, and long-term debt in calculating the weighted average cost of capital. But, it is precisely because book values are used, rather than market values, that the adjustment is necessary. Further, Mr. Baudino is incorrect in his assertion that I am attempting to inflate the market-based equity return when the M/B ratio is greater than 1.0. As I explained above, my leverage adjustment is not associated with any particular M/B ratio. It does not attempt to "prop up high M/B ratios" because it does not provide a return that supports any particular M/B ratio, high or low. Concerning Mr. Baudino's third point, I agree that investors would not undertake the analysis that I performed to calculate the leverage adjustment. This is because investors are only concerned with the returns that they can realize

on market values. It is only necessary to address this issue here because the ratesetting process utilizes book values. Finally, as to his fourth point, rating agencies are concerned primarily with a company's cash flow and the ability to adequately cover debt service. While the rating agencies have specific benchmarks for the proportion of debt to capitalization, they do not calculate market-based measures of the cost of equity and link those results to a company's book value capital structure. Hence, they would not need to address this issue.

VIII. RISK PREMIUM METHOD

42. Q. Do you believe the Risk Premium method provides significant evidence of the cost of equity?

A. Yes. In my opinion, the Risk Premium results should be given serious consideration. The Risk Premium method is straight-forward, understandable and has intuitive appeal because it is based on a company's own borrowing rate. The utility's borrowing rate provides the foundation for its cost of equity which must be higher than the cost of debt in recognition of the higher risk of equity. So while Messrs. Parcell and Baudino and Ms. Gordon decline to use the Risk Premium approach to measure the Company's cost of equity, it is an approach which provides a direct and complete reflection of a utility's risk and return because it considers additional factors not reflected in the beta measure of systematic risk.

43. Q. Please respond to Ms. Gordon's comments regarding your Risk Premium approach.

A. Ms. Gordon makes the unfounded assertion that, although the Risk Premium and CAPM methods are relevant to investment decision making (i.e., they provide buy and sell signals to investors), they may be ignored in the public utility ratesetting process. In fact, it is precisely because investors consider the results of other methods (such as the Risk Premium and CAPM) that they too should be used in addition to the DCF in the development of the cost of equity in this proceeding. Ms. Gordon's argument that the Risk Premium method does not measure the current cost of equity as directly as the DCF is similarly without foundation.

44. Q. Please respond to Mr. Parcell's criticisms of your Risk Premium approach.

A. Mr. Parcell's criticisms seem to focus on the historical relationship between stock returns and bond returns that provides the foundation for the development of the risk premium component. Specifically, he states that it is erroneous to assume that past relationships between stock returns and bond returns will prevail in the future. However, Mr. Parcell engages in the exact same analysis in his application of the CAPM. If this approach is valid for computing the market premium component of the CAPM, as Mr. Parcell has done, then it must also be valid for the Risk Premium approach.

45. Q. Mr. Baudino seems to believe that using historical data for the Risk Premium approach creates a problem with matching premiums that are reflective of current investor expectations with those developed from the historical period. Please respond.

A. I share Mr. Baudino's concern in this regard and there are two ways to deal with it. First, an analyst can use all reliable data to establish the risk premium, thus avoiding a bias in selecting a particular period. This represents one of the approaches that Mr. Baudino himself employed to arrive at his market premium component of the CAPM. Second, an analyst can develop a risk premium from historical data that seeks to emulate investors' current expectations. I followed the later approach. The value of this approach is that it allows the risk premium to vary over time -- which is what my risk premium does.

46. Q. Mr. Baudino also quarrels with your use of medians in your Risk Premium analysis. Please respond.

A. I used medians for the very reason noted by Mr. Baudino -- that is, to deal with a skewed distribution of the historical returns. The median value noted by Mr. Baudino is not influenced by excessively high or low numbers. Moreover, I am somewhat surprised by Mr. Baudino's citation to my use of medians, because he also used medians in his DCF analysis.

IX. CAPITAL ASSET PRICING MODEL

47. Q. As the risk-free rate of return component of the CAPM, Mr. Baudino studied the yields over a 6-month period for 20-year Treasury bonds and 5-year Treasury notes. Do you agree?

A. I agree with his use of the yields on 20-year Treasury bonds, but not his use of the yields on 5-year Treasury notes. His use of five-year Treasury Notes as a measurement of the risk-free rate of return is entirely inappropriate because the 2.40% yield that he uses is significantly influenced by Federal Open Markets Committee ("FOMC") policy, which is a carry-over from the financial crisis. Indeed, all such relatively short-term Treasury obligations can be expected to rise precipitously once the FOMC easing is removed. This is revealed by the Blue Chip Financial Forecast that show that the yield on five-year Treasury Notes will increase as follows: 2.2% - 3Q 2010, 2.4% - 4Q 2010, 2.7% - 1Q 2011, 3.0% - 2Q 2011, 3.3% - 3Q 2011, 3.5% 4Q 2011, 4.8% average 2012-16, and 5.0% average 2017-21.[2] The term of the 5-year Treasury notes is too short to be useful here because it does not fit the long-term horizon of public utility ratesetting (i.e., the average life of utility plant exceeds five years). Further, as maturities are shortened for Treasury securities, they are more susceptible to monetary policy actions of the FOMC. Indeed, during the financial crisis where the FOMC took aggressive actions to restore confidence in the credit markets, short-term interest rates were reduced

[2] Blue Chip July 1, 2010 and June 1, 2010.

along with other FOMC policy actions. Such monetary policy has continued during the recovery from the recession, but will not last indefinitely. Since yields on shorter term Treasury obligations are more influenced by FOMC policy actions than are long-term Treasury yields, the shorter term yields should be avoided in cost of equity analyses.

48. Q. How does the use of the yield on 10-year Treasury notes as proposed by Ms. Gordon compare with yields on longer-term Treasury bonds?

A. Many of the same comments that I made above apply here. Due to the recent and extraordinary monetary policy actions taken by the FOMC, which has resulted in a Fed Funds rate near zero, shorter-term interest rates should be avoided. In contrast, long-term interest rates have remained relatively stable throughout the credit crisis. According to Ms. Gordon's Blue Chip source dated June 1, 2010, the yield on long-term Treasury bonds is consistently higher than the yields on the 10-year Notes. For example, the 2012-2016 forecasts shows a yield on 30-year Treasury bonds of 5.8%, which is higher than the 5.3% yield on 10-year Treasury Notes. The difference is even more pronounced today where the yield on 30-year Treasury bonds is 4.13% and the yield on 10-year Treasury notes is 3.20% in June 2010. For this reason, long-term rates should be used to measure the risk-free rate of return.

49. Q. Do you have any other concerns regarding the application of the CAPM by Messrs. Parcell and Baudino and Ms. Gordon?

A. Yes. Messrs. Parcell and Baudino consider both the geometric mean and the arithmetic mean in computing the market premium component of the CAPM. Ms. Gordon, in turn, uses the geometric mean to measure historical returns. The theoretical foundation of the CAPM requires that the arithmetic mean be used because it conforms to the single period specification of the model, provides a representation of all probable outcomes, and has a measurable variance. The geometric mean, on which the opposing party witnesses rely in whole or in part, consists merely of a rate of return taken from two data points and cannot provide a reasonable representation of the market risk premium in the context of the CAPM. As stated by Ibbotson:

> *Arithmetic Versus Geometric Differences*
> For use as the expected equity risk premium in the CAPM, the arithmetic or simple difference of the arithmetic means of stock market returns and riskless rates is the relevant number. This is because the CAPM is an additive model where the cost of capital is the sum of its parts. Therefore, the CAPM expected equity risk premium must be derived by arithmetic, not geometric, subtraction.
>
> *Arithmetic Versus Geometric Means*
> The expected equity risk premium should always be calculated using the arithmetic mean. The arithmetic mean is the rate of return which, when compounded over multiple periods, gives the mean of the probability distribution of ending wealth values....This makes the arithmetic mean return appropriate for computing the cost of capital. The discount rate that equates expected (mean) future values with the present value of an investment is that investment's cost of capital. The logic of using the discount rate as the cost of capital is reinforced by noting that

investors will discount their (mean) ending wealth values from an investment back to the present using the arithmetic mean, for the reason given above. They will therefore require such an expected (mean) return prospectively (that is, in the present looking toward the future) in order to commit their capital to the investment. (Stocks, Bonds, Bills and Inflation - 1996 Yearbook, pages 153-154

50. Q. Messrs. Parcell and Baudino and Ms. Gordon have also criticized your leverage-adjusted betas. Please respond.

A. The betas that I have used are calculated strictly from market values, using a firm's stock price as the dependent variable and the market index as the independent variable. Mr. Parcell is incorrect to assert that it is inappropriate to "backdoor" market values into book values. There is no reference to book values in the calculation of betas. Yet, as I have previously explained, the regulatory-determined cost of equity must be adjusted for the difference between the risks implicit in the market-based ROE models versus the financial risk associated with book value capital structure used in ratesetting. The Hamada formula that I utilized to adjust the betas is merely an extension of the Modigliani and Miller formula that I used in connection with my DCF calculations.

51. Q. Mr. Baudino's CAPM analysis produces a range of 8.62% to 9.25% using forecasts of the total market return. Please comment.

A. As a preliminary matter, the low end of Mr. Baudino's CAPM range is invalid because it is based on the yield for five-year Treasury Notes (not bonds as Mr. Baudino identifies them) that I previously discussed.

Second, the forecast total market return that Mr. Baudino calculates using the Value Line data are well off the market. He has misstated the total market return by using an understated dividend yield and erroneously considered book value growth in his DCF formulation of the total market return. As to the dividend yield, Value Line published a median yield of 2.1% on the 1700 stocks that it follows (see Summary and Index") in its issue dated June 4, 2010, a date close to the source Mr. Baudino cites on page 2 of Exhibit (RAB-5). This clearly shows that the 0.66% dividend yield that he shows on page 1 of Exhibit (RAB-5) is severely understated. In addition, Value Line reported a 2.9% dividend yield for the DJI in its June 4, 2010 "Selection and Opinion," and I calculate a 2.0% (21.84 ÷ 1089.41) dividend yield for the S&P 500 at May 31, 2010. Mr. Baudino also erroneously considered book value growth of 8.51% in his total market return. This growth rate is well below the 12.96% earnings growth rate that he shows on page 2 of Exhibit RAB-5. Correcting these errors, Mr. Baudino should have used a 15.06% (2.1% + 12.96%) DCF return for the Value Line data.

52. Q. How would those corrections impact his CAPM calculation?

A. Using the six-month average yield on 20-year Treasury bonds of 4.42%, Mr. Baudino's beta, and the 15.06% total market return developed above, his CAPM return would be:

$$Rf + \beta \times (Rm - Rf) = k$$

$$4.42\% + 0.69 \times (15.06\% - 4.42\%) = 11.76\%$$

53. Q. What are your observations regarding Ms. Gordon's application of the CAPM?

A. Ms. Gordon's CAPM analysis understates the cost of equity because it incorrectly uses the geometric mean to measure historical market returns, fails to use leveraged adjusted betas, and fails to make a size adjustment.

54. Q. What are your observations concerning Ms. Gordon's calculation of the historical market return using the S&P Composite Index data?

A. Ms. Gordon's analysis substantially misses the mark. A 9.62% historical market return using geometric means for the S&P 500 cannot possibly be correct given that the expected returns she measured were in the range of 15.34% using Value Line data and 12.74% using Morningstar data. The average of the Value Line and Morningstar forecast returns is 14.04% as shown on page 1 of Schedule 14 of OTS Exhibit No. 1. The historic return using the correct arithmetic mean is 11.8%, which is more realistic given the forecasts noted above.

55. Q. Ms. Gordon also questions the need to adjust the CAPM results for size differences. Please comment.

A. Ms. Gordon's arguments revolve around purported "survivorship bias" and on an article by Ms. Annie Wong. Survivorship bias is not a valid criticism because the historical returns contain the results of the companies that existed in each year. That is to say, as companies entered and exited the stock market, the market performance in each year reflected the companies in that year. Obviously, Microsoft Corporation had no impact on the S&P 500 return in 1960, nor does Nash-Kelvinator Corporation impact the returns of the S&P 500 in 2009. But, these companies did provide returns to investors in the years that they were included in the market returns. As to the Wong article, it employed data going back into the 1960s. Enormous changes have occurred in the industry since the 1960s that have fundamentally changed the utility business. The Wong article also noted that betas for the non-regulated companies were larger than the betas of the utilities. This, however, is not a revelation, because history shows that utilities generally have lower betas than many other companies. This fact does not invalidate the additional risk associated with small size.

The Wong article further concludes that size cannot be explained in terms of beta. Again, this should not be a surprise. Beta is not the tool that should be employed to make that determination. Indeed, beta is a measure of systematic risk and it does not provide the means to identify the return

necessary to compensate for the additional risk of small size. In contrast, the famous Fama/French study (see "The Cross-Section of Expected Stock Returns," The Journal of Finance, June 1992) identified size as a separate factor that helps explain returns. Further, an article by Dr. Thomas Zepp[3] presented research on water utilities that support a small firm effect in the utility industry. In my view, the market capitalization of the Electric Group clearly warrants the 0.94% mid-capitalization size adjustment that I propose in this case.

X. COMPARABLE EARNINGS

56. Q. Mr. Parcell disagrees with your use of the Comparable Earnings approach. Please comment.

A. Mr. Parcell alleges that the risk parameters which I used to screen for my Comparable Earnings companies are inappropriate. Notably, however, he used three of the same variables in his comparison of risk on Schedule 14 of his Exhibit___(DCP-1). Next, he compares the returns for the companies in the Comparable Earnings group with the returns for his comparison group of utilities. This comparison is not appropriate because it introduces circularity to the Comparable Earnings method, which I avoid for the reasons explained in my direct testimony (see page 49).

[3] Zepp, Thomas M. (2002) "Utility stocks and the size effect: revisited". Economics and Finance Quarterly, 43, 578-582.

57. Q. Mr. Parcell also considers market-to-book ("M/B") ratios in his Comparable Earnings approach. Please comment.

A. Preliminarily, I note that an analysis of M/B ratios is not necessary to apply the Comparable Earnings method. Indeed, consideration of M/B ratios introduces subjectivity that the Comparable Earnings method is designed to avoid. Moreover, it is impossible to know whether the market valuation is solely related to earnings for a particular company. Market sentiment can significantly influence the price of stock. This is particularly true given the increasingly global market for capital, the advent of program and high frequency trading, and the effect on the market of mergers and leveraged financed stock acquisitions.

58. Q. Mr. Baudino also finds fault with your Comparable Earnings analysis. Please respond.

A. Mr. Baudino questions the use of forecasted earned returns as a basis for Comparable Earnings method. Yet, Mr. Baudino uses forecasts extensively in the DCF analysis. If forecasts are relevant to the DCF model, than they are equally valid in the Comparable Earnings method.

XI. RETURN ON PENSION PLAN ASSETS

59. Q. At page 15 of his testimony, Mr. Kalcic contends that the Commission should be "skeptical" of PECO's requested equity return because its actuaries have projected an overall assumed return on pension plan assets of 8.5%. Please comment.

A. As I explained in my direct testimony, an equity return rate, to be "fair," must satisfy certain well-established constitutional standards. It must, for example, provide a utility an opportunity to earn a return commensurate with returns on investments in other enterprises having corresponding risks. In addition, that return must be sufficient to enable the utility to attract capital on reasonable terms.

The 8.5% overall return assumed by the Company's actuaries, in my judgment, does not satisfy either of those standards. Nor is it designed to. Rather, the return rate assumed for actuarial purposes is utilized to develop the minimum pension contribution required in a given year to provide reasonable assurance that, over the long-term, pension plan assets will be sufficient to fund pension plan obligations. Moreover, pension plan funding, in a sense, is self-correcting. Thus, if the assumed return rate turns out to be too high or too low, appropriate adjustments are made to the assumptions utilized in subsequent actuarial studies.

XII. POINT IN THE RANGE

60. Q. Mr. Parcell has recommended a point within the lower half of his range of returns due to what he characterizes as current "economic distress." Is this approach reasonable?

A. No. There are a number of reasons that Mr. Parcell's proposal should be rejected. First, Mr. Parcell has failed to recognize that PECO has implemented a variety of low income assistance and energy efficiency and conservation programs that are specifically designed to help customers manage their energy needs during the current economic downturn and the slow recovery from it. Second, Mr. Parcell ignores the basic fundamentals of the utility business where the "obligation to serve" mandates investment through all phases of the business cycle. While non-regulated competitive business can scale back or eliminate new investment during recessionary periods, utilities must continue to invest in order to assure service reliability. Indeed, during the 2010-2014 period, PECO's electric operations will add over $1.7 billion in new utility plant, i.e., the type of infrastructure investment that is vital to the region's economic recovery. Third, Mr. Parcell has ignored the fact that PECO has successfully managed its costs over the last 21 years through a variety of economic conditions to avoid rate increases for customers. In fact, PECO's electric rates in 2011 will be 7% lower than its inflation adjusted rates in 1996. Fourth, Mr. Parcell has seemingly disregarded the exemplary performance of the Company's management described by Mr. Adams. For all these

reasons, the Commission should reject Mr. Parcell's proposal to set the Company's return within the lower half of his range.

61. Q. Mr. Selecky also argues that the Commission should consider the economic downturn when setting the Company's cost of equity. Please comment.

A. Mr. Selecky takes a somewhat different approach in forming his argument than Mr. Parcell. Mr. Selecky argues that, with government intervention to deal with the economic downturn, interest rates have reverted to more "normal" conditions as revealed by the decline in the yield spread between Baa-rated public utility bonds and 30-year Treasury bonds. While my analysis considered a slightly different measure of the yield spread (i.e., A-rated public utility bonds and 20-year Treasury bonds), I fully reflected the decline in the yield spreads that Mr. Selecky has observed. Hence, my cost of equity analysis for PECO reflected that factor and no further consideration is necessary in setting the Company's equity return.

XIII. SMART METERS

62. Q. Mr. Parcell argues that the return on equity associated with smart meter costs should receive a return that is 50 basis points less than for PECO's other operations. Do you agree?

A. No. There is no reduction in the equity return associated with Smart Meters. All of the Company's assets are entitled to the same return. Investors provide capital to PECO in its entirety and they cannot invest in

specific assets, unless they are financed with special purpose debt (i.e., PENNVEST debt, IDB debt, pollution control bonds, etc.). But even then, those assets go into the rate base and receive the overall rate of return. Even if Mr. Parcell was correct and smart meters should be assigned a lower return, then the other assets would need to obtain an even higher return to make up for the shortfall so investors can realize their required return on PECO's entire business. And, his 50 bp reduction is unquantified and entirely arbitrary. Finally, smart meters are intended to allow customers to manage their load and if a lower return is imposed on smart meters that would discourage investment and delay deployment of smart meters.

XIV. SUMMARY

63. Q. Please summarize your rebuttal testimony.

A. It is my opinion that the equity allowances proposed by Messrs. Parcell, Baudino, Selecky and Kalcic, and Ms. Gordon significantly understate the Company's cost of common equity. Further, I believe it would be entirely inappropriate to utilize hypothetical capital structure ratios derived from a group of non-comparable companies.

64. Q. Does this conclude your rebuttal testimony?

A. Yes.