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BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of Ohio Edison	:	
Company, The Cleveland Electric Illuminating	:	Case No. 07-551-EL-AIR
Company and The Toledo Edison Company for	:	Case No. 07-552-EL-ATA
Authority to Increase Rates for Distribution	:	Case No. 07-553-EL-AAM
Service, Modify Certain Accounting Practices and	:	Case No. 07-554-EL-UNC
for Tariff Approvals.	:	

PREFILED TESTIMONY
OF
RICHARD C. CAHAAN

CAPITAL RECOVERY & FINANCIAL ANALYSIS DIVISION
UTILITIES DEPARTMENT
PUBLIC UTILITIES COMMISSION OF OHIO

STAFF EXHIBIT ______

February 12, 2008

1. Q. Would you please state your name, position, and background?

A. My name is Richard C. Cahaan, and I am employed by the Public Utilities Commission of Ohio, 180 E. Broad Street, Columbus, Ohio 43215 as the Chief Economist in the Capital Recovery and Financial Analysis Division of the Utilities Department. I have been employed by the Staff of the Commission since 1983 and have testified in numerous rate cases and other proceedings before this Commission. A large proportion of my testimony before this Commission has been regarding the cost of capital and the rate of return to be granted to regulated utilities, although I have also presented economic analysis regarding other issues, including the rate stabilization plans of First Energy, CG&E, and AEP.

I have received a B.A. degree from Hamilton College and an M.A. degree in Economics from the University of Hawaii, and I have completed all course work and passed the written and oral general and field examinations at the Ph.D. level at Cornell University. I have been a faculty member, either fulltime or part time, at the State University of New York -- Cortland, Eisenhower College, Ithaca College, Cornell University, the Ohio State University, and the Graduate School of Business Administration of Capital University. Prior to joining the Staff, I taught economics at the Ohio State University.

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

A. The purpose of my testimony is to address Company and intervenor objections to the rate-of-return on rate base (RATE OF RETURN) analysis included in the Staff Report docketed in this proceeding on December 4, 2007, and to highlight the changes to Staff's recommended ROR in the Staff Report. (I will also be covering a few objections in areas other than rate of return.) I will conclude with a discussion of the relationship of the Staff's recommendation to the rate of return recommendations of the Company and other parties.

I will address the intervenor objections to the Staff Report by ROR topic, and discuss Staff's position. Objections to the Staff's ROR were submitted by the Ohio Edison Company (OE), The Toledo Edison Company (TE), and The Cleveland Electric Illuminating Company (CEI), (collectively the Companies or the Applicants), The Office of the Ohio Consumers' Counsel (OCC), and the Ohio Schools Council (Schools).

STAFF RECOMMENDATIONS AND OBJECTIONS

3. Q. You stated that you would be touching on a few objections other than rate of return issues. What are these?

A. I am supporting the disallowance of expenses incurred for security guards and ongoing maintenance in Schedule C-3.3. These expenses are incurred at five generating plants owned by Ohio Edison that were retired before the restructuring of Ohio's electric industry and included in Account 514, Maintenance of Miscellaneous Steam Plant. While staff recognizes that security and safety must be maintained, it is staff's position these cost should be eliminated for two reasons. First these costs are related to generation facilities and should not be recoverable in a distribution rate case. Second these costs are for facilities are no longer in use and do not provide any service to the distribution rate payer. Therefore, they should not recoverable in this case.

There was also an issue raised by IEU-Ohio regarding inventories owned by FirstEnergy Service Company and included in working capital for material and supplies. It is my understanding that this matter has been resolved and the objection is moot, and that the amounts presented in the Staff Report are correct.

4. Q. Turning now to the rate of return issues, what changes have the Staff made to its rate of return recommendation from the Staff Report?

A. The Staff made changes that resulted in a different capital structure, a different cost of debt, and a different cost of capital. The Staff has adopted a capital structure which is the consolidated EDU capital structure of 51.00% long term debt to 49.00% common equity. The Staff Report capital structure is 56.25% long term debt to 43.75% common equity. The Staff adopted the cost of debt of 6.54% from Companies' witness Pearson's supplemental testimony schedule JFP-6. The Staff Report cost of debt was 6.22%. The Staff adjusted downward the cost of equity from the Staff Report's 10.06% to 11.09% to be 10.00% to 11.00%. This cost of equity reflects lower risk associated with Staff's adjusted capital structure which contains less debt leverage.

5. Q. What is Staff's updated return on rate base recommendation for the Companies?

A. Staff's adjusted ROR recommendation is shown below:

Long Term Debt Capitalization	51.00%
Common Equity Capitalization	49.00%
Cost of Debt	6.54%
Return on Equity Range	10.00% - 11.00%
Return on Rate Base Range	8.24% - 8.72%

6. Q. What parts of the Staff Report are retained by this testimony's rate of return recommendation?

A. Staff Report Schedules D-1.2 through D-1.4 are retained. Staff Report Schedule D-1.1 is correct with the exception that it does not incorporate the

Staff's downward adjustment to the cost of equity from the Staff Report's 10.06% to 11.09% to be 10.00% to 11.00%.

7. Q. Do the Staff's adjustments render moot any objections to the Staff Report?

A. Yes, the Staff believes that First Energy Companies' Rate of Return objections 1. and 2., pertaining to capital structure and First Energy Companies' Rate of Return objections 3. and 4., pertaining to cost of debt are rendered moot by Staff's changes to its rate of return recommendation.

The Companies' Rate of Return Objection 1. states, "The said Report unlawfully and unreasonably uses the consolidated FirstEnergy Corp. capital structure rather than that reflecting the capital structure of FirstEnergy's Ohio electric distribution utilities in determining the fair rate of return." (All Companies, S.R. p. 15). The Companies' Rate of Return Objection 2. states, " The said Report unlawfully and unreasonably uses a capital structure which does not support the Companies' overall investments because such capital structure, when applied to non-RCP deferral rate base levels, reflects an improperly high leverage since it does not take into consideration that 100% of the RCP related deferrals earn only a debt return. (All Companies, S.R. Scheds. A-1 and D-1)." The Staff now recommends a 49.00% common equity capital structure, the same as the Companies' witness Pearson recommends in Supplemental testimony (JFP-7 and JFP-7A).

The Companies' Rate of Return Objection 3. states, "The said Report unlawfully and unreasonably uses the embedded cost of long term debt of FirstEnergy Corp. rather than a cost which properly reflects the embedded cost of debt of FirstEnergy's Ohio electric distribution utilities in determining the fair rate of return." (All Companies, S.R. p. 15). The Companies' Rate of Return Objection 4. states, "The said Report unlawfully and unreasonably uses a cost of debt that includes costs associated with Pollution Control Revenue Bonds rather than excluding these costs which are not related to the distribution business. In any event, it is improper to include the costs of certain of these Bonds which have been retired and are no longer on the Companies' books." (All Companies, S.R. Sched. D-1). The Staff now recommends a 6.54% cost of long term debt, the same as the Companies' witness Pearson recommends in Supplemental testimony (JFP-7).

8. Q. What other objections were submitted relating to the capital structure used by Staff to compute the ROR?

A. The Applicants object to the Staff's use of the consolidated capital structure of FirstEnergy Corp. rather than the combined capital structure of the three

Ohio electric distribution utilities. Applicant witness James F. Pearson states that the Staff's capital structure ignores fundamental changes that have taken place in the electric industry in Ohio since passage of Senate bill 3 which changed the FirstEnergy operating companies from vertically integrated utilities to distribution utilities. Witness Pearson states that the use of the FirstEnergy consolidated capital structure is inconsistent with Commission Staff comments relating to the use of the appropriate capital structure for distribution utility companies in generic proceedings and in the Staff's rate-of-return workshop in July 2007. Witness Pearson further states that the Staff's recommended capital structure would also over leverage the Companies, potentially compromising their investment grade rating and leading to higher financing costs. The Applicants' witness Michael J. Vilbert states that the Staff is incorrect to rely on the parent company consolidated capital structure without an adjustment for additional risk inherent in that capital structure compared to the capital structure of the Ohio EDUs. Witness Vilbert States that a capital structure reflective of the Ohio EDUs is preferable because it reflects the decisions on how to finance the Companies' distribution assets rather than the aggregate of all the assets of the parent and all of its subsidiaries.

9. Q. What is Staff's position on capital structure?

A. Staff now recommends that the combined capital structure of the Companies, e.g., 51% debt and 49% common equity, is the appropriate capital structure for purposes of this proceeding. This capital structure is consistent with the Companies' recommendation, which is based on the capital structures of the Companies used to support distribution assets. It is also consistent with the average capital structure of the comparable group companies used by Staff to estimate the cost of common equity. Staff's recommended capital structure is linked to the capital structure that supports the Applicant's distribution function.

10. Q. What objections were submitted relating to the cost of debt used by the Staff to compute the ROR?

A. The Companies objected to the Staff's use of embedded cost of long term debt of the consolidated long term debt of FirstEnergy Corp. rather than the embedded cost of the long term debt of the three Ohio electric distribution utilities. The Companies state that use of the embedded cost of long term debt of FirstEnergy Corporation improperly included the cost of debt that is associated with pollution control revenue bonds which are related to generation operations and should be excluded from distribution cost of debt.

11. Q. What is Staff's position on the cost of debt that should be used to compute the ROR?

A. Staff now recommends the use of a cost of debt of 6.54% which is based on the embedded long term cost of debt of the combined three Companies, exclusive of pollution control bonds. This cost of debt reflects the cost of debt supporting distribution assets for the three Companies. It is also consistent with Staff's updated capital structure.

12. Q. What objections were submitted relating to the comparable group of companies that should be used to determine return-on-equity (ROE)?

A. The Office of the Consumer's Council stated that the Staff's comparable group companies incorrectly included natural gas distribution utilities that provide no electric utility services as well as fully regulated electric utilities that do not operate in a regulatory environment that is similar to that in which FirstEnergy operates. The Staff Report incorrectly excluded electric utilities operating in deregulated states that are more comparable to FirstEnergy distribution companies. The OCC objected to the inclusion of utilities that receive little revenue from providing regulated electricity services (e.g. CenterPoint Energy, Inc., Constellation Energy Group, Inc., and MDU Resources Group, Inc.).

The Companies stated that the Staff's comparable companies do not possess risk characteristics corresponding to those of the Company as an Ohio electric distribution utility, and are comprised of companies that operate either wholly or partially in a different industry or different regulatory environment and that said group improperly excludes companies having beta factors exceeding unity.

13. Q. What is Staff's position on the comparable group companies that should be used to compute ROE?

A. Staff's comparable group companies used in its analysis for the Staff Report are appropriate for use in this proceeding. The risk level for the comparables is appropriate for distribution operations. Non regulated enterprise permeates the electric utility industry, both as affiliates and as integrated operations. Overall, the comparable group reflects a degree of riskiness appropriate for the Companies.

14. Q. What objections were submitted relating to the Capital Asset Pricing Model (CAPM) method to compute ROE?

A. The Companies stated that the Staff incorrectly applied the Capital Asset Pricing Model (CAPM) in its determination of the cost of equity capital, including : 1) calculating an average of Value Line betas prior to adding the product of such average and the "spread" (between large Company stocks and the risk free return) to the risk free return, thus failing to consider variations in business and financial risk among the companies whose betas are used to drive such average, 2) failing to consider short term as well as long term securities in determining the risk free rate, and 3) failing to compensate for recognized shortcomings of the CAPM methodology by consideration of the ECAPM (Empirical Capital Asset Pricing Model) refinement of the CAPM methodology.

The Office of the Consumer's Council objected to the Staff's use of a 6.5% risk premium in its CAPM analysis, which was based on the spread of the arithmetic mean of historical total returns between large stocks for large companies and long-term government bonds. The OCC asserts that this method of calculation artificially increased the common equity cost by using an inappropriate group of companies for comparison and by using the arithmetic mean of annual returns that inflates the estimated cost of equity because it unrealistically assumes that the relevant investment time horizon is only one year, even though investors are expected to hold their stocks for longer time horizons.

The OCC also objects to the Staff's use of only one source of betas, the Value Line betas, which use the NYMEX Index, instead of betas based upon the Standard & Poor's (S&P) 500 Index. The calculation of expected market returns and risk premium that are reported in the Staff Reports were based upon the S&P 500 Index. Because Value Line betas are biased upwardly, the CAPM cost of capital estimate stated in the Staff Reports is inflated.

15. Q. What is Staff's position on the objections to its CAPM analysis that it used to compute ROE?

A. Staff's CAPM analysis used for the Staff Report is appropriate for use in this proceeding. The arithmetic mean is used by the Staff to develop the premium over risk-free rate of return. Then empirical data supporting this premium is from Ibbotson. Ibbotson recommends the use of the arithmetic mean of this empirical data when used in CAPM analysis. (Ibbotson, SBBI Valuation Edition Yearbook, p.77) Ibbotson prefers the arithmetic mean for CAPM because the CAPM is an "additive model, in which the cost of capital is the sum of its parts," and the geometric mean "is more appropriate for reporting past performance, since it represents the compound average return."

Value line Betas are derived from the NYSE composite index. Ibbotson's data is from the S&P 500. These are both broad based indices which the Staff historically uses for its CAPM analysis. The Ohio Energy Group provides no support for its contentions.

16. Q. What objections were submitted relating to the Discounted Cash Flow (DCF) method to compute ROE?

A. The Office of the Consumer's Council objected to the Staff's incorporation of a growth rate of 6.77% in its DCF computations, which was based upon the average annual change in Gross National Product ("GNP") for the years 1929 to 2005. The OCC asserts that this growth rate does not accurately reflect investors' expectations of the long term dividend and earnings growth in the future, and artificially increased the common equity cost reported in the Staff Reports. The OCC states that the U.S. economy should not be expected to grow at the average growth rate for the historical period stated in the Staff's Report, and a growth rate in the GNP is inappropriate for the electric distribution industry.

The Companies stated that the Staff incorrectly applied the Discounted Cash Flow methodologies in its determination of the cost of equity capital, including: 1) using an unreasonably long historic period to measure stock prices of the comparable companies, 2) understating the forecast dividend in the multi-stage DCF model by using the sum of four historic quarterly dividends instead of the most recent dividend, and 3) failing to consider that dividends are paid quarterly.

17. Q. What is Staff's position on the objections to its DCF analysis that it used to compute ROE?

A. Staff's DCF analysis used for the Staff Report is appropriate for use in this proceeding. The Staff uses earnings growth estimates to the exclusion of other growth estimates because uniform growth of financial parameters for each company is a fundamental DCF assumption. The emphasis of investor literature is on earnings. Dividend growth, which is dependent on earnings growth, occurs in fits and starts, not being as continuous, since it is constrained by dividend payout policy.

Staff matches a one-year period of stock price history to the four quarterly dividends paid during that period. The Staff uses a one-year period for historical data because the Staff believes it is the best trade-off between data volatility and data timeliness. Staff also does not routinely attempt to predict economic conditions for the rate period when formulating its DCF recommendation, but normally expects continuity of current trends into the near future, rather than abrupt shifts of conditions.

18. Q. What objections were submitted relating to the equity flotation cost used in Staff's calculation of ROE?

A. The OCC stated that the Staff applied an excessive flotation cost adjustment to the cost of equity.

19. Q. What is Staff's position on the objections to the equity flotation cost that it used to compute ROE?

A. Staff's equity flotation cost used for the Staff Report is appropriate for use in this proceeding. This methodology is used consistently by Staff and is a fair estimate of flotation costs. The Staff adjustment for equity issuance cost adjusts the cost of equity upward to recover costs over time. It applies only to equity that was raised from equity issuance and not generated internally, as retained earnings are excluded. An adjustment is necessary since the investors require a fair return on the total amount of the equity issuance but the company receives from the underwriter only the net proceeds which are less the underwriting fee. In addition, any costs such as printing or legal fees which are incurred directly are not available for investment in operations.

Once equity is issued this adjustment is applicable as long as a company carries an equity balance beyond its retained earnings. It is irrelevant, for the purposes of the Staff's adjustment, whether there are any plans to float new debt in the near term future or not.

The Staff sees no reason to change its adjustment to the sort that would be a part of test year operating expense. OCC witness Adams seems to be making an issuance cost recommendation that applies not to the present proceeding but to future cases. (Adams Direct, p. 61, lines 4-11) His recommendation implies a test-year operating expense type issuance adjustment. Staff's adjustment does not require the reporting of planned or actual expenses. It incorporates equity issuance as it is made. The Ohio Energy Group provides no support for its contentions.

20. Q. What other objections were submitted relating to the ROE range computed by the Staff?

A. The Ohio Schools Council stated that the Staff erred by failing to find, conclude, or recommend that the Companies each should receive at most the low end of the Staff's rate of return range from 7.90% to 8.35%, but in any event, a rate of at least 50 basis points below the Staffs low end to reflect among other reasons:

(a) The Companies proposal to require general service customers to execute one or two year contracts that include a Contract Demand component based on expected peak load (regardless of seasonality or coincidence to the Companies' peak demand), creating a revenue floor for distribution service;

(b) The establishment of a revenue floor results in more stable revenue, thus reducing the Companies' business risk;

(c) In Maryland, when the electric utility PEPCO asked for a rate design that decoupled revenue from usage, regulators reduced the return on common equity for electric distribution by 50 basis points to reflect the resulting benefit of increased revenue stability;

(d) The Companies' rates are today the highest of any other electric utility in the State; and

(e) The Companies' parent corporation. First Energy Corp., has increased dividend payments to shareholders that should have been in the past and should now be redirected to payment of the Companies' long term debt to improve the Companies' financial condition and rating, and thus, its cost of capital.

The Office of the Consumer's Council objects to the Staff Reports' failure to make an adjustment to reduce the recommended rate for common equity to recognize the violations of the electric service and safety standards ("ESSS") and poor service quality provided by the Company (including those violations and service quality problems discussed in the Staff Reports' sections on "Service Monitoring and Enforcement").

The Companies stated that the Staff failed to consider any additional risk factors relating to the provision of electric generation service which risk factors contribute to the Company's cost of equity capital and are not alleviated by the proposed auction plan referred to in said Report, which proposed plan has not been approved by the Commission and is pending before the Commission without a procedural schedule for further proceedings.

The Companies also objected to the Staff Report not recommending that the Commission adopt the high end of the recommended rate of return range.

The Companies assert that the Staff Report unreasonably recommends a rate of return range which produces an end result that unconstitutionally confiscates the Company's property.

The Companies stated that the Staff Report failed to take into consideration recent and current developments in both state and federal regulatory law and practice and the impact of the same on the investors' perception of risk and the Ohio regulatory climate, including the uncertainty associated with ongoing Ohio legislative activity dealing with the structure and future regulation of electric utilities and electric generation in the state together with the impact of the remainder of the Staffs recommendations in this and in other proceedings, thus producing an end result which is unreasonable, unlawful, and an unconstitutional confiscation of the Company's property without due process of law.

21. Q. What is Staff's position on the other objections to the ROE range recommended by Staff?

A. Staff historically recommends a ROE range for the Commission's consideration that is based on Staff's financial analysis and the risk profile of the subject company. In Staff's view, any rate of return within this range is reasonable. This affords the Commissioners flexibility to prescribe a return on rate base based on the Commissioners' interpretation of all relevant issues in the proceeding which may impact cost of capital risk, or the appropriateness of rewarding or punishing company management performance.

GENERAL DISCUSSION OF RATE OF RETURN ISSUES

22. Q. In this proceeding, the Office of Consumer Counsel recommends that an overall rate of return of 7.55%, the low end of its range, be adopted, while the Applicant is requesting 9.09%. The recommendation of the Staff is between these extremes. What are the primary determinants of these divergences?

A. Obviously, since there is always a degree of uncertainty, one determinant is whether one advocates leaning low or leaning high (or, as the Applicant claims, not leaning). There is also a small influence caused by the treatment of issuance and floatation costs. But the major differences in the recommendations stem from two areas: capital structure and the return on equity.

23. Q. The Staff has revised its position regarding capital structure from what the Staff presented in the Staff Report. Why?

A. The capital structure has become a major conceptual problem in the past several years. Historically, we have used a parent-consolidated capital structure. Once reason for this is that the individual capital structures of subsidiaries are controlled by the parent. In the electric industry, when the subsidiaries of holding companies were largely regulated operating companies, the use of the parent-consolidated capital structure made a lot of sense. However, with deregulation and extension into other fields, the regulated operating companies became a much smaller part of the overall capitalization. On June 12th, 2007, the Staff held a technical conference to discuss alternative rate-of-return methods for disaggregated electric distribution utility companies. From this workshop, the Staff concluded that "the stand-alone EDU capital structure is the appropriate place to begin." However, when we examined the capital structure information for the three FirstEnergy operating companies, we had grave misgivings.

24. Q. How so?

A. We noticed that the debt-equity ratios of the companies were significantly dissimilar. This reinforced the arguments against using stand-alone capital structures, in that subsidiary capital structures can be arbitrary or merely the result of historical accident. At the time and under those circumstances, we did not want to seem to set a precedent by moving to a stand-alone capital structure, so we continued with our customary use of the parent-consolidated capital structure. Later, however, and in consideration of some of the objections to the Staff Report, we revisited the capital structure issue. Related to this was the question of including tax-free pollution control debt in the capital structure, such debt being clearly production-related. We decided that, although the capital structures of the individual operating companies posed problems, a capital structure of the three operating companies together made sense, and made more sense than using a parent-consolidated capital structure in this proceeding.

25. Q. Why did you use the words "in this proceeding" in your answer?

A. We consider the capital structure issue still open, and we would not wish to imply a clear precedent with respect to methodology. Frankly, there might be no clearly appropriate type of capital structure for use in regulatory proceedings, and we might have to make decisions on a case-by-case basis.

26. Q. Quantitatively, what was the impact of the change in capital structure to the Staff's rate of return recommendation.

A. The revision from the Staff Report has resulted in an increase in the overall rate of return recommendation by 35 basis points on the low end of the Staff's range and 39 basis points on the high end. These amounts can be separated into three parts: a change in the debt/equity ratio, a change in the cost rate of debt, and a modification of the return on equity. (These might not sum exactly due to rounding and interactions.)

27. Q. How much is attributable to the change in the debt/equity ratio?

A. The parent-consolidated capital structure used in the Staff Report had 56.25% debt and 43.75% equity. Making this change alone and keeping cost rates for debt and equity constant would increase ROR range by 20 basis points on the low end and 26 basis points on the high.

28. Q. How much of the ROR change is attributable to using a different cost rate for debt?

A. The Staff Report cost rate of debt was 6.22%. The consolidated stand-alone debt rate (without pollution control issues) is 6.54%. This change, keeping all else constant, would increase the ROR range by 18 basis points on both the high and low ends.

29. Q. How much of the ROR change is attributable to the modification in the return on equity?

A. The reduced leverage would argue for a lower cost of equity. To account for this effect, the Staff "rounded down" the equity cost estimates to a range of 10% to 11%, which would independently have the effect of reducing the ROR by 3 to 4 basis points. We recognize that the amount of the adjustment made was somewhat conservative, but we wished to avoid the impression of spurious accuracy. To the extent that parties believe that the effect of the reduced leverage should be greater, they can include this consideration among other arguments regarding what point in a range the Commission should choose.

30. Q. You stated that the return on equity was the second major source of the differences in recommended ROR. What was the range of estimates?

A. Without inclusion of any adjustments for flotation costs, the basis of the OCC's range was a point estimate of 9.61%. The equivalent point estimate by FirstEnergy was 11.75%, and the equivalent current point estimate by the Staff is approximately 10.31%, and I would argue that the analysis performed by both the OCC and the Company actually support the Staff's position.

31. Q. Indeed? How so?

A. Rather than picking nits regarding comparable groups and slopes of lines and other technical esoterica, let's look at the basic arithmetic processes and inputs that produced the results. The OCC's 9.61% is mathematically a weighted average of two DCF estimates and three CAPM estimates. The two DCF estimates are 9.84% and 11.07%, and I have no problem with the meaningfulness of these numbers. However, the CAPM numbers are problematical. A somewhat traditional CAPM analysis in performed two ways – with an arithmetic mean calculation and with a geometric mean calculation. In addition, a CAPM estimate is produced by what is characterized as a "building blocks" methodology.

32. Q. Are you arguing that any of these CAPM methodologies is inappropriate?

A. No, I have stated that I wish to avoid methodological nitpicking and focus on matters which are intelligible – and that is to note the inherent reasonableness, or lack thereof, of the various CAPM estimates. The three CAPM analyses produce estimates of 9.78%, 8.61%, and 8.33%. Considering the current yields on FirstEnergy operating companies' long-term bonds, and bonds of similar credit quality, the risk premiums implied by the 8.61% or the 8.33% estimates are simply too low to be credible. Eliminating these estimates from the calculation would result in a baseline return on equity estimate of 10.12%, not very far from the Staff's 10.31%.

33. Q. You stated earlier that "the analysis performed by both the OCC and the Company actually support the Staff's position." How does the Company's analysis support the Staff's position?

A. Mr. Vilbert's analysis is quite innovative. The promise of his technique is that it can be used with a wide range of capital structures because it would adjust for the degree of financial leverage. Thus, it seemed to present a solution to the thorny problem described above, that of the appropriate capital structure.

It starts with an extensive but traditional investigation of the returns on equity of a group of comparable companies. In his exhibit MJV-7, Mr. Vilbert reports out two DFC estimates: a simple DCF estimate of 11% and a multistage estimate of 9.5%. MJV-11 reports seven CAPM and ECAMP estimates performed with different assumptions or conditions, and these ROE estimates range from 10.6% to 11.2%. In general, I would say that these results support the Staff's recommendation of 10% to 11% ROE. However, rather than use these estimates directly, Mr. Vilbert's analysis employs them to derive overall after-tax cost of capital estimates.

34. Q. How is this done?

A. Mr. Vilbert explains his method on page 2 of his testimony: "For each cost of equity estimate, I combine this value with the sample company's market costs of debt and preferred stock to calculate each firm's overall cost of capital, *i.e.*, its after-tax weighted-average cost of capital ("ATWACC"),using each company's market value capital structure as weights. For each method of estimating the return on equity, I report the sample average ATWACC and the estimated cost of equity for this line of business for a capital structure with 49 percent equity." As he explains on the next page, the reason for this technique is that "the estimated cost of equity from the sample may correspond to a very different level of financial risk than would exist at the regulated company's capital structure." I wish to emphasize two aspects of Mr. Vilbert's methodology. First, it is using *market* value capital structures. Second, it aims to adjust the comparable group estimated ROE to one appropriate for the regulated company based upon the difference in financial risk. Recognizing this, it can be seen that Mr. Vilbert's last step, that of applying the comparable group ATWACC to the regulated company capital structure actually involves two processes, not one, and the Staff disagrees with one of these steps.

35. Q. Please explain.

A. The first step is to adjust for the difference in financial risk between FirstEnergy and the comparable group. For this, it is necessary to compare the average market value capital structure of the comparable group to the *market value capital structure* of FirstEnergy. As I write this testimony, a quick trip to MSN Money shows that the book value per share is $28.76, while the price per share is around $70. So the price to book ratio is 2.43. If I were to adjust the 43.75% equity ratio for the consolidated FirstEnergy capital structure as shown in the Staff Report for the 2.43 price to book ratio, I would have a 65.4% equity ratio for the market capitalization. This is a slight overstatement, because the debt must also be adjusted for market value, however, the adjustment for debt is somewhat laborious. Looking at Mr. Vilbert's exhibit MJV-3, I see that market adjustments to debt, if any, are fairly small, so I think it is reasonable to assume that the current market value capital structure is not far from 65%. And looking at Mr. Vilbert's exhibit MJV-4, I see that the DCF capital structure – the most current capital structure – for his group of comparable companies shows an average market value common equity ratio of 65%! Thus, there is not really any significant difference in the degree of financial risk between the comparable group and FirstEnergy. The step of correcting for this difference should thus leave the ROE estimates intact, and as I have mentioned above, these estimates support the Staff's analysis.

36. Q. Why, then, does the Company's ROE recommendation differ so much from the Staff's?

A. This is due to the implicit second step of the process. This second step is not an adjustment for financial risk. Rather, it is inflating the estimated required ROE due to a market to book ratio greater than one, which is what occurs when results corresponding to a market equity ratio of 65% are mapped into a book equity ratio of 49%. There are arguments for and against making an adjustment based upon the market to book ratio, and I do not wish to go into them. In my twenty five years at the PUCO, I have seen this issue raised several times and rejected each time, and I see no reason to allow it in through the back door with a methodology which seems otherwise very promising.

37. Q. Does this conclude your testimony?

A. Yes.

PROOF OF SERVICE

I hereby certify that a true copy of the foregoing Prefiled Testimony of Richard C. Cahaan, submitted on behalf of the Staff of the Public Utilities Commission of Ohio, was served by regular U.S. mail, postage prepaid, hand-delivered, and/or delivered via electronic mail, upon the following parties of record, this 12th day of February, 2008.

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