

FILE

EXHIBIT NO. _____

**BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO**

In the Matter of the Application of)	
Columbus Southern Power Company and)	
Ohio Power Company, Individually and, if)	Case No. 11-351-EL-AIR
Their Proposed Merger is Approved, as a)	Case No. 11-352-EL-AIR
Merged Company (collectively, AEP Ohio))	
for an Increase in Electric Distribution Rates)	

In the Matter of the Application of)	
Columbus Southern Power Company and)	
Ohio Power Company, Individually and, if)	Case No. 11-353-EL-ATA
Their Proposed Merger is Approved, as a)	Case No. 11-354-EL-ATA
Merged Company (collectively AEP Ohio))	
for Tariff Approval)	

In the Matter of the Application of)	
Columbus Southern Power Company and)	
Ohio Power Company, Individually and, if)	Case No. 11-356-EL-AAM
Their Proposed Merger is Approved, as a)	Case No. 11-358-EL-AAM
Merged Company (collectively AEP Ohio))	
for Approval to Change Accounting Methods)	

PRE-FILED SUPPLEMENTAL DIRECT TESTIMONY
IN SUPPORT OF OBJECTIONS TO THE STAFF REPORTS
OF
WILLIAM E. AVERA
ON BEHALF OF
COLUMBUS SOUTHERN POWER COMPANY
AND
OHIO POWER COMPANY

	Management policies, practices, and organization
	Operating income
	Rate Base
	Allocations
X	Rate of return
	Rates and tariffs
	Other

Filed October 24th, 2011

This is to certify that the images appearing are an accurate and complete reproduction of a case file document delivered in the regular course of business.

Technician JD Date Processed 10-24-11

RECEIVED-DOCKETING DIV
 2011 OCT 24 PM 4:54
 PUCO

SUPPLEMENTAL DIRECT TESTIMONY OF WILLIAM E. AVERA

TABLE OF CONTENTS

I. INTRODUCTION	1
II. STAFF RECOMMENDATION FAILS REASONABLENESS TEST	4
III. RELATIVE RISK OF STAFF PROXY GROUP	9
IV. ROE BENCHMARKS.....	13
V. REVISIONS TO STAFF DCF APPLICATION	19
VI. CAPM RESULTS SHOULD BE IGNORED	21

<u>Exhibit</u>	<u>Description</u>
Exhibit WEA-11	Expected Earnings Approach – Staff Proxy Group
Exhibit WEA-12	Earned Rates of Return – Virginia Legislative Benchmark
Exhibit WEA-13	Allowed Rates of Return – Staff Proxy Group
Exhibit WEA-14	Revised Staff DCF Analysis
Exhibit WEA-15	Revised Staff Historical CAPM

BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO
SUPPLEMENTAL DIRECT TESTIMONY
IN SUPPORT OF OBJECTIONS TO THE STAFF REPORTS
OF
WILLIAM E. AVERA
ON BEHALF OF
COLUMBUS SOUTHERN POWER COMPANY AND
OHIO POWER COMPANY

I. INTRODUCTION

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. William E. Avera, FINCAP, Inc., 3907 Red River, Austin, Texas, 78751.

3 **Q. DR. AVERA, DID YOU PREVIOUSLY SUBMIT DIRECT TESTIMONY IN**
4 **THIS PROCEEDING?**

5 A. Yes, I did.

6 **Q. WHAT IS THE PURPOSE OF YOUR SUPPLEMENTAL DIRECT**
7 **TESTIMONY?**

8 A. My purpose is to address the Staff's Report of Investigation ("Staff Report"),
9 submitted to the Public utilities Commission of Ohio ("PUCO" or the
10 "Commission"), concerning the fair return on common equity ("ROE") for
11 Columbus Southern Power Company ("CSP") and Ohio Power Company
12 ("OPCo"), hereby collectively referred to as AEP Ohio or the Company.
13 Specifically, I will be supporting objections OBJ-21 through OBJ-27 as presented
14 in the Company's objections to the Staff Report as filed on October 17th, 2011.

15 **Q. WHAT ROE DID THE STAFF REPORT RECOMMEND FOR AEP OHIO?**

16 A. Based on the application of the discounted cash flow ("DCF") model to a proxy
17 group of seven other electric utilities, the Staff determined a cost of equity of
18 10.06 percent, with Staff's Capital Asset Pricing Model ("CAPM") analysis
19 resulting in a cost of equity estimate of 7.86 percent. The average of these two

1 values was 8.96 percent, which Staff then converted into an ROE range by
2 symmetrically adding and subtracting 50 basis points. The resulting baseline cost
3 of equity range of 8.46 percent to 9.46 percent was then adjusted upwards to
4 recognize the impact of common equity flotation costs, resulting in Staff's
5 recommended ROE range of 8.59 percent to 9.60 percent.

6 **Q. PLEASE SUMMARIZE THE CONCLUSIONS OF YOUR**
7 **SUPPLEMENTAL DIRECT TESTIMONY.**

8 A. Investors have many options for their funds and competition for investment
9 dollars is intense. The ROE range recommended in the Staff Report is simply far
10 too low and fails to reflect the risk perceptions and return requirements of real-
11 world investors in the capital markets. Because Staff's recommendation fails to
12 provide AEP Ohio an opportunity to earn a return commensurate with other
13 investments of comparable risk, it violates the regulatory and economic standards
14 underlying a fair rate of return. My supplemental direct testimony demonstrates
15 that:

16 The analyses presented in the Staff Report are flawed and incomplete, and
17 result in cost of equity estimates that are far below investors' required return.
18 Correcting and supplementing their analyses resulted in the following cost of
19 equity estimates:

TABLE WEA-R1
COST OF EQUITY – REVISED STAFF ANALYSES

<u>Revised Staff DCF Analysis</u>		<u>Indicated ROE</u>	
Corrected Mid-Year Cash Flows	(a)	10.25%	
AEP DCF Estimate	(a)	11.24%	
Staff Proxy Group Including AEP	(a)	10.38%	
<u>Revised Staff CAPM Analysis</u>			
Current Bond Yields	(b)	9.72%	
Projected Bond Yields	(c)	10.64%	
<u>Average - Revised Staff Results</u>	(d)	10.51%	
<u>Baseline Cost of Equity Range</u>	(e)	10.01%	11.01%
<u>ROE Range inc. Flotation Costs</u>	(f)	10.16%	11.18%

-
- (a) Exhibit WEA-14.
(b) Exhibit WEA-15, page 1.
(c) Exhibit WEA-15, page 2.
(d) Average of revised DCF inc. AEP and CAPM based on projected bond yields.
(e) Average of revised Staff results, plus (minus) 50 basis points.
(f) Baseline cost of equity range incorporating Staff flotation cost adjustment factor.

With respect to the analyses contained in the Staff Report, I concluded that:

- The DCF results are biased downward because the methodology incorrectly assumes that investors receive dividend payments at the end of the year, instead of through periodic payments;
- The results of the historical CAPM analysis should be entirely ignored because:
 - Historical data violates the assumptions of the CAPM approach and fails to reflect current capital market requirements;
 - Yields on medium-term Treasury notes are irrelevant in estimating the required return for common equity, which is a long-term asset;
 - Staff's application ignored adjustments to correct for differences in firm size that were quantified and explained in the same data source on which their CAPM was based.
- Staff's recommendation is woefully inadequate to compensate investors in AEP Ohio when evaluated against the results of the expected earnings approach for their own proxy utilities;
- Allowed ROEs also demonstrate that the recommended ROE range contained in the Staff Report is too low to be reasonable;
- Cost of equity estimates for the Non-Utility Proxy Group presented in my direct testimony provide an important benchmark that is consistent

- 1 with financial theory, how real-world investors operate, and the
2 guidelines underlying a fair ROE;
- 3 • Because of flaws in the selection criteria:
- 4 ▪ Staff's proxy group is artificially constrained to only seven
5 companies, which undermines the reliability of their
6 quantitative results;
- 7 ▪ Almost one-half of the utilities in Staff's proxy group are rated
8 single-A, which implies less risk and a lower rate of return than
9 what is necessary to compensate for the risks of AEP Ohio's
10 "BBB" rating;
- 11 ▪ AEP Ohio's parent, American Electric Power Company, Inc.
12 ("AEP"), was erroneously excluded from Staff's analysis, even
13 though it meets the selection criteria and provides the
14 Company's only source of investor-supplied equity capital.
- 15 • If AEP Ohio is unable to offer a return similar to that available from
16 other opportunities of comparable risk, investors will become
17 unwilling to supply the capital on reasonable terms, and investors will
18 be denied an opportunity to earn their opportunity cost of capital; and,
- 19 • The evidence contained in my direct and supplemental direct
20 testimony continues to support the reasonableness of my
21 recommended ROE for AEP Ohio of 11.15 percent, and supports an
22 ROE within the upper end of the 10.16 percent to 11.18 percent range
23 based on corrections and revisions to Staff's analyses.

II. STAFF RECOMMENDATION FAILS REASONABLENESS TEST

- 24 **Q. DR. AVERA, IS IT POSSIBLE TO DISTILL THE MANY COMPLEXITIES**
25 **ASSOCIATED WITH ESTIMATING INVESTORS' REQUIRED RATE OF**
26 **RETURN INTO A SINGLE, THRESHOLD ISSUE?**
- 27 **A.** While the details underlying a determination of the cost of equity are all
28 significant to a rate of return analyst, there is one fundamental requirement that
29 any ROE recommendation must satisfy before it can be considered reasonable.
30 Competition for capital is intense, and utilities such as AEP Ohio must be granted
31 the opportunity to earn an ROE comparable to contemporaneous returns available
32 from alternative investments if the Company is to maintain its financial flexibility
33 and ability to attract capital.

1 Rather than becoming bogged down in lengthy, pedantic arguments over
2 the merits of one quantitative approach versus another, the PUCO can make a
3 determination on the key, threshold question, “Does the ROE recommended in the
4 Staff Report meet the threshold test of reasonableness required by established
5 regulatory and economic standards governing a fair rate of return on equity?”
6 Based on the evidence discussed subsequently, the answer is clearly, “No.”

7 **Q. WHAT ROLE DOES REGULATION PLAY IN ENSURING THE**
8 **COMPANY’S ACCESS TO CAPITAL?**

9 A. Considering investors’ heightened awareness of the risks associated with the
10 electric power industry, and the implications of ongoing volatility in the markets
11 for long-term capital, supportive regulation remains crucial in preserving AEP
12 Ohio’s access to capital. Capital markets recognize that constructive regulation is
13 a key ingredient in supporting utility credit ratings and financial integrity,
14 particularly during times of adverse conditions. Moreover, considering the
15 ongoing turmoil faced by investors, sensitivity to market and regulatory
16 uncertainties has increased dramatically.

17 **Q. IS IT WIDELY ACCEPTED THAT A UTILITY’S ABILITY TO ATTRACT**
18 **CAPITAL MUST BE CONSIDERED IN ESTABLISHING A FAIR RATE**
19 **OF RETURN?**

20 A. Yes. This is a fundamental standard underlying the regulation of public utilities.
21 The Supreme Court’s *Bluefield* and *Hope* decisions established that a regulated
22 utility’s authorized returns on capital must be sufficient to assure investors’
23 confidence and that, if the utility is efficient and prudent on a prospective basis, it
24 will have the opportunity to provide returns commensurate with those expected
25 for other investments involving comparable risk.

1 **Q. WHAT BENCHMARKS ARE USEFUL IN EVALUATING THE EXTENT**
2 **TO WHICH THE ROE RECOMMENDED IN THE STAFF REPORT**
3 **MEETS THIS FUNDAMENTAL REGULATORY REQUIREMENT?**

4 A. AEP Ohio must compete for capital with all firms in the capital markets generally,
5 and against firms in its own industry specifically. As discussed in detail
6 subsequently, expected earned rates of return and allowed rates of return for
7 utilities provide useful benchmarks to gauge the reasonableness of Staff's
8 recommended ROE. The rates of return indicated by these approaches are
9 summarized in Table WEA-R2:

10
11

TABLE WEA-R2	
SUMMARY OF ROE BENCHMARKS	
<u>Expected Earnings Approach</u>	<u>Indicated</u>
Value Line Electric Utilities	<u>10.50%</u>
Staff Proxy Group	10.86%
AEP	10.50%
<u>Allowed ROEs</u>	
Staff Proxy Group	10.41%
AEP	<u>10.68%</u>
<u>Average</u>	10.59%

12 Moreover, as noted later in my supplemental direct testimony, because utilities
13 must compete for capital with firms in the competitive sector of the economy,
14 rates of return for low-risk, non-utility firms also provide a guide in evaluating
15 Staff's ROE recommendations.

16 **Q. WHAT DO THESE BENCHMARKS IMPLY WITH RESPECT TO**
17 **STAFF'S RECOMMENDED ROE?**

18 A. These benchmarks clearly demonstrate that the 8.59 percent to 9.60 percent ROE
19 range recommended in the Staff Report is far too low and violates the economic
20 and regulatory standards underlying a fair ROE.

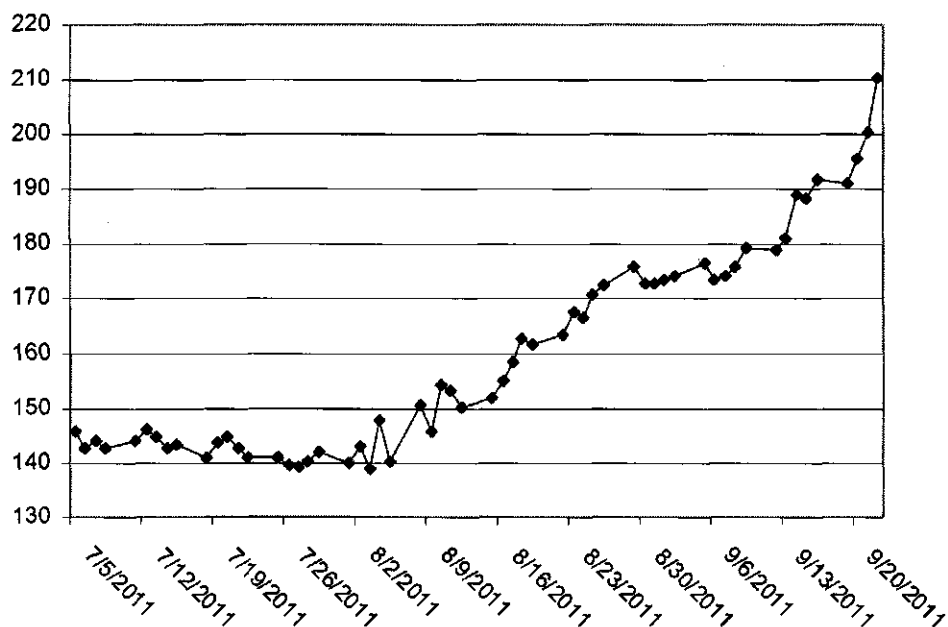
1 **Q. HAVE THERE BEEN ANY CHANGES IN CAPITAL MARKET**
2 **CONDITIONS SINCE STAFF’S ANALYSES WERE PREPARED THAT**
3 **WOULD JUSTIFY AN ROE THAT IS SO FAR BELOW OTHER**
4 **BENCHMARKS?**

5 A. No. My direct testimony addressed the ongoing potential for renewed turmoil in
6 the capital markets, and that has certainly come to a head in the months since
7 Staff’s analyses were prepared. Investors have faced a myriad of challenges and
8 uncertainties, including the threat of a U.S. government default and political
9 brinksmanship over raising the federal debt ceiling. The sovereign debt crisis in
10 Europe has also dealt a harsh blow to investor confidence, and concerns over
11 potential exposure to a Euro-zone default has again undermined confidence in the
12 financial and banking sector. Meanwhile, speculation that the economy is poised
13 on the brink of a “double-dip” recession has increased, with unemployment
14 remaining above 9 percent, falling consumer confidence, and continued weakness
15 plaguing the real estate sector.

16 These developments have led to renewed turmoil in capital markets, with
17 common stock prices exhibiting the dramatic volatility that is indicative of
18 heightened sensitivity to risk. Nowhere has this been more evident than in the
19 market for Treasury bonds, with yields being pushed significantly lower due to a
20 global “flight to safety” in the face of rising political, economic, and capital
21 market risks. In turn, this has led to a dramatic increase in risk premiums, as
22 illustrated by the spreads between triple-B utility bond yields and 30-year
23 Treasuries shown in Figure WEA-1, below:

1
2

FIGURE WEA-1
YIELD SPREAD (BASIS POINTS) BBB UTILITY – 30-YR. TREASURY



3

4

5

6

7

8

9

10

11

12

13

14

15

16

This increase in the yield spread indicates that the additional compensation that investors demand to take on higher risks has increased since Staff's analyses were prepared. Equity risk premiums cannot be observed directly, but because common stock investors are the last in line with respect to their claim on a utility's cash flows, higher yield spreads imply an even steeper increase in the additional return required from an investment in common equity. In short, heightened capital market and economic uncertainties, and the increase in risk premiums demanded by investors, support my conclusion that the ROE recommendations contained in the Staff Report are too low to be reasonable.

Q. WHAT ARE THE POTENTIAL CONSEQUENCES OF AUTHORIZING A RATE OF RETURN LESS THAN WHAT IS REQUIRED TO MEET THE FINANCIAL END-RESULT TEST?

A. Considering the risks faced by AEP Ohio, the need to fund ongoing investment in utility infrastructure, and the imperative of maintaining access to capital during

1 times of adversity, setting an ROE that fails to provide investors with an
2 opportunity to earn returns commensurate with companies of comparable risk
3 would weaken the Company's financial integrity, violate the capital attraction
4 standard, and send the wrong signal to investors at a time when access to capital
5 markets is crucial for the Company.

III. RELATIVE RISK OF STAFF PROXY GROUP

6 **Q. HOW DID THE STAFF IDENTIFY THE SEVEN UTILITIES INCLUDED**
7 **IN ITS PROXY GROUP?**

8 A. Beginning with the 53 utilities followed by the Value Line Investment Survey
9 ("Value Line"), Staff selected those companies with 1) market capitalizations
10 greater than \$5 billion, 2) a Value Line Financial Strength Rating of "B++", and
11 3) no involvement in a merger or acquisition.¹

12 **Q. DO THESE CRITERIA PROVIDE A REASONABLE BASIS ON WHICH**
13 **TO DETERMINE A PROXY GROUP FOR AEP OHIO?**

14 A. No. There are several deficiencies associated with the proxy group criteria
15 employed in the Staff Report. First, these criteria are incomplete and ignore key
16 indicators of overall investment risk that are routinely considered by investors and
17 widely referenced in evaluating comparable risks in the regulatory arena. Second,
18 Staff's criteria based on Financial Strength Ratings is far too narrowly defined,
19 and ignores the fact that this measure is not Value Line's primary overall risk
20 indicator. Third, although AEP Ohio's parent, AEP, meets all of Staff's proxy
21 group criteria, it was inexplicably excluded from the analyses contained in the
22 Staff Report. As a result of these deficiencies, Staff's proxy group fails to reflect

¹ Staff Report at 14.

1 a consistent level of investment risks and is too small to produce a reliable
2 estimate of investors' required rate of return.

3 **Q. WHAT KEY RISK INDICATOR WAS OVERLOOKED IN IDENTIFYING**
4 **STAFF'S PROXY GROUP?**

5 A. As explained in my direct testimony, credit ratings provide a widely referenced
6 guide to investors' risk perceptions that considers a broad spectrum of factors,
7 including financial and business position, relative size, and exposure to company-
8 specific factors. Credit ratings are routinely referenced, not only by the
9 investment community, but also in the context of assessing comparable risk for
10 the purposes of estimating the cost of equity in regulatory proceedings. While the
11 bond rating agencies are primarily focused on the risk of default associated with
12 the firm's debt securities, bond ratings and the risks of common stock are closely
13 related. As noted in *New Regulatory Finance*:

14 Concrete evidence supporting the relationship between bond ratings
15 and the quality of a security is abundant. . . . The strong association
16 between bond ratings and equity risk premiums is well documented
17 in a study by Brigham and Shome (1982).²

18 **Q. ARE THE CREDIT RATINGS FOR THE UTILITIES IN THE STAFF'S**
19 **PROXY GROUP UNIFORMLY COMPARABLE TO AEP OHIO?**

20 A. No. As indicated in my direct testimony, S&P has assigned a corporate credit
21 rating of "BBB" to the Company. Meanwhile, three of the firms in Staff's proxy
22 group – Dominion Resources, Wisconsin Energy, and Xcel Energy – have
23 corporate credit ratings that fall in the single-A ratings range. Because the lower
24 risks associated with a single-A rating imply a lower required rate of return, this
25 distinction has important implications with respect to evaluating a fair ROE for
26 AEP Ohio.

² Morin, Roger A., "New Regulatory Finance," *Public Utility Reports* (2006) at 92.

1 **Q. WHAT DOES THIS RISK DISTINCTION IMPLY WITH RESPECT TO**
2 **THE COST OF EQUITY?**

3 A. The additional return that investors require to take on the greater risks of a “BBB”
4 rated utility versus one that is rated single-A can be observed by comparing the
5 average yields on utility bonds. For the period covered by Staff’s DCF analysis,
6 the yield spread between triple-B and single-A utility bonds averaged more than
7 50 basis points, with this differential widening to more than 60 basis points in
8 September 2011.

9 Because the risks associated with common stocks are significantly higher
10 than for senior, long-term debt, the additional risk premium required by investors
11 to compensate for the greater risks of a “BBB” rated utility versus one rated
12 single-A would be significantly higher. Accordingly, because almost one-half of
13 Staff’s proxy group is made up of single-A rated utilities, the resulting cost of
14 equity estimates are likely to understate investors’ required rate of return for AEP
15 Ohio, which is rated “BBB”.

16 **Q. DO YOU AGREE WITH THE MANNER IN WHICH STAFF USED VALUE**
17 **LINE’S FINANCIAL STRENGTH RATING?**

18 A. No. While I agree that the Financial Strength Rating provides a useful guide in
19 evaluating comparable risks, and I incorporated this measure in my analyses, Staff
20 failed to recognize that this measure tells only part of the story. In fact, the Safety
21 Rank is Value Line’s primary overall risk indicator and is intended to capture the
22 total risk of a stock. Value Line’s Safety Rank actually incorporates the Financial
23 Strength Rating, along with measures of stock price stability. As a result, while
24 the Financial Strength Rating is one important guide, it should be evaluated along
25 with Value Line’s overall risk measure, and other indicators of investment risk
26 (e.g., credit ratings), which the Staff Report failed to consider.

Moreover, the Staff Report provided no justification or rationale for artificially restricting its group to utilities with a Financial Strength Rating of “B++”. This Value Line risk indicator ranges from “A++” to “C” in nine steps, and there is no basis to limit proxy group companies to a single rung on this ladder, particularly considering that it is not Value Line’s primary measure of total risk. Similarly, the Staff Report contained no evidence to support its elimination of utilities with a market capitalization below \$5 billion. While firm size can certainly influence investors’ required return, there are numerous utilities from within Value Line’s universe with capitalizations below Staff’s arbitrary threshold that are commonly included in proxy groups used to estimate a fair ROE.

Q. DOES THE SMALL SIZE OF STAFF’S PROXY GROUP IMPACT THE RELIABILITY OF ITS RESULTS AND CONCLUSIONS?

A. Yes. Estimating the cost of equity using any method is a stochastic process and the potential for misleading findings increases as the proxy group is narrowed. The cost of equity is inherently unobservable and can only be inferred indirectly by reference to available capital market data. Any form of analysis that depends on estimates, such as the growth parameter of the DCF model, is subject to measurement error. To the extent that the data used to apply the DCF model does not capture the expectations that investors have incorporated into current stock prices, the resulting cost of equity estimates will be biased and unreliable.

Conceptually, the issue of proxy group size is directly analogous to the use of sampling in statistical analyses. In statistics, a “true” value is often estimated by reference to sample observations, with the analyst having greater confidence in the applicability of the estimated results as the size of the sample increases. As a result, using a limited group of companies, as Staff has proposed, increases the potential for error and further undermines confidence in its results.

1 **Q. WAS STAFF'S DECISION TO EXCLUDE AEP CONSISTENT WITH ITS**
2 **SCREENING CRITERIA?**

3 A. No. AEP meets all of the screening criteria imposed by Staff to arrive at its proxy
4 group,³ and there was no basis to exclude AEP from Staff's analyses. I would not
5 recommend relying solely on cost of equity estimates for AEP to determine a fair
6 ROE in this case, but when estimating the cost of equity for an operating
7 subsidiary with no publicly traded common stock, it is logical to consider the
8 required rate of return for the parent company, which is the ultimate source of
9 investor-supplied capital.

IV. ROE BENCHMARKS

10 **Q. DOES THE EXPECTED EARNINGS METHOD REPRESENT A VALID**
11 **ROE BENCHMARK?**

12 A. Absolutely. From my understanding as a regulatory economist, not as a legal
13 interpretation, the *Bluefield* and *Hope* cases required that a utility be allowed an
14 opportunity to earn the same return as companies of comparable risk. That is, the
15 Supreme Court recognized that a utility must compete with other companies –
16 including non-utilities – for capital. The expected earnings approach applied in
17 my direct testimony is predicated on the comparable earnings test, which
18 developed as a direct result of these cases.

19 **Q. WHAT ARE THE IMPLICATIONS OF SETTING AN ALLOWED ROE**
20 **BELOW THE RETURNS AVAILABLE FROM OTHER INVESTMENTS**
21 **OF COMPARABLE RISK?**

22 A. It is consistent with economic logic that, when choosing between two
23 opportunities of comparable risk, investors will select the investment with the

³ Staff Work Paper 1, cited at fn. 2 to the Staff Report.

1 higher expected return. If the utility is unable to offer a return similar to that
2 available from other opportunities of comparable risk, investors will become
3 unwilling to supply the capital on reasonable terms. For existing investors,
4 denying the utility an opportunity to earn what is available from other similar risk
5 alternatives prevents them from earning their opportunity cost of capital. In this
6 situation the regulator is effectively taking the value of investors' capital without
7 adequate compensation.

8 **Q. HOW IS THE COMPARISON OF OPPORTUNITY COSTS TYPICALLY**
9 **IMPLEMENTED?**

10 A. The traditional comparable earnings test identifies a group of companies that are
11 believed to be comparable in risk to the utility. The actual earnings of those
12 companies on the book value of their investment are then compared to the
13 allowed return of the utility. While the traditional comparable earnings test is
14 implemented using historical data taken from the accounting records, it is also
15 common to use projections of returns on book investment, such as those published
16 by recognized investment advisory publications, *e.g.*, The Value Line Investment
17 Survey ("Value Line"). Because these returns on book value equity are analogous
18 to the allowed return on a utility's rate base, this measure of opportunity costs
19 results in a direct, "apples to apples" comparison.

20 A textbook prepared for the Society of Utility and Regulatory Analysts
21 labels the comparable earnings approach the "granddaddy of cost of equity
22 methods" points out that the amount of subjective judgment required to
23 implement this method is "minimal", particularly when compared to the DCF and
24 CAPM methods.⁴ The *Practitioner's Guide* notes that the comparable earnings

⁴ Parcell, David C., *The Cost of Capital—a Practitioner's Guide* (1997).

1 test method is “easily understood” and firmly anchored in the regulatory tradition
2 of the *Bluefield* and *Hope* cases,⁵ as well as sound regulatory economics.

3 Moreover, regulators do not set the returns that investors earn in the
4 capital markets – they can only establish the allowed return on the value of a
5 utility’s investment, as reflected on its accounting records. As a result, the
6 expected earnings approach provides a direct guide to ensure that the allowed
7 ROE is similar to what other utilities of comparable risk will earn on invested
8 capital. This opportunity cost test does not require theoretical models to
9 indirectly infer investors’ perceptions from stock prices or other market data. As
10 long as the proxy companies are similar in risk, their expected earned returns on
11 invested capital provide a direct benchmark for investors’ opportunity costs that is
12 independent of fluctuating stock prices, debates over DCF growth rates, or the
13 limitations inherent in any theoretical model of investor behavior.

14 **Q. WHAT ROE IS IMPLIED BY THE RESULTS OF THE EXPECTED**
15 **EARNINGS APPROACH?**

16 A. Value Line reports that electric utilities as a whole are anticipated to earn a return
17 of 10.5 percent over its 2014-2016 forecast horizon, which is equal to the return
18 on equity that Value Line expects for AEP.⁶ A return that is significantly below
19 the level that Value Line expects for electric utilities generally would undermine
20 confidence in the financial integrity of the firm and its ability to attract capital.

21 Meanwhile, the results of the expected earnings approach for Staff’s proxy
22 group of electric utilities are presented in Exhibit WEA-11. As shown there, this
23 method results in an implied cost of equity for Staff’s proxy group of 10.86
24 percent. Similarly, rates of return on common equity compiled by the Staff and

⁵ *Id.* at 7-3.

⁶ The Value Line Investment Survey (Sep. 23, 2011).

1 referenced in their own workpapers implied an average ROE of 10.82 percent.⁷ It
2 is a very simple, conceptual principle that when evaluating two investments of
3 comparable risk, investors will choose the alternative with the higher expected
4 return. If AEP Ohio is only allowed the opportunity to earn a return on the book
5 value of its equity investment at the 9.6 percent top end of Staff's recommended
6 range, while the utilities in Staff's proxy group are expected to earn an average of
7 over 10.8 percent, the implications are clear – AEP Ohio's investors will be
8 denied the ability to earn their opportunity cost.

9 **Q. HAVE OTHER REGULATORS RECOGNIZED THIS COMPARABLE**
10 **EARNINGS BENCHMARK?**

11 A. Yes. I have used the comparable earnings approach in my consulting, teaching,
12 and testimony for 35 years, and it has been widely referenced in regulatory
13 decision-making. A NARUC survey reported that 19 regulatory jurisdictions
14 cited the comparable earnings test as a primary method favored in determining the
15 allowed rate of return.⁸

16 For example, in Virginia the provisions of the Virginia Electric Utility
17 Regulation Act provide that the allowed ROE must be no lower than the average
18 historical earned return on book equity for a peer group of regional utilities; nor
19 can it exceed this peer group threshold by more than 300 basis points. This
20 methodology adopted by the Virginia Legislature is entirely consistent with the
21 economic rationale underpinning my expected earnings approach. In recent
22 testimony in Case No. PUE-2011-00037 for another of AEP's operating
23 subsidiaries, the Staff witness for the State Corporation Commission of Virginia

⁷ See Staff Work Paper 1, Staff Report at fn. 2.

⁸ "Utility Regulatory Policy in the U.S. and Canada, 1995-1996," National Association of Regulatory Utility Commissioners (December 1996). In my experience, while a few Commissions have explicitly rejected comparable earnings, most regard it as a useful tool.

1 calculated ROEs consistent with this legislative requirement ranging from 10.33
2 percent to 11.89 percent. These results are reproduced as Exhibit WEA-12.

3 **Q. WHAT OTHER EVIDENCE INDICATES THAT STAFF’S ROE**
4 **RECOMMENDATIONS FOR AEP OHIO ARE INSUFFICIENT TO MEET**
5 **REGULATORY STANDARDS?**

6 A. Reference to allowed rates of return for other utilities provide an alternative
7 guideline that can be used to assess the extent to which Staff’s ROE
8 recommendations are comparable and sufficient. As shown on Exhibit WEA-14,
9 data from AUS Monthly Report indicates that the average authorized ROE for the
10 firms in Staff’s proxy group is 10.41 percent, with an average allowed ROE
11 reported for AEP of 10.68 percent. This average authorized return exceeds Staff’s
12 recommended ROE range by a wide margin, and confirms that even the 9.6
13 percent top end of this range is biased downward. It is unreasonable to suppose
14 that investors would be attracted by Staff’s ROE recommendation for AEP Ohio,
15 which falls significantly below the allowed returns for other utilities they consider
16 to be comparable.

17 **Q. DO UTILITIES ALSO HAVE TO COMPETE WITH NON-REGULATED**
18 **FIRMS FOR CAPITAL?**

19 A. Most certainly. The cost of capital is an opportunity cost based on the returns that
20 investors could realize by putting their money in other alternatives. Clearly the
21 total capital invested in utility stocks is only the tip of the iceberg of total
22 common stock investment and there are a plethora of “other firms with
23 corresponding risk” available to investors beyond those in the utility industry. In
24 fact, returns in the competitive sector of the economy form the very underpinning
25 for utility ROEs because regulation purports to serve as a substitute for the actions
26 of competitive markets. True enough, utilities are sheltered from competition, but

1 they undertake other obligations and lose the ability to set their own prices and
2 decide when to exit a market.

3 The Supreme Court has recognized that it is the degree of risk, not the
4 nature of the business, which is relevant in evaluating an allowed ROE for a
5 utility.⁹ So long as the risks associated with my Non-Utility Group are
6 comparable to AEP Ohio and other utilities – and my direct testimony
7 demonstrates conclusively that this is the case – the resulting cost of equity
8 estimates provide a meaningful ROE benchmark. Consistent with these
9 principles, the cost of equity estimates for the Non-Utility Proxy Group presented
10 in my direct testimony provide another indication that the ROE recommendation
11 contained in the Staff Report is unreasonable and would impair AEP Ohio's
12 ability to attract capital.

13 **Q. WHAT ARE THE IMPLICATIONS OF STAFF'S ROE**
14 **RECOMMENDATION FOR INVESTORS?**

15 A. As explained above, because the ROE recommendation contained in the Staff
16 Report falls significantly below observable benchmarks, it is inconsistent with
17 regulatory and economic standards.¹⁰ Considering the risks faced by AEP Ohio,
18 the need to fund substantial investment in utility infrastructure, and the imperative
19 of maintaining access to capital during times of adversity, setting an ROE that
20 fails to provide investors with an opportunity to earn returns commensurate with
21 companies of comparable risk would weaken the Company's financial integrity,
22 violate the capital attraction standard, and send the wrong signal to investors at a
23 time when access to capital markets is crucial for the Company. Given the
24 importance of utility service to society, hampering the Company's ability to attract

⁹ *Fed. Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 591 (1944).

¹⁰ As explained subsequently, because Staff's proxy group also fails to reflect the greater risks that investors associate with AEP Ohio, the resulting ROE range is similarly downward biased.

1 the capital needed to meet the economic and reliability needs of its service area is
2 hardly conducive to economic growth or consistent with the broad public interest.

V. REVISIONS TO STAFF DCF APPLICATION

3 **Q. ARE THERE COMPUTATIONAL ERRORS THAT INTRODUCE A**
4 **DOWNWARD BIAS IN THE COST OF EQUITY ESTIMATES**
5 **PRODUCED BY STAFF'S DCF ANALYSIS?**

6 A. Yes. Under the multi-stage DCF approach applied in the Staff Report, Staff
7 developed estimates of the annual cash flows that would accrue to investors over
8 the next 400 years. To arrive at the estimated cost of equity for each firm in the
9 proxy group, Staff used the internal rate of return ("IRR") function available in
10 Microsoft's Excel spreadsheet program to determine the discount rate (*i.e.*,
11 investors' required rate of return) that would equate this stream of cash flows with
12 the current market price of the stock. This IRR calculation, however, assumes
13 that annual cash flows are received at the end of each year, which is inconsistent
14 with the periodic dividend payments that investors receive throughout the year
15 and imparts a downward bias to the resulting cost of equity estimates.

16 This bias is illustrated in the example below, which assumes that an
17 investor purchases a share of common stock for \$25.00 in year 0, with the
18 expectation of receiving dividend payments and selling the stock for a capital gain
19 at the end of year 5. As shown in the example, assuming that the dividend cash
20 flows are received at mid-year, and calculating a corresponding discount factor,
21 implies a cost of equity of 11.4 percent:¹¹

¹¹ This is the discount rate that equates the series of annual cash flows to the purchase price of \$25.00.

**TABLE WEA-R1
MID-YEAR VERSUS END-OF-YEAR DISCOUNTING**

<u>Year</u>	<u>Cash Flow</u>	<u>Mid-Year</u>		<u>End of Year</u>	
		<u>PV Factor</u>	<u>NPV</u>	<u>PV Factor</u>	<u>NPV</u>
0	-\$25.00				
1	\$1.00	0.94737	\$0.95	0.89940	\$0.90
2	\$1.10	0.85027	\$0.94	0.80891	\$0.89
3	\$1.21	0.76312	\$0.92	0.72753	\$0.88
4	\$1.33	0.68491	\$0.91	0.65434	\$0.87
5	\$1.46	0.61471	\$0.90	0.58851	\$0.86
End Yr 5	\$35.00	0.58236	<u>\$20.38</u>	0.58851	<u>\$20.60</u>
Net Present Value			\$25.00		\$25.00
Discount Rate		11.4%		11.2%	

Meanwhile, incorrectly discounting the dividend payments as if they were received at year-end, as is the case with the IRR function used to arrive at the DCF estimates in the Staff Report, results in a lower implied cost of equity of 11.2 percent.

Q. AFTER CORRECTING THIS ERROR, WHAT COST OF EQUITY IS IMPLIED BY THE STAFF DCF METHOD?

A. As shown on Exhibit WEA-14, correcting the DCF method applied in the Staff Report to reflect mid-year discounting of cash flows results in an average implied cost of equity of 10.25 percent.

Q. WHAT COST OF EQUITY IS IMPLIED FOR AEP USING THE DCF APPROACH APPLIED IN THE STAFF REPORT?

A. As discussed earlier, AEP meets the criteria for inclusion in the Staff proxy group and provides a logical basis on which to evaluate investors' required return for AEP Ohio. As shown on the far right-hand column of Exhibit WEA-14, application of the Staff DCF method to AEP results in an implied cost of equity of 11.24 percent. Including AEP in Staff's proxy group analysis results in an average DCF cost of equity estimate of 10.38 percent.

VI. CAPM RESULTS SHOULD BE IGNORED

1 **Q. WHAT IS THE FUNDAMENTAL PROBLEM ASSOCIATED WITH THE**
2 **CAPM APPROACH PRESENTED IN THE STAFF REPORT?**

3 A. Like the DCF model, the CAPM is an *ex-ante*, or forward-looking model based
4 on expectations of the future. As a result, in order to produce a meaningful
5 estimate of investors' required rate of return, the CAPM must be applied using
6 data that reflects the expectations of actual investors in the market. However, the
7 CAPM application presented in the Staff Report was based entirely on *historical* –
8 not projected – rates of return. Morningstar recognized the primacy of current
9 expectations:

10 The cost of capital is always an expectational or forward-looking
11 concept. While the past performance of an investment and other
12 historical information can be good guides and are often used to estimate
13 the required rate of return on capital, the expectations of future events
14 are the only factors that actually determine cost of capital.¹²

15 Because it failed to look directly at the returns investors are currently requiring in
16 the capital markets, Staff's 7.85 percent historical CAPM estimate falls woefully
17 short of investors' current required rate of return.

18 **Q. IS THERE GOOD REASON TO ENTIRELY DISREGARD THE RESULTS**
19 **OF HISTORICAL CAPM ANALYSES, SUCH AS THOSE PRESENTED IN**
20 **THE STAFF REPORT?**

21 A. Yes. Applying the CAPM is complicated by the impact of the recent capital
22 market turmoil and recession on investors' risk perceptions and required returns.
23 The CAPM cost of common equity estimate is calibrated from investors' required
24 risk premium between Treasury bonds and common stocks. In response to
25 heightened uncertainties, investors have repeatedly sought a safe haven in U.S.

¹² Morningstar, *Ibbotson SBBI, 2011 Valuation Yearbook* at 21.

1 government bonds and this “flight to safety” has pushed Treasury yields
2 significantly lower while yield spreads for corporate debt widened. This
3 distortion not only impacts the absolute level of the CAPM cost of equity
4 estimate, but it affects estimated risk premiums. Economic logic would suggest
5 that investors’ required risk premium for common stocks over Treasury bonds has
6 also increased.

7 Meanwhile, the backward-looking approach employed in the Staff Report
8 incorrectly assumes that investors’ assessment of the relative risk differences, and
9 their required risk premium, between Treasury bonds and common stocks is
10 constant and equal to some historical average. At no time in recent history has the
11 fallacy of this assumption been demonstrated more concretely. This incongruity
12 between investors’ current expectations and requirements and historical risk
13 premiums is particularly relevant during periods of heightened uncertainty and
14 rapidly changing capital market conditions, such as those experienced recently.

15 As a result, there is every indication that the historical CAPM approach
16 fails to fully reflect the risk perceptions of real-world investors in the capital
17 markets, which would violate the standards underlying a fair rate of return by
18 failing to provide an opportunity to earn a return commensurate with other
19 investments of comparable risk. As the Staff of the Florida Public Service
20 Commission concluded:

21 [R]ecognizing the impact the Federal Government’s unprecedented
22 intervention in the capital markets has had on the yields on long-term
23 Treasury bonds, staff believes models that relate the investor-required
24 return on equity to the yield on government securities, such as the
25 CAPM approach, produce less reliable estimates of the ROE at this
26 time.¹³

¹³ *Staff Recommendation for Docket No. 080677-E1 - Petition for increase in rates by Florida Power & Light Company*, at p. 280 (Dec. 23, 2009).

1 **Q. DOES THE RISK PREMIUM THAT STAFF DERIVES FROM IBBOTSON**
2 **ASSOCIATES' DATA COMPORT WHAT THIS PUBLICATION**
3 **REPORTS?**

4 A. No. Ibbotson Associates (now *Morningstar*) computes the equity risk premium
5 by subtracting the arithmetic mean income return (not the total return) on long-
6 term Treasury bonds from the arithmetic average return on common stocks. As
7 *Morningstar* explained:

8 Price changes in bonds due to unanticipated changes in yields
9 introduce price risk into the total return. Therefore, the total return
10 on the bond series does not represent the riskless rate of return.
11 The income return better represents the unbiased estimate of the
12 purely riskless rate of return, since an investor can hold a bond to
13 maturity and be entitled to the income return with no capital loss.¹⁴

14 In other words, *Morningstar* concluded that using only the income component of
15 the long-term government bond return provides a more reliable estimate of the
16 expected risk premium because investors do not anticipate capital losses for a
17 risk-free security. The Staff Report, however, calculated its equity risk premium
18 using the *total* return for *Morningstar*'s long-term government bond series. As a
19 result, the equity risk premium falls far below what Staff's own data source
20 reports and the resulting CAPM cost of equity estimate is understated.

21 **Q. WHAT EQUITY RISK PREMIUM DOES MORNINGSTAR REPORT?**

22 A. The most recent edition of Staff's source of historical realized rate of return data
23 calculates the long-horizon equity risk premium by subtracting the arithmetic
24 mean average income return on long-term Treasury bonds of 5.17 percent from
25 the arithmetic mean average return on the S&P 500 of 11.88 percent, resulting in
26 an equity risk premium of 6.72 percent.¹⁵

¹⁴ Morningstar, *Ibbotson SBBI, 2010 Valuation Yearbook* at 56.

¹⁵ Morningstar, *Ibbotson SBBI, 2011 Valuation Yearbook* at 54.

1 **Q. ARE THERE OTHER AREAS WHERE CAPM ANALYSIS CONTAINED**
2 **IN THE STAFF REPORT DEPARTS FROM MORNINGSTAR’S**
3 **FINDINGS?**

4 A. Yes. As I indicated in my direct testimony, because empirical research indicates
5 that the CAPM does not fully account for observed differences in rates of return
6 attributable to firm size, a modification is required to account for this size effect.
7 To account for this, *Morningstar* – which is the same source relied on in the Staff
8 Report to apply the CAPM – has developed size premiums that need to be added
9 to the theoretical CAPM cost of equity estimates to account for the level of a
10 firm’s market capitalization in determining the CAPM cost of equity.¹⁶ Because
11 the Staff analysis ignored these size premiums, the CAPM application presented
12 in the Staff Report is inconsistent with its own sources and the resulting cost of
13 equity estimate is understated.

14 **Q. DO THE YIELDS ON 10-YEAR TREASURY NOTES REFERENCED IN**
15 **THE STAFF REPORT PROVIDE AN APPROPRIATE BASIS TO**
16 **ESTIMATE THE COST OF EQUITY USING THE CAPM?**

17 A. No. Unlike debt instruments, common equity is a perpetuity. As a result, any
18 application of the CAPM to estimate the return that investors require must be
19 predicated on their expectations for the firm’s long-term risks and prospects. This
20 does not mean that every investor will buy and hold a particular common stock
21 into perpetuity. Rather, it recognizes that even an investor with a relatively short
22 holding period will consider the long-term, because of its influence on the price
23 that he or she ultimately receives from the stock when it is sold. This is also the
24 basic assumption underpinning the DCF model, which in theory considers the
25 present value of all future dividends expected to be received by a share of stock.

¹⁶ *Morningstar*, “Ibbotson SBBI 2010 Valuation Yearbook,” at Table C-1.

1 Shannon P. Pratt, a leading authority in business valuation and cost of
2 capital, recognized that the cost of equity is a long-term cost of capital and that
3 the appropriate instrument to use in applying the CAPM is a long-term bond:

4 The consensus of financial analysts today is to use the 20-year U.S.
5 Treasury yield to maturity as of the effective date of valuation for the
6 following reasons:

- 7 • It most closely matches the often-assumed perpetual
8 lifetime horizon of an equity investment.
- 9 • The longest-term yields to maturity fluctuate
10 considerably less than short-term rates and thus are less
11 likely to introduce unwarranted short-term distortions
12 into the actual cost of capital.
- 13 • People generally are willing to recognize and accept the
14 fact that the maturity risk is impounded into this base,
15 or otherwise risk-free rate.
- 16 • It matches the longest-term bond over which the equity
17 risk premium is measured in the Ibbotson Associates
18 data series.¹⁷

19 Similarly, in applying the CAPM, *Morningstar*, the source of Staff's historical
20 return data, recognized that the cost of equity is a long-term cost of capital and the
21 appropriate interest rate to use is a long-term bond yield:

22 The horizon of the chosen Treasury security should match the horizon
23 of whatever is being valued. ... Note that the horizon is a function of
24 the investment, not the investor. If an investor plans to hold a stock in
25 a company for only five years, the yield on a five-year Treasury note
26 would not be appropriate since the company will continue to exist
27 beyond those five years.¹⁸

28 Accordingly, proper application of the CAPM should focus on long-term
29 government bonds and Staff's analysis based on 10-year Treasury notes should be
30 ignored.

¹⁷ Pratt, Shannon P., *Cost of Capital, Estimation and Applications* at 60 (1998).

¹⁸ Morningstar, *Ibbotson SBBI, 2010 Valuation Yearbook* at 44.

1 **Q. WHAT COST OF EQUITY IS PRODUCED BY THE HISTORICAL CAPM**
2 **ANALYSIS ONCE THESE DEFICIENCIES ARE ADDRESSED?**

3 A. As noted earlier, the most recent edition of the *Morningstar* publication
4 referenced by Staff reports an arithmetic mean risk premium for the S&P 500 of
5 6.72 percent,¹⁹ with Staff calculating an average yield on 30-year Treasury bonds
6 of 4.36 percent. Meanwhile, the average market capitalization of the Staff's
7 proxy group is \$13.4 billion. Based on data from *Morningstar*, this means that
8 the theoretical CAPM cost of equity estimate must be increased by 81 basis points
9 to account for the proxy group's relative size. As shown on page 1 of Exhibit
10 WEA-15, adjusting the theoretical CAPM result to incorporate this size
11 adjustment results in an average indicated cost of common equity of 9.72 percent.

12 **Q. IS IT APPROPRIATE TO CONSIDER ANTICIPATED CAPITAL**
13 **MARKET CHANGES IN APPLYING THE CAPM?**

14 A. Yes. While Treasury bond yields have declined significantly in response to
15 Federal Reserve policies and investors' heightened unease over the risks of other
16 assets, there is widespread consensus that interest rates will increase materially
17 once economic growth accelerates. As a result, current bond yields are likely to
18 understate capital market requirements at the time the outcome of this proceeding
19 becomes effective. As shown on page 2 of Exhibit WEA-15, incorporating a
20 forecasted Treasury bond yield for 2012-2015 into the Staff's CAPM method
21 implied a cost of equity of approximately 10.64 percent after accounting for firm
22 size.

23 **Q. DOES THIS CONCLUDE YOUR PRE-FILED SUPPLEMENTAL DIRECT**
24 **TESTIMONY?**

25 A. Yes, it does.

¹⁹ Morningstar, *Ibbotson SBBI, 2011 Valuation Yearbook* at 54.

EXPECTED EARNINGS APPROACH**Exhibit WEA-11****Page 1 of 1****STAFF PROXY GROUP**

	(a)	(b)
<u>Company</u>	<u>Expected Earned Return</u>	<u>Return on Equity</u>
Ameren Corp.	7.00%	8.55%
Dominion Resources	14.00%	14.02%
Edison International	8.00%	10.42%
PG&E Corp.	11.50%	11.17%
PPL Corp.	11.50%	12.05%
Wisconsin Energy	14.00%	10.58%
Xcel Energy	10.00%	8.94%
Average	10.86%	10.82%

(a) 2014-16 projections from The Value Line Investment Survey (Aug. 5, Aug. 26, & Sep. 23, 2011).

(b) Staff Work Paper 1, Staff Report at fn. 2.

EARNED RATES OF RETURN

Exhibit WEA-12

Page 1 of 1

VIRGINIA LEGISLATIVE BENCHMARK

Exhibit No. _____
Witness: Oliver
Schedule 17

110830099

Statutory Peer Group
Return on Equity
Average Equity Basis

<u>Company</u>	<u>2008-2010 Reported ROE on Average Equity Basis</u>
SCE&G	9.35%
Duke Energy Carolinas	9.55%
Tampa Electric Company	9.65%
FP&L Company	10.23%
Entergy Mississippi, Inc.	10.35%
Progress Energy Florida, Inc.	11.08%
Georgia Power	12.00%
Gulf Power	12.18%
Progress Energy Carolinas, Inc.	12.28%
Mississippi Power	12.79%
Alabama Power	13.29%
<u>After Excluding the 2 Highest and Lowest</u>	
Average of Lowest 4	10.33%
Average of Highest 4	11.89%
Average of All	11.11%

Source: *Prefiled Testimony of Lawrence T. Oliver*, Case No. PUE-2011-00037 (Aug. 19, 2011).

ALLOWED RATES OF RETURN

Exhibit WEA-13

Page 1 of 1

STAFF PROXY GROUP

	(a)
<u>Company</u>	<u>Allowed ROE</u>
Ameren Corp.	9.95%
Dominion Resources	10.22%
Edison International	10.68%
PG&E Corp.	11.35%
PPL Corp.	9.57%
Wisconsin Energy	10.38%
Xcel Energy	10.75%
Average	10.41%
 American Electric Pwr	 10.68%

(a) AUS Monthly Utility Report (Sep. 1, 2011).

REVISED STAFF DCF ANALYSIS

Exhibit WEA-14

Page 1 of 1

MID-YEAR DISCOUNT RATE

	<u>AEE</u>	<u>D</u>	<u>EIX</u>	<u>PCG</u>	<u>PPL</u>	<u>WEC</u>	<u>XEL</u>	<u>AEP</u>
AVERAGE PRICE (\$)	26.59	42.02	34.75	44.27	25.39	27.91	22.27	35.18
QUARTERLY DIV. (\$)	0.38500	0.4575	0.31500	0.13500	0.35000	0.2000	0.2450	0.4200
	0.38500	0.4575	0.31500	0.13500	0.35000	0.2000	0.2525	0.4200
	0.38500	0.4575	0.31500	0.13500	0.35000	0.2000	0.2525	0.4600
	0.38500	0.4925	0.32000	0.14500	0.35000	0.2600	0.2525	0.4600
ANNUAL DIVIDEND (\$)	1.5400	1.8650	1.2650	0.5500	1.4000	0.8600	1.0025	1.7600
YIELD	5.79%	4.44%	3.64%	1.24%	5.51%	3.08%	4.50%	5.00%
REUTERS	4.00%	5.98%	4.83%	6.19%	8.10%	7.76%	6.07%	4.00%
MSN	4.00%	3.80%	5.00%	5.50%	3.60%	8.00%	5.10%	4.00%
YAHOO	-0.67%	2.70%	3.45%	6.33%	3.60%	8.02%	5.95%	3.97%
DCF GROWTH FACTOR	2.44%	4.16%	4.43%	6.01%	5.10%	7.93%	5.71%	3.99%
VALUE LINE								
'10 EARNINGS (\$)	2.77	2.89	3.35	2.82	2.29	1.92	1.56	2.60
'14 EARNINGS (\$)	2.50	3.75	3.25	4.50	2.75	2.5	2.00	3.75
	-2.56%	6.51%	-0.76%	11.68%	4.58%	6.60%	6.21%	9.16%
VALUE LINE, "BOXED"	-2.00%	5.50%	-1.00%	7.00%	4.00%	7.50%	5.00%	4.50%
VALUE LINE	-2.28%	6.01%	-0.88%	9.34%	4.29%	7.05%	5.61%	6.83%
DCF GROWTH ESTIMATE	1.26%	4.62%	3.10%	6.84%	4.90%	7.71%	5.68%	4.70%
DCF COST OF EQUITY ESTIMATE	10.32%	10.64%	9.32%	7.98%	11.86%	10.45%	11.19%	11.24%
DCF AVERAGE								
STAFF PROXY GROUP					10.25%			
INCLUDING AEP					10.38%			

REVISED STAFF HISTORICAL CAPM**Exhibit WEA-15****Page 1 of 2****CURRENT INTEREST RATES**

<u>Market Rate of Return</u>	(a)	11.88%
<u>Less: Risk-Free Rate (d)</u>		
Long-term Treasury Bond Yield	(a)	<u>5.17%</u>
<u>Market Risk Premium</u>		6.71%
<u>Utility Proxy Group Beta</u>	(b)	<u>0.68</u>
<u>Risk Premium</u>		4.55%
<u>Plus: Risk-free Rate</u>		
30-Year Treasury Bond Yield	(c)	<u>4.36%</u>
Unadjusted CAPM		8.91%
Size Adjustment	(d)	<u>0.81%</u>
Implied Cost of Equity		<u>9.72%</u>

- (a) *Morningstar*, "Ibbotson SBBi 2011 Valuation Yearbook," at 54.
(b) Staff Report at 15.
(c) Staff Report at 132.
(d) *Morningstar*, "Ibbotson SBBi 2011 Valuation Yearbook," at Table C-1.

PROJECTED INTEREST RATES

<u>Market Rate of Return</u>	(a)	11.88%
<u>Less: Risk-Free Rate</u> (d)		
Long-term Treasury Bond Yield	(a)	<u>5.17%</u>
<u>Market Risk Premium</u>		6.71%
<u>Utility Proxy Group Beta</u>	(b)	<u>0.68</u>
<u>Risk Premium</u>		4.55%
<u>Plus: Risk-free Rate</u>		
30-Year Treasury Bond Yield	(c)	<u>5.28%</u>
Unadjusted CAPM		9.83%
Size Adjustment	(d)	<u>0.81%</u>
Implied Cost of Equity		<u>10.64%</u>

(a) *Morningstar*, "Ibbotson SBBI 2011 Valuation Yearbook," at 54.

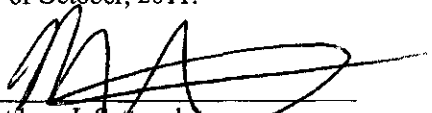
(b) Staff Report at 15.

(c) Average projected 30-year Treasury bond yield for 2012-2015 based on data from the Value Line Investment Survey, Forecast for the U.S. Economy (Aug. 26, 2011), IHS Global Insight, U.S. Economic Outlook at 19 (Feb. 2011), Blue Chip Financial Forecasts, Vol. 30, No. 6 (Jun. 1, 2010).

(d) *Morningstar*, "Ibbotson SBBI 2011 Valuation Yearbook," at Table C-1.

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true and correct copy of the foregoing Pre-Filed Supplemental Direct Testimony In Support of Objections to the Staff Reports of William E. Avera on behalf of Columbus Southern Power Company and Ohio Power Company has been served upon the below-named counsel via First Class mail, postage prepaid, this 24th day of October, 2011.


Matthew J. Satterwhite

William L. Wright, Section Chief
Thomas McNamee
Werner L. Margard III
Stephen A. Reilly
Public Utilities Commission of Ohio
180 East Broad Street, 6th Floor
Columbus, OH 43215-3793
William.wright@puc.state.oh.us
Thomas.mcnamee@puc.state.oh.us
werner.margard@puc.state.oh.us
stephen.reilly@puc.state.oh.us

614-466-4397
614-466-4397
614-466-4395
614-466-4397

Samuel C. Randazzo
Joseph E. Olier
Frank P. Darr
McNees Wallace & Nurick LLC
21 East State Street, 17th Floor
Columbus, OH 43215
sam@mwncmh.com
joliker@mwncmh.com
fdarr@mwncmh.com

614-719-2840
614.719.5957
614.719.2855

Counsel for Industry Energy Users-Ohio

David F. Boehm
Michael L. Kurtz
Boehm, Kurtz & Lowry
36 East Seventh Street, Suite 1510
Cincinnati, Ohio 45202
dboehm@bkllawfirm.com
mikurtz@BKLLawfirm.com

513-421-2255
513-421-2255

Counsel for Ohio Energy Group

Thomas J. O'Brien
Lisa G. McAlister
Matthew W. Warnock
Bricker & Eckler LLP
100 South Third Street
Columbus, OH 43215-4291
lmcalister@bricker.com
mwarnock@bricker.com
tobrien@bricker.com

614.227.4854
614.227-2300
614.227-2335

Counsel for Ohio Hospital Association and
OMA Energy Group

James F. Lang
Laura C. McBride
N. Trevor Alexander
Calfee, Halter & Griswold LLP
1400 KeyBank Center
800 Superior Avenue
Cleveland, OH 44114
JLang@Calfee.com
LMcBride@Calfee.com
talexander@calfee.com

216.622.8563
216.622.8528
614.621.7774

Counsel for FirstEnergy Solutions Corp.

Maureen R. Grady
Larry Sauer
Ohio Consumers' Counsel
10 W. Broad Street Suite 1800
Columbus OH 43215
grady@occ.state.oh.us
sauer@occ.state.oh.us

614-466-8574
614-466-1312

Richard L. Sites
155 East Broad Street, 15th Floor
Columbus, OH 43215-3620
ricks@ohanet.org

614-221-7614

Counsel for Ohio Hospital Association

Colleen L. Mooney
Ohio Partners for Affordable Energy
231 West Lima Street
Findlay, OH 45840
cmooney2@columbus.rr.com
419-425-8860

Counsel for Ohio Partners for Affordable Energy

Henry W. Eckhart
The Sierra Club
1200 Chambers Road, #106
Columbus, OH 43212
henryeckhart@aol.com

614-461-0984

Mark A. Hayden
FirstEnergy Service Company
76 South Main Street
Akron, OH 44308
haydenm@firstenergycorp.com
Phone (330) 761-7735

John W. Bentine
Mark S. Yurick
Zachary D. Kravitz
Chester Wilcox & Saxbe, LLP
65 East State Street, Suite 1000
Columbus, OH 43215
jbentine@cwslaw.com 614-334-6121
myurick@cwslaw.com 614-334-7197
zkravitz@cwslaw.com 614-334-6117

Counsel for The Kroger Co.

Benita Kahn
Lija Kaleps-Clark
Vorys, Sater, Seymour and Pease LLP
52 East Gay Street
P O Box 1008
Columbus, OH 43216-1008
bkahn@vorys.com 614-464-6487
lkalepsclark@vorys.com

Counsel for Ohio Cable Television Association

John Davidson Thomas
Hogan Lovells US LLP
Columbia Square
555 Thirteenth Street, NW
Washington DC 2004
Dave.Thomas@hoganlovells.com
202-637-5675

Counsel for Ohio Cable Television Association

Christopher J. Allwein
Williams, Allwein and Moser, LLC
1373 Grandview Ave., Suite 212
Columbus, OH 43212
callwein@williamsandmoser.com
614-429-3092

Counsel for Natural Resources Defense Council

Barth E. Royer
Bell & Royer Co., LPA
33 South Grant Avenue
Columbus, OH 43215-3927
barthroyer@aol.com (614) 228-0704

Counsel for The Ohio Department of Development

Douglas G. Bonner
Emma F. Hand
Keith C. Nusbaum
SNR Denton US LLP
1301 K Street NW
Suite 600, East Tower
Washington, DC 20005
doug.bonner@snrdenton.com 202-408-3957
emma.hand@snrdenton.com 202-408-7094
keith.nusbaum@snrdenton.com

Counsel for Ormet Primary Aluminum Corporation

Michael R. Smalz
Joseph V. Maskovyak
Ohio Poverty Law Center
555 Buttles Avenue
Columbus, OH 43215
msmalz@ohiopoveritylaw.org 614-824-2502
jmaskovyak@ohiopoveritylaw.org 614/221-7201 x105

Counsel for The Appalachian Peace and Justice
Network