

FILE

OCC EXHIBIT 4

**BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO**

In the Matter of the Application of Ohio)
Edison Company, The Cleveland Electric)
Illuminating Company and The Toledo)
Edison Company for Authority to) Case No. 08-935-EL-SSO
Establish a Standard Service Offer)
Pursuant to R.C. 4928.143 in the Form of)
an Electric Security Plan.)

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**DIRECT TESTIMONY
of
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**ON BEHALF OF
THE OFFICE OF THE OHIO CONSUMERS' COUNSEL
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SEPTEMBER 29, 2008

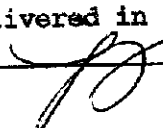
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EXHIBITS

JRW-1

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APPENDIX A

1 **I. INTRODUCTION**

2

3 ***Q1. PLEASE STATE YOUR FULL NAME, ADDRESS, AND OCCUPATION.***

4 ***A1.*** My name is J. Randall Woolridge, and my business address is 120 Haymaker
5 Circle, State College, PA 16801. I am a Professor of Finance and the Goldman,
6 Sachs & Co. and Frank P. Smeal Endowed University Fellow in Business
7 Administration at the University Park Campus of the Pennsylvania State
8 University. I am also the Director of the Smeal College Trading Room and
9 President of the Nittany Lion Fund, LLC. A summary of my educational
10 background, research, and related business experience is provided in Appendix A.

11

12 **II. SUBJECT OF TESTIMONY AND REVIEW OF RELEVANT SECTIONS**
13 **OF S.B. 221 PERTAINING TO EXCESSIVE EARNINGS**

14

15

16 ***Q2. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS***

17 ***PROCEEDING?***

18 ***A2.*** I have been asked by the Office of the Ohio Consumers' Counsel ("OCC") to
19 recommend a methodology to be used to test for "Significantly Excessive Earnings"
20 ("SEE") as prescribed in Senate Bill No. 221 ("S.B. 221").

21

22 ***Q3. PLEASE REVIEW THE RELEVANT SECTION OF S.B. 221 THAT***

23 ***PERTAINS TO THE SEE TEST.***

24 ***A3.*** This is primary section of S.B. 221 which discusses the excess earnings issues for
25 Ohio electric distribution companies is:

26

1 With regard to the provisions that are included in an electric
2 security plan under this section, the commission shall consider,
3 following the end of each annual period of the plan, if any such
4 adjustments resulted in excessive earnings as measured by whether
5 the earned return on common equity of the electric distribution
6 utility is significantly in excess of the return on common equity
7 that was earned during the same period by publicly traded
8 companies, including utilities, that face comparable business and
9 financial risk, with such adjustments for capital structure as may be
10 appropriate ... In making its determination of significantly
11 excessive earnings under this division, the commission shall not
12 consider, directly or indirectly, the revenue, expenses, or earnings
13 of any affiliate or parent company.¹
14

15 ***Q4. WHAT IS YOUR UNDERSTANDING OF THE ESSENTIAL ELEMENTS OF***
16 ***THE SEE TEST?***

17 ***A4.*** When I read the section of S.B. 221 quoted above, there are several elements to
18 the SEE test. These elements include:
19

- 20 (1) **The Appropriate Measure of Earnings** – S.B. 221 focuses on the
21 accounting-based return on common equity as the appropriate measure of
22 earnings.

¹ Ohio Revised Code Section 4828.143(F)

1

2 **(2) Group of Comparable Companies** – S.B. 221 asks whether the earnings
3 are in excess of those for the same period for publicly traded companies,
4 including public utilities. Therefore, a comparable group of companies must
5 be developed to establish a distribution of returns on common equity. Given
6 the wording of S.B. 221, the comparable group must include both utilities
7 and non-utilities. The non-utility companies would come from industries
8 which have similar characteristics. Presumably, this would mean capital
9 intensive, service industries. Nonetheless, in my opinion, the most
10 comparable companies would be public utilities.

11

12 **(3) Comparable Business and Financial Risk** – The comparable companies
13 must have similar business and financial risks. Therefore, measures of
14 business and financial risks must be employed in the development of a group
15 of comparable utility and non-utility companies.

16

17 **(4) Adjustment for Capital Structure Differences** – If the comparable
18 companies have capital structures that differ from the Ohio electric
19 distribution companies, an adjustment may be required.

20

21 **(5) Earnings of Ohio electric distribution utilities** – S.B. 221 requires that
22 earnings of Ohio electric distribution companies should be considered in the
23 determination of excess earnings. In making the determination of

1 significantly excessive earnings the Commission shall consider each
2 company's earnings separately from any of its affiliates, subsidiaries, or
3 parent company.
4

5 **Q5. ARE THERE ANY ELEMENTS OF THE SEE TEST THAT ARE NOT WELL**
6 **DEFINED IN S.B. 221?**

7 **A5.** The definition of "significantly excessive earnings" is the most obvious element
8 missing in this section of S.B. 221. As such, there needs to be a determination of
9 what level of earnings -- in terms of return on common equity -- constitutes
10 "significantly excessive earnings." The statute does state, however, that: "The
11 burden of proof for demonstrating that significantly excessive earnings did not
12 occur shall be on the electric distribution utility."²
13

14 **III. METHODOLOGY AND TEST FOR SIGNIFICANTLY EXCESSIVE**
15 **EARNINGS**
16
17

18 **Q6. PLEASE REVIEW YOUR APPROACH TO DEVELOPING A**
19 **METHODOLOGY TO TEST FOR SEE.**

20 **A6.** I have developed a seven-step procedure as a methodology for the SEE test. These
21 steps include:

- 22 1. Identify a proxy group of electric utility companies;
- 23 2. Identify a list of business and financial risk measures using the *Value Line*
24 database which includes data for over 7,000 companies;

² Id.

3. Establish the ranges for the proxy group of electric utility companies for the business and financial risk indicators;
4. Screen the *Value Line* database to identify a group of companies whose business and financial risk indicators fall within the ranges of the proxy group of electric utility companies;
5. Compute the benchmark return on equity ("ROE") for comparable companies;
6. Adjust the benchmark ROE for the capital structures of the Ohio electric utility companies; and
7. Add a ROE premium to establish the SEE threshold.

Step I - Proxy Group Selection

Q7. PLEASE DESCRIBE YOUR APPROACH TO DEVELOPING A PROXY GROUP OF ELECTRIC UTILITY COMPANIES.

A7. I am using a proxy group in order to identify the ranges for the business and financial risk indicators of electric utilities. These ranges will then be used to create a group of comparable public companies. To develop a proxy group of relatively pure electric utility companies, I start with the universe of all electric utility companies followed by *AUS Utility Reports* and apply the following screens:

- (1) Percent of regulated electric revenue of at least 75%;
- (2) An investment grade bond rating;
- (3) Total revenue of less than \$10 billion; and

(4) A three-year history of paying cash dividends.

These screens produced a proxy group of 16 electric utilities. These proxy utilities are listed in Table 1.

Table 1
Proxy Group of Electric Utilities

Progress Energy	PGN
Cleco Corp.	CNL
Cen. Vermont Pub. Serv.	CV
DPL Inc.	DPL
Empire Dist. Elec.	EDE
Hawaiian Elec.	HE
IDACORP, Inc.	IDA
Northeast Utilities	NU
NSTAR	NST
Pinnacle West Capital	PNW
PNM Resources	PNM
UniSource Energy	UNS
Ameren Corp.	AEE
UIL Holdings	UIL
ALLETE	ALE
Portland General	POR

Step II – Business and Financial Risk Indicators

Q8. PLEASE DESCRIBE THE BUSINESS AND FINANCIAL RISK INDICATORS YOU SELECTED TO ESTABLISH A GROUP OF COMPARABLE COMPANIES.

A8. I selected a group of four business and financial risk indicators to insure that the group of comparable companies had similar business and financial risk

1 characteristics to the proxy group of electric utility companies. These business
2 and financial risk indicators include:

- 3 1. Beta - a relative measure of the historical sensitivity of the stock's price to
4 overall fluctuations in the New York Stock Exchange Composite Index. A
5 Beta of 1.50 indicates a stock tends to rise (or fall) 50% more than the
6 New York Stock Exchange Composite Index. The "Beta coefficient" is
7 derived from a regression analysis of the relationship between weekly
8 percentage changes in the price of a stock and weekly percentage changes
9 in the NYSE Index over a period of five years. In the case of shorter price
10 histories, a smaller time period is used, but two years is the minimum. The
11 Betas are adjusted for their long-term tendency to converge toward 1.00.
- 12 2. Asset Turnover (Revenues/Net Fixed Assets) – The utility industry is
13 capital intensive, and the asset turnover ratio measures the capital
14 investment relative to the annual revenues.
- 15 3. Common Equity Ratio. The common equity ratio is a measure of financial
16 risk. It is computed as shareholder's equity divided by total capital (i.e.,
17 long-term debt, preferred equity, and common equity).
- 18 4. No Foreign Companies.

Step III – Range of Business and Financial Risk Indicators for Electric Utility Proxy Group

Q9. PLEASE DISCUSS THE RANGE FOR THE BUSINESS AND FINANCIAL RISK INDICATORS FOR THE PROXY GROUP OF ELECTRIC UTILITIES.

A9. Exhibit JRW-1 provides business and financial risk indicators for the proxy group of 16 electric utilities. Table 1 shows the ranges of the four risk indicators for the electric utility proxy group.

Table 2
Range of Business and Financial Risk Indicators
Proxy Group of Electric Utilities

Screens	Screen Range	
	High	Low
Beta	1.05	0.6
Asset Turnover	1.1180	0.3361
Common Equity Ratio	0.6438	0.3116

Step IV – Group of Comparable Companies

Q10. PLEASE DISCUSS YOUR LIST OF COMPARABLE PUBLIC COMPANIES.

A10. The screening of the *Value Line* data base using the ranges for the four business and financial risk indicators provides a group of 64 comparable companies. The list of comparable public companies, along with their business and financial risk indicators, are provided in Exhibit JRW-2. Given the distinctive risk profiles of public utilities, it is not surprising that most of the comparable companies are indeed public utilities.

Step V – The ROE for the Group of Comparable Companies

***Q11. WHAT ROE IS INDICATED BY REFERENCE TO THE GROUP OF
COMPARABLE PUBLIC COMPANIES?***

A11. The average ROE for the group of 64 comparable companies for 2007 is 11.37%.
The standard deviation is 4.52%. These figures are provided in Exhibit JRW-2.

**Step VI – Adjust the ROE for the Capital Structures of the FirstEnergy
Companies**

***Q12. HOW DO YOU PROPOSE ADJUSTING THE ROE FOR THE
COMPARABLE PUBLIC COMPANIES FOR THE CAPITAL STRUCTURES
OF THE OHIO ELECTRIC UTILITIES?***

A12. To adjust the benchmark ROE for the capital structures of the three Ohio utilities,
I propose a three-step process:

1. Compute the average pre-tax return on total capital for the comparable group of public companies, using the average ROE, debt/equity percentages, income tax rates, and long-term debt cost rates;
2. Compute the pre-tax ROEs for each of the three Ohio utilities using (a) the average pre-tax return on total capital for the comparable companies; and (b) the individual debt/equity percentages, income tax rates, and long-term debt cost rates of the three companies; and
3. Compute the after-tax benchmark ROEs for each of the three Ohio utilities using their income tax rates.

1 ***Q13. WHAT RESULTS DO YOU OBTAIN FROM THIS ANALYSIS?***

2 ***A13.*** The calculations are performed in Exhibit JRW-3. As shown in Panel A, the pre-
3 tax return on capital is 11.73% as computed from the averages for the 64
4 comparable companies. Panel B uses the debt and equity percentages for the three
5 Ohio electric utilities, FirstEnergy's debt cost rate of 6.77%, and the company-
6 effective tax rates to compute the benchmark ROEs for the three companies. The
7 resulting benchmark ROEs for Toledo Edison, Ohio Edison, and Cleveland
8 Electric Illuminating are 9.34%, 9.50%, and 10.43%, respectively. These figures
9 are below the average ROE for the group of comparable companies because the
10 common equity ratios of Toledo Edison, Ohio Edison, and Cleveland Electric
11 Illuminating are 61.53%, 65.22%, and 50.51% while the average common equity
12 ratio of the comparable group is 49.04%. Hence, the capital structure adjustment
13 lowers the benchmark ROEs for all three companies.

14

15 **Step VII – Add Premium to Establish Threshold ROE for SEE**

16 ***Q14. WHAT PREMIUM DO YOU PROPOSE ADDING TO THE BENCHMARK***
17 ***ROE FOR THE OHIO ELECTRIC UTILITIES TO ESTABLISH A***
18 ***THRESHOLD ROE INDICATING SIGNIFICANTLY EXCESSIVE***
19 ***EARNINGS?***

20 ***A14.*** I propose two approaches to the estimation of a premiums to add to the
21 benchmark ROEs to establish a threshold ROE for indicating significantly
22 excessive earnings.

1 Threshold ROE I - I propose adding 150 basis points to reflect the additional risk
2 the Federal Energy Regulatory Commission recognizes for transmission
3 investments that are not routine and therefore are riskier investments than
4 ordinarily made by companies investing in transmission projects. This would be
5 an appropriate measure of the threshold because it is a measure used to
6 compensate for extraordinary risk. It is logical that companies earning 150 basis
7 points more than comparable companies would have significantly excessive
8 earnings. For this reason, setting the SEE threshold at a 150 basis point over
9 returns of comparable companies is an appropriate proxy for a threshold for
10 significantly excessive earnings for the Companies;³ and

11 Threshold ROE II - Add one standard deviation of the ROEs of the comparable
12 companies. Using standard statistical analysis, this would put the threshold ROE
13 approximately in the 85th percentile of the distribution of the ROEs of the
14 comparable companies.

15
16 I propose that the threshold ROE for SEE be set at the average of the two adjusted
17 ROEs.

18
19 ***Q15. ARE YOU ENDORSING OR OTHERWISE SUPPORTING FERC'S***
20 ***DETERMINATION OF TRANSMISSION INCENTIVES?***

21 ***A15.*** No I am not.

³ See, for example, *PPL Electric Utilities Corporation and Public Service Electric and Gas Company*, FERC Docket No. EL08-23-000, Order (April 22, 2008)

IV. RECOMMENDED ROE THRESHOLDS

Q16. WHAT ARE YOUR RECOMMENDED ROE THRESHOLDS FOR THE FIRSTENERGY COMPANIES?

A16. The calculations to compute the threshold ROEs for the three Ohio utilities are provided in Panel C of Exhibit JRW-3. The threshold ROEs are shown in Table 3.

Table 3
Threshold ROEs for Ohio Electric Utilities

	Threshold ROE I	Threshold ROE II	Threshold ROE
Toledo Edison	10.84%	13.86%	12.35%
Ohio Edison	11.00%	14.02%	12.51%
Cleveland Electric Ill.	11.93%	14.95%	13.44%

Q17. PLEASE EXPLAIN WHY THE TWO THRESHOLD ROE METHODOLOGIES WERE CHOSEN OVER ALTERNATIVE METHODOLOGIES?

A17. In my opinion, this approach provides a balance between the data for the comparable companies and a standard set by a regulatory agency. The standard deviation of the comparable company ROEs provides a statistical benchmark for the data. As indicated above, this represents the 85 percentile if the data follows a normal distribution. However, the standard deviation can be inflated if there are outliers in the data. Given that we are employing the earned returns on common equity for the comparable companies -- without making adjustments to reflect extraordinary items -- this means that the data is likely to have unusual items that can produce outliers. On the other hand, FERC has established the 150 basis

1 point ROE rider as an incentive for investments that have additional or unusual
2 risks. Hence, this represents an administrative standard that incorporates
3 informed judgment regarding the appropriate compensation in terms of additional
4 ROE for additional risk.

5
6 **V. REVIEW OF FIRSTENERGY COMPANIES' PROPOSAL**

7
8 ***Q18. PLEASE DISCUSS FIRSTENERGY'S TESTIMONY IN THIS***
9 ***PROCEEDING.***

10 ***A18.*** FirstEnergy's testimony is provided by Dr. Michael J. Vilbert. Dr. Vilbert
11 identified a group of 80 companies by screening the Value Line database. Of
12 these comparable companies, 47 were from the electric utility industry and a total
13 of 64 came from regulated industries. He employed an after-tax return on total
14 capital metric. His average return on total capital was 8.60%. Dr. Vilbert then
15 uses a statistical significance threshold of 90% for the return on total capital. This
16 translates into a return on total capital of 11.67%. Using a debt/equity ratio of
17 1.04, this translates to a ROE threshold of 19.88%.

18
19 ***Q19. WHAT OBJECTIONS DO YOU HAVE TO DR. VILBERT'S ANALYSIS?***

20 ***A19.*** There are several problems with Dr. Vilbert's methodology and results. Dr.
21 Vilbert's comparable company selection methodology, as described in Appendix
22 B, is arbitrary and includes no risk measures. He arbitrarily selects a group of
23 capital intensive industries and applies a capital intensity measure (revenues/total
24 assets). He then makes arbitrary assessments concerning whether certain

1 industries and companies should be included in the comparison group. In
2 addition, other than insuring that the companies have investment grade bond
3 ratings, he does not apply any risk measures in his screening process. Therefore,
4 there is no way to determine if his companies are comparable to electric utilities
5 in terms of risk, as required by S.B. 221.⁴

6
7 ***Q20. WHAT DO YOU BELIEVE IS THE EFFECT OF USING A HIGH LEVEL***
8 ***OF STATISTICAL SIGNIFICANCE ON THE THRESHOLD ROE, AS DR.***
9 ***VILBERT DOES?***

10 ***A20.*** As I discussed above, the standard deviation is sensitive to outliers which, in this
11 case, can result in inflated threshold ROEs for SEE. This problem is compounded
12 by Dr. Vilbert who defines SEE in terms of statistical significance and uses a 90%
13 level of significance. In my opinion, defining SEE in terms of statistical
14 significance, and especially at the 90% level, would mean that very few electric
15 utilities would ever have significantly excessive earnings. Such potential data
16 imperfections are why I propose to include the FERC 200 basis points ROE rider
17 as one method to determine SEE.

18
19 ***Q21. WHY IS IT NOT APPROPRIATE TO APPLY A 1.28 STANDARD***
20 ***DEVIATION ADJUSTMENT TO THE RETURN ON TOTAL CAPITAL?***

21 ***A21.*** Dr. Vilbert further inflates his SEE threshold ROE by adding a 1.28 standard
22 deviation ("SD") adjustment to the average return on total capital of 8.60% and

⁴Ohio Revised Code. 4828.143(F)

1 not to the resulting ROE. The net effect is to magnify the size of the threshold
2 adjustment. For example, the ROE associated with the 8.60% return on total
3 capital is 13.67%. By applying the 1.28 SD adjustment to the return on total
4 capital, his threshold ROE is 19.88%. Therefore, applying a 1.28 SD adjustment
5 to the return on total capital unnecessarily inflates the threshold ROE.

6
7 ***Q22. WHY IS IT APPROPRIATE TO ADJUST THE THRESHOLD ROE BY THE***
8 ***EQUITY RATIOS OF OHIO ELECTRIC UTILITIES?***

9 ***A22.*** The wording of S.B. 221 clearly indicates that capital structure adjustments for
10 individual companies, if needed, are appropriate. OCC counsel has confirmed
11 this indication. As such, I have evaluated the capital structures of the comparable
12 companies and made specific adjustments based on the capital structures of each
13 of the three FirstEnergy electric utilities. Dr. Vilbert, on the other hand, does not
14 use financial data for the three FirstEnergy Companies. As shown of page B-10
15 of his testimony, he employs a 51% debt and 49% equity capital structure for all
16 three Ohio utilities. As such, he has employed a generic SEE analysis and has not
17 developed individual threshold ROEs.

18
19 ***Q23. DO YOU BELIEVE THAT THE EARNINGS TEST IN DETERMINING SEE***
20 ***SHOULD BE ADJUSTED FOR EXTRAORDINARY ITEMS AND/OR***
21 ***SPECIAL RATEMAKING MECHANISMS SUCH AS INVESTMENT AND***
22 ***EXPENSE RIDERS?***

1 **A23.** No. To provide an objective threshold ROE, I do not believe that the reported
2 ROE of the comparable companies should be adjusted for special or extraordinary
3 items that affect reported earnings. Likewise, I do not believe that the reported
4 ROE for the utilities should be adjusted to exclude ratemaking items that either
5 increase or decrease reported earnings. My approach results in a more objective
6 SEE analysis for both the comparable companies and the utilities.

7
8 **Q24. HOW WOULD THE AMOUNT OF SIGNIFICANTLY EXCESSIVE**
9 **EARNINGS BE CALCULATED?**

10 **A24.** In my approach, the amount of SEE returned to customers is indicated by the
11 following expression:

12
13
$$\text{Excess Earnings} = (\text{Utility ROE} - \text{Threshold ROE}) * \text{Total Equity Capital}$$

14
15 Since I have computed ROE in this methodology using end-of-year capital
16 figures, the excess of Utility ROE – Threshold ROE would be applied to end-of
17 year total equity capital.

1 **VI. CONCLUSION**

2

3 ***Q25. DOES THIS CONCLUDE YOUR TESTIMONY?***

4 ***A25.*** Yes. However, I reserve the right to incorporate new information that may
5 subsequently become available. I also reserve the right to supplement my
6 testimony in response to positions taken by the PUCO Staff.

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing Testimony of Dr. J. Randall Woolridge, Ph.d, on behalf of the Office of the Ohio Consumers' Counsel has been served upon those persons listed below via first class U.S. Mail, prepaid, this 29th day of September, 2008.



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Exhibit JRW-1**FirstEnergy Ohio Utilities****Electric Utility Proxy Group Business and Financial Risk Indicators**

Name	Ticker	Industry	Beta	Asset Turnover	Common Equity Ratio
Progress Energy	PGN	UTILEAST	0.80	0.5512	0.4882
Cleco Corp.	CNL	UTILCENT	1.00	0.5972	0.5675
Cen. Vermont Pub. Serv.	CV	UTILEAST	1.05	1.0276	0.6055
DPL Inc.	DPL	UTILCENT	0.75	0.5458	0.3581
Empire Dist. Elec.	EDE	UTILCENT	0.85	0.4158	0.4987
Hawaiian Elec.	HE	UTILWEST	0.70	0.9245	0.5098
IDACORP, Inc.	IDA	UTILWEST	0.90	0.3361	0.5107
Northeast Utilities	NU	UTILEAST	0.75	0.8053	0.4877
NSTAR	NST	UTILEAST	0.75	0.78743	0.40107
Pinnacle West Capital	PNW	UTILWEST	0.80	0.4177	0.5304
PNM Resources	PNM	UTILWEST	0.85	0.6521	0.5765
UniSource Energy	UNS	UTILWEST	0.60	0.5738	0.3116
Ameren Corp.	AEE	UTILCENT	0.80	0.5008	0.5343
UIL Holdings	UIL	UTILEAST	0.90	1.1180	0.4920
ALLETE	ALE	UTILCENT	0.95	0.7621	0.6438
Portland General	POR	UTILWEST	0.85	0.5685	0.5006

Screens	Screen Range	
	High	Low
Beta	1.05	0.6
Asset Turnover	1.1180	0.3361
Common Equity Ratio	0.6438	0.3116

Exhibit JRW-2

**FirstEnergy Ohio Utilities
Comparable Public Companies
Business and Financial Risk Indicators and ROE**

Name	Ticker	Industry	Beta	Asset Turnover	Common Equity Ratio	ROE
AGL Resources	ATG	GASDISTR	0.85	0.76281	0.49799	13.17
ALLETE	ALE	UTILCENT	0.95	0.7621	0.6438	11.79
Amer. Elec. Power	AEP	UTILCENT	0.85	0.44794	0.41406	11.35
Amer. States Water	AWR	WATER	1.00	0.38817	0.53065	9.27
Ameren Corp.	AEE	UTILCENT	0.80	0.50076	0.53426	8.99
Anadarko Petroleum	APC	OILPROD	1.00	0.42434	0.59306	23.13
Avisla Corp.	AVA	UTILWEST	0.95	0.60296	0.59009	4.21
BCE Inc.	BCE	TELESERV	0.80	0.96375	0.48627	14.00
Burlington Northern	BNI	RAILROAD	1.05	0.53445	0.59029	16.81
Gen. Vermont Pub. Serv.	CV	UTILEAST	1.05	1.02760	0.60553	8.15
CenturyTel Inc.	CTL	TELESERV	0.85	0.83841	0.55492	10.39
Cleco Corp.	CNL	UTILCENT	1.00	0.59715	0.56746	7.83
Consol. Edison	ED	UTILEAST	0.75	0.65883	0.53113	10.43
Corrections Corp. Amer.	CXW	PROPMGMT	0.90	0.73740	0.51819	10.08
Dominion Resources	D	UTILEAST	0.75	0.73408	0.41078	14.86
DPL Inc.	DPL	UTILCENT	0.75	0.54580	0.35809	11.00
DTE Energy	DTE	UTILCENT	0.75	0.78788	0.43902	7.47
Edison Int'l	EIX	UTILWEST	0.85	0.75349	0.45954	13.02
El Paso Electric	EE	UTILWEST	0.90	0.60488	0.50429	11.21
Empire Dist. Elec.	EDE	UTILCENT	0.85	0.41579	0.49875	6.15
Energy East Corp.	EAS	UTILEAST	0.75	0.87940	0.43297	9.07
Entergy Corp.	ETR	UTILCENT	0.85	0.54755	0.43921	14.42
Equitable Resources	EQT	GASDIVRS	0.90	0.53330	0.55671	23.60
Exelon Corp.	EXC	UTILEAST	0.85	0.78317	0.45685	26.89
FirstEnergy Corp.	FE	UTILEAST	0.80	0.78414	0.51423	13.92
FPL Group	FPL	UTILEAST	0.75	0.53270	0.48762	12.22
G't Plains Energy	GXP	UTILCENT	0.75	0.94850	0.57860	10.05
Hawaiian Elec.	HE	UTILWEST	0.70	0.92455	0.50980	7.18
IDACORP, Inc.	IDA	UTILWEST	0.90	0.33609	0.51067	6.81
Iowa Telecom. Svcs.	IWA	TELESERV	0.85	0.78296	0.35910	11.69
Kinder Morgan Energy	KMP	OILGAS	0.60	0.94803	0.46303	11.03
Nabors Inds.	NBR	OILFIELD	1.00	0.73834	0.57721	20.10
NiSource Inc.	NI	UTILCENT	0.90	0.79146	0.47574	6.14
Northeast Utilities	NU	UTILEAST	0.75	0.80535	0.48770	8.43
Northwest Nat. Gas	NWN	GASDISTR	0.80	0.69070	0.53738	12.52
NRG Energy	NRG	POWER	1.05	0.52906	0.33570	11.22
NSTAR	NST	UTILEAST	0.75	0.78743	0.40107	13.00
OGE Energy	OGE	UTILCENT	0.80	0.89433	0.55558	14.52
Penn Virginia Res.	PVR	COAL	0.95	0.75134	0.48191	15.25
Pepco Holdings	POM	UTILEAST	0.90	1.10378	0.45130	7.01
PG&E Corp.	PCG	UTILWEST	0.80	0.55956	0.50383	11.66
Piedmont Natural Gas	PNY	GASDISTR	0.85	0.79910	0.51570	11.88
Pinnacle West Capital	PNW	UTILWEST	0.80	0.41767	0.53037	8.46
PNM Resources	PNM	UTILWEST	0.85	0.65206	0.57647	3.50
Portland General	POR	UTILWEST	0.85	0.56849	0.50057	11.01
PPL Corp.	PPL	UTILEAST	0.90	0.51551	0.43587	18.23
Progress Energy	PGN	UTILEAST	0.80	0.55122	0.48318	8.17
Public Serv. Enterprise	PEG	UTILEAST	0.90	0.96821	0.45502	18.07
Puget Energy Inc.	PSD	UTILWEST	0.80	0.57068	0.48474	7.32
SCANA Corp.	SCG	UTILEAST	0.80	0.61303	0.49731	10.81
Sierra Pacific Res.	SRP	UTILWEST	1.05	0.51362	0.42002	6.58
South Jersey Inds.	SJI	GASDISTR	0.80	1.01242	0.55306	16.25
Southern Co.	SO	UTILEAST	0.70	0.46068	0.44860	14.00
Southern Union	SUG	OILGAS	1.00	0.51284	0.38245	10.69
Southwest Gas	SWX	GASDISTR	0.90	0.75637	0.41863	8.46
Southwest Water	SWWC	WATER	1.00	0.52009	0.52122	3.17
TECO Energy	TE	UTILEAST	0.85	0.72340	0.38973	13.17
UIL Holdings	UIL	UTILEAST	0.90	1.11798	0.49204	10.05
UniSource Energy	UNS	UTILWEST	0.60	0.57383	0.31156	8.45
Vail Resorts	MTN	HOTELGAM	0.85	1.06164	0.54600	8.59
Vectren Corp.	VVC	UTILCENT	0.90	0.89849	0.49764	11.59
Westar Energy	WR	UTILCENT	0.85	0.35948	0.48874	9.16
Wisconsin Energy	WEC	UTILCENT	0.80	0.55171	0.49177	10.85
Xcel Energy Inc.	XEL	UTILWEST	0.75	0.60172	0.49427	9.07
Mean						11.37
Std Dev						4.52

Exhibit JRW-3

FirstEnergy Ohio Utilities
Capital Structure Adjustment, Benchmark and Threshold ROEs

Panel A

Pre-Tax Return on Capital for the Comparable Companies

Comparable Company Data						Comparable Company Index Values			
Company	Equity/Total Capital	ROE	Income Tax Rate	Tax Multiplier	Cost of Debt	Pre-Tax ROE	Weighted Cost Of Equity	Weighted Cost Of Debt	Pre-Tax Return on Capital
AGL Resources	49.80%	13.17%	37.83%	1.6085	6.27%	17.06%	8.36%	3.37%	11.73%
ALLETE	64.38%	11.79%	38.00%	1.6129	6.22%				
Amer. Elec. Power	41.41%	11.35%	31.08%	1.4510	6.77%				
Amer. States Water	53.07%	9.27%	42.59%	1.7419	6.01%				
Ameren Corp.	53.43%	8.99%	33.47%	1.5031	6.86%				
Amstarco Petroleum	59.31%	23.13%	40.31%	1.6753	6.85%				
Avista Corp.	59.01%	4.21%	38.74%	1.6324	6.86%				
BCE Inc.	48.63%	14.00%	29.05%	1.4094	-				
Burlington Northern	59.03%	16.81%	38.15%	1.6168	6.76%				
Can. Vermont Pub. Serv.	60.55%	8.15%	29.93%	1.4271	8.47%				
CenturyTel Inc.	55.49%	10.39%	37.68%	1.6046	6.85%				
Cleco Corp.	56.75%	7.83%	24.31%	1.3212	6.77%				
Consol. Edison	53.11%	10.43%	32.56%	1.4828	6.26%				
Corrections Corp. Amer.	51.82%	10.68%	33.11%	1.4950	10.04%				
Dominion Resources	41.08%	14.86%	33.43%	1.5022	6.28%				
DPL Inc.	35.81%	11.00%	36.64%	1.5783	6.77%				
DTE Energy	43.90%	7.47%	23.87%	1.3135	6.77%				
Edison Int'l	45.95%	13.02%	29.95%	1.4276	6.85%				
El Paso Electric	50.43%	11.21%	31.56%	1.4611	6.76%				
Empire Dist. Elec.	49.87%	6.15%	30.33%	1.4353	6.86%				
Energy East Corp.	43.30%	9.07%	37.10%	1.5949	6.28%				
Energy Corp.	43.92%	14.42%	30.72%	1.4434	6.76%				
Equitable Resources	55.67%	23.60%	31.44%	1.4586	6.76%				
Exelon Corp.	45.68%	25.89%	34.63%	1.5298	6.27%				
FirstEnergy Corp.	51.42%	13.92%	38.59%	1.6284	6.77%				
FPL Group	48.76%	12.22%	21.91%	1.2806	6.01%				
GT Plains Energy	57.86%	10.05%	30.73%	1.4436	6.76%				
Hawaiian Elec.	50.98%	7.18%	35.45%	1.5492	6.77%				
HDACORP, Inc.	51.07%	6.81%	14.30%	1.1669	6.76%				
Iowa Telecom. Svcs.	35.91%	11.69%	25.72%	1.3463	10.07%				
Kinder Morgan Energy	46.30%	11.03%	1.92%	1.0196	6.76%				
Nabors Inds.	57.72%	20.10%	21.11%	1.2676	3.85%				
NiSource Inc.	47.57%	6.14%	35.55%	1.5516	6.86%				
Northeast Utilities	48.77%	8.43%	30.32%	1.4351	6.77%				
Northwest Nat. Gas	53.74%	12.52%	37.16%	1.5913	5.40%				
NRG Energy	33.57%	11.22%	39.85%	1.6625	10.08%				
NSTAR	40.11%	13.00%	37.38%	1.5969	5.93%				
OGE Energy	55.56%	14.52%	32.34%	1.4780	6.27%				
Penn Virginia Res.	48.19%	15.25%	0.00%	1.0000	3.85%				
Pepco Holdings	45.13%	7.01%	39.09%	1.6418	6.76%				
PG&E Corp.	50.38%	11.66%	34.89%	1.5359	3.85%				
Piedmont Natural Gas	51.57%	11.88%	32.96%	1.4916	6.01%				
Pinnacle West Capital	53.04%	8.46%	33.56%	1.5051	6.85%				
PNM Resources	57.65%	3.50%	5.12%	1.0540	10.07%				
Portland General	50.06%	11.01%	33.79%	1.5103	6.27%				
PPL Corp.	43.59%	18.23%	20.71%	1.2612	6.76%				
Progress Energy	48.82%	8.17%	32.52%	1.4819	6.27%				
Public Serv. Enterprise	45.50%	18.07%	44.48%	1.8012	6.76%				
Puget Energy Inc.	48.47%	7.32%	28.20%	1.3928	6.85%				
SCANA Corp.	49.73%	10.81%	29.17%	1.4118	6.27%				
Sierra Pacific Res.	42.00%	6.58%	30.74%	1.4438	10.04%				
South Jersey Inds.	55.31%	16.25%	41.33%	1.7044	3.85%				
Southern Co.	44.86%	14.00%	31.91%	1.4686	6.01%				
Southern Union	38.25%	10.69%	29.40%	1.4164	6.85%				
Southwest Gas	41.86%	8.46%	36.47%	1.5741	6.84%				
Southwest Water	52.12%	3.17%	55.98%	2.2717	3.85%				
TECO Energy	38.97%	13.17%	40.70%	1.6863	6.84%				
UHL Holdings	49.20%	10.05%	39.52%	1.6334	3.85%				
UniSource Energy	31.14%	8.45%	40.10%	1.6694	3.85%				
Vail Resorts	54.60%	8.59%	39.00%	1.6393	10.07%				
Veeva Corp.	49.76%	11.59%	34.67%	1.5307	6.26%				
Westar Energy	48.87%	9.14%	27.50%	1.3793	6.83%				
Wisconsin Energy	49.18%	10.85%	39.05%	1.6407	6.27%				
Xcel Energy Inc.	49.43%	9.07%	33.83%	1.5113	6.26%				
Averages	49.01%	11.37%	32.25%	1.5003	6.61%				
Stdev		4.52%							

Panel B

Ohio Utilities Benchmark ROEs

Company	Equity/Total Capital	Cost of Debt*	Weighted Cost of Debt	Weighted Pre-Tax ROE	Unweighted Pre-Tax ROE	Tax Rate	After-Tax ROE
Toledo Edison	61.53%	6.77%	2.60%	9.13%	14.84%	37.07%	9.34%
Ohio Edison	65.22%	6.77%	2.35%	9.38%	14.38%	33.93%	9.50%
Cleveland Electric Illuminating	50.51%	6.77%	3.35%	8.38%	16.60%	37.15%	10.43%

*Cost of Debt Of FirstEnergy

Panel C

Ohio Utilities Threshold ROEs

Company	After-Tax ROE	Premium I	Threshold ROE I	Premium II	Threshold ROE II	Threshold ROE
Toledo Edison	9.34%	1.50%	10.84%	4.52%	15.36%	12.35%
Ohio Edison	9.50%	1.50%	11.00%	4.52%	14.02%	12.51%
Cleveland Electric Illuminating	10.43%	1.50%	11.93%	4.52%	14.95%	12.44%

	Common Equity	Total Capital	Equity/Total Capital
Toledo Edison	485,191	788,588	61.53%
Ohio Edison	1,576,175	2,416,766	65.22%
Cleveland Electric Illuminating	1,489,835	2,999,774	50.51%

Source: Mergent Online.

	Income Taxes	Pre-Tax Income	Tax Rate
Toledo Edison	53,736	144,973	37.07%
Ohio Edison	101,273	298,439	33.93%
Cleveland Electric Illuminating	163,363	439,775	37.15%

Source: Mergent Online.

Appendix A
Educational Background, Research, and Related Business Experience
J. Randall Woolridge

J. Randall Woolridge is a Professor of Finance and the Goldman, Sachs & Co. and Frank P. Smeal Endowed Faculty Fellow in Business Administration in the College of Business Administration of the Pennsylvania State University in University Park, PA. In addition, Professor Woolridge is Director of the Smeal College Trading Room and President and CEO of the Nittany Lion Fund, LLC.

Professor Woolridge received a Bachelor of Arts degree in Economics from the University of North Carolina, a Master of Business Administration degree from the Pennsylvania State University, and a Doctor of Philosophy degree in Business Administration (major area-finance, minor area-statistics) from the University of Iowa. At Iowa he received a Graduate Fellowship and was awarded membership in Beta Gamma Sigma, a national business honorary society. He has taught Finance courses at the University of Iowa, Cornell College, and the University of Pittsburgh, as well as the Pennsylvania State University. These courses include corporation finance, commercial and investment banking, and investments at the undergraduate, graduate, and executive MBA levels.

Professor Woolridge's research has centered on the theoretical and empirical foundations of corporation finance and financial markets and institutions. He has published over 35 articles in the best academic and professional journals in the field, including the *Journal of Finance*, the *Journal of Financial Economics*, and the *Harvard Business Review*. His research has been cited extensively in the business press. His work has been featured in the *New York Times*, *Forbes*, *Fortune*, *The Economist*, *Financial World*, *Barron's*, *Wall Street Journal*, *Business Week*, *Washington Post*, *Investors' Business Daily*, *Worth Magazine*, *USA Today*, and other publications. In addition, Dr. Woolridge has appeared as a guest to discuss the implications of his research on CNN's *Money Line*, CNBC's *Morning Call* and *Business Today*, and Bloomberg Televisions' *Morning Call*.

Professor Woolridge's popular stock valuation book, *The StreetSmart Guide to Valuing a Stock* (McGraw-Hill, 2003), was released in its second edition. He has also co-authored *Spinoffs and Equity Carve-Outs: Achieving Faster Growth and Better Performance* (Financial Executives Research Foundation, 1999) as well as a new textbook entitled *Applied Principles of Finance* (Kendall Hunt, 2006). Dr. Woolridge is a founder and a managing director of www.valuepro.net - a stock valuation website.

Professor Woolridge has also consulted with and prepared research reports for major corporations, financial institutions, and investment banking firms, and government agencies. In addition, he has directed and participated in over 500 university- and company- sponsored professional development programs for executives in 25 countries in North and South America, Europe, Asia, and Africa.

Dr. Woolridge has prepared testimony and/or provided consultation services in the following cases:

Pennsylvania: Dr. Woolridge has prepared testimony on behalf of the Pennsylvania Office of Consumer Advocate in the following cases before the Pennsylvania Public Utility Commission; Bell Telephone Company (R-811819), Peoples Natural Gas Company (R-832315), Pennsylvania Power Company (R-832409), Western Pennsylvania Water Company (R-832381), Pennsylvania Power Company (R-842740), Pennsylvania Gas and Water Company (R-850178), Metropolitan Edison Company (R-860384), Pennsylvania Electric Company (R-860413), North Penn Gas Company (R-860535), Philadelphia Electric Company (R-870629), Western Pennsylvania Water Company (R-870825), York Water Company (R-870749), Pennsylvania-American Water Company (R-880916), Equitable Gas Company (R-880971), the Bloomsburg Water Co. (R-891494), Columbia Gas of Pennsylvania, Inc. (R-891468), Pennsylvania-American Water Company (R-90562), Breezewood Telephone Company (R-901666), York Water Company (R-901813), Columbia Gas of Pennsylvania, Inc. (R-901873), National Fuel Gas Corporation (R-911912), Pennsylvania-American Water Company (R-911909), Borough of Media Water Fund (R-912150), UGI Utilities, Inc. - Electric Utility Division (R-922195), Dauphin Consolidated Water Supply Company - General Waterworks of Pennsylvania, Inc. (R-932604), National Fuel Gas Corporation (R-932548), Commonwealth Telephone Company (I-

Appendix A
Educational Background, Research, and Related Business Experience
J. Randall Woolridge

920020), Conestoga Telephone and Telegraph Company (I-920015), Peoples Natural Gas Company (R-932866), Blue Mountain Consolidated Water Company (R-932873), National Fuel Gas Corporation (R-942991), UGI - Gas Division (R-953297), UGI - Electric Division (R-953534), Pennsylvania-American Water Company (R-973944), Pennsylvania-American Water Company (R-994638), Philadelphia Suburban Water Company (R-994868; R-994877; R-994878; R-9948790), Philadelphia Suburban Water Company (R-994868), Wellsboro Electric Company (R-00016356), Philadelphia Suburban Water Company (R-00016750), National Fuel Gas Corporation (R-00038168), Pennsylvania-American Water Company (R-00038304), York Water Company (R-00049165), Valley Energy Company (R-00049345), Wellsboro Electric Company (R-00049313), National Fuel Gas Corporation (R-00049656), T.W. Phillips Gas and Oil Co. (R-00051178), PG Energy (R-00061365), City of Dubois Water Company (Docket No. R-00050671), R-00049165), York Water Company (R-00061322), Emporium Water Company (R-00061297), Pennsylvania-American Water Company (R-00072229),

New Jersey: Dr. Woolridge prepared testimony for the New Jersey Department of the Public Advocate, Division of Rate Counsel: New Jersey-American Water Company (R-91081399J), New Jersey-American Water Company (R-92090908J), and Environmental Disposal Corp. (R-94070319).

Alaska: Dr. Woolridge prepared testimony for Attorney General's Office of Alaska: Golden Heart Utilities, Inc. and College Utilities Corp. (Water Public Utility Service TA-29-118 and Sewer Public Utility Service TA-82-97), Anchorage Water and Wastewater Utility (TA-106-122).

Arizona: Dr. Woolridge prepared testimony for Utility Division staff of the Arizona Corporation Commission, Arizona Public Service Company (Docket No. E-01345A-06-0009).

Hawaii: Dr. Woolridge prepared testimony for the Hawaii Office of the Consumer Advocate: East Honolulu Community Services, Inc. (Docket No. 7718).

Delaware: Dr. Woolridge prepared testimony for the Delaware Division of Public Advocate: Artesian Water Company (R-00-649). Dr. Woolridge prepared testimony for the staff of the Public Service Commission: Artesian Water Company (R-06-158).

Ohio: Dr. Woolridge prepared testimony for the Ohio Office of Consumers' Council: SBC Ohio (Case No. 02-1280-TP-UNC R-00-649), and Cincinnati Gas & Electric Company (Case No. 05-0059-EL-AIR).

Texas: Dr. Woolridge prepared testimony for the Atmos Cities Steering Committee: Mid-Texas Division of Atmos Energy Corp. (Docket No. 9670).

New York: Dr. Woolridge prepared testimony for the County of Nassau in New York State: Long Island Lighting Company (PSC Case No. 942354).

Florida: Dr. Woolridge prepared testimony for the Office of Public Counsel in Florida: Florida Power & Light Co. (Docket No. 050045-EL).

Indiana: Dr. Woolridge prepared testimony for the Indiana Office of Utility Consumer Counsel (OUCC) in the following cases: Southern Indiana Gas and Electric Company (IURC Cause No. 43111 and IURC Cause No. 43112).

Oklahoma: Dr. Woolridge prepared testimony for the Oklahoma Industrial Energy Companies (OIEC) in the following cases: Public Service Company of Oklahoma (Cause No. PUD 200600285), Oklahoma Gas & Electric Company (Cause No. PUD 200700012).

Appendix A
Educational Background, Research, and Related Business Experience
J. Randall Woolridge

Connecticut: Dr. Woolridge prepared testimony for the Office of Consumer Counsel in Connecticut: United Illuminating (Docket No. 96-03-29), Yankee Gas Company (Docket No. 04-06-01), Southern Connecticut Gas Company (Docket No. 03-03-17), the United Illuminating Company (Docket No. 05-06-04), Connecticut Light and Power Company (Docket No. 05-07-18), Birmingham Utilities, Inc. (Docket No. 06-05-10), Connecticut Water Company (Docket No. 06-07-08), Connecticut Natural Gas Corp. (Docket No. 06-03-04), Aquarion Water Company (Docket No. 07-05-09), Yankee Gas Company (Docket No. 06-12-02), and Connecticut Light and Power Company (Docket No. 07-07-01).

California: Dr. Woolridge prepared testimony for the Office of Ratepayer Advocate in California: San Gabriel Valley Water Company (Docket No. 05-08-021), Pacific Gas & Electric (Docket No. 07-05-008), San Diego Gas & Electric (Docket No. 07-05-007), and Southern California Edison (Docket No. 07-05-003).

South Carolina: Dr. Woolridge prepared testimony for the Office of Regulatory Staff in South Carolina: South Carolina Electric and Gas Company (Docket No. 2005-113-G), Carolina Water Service Co. (Docket No. 2006-87-WS), Tega Cay Water Company (Docket No. 2006-97-WS), United Utilities Companies, Inc. (Docket No. 2006-107-WS).

Missouri: Dr. Woolridge prepared testimony for the Department of Energy in Missouri: Kansas City Power & Light Company (CASE NO. ER-2006-0314). Dr. Woolridge prepared testimony for the Office of Attorney General of Missouri: Union Electric Company (CASE NO. ER-2007-0002).

Kentucky: Dr. Woolridge prepared testimony for the Office of Attorney General in Kentucky: Kentucky-American Water Company (Case No. 2004-00103), Union Heat, Light, and Power Company (Case No. 2004-00042), Kentucky Power Company (Case No. 2005-00341), Union Heat, Light, and Power Company (Case No. 2006-00172), Atmos Energy Corp. (Case No. 2006-00464), Columbia Gas Company (Case No. 2007-00008), Delta Natural Gas Company (Case No. 2007-00089), Kentucky-American Water Company (Case No. 2007-00143).

Washington, D.C.: Dr. Woolridge prepared testimony for the Office of the People's Counsel in the District of Columbia: Potomac Electric Power Company (Formal Case No. 939).

Washington: Dr. Woolridge consulted with trial staff of the Washington Utilities and Transportation Commission on the following cases: Puget Energy Corp. (Docket Nos. UE-011570 and UG-011571); and Avista Corporation (Docket No. UE-011514).

Kansas: Dr. Woolridge prepared testimony on behalf of the Kansas Citizens' Utility Ratepayer Board in the following cases: Western Resources Inc. (Docket No. 01-WSRE-949-GIE), UtiliCorp (Docket No. 02-UTCG701-CIG), and Westar Energy, Inc. (Docket No. 05-WSEE-981-RTS).

FERC: Dr. Woolridge has prepared testimony on behalf of the Pennsylvania Office of Consumer Advocate in the following cases before the Federal Energy Regulatory Commission: National Fuel Gas Supply Corporation (RP-92-73-000) and Columbia Gulf Transmission Company (RP97-52-000).

Vermont: Dr. Woolridge prepared testimony for the Department of Public Service in the Central Vermont Public Service (Docket No. 6988) and Vermont Gas Systems, Inc. (Docket No. 7160).