### Volume 2B

Direct Testimony and Supporting Schedules:

Robert B. Hevert

Return on Equity

### Before the South Dakota Public Utilities Commission

In the Matter of the Application of Otter Tail Power Company

For Authority to Increase Rates for Electric Utility

Service in South Dakota

Docket No	
Exhibi	it

Return on Equity

August 20, 2010

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### I. INTRODUCTION AND QUALIFICATIONS

PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

My name is Robert B. Hevert. My business address is 293 Boston Post Road West,

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A.

4 Suite 500, Marlborough, Massachusetts 01752. 5 6 Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT POSITION? 7 I am employed by Concentric Energy Advisors ("Concentric") as its President. A. 8 9 ON WHOSE BEHALF ARE YOU SUBMITTING THIS TESTIMONY? Q. 10 Α I am submitting this testimony on behalf of Otter Tail Power Company ("OTP" or the 11 "Company"), a wholly-owned subsidiary of Otter Tail Corporation ("OTC"). 12 PLEASE BRIEFLY OUTLINE YOUR RESPONSIBILITIES AS PRESIDENT OF 13 Q. 14 CONCENTRIC. 15 In addition to providing consulting services, my responsibilities at Concentric include A. 16 the day-to-day management of the firm and, along with other senior officers, the 17 development of the firm's resources and capabilities, the development of new business 18 and clients, and assuring the quality of services delivered to our firm's clients. 19 20 Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND. 21 A. I hold a Bachelors degree in Business and Economics from the University of 22 Delaware, and a Master's of Business Administration with a concentration in Finance 23 from the University of Massachusetts. In addition, I hold the Chartered Financial 24 Analyst designation. 25 26 PLEASE DESCRIBE YOUR EXPERIENCE IN THE ENERGY AND UTILITY Q. 27 INDUSTRIES. 28 A. Concentric provides financial and economic advisory services to a large number of 29 energy and utility clients across North America. Our regulatory economic and market 30 analysis services include utility ratemaking and regulatory advisory services; energy

market assessments; market entry and exit analysis; corporate and business unit strategy development; and energy contract negotiations. We also provide litigation support services on a wide range of financial and economic issues for clients throughout North America. Our financial advisory activities include merger, acquisition and divestiture assignments, due diligence and valuation assignments, project and corporate finance services, and transaction support services. In the context of Concentric's financial advisory practice, I have advised numerous energy and utility clients on a wide range of financial and economic issues including both asset and corporate-based transactions. Many of those assignments have included the determination of the cost of capital for valuation purposes. I have included my résumé as Exhibit \_\_(RBH-1), Schedule 1, and a summary of testimony that I have filed in other proceedings as Exhibit \_\_(RBH-1), Schedule 2.

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#### II. PURPOSE AND OVERVIEW OF TESTIMONY

- 15 Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?
- 16 A. The purpose of my Direct Testimony is to present evidence and provide a 17 recommendation regarding the Company's return on equity ("ROE"), and to provide 18 an assessment of the capital structure to be used for ratemaking purposes, as proposed 19 in the Direct Testimony of Mr. Kevin G. Moug. My analyses and recommendations 20 are supported by the data presented in Exhibit (RBH-1), Schedules 3 through 11.

- Q. WHAT ARE YOUR CONCLUSIONS REGARDING THE APPROPRIATE COST OF EQUITY AND OVERALL RATE OF RETURN FOR THE COMPANY?
- A. The Company is requesting an ROE of 11.25 percent in this proceeding. Based on the analyses discussed throughout the balance of my testimony, it is my view that the appropriate ROE for the Company is in the range of 11.00 percent to 11.50 percent. While certain risks would support an ROE above the midpoint of the range of results, I find the Company's requested ROE to be reasonable, if not conservative. As such, I recommend that the South Dakota Public Utilities Commission (the "Commission") authorize OTP the opportunity to earn an ROE of 11.25 percent. I also have

2		53.22 percent common equity and 46.78 percent long-term debt, is reasonable.
3		
4	Q.	PLEASE PROVIDE A BRIEF OVERVIEW OF THE ANALYSIS THAT LED TO
5		YOUR CONCLUSIONS.
6	A.	In light of recent capital market conditions, and given the fact that equity analysts and
7		investors tend to use multiple methodologies in developing their return requirements,
8		it is extremely important to consider the results of several analytical approaches in
9		determining the Company's ROE. It is also important to consider a range of factors,
10		both quantitative and qualitative, in arriving at an ROE determination. As a result,
11		while my recommended ROE is based primarily on the results of the Constant Growth
12		Discounted Cash Flow ("DCF") model, I also considered the results of the Capital
13		Asset Pricing Model ("CAPM"), and the Risk Premium approach.
14		
15		In applying and assessing the results of my DCF, CAPM, and Risk Premium analyses,
16		I considered several specific risks and trends, including the Company's substantial
17		capital expenditure plan. I also considered the Company's concentration of customers,
18		absence of economic diversity, and small size relative to a proxy group of comparable
19		companies in arriving at my ROE recommendation. While I did not make a specific
20		adjustment for any of these factors, they should be considered when determining
21		where, within a reasonable range of returns, the Company's ROE rightly falls.
22		Finally, I considered the flotation costs associated with equity issuances.
23		
24		I also considered the Company's proposed capital structure within the context of its
25		pending capital expenditures, general industry trends and proxy group norms. Based
26		on that review, I concluded that the Company's proposed capital structure is
27		reasonable.
28		
29	Q.	HOW IS THE REMAINDER OF YOUR TESTIMONY ORGANIZED?
30	A.	The remainder of my testimony is organized in seven sections. In Section III, I
31		discuss the regulatory guidelines and financial considerations pertinent to the

concluded that the Company's projected test year capital structure, which includes

1		development of the rate of return. Section IV provides an overview of current market
2		conditions and the influence of these conditions on the recommended ROE. Section V
3		explains my selection of a proxy group of integrated electric utilities. Section VI
4		explains my analysis and recommendation of the appropriate ROE for OTP. Section
5		VII provides a discussion of the business and economic risks to which OTP is
6		exposed. Section VIII provides my assessment of the Company's proposed capital
7		structure, and Section IX summarizes my conclusions and recommendations.
8		
9	III.	REGULATORY GUIDELINES AND FINANCIAL CONSIDERATIONS
10	Q.	PLEASE DESCRIBE THE GUIDING PRINCIPLES TO BE USED IN
11		ESTABLISHING THE COST OF CAPITAL FOR A REGULATED UTILITY.
12	A.	The United States Supreme Court's precedent-setting Hope and Bluefield cases
13		established the standards for determining the fairness or reasonableness of a utility's
14		allowed ROE. Among the standards established by the Court in those cases are: (1)
15		consistency with other businesses having similar or comparable risks; (2) adequacy of
16		the return to support financial soundness and access to capital; and (3) that the end
17		results as opposed to the methodology employed is the controlling factor in arriving at
18		just and reasonable rates. <sup>1</sup>
19		
20		Based on those widely recognized standards, the Commission's order in this case
21		should provide OTP with the opportunity to earn an ROE that is:
22		• Adequate to attract capital on favorable terms, thereby enabling OTP to
23		provide safe, reliable service;
24		• Sufficient to ensure the financial soundness of OTP's operations; and

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risks.

Commensurate with returns on investments in enterprises having comparable

Bluefield Waterworks & Improvement Co., v. Public Service Commission of West Virginia, 262 U.S. 679 (1923); Federal Power Commission v. Hope Natural Gas Co., 320 U.S. 591 (1944).

1		The allowed ROE therefore should enable OTP to finance capital expenditures on
2		reasonable terms and optimize its financial flexibility over the period during which
3		rates are expected to remain in effect.
4		
5	Q.	WHY IS IT IMPORTANT FOR A UTILITY TO BE ALLOWED THE
6		OPPORTUNITY TO EARN A RETURN ADEQUATE TO ATTRACT CAPITAL
7		AT REASONABLE TERMS?
8	A.	There is a long history of precedent supporting the need for a reasonable ROE in
9		establishing just and reasonable rates for utility services. Among the themes common
10		to federal court, state court and agency decisions is the principle that a utility's cost of
11		capital must be reflective of other enterprises having comparable risks, acting
12		independently in the financial markets. An ROE that is adequate to attract capital at
13		reasonable terms enables the Company to provide safe, reliable electric service while
14		maintaining its financial integrity. To the extent the Company is provided the
15		opportunity to earn its market-based cost of capital, neither customers nor
16		shareholders are disadvantaged.
17		
18		While the "capital attraction" and "financial integrity" standards are important
19		principles in normal economic conditions, the practical implications of those standards
20		are even more pronounced based on the recent financial environment. As discussed in
21		more detail in Section IV, those market conditions have intensified the importance of
22		maintaining a strong financial profile. Consequently, the Commission's order in this
23		proceeding will have a particular effect on the Company's ability to attract capital,
24		achieve its capital expenditure plan, and maintain its financial integrity.
25		
26	Q.	WHAT ARE YOUR CONCLUSIONS REGARDING REGULATORY
27		GUIDELINES AND CAPITAL MARKET EXPECTATIONS?
28	A.	It is important for the ROE authorized in this proceeding to take into consideration the
29		capital market conditions with which the Company must contend, as well as investors'
30		expectations and requirements for both risks and returns. Further, in light of recent
31		capital market conditions and the Company's capital investment plans, it is especially

1	important that OTP be afforded the opportunity to maintain a financial profile that will
2	enable the Company to access the capital markets at reasonable rates. As discussed
3	throughout my testimony, an important factor in achieving that profile is the ability to
4	earn a reasonable ROE.

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#### IV. CAPITAL MARKET ENVIRONMENT

- 7 Q. HOW DO ECONOMIC CONDITIONS INFLUENCE THE REQUIRED COST OF CAPITAL AND REQUIRED RETURN ON COMMON EQUITY?
- 9 The required cost of capital, including the ROE, is a function of prevailing and A. 10 expected financial market conditions. Consistent with the Hope and Bluefield 11 decisions, the authorized ROE for a public utility should allow the company to attract 12 investor capital at reasonable cost under a variety of economic and financial market 13 conditions. The ability to attract capital on reasonable terms is especially important 14 for utilities such as OTP that plan to invest considerable amounts of capital in 15 investments designed to maintain and enhance system reliability. As such, the 16 Commission's order regarding both the ROE and the capital structure will have a 17 direct bearing on the Company's financial profile and, therefore, its ability to attract 18 capital at reasonable terms.

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- 20 Q. HOW HAVE RECENT CAPITAL MARKET CONDITIONS AFFECTED THE 21 AVAILABILITY AND COST OF CAPITAL?
- 22 A. The widely discussed financial market crisis and the following recession led to a
  23 general decrease in the availability, and an increase in the cost, of both debt and equity
  24 capital for all market sectors, including utilities. While those conditions have
  25 moderated recently, financial and capital market conditions have imposed significant
  26 challenges on the financing of capital expenditure programs, as demonstrated in the
  27 direct testimony of Mr. Moug.

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While investors are concerned with capital market issues and risks in general, they continue also to be concerned with risks facing regulated utilities. As KeyBanc

1	Capital Markets Inc. ("KeyBanc") recently observed in its Electric Utilities Quarterly
2	for the first quarter of 2010:
3	Although capital markets have improved since early 2009,
4	liquidity and capital costs remain a concern, as costs for credit
5	have generally become more expensive and available durations
6	have shrunk. Higher interest costs will likely continue to pressure
7	earnings until regulatory lag is better addressed. The compression
8	of stock price valuation multiples in the sector has also negatively

impacted the equity financing of capital expenditures, as many 9 names are trading below book value."2 10

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As a consequence, utilities have rather significantly under-performed the broad market over the past several months. In fact, since the beginning of 2009, which includes the broad market rally that began in March of that year, the Dow Jones Industrial Average increased by 11.37 percent, while the proxy group average increased only 6.37 percent, and the Dow Jones Utility Index declined 3.51 percent (see Table 1, below).

Table 1: Dow Jones Industrial Average, Dow Jones Utility Average, and Proxy Group Average Price Performance (December 31, 2008 – June 30, 2010)

	DJIA	DJUA	Proxy Group Average
2009-2010	11.37%	(3.51)%	6.37%

KeyBanc Capital Markets Inc. Equity Research, Electric Utilities Quarterly 1Q10, June 2010, at 7.

## 1 Q. HOW HAVE OTHER UTILITIES RESPONDED TO THESE FINANCIAL 2 MARKET CONDITIONS?

A. In general, utilities have responded by adjusting their financing strategies and optimizing the financial liquidity derived from internal operations. In addition, utilities are continuing to focus on strengthening their balance sheets, maintaining liquidity, and searching for additional sources of capital. In order to do so, they have placed a high priority on managing internal cash flows, containing both operating and capital costs, and allocating capital to jurisdictions and operations with higher expected returns.

Α.

# 11 Q. WHAT CONCLUSIONS DO YOU DRAW REGARDING THE CAPITAL 12 MARKET ENVIRONMENT?

First, it is important to recognize that the assessment of market conditions must be made in the context of multiple indices, since any single measure may provide incomplete or misleading conclusions. It would be inappropriate, for example, to view the current level of Treasury yields as indicative of a lower cost of capital when the equity markets continue to experience heightened levels of volatility.<sup>3</sup> Moreover, in light of the recent capital market dislocation, it is extremely important to assess the reasonableness of financial model results in the context of observable market data. To the extent that certain estimates are incompatible with such benchmarks, or inconsistent with basic financial principles, it is appropriate to consider whether alternative estimation techniques are likely to provide more meaningful and reliable results.

<sup>3</sup> As discussed in Section VI, current and expected market volatility remains meaningfully above historical levels.

#### V. **USE OF PROXY GROUP COMPANIES**

2	Q.	PLEASE	EXPLAIN	WHY	YOU	HAVE	USED	A	GROUP	OF	PROXY
3		COMPAN	IIES TO DET	ΓERMIN	IE THE	COST O	F EQUIT	ΓΥ Ε	FOR OTP.		

First, it is important to bear in mind that the cost of equity for a given enterprise depends on the risks attendant to the business in which the company is engaged. According to financial theory, the value of a given company is equal to the aggregate market value of its constituent business units. In this proceeding, we are focused on estimating the cost of equity for OTP, a rate-regulated, wholly-owned subsidiary of OTC. Since the ROE is a market-based concept, and given that OTP is not publicly traded, it is necessary to establish a group of companies that are both publicly traded and comparable to OTP in certain fundamental business and financial respects to serve as its "proxy" in the ROE estimation process.

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Even if OTP were a publicly traded entity, it is possible that transitory events could bias its market value in one way or another over a given period of time. A significant benefit of using a proxy group, therefore, is that it serves to attenuate the effects of anomalous events that may be associated with any one company. companies used in my analyses all possess a set of operating and risk characteristics that are substantially comparable to OTP, and thus provide a reasonable basis for the derivation and assessment of ROE estimates for OTP.

- 22 PLEASE PROVIDE A SUMMARY PROFILE OF OTP. Q.
- 23 OTP provides electric production, transmission, and distribution services to 24 approximately 11,700 customers in South Dakota, and is an active participant in the 25 Midwest Independent Transmission System Operator ("MISO") markets.<sup>5</sup> OTP's 26 current Long-Term Issuer rating issued by S&P is BBB-, by Fitch Ratings is BBB, and

The company also provides electric utility services to 60,600 customers in Minnesota and 57,000 customers in North Dakota.

Otter Tail Corporation, SEC Form 10-K, December 31, 2009, at 2.

by Moody's Investor Service is A3.<sup>6</sup> Table 2 provides relevant utility financial and operating statistics for OTP for the most recent three years.

### Table 2: Otter Tail Power Company - 2007 to 2009<sup>7</sup> Utility Operating

### 4 and Financial Results

\$ IN THOUSANDS	2007	2008	2009
Operating Margin	\$74,584	\$89,234	\$91,731
Net Utility Operating Income	\$30,342	\$40,592	\$47,891
Net Utility Plant <sup>8</sup>	\$582,442	\$737,792	\$820,114
Average Electric Sales Customers	129,175	129,281	129,267
Total Sales of Electricity (MWh)	7,667,232	8,970,993	6,201,911
Capital Expenditures <sup>9</sup>	\$104,288	\$198,798	\$145,787

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## 6 Q. HOW DID YOU SELECT THE COMPANIES INCLUDED IN YOUR PROXY GROUP?

- A. With the objective of selecting a proxy group that is highly representative of the risks and prospects faced by OTP, I began with the companies that Value Line classifies as "Electric Utilities", which comprise a group of 54 domestic U.S. utilities. I then simultaneously applied the following screening criteria:
  - I excluded companies that do not pay consistent quarterly cash dividends.
  - I selected companies whose Betas from Value Line and Bloomberg fall within one standard deviation of the group average.
  - All of the companies in my proxy group have been covered by at least two generally recognized utility industry equity analysts.
  - All of the companies in my proxy group had senior bond and/or corporate ratings from Standard and Poor's of BBB- to AAA.
  - I selected companies that are vertically integrated utilities (*i.e.*, utilities that own and operate regulated generating assets).

<sup>&</sup>lt;sup>6</sup> SNL Financial.

NL Financial, Company FERC Form 1 reports for years 2009, 2008, and 2007, except as noted.

<sup>&</sup>lt;sup>8</sup> Data excludes Construction Work in Progress ("CWIP").

Otter Tail Corporation, SEC Form 10-K, December 31, 2009, at 84.

1		• I excluded companies whose regulated revenues and operating income in 2007,
2		2008, and 2009 comprised less than 60.00 percent of the respective totals for
3		the company.
4		• To focus on companies whose revenues and operating income are derived
5		primarily from electric operations, I excluded companies whose regulated
6		electric revenues and operating income in 2007, 2008, and 2009 represented
7		less than 90.00 percent of the respective totals for the company.
8		• All of the companies in my proxy group own regulated generation assets and
9		have coal-fired generation that constitutes at least 10.00 percent of their net
10		generation.
11		• Finally, I eliminated any companies that are currently known to be party to a
12		merger or other transforming transaction.
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13	Q.	DID YOU INCLUDE OTC IN YOUR ANALYSIS?
	Q. A.	DID YOU INCLUDE OTC IN YOUR ANALYSIS?  No. While OTC is categorized as an electric utility by Value Line, it has significant
14		
14 15		No. While OTC is categorized as an electric utility by Value Line, it has significant
14 15 16		No. While OTC is categorized as an electric utility by Value Line, it has significant non-regulated operations that historically have provided a substantial portion of
<ul><li>14</li><li>15</li><li>16</li><li>17</li></ul>		No. While OTC is categorized as an electric utility by Value Line, it has significant non-regulated operations that historically have provided a substantial portion of operating income. Therefore, OTC was eliminated in my screening criteria on that
14 15 16 17 18		No. While OTC is categorized as an electric utility by Value Line, it has significant non-regulated operations that historically have provided a substantial portion of operating income. Therefore, OTC was eliminated in my screening criteria on that basis. Further, in order to avoid the circular logic that otherwise would occur, it is my
14 15 16 17 18 19		No. While OTC is categorized as an electric utility by Value Line, it has significant non-regulated operations that historically have provided a substantial portion of operating income. Therefore, OTC was eliminated in my screening criteria on that basis. Further, in order to avoid the circular logic that otherwise would occur, it is my
14 15 16 17 18 19 20	A.	No. While OTC is categorized as an electric utility by Value Line, it has significant non-regulated operations that historically have provided a substantial portion of operating income. Therefore, OTC was eliminated in my screening criteria on that basis. Further, in order to avoid the circular logic that otherwise would occur, it is my practice to exclude the subject company from the proxy group.
14 15 16 17 18 19 20 21	A.	No. While OTC is categorized as an electric utility by Value Line, it has significant non-regulated operations that historically have provided a substantial portion of operating income. Therefore, OTC was eliminated in my screening criteria on that basis. Further, in order to avoid the circular logic that otherwise would occur, it is my practice to exclude the subject company from the proxy group.  WHY IS IT IMPORTANT TO CONSIDER ONLY COMPANIES WHOSE
14 15 16 17 18 19 20 21	A.	No. While OTC is categorized as an electric utility by Value Line, it has significant non-regulated operations that historically have provided a substantial portion of operating income. Therefore, OTC was eliminated in my screening criteria on that basis. Further, in order to avoid the circular logic that otherwise would occur, it is my practice to exclude the subject company from the proxy group.  WHY IS IT IMPORTANT TO CONSIDER ONLY COMPANIES WHOSE RESOURCE PORTFOLIOS INCLUDE SUBSTANTIAL COAL-FIRED

through 2009). <sup>10</sup> In general, capital-intensive baseload generation assets such as of	oal-
fired plants face risks associated with capital recovery in the event of market struc	ture
changes or plant failure, or replacement cost recovery in the event of extende	d or
unplanned outages. In addition, coal-fired assets may require significant increase	es in
capital requirements to comply with changes in environmental policies. This	s is
particularly relevant because of the potential for regulation of carbon emissions by	the the
United States Environmental Protection Agency ("EPA"). On December 7, 2009	the
EPA classified carbon dioxide as a danger to public health in an "endangerr	nent
finding" under the Clean Air Act, creating the potential for additional litigation	and
regulatory uncertainty.	

As a result of the increased likelihood of carbon emissions regulation, investors see coal generation as taking on even greater risk. The Sierra Club noted that in 2009, no new coal plants began construction in the United States, stating that "[i]n 2009, twenty-six coal-fired power plants...were defeated or abandoned." Similarly, in a recent article in the Wall Street Journal, the Edison Electric Institute ("EEI") noted that there have been 43 coal plants cancelled or deferred since 2008. Given the increasing regulatory and legislative focus on, and the costs associated with, environmental compliance for companies such as OTP that are dependent on coal-fired generation, it is important to exclude companies that do not have a substantial amount of coal-fired generation in their resource portfolio.

Otter Tail Corporation, SEC Form 10-K, December 31, 2009, at 6; Otter Tail Corporation, SEC Form 10-K, December 31, 2007, at 8.

No New Coal Plants Started in 2009; Year End State of Coal, Sierra Club Press Release, December 21, 2009.

Smith, Rebecca, *Turmoil in Power Sector*, Wall Street Journal, January 14, 2010.

1	Q.	HAS THE COMPANY EXPERIENCED THE EFFECTS OF THE ADDED RISKS
2		ASSOCIATED WITH COAL-FIRED GENERATING ASSETS?
3	A.	Yes. The Company withdrew from the Big Stone II project as the result of a
4		combination of factors, including the recent economic downturn and the risks related
5		to coal. As the Company stated:
6 7 8 9 10 11 12 13 14		On September 11, 2009 OTP announced its withdrawal both as a participating utility and as the project's lead developer from Big Stone II, due to a number of factors. The broad economic downturn, a high level of uncertainty associated with proposed federal climate legislation and existing federal environmental regulations and challenging credit and equity markets made proceeding with Big Stone II and committing to approximately \$400 million in capital expenditures untenable for OTP's customers and the Company's shareholders. <sup>13</sup>
16		This experience demonstrates the significant challenges resulting from the operation
17		of coal-fired generation assets, particularly in the current economic environment and
18		in the face of many legislative and environmental uncertainties. Further, the Company
19		is facing substantial capital expenditures relating to environmental upgrades of its
20		coal-fired generation assets, as noted in the Direct Testimony of Mr. Thomas Brause.
21		
22	Q.	HOW MANY COMPANIES MET YOUR SCREENING CRITERIA?
23	A	As shown in Exhibit (RBH-1) Schedule 3, the criteria discussed above resulted in a

As shown in Exhibit \_\_(RBH-1), Schedule 3, the criteria discussed above resulted in a proxy group of the following nine companies:

Otter Tail Corporation, SEC Form 10-Q, March 31, 2010 at 16.

Company	Ticker
American Electric Power Company, Inc.	AEP
Cleco Corp.	CNL
Edison International	EIX
Great Plains Energy Inc.	GXP
IDACORP, Inc.	IDA
Northeast Utilities	NU
Pinnacle West Capital Corp.	PNW
Portland General Electric Company	POR
Westar Energy, Inc.	WR

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### Q. IS THIS YOUR FINAL PROXY GROUP?

No, it is not. Empire District Electric Company ("EDE") failed to meet one screening criterion, the percentage of revenue derived from regulated electric operations, but only by a small margin.<sup>14</sup> Given EDE's comparability to OTP in other important respects (i.e., EDE met all the remaining screening criteria, which were designed to produce a group of company's comparable to OTP), I have included EDE in my final proxy group. Also, I note that Great Plains Energy reduced its dividend by 50.00 percent in November 2008, which renders its dividend yield unreliable for the purpose of the DCF analysis. For this reason, I have excluded Great Plains Energy from my final proxy group. Finally, Edison International ("EIX") experienced significant unregulated operating losses in 2009; those losses were in excess of 55.00 percent of EIX's regulated utility operating income. According to EIX's SEC Form 10-K for the fiscal year ended December 31, 2009, those significant operating losses were the result of a global tax settlement and payment to the Internal Revenue Service ("IRS"), which caused EIX's unregulated marketing and trading segment to incur over \$1.00 billion in payments to settle a claim by the IRS that EIX was under-withholding tax payments.<sup>15</sup> Given the extent of those losses, it is difficult to assess the extent to which the

EDE failed to pass that criterion by approximately 2.25 percent.

<sup>&</sup>lt;sup>15</sup> See, Edison International, SEC Form 10-K for the fiscal year ended December 31, 2009, at 129.

regulated electric utility operations would be expected to contribute to the company's consolidated financial performance in the near and longer terms. Consequently, I have excluded EIX from my final proxy group. That group, then, includes the following eight companies:

**Table 4: Final Proxy Group** 

Company	Ticker
American Electric Power Company, Inc.	AEP
Cleco Corp.	CNL
Empire District Electric Company	EDE
IDACORP, Inc.	IDA
Northeast Utilities	NU
Pinnacle West Capital Corp.	PNW
Portland General Electric Company	POR
Westar Energy, Inc.	WR

A.

# Q. DO YOU BELIEVE THAT A TOTAL OF EIGHT COMPANIES CONSTITUTES A SUFFICIENTLY LARGE PROXY GROUP?

Yes, I do. The analyses performed are more likely to be representative of the subject utility's cost of equity to the extent that the proxy companies are fundamentally comparable to the subject utility. Because all analysts use some form of screening process to arrive at a proxy group, the group, by definition, is not randomly drawn from a larger population. Consequently, there is no reason to place more reliance on the quantitative results of a larger proxy group simply by virtue of the resulting larger number of observations.

To that point, the New Hampshire Public Utility Commission recognized that comparability is more important than the size of the proxy group:

1 2 3 4		[T]he DCF is an economic theory for which a more comparable sample, rather than a larger sample, produces results that are more likely to be representative of the subject utility. <sup>16</sup>
5		Consistent with that observation, I believe that my proxy group is the most appropriate
6		for determining the cost of equity of the Company and in making my ROE
7		recommendation.
8		
9		VI. COST OF EQUITY ESTIMATION
10	Q.	PLEASE BRIEFLY DISCUSS THE ROE IN THE CONTEXT OF THE
11		REGULATED RATE OF RETURN.
12	A.	Regulated utilities primarily use common stock and long-term debt to finance their
13		permanent property, plant and equipment. The overall rate of return ("ROR") for a
14		regulated utility is based on its weighted average cost of capital, in which the costs of
15		the individual sources of capital are weighted by their respective book values. While
16		the cost of debt can be directly observed, the cost of equity is market-based and,
17		therefore, must be estimated based on observable market information.
18		
19	Q.	HOW IS THE REQUIRED ROE DETERMINED?
20	A.	The required ROE is estimated by using one or more analytical techniques that rely on
21		market-based data to quantify investor expectations regarding required equity returns,
22		adjusted for certain incremental costs and risks. I then apply my informed judgment,
23		based on the results of those analyses, to determine where within the range of results
24		the cost of equity for OTP falls. The resulting adjusted cost of equity serves as the
25		recommended ROE for ratemaking purposes. As a general proposition, the key
26		consideration in determining the cost of equity is to ensure that the methodologies
27		employed reasonably reflect investors' view of the financial markets in general, and
28		the subject company's common stock in particular.

<sup>16</sup> Re: Verizon New Hampshire, 232 P.U.R. 4th 24 (N.H. P.U.C., 2004).

1	$\sim$			DETERMINE THE	
	( )	M/H/I $M/H$ $IH$		THERRUNDE LHE	
1	O.	WHAT METHODS	טוט טטו עוע	DETERMINE THE	

I used the DCF model as the initial approach; I then considered the results of the CAPM and an alternative Risk Premium approach in assessing the reasonableness of the DCF results and developing my ROE recommendation. As discussed in more detail below, the use of a historical market risk premium in the CAPM produces results that are entirely inconsistent with current market conditions. Consequently, I incorporated forward-looking measures of the market risk premium, which more reasonably reflects the persistently volatile capital market environment.

A.

### 10 Q. WHY DO YOU BELIEVE IT IS IMPORTANT TO USE MORE THAN ONE 11 ANALYTICAL APPROACH?

Because the cost of equity is not directly observable, it must be estimated based on both quantitative and qualitative information. When faced with the task of estimating the cost of equity, analysts are inclined to gather and evaluate as much relevant data as reasonably can be analyzed. As a result, a number of financial models have been developed to estimate the cost of equity. For that reason, I use multiple approaches to estimate the cost of equity in the context of our financial advisory and transaction practices. As a practical matter, however, all of the models available to estimate the cost of equity are subject to limiting assumptions or other methodological constraints. Consequently, many finance texts recommend using multiple approaches when estimating the cost of equity. Copeland, Koller and Murrin, <sup>17</sup> for example, suggest using the CAPM and Arbitrage Pricing Theory model, while Brigham and Gapenski<sup>18</sup> recommend the CAPM, DCF and "bond yield plus risk premium" approaches.

In essence, both analysts and academics understand that ROE models are tools to be used in the ROE estimation process and that strict adherence to any single approach or the specific results of any single approach can lead to flawed conclusions. That

Tom Copeland, Tim Koller and Jack Murrin, <u>Valuation: Measuring and Managing the Value of Companies</u>, 3rd ed. (New York: McKinsey & Company, Inc., 2000), at 214.

Eugene Brigham, Louis Gapenski, <u>Financial Management: Theory and Practice</u>, 7th Ed. (Orlando: Dryden Press, 1994), at 341.

- 1 position is consistent with the *Hope* and *Bluefield* finding that it is the analytical result,
- as opposed to the methodology, that is controlling in arriving at ROE determinations.
- 3 As such, it is both prudent and appropriate to use multiple methodologies in order to
- 4 mitigate the effects of assumptions and inputs associated with relying on any single
- 5 approach. Such use, however, must be tempered with due caution as to the results
- 6 generated by each individual approach. Thus, a reasonable ROE estimate
- 7 appropriately considers alternate methodologies and the reasonableness of their
- 8 individual and collective results.

- 10 A. Constant Growth DCF Model
- 11 Q. ARE DCF MODELS WIDELY USED TO DETERMINE THE ROE FOR
- 12 REGULATED UTILITIES?
- 13 A. Yes. DCF models are widely used in regulatory proceedings and have sound
- theoretical bases, although neither the DCF model nor any other model can be applied
- without considerable judgment in the selection of data and the interpretation of results.
- In its simplest form, the DCF model expresses the cost of equity as the sum of the
- expected dividend yield and long-term growth rate.

- 19 Q. PLEASE DESCRIBE THE DCF APPROACH.
- 20 A. The DCF approach is based on the theory that a stock's current price represents the
- 21 present value of all expected future cash flows. In its most general form, the DCF
- 22 model is expressed as follows:

$$P_0 = \frac{D_1}{(1+k)} + \frac{D_2}{(1+k)^2} + \dots + \frac{D_{\infty}}{(1+k)^{\infty}}$$
 [1]

- Where  $P_0$  represents the current stock price,  $D_1 \dots D_{\infty}$  are all expected future
- dividends, and k is the discount rate, or required ROE. Equation [1] is a standard
- present value calculation that can be simplified and rearranged into the familiar form:

$$k = \frac{D(1+g)}{P_0} + g$$
 [2]

2		first term is the expected dividend yield and the second term is the expected long-term
3		growth rate.
4		
5	Q.	WHAT ASSUMPTIONS ARE REQUIRED FOR THE CONSTANT GROWTH DCF
6		MODEL?
7	A.	The DCF model requires the following assumptions: (1) a constant growth rate for
8		earnings and dividends; (2) a stable dividend payout ratio; (3) a constant price-to-
9		earnings multiple; and (4) a discount rate greater than the expected growth rate. To
10		the extent that any of these assumptions are violated, considered judgment and/or
11		specific adjustments should be applied to the results.
12		
13	В.	Dividend Yield for the DCF Model
14	Q.	WHAT MARKET DATA DID YOU USE TO CALCULATE THE DIVIDEND
15		YIELD IN YOUR DCF MODEL?
16	A.	The dividend yield is based on the proxy companies' current annualized dividend, and
17		average closing stock prices over the 30, 90, and 180-trading days ended June 30,
18		2010.
19		
20	Q.	WHY DID YOU USE 30-DAY, 90-DAY, AND 180-DAY AVERAGING PERIODS?
21	A.	I believe it is important to use an average of recent trading days to calculate the term
22		$P_0$ in the DCF model to ensure that the calculated ROE is not skewed by anomalous
23		events that may affect stock prices on any given trading day. In that regard, the
24		averaging period should be reasonably representative of expected capital market
25		conditions over the long term. At the same time, it is important to reflect the
26		extraordinary conditions that have defined the financial markets over the recent past.
27		In my view, the use of the 30, 90, and 180-day averaging periods reasonably balances
28		those concerns.

Equation [2] is often referred to as the "Constant Growth DCF" model in which the

1

- 1 Q. DID YOU MAKE ANY ADJUSTMENTS TO THE DIVIDEND YIELD TO ACCOUNT FOR PERIODIC GROWTH IN DIVIDENDS?
- 3 A. Yes. Since utility companies tend to increase their quarterly dividends at different 4 times throughout the year, it is reasonable to assume that dividend increases will be 5 evenly distributed over calendar quarters. Given that assumption, it is reasonable to 6 apply one-half of the expected annual dividend growth for purposes of calculating the 7 expected dividend yield component of the DCF model. This adjustment ensures that 8 the expected dividend yield is, on average, representative of the coming twelve-month 9 period, and does not overstate the aggregated dividends to be paid during that time. 10 Accordingly, the DCF estimates provided in Exhibit (RBH-1), Schedule 4 reflect 11 one-half of the expected growth in the dividend yield component of the model.

#### 13 C. Growth Rates for the DCF Model

- Q. IS IT IMPORTANT TO SELECT APPROPRIATE MEASURES OF LONG-TERM
   GROWTH IN APPLYING THE DCF MODEL?
- 16 A. Yes. In its constant growth form, the DCF model (*i.e.*, Equation [2]) assumes a single growth estimate in perpetuity. Accordingly, in order to reduce the long-term growth rate to a single measure, one must assume a constant payout ratio, and that earnings per share, dividends per share and book value per share all grow at the same constant rate. Over the long run, however, dividend growth can only be sustained by earnings growth. It, therefore, is important to incorporate a variety of sources of long-term earnings growth into the constant growth DCF model.

23

#### 24 D. Results for Constant Growth DCF Model

- Q. PLEASE SUMMARIZE YOUR INPUTS TO THE CONSTANT GROWTH DCF
   MODEL.
- A. I applied the DCF model to the proxy group of eight integrated electric utility companies using the following inputs for the price and dividend terms:

3		2. The annualized dividend per share as of June 30, 2010 for the term $D_0$ .
4		
5		I then calculated the DCF results using each of the following growth terms:
6		1. The Zacks consensus long-term earnings growth estimates;
7		2. The First Call consensus long-term earnings growth estimates; and
8		3. The Value Line earnings growth estimates.
9		
10	Q.	HOW DID YOU CALCULATE THE HIGH AND LOW DCF RESULTS?
11	A.	I calculated the mean high DCF result using the maximum growth rate (i.e., the
12		maximum of the Value Line, Zack's, and First Call EPS growth rates) in combination
13		with the dividend yield for each of the proxy group companies. Thus, the mean high
14		result reflects the average maximum DCF result for the proxy group. I used a similar
15		approach to calculate the mean low results, using the minimum growth rate for each
16		proxy group company.
17		
18	Q.	WHAT ARE THE RESULTS OF YOUR DCF ANALYSIS?
19	A.	As shown in Exhibit(RBH-1), Schedule 4, the mean DCF results for my proxy
20		group (before consideration of flotation costs) are 11.20 percent, 11.09 percent, and
21		11.17 percent for the 30, 90, and 180-trading day periods, respectively. The mean
22		high DCF result for the 30, 90, and 180-day averaging periods are 12.05 percent,
23		11.94 percent, and 12.01 percent, respectively (before consideration of flotation costs).
24		
25		
26	E.	Flotation Cost Recovery
27	Q.	WHAT ARE FLOTATION COSTS?
27 28	Q. A.	WHAT ARE FLOTATION COSTS?  Flotation costs are the costs associated with the sale of new issues of common stock.
	-	
28	-	Flotation costs are the costs associated with the sale of new issues of common stock.

1. The average daily closing prices for the 30-trading days, 90-trading days, and

180-trading days ended June 30, 2010 for the term P<sub>0</sub>; and

1

- Q. WHY IS IT IMPORTANT TO RECOGNIZE FLOTATION COSTS IN THE
   3 ALLOWED RETURN ON EQUITY?
- A. In order to attract and retain new investors, a regulated utility must have the opportunity to earn a return that is both competitive and compensatory. To the extent that a company is denied the opportunity to recover prudently incurred flotation costs, actual returns will fall short of expected (or required) returns, thereby diminishing the company's ability to attract adequate capital on reasonable terms.

- 10 Q. ARE FLOTATION COSTS LIMITED TO EQUITY ISSUANCES PLANNED FOR THE TEST YEAR?
- 12 A. No, they are not. Flotation costs are not expenses that flow through the income 13 statement, but instead reduce the proceeds of the issuance, resulting in a net reduction 14 to the common equity portion of the balance sheet. When common stock is issued to 15 the public, the issuing corporation incurs several costs, including: underwriter 16 discounts; audit, legal and listing fees; printing costs; and other direct expenses. Such 17 flotation costs are analogous to debt issuance costs in that they are necessary for the 18 issuance of the securities, and they reduce the net proceeds available to the issuing 19 company. Moreover, because common equity has no specified redemption period, its 20 life is comparable to that of the capital investments being financed by the issuance. 21 Consequently, flotation costs should be recovered through a return adjustment, 22 regardless of whether an issuance occurs during, or is planned for, the test year. 23 Recovery of investments is not limited to the year in which the investment is made, 24 and neither should the recovery of legitimately incurred, direct flotation costs.

- Q. ARE FLOTATION COSTS PART OF THE UTILITY'S INVESTED COSTS OR PART OF THE UTILITY'S EXPENSES?
- A. Flotation costs are part of the invested costs of the utility, which are properly reflected on the balance sheet of the utility under "paid in capital." As a result, the great majority of a utility's flotation costs are incurred prior to the test year, but remain part of the cost structure that exists during the test year and beyond, and as such, should be

1		recognized for ratemaking purposes. Therefore, this adjustment is appropriate even if
2		no new issuances are planned in the near future because failure to allow such an
3		adjustment may deny the Company the opportunity to earn its required rate of return
4		in the future.
5		
6	Q.	IS THE NEED TO CONSIDER FLOTATION COSTS ELIMINATED BECAUSE
7		THE COMPANY IS A SUBSIDIARY OF OTC?
8	A.	No. Although the Company is a subsidiary of OTC, it is appropriate to consider
9		flotation costs because the source of capital used by the Company was the result of a
10		public issuance by its parent organization, which led to the issuance costs. To deny
11		recovery of issuance costs associated with the capital that is invested in the utility
12		ultimately will penalize the investors that fund the utility operations and will inhibit
13		the utility's ability to obtain new equity capital at a reasonable cost. This is
14		particularly important in the case of the Company since it is planning significant
15		capital expenditures in the near term, and continued access to capital to fund such
16		required expenditures will be critical.
17		
18	Q.	DO THE DCF AND CAPM MODELS ALREADY INCORPORATE INVESTOR
19		EXPECTATIONS OF A RETURN THAT COMPENSATES FOR FLOTATION
20		COSTS?
21	A.	No. All the models used to estimate the appropriate ROE assume no "friction" or
22		transaction costs, as these costs are not reflected in the market price (in the case of the
23		DCF model) or risk premium (in the case of the CAPM). Therefore, it is appropriate
24		to consider flotation costs when estimating OTP's ROE.
25		
26	Q.	IS THE NEED FOR A FLOTATION COST ADJUSTMENT RECOGNIZED BY
27		THE ACADEMIC AND FINANCIAL COMMUNITIES?
28	A.	Yes, it is. The need to recover equity issuance costs is recognized by the academic
29		and financial communities for the same fundamental reason that investors reasonably
30		expect to recover the costs of debt issuances. This treatment is consistent with the
31		philosophy of a fair rate of return. According to Dr. Shannon Pratt:

1 Flotation costs occur when new issues of stock or debt are sold to 2 the public. The firm usually incurs several kinds of flotation or 3 transaction costs, which reduce the actual proceeds received by the 4 firm. Some of these are direct out-of-pocket outlays, such as fees 5 paid to underwriters, legal expenses, and prospectus preparation 6 costs. Because of this reduction in proceeds, the firm's required 7 returns on these proceeds equate to a higher return to compensate 8 for the additional costs. Flotation costs can be accounted for either 9 by amortizing the cost, thus reducing the cash flow to discount, or 10 by incorporating the cost into the cost of capital. Because flotation costs are not typically applied to operating cash flow, one must 11 12 incorporate them into the cost of capital.<sup>19</sup>

13

#### 14 Q. HAS OTC RECENTLY ISSUED COMMON EQUITY?

15 Yes. In September 2008, OTC completed a public offering of approximately 5.175 A. 16 million shares of common equity at \$30.00 per share. Net proceeds from the sale of 17 the common shares after deducting underwriting discounts and commissions and offering expenses of \$6.03 million were \$149.22 million.<sup>20</sup> 18

19

- 20 HAVE YOU CALCULATED THE EFFECT OF FLOTATION COSTS ON THE Q. 21 ROE?
- 22 A. Yes. I modified the DCF calculation to provide a dividend yield that would reimburse 23 investors for issuance costs. Based on the issuance costs provided in Exhibit 24 (RBH-1), Schedule 5, an adjustment of 0.21 percent (i.e., 21 basis points) is reflective 25 of flotation costs for OTP, which is reflected on Exhibit (RBH-1), Schedule 4.

26 Table 5, below, presents the DCF results including flotation costs.

Shannon P. Pratt, Cost of Capital Estimation and Applications, Second Edition, at 220-221.

As discussed in the testimony of Mr. Moug, in March 2010, the Company entered into a distribution agreement under which it may offer and sell up to \$75 million of common shares from time to time.

	Low Mean DCF Results	Mean DCF Results	High Mean DCF Results
Constant Growth DCF – 30-day Avg. Stock Price	10.53%	11.41%	12.26%
Constant Growth DCF – 90-day Avg. Stock Price	10.42%	11.30%	12.15%
Constant Growth DCF – 180-day Avg. Stock Price	10.50%	11.38%	12.22%

3

Q. DID YOU UNDERTAKE ANY ADDITIONAL ANALYSES TO SUPPORT YOUR
 DCF MODEL RESULTS?

A. Yes. As noted earlier, I also used the CAPM and the Risk Premium approach as a
 means of assessing the reasonableness of my DCF results.

8

### 9 F. CAPM Analysis

- 10 Q. PLEASE BRIEFLY DESCRIBE THE CAPITAL ASSET PRICING MODEL.
- 11 A. The CAPM is a risk premium approach that estimates the cost of equity for a given
- security as a function of a risk-free return plus a risk premium (to compensate
- investors for the non-diversifiable or "systematic" risk of that security). As shown in
- Equation [3], the CAPM is defined by four components, each of which theoretically
- must be a forward-looking estimate:

16 
$$K_e = r_f + \beta (r_m - r_f)$$
 [3]

where:

 $k_e$  = the required market ROE

 $\beta$  = Beta of an individual security

 $r_f$  = the risk free rate of return

 $r_m$  = the required return on the market as a whole.

2223

24

19

In this specification, the term  $(r_m - r_f)$  represents the market risk premium. According to the theory underlying the CAPM, since unsystematic risk can be diversified away,

investors should be concerned only with systematic or non-diversifiable risk. Nondiversifiable risk is measured by Beta, which is defined as:

$$\beta = \frac{Covariance(r_e, r_m)}{Variance(r_m)} [4]$$

The variance of the market return, noted in Equation [4], is a measure of the uncertainty of the general market, and the covariance between the return on a specific security and the market reflects the extent to which the return on that security will respond to a given change in the market return. Thus, Beta represents the risk of the security relative to the market.

10 Q. HAS THE CAPM BEEN AFFECTED BY RECENT ECONOMIC CONDITIONS?

A. Yes. The recent market has affected the CAPM model in a number of important ways. First, as noted above, the risk free rate, " $r_f$ ", in the CAPM formula is represented by the interest rate on long-term U.S. Treasury securities. During the financial dislocation, investors reacted to the extraordinary levels of market volatility discussed earlier by investing in low-risk securities such as Treasury bonds. Consequently, the first term in the model (i.e., the risk-free rate) is lower than it would have been absent the elevated degree of risk aversion that has, at least in part, resulted in historically low Treasury yields.

In addition, as a result of the extraordinary loss in equity values during 2008, the Market Risk Premium, when measured on a historical basis, actually decreased from the prior year, even though other measures of investor sentiments, including market volatility and credit spreads, indicated extremely high levels of risk aversion. That result is, of course, counter-intuitive. While the 2009 market rally resulted in a somewhat higher Market Risk Premium, it still remains below its pre-financial crisis level.

Finally, Beta estimates reported by Value Line and Bloomberg calculate the Beta for each company over historical periods of 60 and 24 months, respectively. During the recent financial market dislocation, the relationship between the returns of the proxy

group companies and the S&P 500 was considerably different than has been experienced in the current market environment. Both the Value Line and Bloomberg Beta estimates are calculated over longer historical time periods that include the effects of the financial market dislocation, resulting in Beta estimates that are much lower than what would has been experienced historically in markets similar to the current market environment. For example, in August 2008, the period prior to the Lehman Brothers bankruptcy filing, the average Beta estimate for my proxy group was 0.85. As shown on Exhibit \_\_(RBH-1), Schedule 6, the average of the Value Line and Bloomberg Beta estimates for my proxy group is currently 0.74, which would suggest a lower CAPM estimate notwithstanding the continued volatility in the capital markets.

A.

## Q. WITH THOSE QUALIFICATIONS IN MIND, WHAT ASSUMPTIONS DID YOU USE IN YOUR CAPM MODEL?

Since the DCF and CAPM models both assume long-term investment horizons, I used the 30, 90, and 180 day average yield on 30-year Treasury Bonds, and used the projected yield on 30-year Treasury Bonds, as provided by the Blue Chip Financial Forecast, as my estimate of the risk-free rate. For the equity risk premium, I first relied on the historical risk premiums calculated using the long-term average of the total return on large company stocks over the income only portion of long term government bonds as reported by Morningstar for the period from 1926-2009, which results in a risk premium of 6.70 percent. Finally, for the Beta term, I used Betas from Value Line and Bloomberg, both of which adjust their Beta estimates based on an average of the raw, historical Beta and 1.0. This adjustment addresses the tendency of the CAPM to underestimate the cost of capital for companies with "unadjusted" or "raw" Betas significantly less than 1.0. For relatively low raw Beta companies such as regulated utilities, failure to take such adjustments into consideration will result in an

<sup>&</sup>lt;sup>21</sup> Blue Chip Financial Forecasts, Vol. 29, No. 6 June 1, 2010, at 2.

Morningstar Inc., 2010 Ibbotson Stocks, Bonds, Bills and Inflation, Valuation Yearbook, Appendix A: Risk Premia Over Time, Table A-1 (page 2 of 9) at 7.

1		understatement of required returns. The extreme market conditions experienced in the
2		recent past have skewed the historical, or ex-post, CAPM results, which are shown on
3		Exhibit(RBH-1), Schedule 7, such that they are not reliable indicators of the
4		Company's forward-looking cost of equity.
5		
6	Q.	HAVE YOU CONSIDERED ANY OTHER SPECIFICATION OF THE CAPM
7		MODEL TO ADJUST FOR THE EFFECT OF THOSE EXTREME MARKET
8		CONDITIONS?
9	A.	Yes, I have considered two additional approaches to estimate the Risk Premium, both
10		of which are forward looking, or ex-ante, estimates. The first approach assumes a
11		constant Sharpe Ratio, which is the ratio of the Risk Premium relative to the risk, or
12		standard deviation of a given security or index of securities. As shown in Exhibit
13		(RBH-1), Schedule 8, the constant Sharpe Ratio is the ratio of historical risk
14		premium of 6.70 percent and the historical market volatility of 20.40 percent,
15		$(0.067/0.2040 = 0.3285 \text{ or } 32.85 \text{ percent}).^{23}$ The expected Risk Premium is then
16		calculated as the product of the Sharpe Ratio and the expected market volatility. For
17		the calculation of expected market volatility, I relied on the average of the settlement
18		price of futures on the Chicago Board Options Exchange Volatility Index (the "VIX"),
19		which is a widely recognized measure of market volatility, for October through
20		December 2010, and the thirty day average of the three month volatility index (i.e., the
21		VXV) which resulted in expected market volatility of 31.84 percent. The expected
22		Risk Premium using this approach is $10.46$ percent $(0.3184 \times 0.3285 = 0.1046)$ .
23		
24		The second approach is a relatively simple calculation of the expected return on the
25		S&P 500 Index, less the current 30-year Treasury bond yield. The expected return on
26		the S&P 500 is calculated using the constant growth DCF model discussed earlier in

27

my testimony for the companies in the S&P 500 index for which long-term earnings

The standard deviation is easily calculated from the Morningstar data. *See* Morningstar Inc., <u>Ibbotson Stocks</u>, <u>Bonds</u>, <u>Bills and Inflation</u>, <u>2010 Valuation Yearbook</u>, Large Company Stocks: Total Returns Table B-1, at 164-165.

projections are available (the companies with such projections represent 96.97 percent of the index market capitalization). As shown on Exhibit \_\_(RBH-1), Schedule 8, the estimated dividend yield for the S&P 500 index is 2.09 percent and the expected growth rate is 10.95 percent, resulting in a estimated required market return of 13.15 percent. The current 30-year Treasury yield is 4.13 percent, resulting in the expected Risk Premium of 9.02 percent.

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## 8 Q. HOW DID YOU APPLY YOUR PROJECTED MARKET RISK PREMIUM 9 ESTIMATES?

A. For the reasons discussed earlier, I did not rely on historical measures of the Market Risk Premium; rather, I relied upon the two *ex-ante* measures described above as the Market Risk Premium component of the CAPM. In addition, I used the current 30-day average and near-term projection of the 30-year Treasury yield as the Risk Free Rate term. Table 6, below presents those results, including flotation costs. Those estimates produce a range of results that substantially overlaps the ranges produced by the other calculation methodologies.

**Table 6: Ex-Ante CAPM Results Including Flotation Costs** 

	Current 30-day Average 30-Year Treasury (4.13%) Low	Midpoint	Near-Term Projected 30-Year Treasury (4.78%) High
Sharpe Ratio Derived Market Risk Premium	12.07%	12.40%	12.72%
Market DCF Derived Market Risk Premium	11.01%	11.33%	11.66%

18

17

19 Q. DOES YOUR RECOMMENDATION SUBSTANTIALLY RELY ON ANY OF THE
20 CAPM MODELS YOU PRESENTED IN EXHIBIT \_\_(RBH-1), SCHEDULES 7
21 AND 8?

A. No, it does not. While I have calculated the CAPM using the approaches and assumptions discussed above, for several reasons I did not give any specific weight to those results. Rather, I used the CAPM results to assess reasonableness of the DCF results discussed earlier.

### G. Bond Yield Plus Risk Premium Analysis

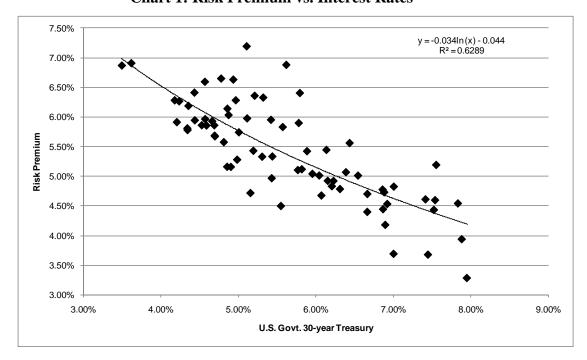
- Q. PLEASE DESCRIBE THE BOND YIELD PLUS RISK PREMIUM APPROACH
   YOU EMPLOYED.
- 5 A. In general terms, this approach is based on the fundamental principal that equity 6 investors bear the residual risk associated with ownership and therefore require a 7 premium over the return they would have earned as a bondholder. That is, since 8 returns to equity holders are more risky than returns to bondholders, equity investors 9 must be compensated to bear that risk. Risk premium approaches, therefore, estimate 10 the cost of equity as the sum of the equity risk premium and the yield on a particular 11 class of bonds. As noted in my discussion of the CAPM, since the equity risk 12 premium is not directly observable, it typically is estimated using a variety of 13 approaches some of which incorporate an ex-ante, or forward-looking estimate of the 14 cost of equity, and others that consider historical or ex-post estimates of the cost of 15 equity. An alternative approach, which I have used in my analysis, is to use actual 16 authorized returns for electric utilities as the historical measure of the cost of equity to 17 determine the risk premium.

18

- 19 O. WHAT DID YOUR BOND YIELD PLUS RISK PREMIUM ANALYSIS REVEAL?
- As shown on Chart 1, from 1992 through 2010, there was, in fact, a strong negative relationship between risk premia and interest rates. To estimate that relationship, I conducted a regression analysis using the following equation:
- $RP = a + b \times \ln(T)$  [6]
- where:
- 25 RP = Risk Premium (difference between allowed ROEs and the yield on 30-
- year Treasuries)
- 27 a = Intercept term
- b = Slope term
- ln(T) = natural log of 30-year Treasury Yield

Data regarding allowed ROEs was derived from 446 rate cases from 1992 through 2010 as reported by Regulatory Research Associates.

**Chart 1: Risk Premium vs. Interest Rates** 



As shown on Exhibit \_\_(RBH-1), Schedule 9, from 1992 through June 30, 2010 the average risk premium was approximately 5.42 percent. Based on the regression coefficients provided in Chart 1, however, the risk premium would be 6.43 percent when using the current 30-day average of the 30-year Treasury bond yield, resulting in an ROE of 10.57 percent. Based on the near-term projection of the 30-year Treasury bond yield (*i.e.* 4.78 percent), the risk premium would be 5.94 percent, resulting in an estimated ROE of 10.72 percent. It is important to note, however, that this estimate does not include the effect of the Company's specific risk factors, as discussed in

### VII. BUSINESS AND ECONOMIC RISKS

Section VII of my Direct Testimony.

18 Q. DO THE MEAN DCF AND CAPM RESULTS FOR THE PROXY GROUP

PROVIDE AN APPROPRIATE ESTIMATE OF THE COST OF EQUITY FOR OTP?

No, the mean results do not necessarily provide an appropriate estimate of the Company's cost of equity. In my view, there are several additional factors that must be taken into consideration when determining where the Company's cost of equity falls within the range of results. Those factors, which include the Company's planned capital investment program, customer concentration and absence of economic diversity in the Company's service territory, and the Company's substantially smaller size relative to the proxy group, should be considered in terms of their overall effect on the Company's business risk.

A.

A.

### A. Capital Expenditures

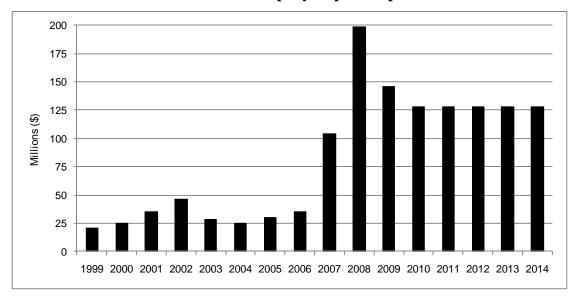
13 Q. PLEASE SUMMARIZE THE COMPANY'S CAPITAL EXPENDITURE PLANS.

OTP estimates that during the five-year period 2010-2014 it will invest approximately \$641 million for electric construction.<sup>24</sup> As explained in the Direct Testimony of Mr. Brause, while the anticipated \$395 million of capital expenditures for Big Stone II is no longer part of OTP's plan, other capital expenditures of approximately \$245 million for additional generation have been planned due to OTP's need for additional generation resources. Anticipated expenditures for transmission capacity have also increased from \$66 million (in 2009-2013)<sup>25</sup> to \$110 million (in 2010-2014).<sup>26</sup> As Mr. Moug explains, OTP's net utility plant in service as of December 31, 2009 was approximately \$831.22 million,<sup>27</sup> and these anticipated capital expenditures are approximately 77.00 percent of OTP's net utility plant in service, averaging over \$128 million per year over that five-year period.

Otter Tail Corporation, SEC Form 10-K, December 31, 2009, at 21 (February 26, 2010).

Otter Tail Corporation, SEC Form 10-K, December 31, 2008, at 28 (February 27, 2009).

Otter Tail Corporation, SEC Form 10-K, December 31, 2009, at 53 (February 26, 2010).
Petition of Otter Tail Power Company for Approval of 2010 Capital Structure and Permission to Issue Securities, Attachment 5.



2.2.

# Q. WHAT RISKS DO EQUITY ANALYSTS FORESEE IN RELATION TO CAPITAL EXPENDITURES?

A. Equity investors recognize the pressure on cash flows and earnings associated with relatively high levels of capital expenditures. KeyBanc, for example, noted that:

Much of the intermediate to long-term growth in the sector is tied to large capital growth programs earning regulated returns. During a period of lofty valuations and easy credit, investors viewed these programs positively. Recent market performance has made the equity and debt financing of these large projects less attractive.

\*\*\*

Credit and liquidity concerns have driven many companies to revisit capital spending plans and reassess operational efficiencies. The primary response has generally been to delay projects, as opposed to outright cancellation. Initially, reductions in capital programs were a function of lower growth, which eliminated the need for growth-related capital spending on items such as line extensions and new substations. However, as difficult economic conditions persist, the cuts have grown more extensive, with deferrals in non-core maintenance spending, reevaluating the cost-

-

Source: Otter Tail Corporation, SEC Form 10-K, December 31, 2009, at 21 and 84, Otter Tail Corporation, SEC Form 10-K, December 31, 2007, at 118, Otter Tail Corporation, SEC Form 10-K, December 31, 2004, at 96, Otter Tail Corporation, SEC Form 10-K, December 31, 2001, at 210.

1	effectiveness	of	running	older	inefficient	power	plants,	and
2	pursuing comp	pany	y restructu	ırings c	or mergers.29			

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4 TO PUT OTP'S CAPITAL EXPENDITURES PLAN INTO PERSPECTIVE, WHAT Q.

5 MULTIPLE OF DEPRECIATION DOES OTP'S FORECASTED CAPITAL

6 EXPENDITURES CURRENTLY REPRESENT?

As noted in Table 7 (below), over the next five years the Company anticipates that A. capital spending will exceed its annual depreciation expense by approximately 2.82 times.

Table 7: Annual Capital Expenditures as a Multiple of Annual Depreciation Expense (\$millions)<sup>30</sup>

	2010	2011	2012	2013	2014	2010-14
Utility Cap Expenditures	\$128	\$128	\$128	\$128	\$128	\$641
Utility Depreciation	\$41	\$43	\$45	\$48	\$50	\$227
Capital Expenditures / Depreciation	3.16	2.98	2.82	2.68	2.56	2.82

12

- 13 WILL OTP NEED CONTINUED ACCESS TO THE CAPITAL MARKETS IN O. 14 ORDER TO FINANCE ITS CAPITAL EXPENDITURE PLAN?
- 15 Α. Yes. As discussed by Mr. Moug, given the size and long-term nature of the 16 anticipated capital expenditures, OTP will require continued access to the capital 17 markets, at reasonable terms, in order to finance its capital expenditure plan.

18

- 19 WHAT ARE YOUR CONCLUSIONS REGARDING THE EFFECT OF THE Q. 20 COMPANY'S CAPITAL INVESTMENT PLAN ON ITS RISK PROFILE AND 21 COST OF CAPITAL?
- 22 A. It is clear that OTP is projecting a substantial capital expenditure program over the 23 next five years that will require continued access to the capital markets. It also is clear 24 that equity investors and credit rating agencies recognize the additional risks

KeyBanc Capital Markets Inc. Equity Research, Electric Utilities Quarterly 1010, June 2010, at 7.

Otter Tail Corporation SEC Form 10-K, December 31, 2009, at 21, 60, 84, and 113; reflects only OTP capital expenditures and depreciation expense associated with regulated operations.

associated with substantial capital expenditures. These additional risk factors suggest that an ROE toward the upper end of the range of results would be appropriate.

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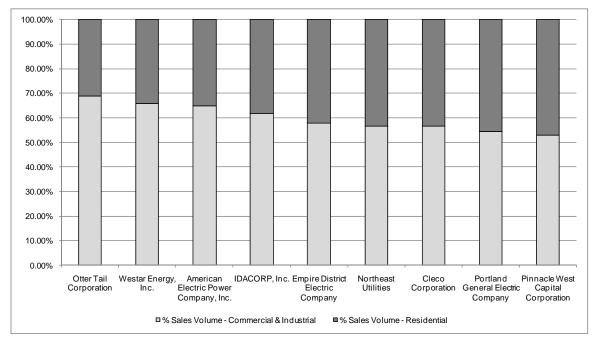
1

# B. Customer Concentration and Absence of Economic Diversity

Q. HOW DOES OTP'S CUSTOMER CONCENTRATION AFFECT ITS BUSINESSRISK?

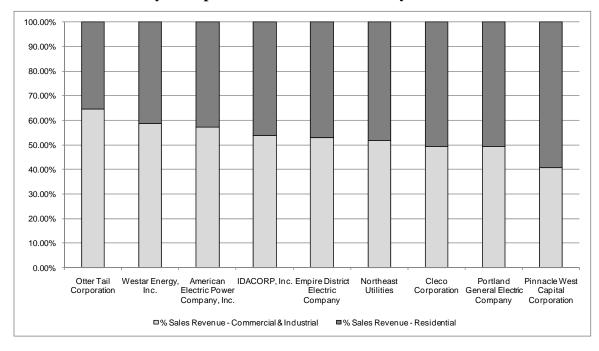
OTP's customer base is largely comprised of commercial and industrial customers. Approximately 64.67 percent of its total revenues and 68.94 percent of its total sales volume are attributable to sales to commercial and industrial customers. Relative to the proxy group, OTP has the highest commercial customer concentration by percent of revenues and volume (in kilowatt-hours).

Chart 3: Proxy Group Customer Concentration by Sales Volume<sup>31</sup>



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31 SNL Financial, 2009 FERC Form 1 data.



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OTP's dependence on sales to commercial users subjects its operations to greater cash flow volatility, and risk of demand destruction and bypass. Although OTP currently believes its rates are sufficiently competitive to retain its commercial customers, OTP remains highly exposed to such risks.

## DOES THE ABSENCE OF ECONOMIC DIVERSITY IN OTP'S SERVICE Q. TERRITORY AFFECT THE COMPANY'S RISK PROFILE?

Yes. The territory served by OTP is mainly agricultural.<sup>33</sup> It generally is understood that diversity is an important factor in the economic stability of a given market area. That is, a diversified economy is less susceptible to the economic cycles of, or shocks associated with, a single industry. Consequently, a relatively undiversified market, such as that served by OTP, represents meaningful financial risks to the host utility.

SNL Financial, 2009 FERC Form 1 data.

Otter Tail Corporation, SEC Form 10-K, December 31, 2009, at 4.

## C. Small Size

# 2 O. PLEASE EXPLAIN THE RISK ASSOCIATED WITH SMALL SIZE.

A. Both the financial and academic communities have long accepted the proposition that the cost of equity for small firms is subject to a "size effect." While empirical evidence of the size effect often is based on studies of industries beyond regulated utilities, utility analysts also have noted the risks associated with small market capitalizations. Specifically, Ibbotson Associates noted:

For small utilities, investors face additional obstacles, such as smaller customer base, limited financial resources, and a lack of diversification across customers, energy sources, and geography. These obstacles imply a higher investor return.<sup>35</sup>

Small size, therefore, leads to two categories of increased risk for investors: (1) liquidity risk (*i.e.*, the risk of not being able to sell one's shares in a timely manner due to the relatively thin market for the securities); and (2) fundamental business risks.

# Q. HOW DOES OTP COMPARE IN SIZE TO THE PROXY COMPANIES?

OTP is substantially smaller than the average or median of the proxy group companies both in terms of numbers of customers and market capitalization. Exhibit \_\_(RBH-1), Schedule 10 estimates the implied market capitalization for OTP (*i.e.*, the implied market capitalization if the Company were a stand-alone, publicly traded entity). That is, since OTP is a subsidiary of OTC, an estimated stand-alone market capitalization for OTP must be calculated. To do so, I applied the median market to book ratio for the eight member proxy group to OTP's equity of \$328 million.<sup>36</sup> The implied market capitalization based on that calculation is \$387 million, which is 19.39 percent of the median level of the proxy group and approximately 9.79 percent of the mean level of the proxy group, and lower than any of the proxy group companies.

See Mario Levis, *The record on small companies: A review of the evidence*, <u>Journal of Asset Management 2</u>, March 2002, at 368-397, for a review of literature relating to the size effect.

Michael Annin, Equity and the Small-Stock Effect, Public Utilities Fortnightly, October 15, 1995.

See Exhibit (KGM-1), Schedule 2 to Mr. Moug's Direct Testimony.

# 1 Q. HOW DOES THE SMALLER SIZE OF OTP AFFECT ITS BUSINESS RISKS 2 RELATIVE TO THE PROXY GROUP OF COMPANIES?

A. In general, smaller companies are less able to withstand adverse events that affect their revenues and expenses. The impact of weather variability, the loss of large customers to bypass opportunities, or the destruction of demand as a result of general macroeconomic conditions or fuel price volatility will have a proportionately greater impact on the earnings and cash flow volatility of smaller utilities. Similarly, capital expenditures for non-revenue producing investments, such as system maintenance and replacements and environmental upgrades, will put proportionately greater pressure on customer costs, potentially leading to customer attrition or demand reduction. Taken together, these risks affect the return required by investors for smaller companies.

# Q. HOW DID YOU ESTIMATE THE SIZE PREMIUM FOR THE COMPANY?

A. In its *Risk Premia over Time Report: 2010*, Morningstar presents its calculation of the size premium for deciles of market capitalizations relative to the S&P 500 Index. An additional estimate of the size premium associated with OTP, therefore, is the difference in the Ibbotson size risk premia for the proxy group median market capitalization relative to the implied market capitalization for OTP.

As shown on Exhibit \_\_(RBH-1), Schedule 10, according to recent market data, the median market capitalization of the proxy group was approximately \$2.00 billion,<sup>37</sup> which is over five times the size of OTP. In this case, it is more prudent to compare the Company to the smallest proxy group company in order to gauge the minimum adjustment required to compensate for the competitive disadvantage due to size. The smallest proxy group company, in terms of market capitalization, was Empire District Electric Company with total market capitalization of approximately \$750 million.<sup>38</sup> This corresponds to the 7<sup>th</sup> decile of Morningstar market capitalization data. Based on the Morningstar analysis, that decile corresponds to a size premium of 1.73 percent (or

<sup>-</sup>

Bloomberg, as of June 30, 2010.

<sup>38</sup> Ibid.

2		million, which falls within the 9 <sup>th</sup> decile and corresponds to a size premium of 2.85
3		percent (or 285 basis points). The difference between those size premia is 112 basis
4		points (2.85 percent – 1.73 percent).
5		
6		Since Empire District Electric Company's market capitalization is at the lower end of
7		its Morningstar decile, even if I were to consider the next decile (i.e., the 8 <sup>th</sup> decile),
8		which includes market capitalizations up to \$685 million (with a corresponding size
9		premium of 2.49 percent), the implied relative size premium for OTP would be 0.36
10		percent (or 36 basis points). In either case, the size premium is meaningful and
11		suggests that my ROE recommendation is reasonable.
12		
13	Q	HAVE YOU CONSIDERED THE SUBSTANTIALLY SMALLER SIZE OF OTP IN
14		YOUR RECOMMENDED ROE?
15	A.	Yes. While I have quantified the small size effect, rather than proposing a specific
16		premium, I have considered the small size of OTP in my assessment of business risks
17		in order to determine where within a reasonable range of returns, OTP's required ROE
18		appropriately falls.
19		
20		VIII. CAPITAL STRUCTURE
21	Q.	WHAT IS THE COMPANY'S PROJECTED CAPITAL STRUCTURE?
22	A.	As described in the direct testimony of Mr. Moug, OTP's proposed capital structure
23		consists of 53.22 percent common equity and 46.78 percent long-term debt.
24		
25	Q.	PLEASE DISCUSS THE IMPORTANCE OF MAINTAINING A STRONG
26		BALANCE SHEET AND CAPITAL STRUCTURE IN THE CURRENT MARKET
27		ENVIRONMENT.
28	A.	As discussed in Section IV, the current financial market is characterized by a
29		continuing contraction of credit availability, and a relatively high level of interest
30		costs. Under such conditions, financing options are more limited and the need to

173 basis points). The implied market capitalization for OTP is approximately \$387

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1	maintain a strong balance sheet as a means of preserving access to capital is more
2	acute than it would be in a more normal market environment. Mr. Moug's direct
3	testimony shows the effects of the recent capital market on financing capital
4	expenditures, and the importance of maintaining access to capital markets, especially
5	in the context of carrying out a substantial capital expenditure plan.

6

- 7 Q. PLEASE DISCUSS YOUR ANALYSIS OF THE CAPITAL STRUCTURES OF THE PROXY GROUP COMPANIES.
- 9 My analysis of the actual proxy group capital structures is provided in Α. 10 Exhibit (RBH-1), Schedule 11. As shown in that Schedule, I calculated the mean of 11 the proportions of common equity and long-term debt over the most recent eight quarters<sup>39</sup> for each of the proxy group companies. The mean of the proxy group actual 12 capital structures is 50.50 percent common equity and 49.50 percent long-term debt, 40 13 14 and the proxy group companies' equity ratios range from a low of 46.93 percent to 15 60.35 percent. Based on that review, it is apparent that the Company's proposed 16 capital structure is generally consistent with the capital structures of the proxy group 17 companies.

18

- Q. WHAT IS YOUR CONCLUSION REGARDING AN APPROPRIATE CAPITAL
   STRUCTURE FOR OTTER TAIL POWER COMPANY?
- A. Considering the actual capital structures of the proxy group and the Company's extensive capital investment program, I believe that the Company's proposed equity ratio of 53.22 percent is appropriate for OTP.

24

Excludes preferred equity.

In this analysis, I calculated the average capital structure using the quarterly capital structures reported for the proxy group companies for the period from June 2008 through March 2010.

1	Q.	WILL THE	CAPITAL	STRUCT	URE A	AND	ROE	AUTHORI	ZED	IN	THIS
2		PROCEEDING	G AFFECT	OTP'S	ABILI	TY T	O CC	MPLETE	ITS	CAF	ITAL
3		EXPENDITUE	RE PLAN?								

Yes, I believe so. The level of earnings authorized by the Commission directly affects the Company's ability to fund capital investment with internally generated funds; and both lenders and equity investors expect a significant portion of on-going capital investments to be financed with internally generated funds. The need to generate funds internally also is important in light of the constrained, volatile, and expensive capital market conditions.

A.

It also is important to realize that investors weigh a given utility's authorized ROE in the context of the nature of its expected capital investments. Because a utility's investment horizon is very long, investors require the assurance of a sufficiently high return to satisfy the long-run financing requirements of the assets it puts into service. Those assurances, which often are measured by the relationship between internally generated cash flows and debt (or interest expense), depend quite heavily on the capital structure. As a consequence, both the ROE and capital structure are very important to both debt and equity investors. Given the capital market conditions and the Company's significant financing requirements, the authorized ROE and capital structure are extremely important considerations in this proceeding.

## IX. SUMMARY AND CONCLUSIONS

- Q. WHAT IS YOUR CONCLUSION REGARDING THE ROE AND CAPITAL STRUCTURE FOR OTTER TAIL POWER COMPANY?
- I believe that an ROE in the range of 11.00 percent to 11.50 percent represents the range of equity investors' required rate of return for investment in integrated electric utilities in today's capital markets. The Company's requested ROE of 11.25 percent is at the midpoint of the range, even though an ROE at the upper end of the range would be supported considering the Company's risk profile relative to the proxy group with respect to (i) the Company's comparatively high level of capital expenditures; (ii) its

customer concentration and lack of economic diversity in its service area and (iii) the Company's comparatively small size. As such, I find the Company's requested ROE to be reasonable, if not conservative. Table 8 (below) summarizes my analytical results.

**Table 8: Summary of Analytical Results** 

	Mean Low	Mean	Mean High							
<b>Constant Growth DCF (including Flotation Costs)</b>										
Constant Growth DCF – 30-Day Average	10.53%	11.41%	12.27%							
Constant Growth DCF – 90-Day Average	10.42%	11.30%	12.15%							
Constant Growth DCF – 180-Day Average	10.50%	11.38%	12.22%							
Supporting	g Methodologie	es								
	Low	Mean	High							
CAPM 10.46% Risk Premium (including Flotation Costs)	12.07%	12.40%	12.72%							
CAPM 9.02% Risk Premium (including Flotation Costs)	11.01%	11.33%	11.66%							
Risk Premium (Authorized ROE and Treasury Yields)	10.57%	10.64%	10.72%							

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Finally, I conclude that the Company's proposed capital structure, which consists of 53.22 percent common equity and 46.78 percent long-term debt, is reasonable.

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# 10 Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

11 A. Yes, it does.

# Robert B. Hevert, CFA President

Mr. Hevert is an economic and financial consultant with broad experience in the energy industry. He has an extensive background in the areas of corporate strategic planning, energy market assessment, corporate finance, mergers, and acquisitions, asset-based transactions, asset and business unit valuation, market entry strategies, strategic alliances, project development, feasibility and due diligence analyses. Mr. Hevert has significant management experience with both operating and professional services companies.

## REPRESENTATIVE PROJECT EXPERIENCE

## **Financial and Economic Advisory Services**

Retained by numerous leading energy companies and financial institutions throughout North America to provide services relating to the strategic evaluation, acquisition, sale or development of a variety of regulated and non-regulated enterprises. Specific services have included: developing strategic and financial analyses and managing multi-faceted due diligence reviews of proposed corporate M&A counter-parties; developing, screening and recommending potential M&A transactions and facilitating discussions between senior utility executives regarding transaction strategy and structure; performing valuation analyses and financial due diligence reviews of electric generation projects, retail marketing companies, and wholesale trading entities in support of significant M&A transactions.

Specific divestiture-related services have included advising both buy and sell-side clients in transactions for physical and contractual electric generation resources. Sell-side services have included: development and implementation of key aspects of asset divestiture programs such as marketing, offering memorandum development, development of transaction terms and conditions, bid process management, bid evaluation, negations, and regulatory approval process. Buy-side services have included comprehensive asset screening, selection, valuation and due diligence reviews. Both buy and sell-side services have included the use of sophisticated asset valuation techniques, and the development and delivery of fairness opinions.

Specific corporate finance experience while a Vice President with Bay State Gas included: negotiation, placement and closing of both private and public long-term debt, preferred and common equity; structured and project financing; corporate cash management; financial analysis, planning and forecasting; and various aspects of investor relations.

Representative non-confidential clients have included:

- Conectiv generation asset divestiture
- Eastern Utilities Associates (prior to acquisition by National Grid, PLC) generation asset divestiture
- Niagara Mohawk sale of Niagara Mohawk Energy
- Potomac Electric Company generation asset divestiture

Representative confidential engagements have included:

- Buy-side valuation and assessment of merchant generation assets in Midwestern U.S.
- Buy-side due diligence and valuation of wholesale energy marketing companies in Eastern and Midwestern U.S.
- Buy-side due diligence of natural gas distribution assets in Northeastern U.S.
- Financial feasibility study of natural gas pipeline in upper Midwestern U.S.

Financial valuation of natural gas pipeline in Southwestern U.S.

# **Regulatory Analysis and Ratemaking**

On behalf of electric, natural gas and combination utilities throughout North America, provided services relating to energy industry restructuring including merchant function exit, residual energy supply obligations, and stranded cost assessment and recovery. Also performed rate of return and cost of service analyses for municipally owned gas and electric utilities. Specific services provided include: performing strategic review and development of merchant function exit strategies including analysis of provider of last resort obligations in both electric and gas markets; and developing value optimizing strategies for physical generation assets.

Representative engagements have included:

- Performing rate of return analyses for use in cost of service analyses on behalf of municipally owned gas and electric utilities in the Southeastern and Midwestern U.S.
- Developing merchant function exit strategies for Northeastern U.S. natural gas distribution companies
- Developing regulatory and ratemaking strategy for mergers including several Northeastern natural gas distribution companies

# **Litigation Support and Expert Testimony**

Provided expert testimony and support of litigation in various regulatory proceedings on a variety of energy and economic issues including the proposed transfer of power purchase agreements, procurement of residual service electric supply, the legal separation of generation assets, and specific financing transactions. Services provided also included collaborating with counsel, business and technical staff to develop litigation strategies, preparing and reviewing discovery and briefing materials, preparing presentation materials and participating in technical sessions with regulators and intervenors.

# **Energy Market Assessment**

Retained by numerous leading energy companies and financial institutions nationwide to manage or provide assessments of regional energy markets throughout the U.S. and Canada. Such assessments have included development of electric and natural gas price forecasts, analysis of generation project entry and exit scenarios, assessment of natural gas and electric transmission infrastructure, market structure and regulatory situation analysis, and assessment of competitive position. Market assessment engagements typically have been used as integral elements of business unit or asset-specific strategic plans or valuation analyses.

Representative engagements have included:

- Managing assessments of the NYPOOL, NEPOOL and PJM markets for major North American energy companies considering entering or expanding their presence in those markets
- Assessment of ECAR, MAPP, MAIN and SPP markets for a large U.S. integrated utility considering acquisition of additional electric generation assets
- Assessment of natural gas pipeline and storage capacity in the SERC and FRCC markets for a major international energy company

## **Resource Procurement, Contracting and Analysis**

Assisted various clients in evaluating alternatives for acquiring fuel and power supplies, including the development and negotiation of energy contracts and tolling agreements. Assignments also have included developing generation resource optimization strategies. Provided advice and analyses of transition service power supply contracts in the context of both physical and contractual generation resource divestiture transactions.

## **Business Strategy and Operations**

Retained by numerous leading North American energy companies and financial institutions nationwide to provide services relating to the development of strategic plans and planning processes for both regulated and non-regulated enterprises. Specific services provided include: developing and implementing electric generation strategies and business process redesign initiatives; developing market entry strategies for retail and wholesale businesses including assessment of asset-based marketing and trading strategies; and facilitating executive level strategic planning retreats. As Vice President, Energy Ventures, of Bay State was responsible for the company's strategic planning and business development processes, played an integral role in developing the company's non-regulated marketing affiliate, EnergyUSA, and managed the company's non-regulated investments, partnerships and strategic alliances.

Representative engagements have included:

- Developing and facilitating executive level strategic planning retreats for Northeastern natural gas distribution companies
- Developing organization and business process redesign plans for municipally owned gas/electric/water utility in the Southeastern U.S.
- Reviewing and revising corporate merchant generation business plans for Canadian and U.S. integrated utilities
- Advising client personnel in development of business unit level strategic plans for various natural gas distribution companies

## **PROFESSIONAL HISTORY**

# **Concentric Energy Advisors, Inc. (2002 - Present)**

President

# Navigant Consulting, Inc. (1997 - 2001)

Managing Director (2000 – 2001) Director (1998 – 2000) Vice President, REED Consulting Group (1997 – 1998)

# **REED Consulting Group (1997)**

Vice President

## **Bay State Gas Company (1987 – 1997)**

Vice President, Energy Ventures and Assistant Treasurer

## **Boston College (1986 – 1987)**

Financial Analyst

## General Telephone Company of the South (1984 – 1986)

Revenue Requirements Analyst

## **EDUCATION**

M.B.A., University of Massachusetts at Amherst, 1984 B.S., University of Delaware, 1982

# **DESIGNATIONS AND PROFESSIONAL AFFILIATIONS**

Chartered Financial Analyst, 1991 Association for Investment Management and Research Boston Security Analyst Society

# **PUBLICATIONS/PRESENTATIONS**

Has made numerous presentations throughout the United States and Canada on several topics, including:

- Generation Asset Valuation and the Use of Real Options
- Retail and Wholesale Market Entry Strategies
- The Use Strategic Alliances in Restructured Energy Markets
- Gas Supply and Pipeline Infrastructure in the Northeast Energy Markets
- Nuclear Asset Valuation and the Divestiture Process

# **AVAILABLE UPON REQUEST**

Extensive client and project listings, and specific references.

SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT	
Arkansas Public Service Commission				•	
CenterPoint Energy Resources Corp. D/B/A CenterPoint Energy Arkansas Gas	01/07	CenterPoint Energy Resources Corp. D/B/A CenterPoint Energy Arkansas Gas	Docket No. 06-161-U	Return on Equity	
Colorado Public Utilities Commission					
Atmos Energy Corporation	07/09	Atmos Energy Colorado-Kansas Division	Docket No. 09AL-507G	Return on Equity (gas)	
Xcel Energy	12/06	Public Service Company of Colorado	Docket No. 06S-656G	Return on Equity (gas)	
Xcel Energy	04/06	Public Service Company of Colorado	Docket No. 06S-234EG	Return on Equity (electric)	
Xcel Energy	08/05	Public Service Company of Colorado	Docket No. 05S-369ST	Return on Equity (steam)	
Xcel Energy	05/05	Public Service Company of Colorado	Docket No. 05S-264G	Return on Equity (gas)	
Connecticut Department of Public Util	lity Control				
Southern Connecticut Gas Company	09/08	Southern Connecticut Gas Company	Docket No. 08-08-17	Return on Equity	
Southern Connecticut Gas Company	12/07	Southern Connecticut Gas Company	Docket No. 05-03-17PH02	Return on Equity	
Connecticut Natural Gas Corporation	12/07	Connecticut Natural Gas Corporation	Docket No. 06-03-04PH02	Return on Equity	
Federal Energy Regulatory Commission	on				
Portland Natural Gas Transmission System	05/10	Portland Natural Gas Transmission System	Docket No. RP10-729-000	Return on Equity	
Florida Gas Transmission Company, LLC	10/09	Florida Gas Transmission Company, LLC	Docket No. RP10-21-000	Return on Equity	
Maritimes and Northeast Pipeline, LLC	07/09	Maritimes and Northeast Pipeline, LLC	Docket No. RP09-809-000	Return on Equity	
Spectra Energy	02/08	Saltville Gas Storage	Docket No. RP08-257-000	Return on Equity	
Panhandle Energy Pipelines	08/07	Panhandle Energy Pipelines	Docket No. PL07-2-000	Response to draft policy statement regarding inclusion of MLPs in proxy groups for determination of gas pipeline ROEs	
Southwest Gas Storage Company	08/07	Southwest Gas Storage Company	Docket No. RP07-541-000	Return on Equity	
Southwest Gas Storage Company	06/07	Southwest Gas Storage Company	Docket No. RP07-34-000	Return on Equity	

SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT		
Sea Robin Pipeline LLC	06/07	Sea Robin Pipeline LLC	Docket No. RP07-513-000	Return on Equity		
Transwestern Pipeline Company	09/06	Transwestern Pipeline Company	Docket No. RP06-614-000	Return on Equity		
GPU International and Aquila	11/00	GPU International	Docket No. EC01-24-000	Market Power Study		
Georgia Public Service Commission						
Atlanta Gas Light Company	05/10	Atlanta Gas Light Company	Docket No. 31647-U	Return on Equity		
Maine Public Utilities Commission						
Northern Utilities, Inc.	07/95	Northern Utilities	Maine PUC	Gas Distribution System Expansion		
Massachusetts Department of Public	Utilities					
National Grid	08/09	Massachusetts Electric Company d/b/a National Grid	DPU 09-39	Revenue Decoupling and Return on Equity		
National Grid 08/09 Massachusetts El		Massachusetts Electric Company and Nantucket Electric Company d/b/a National Grid	DPU 09-38	Return on Equity – Solar Generation		
Bay State Gas Company	04/09	Bay State Gas Company	DTE 09-30	Return on Equity		
NSTAR Electric	09/04	NSTAR Electric	DTE 04-85	Divestiture of Power Purchase Agreement		
NSTAR Electric	08/04	NSTAR Electric	DTE 04-78	Divestiture of Power Purchase Agreement		
NSTAR Electric	07/04	NSTAR Electric	DTE 04-68	Divestiture of Power Purchase Agreement		
NSTAR Electric	07/04	NSTAR Electric	DTE 04-61	Divestiture of Power Purchase Agreement		
NSTAR Electric	06/04	NSTAR Electric	DTE 04-60	Divestiture of Power Purchase Agreement		
Unitil Corporation	01/04	Fitchburg Gas and Electric	DTE 03-52	Integrated Resource Plan; Gas Demand Forecast		
Bay State Gas Company	01/93	Bay State Gas Company	DPU 93-14	Long Term Debt Financing		
Bay State Gas Company	01/91	Bay State Gas Company	DPU 91-25	Long Term Debt Financing		
Minnesota Public Utilities Commissi	on					

Sponsor	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT	
Otter Tail Power Corporation	04/10	Otter Tail Power Company	Docket No. E-017/GR-10-239	Return on Equity	
Minnesota Power a division of ALLETE, Inc.	11/09	Minnesota Power	Docket No. E015/GR-09-1151	Return on Equity	
CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Minnesota Gas	11/08	CenterPoint Energy Minnesota Gas	Docket No. G-008/GR-08-1075	Return on Equity	
Otter Tail Power Corporation	10/07	Otter Tail Power Company	Docket No. E017/GR-07-1178	Return on Equity	
Xcel Energy	11/05	NSP-Minnesota	Docket No. E002/GR-05-1428	Return on Equity (electric)	
Xcel Energy	09/04	NSP Minnesota	Docket No. G002/GR-04-1511	Cost of Capital (gas)	
Mississippi Public Service Commission	ı				
CenterPoint Energy Resources, Corp. d/b/a CenterPoint Energy Entex and CenterPoint Energy Mississippi Gas		CenterPoint Energy Mississippi Gas	Docket No. 09-UN-334	Return on Equity	
Missouri Public Service Commission					
Union Electric Company d/b/a AmerenUE	06/10	Union Electric Company d/b/a AmerenUE	Case No. GR-2010-0363	Return on Equity (gas)	
New Hampshire Public Utilities Comm	nission				
EnergyNorth Natural Gas d/b/a National Grid NH	02/10	EnergyNorth Natural Gas d/b/a National Grid NH	Docket No. DG 10-017	Return on Equity	
Unitil Energy Systems, Inc. ("Unitil"), EnergyNorth Natural Gas, Inc. d/b/a National Grid NH, Granite State Electric Company d/b/a National Grid, and Northern Utilities, Inc. – New Hampshire Division		Unitil Energy Systems, Inc. ("Unitil"), EnergyNorth Natural Gas, Inc. d/b/a National Grid NH, Granite State Electric Company d/b/a National Grid, and Northern Utilities, Inc. – New Hampshire Division	Docket No. DG 07-072	Carrying Charge Rate on Cash Working Capital	
New Jersey Board of Public Utilities					
Pepco Holdings, Inc. 09/06		Atlantic City Electric Company	Docket No. EMO6090638	Divestiture and Valuation of Electric Generating Assets	
Pepco Holdings, Inc.	12/05	Atlantic City Electric Company	BPU Docket No. EM05121058	Market Value of Electric Generation Assets; Auction	

SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT		
Conectiv	06/03	Atlantic City Electric Company	BPU Docket No. EO03020091	Market Value of Electric Generation Assets; Auction Process		
New Mexico Public Regulation Comm	ission					
Public Service Company of New Mexico	06/10	Public Service Company of New Mexico	Case No. 10-00086-UT	Return on Equity (electric)		
Public Service Company of New Mexico	09/08	Public Service Company of New Mexico	Case No. 08-00273-UT	Return on Equity (electric)		
Xcel Energy	07/07	Southwestern Public Service Company	Case No. 07-00319-UT	Return on Equity (electric)		
New York State Public Service Commi	ssion					
Orange and Rockland Utilities, Inc.	07/10	Orange and Rockland Utilities, Inc.	Case No. 10-E-0362	Return on Equity (electric)		
		Consolidated Edison Company of New York, Inc.	Case No. 09-G-0795	Return on Equity (gas)		
Consolidated Edison Company of New York, Inc.			Case No. 09-S-0794	Return on Equity (steam)		
Niagara Mohawk Power Corporation	07/01	Niagara Mohawk Power Corporation	Case No. 01-E-1046	Power Purchase and Sale Agreement; Standard Offer Service Agreement		
North Dakota Public Service Commiss	ion					
Otter Tail Power Company	11/08	Otter Tail Power Company	Docket No. 08-862	Return on Equity (electric)		
Oklahoma Corporation Commission						
CenterPoint Energy Resources Corp., D/B/A CenterPoint Energy Oklahoma Gas	03/09	CenterPoint Energy Oklahoma Gas	Docket No. PUD200900055	Return on Equity		
Rhode Island Public Utilities Commiss	sion					
National Grid RI – Gas	08/08	National Grid RI – Gas	Docket No. 3943	Revenue Decoupling and Return on Equity		
South Carolina Public Service Commis	sion					
South Carolina Electric & Gas	03/10	South Carolina Electric & Gas	Docket No. 2009-489-E	Return on Equity		
South Dakota Public Utilities Commission	sion					

SPONSOR DATE		CASE/APPLICANT	DOCKET NO.	SUBJECT	
Northern States Power Company	06/09	South Dakota Division of Northern States Power	Docket No. EL09-009	Return on Equity (electric)	
Otter Tail Power Company	10/08	Otter Tail Power Company	Docket No. EL08-030	Return on Equity (electric)	
Texas Public Utility Commission					
CenterPoint Energy Houston Electric LLC	07/10	CenterPoint Energy Houston Electric LLC	Docket No. 38339	Return on Equity	
Xcel Energy 05/10 Southwestern Public Service Company		Docket No. 38147	Return on Equity (electric)		
Texas-New Mexico Power Company	08/08	Texas-New Mexico Power Company	Docket No. 36025	Return on Equity (electric)	
		Southwestern Public Service Company	SOAH Docket No. 473-06-2536 Docket No. 32766	Return on Equity (electric)	
Texas Railroad Commission					
CenterPoint Energy Resources Corp. 07/0 D/B/A CenterPoint Energy Entex and CenterPoint Energy Texas Gas		CenterPoint Energy Resources Corp. D/B/A CenterPoint Energy Entex and CenterPoint Energy Texas Gas	GUD 9902	Return on Equity	
CenterPoint Energy Resources Corp. D/B/A CenterPoint Energy Texas Gas	03/08	CenterPoint Energy Resources Corp. D/B/A CenterPoint Energy Texas Gas	GUD 9791	Return on Equity	
Utah Public Service Commission					
Questar Gas Company	12/07	Questar Gas Company	Docket No. 07-057-13	Return on Equity	
Vermont Public Service Board					
Green Mountain Power	04/06	Green Mountain Power	Docket Nos. 7175 and 7176	Return on Equity (electric)	
Vermont Gas Systems, Inc.	12/05	Vermont Gas Systems	Docket Nos. 7109 and 7160	Return on Equity (gas)	
Virginia State Corporation Commission	ı				
Columbia Gas Of Virginia, Inc.	06/06	Columbia Gas Of Virginia, Inc.	Case No. PUE-2005-00098	Merger Synergies	
Dominion Resources	10/01	Virginia Electric and Power Company	Case No. PUE000584	Corporate Structure and Electric Generation Strategy	

### PROXY GROUP SELECTION

		Pays regular quarterly dividends	Beta within 1 std. dev. of mean	Covered by at least 2 analysts	Credit rating ≥ BBB- & ≤ AAA		Reg. rev. / total rev. ≥ 60%	Reg. oper. inc. / total oper. inc. ≥ 60%	Reg. elec. rev. / total reg. rev. ≥ 90%	Reg. elec. op. inc. / total reg. op. inc. ≥ 90%	Coal-fired generation ≥ 10%	Not party to merger	in proxy	Included in final proxy group
Allegheny Energy, Inc.	AYE	✓		✓	✓	✓	✓		✓	✓	✓			
ALLETE, Inc.	ALE	✓	✓	✓	✓	✓	✓	✓			✓	✓		
Alliant Energy Corp.	LNT	✓	✓	✓	✓	✓	✓	✓			✓	✓		
Ameren Corp.	AEE	✓	✓.	✓	✓.	✓.	✓				✓	√,		
American Electric Power Co., Inc.	AEP			<u> </u>		<u> </u>			· · · · · · · · · · · · · · · · · · ·	<b>√</b>		<u> </u>	Yes	Yes
Avista Corp. Black Hills Corp.	AVA BKH		<u> </u>			<u> </u>								
CenterPoint Energy, Inc.	CNP	·····	<b>✓</b>	<i></i>	<u>`</u>	✓		<del>-</del>			···········	<u>`</u>		
Central Vermont Public Service Corp.		/		<u>`</u>				<u>-</u>						
CH Energy Group, Inc.	CV CHG													
Cleco Corp.	CNL	<b>√</b>	<i></i>	<b>√</b>	~	~		~		<b>√</b>	<b>√</b>		Yes	Yes
CMS Energy Corp.		√	√	<u>√</u>	<u>√</u>	✓	<b>√</b>				<u> </u>	<b>√</b>		
Consolidated Edison, Inc.	CMS ED	<b>~</b>		<b>~</b>	·	V	<b>√</b>	V				V		
Constellation Energy Group, Inc.	CEG	<b>√</b>	<b>√</b>	✓	✓						✓			
Dominion Resources, Inc. DPL Inc.	D DPL	<u> </u>	✓	<u> </u>	<u> </u>	<u> </u>		<b></b>			· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		
DPL Inc.	DPL	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓		
DTE Energy Co.	DTE		<u> </u>	<b>√</b>	<u>√</u>	✓					· · · · · · · · · · · · · · · · · · ·	<b>√</b>		
Duke Energy Corp. Edison International	DUK EIX												Yes	
El Paso Electric Co.	EE	· · · · · · · · · · · · · · · · · · ·	· · · · · ·	<u>`</u>	<u>`</u>	<u>`</u>	<del>-</del>	<u>`</u>		<u>/</u>		<u>`</u>	res	
Empire District Electric Co.	EDE					<u>`</u>		<u>v</u>	·······					Voo
Entergy Corp.	ETR					<u>.</u>	<u>/</u>				<u>.</u> ,			Yes
Exelon Corp.	EXC	·			·					·				
FirstEnergy Corp.	FF	✓	✓		√ ·		<b>√</b>		✓	✓	✓			
Great Plains Energy Inc.	FE GXP	<u>/</u>	<del>-</del>	<u>/</u>			<u>/</u>	······		······································	······································	······	Yes	
Hawaiian Electric Industries, Inc.	HE	<b>√</b>	✓	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	✓	<b>√</b>	✓		✓		
IDACORP, Inc.	IDA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Yes	Yes
Integrys Energy Group, Inc.	TEG	✓		✓	✓	✓		✓		✓	✓	✓		
ITC Holdings Corp.	ITC	<u> </u>		✓	<u> </u>		✓	✓.	✓	✓		<u>-</u> -		
MGE Energy, Inc.	MGEE						<u> </u>	✓.			<u>√</u>			
NextEra Energy Inc.	NEE			· · · · · · · · · · · · · · · · · · ·	<b>√</b>					<del>-</del>				
Northeast Utilities NSTAR	NU NST		√ ./		· · · · · ·	······	<u> </u>	<del>'</del>	· · · · · · · · · · · · · · · · · · ·	<u>`</u>	<b>√</b>	<u>/</u>	Yes	Yes
NV Energy Inc	NIVE	·		· <u>`</u>	······································		<u>`</u>	<u>`</u>		<u>×</u>		<u>`</u>		
NV Energy, Inc. OGE Energy Corp.	NVE OGE	<u>.</u>				<u>.</u>	<u>.</u>	<u>*</u> ,	<u> </u>		<u>.</u>	<u>*</u> ,		
Otter Tail Corp.	OTTR			· · · · · · · · · · · · · · · · · · ·	·	·			· · · · · · · · · · · · · · · · · · ·	✓	·	· · ·		
Penco Holdings, Inc.		✓		· ·	<u> </u>			✓	· ·	✓	✓	<b>~</b>		
Pepco Holdings, Inc. PG&E Corp.	POM PCG				······		✓ · · · · · · · · · · · · · · · · · · ·							
Pinnacle West Capital Corp.	PNW	<b>√</b>	✓	<b>√</b>	<b>√</b>	V	~	~	<b>√</b>	✓	<b>√</b>	<i></i>	Yes	Yes
PNM Resources, Inc. Portland General Electric Co.	PNM POR	<u> </u>		✓		✓	✓		✓	✓	✓	✓		
			✓	······································	✓	· · · · · · · · · · · · · · · · · · ·	· /	✓	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	Yes	Yes
PPL Corp.	PPL	✓	✓	✓	✓				✓	✓	✓			
Progress Energy, Inc. Public Service Enterprise Group Inc.	PGN	······································		<u>√</u>		·······························	······································	······································	<u> </u>	······································		<u>/</u>		
Public Service Enterprise Group Inc.	PEG	✓		······			<u>/</u>					<u>/</u>		
SCANA Corp.	SCG SRE		<u> </u>	<u> </u>							······			
Sempra Energy Southern Co.	SO			<u>*</u> j		<u>*</u> ,	<u>*</u> ,							
TECO Energy, Inc.	TE	<u>`</u>		<u>`</u>	<u>`</u>	<u>`</u>	<del>`</del>	<u>v</u>	ν	ν	<u>`</u>	<u>`</u>		
Ull Holdings Corn		·			· · · · · · · · · · · · · · · · · · ·				<b>√</b>					
UIL Holdings Corp. UniSource Energy Corp.	UIL UNS	······································				······	······································				······	✓		
Vectren Corp.	VVC	~		~	<b>√</b>	~						~		
Westar Energy, Inc.	WR	~	~	✓	✓	~	✓	<b>√</b>	✓	<b>√</b>	<u> </u>	✓	Yes	Yes
Wisconsin Energy Corp.	WEC	✓		✓	✓	<b>√</b>	<b>√</b>	<b>~</b>			<b>~</b>	<b>~</b>		
Xcel Energy Inc.	XEL						·				· · · · · · · · · · · · · · · · · · ·	<u> </u>		

### 30-DAY CONSTANT GROWTH DCF

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
					Expected							
		Annualized	Stock	Dividend	Dividend	Zacks EPS	Value Line	First Call	Average	Low DCF	Mean DCF	High DCF
Company		Dividend	Price	Yield	Yield	Growth	<b>EPS Growth</b>	<b>EPS Growth</b>	Growth Rate	ROE	ROE	ROE
PROXY GROUP ELECTRIC UTILITIES												
American Electric Power Company, Inc.	AEP	\$1.68	\$32.34	5.20%	5.29%	4.00%	3.00%	4.00%	3.67%	8.27%	8.96%	9.30%
Cleco Corporation	CNL	\$1.00	\$26.31	3.80%	3.94%	7.00%	8.00%	7.00%	7.33%	10.93%	11.27%	11.95%
Empire District Electric Company	EDE	\$1.28	\$18.43	6.95%	7.17%	NA	7.00%	6.00%	6.50%	13.15%	13.67%	14.19%
IDACORP, Inc.	IDA	\$1.20	\$33.17	3.62%	3.71%	4.70%	5.50%	4.50%	4.90%	8.20%	8.61%	9.22%
Northeast Utilities	NU	\$1.03	\$25.95	3.95%	4.08%	7.90%	4.00%	7.41%	6.44%	8.03%	10.51%	12.01%
Pinnacle West Capital Corporation	PNW	\$2.10	\$35.86	5.86%	6.05%	7.50%	6.00%	6.25%	6.58%	12.03%	12.63%	13.58%
Portland General Electric Company	POR	\$1.04	\$18.77	5.54%	5.66%	5.30%	3.00%	4.25%	4.18%	8.63%	9.84%	10.99%
Westar Energy, Inc.	WR	\$1.24	\$22.00	5.64%	5.87%	8.00%	7.50%	9.28%	8.26%	13.35%	14.13%	15.18%
		PROXY GR	OUP MEAN	5.07%	5.22%	6.34%	5.50%	6.09%	5.98%	10.32%	11.20%	12.05%
								Flotatio	n Adjustment	0.21%	0.21%	0.21%
								Adjuste	ed Mean RO	10.53%	11.41%	12.26%

- [1] Source: Bloomberg
  [2] Source: Bloomberg. Based on indicated number of days historical average
  [3] Equals Col. [1]/Col. [2]
- [3] Equals Col. [1] x (1+(0.5 x Col. [8]))) / Col. [2] [5] Source: Zacks [6] Source: Value Line [7] Source: Yahoo! Finance

- [8] Equals average of Cols. [5], [6], [7] [9] Equals (Col. [3] x (1 + (0.5 x Minimum (Col. [5], [6], [7])))) + Minimum (Col. [5], [6], [7])
- [10] Equals Col. [4] + Col. [8]
- [11] Equals (Col. [3] x (1 + (0.5 x Maximum (Col. [5], [6], [7])))) + Maximum (Col. [5], [6], [7]

### 90-DAY CONSTANT GROWTH DCF

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
					Expected							
		Annualized	Stock	Dividend	Dividend	Zacks EPS	Value Line		Average	Low DCF	Mean DCF	High DCF
Company		Dividend	Price	Yield	Yield	Growth	<b>EPS Growth</b>	First Call	Growth Rate	ROE	ROE	ROE
PROXY GROUP ELECTRIC UTILITIES												
American Electric Power Company, Inc.	AEP	\$1.68	\$33.37	5.03%	5.13%	4.00%	3.00%	4.00%	3.67%	8.11%	8.79%	9.14%
Cleco Corporation	CNL	\$1.00	\$26.57	3.76%	3.90%	7.00%	8.00%	7.00%	7.33%	10.90%	11.24%	11.91%
Empire District Electric Company	EDE	\$1.28	\$18.56	6.90%	7.12%	NA	7.00%	6.00%	6.50%	13.10%	13.62%	14.14%
IDACORP, Inc.	IDA	\$1.20	\$34.35	3.49%	3.58%	4.70%	5.50%	4.50%	4.90%	8.07%	8.48%	9.09%
Northeast Utilities	NU	\$1.03	\$26.70	3.84%	3.96%	7.90%	4.00%	7.41%	6.44%	7.92%	10.40%	11.89%
Pinnacle West Capital Corporation	PNW	\$2.10	\$36.95	5.68%	5.87%	7.50%	6.00%	6.25%	6.58%	11.85%	12.45%	13.40%
Portland General Electric Company	POR	\$1.04	\$19.19	5.42%	5.53%	5.30%	3.00%	4.25%	4.18%	8.50%	9.72%	10.86%
Westar Energy, Inc.	WR	\$1.24	\$22.41	5.53%	5.76%	8.00%	7.50%	9.28%	8.26%	13.24%	14.02%	15.07%
		PROXY GR	OUP MEAN	4.96%	5.11%	6.34%	5.50%	6.09%	5.98%	10.21%	11.09%	11.94%
								Flotati	on Adjustment	0.21%	0.21%	0.21%
								Adiust	ed Mean RO	10.42%	11.30%	12.15%

- [1] Source: Bloomberg
  [2] Source: Bloomberg. Based on indicated number of days historical average
  [3] Equals Col. [1]/Col. [2]
- [3] Equals Col. [1] x (1+(0.5 x Col. [8]))) / Col. [2] [5] Source: Zacks [6] Source: Value Line [7] Source: Yahoo! Finance

- [8] Equals average of Cols. [5], [6], [7] [9] Equals (Col. [3] x (1 + (0.5 x Minimum (Col. [5], [6], [7])))) + Minimum (Col. [5], [6], [7])
- [10] Equals Col. [4] + Col. [8]
- [11] Equals (Col. [3] x (1 + (0.5 x Maximum (Col. [5], [6], [7])))) + Maximum (Col. [5], [6], [7]

### 180-DAY CONSTANT GROWTH DCF

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
					Expected							
		Annualized	Stock	Dividend	Dividend	Zacks EPS	Value Line		Average	Low DCF	Mean DCF	High DCF
Company		Dividend	Price	Yield	Yield	Growth	<b>EPS Growth</b>	First Call	Growth Rate	ROE	ROE	ROE
PROXY GROUP ELECTRIC UTILITIES												
American Electric Power Company, Inc.	AEP	\$1.68	\$33.39	5.03%	5.12%	4.00%	3.00%	4.00%	3.67%	8.11%	8.79%	9.13%
Cleco Corporation	CNL	\$1.00	\$26.26	3.81%	3.95%	7.00%	8.00%	7.00%	7.33%	10.94%	11.28%	11.96%
Empire District Electric Company	EDE	\$1.28	\$18.54	6.91%	7.13%	NA	7.00%	6.00%	6.50%	13.11%	13.63%	14.15%
IDACORP, Inc.	IDA	\$1.20	\$32.53	3.69%	3.78%	4.70%	5.50%	4.50%	4.90%	8.27%	8.68%	9.29%
Northeast Utilities	NU	\$1.03	\$25.77	3.98%	4.11%	7.90%	4.00%	7.41%	6.44%	8.06%	10.54%	12.03%
Pinnacle West Capital Corporation	PNW	\$2.10	\$36.21	5.80%	5.99%	7.50%	6.00%	6.25%	6.58%	11.97%	12.57%	13.52%
Portland General Electric Company	POR	\$1.04	\$19.52	5.33%	5.44%	5.30%	3.00%	4.25%	4.18%	8.41%	9.62%	10.77%
Westar Energy, Inc.	WR	\$1.24	\$21.71	5.71%	5.95%	8.00%	7.50%	9.28%	8.26%	13.43%	14.21%	15.26%
		PROXY GR	OUP MEAN	5.03%	5.18%	6.34%	5.50%	6.09%	5.98%	10.29%	11.17%	12.01%
								Flotati	on Adjustment	0.21%	0.21%	0.21%
								Adjust	ed Mean ROE	10.50%	11.38%	12.22%

- [1] Source: Bloomberg
  [2] Source: Bloomberg. Based on indicated number of days historical average
  [3] Equals Col. [1]/Col. [2]
- [3] Equals Col. [1] x (1+(0.5 x Col. [8]))) / Col. [2] [5] Source: Zacks [6] Source: Value Line [7] Source: Yahoo! Finance

- [8] Equals average of Cols. [5], [6], [7] [9] Equals (Col. [3] x (1 + (0.5 x Minimum (Col. [5], [6], [7])))) + Minimum (Col. [5], [6], [7])
- [10] Equals Col. [4] + Col. [8]
- [11] Equals (Col. [3] x (1 + (0.5 x Maximum (Col. [5], [6], [7])))) + Maximum (Col. [5], [6], [7]

### FLOTATION COST ADJUSTMENT

Flotation Costs from Inception to Date

					Gross Equity							
		Shares	Of	fering	Issue before	U	nderwriting	Offering	Total Flotation		Flotation Cost	Weighted
Issuing Entity	Date	Issued	P	Price	Costs		Discount	Expense	Costs	Net Proceeds	Percentage	Average
Otter Tail Corp.	12/7/2004	3,335,000	\$	25.45	\$84,875,750	\$	3,168,250	\$ 300,000	\$3,468,250	\$81,407,500	4.086%	1.44%
Otter Tail Corp.	9/15/2008	5,175,000	\$	30.00	\$155,250,000	\$	5,627,813	\$ 400,000	\$6,027,813	\$149,222,188	3.883%	2.51%
Weighted Average Flotation Costs												3.95%

The flotation cost adjustment is derived by dividing the dividend yield by 1-F (where F = flotation costs expressed in percentage terms), or by .9605, and adding that result to the constant growth rate to determine the cost of equity. Using the formulas shown previously in my testimony, the Constant Growth DCF calculation is modified as follows to accomodate an adjustment for flotation costs:

$$k = \frac{D \times (1 + 0.5g)}{P \times (1 - F)} + g$$

Flotation Cost Adjustment

-		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
						Expected Dividend Yield				Average		Flotation
		Annualized	Stock		Expected	Adjusted for	Zacks EPS	Value Line EPS	First Call EPS	Growth		Adjusted
Company		Dividend	Price	Dividend Yield	Dividend Yield	Flotation Costs	Growth	Growth	Growth	Estimate	DCF k(e)	DCF k(e)
PROXY GROUP ELECTRIC UTILITIES												
American Electric Power Company, Inc.	AEP	\$1.68	\$32.34	5.20%	5.29%	5.51%	4.00%	3.00%	4.00%	3.67%	8.96%	9.18%
Cleco Corporation	CNL	\$1.00	\$26.31	3.80%	3.94%	4.10%	7.00%	8.00%	7.00%	7.33%	11.27%	11.44%
Empire District Electric Company	EDE	\$1.28	\$18.43	6.95%	7.17%	7.47%	NA	7.00%	6.00%	6.50%	13.67%	13.97%
IDACORP, Inc.	IDA	\$1.20	\$33.17	3.62%	3.71%	3.86%	4.70%	5.50%	4.50%	4.90%	8.61%	8.76%
Northeast Utilities	NU	\$1.03	\$25.95	3.95%	4.08%	4.24%	7.90%	4.00%	7.41%	6.44%	10.51%	10.68%
Pinnacle West Capital Corporation	PNW	\$2.10	\$35.86	5.86%	6.05%	6.30%	7.50%	6.00%	6.25%	6.58%	12.63%	12.88%
Portland General Electric Company	POR	\$1.04	\$18.77	5.54%	5.66%	5.89%	5.30%	3.00%	4.25%	4.18%	9.84%	10.07%
Westar Energy, Inc.	WR	\$1.24	\$22.00	5.64%	5.87%	6.11%	8.00%	7.50%	9.28%	8.26%	14.13%	14.37%
MEAN				5.07%	5 22%	5 44%	6.34%	5 50%	6.09%	5 98%	11 20%	11 42%

MEAN	11.42%
UNADJUSTED CONSTANT GROWTH DCF MEAN	11.20%
DIFFERENCE (FLOTATION COST ADJUSTMENT)	[12] 0.21%

- [1] Source: Bloomberg
- [2] Source: Bloomberg, 30-day average stock price as of June 30, 2010
- [3] Equals Col. [1] / Col. [2]
- [4] Equals (Col. [1] x (1+(0.5 x Col. [9]))) / Col. [2] [5] Equals Col. [4] / (1- Flotation Cost Percentage)
- [6] Source: Zacks
- [7] Source: Value Line
- [8] Source: Yahoo! Finance [9] Equals average of Cols. [6], [7], [8] [10] Equals Column [4] + Column [9]
- [11] Equals Column [5] + Column [9]
- [12] Equals Mean Adjusted DCF, Col. [11] Mean Unadjusted DCF, Col. [10]

## ADJUSTED BETAS

		[1]	[2]	[3]	[4]
		Augus	t 2008	June	2010
Company	Ticker	Value Line	Bloomberg	Value Line	Bloomberg
American Electric Power Company, Inc.	AEP	0.85	0.89	0.70	0.82
Cleco Corporation	CNL	1.00	0.94	0.65	0.71
Empire District Electric Company	EDE	0.85	0.78	0.70	0.75
IDACORP, Inc.	IDA	0.90	0.82	0.70	0.74
Northeast Utilities	NU	0.75	0.80	0.70	0.75
Pinnacle West Capital Corporation	PNW	0.80	0.74	0.75	0.84
Portland General Electric Company	POR	0.80	0.90	0.70	0.74
Westar Energy, Inc.	WR	0.90	0.92	0.75	0.81
	MEAN	0.86	0.85	0.71	0.77
	IVICAIN	0.	85	0.	74

[1] Source: Value Line; dated 6/27/2008, 8/8/2008, and 8/29/2008

[2] Source: Bloomberg; 9/15/2006 - 9/12/2008 [3] Source: Value Line; dated 5/7/2010, 5/28/2010, and 6/25/2010

[4] Source: Bloomberg; 7/4/2008 - 6/25/2010

# CAPITAL ASSET PRICING MODEL - 30-Day Average 30-Year Treasury Bond Yield

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
		,	Adjusted Beta	ıs					
					30-Yr	Market Risk			
Company		Value Line	Bloomberg	Mean Beta	Treasury	Premium	Low CAPM	CAPM k(e)	High CAPM
American Electric Power Company, Inc.	AEP	0.70	0.82	0.76	4.13%	6.70%	8.82%	9.23%	9.63%
Cleco Corporation	CNL	0.65	0.71	0.68	4.13%	6.70%	8.49%	8.70%	8.92%
Empire District Electric Company	EDE	0.70	0.75	0.73	4.13%	6.70%	8.82%	9.00%	9.18%
IDACORP, Inc.	IDA	0.70	0.74	0.72	4.13%	6.70%	8.82%	8.97%	9.12%
Northeast Utilities	NU	0.70	0.75	0.72	4.13%	6.70%	8.82%	8.98%	9.14%
Pinnacle West Capital Corporation	PNW	0.75	0.84	0.79	4.13%	6.70%	9.16%	9.45%	9.75%
Portland General Electric Company	POR	0.70	0.74	0.72	4.13%	6.70%	8.82%	8.96%	9.10%
Westar Energy, Inc.	WR	0.75	0.81	0.78	4.13%	6.70%	9.16%	9.35%	9.53%
MEAN		0.71	0.77	0.74			8.87%	9.08%	9.30%

## Notes

[1] Source: Value Line [2] Source: Bloomberg

[3] Equals average of Cols. [1] & [2]

[4] Source: Average of 30-Year Treasury Yield as of 6/30/2010

[5] Source: Morningstar, Inc.

[6] Equals Col. [4] + (Min. (Cols. [1], [2]) x Col. [5])

[7] Equals Col. [4] + (Col. [3] x Col. [5])

# CAPITAL ASSET PRICING MODEL - 90-Day Average 30-Year Treasury Bond Yield

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
		,	Adjusted Beta	ıs					
Company		Value Line	Bloomberg	Mean Beta	30-Yr Treasury	Market Risk Premium	Low CAPM	CAPM k(e)	High CAPM
American Electric Power Company, Inc.	AEP	0.70	0.82	0.76	4.45%	6.70%	9.14%	9.54%	9.95%
Cleco Corporation	CNL	0.65	0.71	0.68	4.45%	6.70%	8.80%	9.02%	9.23%
Empire District Electric Company	EDE	0.70	0.75	0.73	4.45%	6.70%	9.14%	9.32%	9.50%
IDACORP, Inc.	IDA	0.70	0.74	0.72	4.45%	6.70%	9.14%	9.29%	9.44%
Northeast Utilities	NU	0.70	0.75	0.72	4.45%	6.70%	9.14%	9.29%	9.45%
Pinnacle West Capital Corporation	PNW	0.75	0.84	0.79	4.45%	6.70%	9.47%	9.76%	10.06%
Portland General Electric Company	POR	0.70	0.74	0.72	4.45%	6.70%	9.14%	9.28%	9.42%
Westar Energy, Inc.	WR	0.75	0.81	0.78	4.45%	6.70%	9.47%	9.66%	9.85%
MEAN		0.71	0.77	0.74			9.18%	9.39%	9.61%

# Notes

[1] Source: Value Line [2] Source: Bloomberg

[3] Equals average of Cols. [1] & [2]

[4] Source: Average of 30-Year Treasury Yield as of 6/30/2010

[5] Source: Morningstar, Inc.

[6] Equals Col. [4] + (Min. (Cols. [1], [2]) x Col. [5])

[7] Equals Col. [4] + (Col. [3] x Col. [5])

# CAPITAL ASSET PRICING MODEL - 180-Day Average 30-Year Treasury Bond Yield

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
		,	Adjusted Beta	ıs					
					30-Yr	Market Risk			
Company		Value Line	Bloomberg	Mean Beta	Treasury	Premium	Low CAPM	CAPM k(e)	High CAPM
American Electric Power Company, Inc.	AEP	0.70	0.82	0.76	4.46%	6.70%	9.15%	9.55%	9.95%
Cleco Corporation	CNL	0.65	0.71	0.78	4.46%	6.70%	8.81%	9.02%	9.24%
Empire District Electric Company	EDE	0.70	0.75	0.73	4.46%	6.70%	9.15%	9.32%	9.50%
IDACORP, Inc.	IDA	0.70	0.74	0.72	4.46%	6.70%	9.15%	9.30%	9.44%
Northeast Utilities	NU	0.70	0.75	0.72	4.46%	6.70%	9.15%	9.30%	9.46%
Pinnacle West Capital Corporation	PNW	0.75	0.84	0.79	4.46%	6.70%	9.48%	9.77%	10.07%
Portland General Electric Company	POR	0.70	0.74	0.72	4.46%	6.70%	9.15%	9.28%	9.42%
Westar Energy, Inc.	WR	0.75	0.81	0.78	4.46%	6.70%	9.48%	9.67%	9.85%
MEAN		0.71	0.77	0.74			9.19%	9.40%	9.62%

## Notes

[1] Source: Value Line [2] Source: Bloomberg

[3] Equals average of Cols. [1] & [2]

[4] Source: Average of 30-Year Treasury Yield as of 6/30/2010

[5] Source: Morningstar, Inc.

[6] Equals Col. [4] + (Min. (Cols. [1], [2]) x Col. [5])

[7] Equals Col. [4] + (Col. [3] x Col. [5])

# CAPITAL ASSET PRICING MODEL - Projected Treasury Bond Yield

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
		,	Adjusted Beta	ıs					
					30-Yr	Market Risk			
Company		Value Line	Bloomberg	Mean Beta	Treasury	Premium	Low CAPM	CAPM k(e)	High CAPM
American Electric Power Company, Inc.	AEP	0.70	0.82	0.76	4.78%	6.70%	9.47%	9.88%	10.28%
Cleco Corporation	CNL	0.65	0.71	0.68	4.78%	6.70%	9.14%	9.35%	9.57%
Empire District Electric Company	EDE	0.70	0.75	0.73	4.78%	6.70%	9.47%	9.65%	9.83%
IDACORP, Inc.	IDA	0.70	0.74	0.72	4.78%	6.70%	9.47%	9.62%	9.77%
Northeast Utilities	NU	0.70	0.75	0.72	4.78%	6.70%	9.47%	9.63%	9.79%
Pinnacle West Capital Corporation	PNW	0.75	0.84	0.79	4.78%	6.70%	9.81%	10.10%	10.39%
Portland General Electric Company	POR	0.70	0.74	0.72	4.78%	6.70%	9.47%	9.61%	9.75%
Westar Energy, Inc.	WR	0.75	0.81	0.78	4.78%	6.70%	9.81%	10.00%	10.18%
MEAN		0.71	0.77	0.74			9.52%	9.73%	9.95%

# Notes

[1] Source: Value Line [2] Source: Bloomberg

[3] Equals average of Cols. [1] & [2] [4] Source: Blue Chip Financial Forecast, June 1, 2010

[5] Source: Morningstar, Inc.

[6] Equals Col. [4] + (Min. (Cols. [1], [2]) x Col. [5])

[7] Equals Col. [4] + (Col. [3] x Col. [5])

### CAPM UTILIZING ALTERNATIVE MARKET RISK PREMIUM CALCULATIONS

	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
			Market Ris	k Premium	Return (	on Equity		on Equity
								tion Costs
			Sharpe	Market	Sharpe	Market	Sharpe	Market
		Average	Ratio	DCF	Ratio	DCF	Ratio	DCF
		Beta	Derived	Derived	Derived	Derived	Derived	Derived
[1] Current 30-Year Treasury (30-day average)	4.13%	0.74	10.46%	9.02%	11.86%	10.79%	12.07%	11.01%
[2] Near-Term Projected 30-Year Treasury	4.78%	0.74	10.46%	9.02%	12.51%	11.44%	12.72%	11.66%

AVERAGE 12.18% 11.12% 12.40% 11.33%

Notes:
[1] Source: Bloomberg
[2] Source: Blue Chip Financial Forecasts, Vol. 29, No. 6, June 1, 2010, at 2
[3] see Notes [1] and [2]
[4] Source: Exhbit\_\_(RBH-1), Schedule 7
[5] Source: Exhbit\_\_(RBH-1), Schedule 8 at 1
[6] Source: Exhbit\_\_(RBH-1), Schedule 8 at 2
[7] Equals Col. [3] + (Col. [4] x Col. [5])
[8] Equals Col. [3] + (Col. [4] x Col. [6])
[9] Equals Col. [3] + Flotation Cost Adjustment (see Exhbit\_\_(RBH-1), Schedule 5
[10] Equals Col. [8] + Flotation Cost Adjustment (see Exhbit\_\_(RBH-1), Schedule 5 [10] Equals Col. [8] + Flotation Cost Adjustment (see Exhbit\_(RBH-1), Schedule 5

## MARKET RISK PREMIUM UTILIZING EXPECTED MARKET SHARPE RATIO

[1]	[2]	[3]	[4]	[5]
RP <sub>h</sub>	Vol <sub>h</sub>	VOL <sub>e</sub>	Historical Market Sharpe Ratio	RP <sub>e</sub>
6.70%	20 40%	31.84%	32.85%	10.46%

	[6]	[7]	[8]	[9]
		10/10 VIX	11/10 VIX	12/10 VIX
Date	VXV	Futures	Futures	Futures
6/30/2010	35.23	35.30	34.80	33.90
6/29/2010	34.38	34.75	34.25	33.50
6/28/2010	30.96	32.50	32.00	31.35
6/25/2010	30.70	31.95	31.50	30.75
6/24/2010	31.36	31.90	31.45	30.70
6/23/2010	29.26	30.85	30.70	30.15
6/22/2010	29.09	30.40	30.30	29.55
6/21/2010	27.54	29.65	29.60	28.90
6/18/2010	27.96	29.55	29.50	28.85
6/17/2010	28.21	29.95	29.90	29.25
6/16/2010	28.78	30.20	30.20	29.45
6/15/2010	28.45	30.45	30.35	29.50
6/14/2010	30.68	31.60	31.45	30.40
6/11/2010	30.95	31.80	31.80	30.90
6/10/2010	31.47	32.10	32.10	31.10
6/9/2010	33.80	33.05	32.70	31.75
6/8/2010	33.65	32.75	32.55	31.60
6/7/2010	35.30	33.05	32.75	31.95
6/4/2010	34.37	32.55	32.40	31.70
6/3/2010	30.24	31.20	31.15	30.75
6/2/2010	30.59	31.50	31.45	31.25
6/1/2010	34.02	32.15	32.00	31.90
5/28/2010	32.00	31.60	31.50	31.45
5/27/2010	30.64	31.40	31.35	31.30
5/26/2010	33.95	33.00	32.80	32.45
5/25/2010	34.90	33.30	33.00	32.75
5/24/2010	36.91	33.70	33.35	32.95
5/21/2010	37.40	33.80	33.40	32.90
5/20/2010	40.83	33.80	33.30	32.90
5/19/2010	34.18	31.45	31.15	30.90
_				

Average 31.84

[1] Source: Morningstar, Inc.

RP<sub>h</sub> = historical arithmetic average Risk Premium

 $\overline{\frac{RP_h}{}} \times Vol_e = RP_e$  $Vol_h$ 

[2] Source: Morningstar, Inc. Vol<sub>h</sub> = historical market volatility

Vol<sub>h</sub> = historical market volatility

[3] Vol<sub>e</sub> = expected market volatility (see below)

[4] Equals Col. [1] / Col. [2]

[5] Equals Col. [3] x Col. [4]

[6] Source: Bloomberg

[7] Source: Bloomberg

[8] Source: Bloomberg

[9] Source: Bloomberg

## ESTIMATED MARKET RISK PREMIUM DERIVED FROM ANALYSTS LONG-TERM GROWTH ESTIMATES

[1]	[2]	[3]	
Estimated	Weighted Index	S&P 500	
Weighted Index	Long-Term	Est. Required	
Dividend Yield	Growth Rate	Market Return	
2.09%	10.95%	13.15%	
	[4] Current 30-Year Treasury (30-day average)	4.13%	
	[5] Implied Market Risk Premium:	9.02%	
[6] percen	t of Index Capitalization Represented by Estimate:	96.97%	

		[7]	[8]	[9]	[10]	[11]
		Weight in	Long-Term	Cap-Weighted Long-Term	Estimated	Cap-Weighted
Name	Ticker	Index	Growth Est.	Growth Est.	Dividend Yield	Dividend Yield
3M CO	MMM	0.58%	11.90%	0.07%	2.65%	0.02%
ABBOTT LABORATORIES	ABT	0.75%	12.00%	0.09%	3.72%	0.03%
ABERCROMBIE & FITCH CO-CL A	ANF	0.03%	17.13%	0.00%	2.27%	0.00%
ADOBE SYSTEMS INC	ADBE	0.14%	14.20%	0.02%	0.00%	0.00%
ADVANCED MICRO DEVICES	AMD	0.05%	12.50%	0.01%	0.00%	0.00%
AES CORP	AES	0.08%	6.00%	0.00%	n/a	0.00%
AETNA INC	AET	0.12%	12.25%	0.01%	0.08%	0.00%
AFLAC INC	AFL	0.21%	12.67%	0.03%	2.63%	0.01%
AGILENT TECHNOLOGIES INC	A	0.10%	15.00%	0.02%	0.00%	0.00%
AIR PRODUCTS & CHEMICALS INC	APD	0.14%	10.76%	0.02%	2.91%	0.00%
AIRGAS INC	ARG	0.05%	12.66%	0.01%	1.32%	0.00%
AK STEEL HOLDING CORP	AKS	0.01%	10.00%	0.00%	1.64%	0.00%
AKAMAI TECHNOLOGIES INC	AKAM	0.07%	14.50%	0.01%	0.00%	0.00%
ALCOA INC	AA	0.11%	9.00%	0.01%	1.16%	0.00%
ALLEGHENY ENERGY INC	AYE	0.04%	9.00 /6 n/a	0.01 /6 n/a	2.95%	0.00%
ALLEGHENY TECHNOLOGIES INC	ATI	0.05%	20.00%	0.01%	1.58%	0.00%
ALLERGAN INC	AGN	0.19%	14.46%	0.01%	0.43%	0.00%
	AGN	0.19%	7.60%	0.03%	2.75%	0.00%
ALLSTATE CORP						
ALTERA CORPORATION	ALTR	0.08%	19.33%	0.02%	0.84%	0.00%
ALTRIA GROUP INC	MO	0.43%	7.50%	0.03%	7.16%	0.03%
AMAZON.COM INC	AMZN	0.51%	26.43%	0.14%	0.00%	0.00%
AMEREN CORPORATION	AEE	0.06%	n/a	n/a	6.41%	0.00%
AMERICAN ELECTRIC POWER	AEP	0.16%	3.33%	0.01%	5.09%	0.01%
AMERICAN EXPRESS CO	AXP	0.50%	10.83%	0.05%	1.79%	0.01%
AMERICAN INTERNATIONAL GROUP	AIG	0.25%	9.00%	0.02%	n/a	0.00%
AMERICAN TOWER CORP-CL A	AMT	0.19%	21.02%	0.04%	0.00%	0.00%
AMERIPRISE FINANCIAL INC	AMP	0.10%	13.33%	0.01%	1.87%	0.00%
AMERISOURCEBERGEN CORP	ABC	0.09%	12.75%	0.01%	0.86%	0.00%
AMGEN INC	AMGN	0.53%	8.76%	0.05%	0.00%	0.00%
AMPHENOL CORP-CL A	APH	0.07%	17.50%	0.01%	0.15%	0.00%
ANADARKO PETROLEUM CORP	APC	0.19%	12.79%	0.02%	1.03%	0.00%
ANALOG DEVICES INC	ADI	0.09%	10.67%	0.01%	2.96%	0.00%
AON CORP	AON	0.10%	6.50%	0.01%	1.62%	0.00%
APACHE CORP	APA	0.30%	8.66%	0.03%	0.73%	0.00%
APARTMENT INVT & MGMT CO -A	AIV	0.02%	7.10%	0.00%	1.98%	0.00%
APOLLO GROUP INC-CL A	APOL	0.07%	16.97%	0.01%	0.00%	0.00%
APPLE INC	AAPL	2.40%	18.00%	0.43%	0.00%	0.00%
APPLIED MATERIALS INC	AMAT	0.17%	12.75%	0.02%	1.99%	0.00%
ARCHER-DANIELS-MIDLAND CO	ADM	0.17%	10.00%	0.02%	2.19%	0.00%
ASSURANT INC	AIZ	0.04%	9.67%	0.00%	1.71%	0.00%
AT&T INC	T	1.47%	6.80%	0.10%	6.97%	0.10%
AUTODESK INC	ADSK	0.06%	14.57%	0.01%	0.00%	0.00%
AUTOMATIC DATA PROCESSING	ADP	0.21%	11.35%	0.02%	3.34%	0.01%
AUTONATION INC	AN	0.03%	15.38%	0.01%	0.00%	0.00%
AUTOZONE INC	AZO	0.09%	14.23%	0.01%	0.00%	0.00%
AVALONBAY COMMUNITIES INC	AVB	0.08%	7.35%	0.01%	3.72%	0.00%
AVERY DENNISON CORP	AVY	0.04%	7.00%	0.00%	2.46%	0.00%
AVON PRODUCTS INC	AVP	0.12%	11.50%	0.01%	3.28%	0.00%
BAKER HUGHES INC	BHI	0.19%	2.30%	0.00%	1.36%	0.00%
BALL CORP	BLL	0.05%	7.40%	0.00%	0.75%	0.00%
BANK OF NEW YORK MELLON CORP	BK	0.32%	12.32%	0.04%	1.60%	0.01%

		[7]	[8]	[9]	[10]	[11]
				Cap-Weighted	Fatimata d	O Weinberd
Name	Ticker	Weight in Index	Long-Term Growth Est.	Long-Term Growth Est.	Estimated Dividend Yield	Cap-Weighted Dividend Yield
BANK OF AMERICA CORP	BAC	1.50%	6.50%	0.10%	0.28%	0.00%
BAXTER INTERNATIONAL INC	BAX	0.25%	9.88%	0.02%	2.80%	0.01%
BB&T CORP	BBT	0.19%	6.75%	0.01%	2.40%	0.00%
BECTON DICKINSON AND CO	BDX	0.16%	10.63%	0.02%	2.16%	0.00%
BED BATH & BEYOND INC	BBBY	0.10%	12.96%	0.01%	0.00%	0.00%
BEMIS COMPANY	BMS	0.03%	11.20%	0.00%	3.37%	0.00%
BERKSHIRE HATHAWAY INC-CL B	BRK/B	0.80%	n/a	n/a	n/a	0.00%
BEST BUY CO INC	BBY	0.15%	12.15%	0.02%	1.64%	0.00%
BIG LOTS INC BIOGEN IDEC INC	BIG BIIB	0.03% 0.13%	14.20% 7.78%	0.00% 0.01%	n/a 0.00%	0.00% 0.00%
BMC SOFTWARE INC	BMC	0.13%	11.48%	0.01%	0.00 / <sub>0</sub> n/a	0.00%
BOEING CO	BA	0.50%	14.53%	0.07%	2.68%	0.01%
BOSTON PROPERTIES INC	BXP	0.10%	4.88%	0.01%	2.74%	0.00%
BOSTON SCIENTIFIC CORP	BSX	0.09%	7.96%	0.01%	0.00%	0.00%
BRISTOL-MYERS SQUIBB CO	BMY	0.44%	4.57%	0.02%	4.99%	0.02%
BROADCOM CORP-CL A	BRCM	0.15%	21.00%	0.03%	0.96%	0.00%
BROWN-FORMAN CORP-CLASS B	BF/B	0.05%	n/a	n/a	2.17%	0.00%
CA INC	CA	0.10%	11.00%	0.01%	0.88%	0.00%
CABOT OIL & GAS CORP	COG	0.03%	11.50%	0.00%	0.34%	0.00%
CAMERON INTERNATIONAL CORP	CAM	0.08%	55.50%	0.05%	0.00%	0.00%
CAMPBELL SOUP CO	CPB	0.13%	8.02%	0.01%	3.02%	0.00%
CAPITAL ONE FINANCIAL CORP CARDINAL HEALTH INC	COF CAH	0.19% 0.13%	9.90% 11.33%	0.02% 0.01%	0.57% 2.09%	0.00% 0.00%
CAREFUSION CORP	CFN	0.15%	10.63%	0.01%	0.00%	0.00%
CARNIVAL CORP	CCL	0.20%	14.96%	0.03%	1.34%	0.00%
CATERPILLAR INC	CAT	0.40%	19.00%	0.08%	2.76%	0.01%
CB RICHARD ELLIS GROUP INC-A	CBG	0.05%	13.33%	0.01%	0.00%	0.00%
CBS CORP-CLASS B NON VOTING	CBS	0.09%	8.35%	0.01%	1.51%	0.00%
CELGENE CORP	CELG	0.24%	23.16%	0.06%	0.00%	0.00%
CENTERPOINT ENERGY INC	CNP	0.06%	3.73%	0.00%	5.85%	0.00%
CENTURYLINK INC	CTL	0.10%	0.37%	0.00%	8.64%	0.01%
CEPHALON INC	CEPH	0.04%	10.44%	0.00%	n/a	0.00%
CERNER CORP	CERN	0.07%	18.12%	0.01%	0.00%	0.00%
CF INDUSTRIES HOLDINGS INC	CF	0.05%	15.50%	0.01%	0.61%	0.00%
C.H. ROBINSON WORLDWIDE INC CHESAPEAKE ENERGY CORP	CHRW CHK	0.10% 0.14%	15.33% 9.40%	0.01% 0.01%	1.76% 1.41%	0.00% 0.00%
CHEVRON CORP	CVX	1.42%	19.16%	0.01%	4.13%	0.06%
CHUBB CORP	CB	0.17%	8.73%	0.01%	2.93%	0.00%
CIGNA CORP	CI	0.09%	8.50%	0.01%	0.11%	0.00%
CINCINNATI FINANCIAL CORP	CINF	0.04%	n/a	n/a	6.10%	0.00%
CINTAS CORP	CTAS	0.04%	10.67%	0.00%	2.06%	0.00%
CISCO SYSTEMS INC	CSCO	1.27%	11.93%	0.15%	0.00%	0.00%
CITIGROUP INC	С	1.14%	9.33%	0.11%	0.00%	0.00%
CITRIX SYSTEMS INC	CTXS	0.08%	11.36%	0.01%	0.00%	0.00%
CLIFFS NATURAL RESOURCES INC	CLF	0.07%	13.50%	0.01%	0.78%	0.00%
CLOROX COMPANY	CLX	0.09%	9.50%	0.01%	3.20%	0.00%
CME GROUP INC CMS ENERGY CORP	CME CMS	0.19%	13.67% 7.40%	0.03% 0.00%	1.64% 4.11%	0.00% 0.00%
COACH INC	COH	0.04% 0.12%	7.40% 14.50%	0.02%	4.11% 0.81%	0.00%
COCA-COLA CO/THE	KO	1.20%	8.50%	0.10%	3.46%	0.04%
COCA-COLA ENTERPRISES	CCE	0.14%	9.00%	0.01%	1.33%	0.00%
COGNIZANT TECH SOLUTIONS-A	CTSH	0.16%	16.83%	0.03%	0.00%	0.00%
COLGATE-PALMOLIVE CO	CL	0.40%	9.80%	0.04%	2.53%	0.01%
COMCAST CORP-CLASS A	CMCSA	0.38%	14.97%	0.06%	2.09%	0.01%
COMERICA INC	CMA	0.07%	8.38%	0.01%	0.53%	0.00%
COMPUTER SCIENCES CORP	CSC	0.07%	9.00%	0.01%	0.87%	0.00%
COMPUWARE CORP	CPWR	0.02%	5.00%	0.00%	n/a	0.00%
CONAGRA FOODS INC	CAG	0.11%	9.07%	0.01%	3.63%	0.00%
CONOCOPHILLIPS	COP	0.77%	22.92%	0.18%	4.24%	0.03%
CONSOLIDATED EDISON INC	ED	0.13%	4.02%	0.01%	5.46%	0.01%
CONSOL ENERGY INC CONSTELLATION ENERGY GROUP	CNX CEG	0.08% 0.07%	9.50% 3.00%	0.01% 0.00%	1.17% 2.93%	0.00% 0.00%
CONSTELLATION ENERGY GROUP CONSTELLATION BRANDS INC-A	STZ	0.07%	3.00% 7.00%	0.00%	2.93% 0.00%	0.00%
CORNING INC	GLW	0.03%	7.00% 12.00%	0.03%	1.22%	0.00%
COSTCO WHOLESALE CORP	COST	0.25%	12.76%	0.03%	1.37%	0.00%
COVENTRY HEALTH CARE INC	CVH	0.03%	6.38%	0.00%	0.00%	0.00%
CR BARD INC	BCR	0.08%	12.00%	0.01%	0.88%	0.00%
-		/		/ 0		/0

Cap-Weight of			[7]	[8]	[9]	[10]	[11]
Name			Weight in	Long-Term		Estimated	Can-Weighted
CLIMINIS INC         CMI         0.14%         11.50%         0.02%         1.10%         0.00%           CANS CAREMARK CORP         CVS         0.41%         12.75%         0.05%         1.12%         0.00% <th>Name</th> <th>Ticker</th> <th></th> <th></th> <th></th> <th></th> <th></th>	Name	Ticker					
CLIMINIS INC         CMI         0.14%         11.50%         0.02%         1.10%         0.00%           CANS CAREMARK CORP         CVS         0.41%         12.75%         0.05%         1.12%         0.00% <td>007.0000</td> <td>2014</td> <td>2.222/</td> <td>0.040/</td> <td>0.000/</td> <td>4.000/</td> <td>0.000/</td>	007.0000	2014	2.222/	0.040/	0.000/	4.000/	0.000/
CVS CAREMARK CORP DHR 0.25% 14.46% 0.04% 0.20% 0.00% DANAHER CORP DHR 0.25% 14.46% 0.04% 0.20% 0.00% DANAHER CORP DHR 0.26% 14.46% 0.04% 0.20% 0.00% DANAHER CORP DHR 0.26% 14.236% 0.01% 0.00%							
DANAHER CORP DANADEN RESTAURANTS INC DPI DANDEN RESTAURANTS INC DPI DAVITA INC DVA 0.07% 12.08% 0.01% 0.00%							
DARDEN RESTAURANTS INC							
DAYTA INC  DAYA  0.07%  12.08%  0.01%  0.00%							
DEERE & CO DELL INC DELL INC DELL INC DELL D.25% 12,33% 0.03% 0.00% 0.00% 0.00% DENBURY RESOURCES INC DNR 0.06% 5.50% 0.00% 0.00% DENBURY RESOURCES INC DNR 0.06% 5.50% 0.00% 0.00% DEVON ENERGY CORPORATION DVN 0.28% 6.28% 0.02% 1.05% 0.00% DEVON ENERGY CORPORATION DVN 0.28% 6.28% 0.02% 1.05% 0.00% DEVON ENERGY CORPORATION DVN 0.04% 2.067% 0.01% 0.36% 0.00% DIAMOND OFFSHORE DRILLING DV 0.04% 2.067% 0.01% 0.36% 0.00% DIAMOND OFFSHORE DRILLING DV 0.04% 2.067% 0.01% 0.36% 0.00% DIAMOND OFFSHORE DRILLING DV 0.04% 2.067% 0.01% 0.36% 0.00% DIAMOND OFFSHORE DRILLING DV 0.08% 1.00% 0.01% 9.76% 0.01% DIAMOND OFFSHORE DRILLING DV 0.08% 1.00% 0.01% 9.76% 0.01% DISCOVER TRANSICIAL SERVICES DFS 0.08% 0.00% 0.00% 0.05% 0.06% 0.05% 0.00% DISCOVER TRANSICIAL SERVICES DISCOVER T							
DELL INC DENBURY RESOURCES INC DNR DOR 0.06% 5.50% 0.00% 0.00% 0.00% DENTSPLY INTERNATIONAL INC XRAY 0.05% 11.75% 0.01% 0.68% 0.00% DEVON ENRECRY CORPORATION DVN 0.28% 6.29% 0.02% 1.05% 0.00% DEVON ENRECRY CORPORATION DVN DEVRY INC DV 0.04% 20.67% 0.01% 0.36% 0.00% DEVRY INC DV 0.04% 20.67% 0.01% 0.36% 0.00% DEVRY INC DV 0.04% 20.67% 0.01% 0.36% 0.00% DIRECTY-CLASS A DTV 0.31% 19.16% 0.06% 0.00% DISCOVER INANCIAL SERVICES DFS 0.06% 6.00% 0.00% 0.00% DISCOVERY COMMUNICATIONS-A DOWN CHEMICAL DOWN DOWN DOWN DOWN DOWN DOWN DOWN DOWN	DEAN FOODS CO	DF	0.02%	9.24%	0.00%	0.00%	0.00%
DENBURY RESOURCES INC	DEERE & CO	DE	0.25%	8.75%	0.02%	2.12%	0.01%
DENTSPLY INTERNATIONAL.INC	DELL INC	DELL	0.25%			0.00%	0.00%
DEVOR ENERGY CORPORATION   DV	DENBURY RESOURCES INC						
DEVRY INC							
DIAMOND OFFSHORE DRILLING   DO   0.09%   16.00%   0.01%   9.79%   0.01%   DIRECTY-CLASS A   DTV   0.31%   19.16%   0.06%   0.00%   0.00%   0.00%   DISCOVER FINANCIAL SERVICES   DFS   0.08%   6.00%   0.00%   0.65%   0.00%							
DIRECTY-CLASS A   DTV   0.31%   19.16%   0.06%   0.00%   0.00%   0.00%   0.00%   0.005   0.0							
DISCOVER FINANCIAL SERVICES         DFS         0.08%         6.00%         0.00%         0.05%         0.00%           DOMINION RESOURCES INC/VA         D         0.05%         3.25%         0.01%         4.68%         0.01%           DOVER CORP         DOV         0.08%         1.20%         0.01%         4.68%         0.01%           DOW CHENICAL         DOW         0.29%         7.50%         0.02%         3.50%         0.01%           DW HORTON INC         DHI         0.03%         7.57%         0.02%         3.50%         0.01%           DR FEDRES RAPPLE GROUP INC         DPS         0.10%         9.00%         0.01%         2.22%         0.00%           DIVE ENERGY CORP         DUK         0.28%         1.00%         0.00%         0.01%         2.22%         0.00%           DUR ENERGY CORP         DUK         0.22%         1.00%         0.00%         0.03%         4.68%         0.02%           DUKE ENERGY CORP         DINB         0.03%         10.73%         0.00%         0.03%         0.01%           DUR SENERGY CORP         DINB         0.03%         10.73%         0.00%         0.00%         0.02%           PULKE ENERGY CORP         DINB         0.03%							
DISCOVERY COMMUNICATIONS-A         DISCA         0.05%         20.80%         0.01%         0.00%         0.00%           DOMINION RESOURCES INC/VA         D         0.24%         3.25%         0.01%         2.52%         0.00%           DOW CHEMICAL         DOV         0.08%         12.00%         0.01%         2.52%         0.00%           DN CHEMICAL         DOW         0.29%         7.50%         0.00%         1.50%         0.00%           DR HORTON INC         DHI         0.03%         7.67%         0.00%         1.50%         0.00%           DTE ENERGY COMPANY         DTE         0.08%         4.50%         0.00%         4.68%         0.00%           DUE PONT (EL.) DE NEMOURS         DD         0.33%         10.50%         0.00%         4.68%         0.02%           DUK E BERGY CORP         DUK         0.22%         1.00%         0.00%         6.08%         0.02%           DUK E BERGY CORP         DK         0.22%         1.00%         0.00%         6.08%         0.07%           DUK E BERGY CORP         DK         0.03%         10.33%         10.33%         0.00%         10.33%         0.00%         0.00%         0.00%         0.00%         0.00%         0.00%							
DOMINION RESOURCES INC/A   D   D.424%   3.25%   D.01%   4.88%   D.01%   DOVER CORP   DOV   DOW   D.29%   7.50%   D.02%   3.50%   D.01%   DOVER CORP   DOV   D.02%   7.50%   D.02%   3.50%   D.01%   DOVER CORP   DOV   D.29%   7.50%   D.02%   3.50%   D.01%   DOVER CORP   D.01%   D.03%   7.67%   D.00%   D.01%   D.00%   D.01%   D.00%							
DOVER CORP         DOV         0.08%         12.00%         0.01%         2.52%         0.00%           DOW CHEMICAL         DOW         0.29%         7.50%         0.00%         3.50%         0.01%           DR HORTON INC         DHI         0.03%         7.67%         0.00%         1.50%         0.00%           DR PEPPER SNAPPLE GROUP INC         DPS         0.10%         9.00%         0.01%         2.22%         0.00%           DU PONT (EL) DE NEMOURS         DD         0.33%         10.56%         0.00%         4.68%         0.00%           DUK ENERGY CORP         DUK         0.22%         1.00%         0.00%         6.08%         0.01%           DUK ENERGY CORP         DUK         0.22%         1.00%         0.00%         6.08%         0.01%           DUN AS BRADSTREET CORP         DNB         0.03%         10.33%         0.00%         6.08%         0.01%           EASTMAN CHEMICAL CORP         ETFC         0.03%         10.33%         0.00%         0.00%         0.00%           EASTMAN CHEMICAL CORP         ETN         0.11%         10.00%         0.00%         0.00%         0.00%           EASTMAN CHEMICAL CORP         ETN         0.11%         10.00%         0.							
DOW CHEMICAL   DOW   0.29%   7.50%   0.02%   3.50%   0.01%   CR PROTON INC   DHI   0.03%   7.67%   0.00%   1.50%   0.00%   CR PEPPER SNAPPLE GROUP INC   DPS   0.10%   9.00%   0.01%   2.22%   0.00%   DU POINT (E.I.) DE NEMOURS   DD   0.33%   10.50%   0.03%   4.68%   0.00%   DU POINT (E.I.) DE NEMOURS   DD   0.33%   10.50%   0.03%   4.68%   0.02%   0.00%   DU POINT (E.I.) DE NEMOURS   DD   0.33%   10.50%   0.03%   4.68%   0.02%   0.00							
DR HORTON INC  DR HEPPER SNAPPLE GROUP INC  DPS  OPS PEPPER SNAPPLE GROUP INC  DPS  OPS 1.50%  0.00		DOW					
DTE   0.08%	DR HORTON INC	DHI	0.03%	7.67%			0.00%
DUP DONT (E.I.) DE NEMOURS   DD	DR PEPPER SNAPPLE GROUP INC	DPS	0.10%	9.00%	0.01%	2.22%	0.00%
DUKE         DUK         0.22%         1.00%         0.00%         6.08%         0.01%           DUN & BRADSTREET CORP         ETFC         0.03%         10.73%         0.00%         n/a         0.00%           E-TRADE FINANCIAL CORP         ETFC         0.03%         n/a         n/a         0.00%         0.00%           EASTMAN CHEMICAL COMPANY         EMN         0.04%         11.50%         0.00%         0.00%         0.00%           EASTMAN CHEMICAL COMPANY         EMN         0.04%         11.50%         0.00%         0.00%         0.00%           EASTMAN KODAR CO         EK         0.01%         11.00%         0.00%         0.00%         0.00%           EATON CORP         ETN         0.11%         10.25%         0.01%         3.10%         0.00%           ECOLAB INC         ECL         0.11%         10.00%         0.00%         4.00%         0.00%           ECOLAB INC         ECL         0.11%         1.00%         0.00%         4.00%         0.00%           ELISTRONIC ARTS INC         ERTS         0.05%         15.23%         0.00%         0.00%           ELECTRONIC ARTS INC         ERTS         0.05%         15.46%         0.06%         0.00%		DTE	0.08%	4.50%	0.00%	4.68%	0.00%
DUN & BRADSTREET CORP							
ETTRADE FINANCIAL CORP ESTEVAN CHEMICAL COMPANY EMM 0.04% 11.50% 0.00% 0.00% 0.00% EASTMAN KODAK CO EK 0.01% 10.00% 0.00% 0.00% EATON CORP ETN 0.11% 10.05% 0.01% 3.10% 0.00% EATON CORP ETN 0.11% 10.25% 0.01% 3.10% 0.00% EOLAB INC EBAY 0.27% 12.51% 0.03% 0.00% 0.00% EOLAB INC ECLL 0.11% 1.00% 0.00% 1.31% 0.00% EOLAB INC EDISON INTERNATIONAL EIX 0.11% 1.00% 0.00% 0.05% 0.00% EL PASO CORP EP 0.08% 5.93% 0.00% 0.35% 0.00% ELECTRONIC ARTS INC ERTS 0.05% 15.29% 0.01% 0.00% ELILLLY 8 CO ELLLY 0.40% 1/a n/a 5.69% 0.00% EMERSON ELECTRIC CO EMR 0.39% 15.46% 0.06% 0.00% EMERSON ELECTROIC CO EMR 0.39% 15.46% 0.06% 0.00% EMERSON ELECTROIC CO EMR 0.34% 13.27% 0.05% 3.13% 0.01% EOG RESOURCES INC EOG 0.26% 15.20% 0.01% 0.63% 0.00% EQUITAX INC EQUITAX INC EQUITAX INC EGT 0.05% 17.00% 0.01% 2.49% 0.00% EQUITY RESIDENTIAL EOR 0.12% 5.86% 0.01% 3.17% 0.00% EXELED COORP EQUITY RESIDENTIAL EOR 0.12% 5.86% 0.01% 3.17% 0.00% EXERSE LAUDER COMPANIES-CL A EL 0.07% 14.25% 0.01% 3.17% 0.00% EXPEDIA INC EXPEDIT OR SITTL WASH INC EXPENSE OR SO							
EASTMAN CHEMICAL COMPANY EASTMAN KODAK CO EK 0.01% 10.00% 0.							
EASTMAN KODAK CO ETT NO 0.11% 10.00% 0.00%							
EATON CORP							
EBAY INC         EBAY         0.27%         12.51%         0.03%         0.00%         0.00%           ECOLAB INC         ECL         0.11%         13.24%         0.01%         1.31%         0.00%           EDISON INTERNATIONAL         EIX         0.11%         1.00%         0.00%         4.00%         0.00%           EL PASO CORP         EP         0.08%         5.93%         0.00%         0.35%         0.00%           ELECTRONIC ARTS INC         ERTS         0.05%         15.29%         0.011%         0.00%         0.00%           ELILLLY & CO         LLY         0.40%         n/a         n/a         5.69%         0.00%           EMC CORP/MASS         EMC         0.39%         15.46%         0.06%         0.00%         0.00%           EMEC CORP/MASS         EMC         0.39%         15.46%         0.05%         3.13%         0.01%           EMC CORP/MASS         EMC         0.38%         10.40%         n/a         n/a         1.52%         0.00%           EMC CORP/MASS         EMR         0.34%         13.27%         0.05%         3.13%         0.01%           EMT CORP         ETR         0.14%         3.80%         0.01%         4.52%							
ECOLAB INC         ECL         0.11%         13.24%         0.01%         1.31%         0.00%           EDISON INTERNATIONAL         EIX         0.11%         1.00%         0.00%         4.00%         0.00%           ELPASO CORP         EP         0.08%         5.93%         0.00%         0.35%         0.00%           ELECTRONIC ARTS INC         ERTS         0.05%         15.29%         0.01%         0.00%         0.00%           ELI CLILY & CO         LLY         0.40%         na         n/a         5.69%         0.00%           EMC CORP/MASS         EMC         0.39%         15.46%         0.06%         0.00%         0.00%           EMERSON ELECTRIC CO         EMR         0.34%         13.27%         0.05%         3.13%         0.01%           ENTERGY CORP         ETR         0.14%         3.80%         0.01%         4.52%         0.01%           EOG RESOURCES INC         EOG         0.26%         15.20%         0.04%         0.63%         0.00%           EOT CORP         EQT         0.05%         17.00%         0.01%         2.49%         0.00%           EOUITA RESIDENTIAL         EGR         0.12%         5.86%         0.01%         3.17%							
EDISON INTERNATIONAL							
EL PASO CORP							
ELILILLY & CO         LLY         0.40%         n/a         1,66%         0.00%           EMC CORP/IMASS         EMC         0.39%         15.46%         0.06%         0.00%         0.00%           EMERSON ELECTRIC CO         EMR         0.34%         13.27%         0.05%         3.13%         0.01%           ENTERGY CORP         ETR         0.14%         3.80%         0.01%         4.52%         0.01%           EOG RESOURCES INC         EOG         0.26%         15.20%         0.04%         0.63%         0.00%           EOT CORP         EQT         0.05%         17.00%         0.01%         2.49%         0.00%           EQUITY RESIDENTIAL         EQR         0.12%         5.86%         0.01%         3.17%         0.00%           ESTEE LAUDER COMPANIES-CL A         EL         0.07%         14.25%         0.01%         1.00%         0.00%           EXELON CORP         EXC         0.26%         n/a         n/a         5.59%         0.00%           EXPEDITORS INTL WASH INC         EXPE         0.05%         15.00%         0.01%         1.21%         0.00%           EXPEDITORS INTL WASH INC         EXPD         0.08%         17.30%         0.01%         1.21%							
EMC CORP/MASS         EMC         0.39%         15.46%         0.06%         0.00%         0.00%           EMERSON ELECTRIC CO         EMR         0.34%         13.27%         0.05%         3.13%         0.01%           ENTERGY CORP         ETR         0.14%         3.80%         0.01%         4.52%         0.01%           EOG RESOURCES INC         EOG         0.26%         15.20%         0.04%         0.63%         0.00%           EQT CORP         EQT         0.05%         17.00%         0.01%         2.49%         0.00%           EQUIFAX INC         EFX         0.04%         9.75%         0.00%         0.56%         0.00%           EQUIFAX INC         EFX         0.12%         5.86%         0.01%         3.17%         0.00%           EQUIFAX INC         EFX         0.12%         5.86%         0.01%         3.17%         0.00%           ESTEE LAUDER COMPANIES-CL A         EL         0.07%         14.25%         0.01%         1.00%         0.00%           EXPEDIA INC         EXPE         0.05%         15.00%         0.01%         1.21%         0.00%           EXPEDITORS INTL WASH INC         EXPE         0.05%         15.00%         0.01%         1.21%	ELECTRONIC ARTS INC	ERTS	0.05%	15.29%	0.01%	0.00%	0.00%
EMERSON ELECTRIC CO	ELI LILLY & CO	LLY	0.40%	n/a	n/a	5.69%	0.00%
ENTERGY CORP	EMC CORP/MASS	EMC	0.39%	15.46%	0.06%	0.00%	0.00%
EOG RESOURCES INC         EOG         0.26%         15.20%         0.04%         0.63%         0.00%           EOT CORP         EQT         0.05%         17.00%         0.01%         2.49%         0.00%           EQUIFAX INC         EFX         0.04%         9.75%         0.00%         0.56%         0.00%           EQUITY RESIDENTIAL         EQR         0.12%         5.86%         0.01%         3.17%         0.00%           ESTEE LAUDER COMPANIES-CL A         EL         0.07%         14.25%         0.01%         1.00%         0.00%           EXELON CORP         EXC         0.26%         n/a         n/a         1.59%         0.00%           EXPEDITORS INTL WASH INC         EXPE         0.05%         15.00%         0.01%         1.63%         0.00%           EXPEDITORS INTL WASH INC         EXPD         0.08%         17.30%         0.01%         1.21%         0.00%           EXPESS SCRIPTS INC         ESRX         0.27%         20.61%         0.06%         0.00%         0.00%           EXXON MOBIL CORP         XOM         3.03%         14.56%         0.44%         3.04%         0.09%           FAMILY DOLLAR STORES         FDO         0.05%         13.53%         0.01% <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
EQT CORP         EQT         0.05%         17.00%         0.01%         2.49%         0.00%           EQUIFAX INC         EFX         0.04%         9.75%         0.00%         0.56%         0.00%           EQUIFY RESIDENTIAL         EQR         0.12%         5.86%         0.01%         3.17%         0.00%           ESTEE LAUDER COMPANIES-CL A         EL         0.07%         14.25%         0.01%         1.00%         0.00%           EXELON CORP         EXC         0.26%         n/a         n/a         5.59%         0.00%           EXPEDIA INC         EXPE         0.05%         15.00%         0.01%         0.63%         0.00%           EXPEDITORS INTL WASH INC         EXPD         0.08%         17.30%         0.01%         0.63%         0.00%           EXPERESS SCRIPTS INC         ESRX         0.27%         20.61%         0.06%         0.00%         0.00%           EXXON MOBIL CORP         XOM         3.03%         14.56%         0.44%         3.04%         0.09%           FAMILY DOLLAR STORES         FDO         0.05%         13.53%         0.01%         1.53%         0.00%           FASTENAL CO         FAST         0.08%         20.85%         0.02%         1							
EQUIFAX INC         EFX         0.04%         9.75%         0.00%         0.56%         0.00%           EQUITY RESIDENTIAL         EQR         0.12%         5.86%         0.01%         3.17%         0.00%           ESTEE LAUDER COMPANIES-CL A         EL         0.07%         14.25%         0.01%         1.00%         0.00%           EXELON CORP         EXC         0.26%         n/a         n/a         5.59%         0.00%           EXPEDIA INC         EXPE         0.05%         15.00%         0.01%         0.63%         0.00%           EXPEDITORS INTL WASH INC         EXPD         0.08%         17.30%         0.01%         1.21%         0.00%           EXPESS SCRIPTS INC         ESRX         0.27%         20.61%         0.06%         0.00%         0.00%           EXXON MOBIL CORP         XOM         3.03%         14.56%         0.44%         3.04%         0.09%           FAMILY DOLLAR STORES         FDO         0.05%         13.53%         0.01%         1.53%         0.00%           FASTENAL CO         FAST         0.08%         20.85%         0.02%         1.56%         0.00%           FEDEX CORP         FDX         0.23%         14.04%         0.03%         0							
EQUITY RESIDENTIAL         EQR         0.12%         5.86%         0.01%         3.17%         0.00%           ESTEE LAUDER COMPANIES-CL A         EL         0.07%         14.25%         0.01%         1.00%         0.00%           EXELON CORP         EXC         0.26%         n/a         n/a         5.59%         0.00%           EXPEDIA INC         EXPE         0.05%         15.00%         0.01%         0.63%         0.00%           EXPEDITORS INTL WASH INC         EXPD         0.08%         17.30%         0.01%         1.21%         0.00%           EXPEDITORS INTL WASH INC         ESRX         0.27%         20.61%         0.06%         0.00%         0.00%           EXXON MOBIL CORP         XOM         3.03%         14.56%         0.44%         3.04%         0.09%           FAMILY DOLLAR STORES         FDO         0.05%         13.53%         0.01%         1.53%         0.00%           FASTENAL CO         FAST         0.08%         20.85%         0.02%         1.56%         0.00%           FEDERATED INVESTORS INC-CL B         FII         0.02%         6.00%         0.00%         9.87%         0.00%           FEDEX CORP         FDX         0.23%         14.04%         0							
ESTEE LAUDER COMPANIES-CL A         EL         0.07%         14.25%         0.01%         1.00%         0.00%           EXELON CORP         EXC         0.26%         n/a         n/a         5.59%         0.00%           EXPEDIA INC         EXPE         0.05%         15.00%         0.01%         0.63%         0.00%           EXPEDITORS INTL WASH INC         EXPD         0.08%         17.30%         0.01%         1.21%         0.00%           EXPESS SCRIPTS INC         ESRX         0.27%         20.61%         0.06%         0.00%         0.00%           EXXON MOBIL CORP         XOM         3.03%         14.56%         0.44%         3.04%         0.09%           EXXON MOBIL CORP         XOM         3.03%         14.56%         0.44%         3.04%         0.09%           EXXON MOBIL CORP         XOM         3.03%         14.56%         0.44%         3.04%         0.09%           EXXENDAL CO         FAST         0.08%         20.85%         0.01%         1.56%         0.00%           FASTENAL CO         FAST         0.08%         20.85%         0.02%         1.56%         0.00%           FEDEX CORP         FII         0.02%         6.00%         0.00%         9.87%							
EXELON CORP         EXC         0.26%         n/a         n/a         5.59%         0.00%           EXPEDIA INC         EXPE         0.05%         15.00%         0.01%         0.63%         0.00%           EXPEDITORS INTL WASH INC         EXPD         0.08%         17.30%         0.01%         1.21%         0.00%           EXPRESS SCRIPTS INC         ESRX         0.27%         20.61%         0.06%         0.00%         0.00%           EXXON MOBIL CORP         XOM         3.03%         14.56%         0.44%         3.04%         0.09%           FAMILY DOLLAR STORES         FDO         0.05%         13.53%         0.01%         1.53%         0.00%           FASTENAL CO         FAST         0.08%         20.85%         0.02%         1.56%         0.00%           FEDERATED INVESTORS INC-CL B         FII         0.02%         6.00%         0.00%         9.87%         0.00%           FEDEX CORP         FDX         0.23%         14.04%         0.03%         0.67%         0.00%           FIDELITY NATIONAL INFORMATIO         FIS         0.11%         13.27%         0.01%         0.74%         0.00%           FIRST HORIZON NATIONAL CORP         FIHN         0.03%         3.67%							
EXPEDIA INC         EXPE         0.05%         15.00%         0.01%         0.63%         0.00%           EXPEDITORS INTL WASH INC         EXPD         0.08%         17.30%         0.01%         1.21%         0.00%           EXPRESS SCRIPTS INC         ESRX         0.27%         20.61%         0.06%         0.00%         0.00%           EXXON MOBIL CORP         XOM         3.03%         14.56%         0.44%         3.04%         0.09%           FAMILY DOLLAR STORES         FDO         0.05%         13.53%         0.01%         1.53%         0.00%           FASTENAL CO         FAST         0.08%         20.85%         0.02%         1.56%         0.00%           FEDERATED INVESTORS INC-CL B         FII         0.02%         6.00%         0.00%         9.87%         0.00%           FEDEX CORP         FDX         0.23%         14.04%         0.03%         0.67%         0.00%           FIDELITY NATIONAL INFORMATIO         FIS         0.11%         13.27%         0.01%         0.74%         0.00%           FIFST HORIZON NATIONAL CORP         FITB         0.10%         4.40%         0.00%         0.32%         0.00%           FIRST SOLAR INC         FSLR         0.10%         19.23% </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
EXPEDITORS INTL WASH INC         EXPD         0.08%         17.30%         0.01%         1.21%         0.00%           EXPRESS SCRIPTS INC         ESRX         0.27%         20.61%         0.06%         0.00%         0.00%           EXXON MOBIL CORP         XOM         3.03%         14.56%         0.44%         3.04%         0.09%           FAMILY DOLLAR STORES         FDO         0.05%         13.53%         0.01%         1.53%         0.00%           FASTENAL CO         FAST         0.08%         20.85%         0.02%         1.56%         0.00%           FEDERATED INVESTORS INC-CL B         FII         0.02%         6.00%         0.00%         9.87%         0.00%           FEDEX CORP         FDX         0.23%         14.04%         0.03%         0.67%         0.00%           FIDELITY NATIONAL INFORMATIO         FIS         0.11%         13.27%         0.01%         0.74%         0.00%           FIFTH THIRD BANCORP         FITB         0.10%         4.40%         0.03%         0.67%         0.00%           FIRST HORIZON NATIONAL CORP         FIHN         0.03%         3.67%         0.00%         0.03%         0.00%           FIRST SOLAR INC         FSLR         0.10%         1							
EXPRESS SCRIPTS INC         ESRX         0.27%         20.61%         0.06%         0.00%         0.00%           EXXON MOBIL CORP         XOM         3.03%         14.56%         0.44%         3.04%         0.09%           FAMILY DOLLAR STORES         FDO         0.05%         13.53%         0.01%         1.53%         0.00%           FASTENAL CO         FAST         0.08%         20.85%         0.02%         1.56%         0.00%           FEDERATED INVESTORS INC-CL B         FII         0.02%         6.00%         0.00%         9.87%         0.00%           FEDEX CORP         FDX         0.23%         14.04%         0.03%         0.67%         0.00%           FIDELITY NATIONAL INFORMATIO         FIS         0.11%         13.27%         0.01%         0.74%         0.00%           FIDELITY NATIONAL INFORMATIO         FIS         0.11%         13.27%         0.01%         0.74%         0.00%           FIDELITY NATIONAL INFORMATIO         FIS         0.11%         13.27%         0.01%         0.74%         0.00%           FIER THORIZON NATIONAL CORP         FIT         0.00%         4.40%         0.00%         0.03%         0.00%           FIRST SOLAR INC         FSLR         0.10%							
FAMILY DOLLAR STORES         FDO         0.05%         13.53%         0.01%         1.53%         0.00%           FASTENAL CO         FAST         0.08%         20.85%         0.02%         1.56%         0.00%           FEDERATED INVESTORS INC-CL B         FII         0.02%         6.00%         0.00%         9.87%         0.00%           FEDEX CORP         FDX         0.23%         14.04%         0.03%         0.67%         0.00%           FIDELITY NATIONAL INFORMATIO         FIS         0.11%         13.27%         0.01%         0.74%         0.00%           FIFTH THIRD BANCORP         FITB         0.10%         4.40%         0.00%         0.32%         0.00%           FIRST HORIZON NATIONAL CORP         FHN         0.03%         3.67%         0.00%         0.32%         0.00%           FIRST SOLAR INC         FSLR         0.10%         19.23%         0.02%         0.00%         0.00%           FIRSTENERGY CORP         FE         0.11%         3.67%         0.00%         6.26%         0.01%           FILIR SYSTEMS INC         FILIR         0.05%         15.77%         0.01%         n/a         0.00%           FLUOR CORP         FLR         0.08%         9.50% <td< td=""><td>EXPRESS SCRIPTS INC</td><td>ESRX</td><td></td><td>20.61%</td><td>0.06%</td><td>0.00%</td><td>0.00%</td></td<>	EXPRESS SCRIPTS INC	ESRX		20.61%	0.06%	0.00%	0.00%
FASTENAL CO         FAST         0.08%         20.85%         0.02%         1.56%         0.00%           FEDERATED INVESTORS INC-CL B         FII         0.02%         6.00%         0.00%         9.87%         0.00%           FEDEX CORP         FDX         0.23%         14.04%         0.03%         0.67%         0.00%           FIDELITY NATIONAL INFORMATIO         FIS         0.11%         13.27%         0.01%         0.74%         0.00%           FIFTH THIRD BANCORP         FITB         0.10%         4.40%         0.00%         0.32%         0.00%           FIRST HORIZON NATIONAL CORP         FHN         0.03%         3.67%         0.00%         0.03%         0.00%           FIRST SOLAR INC         FSLR         0.10%         19.23%         0.02%         0.00%         0.00%           FIRSTENERGY CORP         FE         0.11%         3.67%         0.00%         6.26%         0.01%           FILER SYSTEMS INC         FISV         0.07%         13.00%         0.01%         0.00%         0.00%           FLUOR CORP         FLS         0.05%         15.77%         0.01%         n/a         0.00%           FMC CORP         FLR         0.08%         9.50%         0.01%	EXXON MOBIL CORP	XOM	3.03%	14.56%	0.44%	3.04%	0.09%
FEDERATED INVESTORS INC-CL B         FII         0.02%         6.00%         0.00%         9.87%         0.00%           FEDEX CORP         FDX         0.23%         14.04%         0.03%         0.67%         0.00%           FIDELITY NATIONAL INFORMATIO         FIS         0.11%         13.27%         0.01%         0.74%         0.00%           FIFTH THIRD BANCORP         FITB         0.10%         4.40%         0.00%         0.32%         0.00%           FIRST HORIZON NATIONAL CORP         FHN         0.03%         3.67%         0.00%         0.03%         0.00%           FIRST SOLAR INC         FSLR         0.10%         19.23%         0.02%         0.00%         0.00%           FIRSTENERGY CORP         FE         0.11%         3.67%         0.00%         6.26%         0.01%           FISSERV INC         FISV         0.07%         13.00%         0.01%         0.00%         0.00%           FLIR SYSTEMS INC         FLIR         0.05%         15.77%         0.01%         n/a         0.00%           FLOWSERVE CORP         FLS         0.05%         9.00%         0.00%         1.30%         0.00%           FMC CORP         FLR         0.08%         9.50%         0.01%	FAMILY DOLLAR STORES			13.53%	0.01%	1.53%	0.00%
FEDEX CORP         FDX         0.23%         14.04%         0.03%         0.67%         0.00%           FIDELITY NATIONAL INFORMATIO         FIS         0.11%         13.27%         0.01%         0.74%         0.00%           FIFTH THIRD BANCORP         FITB         0.10%         4.40%         0.00%         0.32%         0.00%           FIRST HORIZON NATIONAL CORP         FHN         0.03%         3.67%         0.00%         0.03%         0.00%           FIRST SOLAR INC         FSLR         0.10%         19.23%         0.02%         0.00%         0.00%           FIRSTENERGY CORP         FE         0.11%         3.67%         0.00%         6.26%         0.01%           FISSRV INC         FISV         0.07%         13.00%         0.01%         0.00%         0.00%           FLIR SYSTEMS INC         FILR         0.05%         15.77%         0.01%         n/a         0.00%           FLOWSERVE CORP         FLS         0.05%         9.00%         0.00%         1.30%         0.00%           FUOR CORP         FLR         0.08%         9.50%         0.01%         1.22%         0.00%           FMC TECHNOLOGIES INC         FTI         0.07%         16.00%         0.01%							
FIDELITY NATIONAL INFORMATIO         FIS         0.11%         13.27%         0.01%         0.74%         0.00%           FIFTH THIRD BANCORP         FITB         0.10%         4.40%         0.00%         0.32%         0.00%           FIRST HORIZON NATIONAL CORP         FHN         0.03%         3.67%         0.00%         0.03%         0.00%           FIRST SOLAR INC         FSLR         0.10%         19.23%         0.02%         0.00%         0.00%           FIRSTENERGY CORP         FE         0.11%         3.67%         0.00%         6.26%         0.01%           FISERV INC         FISV         0.07%         13.00%         0.01%         0.00%         0.00%           FLIR SYSTEMS INC         FLIR         0.05%         15.77%         0.01%         n/a         0.00%           FLOWSERVE CORP         FLS         0.05%         9.00%         0.00%         1.30%         0.00%           FLUOR CORP         FLR         0.08%         9.50%         0.01%         1.22%         0.00%           FMC CORP         FMC         0.04%         8.00%         0.00%         0.86%         0.00%           FMC TECHNOLOGIES INC         FTI         0.07%         16.00%         0.01%							
FIFTH THIRD BANCORP         FITB         0.10%         4.40%         0.00%         0.32%         0.00%           FIRST HORIZON NATIONAL CORP         FHN         0.03%         3.67%         0.00%         0.03%         0.00%           FIRST SOLAR INC         FSLR         0.10%         19.23%         0.02%         0.00%         0.00%           FIRSTENERGY CORP         FE         0.11%         3.67%         0.00%         6.26%         0.01%           FISERV INC         FISV         0.07%         13.00%         0.01%         0.00%         0.00%           FLIR SYSTEMS INC         FLIR         0.05%         15.77%         0.01%         n/a         0.00%           FLOWSERVE CORP         FLS         0.05%         9.00%         0.00%         1.30%         0.00%           FLUOR CORP         FLR         0.08%         9.50%         0.01%         1.22%         0.00%           FMC CORP         FMC         0.04%         8.00%         0.00%         0.86%         0.00%           FMC TECHNOLOGIES INC         FTI         0.07%         16.00%         0.01%         0.00%         0.00%           FORD MOTOR CO         F         0.36%         14.18%         0.05%         0.00%							
FIRST HORIZON NATIONAL CORP         FHN         0.03%         3.67%         0.00%         0.03%         0.00%           FIRST SOLAR INC         FSLR         0.10%         19.23%         0.02%         0.00%         0.00%           FIRSTENERGY CORP         FE         0.11%         3.67%         0.00%         6.26%         0.01%           FISERV INC         FISV         0.07%         13.00%         0.01%         0.00%         0.00%           FLIR SYSTEMS INC         FLIR         0.05%         15.77%         0.01%         n/a         0.00%           FLOWSERVE CORP         FLS         0.05%         9.00%         0.00%         1.30%         0.00%           FLUOR CORP         FLR         0.08%         9.50%         0.01%         1.22%         0.00%           FMC CORP         FMC         0.04%         8.00%         0.00%         0.86%         0.00%           FMC TECHNOLOGIES INC         FTI         0.07%         16.00%         0.01%         0.00%         0.00%           FORD MOTOR CO         F         0.36%         14.18%         0.05%         0.00%         0.00%           FOREST LABORATORIES INC         FRX         0.08%         2.57%         0.00%         0.00%							
FIRST SOLAR INC         FSLR         0.10%         19.23%         0.02%         0.00%         0.00%           FIRSTENERGY CORP         FE         0.11%         3.67%         0.00%         6.26%         0.01%           FISERV INC         FISV         0.07%         13.00%         0.01%         0.00%         0.00%           FLIR SYSTEMS INC         FLIR         0.05%         15.77%         0.01%         n/a         0.00%           FLOWSERVE CORP         FLS         0.05%         9.00%         0.00%         1.30%         0.00%           FLUOR CORP         FLR         0.08%         9.50%         0.01%         1.22%         0.00%           FMC CORP         FMC         0.04%         8.00%         0.00%         0.86%         0.00%           FMC TECHNOLOGIES INC         FTI         0.07%         16.00%         0.01%         0.00%         0.00%           FORD MOTOR CO         F         0.36%         14.18%         0.05%         0.00%         0.00%           FOREST LABORATORIES INC         FRX         0.08%         2.57%         0.00%         0.00%         0.00%							
FIRSTENERGY CORP         FE         0.11%         3.67%         0.00%         6.26%         0.01%           FISERV INC         FISV         0.07%         13.00%         0.01%         0.00%         0.00%           FLIR SYSTEMS INC         FLIR         0.05%         15.77%         0.01%         n/a         0.00%           FLOWSERVE CORP         FLS         0.05%         9.00%         0.00%         1.30%         0.00%           FLUOR CORP         FLR         0.08%         9.50%         0.01%         1.22%         0.00%           FMC CORP         FMC         0.04%         8.00%         0.00%         0.86%         0.00%           FMC TECHNOLOGIES INC         FTI         0.07%         16.00%         0.01%         0.00%         0.00%           FORD MOTOR CO         F         0.36%         14.18%         0.05%         0.00%         0.00%           FOREST LABORATORIES INC         FRX         0.08%         2.57%         0.00%         0.00%         0.00%							
FISERV INC         FISV         0.07%         13.00%         0.01%         0.00%         0.00%           FLIR SYSTEMS INC         FLIR         0.05%         15.77%         0.01%         n/a         0.00%           FLOWSERVE CORP         FLS         0.05%         9.00%         0.00%         1.30%         0.00%           FLUOR CORP         FLR         0.08%         9.50%         0.01%         1.22%         0.00%           FMC CORP         FMC         0.04%         8.00%         0.00%         0.86%         0.00%           FMC TECHNOLOGIES INC         FTI         0.07%         16.00%         0.01%         0.00%         0.00%           FORD MOTOR CO         F         0.36%         14.18%         0.05%         0.00%         0.00%           FOREST LABORATORIES INC         FRX         0.08%         2.57%         0.00%         0.00%         0.00%							
FLIR SYSTEMS INC         FLIR         0.05%         15.77%         0.01%         n/a         0.00%           FLOWSERVE CORP         FLS         0.05%         9.00%         0.00%         1.30%         0.00%           FLUOR CORP         FLR         0.08%         9.50%         0.01%         1.22%         0.00%           FMC CORP         FMC         0.04%         8.00%         0.00%         0.86%         0.00%           FMC TECHNOLOGIES INC         FTI         0.07%         16.00%         0.01%         0.00%         0.00%           FORD MOTOR CO         F         0.36%         14.18%         0.05%         0.00%         0.00%           FOREST LABORATORIES INC         FRX         0.08%         2.57%         0.00%         0.00%         0.00%							
FLOWSERVE CORP         FLS         0.05%         9.00%         0.00%         1.30%         0.00%           FLUOR CORP         FLR         0.08%         9.50%         0.01%         1.22%         0.00%           FMC CORP         FMC         0.04%         8.00%         0.00%         0.86%         0.00%           FMC TECHNOLOGIES INC         FTI         0.07%         16.00%         0.01%         0.00%         0.00%           FORD MOTOR CO         F         0.36%         14.18%         0.05%         0.00%         0.00%           FOREST LABORATORIES INC         FRX         0.08%         2.57%         0.00%         0.00%         0.00%							
FLUOR CORP         FLR         0.08%         9.50%         0.01%         1.22%         0.00%           FMC CORP         FMC         0.04%         8.00%         0.00%         0.86%         0.00%           FMC TECHNOLOGIES INC         FTI         0.07%         16.00%         0.01%         0.00%         0.00%           FORD MOTOR CO         F         0.36%         14.18%         0.05%         0.00%         0.00%           FOREST LABORATORIES INC         FRX         0.08%         2.57%         0.00%         0.00%         0.00%							
FMC CORP         FMC         0.04%         8.00%         0.00%         0.86%         0.00%           FMC TECHNOLOGIES INC         FTI         0.07%         16.00%         0.01%         0.00%         0.00%           FORD MOTOR CO         F         0.36%         14.18%         0.05%         0.00%         0.00%           FOREST LABORATORIES INC         FRX         0.08%         2.57%         0.00%         0.00%         0.00%							
FORD MOTOR CO         F         0.36%         14.18%         0.05%         0.00%         0.00%           FOREST LABORATORIES INC         FRX         0.08%         2.57%         0.00%         0.00%         0.00%							
FOREST LABORATORIES INC FRX 0.08% 2.57% 0.00% 0.00% 0.00%	FMC TECHNOLOGIES INC			16.00%		0.00%	0.00%
FOR I UNE BRANDS INC FO 0.06% 11.33% 0.01% 1.96% 0.00%							
	FORTUNE BRANDS INC	FO	0.06%	11.33%	0.01%	1.96%	0.00%

		[7]	[8]	[9]	[10]	[11]
		Weight in	Long-Term	Cap-Weighted Long-Term	Estimated	Cap-Weighted
Name	Ticker	Index	Growth Est.	Growth Est.	Dividend Yield	Dividend Yield
NEXTERA ENERGY INC	NEE	0.21%	6.15%	0.01%	4.03%	0.01%
FRANKLIN RESOURCES INC	BEN	0.20%	6.83%	0.01%	4.39%	0.01%
FREEPORT-MCMORAN COPPER FRONTIER COMMUNICATIONS CORP	FCX FTR	0.27% 0.02%	10.00% n/a	0.03% n/a	1.59% 12.36%	0.00% 0.00%
GAMESTOP CORP-CLASS A	GME	0.02%	11/a 11.00%	0.00%	12.30% n/a	0.00%
GANNETT CO	GCI	0.03%	5.50%	0.00%	1.16%	0.00%
GAP INC/THE	GPS	0.13%	10.81%	0.01%	1.96%	0.00%
GENERAL DYNAMICS CORP	GD	0.24%	7.83%	0.02%	2.73%	0.01%
GENERAL ELECTRIC CO	GE	1.60%	11.62%	0.19%	2.88%	0.05%
GENERAL MILLS INC	GIS	0.24%	9.26%	0.02%	3.00%	0.01%
GENUINE PARTS CO	GPC	0.07%	8.96%	0.01%	4.09%	0.00%
GENWORTH FINANCIAL INC-CL A	GNW	0.07%	7.50%	0.01%	0.00%	0.00%
GENZYME CORP GILEAD SCIENCES INC	GENZ GILD	0.14% 0.32%	19.53% 14.81%	0.03% 0.05%	0.00% 0.00%	0.00% 0.00%
GOLDMAN SACHS GROUP INC	GS	0.70%	8.17%	0.05%	1.06%	0.00%
GOODRICH CORP	GR	0.09%	7.98%	0.01%	1.57%	0.00%
GOODYEAR TIRE & RUBBER CO	GT	0.03%	21.74%	0.01%	0.00%	0.00%
GOOGLE INC-CL A	GOOG	1.15%	19.85%	0.23%	0.00%	0.00%
H&R BLOCK INC	HRB	0.05%	11.00%	0.01%	3.79%	0.00%
HALLIBURTON CO	HAL	0.23%	4.50%	0.01%	1.43%	0.00%
HARLEY-DAVIDSON INC	HOG	0.06%	9.33%	0.01%	1.80%	0.00%
HARMAN INTERNATIONAL	HAR	0.02%	30.00%	0.01%	0.16%	0.00%
HARRIS CORP HARTFORD FINANCIAL SVCS GRP	HRS HIG	0.06% 0.10%	6.00% 11.48%	0.00% 0.01%	2.02% 0.82%	0.00% 0.00%
HASBRO INC	HAS	0.06%	10.00%	0.01%	2.39%	0.00%
HCP INC	HCP	0.10%	7.32%	0.01%	5.63%	0.01%
HEALTH CARE REIT INC	HCN	0.05%	8.13%	0.00%	6.36%	0.00%
HELMERICH & PAYNE	HP	0.04%	16.00%	0.01%	0.52%	0.00%
HERSHEY CO/THE	HSY	0.08%	7.83%	0.01%	2.70%	0.00%
HESS CORP	HES	0.17%	6.91%	0.01%	0.78%	0.00%
HEWLETT-PACKARD CO	HPQ	1.05%	12.67%	0.13%	0.73%	0.01%
HJ HEINZ CO	HNZ	0.14%	7.14%	0.01%	4.09%	0.01%
HOME DEPOT INC HONEYWELL INTERNATIONAL INC	HD HON	0.50% 0.31%	12.85% 10.28%	0.06% 0.03%	3.34% 3.07%	0.02% 0.01%
HORMEL FOODS CORP	HRL	0.06%	11.00%	0.03%	2.06%	0.01%
HOSPIRA INC	HSP	0.10%	11.47%	0.01%	n/a	0.00%
HOST HOTELS & RESORTS INC	HST	0.09%	5.40%	0.01%	0.37%	0.00%
HUDSON CITY BANCORP INC	HCBK	0.07%	12.00%	0.01%	4.87%	0.00%
HUMANA INC	HUM	0.08%	6.68%	0.01%	0.00%	0.00%
HUNTINGTON BANCSHARES INC	HBAN	0.04%	n/a	n/a	0.70%	0.00%
INTL BUSINESS MACHINES CORP	IBM	1.64%	11.40%	0.19%	1.82%	0.03%
ILLINOIS TOOL WORKS	ITW	0.22%	15.65%	0.03% 0.00%	3.08%	0.01% 0.00%
INTEGRYS ENERGY GROUP INC INTEL CORP	TEG INTC	0.04% 1.13%	9.40% 10.90%	0.00%	6.13% 3.18%	0.00%
INTEL CORF	ICE	0.09%	17.75%	0.02%	0.00%	0.04%
INTERPUBLIC GROUP OF COS INC	IPG	0.04%	12.00%	0.00%	0.00%	0.00%
INTL FLAVORS & FRAGRANCES	IFF	0.04%	9.25%	0.00%	2.45%	0.00%
INTL GAME TECHNOLOGY	IGT	0.05%	16.60%	0.01%	1.50%	0.00%
INTERNATIONAL PAPER CO	IΡ	0.10%	6.00%	0.01%	1.74%	0.00%
INTUIT INC	INTU	0.11%	14.75%	0.02%	0.00%	0.00%
INTUITIVE SURGICAL INC	ISRG	0.13%	24.80%	0.03%	n/a	0.00%
INVESCO LTD IRON MOUNTAIN INC	IVZ IRM	0.08% 0.05%	12.00% 18.00%	0.01% 0.01%	2.49% 1.01%	0.00% 0.00%
ITT CORP	ITT	0.05%	11.00%	0.01%	2.03%	0.00%
J.C. PENNEY CO INC	JCP	0.05%	13.33%	0.01%	3.69%	0.00%
JABIL CIRCUIT INC	JBL	0.03%	15.00%	0.00%	2.05%	0.00%
JACOBS ENGINEERING GROUP INC	JEC	0.05%	13.75%	0.01%	0.00%	0.00%
JANUS CAPITAL GROUP INC	JNS	0.02%	0.75%	0.00%	0.44%	0.00%
JDS UNIPHASE CORP	JDSU	0.02%	15.50%	0.00%	0.00%	0.00%
JM SMUCKER CO/THE	SJM	0.07%	7.60%	0.01%	2.67%	0.00%
JOHNSON CONTROLS INC	JCI	0.19%	15.03%	0.03%	1.92%	0.00%
JOHNSON & JOHNSON	JNJ	1.69%	7.49%	0.13%	3.48%	0.06%
JPMORGAN CHASE & CO JUNIPER NETWORKS INC	JPM JNPR	1.52%	8.40% 16.60%	0.13% 0.02%	1.03% 0.00%	0.02%
KELLOGG CO	JNPR K	0.13% 0.20%	16.60% 9.34%	0.02% 0.02%	0.00% 3.08%	0.00% 0.01%
KEYCORP	KEY	0.07%	4.00%	0.02%	0.50%	0.01%
KIMBERLY-CLARK CORP	KMB	0.26%	8.23%	0.02%	4.28%	0.01%

		[7]	[8]	[9]	[10]	[11]
		Weight in	Long-Term	Cap-Weighted Long-Term	Estimated	Cap-Weighted
Name	Ticker	Index	Growth Est.	Growth Est.	Dividend Yield	Dividend Yield
KIMCO REALTY CORP	KIM	0.06%	2.48%	0.00%	4.64%	0.00%
KING PHARMACEUTICALS INC	KG	0.02%	16.28%	0.00%	0.00%	0.00%
KLA-TENCOR CORPORATION	KLAC	0.05%	6.00%	0.00%	2.02%	0.00%
KOHLS CORP	KSS	0.15%	13.89%	0.02%	0.00%	0.00%
KRAFT FOODS INC-CLASS A	KFT	0.50%	7.73%	0.04%	4.17%	0.02%
KROGER CO L-3 COMMUNICATIONS HOLDINGS	KR LLL	0.13% 0.09%	10.32% 9.51%	0.01% 0.01%	1.98% 2.19%	0.00% 0.00%
LABORATORY CRP OF AMER HLDGS	LH	0.08%	12.20%	0.01%	0.00%	0.00%
LEGG MASON INC	LM	0.05%	7.50%	0.00%	0.48%	0.00%
LEGGETT & PLATT INC	LEG	0.03%	20.00%	0.01%	5.11%	0.00%
LENNAR CORP-CL A	LEN	0.02%	8.00%	0.00%	1.00%	0.00%
LEUCADIA NATIONAL CORP	LUK	0.05%	n/a	n/a	n/a	0.00%
LEXMARK INTERNATIONAL INC-A	LXK	0.03%	n/a	n/a	0.00%	0.00%
LIFE TECHNOLOGIES CORP	LIFE	0.09%	10.23%	0.01%	0.00%	0.00%
LINCOLN NATIONAL CORP	LNC	0.08%	8.55%	0.01%	0.16%	0.00%
LINEAR TECHNOLOGY CORP	LLTC	0.06%	12.00%	0.01%	3.19%	0.00%
LOCKHEED MARTIN CORP	LMT	0.29%	8.21%	0.02%	3.42%	0.01%
LOEWS CORP LORILLARD INC	L LO	0.14% 0.11%	n/a 6.00%	n/a 0.01%	0.75% 5.87%	0.00% 0.01%
LOWE'S COS INC	LOW	0.30%	14.21%	0.01%	1.78%	0.01%
LSI CORP	LSI	0.03%	2.00%	0.00%	0.00%	0.00%
LTD BRANDS INC	LTD	0.08%	14.71%	0.01%	7.10%	0.01%
M & T BANK CORP	MTB	0.11%	4.63%	0.00%	3.26%	0.00%
MACY'S INC	М	0.08%	9.08%	0.01%	1.10%	0.00%
MARATHON OIL CORP	MRO	0.23%	12.67%	0.03%	3.11%	0.01%
MARRIOTT INTERNATIONAL-CL A	MAR	0.11%	12.25%	0.01%	0.52%	0.00%
MARSH & MCLENNAN COS	MMC	0.13%	7.00%	0.01%	3.57%	0.00%
MARSHALL & ILSLEY CORP	MI	0.04%	7.60%	0.00%	0.54%	0.00%
MASCO CORP	MAS	0.04%	12.50%	0.01%	2.79%	0.00%
MASSEY ENERGY CO MASTERCARD INC-CLASS A	MEE MA	0.03% 0.25%	11.00% 18.58%	0.00%	0.82% 0.30%	0.00% 0.00%
MASTERCARD INC-CLASS A MATTEL INC	MAT	0.25%	8.50%	0.05% 0.01%	3.78%	0.00%
MCAFEE INC	MFE	0.05%	13.62%	0.01%	0.00%	0.00%
MCCORMICK & CO-NON VTG SHRS	MKC	0.05%	8.40%	0.00%	2.67%	0.00%
MCDONALD'S CORP	MCD	0.73%	10.18%	0.07%	3.43%	0.03%
MCGRAW-HILL COMPANIES INC	MHP	0.09%	9.43%	0.01%	3.43%	0.00%
MCKESSON CORP	MCK	0.19%	11.73%	0.02%	0.83%	0.00%
MEAD JOHNSON NUTRITION CO	MJN	0.11%	9.35%	0.01%	1.67%	0.00%
MEADWESTVACO CORP	MWV	0.04%	10.00%	0.00%	4.07%	0.00%
MEDCO HEALTH SOLUTIONS INC	MHS	0.26%	16.81%	0.04%	0.05%	0.00%
MEDTRONIC INC	MDT	0.41%	10.86%	0.04%	2.43%	0.01%
MEMC ELECTRONIC MATERIALS	WFR	0.02%	17.75%	0.00%	0.00%	0.00%
MERCK & CO. INC. MEREDITH CORP	MRK MDP	1.13% 0.01%	5.95% 15.00%	0.07% 0.00%	4.31% 2.87%	0.05% 0.00%
METLIFE INC	MET	0.32%	9.77%	0.00%	1.97%	0.01%
METROPCS COMMUNICATIONS INC	PCS	0.03%	18.93%	0.01%	0.00%	0.00%
MICROCHIP TECHNOLOGY INC	MCHP	0.05%	10.00%	0.01%	4.92%	0.00%
MICRON TECHNOLOGY INC	MU	0.09%	11.75%	0.01%	0.00%	0.00%
MICROSOFT CORP	MSFT	2.12%	11.53%	0.24%	2.23%	0.05%
MILLIPORE CORP	MIL	0.06%	n/a	n/a	0.00%	0.00%
MOLEX INC	MOLX	0.02%	12.50%	0.00%	3.32%	0.00%
MOLSON COORS BREWING CO -B	TAP	0.07%	12.00%	0.01%	2.46%	0.00%
MONSANTO CO	MON	0.26%	12.50%	0.03%	2.34%	0.01%
MONSTER WORLDWIDE INC MOODY'S CORP	MWW MCO	0.02%	19.25% 11.00%	0.00%	0.00% 2.03%	0.00%
MORGAN STANLEY	MS	0.05% 0.34%	n/a	0.01% n/a	0.85%	0.00% 0.00%
MOTOROLA INC	MOT	0.34%	8.60%	0.01%	0.00%	0.00%
MURPHY OIL CORP	MUR	0.10%	15.00%	0.01%	2.05%	0.00%
MYLAN INC	MYL	0.06%	15.18%	0.01%	1.87%	0.00%
NABORS INDUSTRIES LTD	NBR	0.05%	7.50%	0.00%	0.00%	0.00%
NASDAQ OMX GROUP/THE	NDAQ	0.04%	13.14%	0.01%	0.00%	0.00%
NATIONAL OILWELL VARCO INC	NOV	0.14%	11.50%	0.02%	1.20%	0.00%
NATIONAL SEMICONDUCTOR CORP	NSM	0.03%	9.67%	0.00%	2.43%	0.00%
NETAPP INC	NTAP	0.14%	18.00%	0.02%	0.00%	0.00%
NEW YORK TIMES CO -CL A	NYT	0.01%	12.00%	0.00%	n/a	0.00%
NEWELL RUBBERMAID INC	NWL	0.04%	10.20%	0.00%	1.52%	0.00%
NEWMONT MINING CORP	NEM	0.31%	20.15%	0.06%	0.71%	0.00%

		[7]	[8]	[9]	[10]	[11]
		Weight in		Cap-Weighted		
Name	Ticker	weight in Index	Long-Term Growth Est.	Long-Term Growth Est.	Estimated Dividend Yield	Cap-Weighted Dividend Yield
NEWS CORP-CL A	NWSA	0.23%	5.74%	0.01%	1.21%	0.00%
NICOR INC	GAS	0.02%	3.50%	0.00%	4.53%	0.00%
NIKE INC -CL B	NKE	0.28%	13.37%	0.04%	1.73%	0.00%
NISOURCE INC	NI	0.04%	4.87%	0.00%	6.31%	0.00%
NOBLE ENERGY INC	NBL	0.11%	7.00%	0.01%	1.20%	0.00%
NORDSTROM INC NORFOLK SOUTHERN CORP	JWN NSC	0.07% 0.22%	11.60% 9.76%	0.01% 0.02%	2.01% 2.09%	0.00% 0.00%
NORTHEAST UTILITIES	NU	0.05%	7.66%	0.02%	3.99%	0.00%
NORTHERN TRUST CORP	NTRS	0.12%	10.56%	0.01%	2.38%	0.00%
NORTHROP GRUMMAN CORP	NOC	0.17%	10.24%	0.02%	3.28%	0.01%
NOVELL INC	NOVL	0.02%	8.33%	0.00%	n/a	0.00%
NOVELLUS SYSTEMS INC	NVLS	0.03%	18.00%	0.00%	0.00%	0.00%
NRG ENERGY INC	NRG	0.06%	2.51%	0.00%	0.14%	0.00%
NUCOR CORP	NUE	0.13%	15.00%	0.02%	3.68%	0.00%
NVIDIA CORP NYSE EURONEXT	NVDA NYX	0.06% 0.08%	16.33% 11.20%	0.01% 0.01%	0.00% 4.30%	0.00% 0.00%
O'REILLY AUTOMOTIVE INC	ORLY	0.07%	17.33%	0.01%	0.00%	0.00%
OCCIDENTAL PETROLEUM CORP	OXY	0.66%	8.01%	0.05%	1.75%	0.01%
OFFICE DEPOT INC	ODP	0.01%	10.67%	0.00%	0.00%	0.00%
OMNICOM GROUP	OMC	0.11%	11.33%	0.01%	2.28%	0.00%
ONEOK INC	OKE	0.05%	5.83%	0.00%	4.03%	0.00%
ORACLE CORP	ORCL	1.12%	13.81%	0.15%	0.99%	0.01%
OWENS-ILLINOIS INC	OI	0.05%	5.00%	0.00%	0.00%	0.00%
PACCAR INC PACTIV CORPORATION	PCAR PTV	0.15% 0.04%	11.00% 11.00%	0.02% 0.00%	1.03% 0.00%	0.00% 0.00%
PALL CORP	PLL	0.04%	12.33%	0.00%	1.69%	0.00%
PARKER HANNIFIN CORP	PH	0.09%	8.50%	0.01%	1.80%	0.00%
PATTERSON COS INC	PDCO	0.04%	14.33%	0.01%	1.39%	0.00%
PAYCHEX INC	PAYX	0.10%	11.99%	0.01%	4.83%	0.00%
PEABODY ENERGY CORP	BTU	0.11%	9.00%	0.01%	0.69%	0.00%
PEOPLE'S UNITED FINANCIAL	PBCT	0.05%	7.75%	0.00%	4.47%	0.00%
PEPCIO INC	POM	0.04%	7.00%	0.00%	6.87%	0.00%
PEPSICO INC PERKINELMER INC	PEP PKI	1.02% 0.03%	9.80% 14.75%	0.10% 0.00%	3.09% 1.34%	0.03% 0.00%
PFIZER INC	PFE	1.19%	2.68%	0.00%	5.03%	0.06%
P G & E CORP	PCG	0.16%	7.25%	0.01%	4.38%	0.01%
PHILIP MORRIS INTERNATIONAL	PM	0.88%	9.80%	0.09%	5.30%	0.05%
PINNACLE WEST CAPITAL	PNW	0.04%	6.20%	0.00%	5.75%	0.00%
PIONEER NATURAL RESOURCES CO	PXD	0.07%	12.25%	0.01%	0.22%	0.00%
PITNEY BOWES INC	PBI	0.05%	n/a	n/a	6.63%	0.00%
PLUM CREEK TIMBER CO	PCL	0.06%	5.00%	0.00%	4.65%	0.00%
PNC FINANCIAL SERVICES GROUP POLO RALPH LAUREN CORP	PNC RL	0.31% 0.05%	5.80% 12.00%	0.02% 0.01%	0.66% 0.42%	0.00% 0.00%
PPG INDUSTRIES INC	PPG	0.10%	3.70%	0.00%	3.56%	0.00%
PPL CORPORATION	PPL	0.10%	3.30%	0.00%	5.61%	0.01%
PRAXAIR INC	PX	0.24%	11.17%	0.03%	2.31%	0.01%
PRECISION CASTPARTS CORP	PCP	0.15%	8.90%	0.01%	0.12%	0.00%
PRICELINE.COM INC	PCLN	0.09%	19.20%	0.02%	0.00%	0.00%
PRINCIPAL FINANCIAL GROUP	PFG	0.08%	12.70%	0.01%	2.22%	0.00%
PROCTER & GAMBLE CO/THE PROGRESS ENERGY INC	PG PGN	1.79% 0.12%	9.20% 4.25%	0.16% 0.00%	2.91% 6.32%	0.05% 0.01%
PROGRESSIVE CORP	PGR	0.12%	5.67%	0.00%	1.08%	0.00%
PROLOGIS	PLD	0.05%	22.26%	0.01%	5.63%	0.00%
PRUDENTIAL FINANCIAL INC	PRU	0.26%	11.28%	0.03%	1.55%	0.00%
PUBLIC SERVICE ENTERPRISE GP	PEG	0.17%	1.00%	0.00%	4.31%	0.01%
PUBLIC STORAGE	PSA	0.16%	3.96%	0.01%	3.34%	0.01%
PULTE GROUP INC	PHM	0.03%	10.00%	0.00%	0.04%	0.00%
QLOGIC CORP	QLGC	0.02%	11.50%	0.00%	0.00%	0.00%
QUALCOMM INC QUANTA SERVICES INC	QCOM PWR	0.56% 0.05%	16.25% 16.40%	0.09% 0.01%	2.16% n/a	0.01% 0.00%
QUEST DIAGNOSTICS	DGX	0.05%	11.88%	0.01%	0.84%	0.00%
QUESTAR CORP	STR	0.08%	4.00%	0.00%	1.14%	0.00%
QWEST COMMUNICATIONS INTL	Q	0.09%	3.46%	0.00%	6.07%	0.01%
RADIOSHACK CORP	RSH	0.03%	7.42%	0.00%	1.27%	0.00%
RANGE RESOURCES CORP	RRC	0.07%	14.60%	0.01%	0.38%	0.00%
RAYTHEON COMPANY	RTN	0.19%	8.57%	0.02%	2.92%	0.01%
RED HAT INC	RHT	0.06%	18.00%	0.01%	0.00%	0.00%

		[7]	[8]	[9]	[10]	[11]
		Weight in	Long-Term	Cap-Weighted Long-Term	Estimated	Cap-Weighted
Name	Ticker	Index	Growth Est.	Growth Est.	Dividend Yield	Dividend Yield
REGIONS FINANCIAL CORP	RF	0.08%	5.67%	0.00%	0.59%	0.00%
REPUBLIC SERVICES INC	RSG	0.12% 0.16%	13.00%	0.02%	2.54%	0.00%
REYNOLDS AMERICAN INC ROBERT HALF INTL INC	RAI RHI	0.16%	6.00% 16.50%	0.01% 0.01%	6.90% 2.10%	0.01% 0.00%
ROCKWELL AUTOMATION INC	ROK	0.07%	22.87%	0.01%	2.37%	0.00%
ROCKWELL COLLINS INC.	COL	0.09%	7.33%	0.01%	1.81%	0.00%
ROPER INDUSTRIES INC	ROP	0.05%	13.50%	0.01%	0.65%	0.00%
ROSS STORES INC	ROST	0.07%	14.00%	0.01%	1.23%	0.00%
ROWAN COMPANIES INC	RDC	0.03%	16.00%	0.00%	0.25%	0.00%
RR DONNELLEY & SONS CO	RRD	0.04%	9.00%	0.00%	6.25%	0.00%
RYDER SYSTEM INC	R	0.02%	14.03%	0.00%	2.45%	0.00%
SAFEWAY INC	SWY SAI	0.08%	9.84% 11.70%	0.01%	2.14%	0.00%
SAIC INC SALESFORCE.COM INC	CRM	0.07% 0.11%	30.18%	0.01% 0.03%	n/a 0.00%	0.00% 0.00%
SANDISK CORP	SNDK	0.11%	15.00%	0.03%	0.00%	0.00%
SARA LEE CORP	SLE	0.10%	9.16%	0.01%	3.09%	0.00%
SCANA CORP	SCG	0.05%	3.93%	0.00%	5.27%	0.00%
SCHLUMBERGER LTD	SLB	0.69%	14.40%	0.10%	1.53%	0.01%
SCHWAB (CHARLES) CORP	SCHW	0.18%	13.00%	0.02%	1.67%	0.00%
SCRIPPS NETWORKS INTER-CL A	SNI	0.06%	13.82%	0.01%	0.47%	0.00%
SEALED AIR CORP	SEE	0.03%	6.00%	0.00%	1.71%	0.00%
SEARS HOLDINGS CORP	SHLD	0.08%	10.00%	0.01%	0.00%	0.00%
SEMPRA ENERGY SHERWIN-WILLIAMS CO/THE	SRE SHW	0.12% 0.08%	6.50% 7.99%	0.01% 0.01%	3.42% 2.07%	0.00% 0.00%
SIGMA-ALDRICH	SIAL	0.06%	9.00%	0.01%	1.26%	0.00%
SIMON PROPERTY GROUP INC	SPG	0.25%	4.69%	0.01%	2.97%	0.01%
SLM CORP	SLM	0.05%	6.00%	0.00%	0.00%	0.00%
SMITH INTERNATIONAL INC	SII	0.10%	16.00%	0.02%	1.20%	0.00%
SNAP-ON INC	SNA	0.02%	15.00%	0.00%	n/a	0.00%
SOUTHERN CO	SO	0.28%	5.07%	0.01%	5.39%	0.02%
SOUTHWEST AIRLINES CO	LUV	0.09%	8.33%	0.01%	0.16%	0.00%
SOUTHWESTERN ENERGY CO	SWN	0.14%	26.00%	0.04%	0.00%	0.00%
SPECTRA ENERGY CORP SPRINT NEXTEL CORP	SE S	0.14% 0.13%	6.67% 4.50%	0.01% 0.01%	4.90% 0.00%	0.01% 0.00%
ST JUDE MEDICAL INC	STJ	0.13%	13.21%	0.01%	0.00%	0.00%
STANLEY BLACK & DECKER INC	SWK	0.08%	22.00%	0.02%	2.60%	0.00%
STAPLES INC	SPLS	0.14%	14.59%	0.02%	1.91%	0.00%
STARBUCKS CORP	SBUX	0.19%	12.16%	0.02%	1.14%	0.00%
STARWOOD HOTELS & RESORTS	HOT	0.08%	12.81%	0.01%	0.60%	0.00%
STATE STREET CORP	STT	0.18%	12.02%	0.02%	0.39%	0.00%
STERICYCLE INC	SRCL	0.06%	16.67%	0.01%	0.00%	0.00%
STRYKER CORP	SYK	0.21%	13.23%	0.03%	0.96%	0.00%
SUNOCO INC SUNTRUST BANKS INC	SUN STI	0.04% 0.12%	n/a 5.29%	n/a 0.01%	1.71% 0.21%	0.00% 0.00%
SUPERVALU INC	SVU	0.02%	n/a	n/a	3.93%	0.00%
SYMANTEC CORP	SYMC	0.12%	9.29%	0.01%	0.00%	0.00%
SYSCO CORP	SYY	0.18%	10.50%	0.02%	3.43%	0.01%
T ROWE PRICE GROUP INC	TROW	0.12%	7.83%	0.01%	2.36%	0.00%
TARGET CORP	TGT	0.38%	13.78%	0.05%	1.46%	0.01%
TECO ENERGY INC	TE	0.03%	7.25%	0.00%	5.38%	0.00%
TELLABS INC	TLAB	0.03%	10.33%	0.00%	1.23%	0.00%
TENET HEALTHCARE CORP	THC TDC	0.02% 0.05%	10.08% 10.00%	0.00% 0.01%	0.00%	0.00% 0.00%
TERADATA CORP TERADYNE INC	TER	0.05%	17.60%	0.01%	n/a 0.00%	0.00%
TESORO CORP	TSO	0.02%	16.85%	0.00%	0.16%	0.00%
TEXAS INSTRUMENTS INC	TXN	0.30%	10.60%	0.03%	2.02%	0.01%
TEXTRON INC	TXT	0.05%	35.51%	0.02%	0.48%	0.00%
THERMO FISHER SCIENTIFIC INC	TMO	0.21%	11.33%	0.02%	0.00%	0.00%
TIFFANY & CO	TIF	0.05%	12.72%	0.01%	2.25%	0.00%
TIME WARNER CABLE	TWC	0.19%	13.57%	0.03%	3.00%	0.01%
TIME WARNER INC	TWX	0.35%	13.33%	0.05%	2.92%	0.01%
TITANIUM METALS CORP	TIE	0.03%	12.50%	0.00%	0.56%	0.00%
TJX COMPANIES INC TORCHMARK CORP	TJX	0.18%	14.00% 8.00%	0.02%	1.38%	0.00%
TOTAL SYSTEM SERVICES INC	TMK TSS	0.04% 0.03%	8.00% 9.00%	0.00% 0.00%	1.34% 2.06%	0.00% 0.00%
TRAVELERS COS INC/THE	TRV	0.25%	11.73%	0.03%	2.82%	0.01%
TYSON FOODS INC-CL A	TSN	0.05%	8.50%	0.00%	0.96%	0.00%

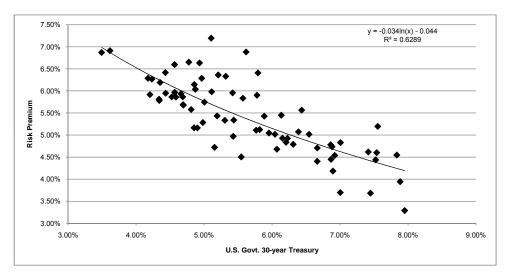
		[7]	[8]	[9]	[10]	[11]
		Weight in	Long-Term	Cap-Weighted Long-Term	Estimated	Cap-Weighted
Name	Ticker	Index	Growth Est.	Growth Est.	Dividend Yield	. •
LINION DACIFIC CODD	LIND	0.070/	40.000/	0.040/	4.070/	0.040/
UNION PACIFIC CORP UNITED PARCEL SERVICE-CL B	UNP UPS	0.37% 0.43%	10.99% 12.83%	0.04% 0.05%	1.67% 3.25%	0.01% 0.01%
UNITED TECHNOLOGIES CORP	UTX	0.43%	12.63%	0.05%	2.55%	0.01%
	UNH	0.83%	10.93%	0.07%	2.55% 0.04%	0.02%
UNITEDHEALTH GROUP INC						
UNUM GROUP	UNM	0.08%	7.00%	0.01%	1.70%	0.00%
URBAN OUTFITTERS INC	URBN	0.06%	20.38%	0.01%	0.00%	0.00%
US BANCORP	USB	0.45%	6.50%	0.03%	1.13%	0.01%
UNITED STATES STEEL CORP	X	0.06%	17.50%	0.01%	0.51%	0.00%
VALERO ENERGY CORP	VLO	0.11%	20.10%	0.02%	1.16%	0.00%
VARIAN MEDICAL SYSTEMS INC	VAR	0.07%	14.60%	0.01%	0.00%	0.00%
VENTAS INC	VTR	0.08%	4.94%	0.00%	4.48%	0.00%
VERISIGN INC	VRSN	0.05%	12.94%	0.01%	0.00%	0.00%
VERIZON COMMUNICATIONS INC	VZ	0.83%	3.70%	0.03%	6.77%	0.06%
VF CORP	VFC	0.08%	9.20%	0.01%	3.33%	0.00%
VIACOM INC-CLASS B	VIA/B	0.18%	12.95%	0.02%	0.00%	0.00%
VISA INC-CLASS A SHARES	V	0.37%	19.43%	0.07%	0.67%	0.00%
VORNADO REALTY TRUST	VNO	0.14%	9.36%	0.01%	3.48%	0.00%
VULCAN MATERIALS CO	VMC	0.06%	9.80%	0.01%	2.24%	0.00%
WAL-MART STORES INC	WMT	1.85%	10.88%	0.20%	2.48%	0.05%
WALGREEN CO	WAG	0.27%	14.44%	0.04%	2.06%	0.01%
WALT DISNEY CO/THE	DIS	0.65%	10.30%	0.07%	1.13%	0.01%
WASHINGTON POST-CLASS B	WPO	0.03%	n/a	n/a	n/a	0.00%
WASTE MANAGEMENT INC	WM	0.16%	12.00%	0.02%	3.93%	0.01%
WATERS CORP	WAT	0.06%	13.83%	0.01%	0.00%	0.00%
WATSON PHARMACEUTICALS INC	WPI	0.05%	9.59%	0.01%	0.00%	0.00%
WELLPOINT INC	WLP	0.22%	10.24%	0.02%	0.00%	0.00%
WELLS FARGO & CO	WFC	1.39%	5.32%	0.07%	0.79%	0.01%
WESTERN DIGITAL CORP	WDC	0.07%	7.50%	0.01%	0.00%	0.00%
WESTERN UNION CO	WU	0.10%	12.23%	0.01%	1.57%	0.00%
WEYERHAEUSER CO	WY	0.08%	5.50%	0.00%	0.76%	0.00%
WHIRLPOOL CORP	WHR	0.07%	15.00%	0.01%	1.92%	0.00%
WHOLE FOODS MARKET INC	WFMI	0.06%	14.77%	0.01%	0.00%	0.00%
WILLIAMS COS INC	WMB	0.11%	15.63%	0.02%	2.58%	0.00%
WINDSTREAM CORP	WIN	0.05%	n/a	n/a	9.32%	0.00%
WISCONSIN ENERGY CORP	WEC	0.06%	8.33%	0.01%	3.10%	0.00%
WW GRAINGER INC	GWW	0.08%	13.30%	0.01%	1.98%	0.00%
WYNDHAM WORLDWIDE CORP	WYN	0.04%	n/a	n/a	2.32%	0.00%
WYNN RESORTS LTD	WYNN	0.10%	17.72%	0.02%	0.57%	0.00%
XCEL ENERGY INC	XEL	0.10%	6.10%	0.01%	4.85%	0.00%
XEROX CORP	XRX	0.11%	n/a	n/a	2.19%	0.00%
XILINX INC	XLNX	0.07%	14.00%	0.01%	2.50%	0.00%
XL CAPITAL LTD -CLASS A	XL	0.06%	n/a	n/a	2.53%	0.00%
XTO ENERGY INC	XTO	0.25%	n/a	n/a	1.03%	0.00%
YAHOO! INC	YHOO	0.20%	14.21%	0.03%	0.00%	0.00%
YUM! BRANDS INC	YUM	0.19%	12.03%	0.02%	2.25%	0.00%
ZIMMER HOLDINGS INC	ZMH	0.11%	11.03%	0.01%	0.00%	0.00%
ZIONS BANCORPORATION	ZION	0.04%	7.43%	0.00%	0.21%	0.00%
2.5.10 5/1100111 510111011	2.014	J.J-7/0	1.4070	0.0070	J.2170	0.0070

## Notes:

- [1] Equals sum of Col. [11] [2] Equals sum of Col. [9] [3] Equals ([1] x (1 + (0.5 x [2]))) + [2] [4] Source: Bloomberg

- [5] Equals [3] [4] [6] Equals sum of Col. [7] if Col. [8]  $\neq$  n/a [7] Equals weight in S&P 500 based on market capitalization
- [8] Source: Bloomberg
- [9] Equals Col. [7] x Col. [8] if Col. [8] ≠ n/a, otherwise equals zero [10] Source: Bloomberg
- [11] Equals Col. [7] x Col. [10] if Col. [8] ≠ n/a, otherwise equals zero

	[1]	[2]	[3]
	Average Authorized	U.S. Govt. 30-year	Risk
Quarter	Gas ROE	Treasury	Premium
1000.1	10.000/	7.040/	4.550/
1992.1 1992.2	12.38% 11.83%	7.84% 7.88%	4.55% 3.94%
1992.3	12.03%	7.42%	4.62%
1992.4	12.14%	7.54%	4.60%
1993.1	11.84%	7.01%	4.83%
1993.2 1993.3	11.64% 11.15%	6.86% 6.23%	4.78% 4.92%
1993.4	11.04%	6.21%	4.84%
1994.1	11.07%	6.66%	4.40%
1994.2	11.13%	7.45%	3.68%
1994.3 1994.4	12.75% 11.24%	7.55% 7.95%	5.20% 3.29%
1995.1	11.96%	7.52%	4.44%
1995.2	11.32%	6.87%	4.45%
1995.3	11.37%	6.66%	4.71%
1995.4 1996.1	11.58% 11.46%	6.14% 6.39%	5.45% 5.07%
1996.1	11.46%	6.92%	4.54%
1996.3	10.70%	7.00%	3.70%
1996.4	11.56%	6.54%	5.02%
1997.1	11.08%	6.90%	4.18%
1997.2 1997.3	11.62% 12.00%	6.88% 6.44%	4.73% 5.56%
1997.4	11.06%	6.04%	5.02%
1998.1	11.31%	5.89%	5.43%
1998.2	12.20%	5.79%	6.41%
1998.3 1998.4	11.65% 12.30%	5.32% 5.11%	6.33% 7.20%
1998.4	12.30%	5.11%	7.20% 4.97%
1999.2	10.94%	5.82%	5.12%
1999.3	10.75%	6.07%	4.68%
1999.4	11.10%	6.31%	4.79%
2000.1 2000.2	11.08% 11.00%	6.15% 5.95%	4.93% 5.05%
2000.2	11.68%	5.78%	5.90%
2000.4	12.50%	5.62%	6.88%
2001.1	11.38%	5.42%	5.96%
2001.2 2001.3	10.88% 10.78%	5.77% 5.44%	5.11% 5.34%
2001.3	11.57%	5.44% 5.21%	6.36%
2002.1	10.05%	5.55%	4.50%
2002.2	11.41%	5.57%	5.83%
2002.3	11.25% 11.57%	4.96%	6.29%
2002.4 2003.1	11.57%	4.93% 4.78%	6.63% 6.65%
2003.1	11.16%	4.57%	6.60%
2003.3	9.88%	5.15%	4.72%
2003.4	11.09%	5.11%	5.98%
2004.1 2004.2	11.00% 10.64%	4.86% 5.31%	6.14% 5.33%
2004.2	10.75%	5.01%	5.74%
2004.4	10.91%	4.87%	6.04%
2005.1	10.55%	4.69%	5.86%
2005.2 2005.3	10.13% 10.85%	4.34% 4.43%	5.78% 6.41%
2005.3	10.85%	4.43% 4.66%	5.93%
2006.1	10.38%	4.69%	5.69%
2006.2	10.63%	5.19%	5.43%
2006.3	10.06%	4.90%	5.16%
2006.4 2007.1	10.37% 10.39%	4.70% 4.81%	5.68% 5.58%
2007.1	10.39 %	4.98%	5.28%
2007.3	10.02%	4.85%	5.16%
2007.4	10.39%	4.53%	5.86%
2008.1 2008.2	10.15% 10.54%	4.34% 4.57%	5.81% 5.97%
2008.2	10.54%	4.57% 4.44%	5.97% 5.95%
2008.4	10.36%	3.49%	6.87%
2009.1	10.53%	3.62%	6.91%
2009.2	10.50%	4.23%	6.27%
2009.3 2009.4	10.46% 10.54%	4.18% 4.35%	6.28% 6.19%
2010.1	10.45%	4.59%	5.86%
2010.2	10.12%	4.20%	5.92%
AVERAGE MEDIAN	11.06% 11.06%	5.64% 5.43%	5.42% 5.43%
MEDIAN	11.00%	J.4J70	J.4J 70



## SUMMARY OUTPUT

	Coefficients
Intercept	-0.044
U.S. Govt. 30-year Treasury	-0.034

	[6]	[7]	[8]
	Risk-Free	Risk	
	Rate	Premium	ROE
Current 30-year Treasury Bond Yield (30-day average) [4]	4.13%	6.43%	10.57%
Blue Chip Consensus Forecast (April 2010 - September 2011) [5]	4.78%	5.94%	10.72%
MEAN		6.18%	10.64%

- Notes:

  [1] Source: Regulatory Research Associates, *Rate Case Statistics*, accessed June 30, 2010
  [2] Source: Bloomberg Professional; average of last trading day of each month in a quarter
  [3] Equals Col. [1] Col. [2]
  [4] Source: Bloomberg Professional
  [5] Blue Chip Financial Forecasts, Vol. 29, No. 6, June 1, 2010, at 2.

- [6] see *Notes* [4] & [5] [7] Equals -0.044 + (-0.034 x ln(Col. [6])) [8] Equals Col. [6] + Col. [7]

PROXY (		Customers	Mar	ket Cap	Market to Book
Company Name	Ticker	(Mil) [1]		Bil) [2]	Ratio [2]
American Electric Power Company, Inc.	AEP	5.2	\$	15.47	1.16
Cleco Corporation	CNL	0.3	\$	1.60	1.27
Empire District Electric Company	EDE	0.2	\$	0.75	1.20
IDACORP, Inc.	IDA	0.5	\$	1.60	1.14
Northeast Utilities	NU	2.1	\$	4.48	1.24
innacle West Capital Corporation	PNW	1.1	\$	3.94	1.23
Portland General Electric Company	POR	8.0	\$	1.38	0.89
Westar Energy, Inc.	WR	0.7	\$	2.39	1.05
//EAN		1.4	\$	3.95	1.15
IEDIAN		8.0	\$	2.00	1.18

	SIZE PREMIUM CALCULATION		
OTP Equity (\$ millions)	\$	328.11	[3]
Median Market to Book for Comp Group		1.18	
OTP Implied Market Cap (\$ millions)	\$	387.06	

	Market Capitalizatio	n (\$ millions)	
	•	•	Size
Decile	Low	High	Premium [4]
2	\$ 5,975.836	\$ 14,691.668	0.74%
3	\$ 3,428.570	\$ 5,936.147	0.85%
4	\$ 2,386.985	\$ 3,414.634	1.15%
5	\$ 1,602.429	\$ 2,384.026	1.69%
6	\$ 1,063.333	\$ 1,600.169	1.73%
7	\$ 685.129	\$ 1,063.308	1.73%
8	\$ 432.175	\$ 684.790	2.49%
9	\$ 214.194	\$ 431.256	2.85%
10	\$ 1.007	\$ 214.111	6.28%
roxy Group Minimum		\$ 753.47	1.73%
OTP Implied Market Capitalization		\$ 387.06	2.85%
Difference from Proxy Group Minimum			1.12%

## Notes

- [1] Source: SEC Form 10-Ks, December 31, 2009. Includes electric and gas customers.
- [2] Bloomberg, as of June 30, 2010
- [3] Exhibit\_(KGM-1), Schedule 2 to Direct Testimony of Kevin G. Moug.
  [4] Source: 2010 Morningstar Risk Premia Over Time Report; Estimates for 1926 2009
- [5] Equals 2.85%-1.73%

		EQUITY RATIO [1]								
Company Name	Ticker	2010 Q1	2009 Q4	2009 Q3	2009 Q2	2009 Q1	2008 Q4	2008 Q3	2008 Q2	AVERAGE
American Electric Power Company, Inc.	AEP	52.51%	48.47%	49.05%	48.94%	47.82%	48.64%	48.37%	47.97%	48.97%
Cleco Corporation	CNL	50.69%	45.45%	47.08%	46.43%	46.66%	45.07%	47.49%	46.53%	46.93%
Empire District Electric Company	EDE	51.88%	50.80%	48.49%	46.88%	46.78%	50.12%	50.63%	51.26%	49.60%
IDACORP, Inc.	IDA	47.56%	47.45%	48.15%	46.98%	46.70%	48.49%	47.84%	49.62%	47.85%
Northeast Utilities	NU	48.82%	49.14%	50.44%	49.94%	48.90%	49.39%	49.19%	48.46%	49.29%
Pinnacle West Capital Corporation	PNW	49.78%	50.37%	50.74%	48.18%	48.86%	53.81%	54.81%	55.34%	51.49%
Portland General Electric Company	POR	46.47%	46.94%	49.37%	49.17%	51.68%	50.90%	50.89%	50.92%	49.54%
Westar Energy, Inc.	WR	58.41%	58.73%	58.86%	57.04%	61.44%	61.37%	63.77%	63.17%	60.35%
AVERAGE		•								50.50%

					EQ	UITY RATIO	D [1]			
Company Name	Ticker	2010 Q1	2009 Q4	2009 Q3	2009 Q2	2009 Q1	2008 Q4	2008 Q3	2008 Q2	<b>AVERAGE</b>
AEP Texas Central Company	AEP	43.89%	43.79%	43.67%	46.13%	43.98%	43.68%	42.41%	41.79%	43.67%
AEP Texas North Company	AEP	45.73%	45.58%	46.63%	46.51%	46.72%	46.72%	47.29%	47.16%	46.54%
Appalachian Power Company	AEP	45.05%	44.35%	44.82%	44.58%	40.87%	42.81%	43.34%	42.78%	43.58%
Arizona Public Service Company	PNW	49.78%	50.37%	50.74%	48.18%	48.86%	53.81%	54.81%	55.34%	51.49%
Cleco Power LLC	CNL	50.69%	45.45%	47.08%	46.43%	46.66%	45.07%	47.49%	46.53%	46.93%
Columbus Southern Power Company	AEP	46.48%	46.95%	46.18%	46.81%	46.39%	46.40%	47.26%	45.93%	46.55%
Connecticut Light and Power Company	NU	51.18%	51.07%	50.43%	49.82%	49.07%	51.25%	49.44%	48.08%	50.04%
Empire District Electric Company	EDE	51.88%	50.80%	48.49%	46.88%	46.78%	50.12%	50.63%	51.26%	49.60%
Idaho Power Co.	IDA	47.56%	47.45%	48.15%	46.98%	46.70%	48.49%	47.84%	49.62%	47.85%
Indiana Michigan Power Company	AEP	46.44%	45.85%	45.74%	45.30%	43.06%	51.04%	50.95%	50.34%	47.34%
Kansas Gas and Electric Company	WR	56.24%	57.15%	57.23%	56.43%	65.33%	65.35%	65.25%	64.72%	60.96%
Kentucky Power Company	AEP	44.27%	44.04%	44.00%	43.94%	48.92%	48.74%	47.70%	47.17%	46.10%
Kingsport Power Company	AEP	100.00%	51.61%	55.30%	54.84%	55.05%	55.59%	55.66%	56.38%	60.55%
Ohio Power Company	AEP	49.41%	49.94%	50.14%	53.32%	48.00%	47.24%	48.80%	50.57%	49.68%
Portland General Electric Company	POR	46.47%	46.94%	49.37%	49.17%	51.68%	50.90%	50.89%	50.92%	49.54%
Public Service Company of New Hampshire	NU	47.42%	46.52%	51.26%	50.98%	48.85%	47.99%	46.65%	45.96%	48.20%
Public Service Company of Oklahoma	AEP	45.33%	45.61%	48.55%	47.44%	44.85%	45.82%	45.51%	44.57%	45.96%
Southwestern Electric Power Company	AEP	47.41%	51.71%	51.52%	48.17%	47.30%	46.74%	42.57%	41.53%	47.12%
Westar Energy (KPL)	WR	60.58%	60.31%	60.48%	57.65%	57.55%	57.38%	62.29%	61.63%	59.73%
Western Massachusetts Electric Company	NU	47.86%	49.84%	49.62%	49.01%	48.78%	48.93%	51.49%	51.34%	49.61%
Wheeling Power Co	AEP	63.54%	63.72%	62.98%	61.25%	60.92%	60.29%	60.62%	59.50%	61.60%

Notes:
Source: SNL Financial, FERC Form 3-Q
[1] Equals 'Total Proprietary Capital' less 'Preferred Stock Issued'
[2] Equals 'Total Long-Term Debt'

		LONG-TERM DEBT RATIO [2]								
Company Name	Ticker	2010 Q1	2009 Q4	2009 Q3	2009 Q2	2009 Q1	2008 Q4	2008 Q3	2008 Q2	AVERAGE
American Electric Power Company, Inc.	AEP	47.49%	51.53%	50.95%	51.06%	52.18%	51.36%	51.63%	52.03%	51.03%
Cleco Corporation	CNL	49.31%	54.55%	52.92%	53.57%	53.34%	54.93%	52.51%	53.47%	53.07%
Empire District Electric Company	EDE	48.12%	49.20%	51.51%	53.12%	53.22%	49.88%	49.37%	48.74%	50.40%
IDACORP, Inc.	IDA	52.44%	52.55%	51.85%	53.02%	53.30%	51.51%	52.16%	50.38%	52.15%
Northeast Utilities	NU	51.18%	50.86%	49.56%	50.06%	51.10%	50.61%	50.81%	51.54%	50.71%
Pinnacle West Capital Corporation	PNW	50.22%	49.63%	49.26%	51.82%	51.14%	46.19%	45.19%	44.66%	48.51%
Portland General Electric Company	POR	53.53%	53.06%	50.63%	50.83%	48.32%	49.10%	49.11%	49.08%	50.46%
Westar Energy, Inc.	WR	41.59%	41.27%	41.14%	42.96%	38.56%	38.63%	36.23%	36.83%	39.65%
AVERAGE										49.50%

					LONG-TE	RM DEBT	RATIO [2]			
Company Name	Ticker	2010 Q1	2009 Q4	2009 Q3	2009 Q2	2009 Q1	2008 Q4	2008 Q3	2008 Q2	AVERAGE
AEP Texas Central Company	AEP	56.11%	56.21%	56.33%	53.87%	56.02%	56.32%	57.59%	58.21%	56.33%
AEP Texas North Company	AEP	54.27%	54.42%	53.37%	53.49%	53.28%	53.28%	52.71%	52.84%	53.46%
Appalachian Power Company	AEP	54.95%	55.65%	55.18%	55.42%	59.13%	57.19%	56.66%	57.22%	56.42%
Arizona Public Service Company	PNW	50.22%	49.63%	49.26%	51.82%	51.14%	46.19%	45.19%	44.66%	48.51%
Cleco Power LLC	CNL	49.31%	54.55%	52.92%	53.57%	53.34%	54.93%	52.51%	53.47%	53.07%
Columbus Southern Power Company	AEP	53.52%	53.05%	53.82%	53.19%	53.61%	53.60%	52.74%	54.07%	53.45%
Connecticut Light and Power Company	NU	48.82%	48.93%	49.57%	50.18%	50.93%	48.75%	50.56%	51.92%	49.96%
Empire District Electric Company	EDE	48.12%	49.20%	51.51%	53.12%	53.22%	49.88%	49.37%	48.74%	50.40%
Idaho Power Co.	IDA	52.44%	52.55%	51.85%	53.02%	53.30%	51.51%	52.16%	50.38%	52.15%
Indiana Michigan Power Company	AEP	53.56%	54.15%	54.26%	54.70%	56.94%	48.96%	49.05%	49.66%	52.66%
Kansas Gas and Electric Company	WR	43.76%	42.85%	42.77%	43.57%	34.67%	34.65%	34.75%	35.28%	39.04%
Kentucky Power Company	AEP	55.73%	55.96%	56.00%	56.06%	51.08%	51.26%	52.30%	52.83%	53.90%
Kingsport Power Company	AEP	0.00%	48.39%	44.70%	45.16%	44.95%	44.41%	44.34%	43.62%	39.45%
Ohio Power Company	AEP	50.59%	50.06%	49.86%	46.68%	52.00%	52.76%	51.20%	49.43%	50.32%
Portland General Electric Company	POR	53.53%	53.06%	50.63%	50.83%	48.32%	49.10%	49.11%	49.08%	50.46%
Public Service Company of New Hampshire	NU	52.58%	53.48%	48.74%	49.02%	51.15%	52.01%	53.35%	54.04%	51.80%
Public Service Company of Oklahoma	AEP	54.67%	54.39%	51.45%	52.56%	55.15%	54.18%	54.49%	55.43%	54.04%
Southwestern Electric Power Company	AEP	52.59%	48.29%	48.48%	51.83%	52.70%	53.26%	57.43%	58.47%	52.88%
Westar Energy (KPL)	WR	39.42%	39.69%	39.52%	42.35%	42.45%	42.62%	37.71%	38.37%	40.27%
Western Massachusetts Electric Company	NU	52.14%	50.16%	50.38%	50.99%	51.22%	51.07%	48.51%	48.66%	50.39%
Wheeling Power Co	AEP	36.46%	36.28%	37.02%	38.75%	39.08%	39.71%	39.38%	40.50%	38.40%

Notes:
Source: SNL Financial, FERC Form 3-Q
[1] Equals 'Total Proprietary Capital' less 'Preferred Stock Issued'
[2] Equals 'Total Long-Term Debt'