

Exhibit No.:
Issues: Return on Equity
Witness: Robert B. Hevert
Sponsoring Party: Union Electric Company
Type of Exhibit: Direct Testimony
Case No.: ER-2011-0028
Date Testimony Prepared: September 3, 2010

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. ER-2011-0028

DIRECT TESTIMONY

OF

ROBERT B. HEVERT

ON

BEHALF OF

**UNION ELECTRIC COMPANY
d/b/a AmerenUE**

**Marlborough, Massachusetts
September, 2010**

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1 including both asset and corporate-based transactions. Many of those assignments
2 have included the determination of the cost of capital for valuation purposes. A
3 summary of my professional and educational background, including a listing of my
4 testimony in prior proceedings, is included as Attachment A to my direct testimony.

5 **Q. Please describe Concentric's activities in energy and utility**
6 **engagements.**

7 A. Concentric provides financial and economic advisory services to many
8 and various energy and utility clients across North America. Our regulatory economic
9 and market analysis services include utility ratemaking and regulatory advisory services,
10 energy market assessments, market entry and exit analysis, corporate and business
11 unit strategy development, demand forecasting, resource planning, and energy contract
12 negotiations. Our financial advisory activities include both buy and sell side merger,
13 acquisition and divestiture assignments, due diligence and valuation assignments,
14 project and corporate finance services, and transaction support services. In addition,
15 we provide litigation support services on a wide range of financial and economic issues
16 on behalf of clients throughout North America.

17 **II. PURPOSE AND OVERVIEW OF TESTIMONY**

18 **Q. What is the purpose of your direct testimony?**

19 A. The purpose of my direct testimony is to present evidence and provide a
20 recommendation regarding the Company's Return on Equity ("ROE").¹ My analyses
21 and recommendations are supported by the data presented in Schedules RBH-E1
22 through RBH-E7, which I, or others under my supervision, have prepared.

¹ Throughout my direct testimony, I interchangeably use the terms "ROE" and "cost of equity."

1 **Q. What are your conclusions regarding the appropriate cost of equity**
2 **for the Company?**

3 A. My analyses indicate that the Company's cost of equity is currently within
4 the range of 10.50 percent to 11.25 percent. Based on the quantitative and qualitative
5 analyses discussed throughout my direct testimony, and in light of the Missouri Public
6 Service Commission's ("Commission") traditional reliance on the Discounted Cash Flow
7 model and, in particular, in recognition of the Commission's recent reliance on the multi-
8 stage form of that model, I recommend that the Commission authorize AmerenUE the
9 opportunity to earn an ROE of 10.90 percent.

10 **Q. Please provide a brief overview of the analysis that led to your ROE**
11 **recommendation.**

12 A. As discussed in more detail in Section VI, in light of recent capital market
13 conditions, and given the fact that equity analysts and investors tend to use multiple
14 methodologies in developing their return requirements, it is extremely important to
15 consider the results of several analytical approaches in determining the Company's
16 ROE. In order to develop my ROE recommendation, I therefore applied two forms of
17 the Discounted Cash Flow ("DCF") model and two forms of the Capital Asset Pricing
18 Model ("CAPM"), as well as the Risk Premium approach. As discussed more fully in
19 Section VI, in light of the weight given to the multi-stage DCF model by the Commission
20 in Case No. ER-2010-0036,² my recommendation places greater emphasis on the
21 results of that model than it does on the other methodologies.

² See *In the Matter of Union Electric Company, d/b/a AmerenUE's Tariffs to Increase Its Annual Revenues for Electric Service*, Report and Order, Missouri Public Service Commission, Case No. ER-2010-0036, May 28, 2010, at pp. 21-22, para. 22-24.

1 In addition to the analyses discussed above, my recommendation also takes into
2 consideration: (1) the regulatory environment in which the Company operates; and (2)
3 the Company's reliance on coal-fired generation far in excess of my proxy group.³
4 While I did not make any explicit adjustments to my ROE estimates for those factors, I
5 did take them into consideration when determining where the Company's ROE falls
6 within the range of analytical results.

7 **Q. How is the remainder of your direct testimony organized?**

8 A. The remainder of my direct testimony is organized in six sections. In
9 Section III, I discuss the regulatory guidelines and financial considerations pertinent to
10 the development of the cost of capital. Section IV briefly discusses the current capital
11 market conditions and the effect of those conditions on the Company's cost of equity.
12 Section V explains my selection of a proxy group of integrated electric utilities used to
13 develop my analytical results. Section VI explains my analyses and the analytical basis
14 for the recommendation of the appropriate ROE for AmerenUE. Section VII provides a
15 discussion of specific regulatory and business risks that have a direct bearing on the
16 ROE to be authorized for the Company in this case. Section VIII summarizes my
17 conclusions and recommendations.

18 **III. REGULATORY GUIDELINES AND FINANCIAL CONSIDERATIONS**

19 **Q. Please describe the guiding principles to be considered in**
20 **establishing the cost of capital for a regulated utility.**

21 A. The United States Supreme Court's precedent-setting *Hope* and *Bluefield*
22 cases established the standards for determining the fairness or reasonableness of a
23 utility's allowed ROE. Among the standards established by the Court in those cases

³ Section V of my direct testimony discusses the process by which the proxy companies were selected.

1 are: (1) consistency with other businesses having similar or comparable risks; (2)
2 adequacy of the return to support credit quality and access to capital; and (3) the
3 principle that the specific means of arriving at a fair return are not important, only that
4 the end result leads to just and reasonable rates.⁴

5 **Q. Has the Commission provided similar guidance in establishing the**
6 **appropriate return on common equity?**

7 A. Yes. In a recent order, the Commission cited the *Hope* and *Bluefield*
8 decisions at some length and acknowledged its authority and responsibility to set “just
9 and reasonable” rates for public utility service, stating that:

10 A “just and reasonable” rate is one that is fair to both the utility and
11 its customers; it is no more than is sufficient to “keep public utility
12 plants in proper repair for effective public service, [and] ...to insure
13 to the investors a reasonable return upon funds invested.”⁵

14 Based on those standards, the consequence of the Commission’s decision in this
15 case, therefore, should be to provide the Company with the opportunity to earn an ROE
16 that is: (1) adequate to attract capital at reasonable terms, thereby enabling it to
17 continue to provide safe and reliable electric service; (2) sufficient to ensure its financial
18 integrity; and (3) commensurate with returns on investments in enterprises having
19 corresponding risks. The allowed ROE should enable the Company to finance capital
20 expenditures at reasonable rates and maintain its financial flexibility over the period
21 during which rates are expected to remain in effect. To the extent AmerenUE is
22 provided the opportunity to earn its market-based cost of capital, neither customers nor
23 shareholders are disadvantaged.

⁴ *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).

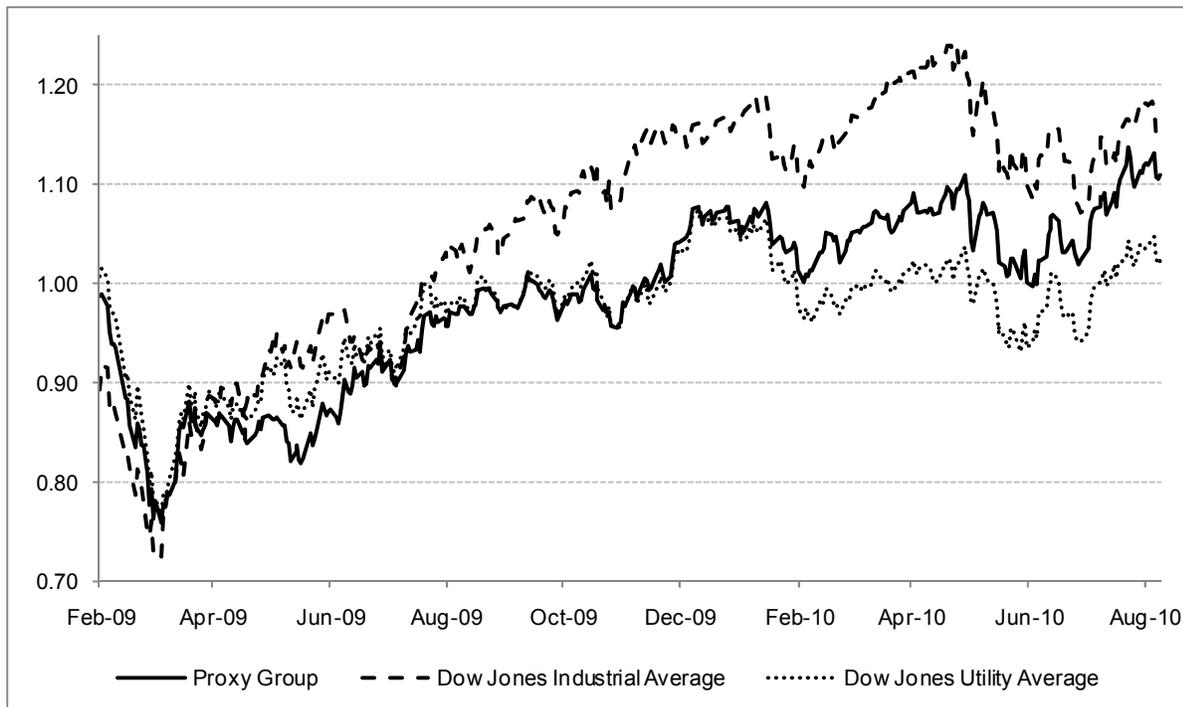
⁵ *In the Matter of Missouri Gas Energy and its Tariff Filing to Implement a General Rate Increase for Natural Gas Service*, Report and Order, Missouri Public Service Commission, Case No. GR-2009-0355. February 10, 2010, at 7 (internal citations omitted).

1 bearing on the Company's financial profile and, therefore, its ability to attract capital at
2 reasonable terms.

3 **Q. How have the recent capital market conditions affected the**
4 **availability and cost of equity capital?**

5 A. The widely discussed financial market crisis and the following recession
6 led to a general decrease in the availability of, and an increase in the cost of, equity
7 capital for all market sectors, including utilities. From the perspective of equity
8 investors, both the Dow Jones Utility Average and the proxy group used in my analyses
9 have considerably under-performed the general market since the beginning of 2009
10 (see Chart 1, below).

11 **Chart 1: Relative Price Performance February 1, 2009 – Present**

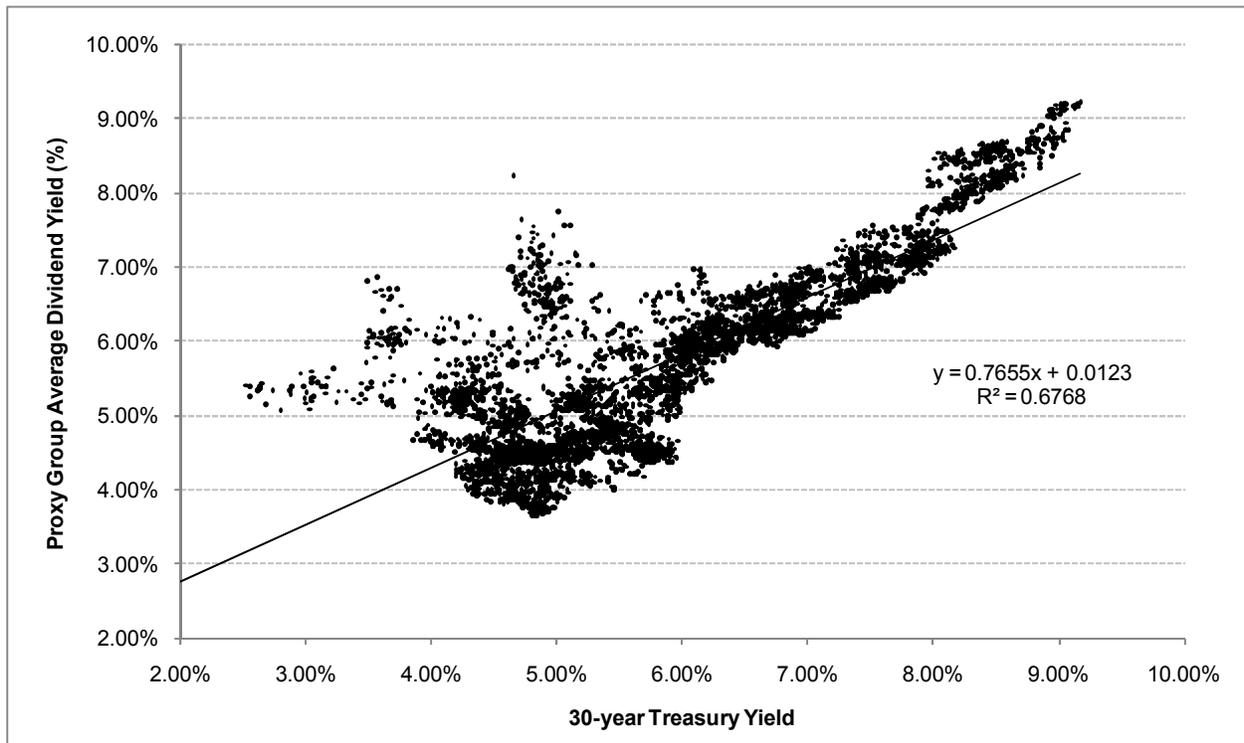


12

1 **Q. Does the potential for increasing interest rates represent a source of**
2 **risk to utilities?**

3 A. Yes, it does. The financial community has consistently recognized that
4 the stock prices of capital-intensive companies (such as AmerenUE) have a negative
5 correlation to interest rates. Value Line, for example, establishes “price targets” based
6 on the ratio of dividends to interest rates; as interest rates increase, the price target
7 declines, resulting in an increased dividend yield. Consistent with Value Line’s
8 methodology, as shown in Chart 2 (below), there is a strong statistical relationship
9 between the proxy group companies’ average dividend yield and the 30-year Treasury
10 yield.

11 **Chart 2: Proxy Group Average Dividend Yield vs. 30-Year Treasury Yield**



12
13 Given the currently low level of long-term Treasury rates (by historical
14 standards), it is reasonable to assume that on balance, long-term rates are more likely

1 to increase than decrease in the intermediate to long term. In fact, the Blue Chip
2 Financial Forecasts projects the 30-year Treasury bond to yield 5.70 percent by 2013,⁶
3 while the 30-day average yield on 30-year Treasury securities was approximately 4.00
4 percent as of August 13, 2010.⁷ This projected increase of approximately 170 basis
5 points represents a significant element of market risk.

6 **Q. What conclusions do you draw from these analyses?**

7 A. These analyses suggest that capital-intensive companies such as
8 AmerenUE continue to face the risks and costs associated with an unstable capital
9 market environment. As to the prospect for increasing interest rates, it is well
10 established that utility stock prices decline as interest rates increase. Such lower
11 valuation levels reflect increased costs of attracting the equity capital needed to fund the
12 Company's capital investment program, and, therefore, reflect the need for a
13 commensurately higher ROE.

14 The analyses described above also demonstrate that the assessment of capital
15 market conditions must be made in the context of multiple indices. It would be
16 inappropriate, for example, to view the current level of Treasury yields as indicative of a
17 lower cost of capital when consensus estimates call for a substantial increase in long-
18 term interest rates. Given investors' "flight to quality" that occurred during the 2008 –
19 2009 market instability, interest rates on United States Treasury securities were driven
20 to historically low levels; the same is true in the current market environment.⁸ As
21 investors begin to reallocate capital to securities with higher expected risks and returns

⁶ Blue Chip Financial Forecasts, Vol. 29, No. 6, June 1, 2010, at 14.

⁷ Bloomberg Professional.

⁸ "Flight to quality" refers to investors' shifting of asset allocation from higher to lower, or lowest, risk investable assets.

1 (all else being equal), Treasury yields necessarily will increase. Moreover, in light of the
2 continuing capital market instability, it is extremely important to assess the
3 reasonableness of any financial model's results in the context of observable market
4 data. To the extent that certain estimates are incompatible with such benchmarks, or
5 inconsistent with basic financial principles, it is appropriate to consider whether
6 alternative estimation techniques are likely to provide more meaningful and reliable
7 results.

8 **V. PROXY GROUP SELECTION**

9 **Q. Have you used a group of proxy companies to determine the cost of**
10 **equity for AmerenUE?**

11 A. Yes.

12 **Q. Please explain.**

13 A. First, it is important to bear in mind that the cost of equity for a given
14 enterprise depends on the risks attendant to the business in which the company is
15 engaged. According to financial theory, the value of a given company is equal to the
16 aggregate market of its constituent business units. The value of the individual business
17 units reflects the risks and opportunities inherent in the business sectors in which those
18 units operate. In this proceeding, we are focused on estimating the cost of equity for
19 the Missouri electric utility operations of AmerenUE, a rate-regulated, wholly-owned
20 subsidiary of Ameren Corporation. Since the ROE is a market-based concept, and
21 given the fact that AmerenUE is not publicly traded, it is necessary to establish a group
22 of companies that are both publicly traded and comparable to AmerenUE in certain

1 fundamental business and financial respects to serve as its “proxy” for purposes of the
2 ROE estimation process.

3 Even if AmerenUE were a publicly traded entity, it is possible that transitory
4 events could bias its market value in one way or another over a given period of time. A
5 significant benefit of using a proxy group, therefore, is its ability to mitigate the effects of
6 anomalous events that may be associated with any one company. As discussed later in
7 my direct testimony, the proxy companies used in my analyses all possess a set of
8 operating and risk characteristics that are substantially comparable to AmerenUE’s
9 electric utility operations, and thus provide a reasonable basis for the derivation and
10 assessment of ROE estimates.

11 The importance of selecting a proxy group that is similar in overall financial and
12 business risk to the subject company was endorsed by the United States Court of
13 Appeals for the District of Columbia (the “Court of Appeals”) in the *Petal Gas Storage*
14 decision. The Court of Appeals acknowledged that the goal of a proxy group is to rely
15 on companies that possess similar risk to the subject company for the determination of
16 the cost of equity:

17 That proxy group arrangements must be risk-appropriate is the
18 common theme in each argument. The principle is well-
19 established. See *Hope Natural Gas Co.*, 320 U.S. at 603 (“[T]he
20 return to the equity owner should be commensurate with returns on
21 investments in other enterprises having corresponding risks.”);
22 *CAPP I*, 254 F.3d at 293 (“[A] utility must offer a risk-adjusted
23 expected rate of return sufficient to attract investors.”). The
24 principle captures what proxy groups do, namely, provide market-
25 determined stock and dividend figures from public companies
26 comparable to a target company for which those figures are
27 unavailable. *CAPP I*, 254 F.3d at 293–94. Market determined
28 stock figures reflect a company’s risk level and, when combined

1 with dividend values, permit calculation of the “risk-adjusted
2 expected rate of return sufficient to attract investors.”⁹

3 ***

4 What matters is that the overall proxy group arrangement makes
5 sense in terms of relative risk and, even more importantly, in terms
6 of the statutory command to set “just and reasonable” rates, 15
7 U.S.C. § 717c, that are “commensurate with returns on investments
8 in other enterprises having corresponding risks” and “sufficient to
9 assure confidence in the financial integrity of the enterprise . . .
10 [and] maintain its credit and . . . attract capital,” *Hope Natural Gas*
11 *Co.*, 320 U.S. at 603.¹⁰

12 Thus, regulatory commissions and analysts alike recognize the importance of
13 developing a proxy group that adequately represents the ongoing risks and prospects of
14 the subject company.

15 **Q. Does the rigorous selection of a proxy group suggest that analytical**
16 **results will be tightly clustered around average (i.e., mean) results?**

17 A. Not necessarily. As discussed in greater detail in Section VI, the DCF
18 approach is based on the theory that a stock’s current price represents the present
19 value of its expected future cash flows. For example, the Constant Growth form of the
20 DCF model is defined as the sum of the expected dividend yield and projected long-
21 term growth. Notwithstanding the care taken to ensure risk comparability, market
22 expectations with respect to future risks and growth opportunities will vary from
23 company to company. Therefore, even within a group of similarly situated companies, it
24 is common for analytical results to reflect a seemingly wide range. At issue, then, is
25 how to select an ROE estimate in the context of that range. As discussed throughout
26 my direct testimony, that determination must necessarily be based on an assessment of

⁹ *Petal Gas Storage v. FERC*, 496 F.3d 695, 699 (D.C. Cir. 2007).

¹⁰ *Ibid.*, at 700.

1 the company-specific risks relative to the proxy group, as well as the informed judgment
2 and experience of the analyst.

3 **Q. Please provide a summary profile of AmerenUE.**

4 A. AmerenUE, which is a direct subsidiary of Ameren Corporation, provides
5 electric service to approximately 1.2 million retail customers, and natural gas distribution
6 service to approximately 126,000 retail customers in Missouri. Operating income from
7 regulated electric operations accounted for approximately 97.35 percent of AmerenUE's
8 total operating income in 2009.¹¹ Ameren Corporation currently has Long Term Issuer
9 credit ratings from S&P of BBB- (Outlook: Stable), from Moody's of Baa3 (Outlook:
10 Stable) and from Fitch Ratings of BBB (Outlook: Stable). AmerenUE is separately
11 rated by S&P at BBB-, by Moody's at Baa2, and by Fitch at BBB+.

12 **Q. How did you select the companies included in your proxy group?**

13 A. I began with the companies that Value Line classifies as "Electric Utilities,"
14 which comprise a group of 54 domestic U.S. utilities, and simultaneously applied the
15 following screening criteria:

- 16 • I excluded companies that do not pay consistent quarterly cash dividends.
- 17 • All of the companies in my proxy group have been covered by at least two
18 generally recognized utility industry equity analysts.
- 19 • All of the companies in my proxy group had senior bond and/or corporate
20 ratings from Standard and Poor's of BBB- to AAA.
- 21 • I selected companies that are vertically integrated utilities (*i.e.*, utilities that
22 own and operate regulated generating assets).

¹¹ Source: Union Electric Company, 2009 FERC Form No. 1, Annual Report of Major Electric Utilities, Licensees and Others and Supplemental Form 3-Q Quarterly Financial Report, at 114-115.

- 1 • I excluded companies whose regulated revenues and operating income in
2 2007, 2008, and 2009 comprised less than 60.00 percent of the respective
3 totals for the company.
- 4 • To focus on companies whose revenue and operating income are derived
5 primarily from electric operations, I excluded companies whose regulated
6 electric revenue and operating income in 2007, 2008, and 2009
7 represented less than 90.00 percent of the respective totals for the
8 company.
- 9 • All of the companies in my proxy group own regulated generation assets
10 and have coal-fired generation that constitutes at least 10.00 percent of
11 their net generation.
- 12 • Finally, I eliminated any companies that are currently known to be party to
13 a merger or other transforming transaction.

14 **Q. Did you include Ameren in your analysis?**

15 A. No, I did not. In order to avoid the circular logic that otherwise would
16 occur, it is my practice to exclude the subject company, or its parent holding company,
17 from the proxy group.

18 **Q. What companies met the screening criteria for your initial proxy**
19 **group?**

20 A. Strict adherence to the criteria discussed above resulted in an initial proxy
21 group of the following eleven companies.

1

Table 1: Initial Proxy Group

Company	Ticker
American Electric Power	AEP
Cleco Corp.	CNL
DPL, Inc.	DPL
Edison International	EIX
Idacorp, Inc.	IDA
Northeast Utilities	NU
Pinnacle West Capital Corp.	PNW
Portland General	POR
Progress Energy	PGN
Southern Company	SO
Westar Energy	WR

2

Q. Is this your final proxy group?

3

A. No, it is not. The Empire District Electric Company (“EDE”) failed to meet

4

one screening criterion, the percentage of revenue derived from regulated electric

5

operations, but only by a small margin.¹² Given EDE’s comparability to AmerenUE in

6

other important respects (*i.e.*, EDE met all the remaining screening criteria, which were

7

designed to produce a group of company’s comparable to AmerenUE), I have included

8

EDE in my final proxy group. Also, Edison International (“EIX”) experienced significant

9

unregulated operating losses in 2009; those losses were in excess of 55.00 percent of

10

EIX’s regulated utility operating income. According to EIX’s SEC Form 10-K for the

11

fiscal year ended December 31, 2009, those significant operating losses were the result

12

of a global tax settlement and payment to the Internal Revenue Service (“IRS”), which

13

caused EIX’s unregulated marketing and trading segment to incur over \$1 billion in

¹² EDE failed to pass that criterion by approximately 2.25 percent, but has operating income derived primarily from electric operations of over 92.00% for the years 2007 through 2009.

1 payments to settle a claim by the IRS that EIX was under-withholding tax payments.¹³
2 Given the extent of those losses, it is difficult to assess the extent to which the regulated
3 electric utility operations would be expected to contribute to the company's consolidated
4 financial performance in the near and longer terms. Consequently, I have excluded EIX
5 from my final proxy group. That group, then, includes the following eleven companies:

6 **Table 2: Final Proxy Group**

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

7
8 **VI. COST OF EQUITY ESTIMATION**

9 **Q. Please briefly discuss the ROE in the context of the regulated rate of**
10 **return.**

11 A. Regulated utilities primarily use common stock and long-term debt to
12 finance their permanent property, plant, and equipment. The overall rate of return
13 ("ROR") for a regulated utility is based on its weighted average cost of capital, in which
14 the cost rates of the individual sources of capital are weighted by their respective book
15 values. While the costs of debt and preferred stock can be directly observed, the cost

¹³ See, Edison International, SEC Form 10-K for the fiscal year ended December 31, 2009, at 129.

1 of equity is market-based and, therefore, must be estimated based on observable
2 market information.

3 **Q. How is the required ROE determined?**

4 A. The required ROE is estimated by using one or more analytical techniques
5 that rely on market-based data to quantify investor expectations regarding required
6 equity returns, adjusted for certain incremental costs and risks. By their very nature,
7 quantitative models produce a range of results from which the market required ROE
8 must be selected. As discussed throughout my direct testimony, that selection must be
9 based on a comprehensive review of relevant data and information, and does not
10 necessarily lend itself to a strict mathematical solution. As a general proposition, the
11 key consideration in determining the cost of equity is to ensure that the methodologies
12 employed reasonably reflect investors' views of the financial markets in general, and the
13 subject company (in the context of the proxy group) in particular.

14 **Q. What methods did you use to determine the Company's ROE?**

15 A. I used two forms of the DCF model: a Constant Growth DCF model, and a
16 Multi-Stage DCF model as the primary approaches to my analysis. I then considered
17 the results of the CAPM and an alternative Risk Premium approach in assessing the
18 reasonableness of the DCF results in developing my ROE recommendation. As
19 discussed in more detail below, the use of a historical market risk premium in the CAPM
20 produces results that are entirely inconsistent with current market conditions. Thus, a
21 reasonable ROE estimate appropriately considers alternate methodologies and the
22 reasonableness of their individual and collective results.

1 **Q. Why do you believe it is important to use more than one analytical**
2 **approach?**

3 A. It is important to use more than one approach because the cost of equity
4 is not directly observable, and therefore must be estimated based on both quantitative
5 and qualitative information. When faced with the task of estimating the cost of equity,
6 analysts and investors are inclined to gather and evaluate as much relevant data as
7 reasonably can be analyzed. As a result, a number of models have been developed to
8 estimate the cost of equity. For that reason, I use multiple approaches to estimate the
9 cost of equity used in performing valuations in the context of my financial advisory and
10 transaction practices.

11 As a practical matter, however, all of the models available for estimating the cost
12 of equity are subject to limiting assumptions or other methodological constraints.
13 Consequently, many finance texts recommend using multiple approaches when
14 estimating the cost of equity. For example, Copeland, Koller and Murrin,¹⁴ suggest
15 using the CAPM and Arbitrage Pricing Theory model, while Brigham and Gapenski,¹⁵
16 recommend the CAPM, DCF and “bond yield plus risk premium” approaches.

17 In essence, analysts and academics understand that ROE models are tools to be
18 used in the ROE estimation process and that strict adherence to any single approach,
19 or the specific results of any single approach, can lead to flawed and irrelevant
20 conclusions. That position is consistent with the *Hope* and *Bluefield* finding that it is the
21 analytical result, as opposed to the methodology, that is controlling in arriving at ROE

¹⁴ Tom Copeland, Tim Koller and Jack Murrin, Valuation: Measuring and Managing the Value of Companies, 3rd ed. (New York: McKinsey & Company, Inc., 2000), at 214.

¹⁵ Eugene Brigham, Louis Gapenski, Financial Management: Theory and Practice, 7th Ed. (Orlando: Dryden Press, 1994), at 341.

1 determinations. A reasonable ROE estimate therefore considers alternative
2 methodologies, observable market data, and the reasonableness of their individual and
3 collective results.

4 Consequently, in my view, it is both prudent and appropriate to use multiple
5 methodologies in order to mitigate the effects of assumptions and inputs associated with
6 relying exclusively on any single approach. Such use, however, must be tempered with
7 due caution as to the results generated by each individual approach. Therefore, in light
8 of the capital market practices discussed above, I have relied on the results of both the
9 Constant Growth and Multi-Stage forms of the DCF model, the CAPM and the Risk
10 Premium approach. The importance of considering multiple approaches was also
11 recognized by the Commission, which noted in AmerenUE's most recent rate case
12 (Case No. ER-2010-0036) that "[f]inancial analysts use variations on three generally
13 accepted methods to estimate a company's fair rate of return on equity." The three
14 methods noted by the Commission include the Discounted Cash Flow, the Risk
15 Premium and the CAPM approaches. The Commission further noted that "[n]o one
16 method is any more 'correct' than any other method in all circumstances. Analysts
17 balance their use of all three methods to reach a recommended return on equity."¹⁶

¹⁶ *In the Matter of Union Electric Company, d/b/a AmerenUE's Tariffs to Increase Its Annual Revenues for Electric Service*, Report and Order, Missouri Public Service Commission, File No. ER-2010-0036, May 28, 2010, at 17.

1 **A. Constant Growth DCF Model**

2 **Q. Are DCF models widely used to determine the ROE for regulated**
3 **utilities?**

4 A. Yes. DCF models are widely used in regulatory proceedings and have
5 sound theoretical bases, although neither the DCF model nor any other model can be
6 applied without considerable judgment in the selection of data and the interpretation of
7 results. AmerenUE noted in its post hearing brief in the recent electric rate case that
8 the DCF method is most commonly used by the Missouri Commission and other
9 commissions when estimating ROEs for regulated utilities.¹⁹ In its simplest form, the
10 DCF model expresses the cost of equity as the sum of the expected dividend yield and
11 long-term growth rate.

12 **Q. Please describe the DCF approach.**

13 A. The DCF approach is based on the theory that a stock's current price
14 represents the present value of all expected future cash flows. In its most general form,
15 the DCF model is expressed as follows:

16
$$P_0 = \frac{D_1}{(1+k)} + \frac{D_2}{(1+k)^2} + \dots + \frac{D_\infty}{(1+k)^\infty} \quad [1]$$

17 where:

18 P_0 = the current stock price;

19 $D_1 \dots D_\infty$ = all expected future dividends; and

20 k = the discount rate or required ROE.

¹⁹ Post hearing brief, *In the Matter of Union Electric Company d/b/a AmerenUE for Authority to File Tariffs Increasing Rates for Electric Service Provided to Customers in the Company's Missouri Service Area*, Missouri Public Service Commission, Case No. ER-2010-0036, filed April 23, 2010, at 18.

1 Equation [1] is a standard present value calculation that can be simplified and
2 rearranged into the familiar form:

$$3 \quad k = \frac{D(1+g)}{P_0} + g \quad [2]$$

4 Equation [2] is often referred to as the “Constant Growth DCF” model in which
5 the first term is the expected dividend yield and the second term is the expected long-
6 term growth rate.

7 **Q. What assumptions are required for the Constant Growth DCF model?**

8 A. The DCF model requires the following assumptions: (1) a constant growth
9 rate for earnings and dividends; (2) a stable dividend payout ratio; (3) a constant price-
10 to-earnings multiple; and (4) a discount rate greater than the expected growth rate. To
11 the extent that any of these assumptions is violated, considered judgment and/or
12 specific adjustments should be applied to the results.

13 **B. Dividend Yield for the Constant Growth DCF Model**

14 **Q. What market data did you use to calculate the dividend yield in your**
15 **Constant Growth DCF model?**

16 A. The dividend yield is based on the proxy companies’ current annualized
17 dividend, and average closing stock prices over the 30, 90, and 180-trading days ended
18 August 13, 2010.

19 **Q. Why did you use three averaging periods?**

20 A. I believe it is important to use an average of trading days to calculate the
21 term P_0 in the DCF model to ensure that the calculated ROE is not skewed by
22 anomalous events that may affect stock prices on any given trading day. In that regard,
23 the averaging period should be reasonably representative of expected capital market

1 conditions over the long term. At the same time, it is important to reflect the volatile
2 conditions definitive of the financial markets over the recent past. In my view, the use of
3 the 30-, 90- and 180-day averaging periods reasonably balances those concerns.

4 **Q. Did you make any adjustments to the dividend yield to account for**
5 **periodic growth in dividends?**

6 A. Yes. Since utility companies tend to increase their quarterly dividends at
7 different times throughout the year, it is reasonable to assume that dividend increases
8 will be evenly distributed over calendar quarters. Given that assumption, it is
9 reasonable to apply one-half of the expected annual dividend growth for purposes of
10 calculating the expected dividend yield component of the DCF model. This adjustment
11 ensures that the expected dividend yield is, on average, representative of the coming
12 twelve-month period, and does not overstate the aggregated dividends to be paid during
13 that time. Accordingly, the DCF estimates provided in Schedule RBH-E1 reflect one-
14 half of the expected growth in the dividend yield component of the model. The
15 Commission endorsed this approach in its recent Missouri Gas Energy Order.²⁰

16 **C. Growth Rates for the DCF Model**

17 **Q. Is it important to select appropriate measures of long-term growth in**
18 **applying the DCF model?**

19 A. Yes.

20 **Q. Please explain.**

21 A. In its Constant Growth form, the DCF model (*i.e.*, Equation [2]) assumes a
22 single growth estimate in perpetuity. In order to reduce the long-term growth rate to a

²⁰ *In the Matter of Missouri Gas Energy and its Tariff Filing to Implement a General Rate Increase for Natural Gas Service*, Report and Order, Missouri Public Service Commission, Case No. GR-2009-0355, February 10, 2010, at 32.

1 single measure, one must assume a constant payout ratio, and that earnings per share,
2 dividends per share and book value per share all grow at the same constant rate. Over
3 the long term, however, dividend growth can only be sustained by earnings growth.
4 Consequently, it is important to incorporate a variety of measures of long-term earnings
5 growth into the Constant Growth DCF model. This can be accomplished by averaging
6 those measures of long-term growth that tend to be least influenced by capital allocation
7 decisions that companies may make in response to near-term changes in the business
8 environment. Since such decisions may directly affect near-term dividend payout ratios,
9 estimates of earnings growth are more indicative of long-term investor expectations
10 than are dividend growth estimates. Therefore, for the purposes of the Constant
11 Growth form of the DCF model, growth in earnings per share represents the appropriate
12 measure of long-term growth.

13 **Q. Has the Commission previously accepted the growth rates that you**
14 **rely on in your Constant Growth DCF model?**

15 A. Yes. In Case No. ER-2010-0036, the Commission accepted the return on
16 equity that was recommended by the Missouri Office of the Public Counsel's witness,
17 Mr. Lawton.²¹ In establishing his recommended return in that proceeding, Mr. Lawton
18 also relied on an average of forecasted earnings per share growth rates published by
19 Value Line, Zacks and Thompson First Call.²²

²¹ *In the Matter of Union Electric Company d/b/a AmerenUE Tariffs to Increase Its Annual Revenues for Electric Service*, Missouri Public Service Commission, Case No. ER-2010-0036, Issue Date May 28, 2010, at 23.

²² Direct Testimony of Mr. Daniel J. Lawton (Office of the Public Council ROE witness), Case No. ER-2010-0036, pages 23-24, and Schedule DJL-5. Please note that the Thompson First Call EPS growth rates that I have relied on are consistent with the growth rate source that Mr. Lawton referenced as IBES EPS Estimate.

1 **Q. Please summarize your inputs to the Constant Growth DCF model.**

2 A. I applied the Constant Growth DCF model to the proxy group of eleven
3 integrated electric utility companies using the following inputs for the price and dividend
4 terms:

- 5 1. The average daily closing prices for the 30-, 90-, and 180-trading days
6 ended August 13, 2010 for the term P_0 ; and
- 7 2. The annualized dividend per share as of August 13, 2010 for the term D_0 .

8 I then calculated the DCF results using each of the following growth terms:

- 9 1. The Zacks consensus long-term earnings growth estimates;
- 10 2. The First Call consensus long-term earnings growth estimates; and
- 11 3. The Value Line long-term earnings growth estimates.

12 **D. Multi-Stage DCF Model**

13 **Q. What other forms of the DCF model have you considered?**

14 A. In order to address some of the limiting assumptions underlying the
15 Constant Growth form of the DCF model, I also considered the results of a multi-period
16 (three-stage) Discounted Cash Flow Model. The multi-stage model, which is an
17 extension of the Constant Growth form, enables the analyst to specify growth rates over
18 three distinct stages. As with the Constant Growth form of the DCF model, the multi-
19 period form defines the cost of equity as the discount rate that sets the current price
20 equal to the discounted value of future cash flows. Unlike the Constant Growth form,
21 however, the multi-period model must be solved in an iterative fashion.

1 **Q. Please generally describe the structure of your multi-stage model.**

2 A. As noted above, the model sets the subject company's stock price equal
3 to the present value of future cash flows received over three "stages." In the first two
4 stages, "cash flows" are defined as projected dividends. In the third stage, "cash flows"
5 equal both dividends and the expected price at which the stock will be sold at the end of
6 the period. I employed two different methods to estimate the expected terminal stock
7 price. The first approach is based on the Gordon model, which defines the price as the
8 expected dividend divided by the difference between the cost of equity (*i.e.*, the discount
9 rate) and the long-term expected growth rate. In essence, the terminal price is defined
10 by the present value of the remaining "cash flows" in perpetuity. The second approach
11 estimates the terminal stock price based on the historical median price-to-earnings
12 ("P/E") ratio for each of the proxy group companies. In each of the three stages, the
13 dividend is the product of the projected earnings per share and the expected dividend
14 payout ratio. A summary description of the model is provided in Table 3 (below).

1

Table 3: Multi-Stage DCF Structure

Stage	0	1	2	3
Cash Flow Component	Initial Stock Price	Expected Dividend	Expected Dividend	Expected Dividend + Terminal Value
Inputs	Stock Price Earnings Per Share (EPS) Dividends Per Share (DPS)	Expected EPS Expected DPS	Expected EPS Expected DPS	Expected EPS Expected DPS Terminal Value
Assumptions	30, 90, and 180-day average stock price	EPS growth rate Payout ratio		Long-term growth rate

2

Q. What are the specific benefits of a three-stage model?

3

A. Because the second stage allows for a transition from the first stage growth rate to the long-term growth rate, it avoids the often unrealistic assumption that growth will change immediately between the first and final stages. In my view, that additional flexibility is very important when, as is the case with electric utilities, there is an expected period of high capital expenditures in the near and intermediate terms. Because the model projects dividends as the product of earnings and the payout ratio, it adds the important ability to recognize that during periods of high capital expenditures, payout ratios may be somewhat lower than they otherwise would be.

11

It also is very important to note that while the model calculates the cost of equity based on expected dividends, it does not rely solely on Value Line for dividend growth rate projections. In my experience, a common and legitimate criticism of DCF models that rely on projected dividend growth rates (especially in the Constant Growth form of the model) is that Value Line is the sole source of such projections.²³ While the form of the three-stage model I have used relies on Value Line for projected payout ratios, the

12

13

14

15

16

²³ *Ibid.* See, for example, Harris and Marston, *Estimating Shareholder Risk Premia Using Analysts' Growth Forecasts*, Financial Management, 21 (Summer 1992).

1 potential bias resulting from reliance on a single analyst is mitigated by the use of
2 consensus earnings forecasts. The model also enables the analyst to assess the
3 reasonableness of the inputs and results by reference to certain market-based metrics.
4 For example, when using the Gordon model approach to estimate the terminal price, the
5 stock price estimate can be divided by the expected earnings per share in the final year
6 to calculate an average P/E ratio. To the extent that the projected P/E ratio is
7 inconsistent with either historical or expected levels, it may indicate incorrect or
8 inconsistent assumptions within the balance of the model.

9 **Q. Please summarize your inputs to the Multi-Period DCF model.**

10 A. I applied the multi-period model to the proxy group described earlier in my
11 direct testimony. My assumptions with respect to the various model inputs are
12 described in Table 4 (below).

1

Table 4: Multi-Stage DCF Model Assumptions

Stage	0	1	2	3
Stock Price	30, 90, and 180-day average stock price as of August 13, 2010			
Earnings Growth	EPS as reported by Value Line	EPS growth as average of (1) Value Line; (2) Zacks; and (3) First Call projected growth rates	Transition to Long-term GDP growth on geometric average basis	Long-term GDP growth
Payout Ratio		Value Line company-specific	Transition to industry average payout ratio on a geometric average basis	Long-term median historical payout ratio for the proxy group company
Terminal Value				Expected dividend in final year divided by solved cost of equity less long-term growth rate or expected EPS in final year multiplied by median historical P/E ratio

2

Q. How did you calculate the long-term GDP growth rate?

3

A. The long-term growth rate of 5.75 percent is based on the real GDP

4

growth rate of 3.28 percent from 1929 through 2009,²⁴ and an inflation rate of 2.40

5

percent. The GDP growth rate is calculated as the compound growth rate in the chain-

6

weighted GDP for the period from 1929 through 2009. The rate of inflation of 2.40

7

percent is based on the average of the long-term projected growth rate in the Consumer

²⁴ Source: Bureau of Economic Analysis, July 30, 2010 update.

1 Price Index (“CPI”), as reported by Blue Chip Financial Forecast of 2.50 percent²⁵ and
2 the compound annual CPI growth rate of 2.30 percent projected by the Energy
3 Information Administration (“EIA”) in the 2010 Annual Energy Outlook.²⁶ The approach
4 that I rely on to estimate the long-term growth in GDP and the resulting 5.75 percent
5 growth rate is generally consistent with the methodology that the Commission accepted
6 in its recent decision in Case No. ER-2010-0036. In that case, the Commission noted
7 that using an estimate of the historical growth in real GDP for the United States and an
8 inflation factor would derive a long-term growth forecast of 6.00 percent.²⁷

9 **Q. What were your specific assumptions with respect to the payout**
10 **ratio?**

11 A. As noted in Table 4, for the first two periods I relied on the first year and
12 long-term projected payout ratios reported by Value Line²⁸ for each of the proxy group
13 companies. I then assumed that by the end of the second period (*i.e.*, the end of year
14 10), the payout ratio will converge to the long-term industry median payout ratio of 67.50
15 percent. Given the elevated level of capital expenditures that the industry is facing over
16 the coming three to five years, I believe that it is reasonable to assume that in general,
17 payout ratios will decline in the near term, but revert to the long-term median over the
18 long term.²⁹ I estimated the long-term payout ratio of each proxy group company to be

²⁵ Blue Chip Financial Forecast, Vol. 29, No. 6, June 1, 2010, at 14. The long-term average growth rate in CPI is for the period from 2017 through 2021.

²⁶ EIA 2010 Annual Energy Outlook, Table A20. Macroeconomic Indicators, Update AEO2010 Reference March 2010. Please note that $5.76\% = [(1+3.28\%) \times (1+2.40\%)] - 1$.

²⁷ *In the Matter of Union Electric Company d/b/a AmerenUE's Tariffs to Increase its Annual Revenues for Electric Service*, Report and Order, Missouri Public Service Commission, Case No. ER-2010-0036. May 28, 2010, at 19.

²⁸ As reported in the December 11, 2009 Value Line Investment Survey for Electric Utilities as “All Div’ds to Net Prof.”

²⁹ KeyBanc Capital Markets Inc. Equity Research, *Electric Utilities Quarterly 1Q10*, June 2010, at 7.

1 the median of the historical payout ratio for that company for the period from 1990
2 through the present.

3 **Q. Did you also consider the alternative analysis in which the terminal**
4 **value was calculated based on the expected price/earnings ratio?**

5 A. Yes, I also considered the results of estimating the terminal stock price
6 based on the expected earnings per share in the final year and the long-term P/E ratio.
7 The summary of the Multi-Stage model's results that appear in Table 5 (below) presents
8 the ROE estimates using both terminal stock price estimation techniques.

9 ***E. Discounted Cash Flow Model Results***

10 **Q. Please summarize the results of your DCF analyses.**

11 A. Table 5 (below), (see also Schedules RBH-E1 and RBH-E2), presents the
12 results of the Constant Growth and Multi-Stage DCF analyses. The Constant Growth
13 DCF model produces a range of results from 9.59 percent to 11.93 percent. Using the
14 Gordon model to calculate the terminal stock price, the Multi-Stage DCF analysis
15 produces a range of results from 10.69 percent to 10.86 percent, while using the long-
16 term P/E model to calculate the terminal stock price, the Multi-Stage analysis produces
17 a range of results from 10.28 percent to 10.63 percent.

1

Table 5: Discounted Cash Flow Analyses Results

Constant Growth DCF	Mean Low	Mean	Mean High
30-Day Average	9.59%	10.72%	11.76%
90-Day Average	9.73%	10.86%	11.90%
180-Day Average	9.76%	10.90%	11.93%

Multi-Stage DCF	Long-Term P/E Model	Mean	Gordon Model
30-Day Average	10.28%	10.49%	10.69%
90-Day Average	10.56%	10.70%	10.83%
180-Day Average	10.63%	10.75%	10.86%

2 **Q. Referring to your Constant Growth DCF model, how did you**
3 **calculate the mean high and mean low results?**

4 A. I calculated the mean high result for my Constant Growth DCF model
5 using the maximum growth rate (*i.e.*, the maximum of the Zacks, First Call, and Value
6 Line EPS growth rates) in combination with the dividend yield for each of the proxy
7 group companies. Thus, the mean high result reflects the maximum DCF result for the
8 proxy group. I used a similar approach to calculate the mean low results, using the
9 minimum growth rate for each proxy group company.

10 **Q. Referring now to your Multi-Stage DCF model, are those results**
11 **consistent with other market indices?**

12 A. Yes, they are. Based on the assumptions described earlier, when using
13 the Gordon model method to estimate the terminal price, the Multi-Stage model
14 produces median P/E multiples of 13.83 to 14.44 (depending upon the stock price
15 averaging period). This range is generally consistent with the historical median P/E
16 ratio of the proxy group companies of 13.68.

1 **Q. Did you undertake any additional analyses to support your DCF**
2 **model results?**

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

5 **F. CAPM Analysis**

6 **Q. Please briefly describe the general form of the Capital Asset Pricing**
7 **Model.**

8 A. The CAPM is a risk premium approach that estimates the cost of equity for
9 a given security as a function of a risk-free return plus a risk premium (to compensate
10 investors for the non-diversifiable or “systematic” risk of that security). As shown in
11 Equation [3], the CAPM is defined by four components, each of which must theoretically
12 be a forward-looking estimate:

13
$$K_e = r_f + \beta(r_m - r_f) \text{ [3]}$$

14 where:

15 K_e = the required market ROE;

16 β = Beta of an individual security;

17 r_f = the risk-free rate of return; and

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

19 In this specification, the term $(r_m - r_f)$ represents the market risk premium.
20 According to the theory underlying the CAPM, since unsystematic risk can be diversified
21 away, investors should be concerned only with systematic or non-diversifiable risk.
22 Non-diversifiable risk is measured by Beta, which is defined as:

23
$$\beta = \frac{\text{Covariance}(r_e, r_m)}{\text{Variance}(r_m)} \text{ [4]}$$

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

6 **Q. Has the CAPM been affected by recent economic conditions?**

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

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

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

1 group companies and the S&P 500 was considerably different than has been
2 experienced in the current market environment. Both the Value Line and Bloomberg
3 Beta estimates are calculated over longer historical time periods that include the effects
4 of the financial market dislocation, resulting in Beta estimates that are much lower than
5 what has been experienced historically in markets similar to the current market
6 environment. For example, in July 2008, the period prior to the Lehman Brothers
7 bankruptcy filing, the average Beta estimate for my proxy group was 0.84. As shown on
8 Schedule RBH-E3 the average of the Value Line and Bloomberg Beta estimates for my
9 proxy group is currently 0.71, which would suggest a lower CAPM estimate
10 notwithstanding the continued volatility in the capital markets.

11 **Q. With those qualifications in mind, what assumptions did you use in**
12 **your CAPM model?**

13 A. Since both the DCF and CAPM models assume long-term investment
14 horizons, I used the current 30-day average yield on 30-year Treasury bonds (*i.e.*, 4.00
15 percent) and the near-term projected 30-year Treasury yield (*i.e.*, 4.48 percent) as my
16 estimate of the risk-free rate.

17 **Q. What Market Risk Premia did you use in your CAPM model?**

18 A. For the reasons discussed above, I did not use a historical average;
19 rather, I developed two forward-looking (*ex-ante*) estimates.

20 **Q. Please describe your first approach to estimating the market risk**
21 **premium.**

22 A. The first approach is based on the expected return on the S&P 500 Index,
23 less the current 30-year Treasury bond yield. The expected return on the S&P 500 is

1 calculated using the constant growth DCF model discussed earlier in my testimony for
2 the companies in the S&P 500 index for which long-term earnings projections are
3 available (the companies with such projections represent 96.58 percent of the index
4 market capitalization).

5 **Q. Please describe the second approach used to estimate the *ex-ante***
6 **market risk premium.**

7 A. The second approach assumes a constant Sharpe Ratio, which is the ratio
8 of the risk premium relative to the risk, or standard deviation of a given security or index
9 of securities. The Sharpe Ratio is relied upon by financial professionals to assess how
10 much additional return an investor receives for holding a risky (*i.e.*, more volatile) asset
11 rather than a risk-free (*i.e.*, less volatile) asset. The formula for calculating the Sharpe
12 Ratio is expressed as follows:

13
$$S(X) = (R_x - R_f) / Std Dev (X) \quad [5]$$

14 where:

15 X = the investment;

16 R_x = the average return of X ;

17 R_f = the best available rate of return of a risk free security; and

18 $Std Dev$ = the standard deviation of r_x .

19 As shown in Schedule RBH-E5, the constant Sharpe Ratio is the ratio of the
20 historical market risk premium of 6.70 percent (the numerator of Equation 5) and the
21 historical market volatility of 20.40 percent (the denominator of Equation 5).³⁰ The
22 expected market risk premium is then calculated as the product of the Sharpe Ratio and

³⁰ The standard deviation is easily calculated from the Morningstar data. See also Morningstar Inc., 2009 Ibbotson, Stocks, Bonds, Bills and Inflation, Valuation Yearbook, Large Company Stocks: Total Returns Table B-1, at 166-167.

1 the expected market volatility. For the purpose of that calculation, I used the thirty-day
2 average of the Chicago Board Options Exchange's ("CBOE") three-month volatility
3 index (*i.e.*, the VXV) and the same thirty-day average of settlement prices of futures on
4 the CBOE's one-month volatility index (*i.e.*, the VIX) for December 2010 through
5 February 2011.

6 **Q. How did you apply your projected market risk premium estimates?**

7 A. I relied on each of the projected market risk premia to recalculate the
8 CAPM model using both the current and near-term projected 30-year Treasury bond
9 yields as the risk free rate. As noted in Schedule RBH-E5, the use of current and
10 projected market risk premia and risk free rates produces a range of results that
11 substantially overlaps the range of results produced by the other calculation
12 methodologies.

13 **Q. What Beta did you use in your CAPM model?**

14 A. With respect to Beta, I considered two methods of calculation. My first
15 approach simply employs the average reported Beta from Bloomberg and Value Line for
16 the proxy group companies. While both of those services adjust their calculated (or
17 "raw") Betas to reflect the tendency of Beta to regress to the market mean of 1.00,
18 Value Line calculates Beta over a five-year period, while Bloomberg's calculation is
19 based on two years of data. As discussed below, however, current market conditions
20 are such that the volatility of the proxy group stock prices has been increasing relative
21 to the broad market. Consequently, Betas calculated over a more recent time period
22 provide a more current view as to investors' perspectives with respect to "systematic"
23 risk.

1 **Q. Please describe how you calculated the mean adjusted Beta for your**
2 **proxy group.**

3 A. As noted in Equation [4], Beta is calculated as the ratio of the covariance
4 between the individual security returns and the market returns, to the variance of the
5 market returns. To arrive at a single estimate of Beta for the proxy group, I first
6 averaged the weekly returns of the eleven companies in the proxy group. Calculating
7 the covariance between the proxy group's mean weekly returns and the weekly returns
8 of the S&P 500 for the most recent 6 months produces the numerator of the Beta
9 calculation for the proxy group. As noted above, the denominator in the calculation is
10 the variance of weekly returns for the S&P 500.³¹ As shown in Schedule RBH-E4, this
11 methodology results in a proxy group mean raw Beta of 0.829. Adjusting the raw Beta
12 for the tendency to regress toward the market Beta of 1.0 results in an adjusted Beta of
13 0.886.

14 **Q. How and why did you adjust the raw Beta?**

15 A. I adjusted my raw Beta consistent with the methodology used by
16 Bloomberg. This approach multiplies the raw Beta by 0.67, and adds 0.33 to that
17 product. The purpose of such adjustments is to reflect the results of substantial
18 academic research indicating that over time raw Betas tend to regress to the market
19 mean of 1.00.³²

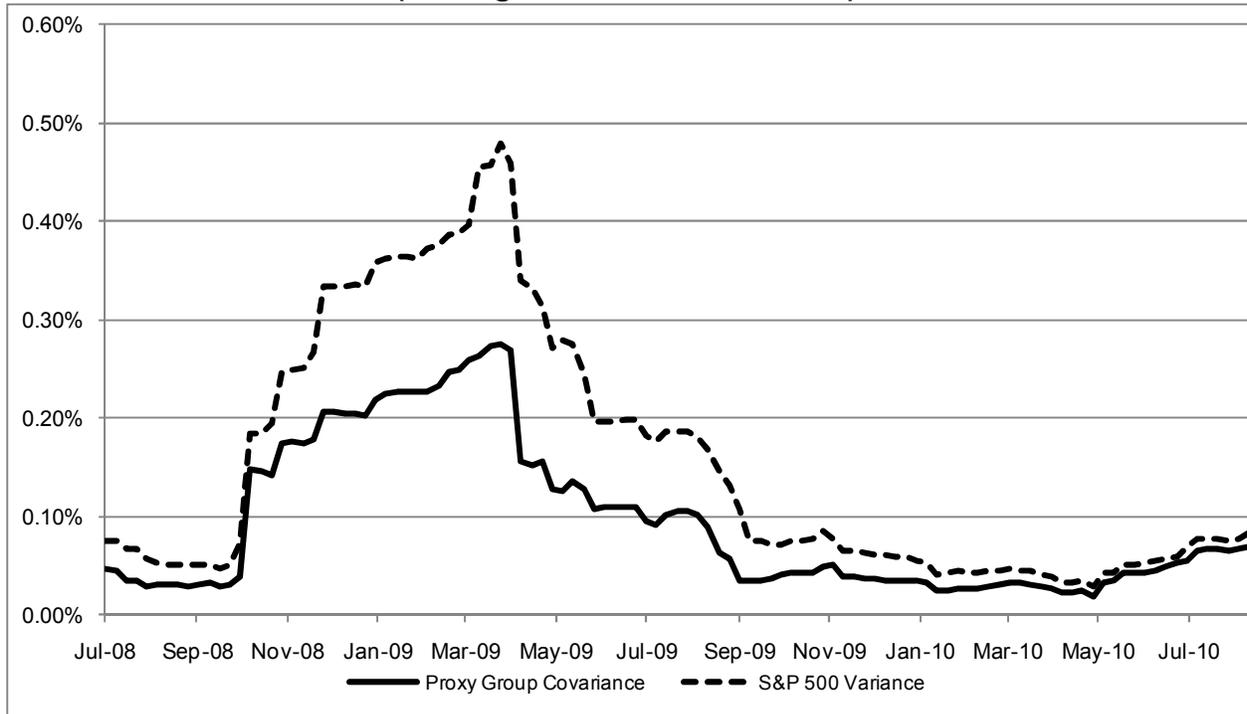
³¹ It is worthwhile noting that averaging eleven individual betas for each of the proxy group companies would produce the same result as calculating a single beta based on the average of the eleven companies' weekly returns.

³² The regression tendency of Betas to converge to 1.0 over time is well known and widely discussed in financial literature. See Blume, Marshall E., *On the Assessment of Risk*, The Journal of Finance, Vol. 26, No. 1, March 1971, at 1-10.

1 **Q. Please explain why you relied on a six-month estimate of the proxy**
2 **group mean adjusted Beta.**

3 A. As noted earlier, Beta estimates reported by Value Line and Bloomberg
4 calculate the Beta for each company over historical periods of 60 and 24 months,
5 respectively. During the recent financial market dislocation, the relationship between
6 the returns of the proxy group companies and the S&P 500 was considerably different
7 than has been experienced in the current market environment. In order to develop a
8 cost of equity estimate that does not reflect an anomalous historical period, it is
9 reasonable to rely on a near-term calculation of Beta to reflect the current relationship
10 between the proxy group companies and the S&P 500. Given that Bloomberg uses a
11 two-year calculation period, I based my analysis on a six-month calculation period.
12 Chart 3 (below) illustrates the relationship between the covariance of average weekly
13 returns for the proxy group and the variance in the returns of the S&P 500, the two
14 components of the Beta calculation.

1 **Chart 3: Proxy Group Average Covariance and S&P 500 Variance**
2 **(Rolling six month calculation)**



3
4 Chart 3 demonstrates that since July 2008, the difference between the average
5 covariance for the proxy group weekly returns and the variance in the S&P 500 weekly
6 returns, calculated on a rolling six-month basis, has narrowed significantly. Since Beta
7 is the ratio of the covariance to the variance, that increasingly small difference indicates
8 that the proxy company stock prices have become increasingly volatile relative to the
9 broad market. Consequently, over the past several months, the proxy group average
10 Beta has been steadily increasing.

11 **Q. Is your calculated Beta of 0.886 consistent with levels that were**
12 **observed prior to the financial market crisis?**

13 **A. Yes.** In September 2007, one year prior to the Lehman Brothers
14 bankruptcy filing, the average Beta for my proxy group companies, as reported by Value
15 Line, was 1.000. In July 2008, the Beta for this same group was 0.836. Based on those

1 historical measures, it is my view that the six-month average calculated Beta of 0.886 is
2 reasonable compared to levels before the financial market crisis.

3 **Q. How did you apply your modified CAPM?**

4 A. I relied on the *ex-ante* risk premium and near-term Beta to calculate the
5 CAPM model using both the current 30-day average yield on the 30-year Treasury bond
6 and near-term projections of the 30-year Treasury bond yield as the risk-free rate. As
7 noted in Schedule RBH-E5, the use of a projected market risk premium and risk-free
8 rates produces a range of results that is generally consistent with the range of results
9 produced by the other calculation methodologies.

10 **Q. What are the results of your CAPM analyses?**

11 A. As shown in Table 6 (below), (see also Schedule RBH-E5), the results of
12 my modified CAPM analysis, using the current Beta estimate suggests a mean ROE of
13 12.84 percent based on a range of returns from 12.26 percent to 13.41 percent. My
14 CAPM analysis using the average historical Beta produces a range of returns from
15 10.61 percent to 11.63 percent.

1

Table 6: Forward-Looking CAPM Results

	Current 30-Year Treasury (4.00%)	Midpoint	Near Term Projected 30-Year Treasury (4.48%)
	Current Calculated Beta		
Sharpe Ratio Derived Market Risk Premium	12.93%	13.17%	13.41%
<i>Ex-Ante</i> Approach Derived Market Risk Premium	12.26%	12.50%	12.74%
	Average Historical Beta		
Sharpe Ratio Derived Market Risk Premium	11.15%	11.39%	11.63%
<i>Ex-Ante</i> Approach Derived Market Risk Premium	10.61%	10.85%	11.09%

2 **Q. Does your ROE recommendation substantially rely on any of the**
3 **CAPM models you presented in Schedule RBH-E5?**

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

8 **G. *Bond Yield Plus Risk Premium Analysis***

9 **Q. Please describe the bond yield plus risk premium approach you**
10 **employed.**

11 A. In general terms, this approach is based on the fundamental principle that
12 equity investors bear the residual risk associated with ownership and therefore require a
13 premium over the return they would have earned as a bondholder. That is, since
14 returns to equity holders are more risky than returns to bondholders, equity investors
15 must be compensated for bearing that risk. Risk premium approaches, therefore,

1 estimate the cost of equity as the sum of the equity risk premium and the yield on a
2 particular class of bonds. As noted in my discussion of the CAPM, since the equity risk
3 premium is not directly observable, it typically is estimated using a variety of
4 approaches, some of which incorporate *ex-ante*, or forward-looking estimates of the
5 cost of equity, and others that consider historical, or *ex-post*, estimates. In the case of
6 the CAPM, those estimates are with respect to the return on the broad market. An
7 alternative approach is to use actual authorized returns for electric utilities as the
8 measure of the cost of equity to determine the Equity Risk Premium.

9 **Q. What did your bond yield plus risk premium analysis reveal?**

10 A. As shown on Chart 4 (below), from 1992 through 2010, there was, in fact,
11 a strong negative relationship between risk premia and interest rates. To estimate that
12 relationship, I conducted a regression analysis using the following equation:

13
$$RP = a + b \times \ln(T) \quad [6]$$

14 where:

15 RP = Risk Premium (difference between allowed ROEs and the 30-Year
16 Treasury Yield);

17 a = Intercept term;

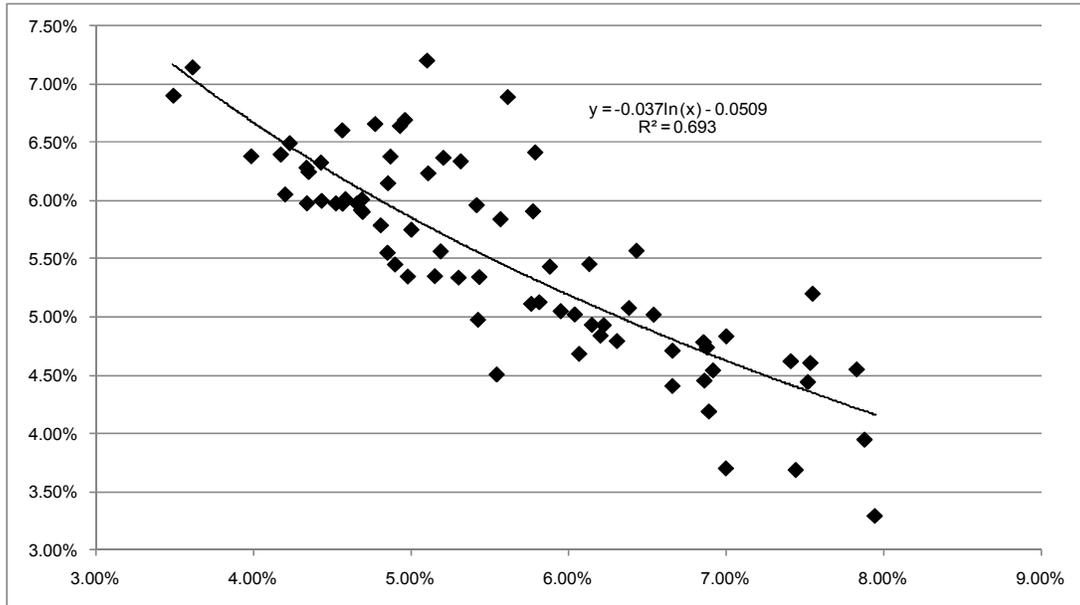
18 b = Slope term; and

19 $(\ln)T$ = natural log of 30-Year Treasury Yield.

20 Data regarding allowed ROEs was derived from 452 electric utility rate cases
21 from 1992 through August 13, 2010 as reported by Regulatory Research Associates.

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Chart 4: Risk Premium Results



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As shown on Schedule RBH-E6, from 1992 through August 13, 2010 the average risk premium was approximately 5.50 percent. Based on the regression coefficients provided in Schedule RBH-E6, however, the risk premium would be 6.82 percent when using the current 30-day average of the 30-year Treasury bond yield, resulting in an ROE of 10.82 percent. When using the near-term projection of the 30-year Treasury bond yield, the risk premium would be 6.40 percent, resulting in a 10.88 percent ROE. It is important to note, however, that this estimate does not include the effect of the Company's specific risk factors, as discussed in Section VII of my direct testimony.

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H. Recently Authorized Returns

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Q. Has the Commission offered any guidance in past proceedings regarding the use of returns authorized in other jurisdictions as a metric by which ROE estimates and recommendations might be assessed?

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A. Yes, it has. In the Order in AmerenUE's most recent rate case, the Commission determined that it was appropriate to utilize an average of authorized

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1 ROEs in other jurisdictions that spanned the twelve months of 2009 to check the
2 reasonableness of recommended returns on equity.³³

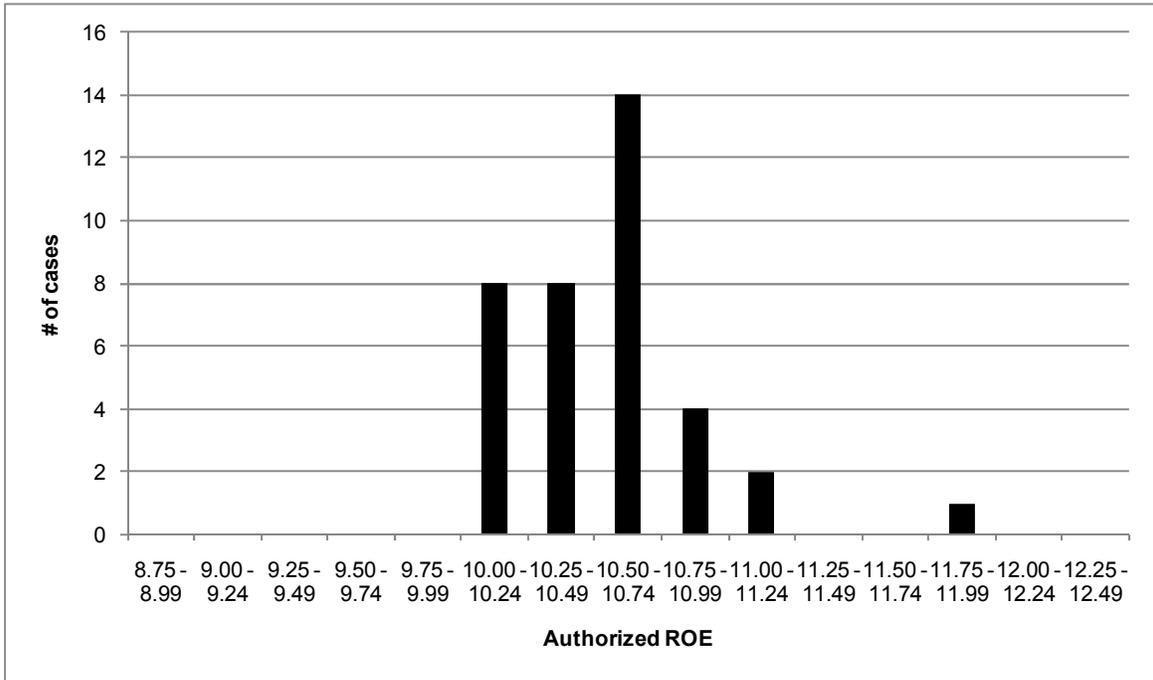
3 **Q. Have you conducted any analysis of recently authorized returns for**
4 **electric utility companies?**

5 A. Yes, I analyzed recently authorized returns for integrated electric utility
6 companies as reported by Regulatory Research Associates (“RRA”). As shown in Chart
7 5 (below), for the twelve months ending August 13, 2010, RRA reports an average
8 authorized ROE for integrated electric utility companies of 10.53 percent and returns
9 within one standard deviation of the mean result in a range of 10.17 percent to 10.88
10 percent.

³³ *In the Matter of Union Electric Company, d/b/a AmerenUE's Tariffs to Increase Its Annual Revenues for Electric Service*, Report and Order, Missouri Public Service Commission, File Number ER-2010-0036, May 28, 2010, at 17.

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Chart 5: Recently Authorized Electric Utility Returns



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VII. REGULATORY AND BUSINESS RISKS

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Q. Do the mean DCF, CAPM, and Risk Premium results for the proxy group provide an appropriate estimate of the cost of equity for AmerenUE?

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A. 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. These factors include: (1) the Company's regulatory risks relative to the proxy group; and (2) the Company's reliance on coal-fired generation. These risk factors, which are discussed below, should be considered with respect to their overall effect on the Company's risk profile.

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1 **A. Regulatory Risks**

2 **Q. How does the regulatory environment in which a utility operates**
3 **affect its access to and cost of capital?**

4 A. The regulatory environment can significantly affect both the access to, and
5 cost of capital in several ways. First, the proportion and cost of debt capital available to
6 utility companies are influenced by the rating agencies' assessment of the regulatory
7 environment. As noted by Moody's, "the predictability and supportiveness of the
8 regulatory framework in which a regulated utility operates is a key credit consideration
9 and the one that differentiates the industry from most other corporate sectors."³⁴

10 Moody's further noted that:

11 For a regulated utility company, we consider the characteristics of
12 the regulatory environment in which it operates. These include how
13 developed the regulatory framework is; its track record for
14 predictability and stability in terms of decision making; and the
15 strength of the regulator's authority over utility regulatory issues. A
16 utility operating in a stable, reliable, and highly predictable
17 regulatory environment will be scored higher on this factor than a
18 utility operating in a regulatory environment that exhibits a high
19 degree of uncertainty or unpredictability. Those utilities operating in
20 a less developed regulatory framework or one that is characterized
21 by a high degree of political intervention in the regulatory process
22 will receive the lowest scores on this factor.³⁵

23 S&P notes that regulatory commissions should eliminate, or at least greatly
24 reduce, the issue of rate-case lag.³⁶ Moody's agrees that timely cost recovery is an
25 important determinant of credit quality, stating that "[t]he ability to recover prudently
26 incurred costs in a timely manner is perhaps the single most important credit
27 consideration for regulated utilities, as the lack of timely recovery of such costs has

³⁴ Moody's Global Infrastructure Finance, *Regulated Electric and Gas Utilities*, August 2009, at 6.

³⁵ *Ibid.*

³⁶ Standard and Poor's, *Assessing Vertically Integrated Utilities' Business Risk Drivers*, U.S. Utilities and Power Commentary, November 2006, at 10.

1 caused financial stress for utilities on several occasions.”³⁷ Similarly, Fitch Ratings
2 (“Fitch”) notes that in the current environment of rising costs, utilities will require more
3 frequent rate increases to maintain financial results, resulting in further exposure to
4 regulatory risks.³⁸

5 It also is important to recognize that regulatory decisions regarding the
6 authorized ROE and capital structure have direct consequences for the subject utility’s
7 internal cash flow generation (sometimes referred to as “Funds Flow from Operations”,
8 or “FFO”). Since credit ratings are intended to reflect a company’s ability to fund
9 financial obligations, the ability to internally generate the cash flows required to meet
10 those obligations (and to provide an additional amount for unexpected events) is of
11 critical importance to debt investors. Two of the most important metrics used to assess
12 that ability are the ratios of FFO to debt, and FFO to interest expense, both of which are
13 directly affected by regulatory decisions regarding the appropriate rate of return and
14 capital structure.

15 **Q. Please explain how credit rating agencies consider regulatory risk in**
16 **establishing a company’s credit rating.**

17 A. While both S&P and Moody’s consider regulatory risk in establishing credit
18 ratings, Moody’s has published a report quantifying the importance of this metric.
19 Moody’s establishes credit ratings based on four key factors: (1) regulatory framework;
20 (2) the ability to recover costs and earn returns; (3) diversification; and (4) financial
21 strength, liquidity, and key financial metrics. Of these criteria, regulatory framework and
22 the ability to recover costs and earn returns are each given a broad rating factor of

³⁷ Moody’s, *Global Infrastructure Finance, Regulated Electric and Gas Utilities*, August 2009, at 7.

³⁸ Fitch Ratings, *U.S. Utilities, Power, and Gas 2010 Outlook*, December 4, 2009, at 1.

1 25.00 percent. Therefore, Moody's assigns regulatory risk a 50.00 percent weighting in
2 the overall assessment of business and financial risk for regulated utilities.³⁹

3 **Q. What are your conclusions regarding regulatory guidelines and**
4 **capital market expectations?**

5 A. The regulatory environment is one of the most important issues
6 considered by both debt and equity investors in assessing the risks and prospects of
7 utility companies. From the perspective of debt investors, the authorized return should
8 enable the Company to generate the cash flow needed to meet its near-term financial
9 obligations, make the capital investments needed to maintain and expand its system,
10 and maintain sufficient levels of liquidity to fund unexpected events. This financial
11 liquidity must be derived not only from internally generated funds, but also by efficient
12 access to capital markets. Moreover, because fixed income investors have many
13 investment alternatives, even within a given market sector, the Company's financial
14 profile must be adequate on a relative basis to ensure its ability to attract capital under a
15 variety of economic and financial market conditions. From the perspective of equity
16 investors, the authorized return must be adequate to provide a risk-comparable return
17 on the equity portion of the Company's capital investments. Because equity investors
18 are the residual claimants on the Company's cash flows (which is to say that the equity
19 return is subordinate to interest payments), they are particularly concerned with
20 regulatory uncertainty and its effect on future cash flows.

³⁹ Moody's Global Infrastructure Finance, *Regulated Electric and Gas Utilities*, August 2009, at 4.

1 **Q. Have you compared AmerenUE’s regulatory risks to the proxy group**
2 **companies?**

3 A. Yes, I have compared the regulatory risk of operating in Missouri, which is
4 the risk faced by AmerenUE, to the regulatory risk of each of the proxy group
5 companies using the scale developed by Standard & Poor’s.⁴⁰ I used a numerical
6 ranking system that ranks jurisdictions from 5 to 1, with higher values indicating a more
7 credit supportive jurisdiction. I applied that ranking system to the proxy group
8 companies by regulatory jurisdiction. For each proxy group company that operates in
9 multiple jurisdictions, I considered the ranking for each regulatory jurisdiction in which
10 they operate.

11 **Q. How do AmerenUE’s regulatory risks compare to the proxy group**
12 **companies?**

13 A. As shown in Schedule RBH-E7, the simple average of the Standard &
14 Poor’s ranking for each of the proxy group companies, in all jurisdictions, is 2.87.
15 AmerenUE’s Missouri operations have a ranking of 2.

16 **Q. What is your conclusion regarding the effect of AmerenUE’s**
17 **regulatory risk on its ROE?**

18 A. Based on my analysis, using the S&P ranking structure, the credit
19 community appears to attribute somewhat higher regulatory risk to AmerenUE than to
20 the proxy group (on average). This would support an ROE for the Company toward the
21 upper end of the range of results.

⁴⁰ Standard & Poor’s, *Updates Its U.S. Utility Regulatory Assessments*, March 12, 2010, at 1.

1 **B. Coal-Fired Generation Portfolio**

2 **Q. Please review the risks associated with the Company's ownership of**
3 **significant coal-fired generating resources.**

4 A. The Company's operations are heavily dependent on coal-fired generation
5 (approximately 76.61 percent of the Company's kilowatt-hour generation on average in
6 2008).⁴¹ In general, capital-intensive baseload generation assets such as coal-fired
7 plants face risks associated with capital recovery in the event of market structure
8 changes or plant failure, or replacement cost recovery in the event of extended or
9 unplanned outages. In addition, coal-fired assets may require significant increases in
10 capital requirements to comply with changes in environmental policies. This is
11 particularly relevant because the potential for regulation of carbon emissions by the
12 United States Environmental Protection Agency ("EPA"). On December 7, 2009 the
13 EPA classified carbon dioxide as a danger to public health in an "endangerment finding"
14 under the Clean Air Act, creating the potential for additional litigation and regulatory
15 uncertainty.

16 As a result of the increased likelihood of carbon emissions regulation, investors
17 see coal generation as taking on even greater risk. The Sierra Club noted that in 2009,
18 no new coal plants began construction in the United States, stating that "[i]n 2009,
19 twenty-six coal-fired power plants...were defeated or abandoned."⁴² Similarly, in a
20 January, 2010 article in the Wall Street Journal, the Edison Electric Institute ("EEI")
21 noted that there have been 43 coal plants cancelled or deferred since 2008.⁴³ Given

⁴¹ Source: SNL Energy, Inc.

⁴² *No New Coal Plants Started in 2009; Year End State of Coal*, Sierra Club Press Release, December 21, 2009.

⁴³ Smith, Rebecca, *Turmoil in Power Sector*, Wall Street Journal, January 14, 2010.

1 the increasing regulatory and legislative focus on, and the costs associated with,
2 environmental compliance for companies such as AmerenUE that are dependent on
3 coal-fired generation, it is important to acknowledge the additional risk such companies
4 carry.

5 **Q. Is AmerenUE more risky than the proxy group in this respect?**

6 A. Yes. As noted above, the Company obtained approximately 76.61
7 percent of its average kilowatt-hour generation in 2008 from coal-fired generating
8 stations. In comparison, the proxy group average over this time period was
9 approximately 63.57 percent. As the Company relies more heavily on coal-fired
10 generation, on average, it is more risky than the proxy group.⁴⁴

11 **VIII. CONCLUSIONS AND RECOMMENDATION**

12 **Q. What is your conclusion regarding a fair ROE for AmerenUE?**

13 A. As discussed earlier in my direct testimony, while I have performed
14 several analyses to estimate the Company's cost of equity, I recognize that the
15 Commission has expressed its preference for DCF based methodologies. I also
16 appreciate that in past proceedings, the Commission has been inclined to attribute
17 certain weight to the multi-stage form of the model, and to take into consideration (but
18 not be bound by) authorized returns from other regulatory commissions. In light of
19 those considerations, and given the corroborating nature of the CAPM analyses, I
20 believe that a reasonable range of results is from 10.50 percent to 11.25 percent.

21 In light of the regulatory and business risks of AmerenUE compared to the proxy
22 group, and reflecting the past practice of the Commission in developing my ROE
23 recommendation, it is my view that an ROE of 10.90 percent is reasonable, if not

⁴⁴ Source: SNL Energy, Inc.

1 somewhat conservative. This 10.90 percent ROE represents the approximate mid-point
2 of my range of results, is supported by the range set by the Constant Growth and Multi-
3 Stage DCF analyses and is corroborated by the results of the CAPM and Risk Premium
4 analyses. In my view, that ROE should reasonably balance the interests of customers
5 and shareholders by enabling the Company to maintain its financial integrity and
6 therefore its ability to attract capital at reasonable rates under a variety of different
7 economic and financial market conditions.

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Table 7: Summary of Analytical Results

	Mean Low	Mean	Mean High
Constant Growth DCF			
30-Day Average	9.59%	10.72%	11.76%
90-Day Average	9.73%	10.86%	11.90%
180-Day Average	9.76%	10.90%	11.93%
	Long-term P/E Model	Mean	Gordon Model
Multi-Stage DCF			
30-Day Average	10.28%	10.49%	10.69%
90-Day Average	10.56%	10.70%	10.83%
180-Day Average	10.63%	10.75%	10.86%
Supporting Methodologies			
		Current 30-Year Treasury (4.00%)	Near-Term Projected 30- Year Treasury (4.48%)
<i>CAPM- Current Calculated Beta</i>			
Sharpe Ratio Derived Market Risk Premium		12.93%	13.41%
Market DCF Derived Market Risk Premium		12.26%	12.74%
<i>CAPM – Average Historical Beta</i>			
Sharpe Ratio Derived Market Risk Premium		11.15%	11.63%
Market DCF Derived Market Risk Premium		10.61%	11.09%
<i>Treasury Yield Plus Risk Premium</i>			
	Low	Mid	High
Risk Premium	10.82%	10.85%	10.88%

2

Q. Does this conclude your pre-filed direct testimony?

3

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, negotiations, 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 Utility 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				
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 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 Commission				

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				
CenterPoint Energy Resources, Corp. d/b/a CenterPoint Energy Entex and CenterPoint Energy Mississippi Gas	07/09	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 Commission				
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	08/08	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 Commission				
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 Commission				
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.	11/09	Consolidated Edison Company of New York, Inc.	Case No. 09-G-0795	Return on Equity (gas)
Consolidated Edison Company of New York, Inc.	11/09	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 Commission				
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 Commission				
National Grid RI – Gas	08/08	National Grid RI – Gas	Docket No. 3943	Revenue Decoupling and Return on Equity
South Carolina Public Service Commission				
South Carolina Electric & Gas	03/10	South Carolina Electric & Gas	Docket No. 2009-489-E	Return on Equity
South Dakota Public Utilities Commission				

SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Otter Tail Power Company	08/10	Otter Tail Power Company	Docket No. EL10-011	Return on Equity (electric)
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				
Texas-New Mexico Power Company	08/10	Texas-New Mexico Power Company	Docket No. 38480	Return on Equity (electric)
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)
Xcel Energy	05/06	Southwestern Public Service Company	SOAH Docket No. 473-06-2536 Docket No. 32766	Return on Equity (electric)
Texas Railroad Commission				
CenterPoint Energy Resources Corp. D/B/A CenterPoint Energy Entex and CenterPoint Energy Texas Gas	07/09	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				
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

30-DAY CONSTANT GROWTH DCF

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
Company		Annualized Dividend	Stock Price	Dividend Yield	Expected Dividend Yield	Zacks EPS Growth	Value Line EPS Growth	First Call	Average Growth Rate	Low DCF ROE	Mean DCF ROE	High DCF ROE
American Electric Power Company, Inc.	AEP	\$1.68	\$35.44	4.74%	4.83%	4.30%	3.00%	4.38%	3.89%	7.81%	8.7%	9.22%
Cleco Corp.	CNL	\$1.00	\$28.34	3.53%	3.63%	7.00%	8.00%	3.00%	6.00%	6.58%	9.6%	11.67%
DPL Inc.	DPL	\$1.21	\$25.53	4.74%	4.89%	NA	6.50%	5.90%	6.20%	10.78%	11.1%	11.39%
Empire District Electric Company	EDE	\$1.28	\$19.68	6.50%	6.71%	NA	7.00%	6.00%	6.50%	12.70%	13.2%	13.73%
IDACORP, Inc.	IDA	\$1.20	\$35.35	3.39%	3.47%	4.00%	5.50%	4.00%	4.50%	7.46%	8.0%	8.99%
Northeast Utilities	NU	\$1.03	\$27.86	3.68%	3.80%	7.60%	4.00%	7.31%	6.30%	7.75%	10.1%	11.42%
Pinnacle West Capital Corp.	PNW	\$2.10	\$38.68	5.43%	5.60%	6.80%	6.00%	6.50%	6.43%	11.59%	12.0%	12.41%
Portland General Electric Company	POR	\$1.04	\$19.20	5.42%	5.58%	9.60%	3.00%	5.25%	5.95%	8.50%	11.5%	15.28%
Progress Energy, Inc.	PGN	\$2.48	\$41.68	5.95%	6.06%	4.00%	3.50%	3.63%	3.71%	9.55%	9.8%	10.07%
Southern Company	SO	\$1.82	\$35.41	5.14%	5.26%	5.10%	4.50%	5.07%	4.89%	9.75%	10.2%	10.37%
Westar Energy, Inc.	WR	\$1.24	\$23.50	5.28%	5.49%	8.00%	7.50%	9.28%	8.26%	12.97%	13.8%	14.80%
	PROXY GROUP MEAN			4.89%	5.03%	6.27%	5.32%	5.48%	5.69%	9.59%	10.72%	11.76%

Notes

[1] Source: Bloomberg

[2] Source: Bloomberg. Based on indicated number of days historical average.

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

[4] 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 Min (Cols [5-7]) + (Col. [1] x (1+(0.5 x Min (Col. [5-7])))) / Col. [2]

[10] Equals Col. [4] + Col. [7]

[11] Equals Max (Cols [5-7]) + (Col. [1] x (1+(0.5 x Max (Col. [5-7])))) / Col. [2]

90-DAY CONSTANT GROWTH DCF

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
Company		Annualized Dividend	Stock Price	Dividend Yield	Expected Dividend Yield	Zacks EPS Growth	Value Line EPS Growth	First Call	Average Growth Rate	Low DCF ROE	Mean DCF ROE	High DCF ROE
American Electric Power Company, Inc.	AEP	\$1.68	\$33.77	4.98%	5.07%	4.30%	3.00%	4.38%	3.89%	8.05%	9.0%	9.46%
Cleco Corp.	CNL	\$1.00	\$27.22	3.67%	3.78%	7.00%	8.00%	3.00%	6.00%	6.73%	9.8%	11.82%
DPL Inc.	DPL	\$1.21	\$25.85	4.68%	4.83%	NA	6.50%	5.90%	6.20%	10.72%	11.0%	11.33%
Empire District Electric Company	EDE	\$1.28	\$19.06	6.72%	6.94%	NA	7.00%	6.00%	6.50%	12.92%	13.4%	13.95%
IDACORP, Inc.	IDA	\$1.20	\$34.58	3.47%	3.55%	4.00%	5.50%	4.00%	4.50%	7.54%	8.0%	9.07%
Northeast Utilities	NU	\$1.03	\$26.99	3.80%	3.92%	7.60%	4.00%	7.31%	6.30%	7.87%	10.2%	11.54%
Pinnacle West Capital Corp.	PNW	\$2.10	\$37.26	5.64%	5.82%	6.80%	6.00%	6.50%	6.43%	11.80%	12.3%	12.63%
Portland General Electric Company	POR	\$1.04	\$19.21	5.41%	5.58%	9.60%	3.00%	5.25%	5.95%	8.50%	11.5%	15.27%
Progress Energy, Inc.	PGN	\$2.48	\$40.03	6.19%	6.31%	4.00%	3.50%	3.63%	3.71%	9.80%	10.0%	10.32%
Southern Company	SO	\$1.82	\$34.31	5.30%	5.43%	5.10%	4.50%	5.07%	4.89%	9.92%	10.3%	10.54%
Westar Energy, Inc.	WR	\$1.24	\$22.85	5.43%	5.65%	8.00%	7.50%	9.28%	8.26%	13.13%	13.9%	14.96%
	PROXY GROUP MEAN			5.03%	5.17%	6.27%	5.32%	5.48%	5.69%	9.73%	10.86%	11.90%

Notes

[1] Source: Bloomberg

[2] Source: Bloomberg. Based on indicated number of days historical average.

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

[4] 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 Min (Cols [5-7]) + (Col. [1] x (1+(0.5 x Min (Col. [5-7])))) / Col. [2]

[10] Equals Col. [4] + Col. [7]

[11] Equals Max (Cols [5-7]) + (Col. [1] x (1+(0.5 x Max (Col. [5-7])))) / Col. [2]

180-DAY CONSTANT GROWTH DCF

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]		
Company	Annualized Dividend	Stock Price	Dividend Yield	Expected Dividend Yield	Zacks EPS Growth	Value Line EPS Growth	First Call	Average Growth Rate	Low DCF ROE	Mean DCF ROE	High DCF ROE		
American Electric Power Company, Inc.	AEP	\$1.68	\$34.11	4.92%	5.02%	4.30%	3.00%	4.38%	3.89%	8.00%	8.9%	9.41%	
Cleco Corp.	CNL	\$1.00	\$26.80	3.73%	3.84%	7.00%	8.00%	3.00%	6.00%	6.79%	9.8%	11.88%	
DPL Inc.	DPL	\$1.21	\$26.67	4.54%	4.68%	NA	6.50%	5.90%	6.20%	10.57%	10.9%	11.18%	
Empire District Electric Company	EDE	\$1.28	\$18.77	6.82%	7.04%	NA	7.00%	6.00%	6.50%	13.03%	13.5%	14.06%	
IDACORP, Inc.	IDA	\$1.20	\$33.61	3.57%	3.65%	4.00%	5.50%	4.00%	4.50%	7.64%	8.2%	9.17%	
Northeast Utilities	NU	\$1.03	\$26.52	3.87%	3.99%	7.60%	4.00%	7.31%	6.30%	7.94%	10.3%	11.61%	
Pinnacle West Capital Corp.	PNW	\$2.10	\$37.11	5.66%	5.84%	6.80%	6.00%	6.50%	6.43%	11.83%	12.3%	12.65%	
Portland General Electric Company	POR	\$1.04	\$19.46	5.34%	5.50%	9.60%	3.00%	5.25%	5.95%	8.42%	11.5%	15.20%	
Progress Energy, Inc.	PGN	\$2.48	\$39.80	6.23%	6.35%	4.00%	3.50%	3.63%	3.71%	9.84%	10.1%	10.36%	
Southern Company	SO	\$1.82	\$33.55	5.42%	5.56%	5.10%	4.50%	5.07%	4.89%	10.05%	10.4%	10.66%	
Westar Energy, Inc.	WR	\$1.24	\$22.32	5.55%	5.78%	8.00%	7.50%	9.28%	8.26%	13.26%	14.0%	15.09%	
				PROXY GROUP MEAN	5.06%	5.20%	6.27%	5.32%	5.48%	5.69%	9.76%	10.90%	11.93%

Notes

[1] Source: Bloomberg

[2] Source: Bloomberg. Based on indicated number of days historical average.

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

[4] 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 Min (Cols [5-7]) + (Col. [1] x (1+(0.5 x Min (Col. [5-7])))) / Col. [2]

[10] Equals Col. [4] + Col. [7]

[11] Equals Max (Cols [5-7]) + (Col. [1] x (1+(0.5 x Max (Col. [5-7])))) / Col. [2]

MULTI-STAGE DCF MODEL - 30-DAY AVERAGE PRICE
 TERMINAL VALUE - GORDON MODEL

Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	
Company	Ticker	Stock Price	EPS Growth	GDP Growth	Payout Ratio		Solver Cells		Near Term		Intermediate	Long Term		
					2010	2014	2024	Delta	k(e)	Solution	Growth	Growth	Growth	
American Electric Power	AEP	\$ 35.44	3.89%	5.75%	62.00%	54.00%	67.50%	\$ 0.00	11.12%	11.12%	3.89%	4.82%	5.75%	
Cleco Corp.	CNL	\$ 28.34	6.00%	5.75%	42.00%	56.00%	67.50%	\$ 0.00	10.18%	10.18%	6.00%	5.88%	5.75%	
DPL, Inc.	DPL	\$ 25.53	6.20%	5.75%	51.00%	52.00%	67.50%	\$ (0.00)	11.41%	11.41%	6.20%	5.98%	5.75%	
Empire District Electric	EDE	\$ 19.68	6.50%	5.75%	101.00%	75.00%	67.50%	\$ 0.00	10.80%	10.80%	6.50%	6.13%	5.75%	
IDACORP, Inc.	IDA	\$ 35.35	4.50%	5.75%	44.00%	46.00%	67.50%	\$ 0.00	10.47%	10.47%	4.50%	5.13%	5.75%	
Northeast Utilities	NU	\$ 27.86	6.30%	5.75%	55.00%	54.00%	67.50%	\$ 0.00	10.79%	10.79%	6.30%	6.03%	5.75%	
Pinnacle West Capital	PNW	\$ 38.68	6.43%	5.75%	72.00%	65.00%	67.50%	\$ 0.00	10.32%	10.32%	6.43%	6.09%	5.75%	
Portland General	POR	\$ 19.20	5.95%	5.75%	77.00%	61.00%	67.50%	\$ (0.00)	10.93%	10.93%	5.95%	5.85%	5.75%	
Progress Energy	PGN	\$ 41.68	3.71%	5.75%	83.00%	73.00%	67.50%	\$ 0.00	10.70%	10.70%	3.71%	4.73%	5.75%	
Southern Co.	SO	\$ 35.41	4.89%	5.75%	74.00%	68.00%	67.50%	\$ 0.00	10.46%	10.46%	4.89%	5.32%	5.75%	
Westar Energy	WR	\$ 23.50	8.26%	5.75%	70.00%	61.00%	67.50%	\$ 0.00	10.46%	10.46%	8.26%	7.01%	5.75%	
MEAN:		\$ 30.06	5.69%	5.75%	66.45%	60.45%	67.50%				10.69%	5.69%	5.72%	5.75%

Projected Annual Data

Earnings per Share		[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	Terminal
Company	Ticker	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2024	Growth
American Electric Power	AEP	\$ 2.97	\$ 3.09	\$ 3.21	\$ 3.33	\$ 3.46	\$ 3.59	\$ 3.75	\$ 3.92	\$ 4.10	\$ 4.32	\$ 4.55	\$ 4.81	\$ 5.09	\$ 5.38	\$ 5.69	\$ 6.02	\$ 6.02	5.75%
Cleco Corp.	CNL	\$ 1.76	\$ 1.87	\$ 1.98	\$ 2.10	\$ 2.22	\$ 2.36	\$ 2.50	\$ 2.64	\$ 2.80	\$ 2.96	\$ 3.13	\$ 3.31	\$ 3.51	\$ 3.71	\$ 3.92	\$ 4.15	\$ 4.15	5.75%
DPL, Inc.	DPL	\$ 2.01	\$ 2.13	\$ 2.27	\$ 2.41	\$ 2.56	\$ 2.72	\$ 2.88	\$ 3.06	\$ 3.24	\$ 3.43	\$ 3.63	\$ 3.84	\$ 4.06	\$ 4.30	\$ 4.54	\$ 4.80	\$ 4.80	5.75%
Empire District Electric	EDE	\$ 1.18	\$ 1.26	\$ 1.34	\$ 1.43	\$ 1.52	\$ 1.62	\$ 1.72	\$ 1.83	\$ 1.94	\$ 2.06	\$ 2.18	\$ 2.30	\$ 2.44	\$ 2.58	\$ 2.72	\$ 2.88	\$ 2.88	5.75%
IDACORP, Inc.	IDA	\$ 2.64	\$ 2.76	\$ 2.88	\$ 3.01	\$ 3.15	\$ 3.29	\$ 3.44	\$ 3.61	\$ 3.80	\$ 4.00	\$ 4.23	\$ 4.47	\$ 4.73	\$ 5.00	\$ 5.29	\$ 5.59	\$ 5.59	5.75%
Northeast Utilities	NU	\$ 1.91	\$ 2.03	\$ 2.16	\$ 2.29	\$ 2.44	\$ 2.59	\$ 2.75	\$ 2.92	\$ 3.10	\$ 3.28	\$ 3.48	\$ 3.68	\$ 3.89	\$ 4.11	\$ 4.35	\$ 4.60	\$ 4.60	5.75%
Pinnacle West Capital	PNW	\$ 2.26	\$ 2.41	\$ 2.56	\$ 2.72	\$ 2.90	\$ 3.09	\$ 3.28	\$ 3.49	\$ 3.70	\$ 3.92	\$ 4.15	\$ 4.39	\$ 4.64	\$ 4.91	\$ 5.19	\$ 5.49	\$ 5.49	5.75%
Portland General	POR	\$ 1.31	\$ 1.39	\$ 1.47	\$ 1.56	\$ 1.65	\$ 1.75	\$ 1.85	\$ 1.96	\$ 2.08	\$ 2.20	\$ 2.32	\$ 2.46	\$ 2.60	\$ 2.75	\$ 2.91	\$ 3.08	\$ 3.08	5.75%
Progress Energy	PGN	\$ 2.99	\$ 3.10	\$ 3.22	\$ 3.34	\$ 3.46	\$ 3.59	\$ 3.73	\$ 3.90	\$ 4.08	\$ 4.29	\$ 4.52	\$ 4.78	\$ 5.06	\$ 5.35	\$ 5.66	\$ 5.98	\$ 5.98	5.75%
Southern Co.	SO	\$ 2.32	\$ 2.43	\$ 2.55	\$ 2.68	\$ 2.81	\$ 2.95	\$ 3.09	\$ 3.25	\$ 3.43	\$ 3.61	\$ 3.82	\$ 4.04	\$ 4.27	\$ 4.52	\$ 4.78	\$ 5.05	\$ 5.05	5.75%
Westar Energy	WR	\$ 1.28	\$ 1.39	\$ 1.50	\$ 1.62	\$ 1.76	\$ 1.90	\$ 2.05	\$ 2.21	\$ 2.36	\$ 2.52	\$ 2.67	\$ 2.82	\$ 2.99	\$ 3.16	\$ 3.34	\$ 3.53	\$ 3.53	5.75%

Projected Annual Data

Dividend Payout Ratio		[30]	[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]
Company	Ticker	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
American Electric Power	AEP	62.00%	60.00%	58.00%	56.00%	54.00%	56.70%	59.40%	62.10%	64.80%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Cleco Corp.	CNL	42.00%	45.50%	49.00%	52.50%	56.00%	58.30%	60.60%	62.90%	65.20%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
DPL, Inc.	DPL	51.00%	51.25%	51.50%	51.75%	52.00%	55.10%	58.20%	61.30%	64.40%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Empire District Electric	EDE	101.00%	94.50%	88.00%	81.50%	75.00%	73.50%	72.00%	70.50%	69.00%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
IDACORP, Inc.	IDA	44.00%	44.50%	45.00%	45.50%	46.00%	50.30%	54.60%	58.90%	63.20%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Northeast Utilities	NU	55.00%	54.75%	54.50%	54.25%	54.00%	56.70%	59.40%	62.10%	64.80%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Pinnacle West Capital	PNW	72.00%	70.25%	68.50%	66.75%	65.00%	65.50%	66.00%	66.50%	67.00%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Portland General	POR	77.00%	73.00%	69.00%	65.00%	61.00%	62.30%	63.60%	64.90%	66.20%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Progress Energy	PGN	83.00%	80.50%	78.00%	75.50%	73.00%	71.90%	70.80%	69.70%	68.60%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Southern Co.	SO	74.00%	72.50%	71.00%	69.50%	68.00%	67.90%	67.80%	67.70%	67.60%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Westar Energy	WR	70.00%	67.75%	65.50%	63.25%	61.00%	62.30%	63.60%	64.90%	66.20%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%

Projected Annual Data

Dividends per Share & Terminal Market Value		[45]	[46]	[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]
Company	Ticker	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Terminal Price	Terminal P/E Ratio
American Electric Power	AEP	\$ 1.91	\$ 1.92	\$ 1.93	\$ 1.94	\$ 1.94	\$ 2.12	\$ 2.33	\$ 2.55	\$ 2.80	\$ 3.07	\$ 3.25	\$ 3.43	\$ 3.63	\$ 3.84	\$ 4.06	\$ 80.02	13.30
Cleco Corp.	CNL	\$ 0.78	\$ 0.90	\$ 1.03	\$ 1.17	\$ 1.32	\$ 1.45	\$ 1.60	\$ 1.76	\$ 1.93	\$ 2.12	\$ 2.24	\$ 2.37	\$ 2.50	\$ 2.65	\$ 2.80	\$ 66.84	16.12
DPL, Inc.	DPL	\$ 1.09	\$ 1.16	\$ 1.24	\$ 1.32	\$ 1.41	\$ 1.59	\$ 1.78	\$ 1.99	\$ 2.21	\$ 2.45	\$ 2.59	\$ 2.74	\$ 2.90	\$ 3.06	\$ 3.24	\$ 60.63	12.63
Empire District Electric	EDE	\$ 1.27	\$ 1.26	\$ 1.25	\$ 1.24	\$ 1.21	\$ 1.26	\$ 1.32	\$ 1.37	\$ 1.42	\$ 1.47	\$ 1.55	\$ 1.64	\$ 1.74	\$ 1.84	\$ 1.94	\$ 40.77	14.16
IDACORP, Inc.	IDA	\$ 1.21	\$ 1.28	\$ 1.36	\$ 1.43	\$ 1.51	\$ 1.73	\$ 1.97	\$ 2.24	\$ 2.53	\$ 2.85	\$ 3.02	\$ 3.19	\$ 3.37	\$ 3.57	\$ 3.77	\$ 84.55	15.13
Northeast Utilities	NU	\$ 1.12	\$ 1.18	\$ 1.25	\$ 1.32	\$ 1.40	\$ 1.56	\$ 1.74	\$ 1.92	\$ 2.13	\$ 2.35	\$ 2.48	\$ 2.62	\$ 2.77	\$ 2.93	\$ 3.10	\$ 65.12	14.17
Pinnacle West Capital	PNW	\$ 1.73	\$ 1.80	\$ 1.87	\$ 1.94	\$ 2.01	\$ 2.15	\$ 2.30	\$ 2.46	\$ 2.63	\$ 2.80	\$ 2.96	\$ 3.13	\$ 3.31	\$ 3.50	\$ 3.70	\$ 85.81	15.63
Portland General	POR	\$ 1.07	\$ 1.07	\$ 1.08	\$ 1.07	\$ 1.07	\$ 1.15	\$ 1.25	\$ 1.35	\$ 1.45	\$ 1.57	\$ 1.66	\$ 1.75	\$ 1.86	\$ 1.96	\$ 2.08	\$ 42.37	13.78
Progress Energy	PGN	\$ 2.57	\$ 2.59	\$ 2.60	\$ 2.61	\$ 2.62	\$ 2.68	\$ 2.76	\$ 2.84	\$ 2.94	\$ 3.05	\$ 3.23	\$ 3.41	\$ 3.61	\$ 3.82	\$ 4.04	\$ 86.36	14.44
Southern Co.	SO	\$ 1.80	\$ 1.85	\$ 1.90	\$ 1.95	\$ 2.00	\$ 2.10	\$ 2.21	\$ 2.32	\$ 2.44	\$ 2.58	\$ 2.72	\$ 2.88	\$ 3.05	\$ 3.22	\$ 3.41	\$ 76.56	15.16
Westar Energy	WR	\$ 0.97	\$ 1.02	\$ 1.06	\$ 1.11	\$ 1.16	\$ 1.28	\$ 1.40	\$ 1.53	\$ 1.67	\$ 1.80	\$ 1.91	\$ 2.02	\$ 2.13	\$ 2.25	\$ 2.38	\$ 53.62	15.18
Median																	14.44	

Projected Annual Data

Investor Cash Flows		[62]	[63]	[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]
Company	Ticker	Initial Outflow	8/13/10	2/13/11	2/13/12	2/13/13	2/13/14	2/13/15	2/13/16	2/13/17	2/13/18	2/13/19	2/13/20	2/13/21	2/13/22	2/13/23	2/13/24	2/13/25
American Electric Power	AEP	(\$35.44)	\$0.00	\$ 1.91	\$ 1.92	\$ 1.93	\$ 1.94	\$ 1.94	\$ 2.12	\$ 2.33	\$ 2.55	\$ 2.80	\$ 3.07	\$ 3.25	\$ 3.43	\$ 3.63	\$ 3.84	\$ 84.08
Cleco Corp.	CNL	(\$28.34)	\$0.00	\$ 0.78	\$ 0.90	\$ 1.03	\$ 1.17	\$ 1.32	\$ 1.45	\$ 1.60	\$ 1.76	\$ 1.93	\$ 2.12	\$ 2.24	\$ 2.37	\$ 2.50	\$ 2.65	\$ 69.64
DPL, Inc.	DPL	(\$25.53)	\$0.00	\$ 1.09	\$ 1.16	\$ 1.24	\$ 1.32	\$ 1.41	\$ 1.59	\$ 1.78	\$ 1.99	\$ 2.21	\$ 2.45	\$ 2.59	\$ 2.74	\$ 2.90	\$ 3.06	\$ 63.87
Empire District Electric	EDE	(\$19.68)	\$0.00	\$ 1.27	\$ 1.26	\$ 1.25	\$ 1.24	\$ 1.21	\$ 1.26	\$ 1.32	\$ 1.37	\$ 1.42	\$ 1.47	\$ 1.55	\$ 1.64	\$ 1.74	\$ 1.84	\$ 42.71
IDACORP, Inc.	IDA	(\$35.35)	\$0.00	\$ 1.21	\$ 1.28	\$ 1.36	\$ 1.43	\$ 1.51	\$ 1.73	\$ 1.97	\$ 2.24	\$ 2.53	\$ 2.85	\$ 3.02	\$ 3.19	\$ 3.37	\$ 3.57	\$ 88.32
Northeast Utilities	NU	(\$27.86)	\$0.00	\$ 1.12	\$ 1.18	\$ 1.25	\$ 1.32	\$ 1.40	\$ 1.56	\$ 1.74	\$ 1.92	\$ 2.13	\$ 2.35	\$ 2.48	\$ 2.62	\$ 2.77	\$ 2.93	\$ 68.22
Pinnacle West Capital	PNW	(\$38.68)	\$0.00	\$ 1.73	\$ 1.80	\$ 1.87	\$ 1.94	\$ 2.01	\$ 2.15	\$ 2.30	\$ 2.46	\$ 2.63	\$ 2.80	\$ 2.96	\$ 3.13	\$ 3.31	\$ 3.50	\$ 89.51
Portland General	POR	(\$19.20)	\$0.00	\$ 1.07	\$ 1.07	\$ 1.08	\$ 1.07	\$ 1.07	\$ 1.15	\$ 1.25	\$ 1.35	\$ 1.45	\$ 1.57	\$ 1.66	\$ 1.75	\$ 1.86	\$ 1.96	\$ 44.45
Progress Energy	PGN	(\$41.68)	\$0.00	\$ 2.57	\$ 2.59	\$ 2.60	\$ 2.61	\$ 2.62	\$ 2.68	\$ 2.76	\$ 2.84	\$ 2.94	\$ 3.05	\$ 3.23	\$ 3.41	\$ 3.61	\$ 3.82	\$ 90.40
Southern Co.	SO	(\$35.41)	\$0.00	\$ 1.80	\$ 1.85	\$ 1.90	\$ 1.95	\$ 2.00	\$ 2.10	\$ 2.21	\$ 2.32	\$ 2.44	\$ 2.58	\$ 2.72	\$ 2.88	\$ 3.05	\$ 3.22	\$ 79.97
Westar Energy	WR	(\$23.50)	\$0.00	\$ 0.97	\$ 1.02	\$ 1.06	\$ 1.11	\$ 1.16	\$ 1.28	\$ 1.40	\$ 1.53	\$ 1.67	\$ 1.80	\$ 1.91	\$ 2.02	\$ 2.13	\$ 2.25	\$ 56.01

MULTI-STAGE DCF MODEL - 90-DAY AVERAGE PRICE
 TERMINAL VALUE - GORDON MODEL

Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	
Company	Ticker	Stock Price	EPS Growth	GDP Growth	Payout Ratio			Solver Cells			Near Term Growth	Intermediate Growth	Long Term Growth	
					2010	2014	2024	Delta	k(e)	Solution				
American Electric Power	AEP	\$ 33.77	3.89%	5.75%	62.00%	54.00%	67.50%	\$ (0.00)	11.39%	11.39%	3.89%	4.82%	5.75%	
Cleco Corp.	CNL	\$ 27.22	6.00%	5.75%	42.00%	56.00%	67.50%	\$ (0.00)	10.36%	10.36%	6.00%	5.88%	5.75%	
DPL, Inc.	DPL	\$ 25.85	6.20%	5.75%	51.00%	52.00%	67.50%	\$ 0.00	11.34%	11.34%	6.20%	5.98%	5.75%	
Empire District Electric	EDE	\$ 19.06	6.50%	5.75%	101.00%	75.00%	67.50%	\$ (0.00)	10.97%	10.97%	6.50%	6.13%	5.75%	
IDACORP, Inc.	IDA	\$ 34.58	4.50%	5.75%	44.00%	46.00%	67.50%	\$ 0.00	10.57%	10.57%	4.50%	5.13%	5.75%	
Northeast Utilities	NU	\$ 26.99	6.30%	5.75%	55.00%	54.00%	67.50%	\$ (0.00)	10.95%	10.95%	6.30%	6.03%	5.75%	
Pinnacle West Capital	PNW	\$ 37.26	6.43%	5.75%	72.00%	65.00%	67.50%	\$ (0.00)	10.50%	10.50%	6.43%	6.09%	5.75%	
Portland General	POR	\$ 19.21	5.95%	5.75%	77.00%	61.00%	67.50%	\$ 0.00	10.93%	10.93%	5.95%	5.85%	5.75%	
Progress Energy	PGN	\$ 40.03	3.71%	5.75%	83.00%	73.00%	67.50%	\$ (0.00)	10.92%	10.92%	3.71%	4.73%	5.75%	
Southern Co.	SO	\$ 34.31	4.89%	5.75%	74.00%	68.00%	67.50%	\$ (0.00)	10.62%	10.62%	4.89%	5.32%	5.75%	
Westar Energy	WR	\$ 22.85	8.26%	5.75%	70.00%	61.00%	67.50%	\$ (0.00)	10.59%	10.59%	8.26%	7.01%	5.75%	
MEAN:		\$ 29.19	5.69%	5.75%	66.45%	60.45%	67.50%				10.83%	5.69%	5.72%	5.75%

Projected Annual Data

Earnings per Share		[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	Terminal Growth
Company	Ticker	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2024	Growth
American Electric Power	AEP	\$ 2.97	\$ 3.09	\$ 3.21	\$ 3.33	\$ 3.46	\$ 3.59	\$ 3.75	\$ 3.92	\$ 4.10	\$ 4.32	\$ 4.55	\$ 4.81	\$ 5.09	\$ 5.38	\$ 5.69	\$ 6.02	\$ 6.02	5.75%
Cleco Corp.	CNL	\$ 1.76	\$ 1.87	\$ 1.98	\$ 2.10	\$ 2.22	\$ 2.36	\$ 2.50	\$ 2.64	\$ 2.80	\$ 2.96	\$ 3.13	\$ 3.31	\$ 3.51	\$ 3.71	\$ 3.92	\$ 4.15	\$ 4.15	5.75%
DPL, Inc.	DPL	\$ 2.01	\$ 2.13	\$ 2.27	\$ 2.41	\$ 2.56	\$ 2.72	\$ 2.88	\$ 3.06	\$ 3.24	\$ 3.43	\$ 3.63	\$ 3.84	\$ 4.06	\$ 4.30	\$ 4.54	\$ 4.80	\$ 4.80	5.75%
Empire District Electric	EDE	\$ 1.18	\$ 1.26	\$ 1.34	\$ 1.43	\$ 1.52	\$ 1.62	\$ 1.72	\$ 1.83	\$ 1.94	\$ 2.06	\$ 2.18	\$ 2.30	\$ 2.44	\$ 2.58	\$ 2.72	\$ 2.88	\$ 2.88	5.75%
IDACORP, Inc.	IDA	\$ 2.64	\$ 2.76	\$ 2.88	\$ 3.01	\$ 3.15	\$ 3.29	\$ 3.44	\$ 3.61	\$ 3.80	\$ 4.00	\$ 4.23	\$ 4.47	\$ 4.73	\$ 5.00	\$ 5.29	\$ 5.59	\$ 5.59	5.75%
Northeast Utilities	NU	\$ 1.91	\$ 2.03	\$ 2.16	\$ 2.29	\$ 2.44	\$ 2.59	\$ 2.75	\$ 2.92	\$ 3.10	\$ 3.28	\$ 3.48	\$ 3.68	\$ 3.89	\$ 4.11	\$ 4.35	\$ 4.60	\$ 4.60	5.75%
Pinnacle West Capital	PNW	\$ 2.26	\$ 2.41	\$ 2.56	\$ 2.72	\$ 2.90	\$ 3.09	\$ 3.28	\$ 3.49	\$ 3.70	\$ 3.92	\$ 4.15	\$ 4.39	\$ 4.64	\$ 4.91	\$ 5.19	\$ 5.49	\$ 5.49	5.75%
Portland General	POR	\$ 1.31	\$ 1.39	\$ 1.47	\$ 1.56	\$ 1.65	\$ 1.75	\$ 1.85	\$ 1.96	\$ 2.08	\$ 2.20	\$ 2.32	\$ 2.46	\$ 2.60	\$ 2.75	\$ 2.91	\$ 3.08	\$ 3.08	5.75%
Progress Energy	PGN	\$ 2.99	\$ 3.10	\$ 3.22	\$ 3.34	\$ 3.46	\$ 3.59	\$ 3.73	\$ 3.90	\$ 4.08	\$ 4.29	\$ 4.52	\$ 4.78	\$ 5.06	\$ 5.35	\$ 5.66	\$ 5.98	\$ 5.98	5.75%
Southern Co.	SO	\$ 2.32	\$ 2.43	\$ 2.55	\$ 2.68	\$ 2.81	\$ 2.95	\$ 3.09	\$ 3.25	\$ 3.43	\$ 3.61	\$ 3.82	\$ 4.04	\$ 4.27	\$ 4.52	\$ 4.78	\$ 5.05	\$ 5.05	5.75%
Westar Energy	WR	\$ 1.28	\$ 1.39	\$ 1.50	\$ 1.62	\$ 1.76	\$ 1.90	\$ 2.05	\$ 2.21	\$ 2.36	\$ 2.52	\$ 2.67	\$ 2.82	\$ 2.99	\$ 3.16	\$ 3.34	\$ 3.53	\$ 3.53	5.75%

Projected Annual Data

Dividend Payout Ratio		[30]	[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]
Company	Ticker	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
American Electric Power	AEP	62.00%	60.00%	58.00%	56.00%	54.00%	56.70%	59.40%	62.10%	64.80%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Cleco Corp.	CNL	42.00%	45.50%	49.00%	52.50%	56.00%	58.30%	60.60%	62.90%	65.20%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
DPL, Inc.	DPL	51.00%	51.25%	51.50%	51.75%	52.00%	55.10%	58.20%	61.30%	64.40%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Empire District Electric	EDE	101.00%	94.50%	88.00%	81.50%	75.00%	73.50%	72.00%	70.50%	69.00%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
IDACORP, Inc.	IDA	44.00%	44.50%	45.00%	45.50%	46.00%	50.30%	54.60%	58.90%	63.20%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Northeast Utilities	NU	55.00%	54.75%	54.50%	54.25%	54.00%	56.70%	59.40%	62.10%	64.80%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Pinnacle West Capital	PNW	72.00%	70.25%	68.50%	66.75%	65.00%	65.50%	66.00%	66.50%	67.00%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Portland General	POR	77.00%	73.00%	69.00%	65.00%	61.00%	62.30%	63.60%	64.90%	66.20%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Progress Energy	PGN	83.00%	80.50%	78.00%	75.50%	73.00%	71.90%	70.80%	69.70%	68.60%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Southern Co.	SO	74.00%	72.50%	71.00%	69.50%	68.00%	67.90%	67.80%	67.70%	67.60%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Westar Energy	WR	70.00%	67.75%	65.50%	63.25%	61.00%	62.30%	63.60%	64.90%	66.20%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%

Projected Annual Data

Dividends per Share & Terminal Market Value		[45]	[46]	[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]
Company	Ticker	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Terminal Price	Terminal P/E Ratio
American Electric Power	AEP	\$ 1.91	\$ 1.92	\$ 1.93	\$ 1.94	\$ 1.94	\$ 2.12	\$ 2.33	\$ 2.55	\$ 2.80	\$ 3.07	\$ 3.25	\$ 3.43	\$ 3.63	\$ 3.84	\$ 4.06	\$ 76.23	12.67
Cleco Corp.	CNL	\$ 0.78	\$ 0.90	\$ 1.03	\$ 1.17	\$ 1.32	\$ 1.45	\$ 1.60	\$ 1.76	\$ 1.93	\$ 2.12	\$ 2.24	\$ 2.37	\$ 2.50	\$ 2.65	\$ 2.80	\$ 64.31	15.51
DPL, Inc.	DPL	\$ 1.09	\$ 1.16	\$ 1.24	\$ 1.32	\$ 1.41	\$ 1.59	\$ 1.78	\$ 1.99	\$ 2.21	\$ 2.45	\$ 2.59	\$ 2.74	\$ 2.90	\$ 3.06	\$ 3.24	\$ 61.35	12.78
Empire District Electric	EDE	\$ 1.27	\$ 1.26	\$ 1.25	\$ 1.24	\$ 1.21	\$ 1.26	\$ 1.32	\$ 1.37	\$ 1.42	\$ 1.47	\$ 1.55	\$ 1.64	\$ 1.74	\$ 1.84	\$ 1.94	\$ 39.37	13.67
IDACORP, Inc.	IDA	\$ 1.21	\$ 1.28	\$ 1.36	\$ 1.43	\$ 1.51	\$ 1.73	\$ 1.97	\$ 2.24	\$ 2.53	\$ 2.85	\$ 3.02	\$ 3.19	\$ 3.37	\$ 3.57	\$ 3.77	\$ 82.80	14.82
Northeast Utilities	NU	\$ 1.12	\$ 1.18	\$ 1.25	\$ 1.32	\$ 1.40	\$ 1.56	\$ 1.74	\$ 1.92	\$ 2.13	\$ 2.35	\$ 2.48	\$ 2.62	\$ 2.77	\$ 2.93	\$ 3.10	\$ 63.16	13.74
Pinnacle West Capital	PNW	\$ 1.73	\$ 1.80	\$ 1.87	\$ 1.94	\$ 2.01	\$ 2.15	\$ 2.30	\$ 2.46	\$ 2.63	\$ 2.80	\$ 2.96	\$ 3.13	\$ 3.31	\$ 3.50	\$ 3.70	\$ 82.61	15.05
Portland General	POR	\$ 1.07	\$ 1.07	\$ 1.08	\$ 1.07	\$ 1.07	\$ 1.15	\$ 1.25	\$ 1.35	\$ 1.45	\$ 1.57	\$ 1.66	\$ 1.75	\$ 1.86	\$ 1.96	\$ 2.08	\$ 42.39	13.79
Progress Energy	PGN	\$ 2.57	\$ 2.59	\$ 2.60	\$ 2.61	\$ 2.62	\$ 2.68	\$ 2.76	\$ 2.84	\$ 2.94	\$ 3.05	\$ 3.23	\$ 3.41	\$ 3.61	\$ 3.82	\$ 4.04	\$ 82.69	13.83
Southern Co.	SO	\$ 1.80	\$ 1.85	\$ 1.90	\$ 1.95	\$ 2.00	\$ 2.10	\$ 2.21	\$ 2.32	\$ 2.44	\$ 2.58	\$ 2.72	\$ 2.88	\$ 3.05	\$ 3.22	\$ 3.41	\$ 74.08	14.67
Westar Energy	WR	\$ 0.97	\$ 1.02	\$ 1.06	\$ 1.11	\$ 1.16	\$ 1.28	\$ 1.40	\$ 1.53	\$ 1.67	\$ 1.80	\$ 1.91	\$ 2.02	\$ 2.13	\$ 2.25	\$ 2.38	\$ 52.15	14.76
Median																	13.83	

Projected Annual Data

Investor Cash Flows		[62]	[63]	[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]
Company	Ticker	Initial Outflow	8/13/10	2/13/11	2/13/12	2/13/13	2/13/14	2/13/15	2/13/16	2/13/17	2/13/18	2/13/19	2/13/20	2/13/21	2/13/22	2/13/23	2/13/24	2/13/25
American Electric Power	AEP	(\$33.77)	\$0.00	\$ 1.91	\$ 1.92	\$ 1.93	\$ 1.94	\$ 1.94	\$ 2.12	\$ 2.33	\$ 2.55	\$ 2.80	\$ 3.07	\$ 3.25	\$ 3.43	\$ 3.63	\$ 3.84	\$ 80.29
Cleco Corp.	CNL	(\$27.22)	\$0.00	\$ 0.78	\$ 0.90	\$ 1.03	\$ 1.17	\$ 1.32	\$ 1.45	\$ 1.60	\$ 1.76	\$ 1.93	\$ 2.12	\$ 2.24	\$ 2.37	\$ 2.50	\$ 2.65	\$ 67.11
DPL, Inc.	DPL	(\$25.85)	\$0.00	\$ 1.09	\$ 1.16	\$ 1.24	\$ 1.32	\$ 1.41	\$ 1.59	\$ 1.78	\$ 1.99	\$ 2.21	\$ 2.45	\$ 2.59	\$ 2.74	\$ 2.90	\$ 3.06	\$ 64.60
Empire District Electric	EDE	(\$19.06)	\$0.00	\$ 1.27	\$ 1.26	\$ 1.25	\$ 1.24	\$ 1.21	\$ 1.26	\$ 1.32	\$ 1.37	\$ 1.42	\$ 1.47	\$ 1.55	\$ 1.64	\$ 1.74	\$ 1.84	\$ 41.31
IDACORP, Inc.	IDA	(\$34.58)	\$0.00	\$ 1.21	\$ 1.28	\$ 1.36	\$ 1.43	\$ 1.51	\$ 1.73	\$ 1.97	\$ 2.24	\$ 2.53	\$ 2.85	\$ 3.02	\$ 3.19	\$ 3.37	\$ 3.57	\$ 86.57
Northeast Utilities	NU	(\$26.99)	\$0.00	\$ 1.12	\$ 1.18	\$ 1.25	\$ 1.32	\$ 1.40	\$ 1.56	\$ 1.74	\$ 1.92	\$ 2.13	\$ 2.35	\$ 2.48	\$ 2.62	\$ 2.77	\$ 2.93	\$ 66.26
Pinnacle West Capital	PNW	(\$37.26)	\$0.00	\$ 1.73	\$ 1.80	\$ 1.87	\$ 1.94	\$ 2.01	\$ 2.15	\$ 2.30	\$ 2.46	\$ 2.63	\$ 2.80	\$ 2.96	\$ 3.13	\$ 3.31	\$ 3.50	\$ 86.32
Portland General	POR	(\$19.21)	\$0.00	\$ 1.07	\$ 1.07	\$ 1.08	\$ 1.07	\$ 1.07	\$ 1.15	\$ 1.25	\$ 1.35	\$ 1.45	\$ 1.57	\$ 1.66	\$ 1.75	\$ 1.86	\$ 1.96	\$ 44.46
Progress Energy	PGN	(\$40.03)	\$0.00	\$ 2.57	\$ 2.59	\$ 2.60	\$ 2.61	\$ 2.62	\$ 2.68	\$ 2.76	\$ 2.84	\$ 2.94	\$ 3.05	\$ 3.23	\$ 3.41	\$ 3.61	\$ 3.82	\$ 86.72
Southern Co.	SO	(\$34.31)	\$0.00	\$ 1.80	\$ 1.85	\$ 1.90	\$ 1.95	\$ 2.00	\$ 2.10	\$ 2.21	\$ 2.32	\$ 2.44	\$ 2.58	\$ 2.72	\$ 2.88	\$ 3.05	\$ 3.22	\$ 77.49
Westar Energy	WR	(\$22.85)	\$0.00	\$ 0.97	\$ 1.02	\$ 1.06	\$ 1.11	\$ 1.16	\$ 1.28	\$ 1.40	\$ 1.53	\$ 1.67	\$ 1.80	\$ 1.91	\$ 2.02	\$ 2.13	\$ 2.25	\$ 54.53

MULTI-STAGE DCF MODEL - 180-DAY AVERAGE PRICE
 TERMINAL VALUE - GORDON MODEL

Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	
Company	Ticker	Stock Price	EPS Growth	GDP Growth	Payout Ratio			Solver Cells			Near Term Growth	Intermediate Growth	Long Term Growth	
					2010	2014	2024	Delta	k(e)	Solution				
American Electric Power	AEP	\$ 34.11	3.89%	5.75%	62.00%	54.00%	67.50%	\$ 0.00	11.33%	11.33%	3.89%	4.82%	5.75%	
Cleco Corp.	CNL	\$ 26.80	6.00%	5.75%	42.00%	56.00%	67.50%	\$ (0.00)	10.43%	10.43%	6.00%	5.88%	5.75%	
DPL, Inc.	DPL	\$ 26.67	6.20%	5.75%	51.00%	52.00%	67.50%	\$ 0.00	11.18%	11.18%	6.20%	5.98%	5.75%	
Empire District Electric	EDE	\$ 18.77	6.50%	5.75%	101.00%	75.00%	67.50%	\$ (0.00)	11.06%	11.06%	6.50%	6.13%	5.75%	
IDACORP, Inc.	IDA	\$ 33.61	4.50%	5.75%	44.00%	46.00%	67.50%	\$ (0.00)	10.70%	10.70%	4.50%	5.13%	5.75%	
Northeast Utilities	NU	\$ 26.52	6.30%	5.75%	55.00%	54.00%	67.50%	\$ (0.00)	11.04%	11.04%	6.30%	6.03%	5.75%	
Pinnacle West Capital	PNW	\$ 37.11	6.43%	5.75%	72.00%	65.00%	67.50%	\$ (0.00)	10.52%	10.52%	6.43%	6.09%	5.75%	
Portland General	POR	\$ 19.46	5.95%	5.75%	77.00%	61.00%	67.50%	\$ 0.00	10.86%	10.86%	5.95%	5.85%	5.75%	
Progress Energy	PGN	\$ 39.80	3.71%	5.75%	83.00%	73.00%	67.50%	\$ (0.00)	10.95%	10.95%	3.71%	4.73%	5.75%	
Southern Co.	SO	\$ 33.55	4.89%	5.75%	74.00%	68.00%	67.50%	\$ (0.00)	10.74%	10.74%	4.89%	5.32%	5.75%	
Westar Energy	WR	\$ 22.32	8.26%	5.75%	70.00%	61.00%	67.50%	\$ (0.00)	10.70%	10.70%	8.26%	7.01%	5.75%	
MEAN:		\$ 28.98	5.69%	5.75%	66.45%	60.45%	67.50%				10.86%	5.69%	5.72%	5.75%

Projected Annual Data

Earnings per Share		[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	Terminal Growth
Company	Ticker	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024		
American Electric Power	AEP	\$ 2.97	\$ 3.09	\$ 3.21	\$ 3.33	\$ 3.46	\$ 3.59	\$ 3.75	\$ 3.92	\$ 4.10	\$ 4.32	\$ 4.55	\$ 4.81	\$ 5.09	\$ 5.38	\$ 5.69	\$ 6.02		5.75%
Cleco Corp.	CNL	\$ 1.76	\$ 1.87	\$ 1.98	\$ 2.10	\$ 2.22	\$ 2.36	\$ 2.50	\$ 2.64	\$ 2.80	\$ 2.96	\$ 3.13	\$ 3.31	\$ 3.51	\$ 3.71	\$ 3.92	\$ 4.15		5.75%
DPL, Inc.	DPL	\$ 2.01	\$ 2.13	\$ 2.27	\$ 2.41	\$ 2.56	\$ 2.72	\$ 2.88	\$ 3.06	\$ 3.24	\$ 3.43	\$ 3.63	\$ 3.84	\$ 4.06	\$ 4.30	\$ 4.54	\$ 4.80		5.75%
Empire District Electric	EDE	\$ 1.18	\$ 1.26	\$ 1.34	\$ 1.43	\$ 1.52	\$ 1.62	\$ 1.72	\$ 1.83	\$ 1.94	\$ 2.06	\$ 2.18	\$ 2.30	\$ 2.44	\$ 2.58	\$ 2.72	\$ 2.88		5.75%
IDACORP, Inc.	IDA	\$ 2.64	\$ 2.76	\$ 2.88	\$ 3.01	\$ 3.15	\$ 3.29	\$ 3.44	\$ 3.61	\$ 3.80	\$ 4.00	\$ 4.23	\$ 4.47	\$ 4.73	\$ 5.00	\$ 5.29	\$ 5.59		5.75%
Northeast Utilities	NU	\$ 1.91	\$ 2.03	\$ 2.16	\$ 2.29	\$ 2.44	\$ 2.59	\$ 2.75	\$ 2.92	\$ 3.10	\$ 3.28	\$ 3.48	\$ 3.68	\$ 3.89	\$ 4.11	\$ 4.35	\$ 4.60		5.75%
Pinnacle West Capital	PNW	\$ 2.26	\$ 2.41	\$ 2.56	\$ 2.72	\$ 2.90	\$ 3.09	\$ 3.28	\$ 3.49	\$ 3.70	\$ 3.92	\$ 4.15	\$ 4.39	\$ 4.64	\$ 4.91	\$ 5.19	\$ 5.49		5.75%
Portland General	POR	\$ 1.31	\$ 1.39	\$ 1.47	\$ 1.56	\$ 1.65	\$ 1.75	\$ 1.85	\$ 1.96	\$ 2.08	\$ 2.20	\$ 2.32	\$ 2.46	\$ 2.60	\$ 2.75	\$ 2.91	\$ 3.08		5.75%
Progress Energy	PGN	\$ 2.99	\$ 3.10	\$ 3.22	\$ 3.34	\$ 3.46	\$ 3.59	\$ 3.73	\$ 3.90	\$ 4.08	\$ 4.29	\$ 4.52	\$ 4.78	\$ 5.06	\$ 5.35	\$ 5.66	\$ 5.98		5.75%
Southern Co.	SO	\$ 2.32	\$ 2.43	\$ 2.55	\$ 2.68	\$ 2.81	\$ 2.95	\$ 3.09	\$ 3.25	\$ 3.43	\$ 3.61	\$ 3.82	\$ 4.04	\$ 4.27	\$ 4.52	\$ 4.78	\$ 5.05		5.75%
Westar Energy	WR	\$ 1.28	\$ 1.39	\$ 1.50	\$ 1.62	\$ 1.76	\$ 1.90	\$ 2.05	\$ 2.21	\$ 2.36	\$ 2.52	\$ 2.67	\$ 2.82	\$ 2.99	\$ 3.16	\$ 3.34	\$ 3.53		5.75%

Projected Annual Data

Dividend Payout Ratio		[30]	[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]
Company	Ticker	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
American Electric Power	AEP	62.00%	60.00%	58.00%	56.00%	54.00%	56.70%	59.40%	62.10%	64.80%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Cleco Corp.	CNL	42.00%	45.50%	49.00%	52.50%	56.00%	58.30%	60.60%	62.90%	65.20%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
DPL, Inc.	DPL	51.00%	51.25%	51.50%	51.75%	52.00%	55.10%	58.20%	61.30%	64.40%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Empire District Electric	EDE	101.00%	94.50%	88.00%	81.50%	75.00%	73.50%	72.00%	70.50%	69.00%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
IDACORP, Inc.	IDA	44.00%	44.50%	45.00%	45.50%	46.00%	50.30%	54.60%	58.90%	63.20%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Northeast Utilities	NU	55.00%	54.75%	54.50%	54.25%	54.00%	56.70%	59.40%	62.10%	64.80%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Pinnacle West Capital	PNW	72.00%	70.25%	68.50%	66.75%	65.00%	65.50%	66.00%	66.50%	67.00%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Portland General	POR	77.00%	73.00%	69.00%	65.00%	61.00%	62.30%	63.60%	64.90%	66.20%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Progress Energy	PGN	83.00%	80.50%	78.00%	75.50%	73.00%	71.90%	70.80%	69.70%	68.60%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Southern Co.	SO	74.00%	72.50%	71.00%	69.50%	68.00%	67.90%	67.80%	67.70%	67.60%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Westar Energy	WR	70.00%	67.75%	65.50%	63.25%	61.00%	62.30%	63.60%	64.90%	66.20%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%

Projected Annual Data

Dividends per Share & Terminal Market Value		[45]	[46]	[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]
Company	Ticker	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Terminal Price	Terminal P/E Ratio
American Electric Power	AEP	\$ 1.91	\$ 1.92	\$ 1.93	\$ 1.94	\$ 1.94	\$ 2.12	\$ 2.33	\$ 2.55	\$ 2.80	\$ 3.07	\$ 3.25	\$ 3.43	\$ 3.63	\$ 3.84	\$ 4.06	\$ 77.01	12.80
Cleco Corp.	CNL	\$ 0.78	\$ 0.90	\$ 1.03	\$ 1.17	\$ 1.32	\$ 1.45	\$ 1.60	\$ 1.76	\$ 1.93	\$ 2.12	\$ 2.24	\$ 2.37	\$ 2.50	\$ 2.65	\$ 2.80	\$ 63.35	15.28
DPL, Inc.	DPL	\$ 1.09	\$ 1.16	\$ 1.24	\$ 1.32	\$ 1.41	\$ 1.59	\$ 1.78	\$ 1.99	\$ 2.21	\$ 2.45	\$ 2.59	\$ 2.74	\$ 2.90	\$ 3.06	\$ 3.24	\$ 63.23	13.17
Empire District Electric	EDE	\$ 1.27	\$ 1.26	\$ 1.25	\$ 1.24	\$ 1.21	\$ 1.26	\$ 1.32	\$ 1.37	\$ 1.42	\$ 1.47	\$ 1.55	\$ 1.64	\$ 1.74	\$ 1.84	\$ 1.94	\$ 38.72	13.45
IDACORP, Inc.	IDA	\$ 1.21	\$ 1.28	\$ 1.36	\$ 1.43	\$ 1.51	\$ 1.73	\$ 1.97	\$ 2.24	\$ 2.53	\$ 2.85	\$ 3.02	\$ 3.19	\$ 3.37	\$ 3.57	\$ 3.77	\$ 80.58	14.42
Northeast Utilities	NU	\$ 1.12	\$ 1.18	\$ 1.25	\$ 1.32	\$ 1.40	\$ 1.56	\$ 1.74	\$ 1.92	\$ 2.13	\$ 2.35	\$ 2.48	\$ 2.62	\$ 2.77	\$ 2.93	\$ 3.10	\$ 62.08	13.51
Pinnacle West Capital	PNW	\$ 1.73	\$ 1.80	\$ 1.87	\$ 1.94	\$ 2.01	\$ 2.15	\$ 2.30	\$ 2.46	\$ 2.63	\$ 2.80	\$ 2.96	\$ 3.13	\$ 3.31	\$ 3.50	\$ 3.70	\$ 82.28	14.99
Portland General	POR	\$ 1.07	\$ 1.07	\$ 1.08	\$ 1.07	\$ 1.07	\$ 1.15	\$ 1.25	\$ 1.35	\$ 1.45	\$ 1.57	\$ 1.66	\$ 1.75	\$ 1.86	\$ 1.96	\$ 2.08	\$ 42.97	13.98
Progress Energy	PGN	\$ 2.57	\$ 2.59	\$ 2.60	\$ 2.61	\$ 2.62	\$ 2.68	\$ 2.76	\$ 2.84	\$ 2.94	\$ 3.05	\$ 3.23	\$ 3.41	\$ 3.61	\$ 3.82	\$ 4.04	\$ 82.17	13.74
Southern Co.	SO	\$ 1.80	\$ 1.85	\$ 1.90	\$ 1.95	\$ 2.00	\$ 2.10	\$ 2.21	\$ 2.32	\$ 2.44	\$ 2.58	\$ 2.72	\$ 2.88	\$ 3.05	\$ 3.22	\$ 3.41	\$ 72.36	14.33
Westar Energy	WR	\$ 0.97	\$ 1.02	\$ 1.06	\$ 1.11	\$ 1.16	\$ 1.28	\$ 1.40	\$ 1.53	\$ 1.67	\$ 1.80	\$ 1.91	\$ 2.02	\$ 2.13	\$ 2.25	\$ 2.38	\$ 50.95	14.42
Median																	13.98	

Projected Annual Data

Investor Cash Flows		[62]	[63]	[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]
Company	Ticker	Initial Outflow	8/13/10	2/13/11	2/13/12	2/13/13	2/13/14	2/13/15	2/13/16	2/13/17	2/13/18	2/13/19	2/13/20	2/13/21	2/13/22	2/13/23	2/13/24	2/13/25
American Electric Power	AEP	(\$34.11)	\$0.00	\$ 1.91	\$ 1.92	\$ 1.93	\$ 1.94	\$ 1.94	\$ 2.12	\$ 2.33	\$ 2.55	\$ 2.80	\$ 3.07	\$ 3.25	\$ 3.43	\$ 3.63	\$ 3.84	\$ 81.07
Cleco Corp.	CNL	(\$26.80)	\$0.00	\$ 0.78	\$ 0.90	\$ 1.03	\$ 1.17	\$ 1.32	\$ 1.45	\$ 1.60	\$ 1.76	\$ 1.93	\$ 2.12	\$ 2.24	\$ 2.37	\$ 2.50	\$ 2.65	\$ 66.15
DPL, Inc.	DPL	(\$26.67)	\$0.00	\$ 1.09	\$ 1.16	\$ 1.24	\$ 1.32	\$ 1.41	\$ 1.59	\$ 1.78	\$ 1.99	\$ 2.21	\$ 2.45	\$ 2.59	\$ 2.74	\$ 2.90	\$ 3.06	\$ 66.47
Empire District Electric	EDE	(\$18.77)	\$0.00	\$ 1.27	\$ 1.26	\$ 1.25	\$ 1.24	\$ 1.21	\$ 1.26	\$ 1.32	\$ 1.37	\$ 1.42	\$ 1.47	\$ 1.55	\$ 1.64	\$ 1.74	\$ 1.84	\$ 40.67
IDACORP, Inc.	IDA	(\$33.61)	\$0.00	\$ 1.21	\$ 1.28	\$ 1.36	\$ 1.43	\$ 1.51	\$ 1.73	\$ 1.97	\$ 2.24	\$ 2.53	\$ 2.85	\$ 3.02	\$ 3.19	\$ 3.37	\$ 3.57	\$ 84.35
Northeast Utilities	NU	(\$26.52)	\$0.00	\$ 1.12	\$ 1.18	\$ 1.25	\$ 1.32	\$ 1.40	\$ 1.56	\$ 1.74	\$ 1.92	\$ 2.13	\$ 2.35	\$ 2.48	\$ 2.62	\$ 2.77	\$ 2.93	\$ 65.18
Pinnacle West Capital	PNW	(\$37.11)	\$0.00	\$ 1.73	\$ 1.80	\$ 1.87	\$ 1.94	\$ 2.01	\$ 2.15	\$ 2.30	\$ 2.46	\$ 2.63	\$ 2.80	\$ 2.96	\$ 3.13	\$ 3.31	\$ 3.50	\$ 85.98
Portland General	POR	(\$19.46)	\$0.00	\$ 1.07	\$ 1.07	\$ 1.08	\$ 1.07	\$ 1.07	\$ 1.15	\$ 1.25	\$ 1.35	\$ 1.45	\$ 1.57	\$ 1.66	\$ 1.75	\$ 1.86	\$ 1.96	\$ 45.04
Progress Energy	PGN	(\$39.80)	\$0.00	\$ 2.57	\$ 2.59	\$ 2.60	\$ 2.61	\$ 2.62	\$ 2.68	\$ 2.76	\$ 2.84	\$ 2.94	\$ 3.05	\$ 3.23	\$ 3.41	\$ 3.61	\$ 3.82	\$ 86.20
Southern Co.	SO	(\$33.55)	\$0.00	\$ 1.80	\$ 1.85	\$ 1.90	\$ 1.95	\$ 2.00	\$ 2.10	\$ 2.21	\$ 2.32	\$ 2.44	\$ 2.58	\$ 2.72	\$ 2.88	\$ 3.05	\$ 3.22	\$ 75.77
Westar Energy	WR	(\$22.32)	\$0.00	\$ 0.97	\$ 1.02	\$ 1.06	\$ 1.11	\$ 1.16	\$ 1.28	\$ 1.40	\$ 1.53	\$ 1.67	\$ 1.80	\$ 1.91	\$ 2.02	\$ 2.13	\$ 2.25	\$ 53.34

MULTI-STAGE DCF MODEL - 30-DAY AVERAGE PRICE
 TERMINAL VALUE - LONG-TERM PROJECTED PRICE-TO-EARNINGS RATIO

Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Company	Ticker	Stock Price	EPS Growth	GDP Growth	Payout Ratio			Solver Cells			Near Term Growth	Intermediate Growth	Long Term Growth
					2010	2014	2024	Delta	k(e)	Solution			
American Electric Power	AEP	\$ 35.44	3.89%	5.75%	62.00%	54.00%	67.50%	\$ 0.00	11.11%	11.11%	3.89%	4.82%	5.75%
Cleco Corp.	CNL	\$ 28.34	6.00%	5.75%	42.00%	56.00%	67.50%	\$ 0.00	9.24%	9.24%	6.00%	5.88%	5.75%
DPL, Inc.	DPL	\$ 25.53	6.20%	5.75%	51.00%	52.00%	67.50%	\$ (0.00)	12.07%	12.07%	6.20%	5.98%	5.75%
Empire District Electric	EDE	\$ 19.68	6.50%	5.75%	101.00%	75.00%	67.50%	\$ (0.00)	11.63%	11.63%	6.50%	6.13%	5.75%
IDACORP, Inc.	IDA	\$ 35.35	4.50%	5.75%	44.00%	46.00%	67.50%	\$ 0.00	9.66%	9.66%	4.50%	5.13%	5.75%
Northeast Utilities	NU	\$ 27.86	6.30%	5.75%	55.00%	54.00%	67.50%	\$ 0.00	10.80%	10.80%	6.30%	6.03%	5.75%
Pinnacle West Capital	PNW	\$ 38.68	6.43%	5.75%	72.00%	65.00%	67.50%	\$ 0.00	9.61%	9.61%	6.43%	6.09%	5.75%
Portland General	POR	\$ 19.20	5.95%	5.75%	77.00%	61.00%	67.50%	\$ 0.00	10.43%	10.43%	5.95%	5.85%	5.75%
Progress Energy	PGN	\$ 41.68	3.71%	5.75%	83.00%	73.00%	67.50%	\$ 0.00	10.04%	10.04%	3.71%	4.73%	5.75%
Southern Co.	SO	\$ 35.41	4.89%	5.75%	74.00%	68.00%	67.50%	\$ 0.00	8.51%	8.51%	4.89%	5.32%	5.75%
Westar Energy	WR	\$ 23.50	8.26%	5.75%	70.00%	61.00%	67.50%	\$ 0.00	9.95%	9.95%	8.26%	7.01%	5.75%
MEAN:		\$ 30.06	5.69%	5.75%	66.45%	60.45%	67.50%			10.28%	5.69%	5.72%	5.75%

Projected Annual Data

Earnings per Share		[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]
Company	Ticker	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Terminal Growth
American Electric Power	AEP	\$ 2.97	\$ 3.09	\$ 3.21	\$ 3.33	\$ 3.46	\$ 3.59	\$ 3.75	\$ 3.92	\$ 4.10	\$ 4.31	\$ 4.55	\$ 4.81	\$ 5.09	\$ 5.38	\$ 5.69	\$ 6.02	5.75%
Cleco Corp.	CNL	\$ 1.76	\$ 1.87	\$ 1.98	\$ 2.10	\$ 2.22	\$ 2.36	\$ 2.50	\$ 2.64	\$ 2.80	\$ 2.96	\$ 3.13	\$ 3.31	\$ 3.50	\$ 3.71	\$ 3.92	\$ 4.15	5.75%
DPL, Inc.	DPL	\$ 2.01	\$ 2.13	\$ 2.27	\$ 2.41	\$ 2.56	\$ 2.72	\$ 2.88	\$ 3.06	\$ 3.24	\$ 3.43	\$ 3.63	\$ 3.84	\$ 4.06	\$ 4.29	\$ 4.54	\$ 4.80	5.75%
Empire District Electric	EDE	\$ 1.18	\$ 1.26	\$ 1.34	\$ 1.43	\$ 1.52	\$ 1.62	\$ 1.72	\$ 1.83	\$ 1.94	\$ 2.06	\$ 2.18	\$ 2.30	\$ 2.43	\$ 2.57	\$ 2.72	\$ 2.88	5.75%
IDACORP, Inc.	IDA	\$ 2.64	\$ 2.76	\$ 2.88	\$ 3.01	\$ 3.15	\$ 3.29	\$ 3.44	\$ 3.61	\$ 3.80	\$ 4.00	\$ 4.22	\$ 4.47	\$ 4.72	\$ 5.00	\$ 5.28	\$ 5.59	5.75%
Northeast Utilities	NU	\$ 1.91	\$ 2.03	\$ 2.16	\$ 2.29	\$ 2.44	\$ 2.59	\$ 2.75	\$ 2.92	\$ 3.10	\$ 3.28	\$ 3.47	\$ 3.67	\$ 3.89	\$ 4.11	\$ 4.35	\$ 4.60	5.75%
Pinnacle West Capital	PNW	\$ 2.26	\$ 2.41	\$ 2.56	\$ 2.72	\$ 2.90	\$ 3.09	\$ 3.28	\$ 3.49	\$ 3.70	\$ 3.92	\$ 4.15	\$ 4.39	\$ 4.64	\$ 4.91	\$ 5.19	\$ 5.49	5.75%
Portland General	POR	\$ 1.31	\$ 1.39	\$ 1.47	\$ 1.56	\$ 1.65	\$ 1.75	\$ 1.85	\$ 1.96	\$ 2.08	\$ 2.20	\$ 2.32	\$ 2.46	\$ 2.60	\$ 2.75	\$ 2.91	\$ 3.07	5.75%
Progress Energy	PGN	\$ 2.99	\$ 3.10	\$ 3.22	\$ 3.34	\$ 3.46	\$ 3.59	\$ 3.73	\$ 3.90	\$ 4.08	\$ 4.29	\$ 4.52	\$ 4.78	\$ 5.06	\$ 5.35	\$ 5.65	\$ 5.98	5.75%
Southern Co.	SO	\$ 2.32	\$ 2.43	\$ 2.55	\$ 2.68	\$ 2.81	\$ 2.95	\$ 3.09	\$ 3.25	\$ 3.43	\$ 3.61	\$ 3.82	\$ 4.04	\$ 4.27	\$ 4.51	\$ 4.77	\$ 5.05	5.75%
Westar Energy	WR	\$ 1.28	\$ 1.39	\$ 1.50	\$ 1.62	\$ 1.76	\$ 1.90	\$ 2.05	\$ 2.21	\$ 2.36	\$ 2.52	\$ 2.67	\$ 2.82	\$ 2.99	\$ 3.16	\$ 3.34	\$ 3.53	5.75%

Projected Annual Data

Dividend Payout Ratio		[30]	[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]
Company	Ticker	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
American Electric Power	AEP	62.00%	60.00%	58.00%	56.00%	54.00%	56.70%	59.40%	62.10%	64.80%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Cleco Corp.	CNL	42.00%	45.50%	49.00%	52.50%	56.00%	58.30%	60.60%	62.90%	65.20%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
DPL, Inc.	DPL	51.00%	51.25%	51.50%	51.75%	52.00%	55.10%	58.20%	61.30%	64.40%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Empire District Electric	EDE	101.00%	94.50%	88.00%	81.50%	75.00%	73.50%	72.00%	70.50%	69.00%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
IDACORP, Inc.	IDA	44.00%	44.50%	45.00%	45.50%	46.00%	50.30%	54.60%	58.90%	63.20%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Northeast Utilities	NU	55.00%	54.75%	54.50%	54.25%	54.00%	56.70%	59.40%	62.10%	64.80%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Pinnacle West Capital	PNW	72.00%	70.25%	68.50%	66.75%	65.00%	65.50%	66.00%	66.50%	67.00%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Portland General	POR	77.00%	73.00%	69.00%	65.00%	61.00%	62.30%	63.60%	64.90%	66.20%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Progress Energy	PGN	83.00%	80.50%	78.00%	75.50%	73.00%	71.90%	70.80%	69.70%	68.60%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Southern Co.	SO	74.00%	72.50%	71.00%	69.50%	68.00%	67.90%	67.80%	67.70%	67.60%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Westar Energy	WR	70.00%	67.75%	65.50%	63.25%	61.00%	62.30%	63.60%	64.90%	66.20%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%

Projected Annual Data

Dividends per Share & Terminal Market Value		[45]	[46]	[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]
Company	Ticker	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Terminal Price	Terminal P/E Ratio
American Electric Power	AEP	\$ 1.91	\$ 1.92	\$ 1.93	\$ 1.94	\$ 1.94	\$ 2.12	\$ 2.33	\$ 2.55	\$ 2.80	\$ 3.07	\$ 3.25	\$ 3.43	\$ 3.63	\$ 3.84	\$ 4.06	\$ 79.83	13.26
Cleco Corp.	CNL	\$ 0.78	\$ 0.90	\$ 1.03	\$ 1.17	\$ 1.32	\$ 1.45	\$ 1.60	\$ 1.76	\$ 1.93	\$ 2.12	\$ 2.24	\$ 2.37	\$ 2.50	\$ 2.65	\$ 2.80	\$ 56.21	13.56
DPL, Inc.	DPL	\$ 1.09	\$ 1.16	\$ 1.24	\$ 1.32	\$ 1.41	\$ 1.59	\$ 1.78	\$ 1.99	\$ 2.21	\$ 2.45	\$ 2.59	\$ 2.74	\$ 2.90	\$ 3.06	\$ 3.24	\$ 68.83	14.33
Empire District Electric	EDE	\$ 1.27	\$ 1.26	\$ 1.25	\$ 1.24	\$ 1.21	\$ 1.26	\$ 1.32	\$ 1.37	\$ 1.42	\$ 1.47	\$ 1.55	\$ 1.64	\$ 1.74	\$ 1.84	\$ 1.94	\$ 47.77	16.59
IDACORP, Inc.	IDA	\$ 1.21	\$ 1.28	\$ 1.36	\$ 1.43	\$ 1.51	\$ 1.73	\$ 1.97	\$ 2.24	\$ 2.53	\$ 2.85	\$ 3.02	\$ 3.19	\$ 3.37	\$ 3.57	\$ 3.77	\$ 72.64	13.00
Northeast Utilities	NU	\$ 1.12	\$ 1.18	\$ 1.25	\$ 1.32	\$ 1.40	\$ 1.56	\$ 1.74	\$ 1.92	\$ 2.13	\$ 2.35	\$ 2.48	\$ 2.62	\$ 2.77	\$ 2.93	\$ 3.10	\$ 65.27	14.20
Pinnacle West Capital	PNW	\$ 1.73	\$ 1.80	\$ 1.87	\$ 1.94	\$ 2.01	\$ 2.15	\$ 2.30	\$ 2.46	\$ 2.63	\$ 2.80	\$ 2.96	\$ 3.13	\$ 3.31	\$ 3.50	\$ 3.70	\$ 75.09	13.68
Portland General	POR	\$ 1.07	\$ 1.07	\$ 1.08	\$ 1.07	\$ 1.07	\$ 1.15	\$ 1.25	\$ 1.35	\$ 1.45	\$ 1.57	\$ 1.66	\$ 1.75	\$ 1.86	\$ 1.96	\$ 2.08	\$ 38.43	12.50
Progress Energy	PGN	\$ 2.57	\$ 2.59	\$ 2.60	\$ 2.61	\$ 2.62	\$ 2.68	\$ 2.76	\$ 2.84	\$ 2.94	\$ 3.05	\$ 3.23	\$ 3.41	\$ 3.61	\$ 3.82	\$ 4.04	\$ 75.93	12.70
Southern Co.	SO	\$ 1.80	\$ 1.85	\$ 1.90	\$ 1.95	\$ 2.00	\$ 2.10	\$ 2.21	\$ 2.32	\$ 2.44	\$ 2.58	\$ 2.72	\$ 2.88	\$ 3.05	\$ 3.22	\$ 3.41	\$ 51.91	10.28
Westar Energy	WR	\$ 0.97	\$ 1.02	\$ 1.06	\$ 1.11	\$ 1.16	\$ 1.28	\$ 1.40	\$ 1.53	\$ 1.67	\$ 1.80	\$ 1.91	\$ 2.02	\$ 2.13	\$ 2.25	\$ 2.38	\$ 48.75	13.80
Median																	13.56	

Projected Annual Data

Investor Cash Flows		[62]	[63]	[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]
Company	Ticker	Initial Outflow	8/13/10	2/13/11	2/13/12	2/13/13	2/13/14	2/13/15	2/13/16	2/13/17	2/13/18	2/13/19	2/13/20	2/13/21	2/13/22	2/13/23	2/13/24	2/13/25
American Electric Power	AEP	(\$35.44)	\$0.00	\$ 1.91	\$ 1.92	\$ 1.93	\$ 1.94	\$ 1.94	\$ 2.12	\$ 2.33	\$ 2.55	\$ 2.80	\$ 3.07	\$ 3.25	\$ 3.43	\$ 3.63	\$ 3.84	\$ 83.89
Cleco Corp.	CNL	(\$28.34)	\$0.00	\$ 0.78	\$ 0.90	\$ 1.03	\$ 1.17	\$ 1.32	\$ 1.45	\$ 1.60	\$ 1.76	\$ 1.93	\$ 2.12	\$ 2.24	\$ 2.37	\$ 2.50	\$ 2.65	\$ 59.00
DPL, Inc.	DPL	(\$25.53)	\$0.00	\$ 1.09	\$ 1.16	\$ 1.24	\$ 1.32	\$ 1.41	\$ 1.59	\$ 1.78	\$ 1.99	\$ 2.21	\$ 2.45	\$ 2.59	\$ 2.74	\$ 2.90	\$ 3.06	\$ 72.07
Empire District Electric	EDE	(\$19.68)	\$0.00	\$ 1.27	\$ 1.26	\$ 1.25	\$ 1.24	\$ 1.21	\$ 1.26	\$ 1.32	\$ 1.37	\$ 1.42	\$ 1.47	\$ 1.55	\$ 1.64	\$ 1.74	\$ 1.84	\$ 49.71
IDACORP, Inc.	IDA	(\$35.35)	\$0.00	\$ 1.21	\$ 1.28	\$ 1.36	\$ 1.43	\$ 1.51	\$ 1.73	\$ 1.97	\$ 2.24	\$ 2.53	\$ 2.85	\$ 3.02	\$ 3.19	\$ 3.37	\$ 3.57	\$ 76.41
Northeast Utilities	NU	(\$27.86)	\$0.00	\$ 1.12	\$ 1.18	\$ 1.25	\$ 1.32	\$ 1.40	\$ 1.56	\$ 1.74	\$ 1.92	\$ 2.13	\$ 2.35	\$ 2.48	\$ 2.62	\$ 2.77	\$ 2.93	\$ 68.37
Pinnacle West Capital	PNW	(\$38.68)	\$0.00	\$ 1.73	\$ 1.80	\$ 1.87	\$ 1.94	\$ 2.01	\$ 2.15	\$ 2.30	\$ 2.46	\$ 2.63	\$ 2.80	\$ 2.96	\$ 3.13	\$ 3.31	\$ 3.50	\$ 78.80
Portland General	POR	(\$19.20)	\$0.00	\$ 1.07	\$ 1.07	\$ 1.08	\$ 1.07	\$ 1.07	\$ 1.15	\$ 1.25	\$ 1.35	\$ 1.45	\$ 1.57	\$ 1.66	\$ 1.75	\$ 1.86	\$ 1.96	\$ 40.51
Progress Energy	PGN	(\$41.68)	\$0.00	\$ 2.57	\$ 2.59	\$ 2.60	\$ 2.61	\$ 2.62	\$ 2.68	\$ 2.76	\$ 2.84	\$ 2.94	\$ 3.05	\$ 3.23	\$ 3.41	\$ 3.61	\$ 3.82	\$ 79.96
Southern Co.	SO	(\$35.41)	\$0.00	\$ 1.80	\$ 1.85	\$ 1.90	\$ 1.95	\$ 2.00	\$ 2.10	\$ 2.21	\$ 2.32	\$ 2.44	\$ 2.58	\$ 2.72	\$ 2.88	\$ 3.05	\$ 3.22	\$ 55.31
Westar Energy	WR	(\$23.50)	\$0.00	\$ 0.97	\$ 1.02	\$ 1.06	\$ 1.11	\$ 1.16	\$ 1.28	\$ 1.40	\$ 1.53	\$ 1.67	\$ 1.80	\$ 1.91	\$ 2.02	\$ 2.13	\$ 2.25	\$ 51.13

MULTI-STAGE DCF MODEL - 90-DAY AVERAGE PRICE
 TERMINAL VALUE - LONG-TERM PROJECTED PRICE-TO-EARNINGS RATIO

Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	
Company	Ticker	Stock Price	EPS Growth	GDP Growth	Payout Ratio			Solver Cells			Near Term Growth	Intermediate Growth	Long Term Growth	
					2010	2014	2024	Delta	k(e)	Solution				
American Electric Power	AEP	\$ 33.77	3.89%	5.75%	62.00%	54.00%	67.50%	\$ (0.00)	11.63%	11.63%	3.89%	4.82%	5.75%	
Cleco Corp.	CNL	\$ 27.22	6.00%	5.75%	42.00%	56.00%	67.50%	\$ (0.00)	9.63%	9.63%	6.00%	5.88%	5.75%	
DPL, Inc.	DPL	\$ 25.85	6.20%	5.75%	51.00%	52.00%	67.50%	\$ (0.00)	11.94%	11.94%	6.20%	5.98%	5.75%	
Empire District Electric	EDE	\$ 19.06	6.50%	5.75%	101.00%	75.00%	67.50%	\$ (0.00)	11.98%	11.98%	6.50%	6.13%	5.75%	
IDACORP, Inc.	IDA	\$ 34.58	4.50%	5.75%	44.00%	46.00%	67.50%	\$ (0.00)	9.87%	9.87%	4.50%	5.13%	5.75%	
Northeast Utilities	NU	\$ 26.99	6.30%	5.75%	55.00%	54.00%	67.50%	\$ (0.00)	11.12%	11.12%	6.30%	6.03%	5.75%	
Pinnacle West Capital	PNW	\$ 37.26	6.43%	5.75%	72.00%	65.00%	67.50%	\$ (0.00)	9.99%	9.99%	6.43%	6.09%	5.75%	
Portland General	POR	\$ 19.21	5.95%	5.75%	77.00%	61.00%	67.50%	\$ 0.00	10.43%	10.43%	5.95%	5.85%	5.75%	
Progress Energy	PGN	\$ 40.03	3.71%	5.75%	83.00%	73.00%	67.50%	\$ (0.00)	10.49%	10.49%	3.71%	4.73%	5.75%	
Southern Co.	SO	\$ 34.31	4.89%	5.75%	74.00%	68.00%	67.50%	\$ (0.00)	8.84%	8.84%	4.89%	5.32%	5.75%	
Westar Energy	WR	\$ 22.85	8.26%	5.75%	70.00%	61.00%	67.50%	\$ (0.00)	10.23%	10.23%	8.26%	7.01%	5.75%	
MEAN:		\$ 29.19	5.69%	5.75%	66.45%	60.45%	67.50%				10.56%	5.69%	5.72%	5.75%

Projected Annual Data

Earnings per Share		[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	Terminal Growth
Company	Ticker	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2024	Growth
American Electric Power	AEP	\$ 2.97	\$ 3.09	\$ 3.21	\$ 3.33	\$ 3.46	\$ 3.59	\$ 3.75	\$ 3.92	\$ 4.10	\$ 4.31	\$ 4.55	\$ 4.81	\$ 5.09	\$ 5.38	\$ 5.69	\$ 6.02	\$ 6.02	5.75%
Cleco Corp.	CNL	\$ 1.76	\$ 1.87	\$ 1.98	\$ 2.10	\$ 2.22	\$ 2.36	\$ 2.50	\$ 2.64	\$ 2.80	\$ 2.96	\$ 3.13	\$ 3.31	\$ 3.50	\$ 3.71	\$ 3.92	\$ 4.15	\$ 4.15	5.75%
DPL, Inc.	DPL	\$ 2.01	\$ 2.13	\$ 2.27	\$ 2.41	\$ 2.56	\$ 2.72	\$ 2.88	\$ 3.06	\$ 3.24	\$ 3.43	\$ 3.63	\$ 3.84	\$ 4.06	\$ 4.29	\$ 4.54	\$ 4.80	\$ 4.80	5.75%
Empire District Electric	EDE	\$ 1.18	\$ 1.26	\$ 1.34	\$ 1.43	\$ 1.52	\$ 1.62	\$ 1.72	\$ 1.83	\$ 1.94	\$ 2.06	\$ 2.18	\$ 2.30	\$ 2.43	\$ 2.57	\$ 2.72	\$ 2.88	\$ 2.88	5.75%
IDACORP, Inc.	IDA	\$ 2.64	\$ 2.76	\$ 2.88	\$ 3.01	\$ 3.15	\$ 3.29	\$ 3.44	\$ 3.61	\$ 3.80	\$ 4.00	\$ 4.22	\$ 4.47	\$ 4.72	\$ 5.00	\$ 5.28	\$ 5.59	\$ 5.59	5.75%
Northeast Utilities	NU	\$ 1.91	\$ 2.03	\$ 2.16	\$ 2.29	\$ 2.44	\$ 2.59	\$ 2.75	\$ 2.92	\$ 3.10	\$ 3.28	\$ 3.47	\$ 3.67	\$ 3.89	\$ 4.11	\$ 4.35	\$ 4.60	\$ 4.60	5.75%
Pinnacle West Capital	PNW	\$ 2.26	\$ 2.41	\$ 2.56	\$ 2.72	\$ 2.90	\$ 3.09	\$ 3.28	\$ 3.49	\$ 3.70	\$ 3.92	\$ 4.15	\$ 4.39	\$ 4.64	\$ 4.91	\$ 5.19	\$ 5.49	\$ 5.49	5.75%
Portland General	POR	\$ 1.31	\$ 1.39	\$ 1.47	\$ 1.56	\$ 1.65	\$ 1.75	\$ 1.85	\$ 1.96	\$ 2.08	\$ 2.20	\$ 2.32	\$ 2.46	\$ 2.60	\$ 2.75	\$ 2.91	\$ 3.07	\$ 3.07	5.75%
Progress Energy	PGN	\$ 2.99	\$ 3.10	\$ 3.22	\$ 3.34	\$ 3.46	\$ 3.59	\$ 3.73	\$ 3.90	\$ 4.08	\$ 4.29	\$ 4.52	\$ 4.78	\$ 5.06	\$ 5.35	\$ 5.65	\$ 5.98	\$ 5.98	5.75%
Southern Co.	SO	\$ 2.32	\$ 2.43	\$ 2.55	\$ 2.68	\$ 2.81	\$ 2.95	\$ 3.09	\$ 3.25	\$ 3.43	\$ 3.61	\$ 3.82	\$ 4.04	\$ 4.27	\$ 4.51	\$ 4.77	\$ 5.05	\$ 5.05	5.75%
Westar Energy	WR	\$ 1.28	\$ 1.39	\$ 1.50	\$ 1.62	\$ 1.76	\$ 1.90	\$ 2.05	\$ 2.21	\$ 2.36	\$ 2.52	\$ 2.67	\$ 2.82	\$ 2.99	\$ 3.16	\$ 3.34	\$ 3.53	\$ 3.53	5.75%

Projected Annual Data

Dividend Payout Ratio		[30]	[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]
Company	Ticker	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
American Electric Power	AEP	62.00%	60.00%	58.00%	56.00%	54.00%	56.70%	59.40%	62.10%	64.80%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Cleco Corp.	CNL	42.00%	45.50%	49.00%	52.50%	56.00%	58.30%	60.60%	62.90%	65.20%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
DPL, Inc.	DPL	51.00%	51.25%	51.50%	51.75%	52.00%	55.10%	58.20%	61.30%	64.40%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Empire District Electric	EDE	101.00%	94.50%	88.00%	81.50%	75.00%	73.50%	72.00%	70.50%	69.00%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
IDACORP, Inc.	IDA	44.00%	44.50%	45.00%	45.50%	46.00%	50.30%	54.60%	58.90%	63.20%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Northeast Utilities	NU	55.00%	54.75%	54.50%	54.25%	54.00%	56.70%	59.40%	62.10%	64.80%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Pinnacle West Capital	PNW	72.00%	70.25%	68.50%	66.75%	65.00%	65.50%	66.00%	66.50%	67.00%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Portland General	POR	77.00%	73.00%	69.00%	65.00%	61.00%	62.30%	63.60%	64.90%	66.20%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Progress Energy	PGN	83.00%	80.50%	78.00%	75.50%	73.00%	71.90%	70.80%	69.70%	68.60%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Southern Co.	SO	74.00%	72.50%	71.00%	69.50%	68.00%	67.90%	67.80%	67.70%	67.60%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Westar Energy	WR	70.00%	67.75%	65.50%	63.25%	61.00%	62.30%	63.60%	64.90%	66.20%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%

Projected Annual Data

Dividends per Share & Terminal Market Value		[45]	[46]	[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]
Company	Ticker	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Terminal Price	Terminal P/E Ratio
American Electric Power	AEP	\$ 1.91	\$ 1.92	\$ 1.93	\$ 1.94	\$ 1.94	\$ 2.12	\$ 2.33	\$ 2.55	\$ 2.80	\$ 3.07	\$ 3.25	\$ 3.43	\$ 3.63	\$ 3.84	\$ 4.06	\$ 79.83	13.26
Cleco Corp.	CNL	\$ 0.78	\$ 0.90	\$ 1.03	\$ 1.17	\$ 1.32	\$ 1.45	\$ 1.60	\$ 1.76	\$ 1.93	\$ 2.12	\$ 2.24	\$ 2.37	\$ 2.50	\$ 2.65	\$ 2.80	\$ 56.21	13.56
DPL, Inc.	DPL	\$ 1.09	\$ 1.16	\$ 1.24	\$ 1.32	\$ 1.41	\$ 1.59	\$ 1.78	\$ 1.99	\$ 2.21	\$ 2.45	\$ 2.59	\$ 2.74	\$ 2.90	\$ 3.06	\$ 3.24	\$ 68.83	14.33
Empire District Electric	EDE	\$ 1.27	\$ 1.26	\$ 1.25	\$ 1.24	\$ 1.21	\$ 1.26	\$ 1.32	\$ 1.37	\$ 1.42	\$ 1.47	\$ 1.55	\$ 1.64	\$ 1.74	\$ 1.84	\$ 1.94	\$ 47.77	16.59
IDACORP, Inc.	IDA	\$ 1.21	\$ 1.28	\$ 1.36	\$ 1.43	\$ 1.51	\$ 1.73	\$ 1.97	\$ 2.24	\$ 2.53	\$ 2.85	\$ 3.02	\$ 3.19	\$ 3.37	\$ 3.57	\$ 3.77	\$ 72.64	13.00
Northeast Utilities	NU	\$ 1.12	\$ 1.18	\$ 1.25	\$ 1.32	\$ 1.40	\$ 1.56	\$ 1.74	\$ 1.92	\$ 2.13	\$ 2.35	\$ 2.48	\$ 2.62	\$ 2.77	\$ 2.93	\$ 3.10	\$ 65.27	14.20
Pinnacle West Capital	PNW	\$ 1.73	\$ 1.80	\$ 1.87	\$ 1.94	\$ 2.01	\$ 2.15	\$ 2.30	\$ 2.46	\$ 2.63	\$ 2.80	\$ 2.96	\$ 3.13	\$ 3.31	\$ 3.50	\$ 3.70	\$ 75.09	13.68
Portland General	POR	\$ 1.07	\$ 1.07	\$ 1.08	\$ 1.07	\$ 1.07	\$ 1.15	\$ 1.25	\$ 1.35	\$ 1.45	\$ 1.57	\$ 1.66	\$ 1.75	\$ 1.86	\$ 1.96	\$ 2.08	\$ 38.43	12.50
Progress Energy	PGN	\$ 2.57	\$ 2.59	\$ 2.60	\$ 2.61	\$ 2.62	\$ 2.68	\$ 2.76	\$ 2.84	\$ 2.94	\$ 3.05	\$ 3.23	\$ 3.41	\$ 3.61	\$ 3.82	\$ 4.04	\$ 75.93	12.70
Southern Co.	SO	\$ 1.80	\$ 1.85	\$ 1.90	\$ 1.95	\$ 2.00	\$ 2.10	\$ 2.21	\$ 2.32	\$ 2.44	\$ 2.58	\$ 2.72	\$ 2.88	\$ 3.05	\$ 3.22	\$ 3.41	\$ 51.91	10.28
Westar Energy	WR	\$ 0.97	\$ 1.02	\$ 1.06	\$ 1.11	\$ 1.16	\$ 1.28	\$ 1.40	\$ 1.53	\$ 1.67	\$ 1.80	\$ 1.91	\$ 2.02	\$ 2.13	\$ 2.25	\$ 2.38	\$ 48.75	13.80
Median																	13.56	

Projected Annual Data

Investor Cash Flows		[62]	[63]	[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]
Company	Ticker	Initial Outflow	8/13/10	2/13/11	2/13/12	2/13/13	2/13/14	2/13/15	2/13/16	2/13/17	2/13/18	2/13/19	2/13/20	2/13/21	2/13/22	2/13/23	2/13/24	2/13/25
American Electric Power	AEP	(\$33.77)	\$0.00	\$ 1.91	\$ 1.92	\$ 1.93	\$ 1.94	\$ 1.94	\$ 2.12	\$ 2.33	\$ 2.55	\$ 2.80	\$ 3.07	\$ 3.25	\$ 3.43	\$ 3.63	\$ 3.84	\$ 83.89
Cleco Corp.	CNL	(\$27.22)	\$0.00	\$ 0.78	\$ 0.90	\$ 1.03	\$ 1.17	\$ 1.32	\$ 1.45	\$ 1.60	\$ 1.76	\$ 1.93	\$ 2.12	\$ 2.24	\$ 2.37	\$ 2.50	\$ 2.65	\$ 59.00
DPL, Inc.	DPL	(\$25.85)	\$0.00	\$ 1.09	\$ 1.16	\$ 1.24	\$ 1.32	\$ 1.41	\$ 1.59	\$ 1.78	\$ 1.99	\$ 2.21	\$ 2.45	\$ 2.59	\$ 2.74	\$ 2.90	\$ 3.06	\$ 72.07
Empire District Electric	EDE	(\$19.06)	\$0.00	\$ 1.27	\$ 1.26	\$ 1.25	\$ 1.24	\$ 1.21	\$ 1.26	\$ 1.32	\$ 1.37	\$ 1.42	\$ 1.47	\$ 1.55	\$ 1.64	\$ 1.74	\$ 1.84	\$ 49.71
IDACORP, Inc.	IDA	(\$34.58)	\$0.00	\$ 1.21	\$ 1.28	\$ 1.36	\$ 1.43	\$ 1.51	\$ 1.73	\$ 1.97	\$ 2.24	\$ 2.53	\$ 2.85	\$ 3.02	\$ 3.19	\$ 3.37	\$ 3.57	\$ 76.41
Northeast Utilities	NU	(\$26.99)	\$0.00	\$ 1.12	\$ 1.18	\$ 1.25	\$ 1.32	\$ 1.40	\$ 1.56	\$ 1.74	\$ 1.92	\$ 2.13	\$ 2.35	\$ 2.48	\$ 2.62	\$ 2.77	\$ 2.93	\$ 68.37
Pinnacle West Capital	PNW	(\$37.26)	\$0.00	\$ 1.73	\$ 1.80	\$ 1.87	\$ 1.94	\$ 2.01	\$ 2.15	\$ 2.30	\$ 2.46	\$ 2.63	\$ 2.80	\$ 2.96	\$ 3.13	\$ 3.31	\$ 3.50	\$ 78.80
Portland General	POR	(\$19.21)	\$0.00	\$ 1.07	\$ 1.07	\$ 1.08	\$ 1.07	\$ 1.07	\$ 1.15	\$ 1.25	\$ 1.35	\$ 1.45	\$ 1.57	\$ 1.66	\$ 1.75	\$ 1.86	\$ 1.96	\$ 40.51
Progress Energy	PGN	(\$40.03)	\$0.00	\$ 2.57	\$ 2.59	\$ 2.60	\$ 2.61	\$ 2.62	\$ 2.68	\$ 2.76	\$ 2.84	\$ 2.94	\$ 3.05	\$ 3.23	\$ 3.41	\$ 3.61	\$ 3.82	\$ 79.96
Southern Co.	SO	(\$34.31)	\$0.00	\$ 1.80	\$ 1.85	\$ 1.90	\$ 1.95	\$ 2.00	\$ 2.10	\$ 2.21	\$ 2.32	\$ 2.44	\$ 2.58	\$ 2.72	\$ 2.88	\$ 3.05	\$ 3.22	\$ 55.31
Westar Energy	WR	(\$22.85)	\$0.00	\$ 0.97	\$ 1.02	\$ 1.06	\$ 1.11	\$ 1.16	\$ 1.28	\$ 1.40	\$ 1.53	\$ 1.67	\$ 1.80	\$ 1.91	\$ 2.02	\$ 2.13	\$ 2.25	\$ 51.13

MULTI-STAGE DCF MODEL - 180-DAY AVERAGE PRICE
 TERMINAL VALUE - LONG-TERM PROJECTED PRICE-TO-EARNINGS RATIO

Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	
Company	Ticker	Stock	EPS	GDP	Payout Ratio			Solver Cells		Near Term			Intermediate	Long Term
		Price	Growth	Growth	2010	2014	2024	Delta	k(e)	Solution	Growth	Growth	Growth	
American Electric Power	AEP	\$ 34.11	3.89%	5.75%	62.00%	54.00%	67.50%	\$ 0.00	11.52%	11.52%	3.89%	4.82%	5.75%	
Cleco Corp.	CNL	\$ 26.80	6.00%	5.75%	42.00%	56.00%	67.50%	\$ (0.00)	9.78%	9.78%	6.00%	5.88%	5.75%	
DPL, Inc.	DPL	\$ 26.67	6.20%	5.75%	51.00%	52.00%	67.50%	\$ 0.00	11.62%	11.62%	6.20%	5.98%	5.75%	
Empire District Electric	EDE	\$ 18.77	6.50%	5.75%	101.00%	75.00%	67.50%	\$ (0.00)	12.15%	12.15%	6.50%	6.13%	5.75%	
IDACORP, Inc.	IDA	\$ 33.61	4.50%	5.75%	44.00%	46.00%	67.50%	\$ (0.00)	10.15%	10.15%	4.50%	5.13%	5.75%	
Northeast Utilities	NU	\$ 26.52	6.30%	5.75%	55.00%	54.00%	67.50%	\$ (0.00)	11.30%	11.30%	6.30%	6.03%	5.75%	
Pinnacle West Capital	PNW	\$ 37.11	6.43%	5.75%	72.00%	65.00%	67.50%	\$ 0.00	10.03%	10.03%	6.43%	6.09%	5.75%	
Portland General	POR	\$ 19.46	5.95%	5.75%	77.00%	61.00%	67.50%	\$ (0.00)	10.29%	10.29%	5.95%	5.85%	5.75%	
Progress Energy	PGN	\$ 39.80	3.71%	5.75%	83.00%	73.00%	67.50%	\$ 0.00	10.55%	10.55%	3.71%	4.73%	5.75%	
Southern Co.	SO	\$ 33.55	4.89%	5.75%	74.00%	68.00%	67.50%	\$ (0.00)	9.09%	9.09%	4.89%	5.32%	5.75%	
Westar Energy	WR	\$ 22.32	8.26%	5.75%	70.00%	61.00%	67.50%	\$ (0.00)	10.47%	10.47%	8.26%	7.01%	5.75%	
MEAN:		\$ 28.98	5.69%	5.75%	66.45%	60.45%	67.50%			10.63%	5.69%	5.72%	5.75%	

Projected Annual Data

Earnings per Share		[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]
Company	Ticker	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Terminal
																		Growth
American Electric Power	AEP	\$ 2.97	\$ 3.09	\$ 3.21	\$ 3.33	\$ 3.46	\$ 3.59	\$ 3.75	\$ 3.92	\$ 4.10	\$ 4.31	\$ 4.55	\$ 4.81	\$ 5.09	\$ 5.38	\$ 5.69	\$ 6.02	5.75%
Cleco Corp.	CNL	\$ 1.76	\$ 1.87	\$ 1.98	\$ 2.10	\$ 2.22	\$ 2.36	\$ 2.50	\$ 2.64	\$ 2.80	\$ 2.96	\$ 3.13	\$ 3.31	\$ 3.50	\$ 3.71	\$ 3.92	\$ 4.15	5.75%
DPL, Inc.	DPL	\$ 2.01	\$ 2.13	\$ 2.27	\$ 2.41	\$ 2.56	\$ 2.72	\$ 2.88	\$ 3.06	\$ 3.24	\$ 3.43	\$ 3.63	\$ 3.84	\$ 4.06	\$ 4.29	\$ 4.54	\$ 4.80	5.75%
Empire District Electric	EDE	\$ 1.18	\$ 1.26	\$ 1.34	\$ 1.43	\$ 1.52	\$ 1.62	\$ 1.72	\$ 1.83	\$ 1.94	\$ 2.06	\$ 2.18	\$ 2.30	\$ 2.43	\$ 2.57	\$ 2.72	\$ 2.88	5.75%
IDACORP, Inc.	IDA	\$ 2.64	\$ 2.76	\$ 2.88	\$ 3.01	\$ 3.15	\$ 3.29	\$ 3.44	\$ 3.61	\$ 3.80	\$ 4.00	\$ 4.22	\$ 4.47	\$ 4.72	\$ 5.00	\$ 5.28	\$ 5.59	5.75%
Northeast Utilities	NU	\$ 1.91	\$ 2.03	\$ 2.16	\$ 2.29	\$ 2.44	\$ 2.59	\$ 2.75	\$ 2.92	\$ 3.10	\$ 3.28	\$ 3.47	\$ 3.67	\$ 3.89	\$ 4.11	\$ 4.35	\$ 4.60	5.75%
Pinnacle West Capital	PNW	\$ 2.26	\$ 2.41	\$ 2.56	\$ 2.72	\$ 2.90	\$ 3.09	\$ 3.28	\$ 3.49	\$ 3.70	\$ 3.92	\$ 4.15	\$ 4.39	\$ 4.64	\$ 4.91	\$ 5.19	\$ 5.49	5.75%
Portland General	POR	\$ 1.31	\$ 1.39	\$ 1.47	\$ 1.56	\$ 1.65	\$ 1.75	\$ 1.85	\$ 1.96	\$ 2.08	\$ 2.20	\$ 2.32	\$ 2.46	\$ 2.60	\$ 2.75	\$ 2.91	\$ 3.07	5.75%
Progress Energy	PGN	\$ 2.99	\$ 3.10	\$ 3.22	\$ 3.34	\$ 3.46	\$ 3.59	\$ 3.73	\$ 3.90	\$ 4.08	\$ 4.29	\$ 4.52	\$ 4.78	\$ 5.06	\$ 5.35	\$ 5.65	\$ 5.98	5.75%
Southern Co.	SO	\$ 2.32	\$ 2.43	\$ 2.55	\$ 2.68	\$ 2.81	\$ 2.95	\$ 3.09	\$ 3.25	\$ 3.43	\$ 3.61	\$ 3.82	\$ 4.04	\$ 4.27	\$ 4.51	\$ 4.77	\$ 5.05	5.75%
Westar Energy	WR	\$ 1.28	\$ 1.39	\$ 1.50	\$ 1.62	\$ 1.76	\$ 1.90	\$ 2.05	\$ 2.21	\$ 2.36	\$ 2.52	\$ 2.67	\$ 2.82	\$ 2.99	\$ 3.16	\$ 3.34	\$ 3.53	5.75%

Projected Annual Data

Dividend Payout Ratio		[30]	[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]
Company	Ticker	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
American Electric Power	AEP	62.00%	60.00%	58.00%	56.00%	54.00%	56.70%	59.40%	62.10%	64.80%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Cleco Corp.	CNL	42.00%	45.50%	49.00%	52.50%	56.00%	58.30%	60.60%	62.90%	65.20%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
DPL, Inc.	DPL	51.00%	51.25%	51.50%	51.75%	52.00%	55.10%	58.20%	61.30%	64.40%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Empire District Electric	EDE	101.00%	94.50%	88.00%	81.50%	75.00%	73.50%	72.00%	70.50%	69.00%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
IDACORP, Inc.	IDA	44.00%	44.50%	45.00%	45.50%	46.00%	50.30%	54.60%	58.90%	63.20%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Northeast Utilities	NU	55.00%	54.75%	54.50%	54.25%	54.00%	56.70%	59.40%	62.10%	64.80%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Pinnacle West Capital	PNW	72.00%	70.25%	68.50%	66.75%	65.00%	65.50%	66.00%	66.50%	67.00%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Portland General	POR	77.00%	73.00%	69.00%	65.00%	61.00%	62.30%	63.60%	64.90%	66.20%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Progress Energy	PGN	83.00%	80.50%	78.00%	75.50%	73.00%	71.90%	70.80%	69.70%	68.60%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Southern Co.	SO	74.00%	72.50%	71.00%	69.50%	68.00%	67.90%	67.80%	67.70%	67.60%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Westar Energy	WR	70.00%	67.75%	65.50%	63.25%	61.00%	62.30%	63.60%	64.90%	66.20%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%

Projected Annual Data

Dividends per Share & Terminal Market Value		[45]	[46]	[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]
Company	Ticker	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Terminal Price	Terminal P/E Ratio
American Electric Power	AEP	\$ 1.91	\$ 1.92	\$ 1.93	\$ 1.94	\$ 1.94	\$ 2.12	\$ 2.33	\$ 2.55	\$ 2.80	\$ 3.07	\$ 3.25	\$ 3.43	\$ 3.63	\$ 3.84	\$ 4.06	\$ 79.83	13.26
Cleco Corp.	CNL	\$ 0.78	\$ 0.90	\$ 1.03	\$ 1.17	\$ 1.32	\$ 1.45	\$ 1.60	\$ 1.76	\$ 1.93	\$ 2.12	\$ 2.24	\$ 2.37	\$ 2.50	\$ 2.65	\$ 2.80	\$ 56.21	13.56
DPL, Inc.	DPL	\$ 1.09	\$ 1.16	\$ 1.24	\$ 1.32	\$ 1.41	\$ 1.59	\$ 1.78	\$ 1.99	\$ 2.21	\$ 2.45	\$ 2.59	\$ 2.74	\$ 2.90	\$ 3.06	\$ 3.24	\$ 68.83	14.33
Empire District Electric	EDE	\$ 1.27	\$ 1.26	\$ 1.25	\$ 1.24	\$ 1.21	\$ 1.26	\$ 1.32	\$ 1.37	\$ 1.42	\$ 1.47	\$ 1.55	\$ 1.64	\$ 1.74	\$ 1.84	\$ 1.94	\$ 47.77	16.59
IDACORP, Inc.	IDA	\$ 1.21	\$ 1.28	\$ 1.36	\$ 1.43	\$ 1.51	\$ 1.73	\$ 1.97	\$ 2.24	\$ 2.53	\$ 2.85	\$ 3.02	\$ 3.19	\$ 3.37	\$ 3.57	\$ 3.77	\$ 72.64	13.00
Northeast Utilities	NU	\$ 1.12	\$ 1.18	\$ 1.25	\$ 1.32	\$ 1.40	\$ 1.56	\$ 1.74	\$ 1.92	\$ 2.13	\$ 2.35	\$ 2.48	\$ 2.62	\$ 2.77	\$ 2.93	\$ 3.10	\$ 65.27	14.20
Pinnacle West Capital	PNW	\$ 1.73	\$ 1.80	\$ 1.87	\$ 1.94	\$ 2.01	\$ 2.15	\$ 2.30	\$ 2.46	\$ 2.63	\$ 2.80	\$ 2.96	\$ 3.13	\$ 3.31	\$ 3.50	\$ 3.70	\$ 75.09	13.68
Portland General	POR	\$ 1.07	\$ 1.07	\$ 1.08	\$ 1.07	\$ 1.07	\$ 1.15	\$ 1.25	\$ 1.35	\$ 1.45	\$ 1.57	\$ 1.66	\$ 1.75	\$ 1.86	\$ 1.96	\$ 2.08	\$ 38.43	12.50
Progress Energy	PGN	\$ 2.57	\$ 2.59	\$ 2.60	\$ 2.61	\$ 2.62	\$ 2.68	\$ 2.76	\$ 2.84	\$ 2.94	\$ 3.05	\$ 3.23	\$ 3.41	\$ 3.61	\$ 3.82	\$ 4.04	\$ 75.93	12.70
Southern Co.	SO	\$ 1.80	\$ 1.85	\$ 1.90	\$ 1.95	\$ 2.00	\$ 2.10	\$ 2.21	\$ 2.32	\$ 2.44	\$ 2.58	\$ 2.72	\$ 2.88	\$ 3.05	\$ 3.22	\$ 3.41	\$ 51.91	10.28
Westar Energy	WR	\$ 0.97	\$ 1.02	\$ 1.06	\$ 1.11	\$ 1.16	\$ 1.28	\$ 1.40	\$ 1.53	\$ 1.67	\$ 1.80	\$ 1.91	\$ 2.02	\$ 2.13	\$ 2.25	\$ 2.38	\$ 48.75	13.80
																	Median	13.56

Projected Annual Data

Investor Cash Flows		[62]	[63]	[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]
Company	Ticker	Initial Outflow	8/13/10	2/13/11	2/13/12	2/13/13	2/13/14	2/13/15	2/13/16	2/13/17	2/13/18	2/13/19	2/13/20	2/13/21	2/13/22	2/13/23	2/13/24	2/13/25
American Electric Power	AEP	(\$34.11)	\$0.00	\$ 1.91	\$ 1.92	\$ 1.93	\$ 1.94	\$ 1.94	\$ 2.12	\$ 2.33	\$ 2.55	\$ 2.80	\$ 3.07	\$ 3.25	\$ 3.43	\$ 3.63	\$ 3.84	\$ 83.89
Cleco Corp.	CNL	(\$26.80)	\$0.00	\$ 0.78	\$ 0.90	\$ 1.03	\$ 1.17	\$ 1.32	\$ 1.45	\$ 1.60	\$ 1.76	\$ 1.93	\$ 2.12	\$ 2.24	\$ 2.37	\$ 2.50	\$ 2.65	\$ 59.00
DPL, Inc.	DPL	(\$26.67)	\$0.00	\$ 1.09	\$ 1.16	\$ 1.24	\$ 1.32	\$ 1.41	\$ 1.59	\$ 1.78	\$ 1.99	\$ 2.21	\$ 2.45	\$ 2.59	\$ 2.74	\$ 2.90	\$ 3.06	\$ 72.07
Empire District Electric	EDE	(\$18.77)	\$0.00	\$ 1.27	\$ 1.26	\$ 1.25	\$ 1.24	\$ 1.21	\$ 1.26	\$ 1.32	\$ 1.37	\$ 1.42	\$ 1.47	\$ 1.55	\$ 1.64	\$ 1.74	\$ 1.84	\$ 49.71
IDACORP, Inc.	IDA	(\$33.61)	\$0.00	\$ 1.21	\$ 1.28	\$ 1.36	\$ 1.43	\$ 1.51	\$ 1.73	\$ 1.97	\$ 2.24	\$ 2.53	\$ 2.85	\$ 3.02	\$ 3.19	\$ 3.37	\$ 3.57	\$ 76.41
Northeast Utilities	NU	(\$26.52)	\$0.00	\$ 1.12	\$ 1.18	\$ 1.25	\$ 1.32	\$ 1.40	\$ 1.56	\$ 1.74	\$ 1.92	\$ 2.13	\$ 2.35	\$ 2.48	\$ 2.62	\$ 2.77	\$ 2.93	\$ 68.37
Pinnacle West Capital	PNW	(\$37.11)	\$0.00	\$ 1.73	\$ 1.80	\$ 1.87	\$ 1.94	\$ 2.01	\$ 2.15	\$ 2.30	\$ 2.46	\$ 2.63	\$ 2.80	\$ 2.96	\$ 3.13	\$ 3.31	\$ 3.50	\$ 78.80
Portland General	POR	(\$19.47)	\$0.00	\$ 1.07	\$ 1.07	\$ 1.08	\$ 1.07	\$ 1.07	\$ 1.15	\$ 1.25	\$ 1.35	\$ 1.45	\$ 1.57	\$ 1.66	\$ 1.75	\$ 1.86	\$ 1.96	\$ 40.51
Progress Energy	PGN	(\$39.80)	\$0.00	\$ 2.57	\$ 2.59	\$ 2.60	\$ 2.61	\$ 2.62	\$ 2.68	\$ 2.76	\$ 2.84	\$ 2.94	\$ 3.05	\$ 3.23	\$ 3.41	\$ 3.61	\$ 3.82	\$ 79.96
Southern Co.	SO	(\$33.55)	\$0.00	\$ 1.80	\$ 1.85	\$ 1.90	\$ 1.95	\$ 2.00	\$ 2.10	\$ 2.21	\$ 2.32	\$ 2.44	\$ 2.58	\$ 2.72	\$ 2.88	\$ 3.05	\$ 3.22	\$ 55.31
Westar Energy	WR	(\$22.32)	\$0.00	\$ 0.97	\$ 1.02	\$ 1.06	\$ 1.11	\$ 1.16	\$ 1.28	\$ 1.40	\$ 1.53	\$ 1.67	\$ 1.80	\$ 1.91	\$ 2.02	\$ 2.13	\$ 2.25	\$ 51.13

Notes to the Multi-Stage DCF Model Exhibit

- [1] Source: (Exhibit-RBH-1)
- [2] Source: First Call, Value Line & Zacks; equals average earnings growth estimate
- [3] Sources: Blue Chip Financial Forecast, Vol. 29, No. 6, June 1, 2010, at 14.
EIA 2010 Annual Energy Outlook, Table A20, March 2010.
Bureau of Economic Analysis, July 30, 2010 update: <http://www.bea.gov/national/xls/gdplev.xls>
- [4] Source: Value Line
- [5] Source: Value Line
- [6] Source: Bloomberg; equals historical average median payout ratio
- [7] Equals Column [1] + Column [62]
- [8] Equals result of Excel Solver function; goal - Column [7] equals \$0.00
- [9] Equals Column [8]
- [10] Equals $((\text{Column [18]} / \text{Column [14]})^{1 / (2014 - 2010)}) - 1$
- [11] Equals $((\text{Column [23]} / \text{Column [18]})^{1 / (2019 - 2014)}) - 1$
- [12] Equals $((\text{Column [28]} / \text{Column [23]})^{1 / (2024 - 2019)}) - 1$
- [13] Source: Value Line
- [14] Equals Column [13] x (1 + Column [2])
- [15] Equals Column [14] x (1 + Column [2])
- [16] Equals Column [15] x (1 + Column [2])
- [17] Equals Column [16] x (1 + Column [2])
- [18] Equals Column [17] x (1 + Column [2])
- [19] Equals $(1 + (\text{Column [2]} + (((\text{Column [3]} - \text{Column [2]} / (2019 - 2014 + 1)) \times (2015 - 2014)))) \times \text{Column [18]}$
- [20] Equals $(1 + (\text{Column [2]} + (((\text{Column [3]} - \text{Column [2]} / (2019 - 2014 + 1)) \times (2016 - 2014)))) \times \text{Column [19]}$
- [21] Equals $(1 + (\text{Column [2]} + (((\text{Column [3]} - \text{Column [2]} / (2019 - 2014 + 1)) \times (2017 - 2014)))) \times \text{Column [20]}$
- [22] Equals $(1 + (\text{Column [2]} + (((\text{Column [3]} - \text{Column [2]} / (2019 - 2014 + 1)) \times (2018 - 2014)))) \times \text{Column [21]}$
- [23] Equals $(1 + (\text{Column [2]} + (((\text{Column [3]} - \text{Column [2]} / (2019 - 2014 + 1)) \times (2019 - 2014)))) \times \text{Column [22]}$
- [24] Equals Column [23] x (1 + Column [3])
- [25] Equals Column [24] x (1 + Column [3])
- [26] Equals Column [25] x (1 + Column [3])
- [27] Equals Column [26] x (1 + Column [3])
- [28] Equals Column [27] x (1 + Column [3])
- [29] Equals $(\text{Column [28]} / \text{Column [27]}) - 1$
- [30] Equals Column [4]
- [31] Equals $\text{Column [30]} + ((\text{Column [34]} - \text{Column [30]}) / 4)$
- [32] Equals $\text{Column [31]} + ((\text{Column [34]} - \text{Column [30]}) / 4)$
- [33] Equals $\text{Column [32]} + ((\text{Column [34]} - \text{Column [30]}) / 4)$
- [34] Equals Column [5]
- [35] Equals $\text{Column [34]} + ((\text{Column [39]} - \text{Column [34]}) / 5)$
- [36] Equals $\text{Column [35]} + ((\text{Column [39]} - \text{Column [34]}) / 5)$
- [37] Equals $\text{Column [36]} + ((\text{Column [39]} - \text{Column [34]}) / 5)$
- [38] Equals $\text{Column [37]} + ((\text{Column [39]} - \text{Column [34]}) / 5)$
- [39] Equals Column [6]
- [40] Equals Column [39]
- [41] Equals Column [40]
- [42] Equals Column [41]
- [43] Equals Column [42]
- [44] Equals Column [43]
- [45] Equals Column [14] x Column [30]
- [46] Equals Column [15] x Column [31]
- [47] Equals Column [16] x Column [32]
- [48] Equals Column [17] x Column [33]
- [49] Equals Column [18] x Column [34]
- [50] Equals Column [19] x Column [35]
- [51] Equals Column [20] x Column [36]
- [52] Equals Column [21] x Column [37]
- [53] Equals Column [22] x Column [38]
- [54] Equals Column [23] x Column [39]
- [55] Equals Column [24] x Column [40]
- [56] Equals Column [25] x Column [41]
- [57] Equals Column [26] x Column [42]
- [58] Equals Column [27] x Column [43]
- [59] Equals Column [28] x Column [44]
- [60] Equals $(\text{Column [59]} \times (1 + \text{Column [3]}) / (\text{Column [9]} - \text{Column [3]})$ or Equals $(\text{Column [59]} \times \text{Long-term historical company median P/E ratio})$
- [61] Equals $\text{Column [60]} / \text{Column [28]}$
- [62] Equals negative net present value; discount rate equals Column [8], cash flows equal Column [63] through Column [78]
- [63] Equals projected current cash flows (\$0.00), establishing date of valuation
- [64] Equals Column [45]
- [65] Equals Column [46]
- [66] Equals Column [47]
- [67] Equals Column [48]
- [68] Equals Column [49]
- [69] Equals Column [50]
- [70] Equals Column [51]
- [71] Equals Column [52]
- [72] Equals Column [53]
- [73] Equals Column [54]
- [74] Equals Column [55]
- [75] Equals Column [56]
- [76] Equals Column [57]
- [77] Equals Column [58]
- [78] Equals $\text{Column [59]} + \text{Column [60]}$

AVERAGE HISTORICAL BETAS
VALUE LINE AND BLOOMBERG

		Value Line	Bloomberg	Average
American Electric Power	AEP	0.70	0.83	0.76
Cleco Corp.	CNL	0.65	0.72	0.69
DPL, Inc.	DPL	0.60	0.71	0.66
Empire District Electric	EDE	0.70	0.75	0.73
IDACORP, Inc.	IDA	0.70	0.76	0.73
Northeast Utilities	NU	0.70	0.74	0.72
Pinnacle West Capital	PNW	0.75	0.83	0.79
Portland General	POR	0.75	0.75	0.75
Progress Energy	PGN	0.60	0.67	0.63
Southern Co.	SO	0.55	0.57	0.56
Westar Energy	WR	0.75	0.81	0.78
Average Beta		0.68	0.74	0.71

Sources: Value Line and Bloomberg

BETA ANALYSIS												
Date	AEP			CNL			DPL			EDE		
	Price	Return	Covar.									
08/13/2010	35.52	-1.28%	0.074%	28.19	-2.22%	0.076%	25.33	-1.25%	0.073%	19.81	-0.40%	0.061%
08/06/2010	35.98	0.00%	0.071%	28.83	0.98%	0.071%	25.65	1.34%	0.072%	19.89	1.22%	0.061%
07/30/2010	35.98	0.50%	0.072%	28.55	-0.73%	0.072%	25.31	-2.39%	0.071%	19.65	-0.51%	0.061%
07/23/2010	35.80	2.99%	0.074%	28.76	4.13%	0.072%	25.93	4.39%	0.072%	19.75	2.28%	0.062%
07/16/2010	34.76	-0.23%	0.072%	27.62	-0.93%	0.073%	24.84	-1.93%	0.071%	19.31	-0.92%	0.061%
07/09/2010	34.84	7.56%	0.072%	27.88	6.66%	0.072%	25.33	4.84%	0.070%	19.49	3.40%	0.061%
07/02/2010	32.39	-1.82%	0.058%	26.14	-0.68%	0.055%	24.16	0.00%	0.060%	18.85	-0.53%	0.052%
06/25/2010	32.99	-3.14%	0.055%	26.32	-2.81%	0.055%	24.16	-5.66%	0.061%	18.95	-1.04%	0.051%
06/18/2010	34.06	4.96%	0.051%	27.08	4.64%	0.053%	25.61	4.32%	0.054%	19.15	4.64%	0.049%
06/11/2010	32.45	4.27%	0.047%	25.88	0.82%	0.048%	24.55	1.24%	0.050%	18.30	2.12%	0.046%
06/04/2010	31.12	-2.63%	0.043%	25.67	-3.02%	0.048%	24.25	-3.15%	0.048%	17.92	-1.75%	0.043%
05/28/2010	31.96	1.59%	0.044%	26.47	0.76%	0.046%	25.04	-0.08%	0.048%	18.24	0.66%	0.044%
05/21/2010	31.46	-4.67%	0.044%	26.27	-4.02%	0.046%	25.06	-6.42%	0.048%	18.12	-5.77%	0.044%
05/14/2010	33.00	3.38%	0.036%	27.37	5.31%	0.039%	26.78	2.33%	0.038%	19.23	5.20%	0.034%
05/07/2010	31.92	-6.94%	0.035%	25.99	-5.15%	0.037%	26.17	-7.13%	0.038%	18.28	-6.30%	0.029%
04/30/2010	34.30	0.82%	0.019%	27.40	-1.08%	0.022%	28.18	1.04%	0.026%	19.51	-0.26%	0.014%
04/23/2010	34.02	0.86%	0.023%	27.70	3.71%	0.022%	27.89	2.46%	0.029%	19.56	4.65%	0.017%
04/16/2010	33.73	-1.58%	0.024%	26.71	0.75%	0.021%	27.22	-0.91%	0.029%	18.69	2.35%	0.014%
04/09/2010	34.27	-0.64%	0.025%	26.51	-0.93%	0.021%	27.47	0.07%	0.029%	18.26	0.88%	0.014%
04/02/2010	34.49	1.17%	0.026%	26.76	2.02%	0.028%	27.45	1.59%	0.032%	18.10	0.78%	0.019%
03/26/2010	34.09	-1.25%	0.028%	26.23	-1.43%	0.030%	27.02	-2.10%	0.035%	17.96	-1.59%	0.019%
03/19/2010	34.52	1.23%	0.032%	26.61	0.11%	0.031%	27.60	0.91%	0.036%	18.25	0.77%	0.020%
03/12/2010	34.10	-0.44%	0.035%	26.58	2.11%	0.033%	27.35	0.44%	0.040%	18.11	-0.88%	0.021%
03/05/2010	34.25	1.87%	0.034%	26.03	3.13%	0.033%	27.23	2.60%	0.039%	18.27	2.01%	0.019%
02/26/2010	33.62	-1.03%	0.034%	25.24	-3.88%	0.031%	26.54	-2.71%	0.036%	17.91	-4.22%	0.017%
02/19/2010	33.97	3.10%	0.034%	26.26	5.12%	0.030%	27.28	2.13%	0.035%	18.70	2.13%	0.016%
02/12/2010	32.95	-2.05%	0.031%	24.98	0.08%	0.026%	26.71	0.45%	0.035%	18.31	1.44%	0.014%
02/05/2010	33.64	-2.91%	0.032%	24.96	-3.70%	0.026%	26.59	-0.93%	0.035%	18.05	-1.96%	0.013%
01/29/2010	34.65	-2.17%	0.031%	25.92	0.39%	0.027%	26.84	-1.36%	0.036%	18.41	-1.07%	0.013%
01/22/2010	35.42	-1.64%	0.029%	25.82	-3.48%	0.027%	27.21	-3.92%	0.034%	18.61	-1.69%	0.011%
01/15/2010	36.01	1.12%	0.029%	26.75	0.15%	0.027%	28.32	1.29%	0.029%	18.93	1.94%	0.018%
01/08/2010	35.61	2.36%	0.038%	26.71	-2.27%	0.033%	27.96	1.30%	0.037%	18.57	-0.85%	0.025%
01/01/2010	34.79	-0.94%	0.037%	27.33	-1.51%	0.037%	27.60	-0.36%	0.038%	18.73	0.70%	0.024%
12/25/2009	35.12	0.11%	0.038%	27.75	2.25%	0.034%	27.70	-0.72%	0.039%	18.60	-0.16%	0.025%
12/18/2009	35.08	-1.41%	0.039%	27.14	1.65%	0.035%	27.90	-2.72%	0.040%	18.63	-3.27%	0.025%
12/11/2009	35.58	5.30%	0.037%	26.70	1.68%	0.036%	28.68	1.45%	0.037%	19.26	3.38%	0.025%
12/04/2009	33.79	7.10%	0.038%	26.26	2.98%	0.036%	28.27	4.90%	0.038%	18.63	3.10%	0.026%
11/27/2009	31.55	0.90%	0.037%	25.50	0.39%	0.037%	26.95	0.00%	0.037%	18.07	-0.61%	0.027%
11/20/2009	31.27	-1.11%	0.042%	25.40	1.07%	0.038%	26.95	-2.25%	0.038%	18.18	-0.11%	0.026%
11/13/2009	31.62	1.90%	0.041%	25.13	2.24%	0.039%	27.57	1.92%	0.037%	18.20	-0.66%	0.025%
11/06/2009	31.03	2.68%	0.052%	24.58	-0.69%	0.044%	27.05	6.75%	0.052%	18.32	1.44%	0.036%
10/30/2009	30.22	-1.91%	0.043%	24.75	-0.92%	0.044%	25.34	-0.94%	0.046%	18.06	-1.85%	0.036%
10/23/2009	30.81	-1.97%	0.039%	24.98	-1.89%	0.041%	25.58	-2.25%	0.043%	18.40	-0.05%	0.031%
10/16/2009	31.43	2.34%	0.040%	25.46	-0.43%	0.042%	26.17	0.42%	0.043%	18.41	-1.02%	0.031%
10/09/2009	30.71	1.12%	0.040%	25.57	4.58%	0.042%	26.06	2.60%	0.043%	18.60	3.56%	0.031%
10/02/2009	30.37	-1.97%	0.039%	24.45	-1.93%	0.036%	25.40	-3.16%	0.040%	17.96	-0.28%	0.028%
09/25/2009	30.98	-3.37%	0.036%	24.93	-1.03%	0.033%	26.23	-0.57%	0.037%	18.01	-0.55%	0.029%
09/18/2009	32.06	4.46%	0.020%	25.19	2.94%	0.038%	26.38	5.06%	0.037%	18.11	0.67%	0.030%
09/11/2009	30.69	-0.97%	0.020%	24.47	0.87%	0.038%	25.11	-0.55%	0.036%	17.99	-2.07%	0.031%
09/04/2009	30.99	-2.73%	0.024%	24.26	-1.06%	0.023%	25.25	1.32%	0.043%	18.37	0.11%	0.035%
08/28/2009	31.86	1.17%	0.060%	24.52	-1.68%	0.018%	24.92	-0.28%	0.043%	18.35	-1.40%	0.068%
08/21/2009	31.49	1.22%	0.072%	24.94	2.00%	0.011%	24.99	2.29%	0.041%	18.61	0.54%	0.092%
08/14/2009	31.11	-0.26%	0.095%	24.45	-0.37%	0.040%	24.43	-0.29%	0.067%	18.51	0.65%	0.122%
08/07/2009	31.19	0.74%	0.104%	24.54	3.59%	0.052%	24.50	2.30%	0.077%	18.39	0.22%	0.137%
07/31/2009	30.96	0.06%	0.113%	23.69	-1.04%	0.052%	23.95	-1.80%	0.083%	18.35	-1.40%	0.141%
07/24/2009	30.94	3.83%	0.114%	23.94	5.84%	0.050%	24.39	2.26%	0.084%	18.61	7.08%	0.139%
07/17/2009	29.80	4.45%	0.111%	22.62	3.19%	0.045%	23.85	4.10%	0.084%	17.38	3.08%	0.130%
07/10/2009	28.53	0.88%	0.098%	21.92	-1.39%	0.036%	22.91	-1.12%	0.076%	16.86	2.37%	0.124%
07/03/2009	28.28	-1.15%	0.106%	22.23	1.93%	0.044%	23.17	-0.56%	0.083%	16.47	-0.72%	0.131%
06/26/2009	28.61	0.85%	0.121%	21.81	-2.20%	0.062%	23.30	2.10%	0.097%	16.59	2.47%	0.144%
06/19/2009	28.37	1.32%	0.121%	22.30	0.22%	0.062%	22.82	1.42%	0.096%	16.19	-0.92%	0.145%
06/12/2009	28.00	4.48%	0.124%	22.25	4.46%	0.062%	22.50	1.86%	0.098%	16.34	0.68%	0.144%
06/05/2009	26.80	1.75%	0.124%	21.30	4.11%	0.062%	22.09	1.52%	0.098%	16.23	3.57%	0.144%
05/29/2009	26.34	4.73%	0.126%	20.46	1.84%	0.064%	21.76	2.45%	0.096%	15.67	-0.13%	0.147%
05/22/2009	25.15	0.84%	0.157%	20.09	-3.32%	0.091%	21.24	-0.28%	0.120%	15.69	6.88%	0.151%

05/15/2009	24.94	-4.63%	0.176%	20.78	-2.21%	0.081%	21.30	-6.13%	0.138%	14.68	-3.74%	0.165%
05/08/2009	26.15	-2.93%	0.166%	21.25	-0.23%	0.074%	22.69	0.53%	0.141%	15.25	1.06%	0.161%
05/01/2009	26.94	2.98%	0.179%	21.30	-0.47%	0.085%	22.57	1.12%	0.145%	15.09	1.14%	0.160%
04/24/2009	26.16	-4.28%	0.201%	21.40	-4.25%	0.126%	22.32	-2.83%	0.159%	14.92	-1.13%	0.183%
04/17/2009	27.33	3.52%	0.194%	22.35	0.27%	0.128%	22.97	0.97%	0.156%	15.09	-0.20%	0.177%
04/10/2009	26.40	0.38%	0.207%	22.29	0.00%	0.133%	22.75	-1.04%	0.158%	15.12	1.61%	0.183%
04/03/2009	26.30	0.11%	0.348%	22.29	-0.09%	0.254%	22.99	2.09%	0.226%	14.88	2.90%	0.289%
03/27/2009	26.27	-4.72%	0.357%	22.31	4.40%	0.263%	22.52	1.21%	0.240%	14.46	2.55%	0.298%
03/20/2009	27.57	9.19%	0.369%	21.37	6.21%	0.251%	22.25	6.97%	0.237%	14.10	10.33%	0.287%
03/13/2009	25.25	1.77%	0.355%	20.12	-3.55%	0.247%	20.80	2.56%	0.236%	12.78	2.00%	0.278%
03/06/2009	24.81	-11.55%	0.346%	20.86	1.66%	0.266%	20.28	0.90%	0.220%	12.53	-9.27%	0.267%
02/27/2009	28.05	-4.79%	0.327%	20.52	3.27%	0.271%	20.10	1.72%	0.224%	13.81	-9.97%	0.253%
02/20/2009	29.46	-7.39%	0.323%	19.87	-9.02%	0.275%	19.76	-8.14%	0.227%	15.34	-9.45%	0.243%
02/13/2009	31.81	-4.24%	0.311%	21.84	-5.58%	0.258%	21.51	-4.65%	0.212%	16.94	-6.62%	0.227%
02/06/2009	33.22	5.96%	0.305%	23.13	1.23%	0.253%	22.56	4.69%	0.206%	18.14	2.14%	0.221%
01/30/2009	31.35	-1.85%	0.291%	22.85	4.58%	0.254%	21.55	-0.28%	0.192%	17.76	3.20%	0.223%
01/23/2009	31.94	-1.72%	0.290%	21.85	-2.28%	0.254%	21.61	-1.82%	0.192%	17.21	0.41%	0.224%
01/16/2009	32.50	-0.34%	0.291%	22.36	0.63%	0.255%	22.01	-0.77%	0.189%	17.14	-1.15%	0.226%
01/09/2009	32.61	-4.09%	0.290%	22.22	-5.57%	0.252%	22.18	-4.73%	0.190%	17.34	-3.18%	0.221%
01/02/2009	34.00	5.99%	0.284%	23.53	6.28%	0.243%	23.28	5.96%	0.183%	17.91	5.23%	0.215%
12/26/2008	32.08	0.53%	0.265%	22.14	0.05%	0.224%	21.97	2.14%	0.164%	17.02	-0.47%	0.199%
12/19/2008	31.91	6.97%	0.267%	22.13	3.22%	0.228%	21.51	2.48%	0.167%	17.10	1.73%	0.202%
12/12/2008	29.83	-0.27%	0.262%	21.44	-3.60%	0.224%	20.99	0.00%	0.164%	16.81	1.88%	0.201%
12/05/2008	29.91	-4.41%	0.263%	22.24	-5.64%	0.227%	20.99	0.82%	0.165%	16.50	-5.93%	0.199%
11/28/2008	31.29	7.86%	0.262%	23.57	6.27%	0.227%	20.82	6.22%	0.166%	17.54	0.52%	0.198%
11/21/2008	29.01	-6.27%	0.216%	22.18	2.69%	0.196%	19.60	-5.08%	0.128%	17.45	-4.80%	0.192%
11/14/2008	30.95	0.26%	0.205%	21.60	1.31%	0.204%	20.65	-5.88%	0.116%	18.33	-1.61%	0.181%
11/07/2008	30.87	-5.39%	0.207%	21.32	-7.34%	0.210%	21.94	-3.81%	0.108%	18.63	-3.02%	0.181%
10/31/2008	32.63	5.33%	0.203%	23.01	10.10%	0.203%	22.81	3.45%	0.105%	19.21	5.09%	0.179%
10/24/2008	30.98	2.08%	0.177%	20.90	-0.62%	0.157%	22.05	0.87%	0.090%	18.28	1.67%	0.152%
10/17/2008	30.35	8.39%	0.184%	21.03	3.14%	0.157%	21.86	1.44%	0.093%	17.98	3.10%	0.157%
10/10/2008	28.00	-21.22%	0.167%	20.39	-17.58%	0.165%	21.55	-9.61%	0.090%	17.44	-16.56%	0.160%
10/03/2008	35.54	-4.36%	0.032%	24.74	-3.02%	0.049%	23.84	-5.92%	0.027%	20.90	-6.07%	0.052%
09/26/2008	37.16	-2.67%	0.029%	25.51	-4.46%	0.042%	25.34	-2.50%	0.014%	22.25	-3.13%	0.034%
09/19/2008	38.18	-2.40%	0.026%	26.70	5.58%	0.037%	25.99	10.36%	0.011%	22.97	6.84%	0.030%
09/12/2008	39.12	4.46%	0.028%	25.29	3.82%	0.040%	23.55	-1.79%	0.011%	21.50	5.29%	0.033%
09/05/2008	37.45	-4.07%	0.027%	24.36	-3.37%	0.039%	23.98	-3.38%	0.011%	20.42	-3.22%	0.031%
08/29/2008	39.04	0.21%	0.023%	25.21	-1.68%	0.039%	24.82	1.47%	0.009%	21.10	-3.21%	0.032%
08/22/2008	38.96	1.14%	0.025%	25.64	-1.08%	0.042%	24.46	0.33%	0.011%	21.80	0.00%	0.034%
08/15/2008	38.52	-1.48%	0.025%	25.92	1.57%	0.041%	24.38	-1.93%	0.011%	21.80	2.93%	0.034%
08/08/2008	39.10	0.85%	0.025%	25.52	2.90%	0.039%	24.86	-1.07%	0.010%	21.18	4.59%	0.033%
08/01/2008	38.77	-2.24%	0.026%	24.80	1.39%	0.039%	25.13	-0.55%	0.013%	20.25	3.42%	0.026%
07/25/2008	39.66	0.48%	0.039%	24.46	3.95%	0.047%	25.27	-5.18%	0.020%	19.58	2.94%	0.027%
07/18/2008	39.47	-1.62%	0.038%	23.53	-3.96%	0.046%	26.65	-0.26%	0.019%	19.02	-3.55%	0.027%
07/11/2008	40.12	1.42%	0.050%	24.50	3.11%	0.062%	26.72	2.10%	0.028%	19.72	7.12%	0.037%
07/04/2008	39.56	-0.05%	0.051%	23.76	1.63%	0.063%	26.17	-0.15%	0.029%	18.41	-0.91%	0.041%
06/27/2008	39.58	-4.26%	0.052%	23.38	-5.54%	0.068%	26.21	-4.83%	0.034%	18.58	-5.78%	0.043%
06/20/2008	41.34	-3.39%	0.048%	24.75	0.08%	0.063%	27.54	-1.96%	0.029%	19.72	-1.30%	0.038%
06/13/2008	42.79	1.98%	0.046%	24.73	0.98%	0.064%	28.09	1.48%	0.029%	19.98	-0.70%	0.039%
06/06/2008	41.96	-0.87%	0.048%	24.49	-1.96%	0.066%	27.68	-2.60%	0.031%	20.12	-2.71%	0.039%
05/30/2008	42.33	0.47%	0.050%	24.98	1.92%	0.065%	28.42	-0.39%	0.031%	20.68	-1.19%	0.037%
05/23/2008	42.13	-2.95%	0.053%	24.51	-1.37%	0.064%	28.53	1.86%	0.034%	20.93	0.10%	0.034%
05/16/2008	43.41	-1.05%	0.049%	24.85	1.39%	0.061%	28.01	-0.95%	0.035%	20.91	1.31%	0.035%
05/09/2008	43.87	-2.71%	0.050%	24.51	-0.12%	0.060%	28.28	-0.63%	0.036%	20.64	-2.18%	0.033%
05/02/2008	45.09	1.83%	0.051%	24.54	1.70%	0.058%	28.46	3.45%	0.037%	21.10	-2.00%	0.032%
04/25/2008	44.28	-0.87%	0.051%	24.13	-0.12%	0.056%	27.51	-0.47%	0.029%	21.53	-0.28%	0.033%
04/18/2008	44.67	1.13%	0.055%	24.16	6.90%	0.060%	27.64	0.11%	0.032%	21.59	4.60%	0.039%
04/11/2008	44.17	2.96%	0.060%	22.60	0.22%	0.055%	27.61	5.42%	0.037%	20.64	0.00%	0.037%
04/04/2008	42.90	4.71%	0.063%	22.55	3.20%	0.056%	26.19	3.56%	0.042%	20.64	1.98%	0.038%
03/28/2008	40.97	0.34%	0.058%	21.85	-4.38%	0.054%	25.29	0.20%	0.036%	20.24	-2.08%	0.038%
03/21/2008	40.83	1.49%	0.059%	22.85	3.16%	0.054%	25.24	1.00%	0.036%	20.67	3.71%	0.038%
03/14/2008	40.23	-1.01%	0.059%	22.15	0.82%	0.055%	24.99	0.08%	0.036%	19.93	1.94%	0.036%
03/07/2008	40.64	-0.68%	0.061%	21.97	-4.10%	0.059%	24.97	-2.12%	0.035%	19.55	-4.68%	0.035%
02/29/2008	40.92	-3.26%	0.060%	22.91	-5.45%	0.055%	25.51	-2.86%	0.033%	20.51	-4.38%	0.031%
02/22/2008	42.30	-1.86%	0.059%	24.23	-1.06%	0.052%	26.26	-1.43%	0.032%	21.45	-1.97%	0.029%
02/15/2008	43.10	-0.14%	0.060%	24.49	-3.96%	0.057%	26.64	-3.09%	0.033%	21.88	-1.71%	0.028%
02/08/2008	43.16	-1.82%	0.060%	25.50	-1.92%	0.060%	27.49	-1.86%	0.035%	22.26	0.68%	0.028%
02/01/2008	43.96	6.36%	0.061%	26.00	4.21%	0.058%	28.01	3.02%	0.034%	22.11	0.55%	0.035%
01/25/2008	41.33	-7.79%	0.047%	24.95	-4.04%	0.050%	27.19	-4.33%	0.030%	21.99	1.66%	0.032%
01/18/2008	44.82	-6.55%	0.061%	26.00	-7.14%	0.066%	28.42	-5.17%	0.042%	21.63	-4.42%	0.047%
01/11/2008	47.96	3.61%	0.049%	28.00	3.90%	0.052%	29.97	3.52%	0.032%	22.63	0.98%	0.039%
01/04/2008	46.29	-1.26%	0.050%	26.95	-2.81%	0.053%	28.95	-3.27%	0.034%	22.41	-1.80%	0.041%

BETA ANALYSIS											
IDA			NU			PNW			POR		
Price	Return	Covar.	Price	Return	Covar.	Price	Return	Covar.	Price	Return	Covar.
35.43	-1.72%	0.091%	28.75	-0.76%	0.074%	39.50	0.41%	0.070%	19.69	-1.01%	0.073%
36.05	2.36%	0.088%	28.97	4.06%	0.072%	39.34	3.28%	0.070%	19.89	4.14%	0.071%
35.22	-2.03%	0.088%	27.84	-0.39%	0.070%	38.09	-2.43%	0.069%	19.10	0.05%	0.069%
35.95	3.51%	0.089%	27.95	3.63%	0.071%	39.04	3.17%	0.069%	19.09	3.02%	0.070%
34.73	-0.32%	0.090%	26.97	0.33%	0.069%	37.84	-0.81%	0.070%	18.53	-2.78%	0.070%
34.84	6.15%	0.089%	26.88	4.80%	0.070%	38.15	5.27%	0.069%	19.06	4.90%	0.068%
32.82	-2.23%	0.077%	25.65	-0.54%	0.060%	36.24	-0.98%	0.059%	18.17	-1.73%	0.055%
33.57	-4.03%	0.074%	25.79	-4.02%	0.060%	36.60	-2.74%	0.058%	18.49	-5.18%	0.053%
34.98	6.48%	0.070%	26.87	3.31%	0.055%	37.63	5.52%	0.054%	19.50	4.33%	0.046%
32.85	3.01%	0.064%	26.01	2.56%	0.052%	35.66	2.65%	0.049%	18.69	2.02%	0.042%
31.89	-3.51%	0.062%	25.36	-2.27%	0.049%	34.74	-1.05%	0.046%	18.32	-3.12%	0.040%
33.05	2.16%	0.059%	25.95	-0.61%	0.048%	35.11	-0.17%	0.048%	18.91	0.96%	0.040%
32.35	-6.50%	0.059%	26.11	-1.84%	0.048%	35.17	-2.76%	0.048%	18.73	-4.00%	0.040%
34.60	3.78%	0.048%	26.60	4.19%	0.045%	36.17	2.93%	0.042%	19.51	2.25%	0.034%
33.34	-7.56%	0.045%	25.53	-8.13%	0.043%	35.14	-5.89%	0.041%	19.08	-4.02%	0.033%
36.08	-1.15%	0.026%	27.79	0.11%	0.020%	37.34	-2.84%	0.029%	19.88	-1.34%	0.024%
36.50	3.49%	0.029%	27.76	1.39%	0.021%	38.43	2.43%	0.037%	20.15	3.44%	0.035%
35.27	0.60%	0.028%	27.38	-1.55%	0.022%	37.52	-1.26%	0.037%	19.48	-0.71%	0.033%
35.06	-0.17%	0.027%	27.81	-0.57%	0.021%	38.00	-0.29%	0.037%	19.62	-0.15%	0.033%
35.12	2.24%	0.031%	27.97	3.52%	0.024%	38.11	1.49%	0.045%	19.65	2.93%	0.040%
34.35	-1.91%	0.032%	27.02	-0.52%	0.027%	37.55	-0.58%	0.048%	19.09	-1.70%	0.043%
35.02	-0.26%	0.034%	27.16	1.31%	0.030%	37.77	1.18%	0.050%	19.42	1.09%	0.046%
35.11	2.27%	0.036%	26.81	1.13%	0.032%	37.33	-1.74%	0.051%	19.21	0.73%	0.049%
34.33	3.94%	0.035%	26.51	3.55%	0.031%	37.99	4.34%	0.051%	19.07	6.00%	0.051%
33.03	0.03%	0.034%	25.60	-4.01%	0.029%	36.41	-2.57%	0.049%	17.99	-6.74%	0.044%
33.02	4.00%	0.034%	26.67	6.13%	0.028%	37.37	5.86%	0.048%	19.29	1.63%	0.042%
31.75	4.06%	0.032%	25.13	-0.04%	0.023%	35.30	-0.20%	0.044%	18.98	-0.37%	0.043%
30.51	-2.68%	0.031%	25.14	-0.71%	0.023%	35.37	-1.26%	0.043%	19.05	-2.31%	0.042%
31.35	-0.60%	0.031%	25.32	-0.55%	0.023%	35.82	-0.47%	0.043%	19.50	-1.56%	0.039%
31.54	-3.04%	0.030%	25.46	-1.89%	0.022%	35.99	-3.07%	0.042%	19.81	-2.75%	0.038%
32.53	0.71%	0.028%	25.95	-0.35%	0.023%	37.13	0.57%	0.043%	20.37	1.85%	0.026%
32.30	1.10%	0.035%	26.04	0.97%	0.029%	36.92	0.93%	0.049%	20.00	-2.01%	0.035%
31.95	-2.08%	0.039%	25.79	-1.68%	0.034%	36.58	-1.43%	0.051%	20.41	-1.50%	0.037%
32.63	2.97%	0.040%	26.23	0.61%	0.032%	37.11	-0.05%	0.051%	20.72	-0.53%	0.039%
31.69	1.64%	0.038%	26.07	2.24%	0.032%	37.13	-1.56%	0.051%	20.83	-1.79%	0.040%
31.18	2.90%	0.038%	25.50	3.66%	0.034%	37.72	4.11%	0.055%	21.21	3.56%	0.035%
30.30	2.54%	0.039%	24.60	2.50%	0.035%	36.23	3.81%	0.055%	20.48	5.79%	0.036%
29.55	0.34%	0.041%	24.00	0.21%	0.035%	34.90	2.56%	0.056%	19.36	-0.15%	0.037%
29.45	1.13%	0.044%	23.95	1.01%	0.038%	34.03	2.41%	0.061%	19.39	0.78%	0.040%
29.12	1.08%	0.044%	23.71	2.64%	0.038%	33.23	1.19%	0.062%	19.24	1.21%	0.040%
28.81	2.56%	0.060%	23.10	0.22%	0.044%	32.84	4.85%	0.079%	19.01	2.26%	0.057%
28.09	-2.43%	0.057%	23.05	-0.13%	0.040%	31.32	-6.45%	0.076%	18.59	-6.77%	0.052%
28.79	-0.42%	0.052%	23.08	-2.29%	0.040%	33.48	-1.50%	0.063%	19.94	-1.34%	0.041%
28.91	-1.06%	0.053%	23.62	0.51%	0.041%	33.99	1.95%	0.063%	20.21	0.30%	0.041%
29.22	3.14%	0.053%	23.50	1.91%	0.040%	33.34	5.24%	0.062%	20.15	4.51%	0.040%
28.33	-0.74%	0.049%	23.06	-3.23%	0.039%	31.68	-2.55%	0.056%	19.28	-3.65%	0.034%
28.54	-1.35%	0.047%	23.83	-2.62%	0.032%	32.51	-1.57%	0.056%	20.01	-3.80%	0.032%
28.93	2.88%	0.042%	24.47	3.34%	0.027%	33.03	1.82%	0.053%	20.80	3.69%	0.016%
28.12	-0.32%	0.042%	23.68	-0.17%	0.027%	32.44	0.34%	0.054%	20.06	2.09%	0.016%
28.21	-2.69%	0.046%	23.72	-1.29%	0.023%	32.33	-2.68%	0.062%	19.65	0.10%	0.028%
28.99	-0.41%	0.080%	24.03	-1.15%	0.051%	33.22	-0.57%	0.096%	19.63	-0.56%	0.036%
29.11	3.34%	0.080%	24.31	2.49%	0.053%	33.41	2.27%	0.116%	19.74	3.35%	0.042%
28.17	0.00%	0.111%	23.72	1.45%	0.078%	32.67	1.24%	0.158%	19.10	2.85%	0.067%
28.17	1.62%	0.125%	23.38	1.61%	0.086%	32.27	0.97%	0.167%	18.57	-2.42%	0.083%
27.72	2.63%	0.123%	23.01	0.04%	0.094%	31.96	-1.33%	0.172%	19.03	1.71%	0.086%
27.01	3.88%	0.122%	23.00	4.12%	0.093%	32.39	6.34%	0.171%	18.71	-5.27%	0.084%
26.00	4.08%	0.118%	22.09	3.32%	0.089%	30.46	3.46%	0.162%	19.75	3.57%	0.092%
24.98	-2.57%	0.105%	21.38	-4.30%	0.087%	29.44	-0.61%	0.153%	19.07	-1.04%	0.083%
25.64	-1.38%	0.101%	22.34	0.99%	0.079%	29.62	-0.77%	0.154%	19.27	-1.73%	0.089%
26.00	2.20%	0.103%	22.12	0.68%	0.093%	29.85	2.79%	0.171%	19.61	-1.26%	0.099%
25.44	0.79%	0.105%	21.97	-0.68%	0.091%	29.04	-2.45%	0.169%	19.86	3.55%	0.097%
25.24	3.10%	0.107%	22.12	4.19%	0.090%	29.77	5.12%	0.166%	19.18	2.18%	0.100%
24.48	5.20%	0.107%	21.23	2.12%	0.089%	28.32	2.42%	0.166%	18.77	4.34%	0.100%
23.27	3.47%	0.104%	20.79	2.72%	0.090%	27.65	5.74%	0.165%	17.99	3.75%	0.094%
22.49	0.54%	0.132%	20.24	-1.65%	0.098%	26.15	0.19%	0.180%	17.34	0.93%	0.129%

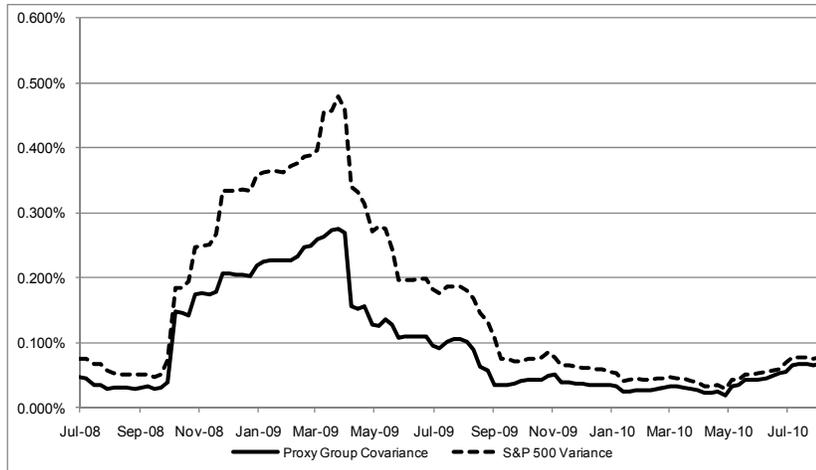
22.37	-6.71%	0.137%	20.58	-2.92%	0.103%	26.10	-7.08%	0.182%	17.18	-7.53%	0.144%
23.98	-0.21%	0.116%	21.20	-1.76%	0.072%	28.09	1.37%	0.177%	18.58	-1.33%	0.146%
24.03	4.39%	0.106%	21.58	6.62%	0.087%	27.71	1.32%	0.179%	18.83	9.92%	0.160%
23.02	-2.87%	0.133%	20.24	-4.03%	0.119%	27.35	-1.23%	0.212%	17.13	-1.55%	0.191%
23.70	0.21%	0.131%	21.09	-1.91%	0.111%	27.69	-0.97%	0.223%	17.40	-0.17%	0.188%
23.65	-0.55%	0.136%	21.50	1.99%	0.121%	27.96	1.19%	0.234%	17.43	-1.02%	0.174%
23.78	0.46%	0.238%	21.08	-2.86%	0.275%	27.63	4.34%	0.344%	17.61	2.44%	0.269%
23.67	-0.42%	0.256%	21.70	0.09%	0.292%	26.48	1.30%	0.341%	17.19	-4.23%	0.268%
23.77	7.17%	0.256%	21.68	8.94%	0.292%	26.14	7.53%	0.333%	17.95	6.78%	0.278%
22.18	1.93%	0.249%	19.90	-0.50%	0.280%	24.31	3.40%	0.321%	16.81	4.41%	0.268%
21.76	-10.60%	0.239%	20.00	-8.72%	0.282%	23.51	-10.47%	0.304%	16.10	-1.95%	0.245%
24.34	0.37%	0.220%	21.91	-0.68%	0.268%	26.26	-8.53%	0.287%	16.42	-1.91%	0.246%
24.25	-9.92%	0.220%	22.06	-8.16%	0.266%	28.71	-13.81%	0.279%	16.74	-8.17%	0.246%
26.92	-6.66%	0.201%	24.02	-3.73%	0.253%	33.31	-3.64%	0.252%	18.23	-6.99%	0.233%
28.84	-0.93%	0.195%	24.95	4.83%	0.248%	34.57	3.29%	0.248%	19.60	0.77%	0.227%
29.11	0.55%	0.202%	23.80	1.84%	0.251%	33.47	2.51%	0.249%	19.45	4.35%	0.235%
28.95	-1.90%	0.201%	23.37	-1.77%	0.250%	32.65	0.00%	0.251%	18.64	-0.69%	0.235%
29.51	0.44%	0.201%	23.79	-4.42%	0.250%	32.65	-0.76%	0.251%	18.77	0.70%	0.236%
29.38	0.65%	0.199%	24.89	2.43%	0.240%	32.90	-0.66%	0.247%	18.64	-4.16%	0.235%
29.19	0.79%	0.198%	24.30	4.83%	0.242%	33.12	6.70%	0.244%	19.45	4.74%	0.228%
28.96	-2.39%	0.196%	23.18	2.25%	0.227%	31.04	3.26%	0.225%	18.57	2.82%	0.213%
29.67	2.17%	0.199%	22.67	-4.47%	0.230%	30.06	1.18%	0.228%	18.06	-0.93%	0.216%
29.04	-1.56%	0.199%	23.73	4.77%	0.234%	29.71	-1.20%	0.227%	18.23	-2.88%	0.216%
29.50	-2.96%	0.201%	22.65	-2.79%	0.232%	30.07	-1.09%	0.229%	18.77	2.51%	0.219%
30.40	6.55%	0.199%	23.30	2.42%	0.232%	30.40	4.86%	0.231%	18.31	8.86%	0.219%
28.53	-2.39%	0.165%	22.75	-1.81%	0.220%	28.99	-0.82%	0.203%	16.82	-4.59%	0.167%
29.23	3.03%	0.161%	23.17	10.28%	0.217%	29.23	-3.91%	0.202%	17.63	-6.67%	0.159%
28.37	6.41%	0.167%	21.01	-6.87%	0.232%	30.42	-3.89%	0.199%	18.89	-7.94%	0.157%
26.66	7.07%	0.175%	22.56	8.83%	0.226%	31.65	8.13%	0.196%	20.52	8.74%	0.151%
24.90	0.48%	0.142%	20.73	3.08%	0.187%	29.27	-4.50%	0.154%	18.87	1.02%	0.110%
24.78	2.86%	0.145%	20.11	5.01%	0.196%	30.65	5.91%	0.145%	18.68	-7.93%	0.114%
24.09	-15.06%	0.146%	19.15	-22.63%	0.190%	28.94	-16.53%	0.132%	20.29	-14.57%	0.143%
28.36	-7.14%	0.053%	24.75	-4.51%	0.044%	34.67	-2.61%	0.027%	23.75	-2.50%	0.048%
30.54	-2.74%	0.035%	25.92	-2.67%	0.039%	35.60	1.69%	0.027%	24.36	-2.56%	0.044%
31.40	2.58%	0.033%	26.63	-0.89%	0.036%	35.01	-2.51%	0.030%	25.00	-1.85%	0.042%
30.61	3.34%	0.038%	26.87	3.39%	0.033%	35.91	4.48%	0.035%	25.47	4.26%	0.043%
29.62	-0.60%	0.037%	25.99	-3.35%	0.032%	34.37	-2.33%	0.034%	24.43	-4.64%	0.042%
29.80	-2.30%	0.036%	26.89	-4.07%	0.031%	35.19	-0.40%	0.033%	25.62	1.26%	0.040%
30.50	-1.58%	0.038%	28.03	4.36%	0.034%	35.33	1.06%	0.035%	25.30	-0.20%	0.040%
30.99	2.62%	0.037%	26.86	-0.11%	0.034%	34.96	0.87%	0.035%	25.35	2.01%	0.039%
30.20	2.86%	0.037%	26.89	9.04%	0.035%	34.66	5.22%	0.035%	24.85	6.52%	0.039%
29.36	-1.41%	0.039%	24.66	-0.56%	0.028%	32.94	5.07%	0.032%	23.33	1.35%	0.034%
29.78	1.64%	0.045%	24.80	0.81%	0.030%	31.35	-0.25%	0.031%	23.02	2.04%	0.044%
29.30	-2.14%	0.044%	24.60	-3.91%	0.029%	31.43	-1.84%	0.030%	22.56	-3.26%	0.043%
29.94	5.83%	0.053%	25.60	2.44%	0.036%	32.02	4.71%	0.040%	23.32	4.76%	0.054%
28.29	-3.08%	0.057%	24.99	-2.15%	0.038%	30.58	-1.55%	0.042%	22.26	-1.94%	0.057%
29.19	-5.96%	0.062%	25.54	-3.62%	0.041%	31.06	-3.30%	0.046%	22.70	-5.38%	0.061%
31.04	-2.60%	0.057%	26.50	-1.27%	0.038%	32.12	-1.86%	0.044%	23.99	-0.08%	0.057%
31.87	1.46%	0.056%	26.84	3.03%	0.039%	32.73	1.11%	0.044%	24.01	2.26%	0.057%
31.41	2.45%	0.061%	26.05	-0.23%	0.039%	32.37	-4.17%	0.046%	23.48	0.30%	0.059%
30.66	0.72%	0.066%	26.11	1.60%	0.042%	33.78	-0.38%	0.045%	23.41	-0.76%	0.063%
30.44	-2.90%	0.066%	25.70	-2.50%	0.041%	33.91	-0.85%	0.045%	23.59	-1.91%	0.066%
31.35	0.32%	0.060%	26.36	-3.37%	0.038%	34.20	1.39%	0.044%	24.05	4.20%	0.065%
31.25	-5.33%	0.060%	27.28	-1.66%	0.042%	33.73	-2.46%	0.043%	23.08	-5.68%	0.060%
33.01	2.71%	0.060%	27.74	4.01%	0.039%	34.58	-2.26%	0.033%	24.47	1.83%	0.061%
32.14	-1.05%	0.058%	26.67	0.45%	0.034%	35.38	-2.32%	0.036%	24.03	-0.70%	0.060%
32.48	3.37%	0.062%	26.55	2.71%	0.038%	36.22	0.39%	0.038%	24.20	4.94%	0.063%
31.42	-2.87%	0.060%	25.85	0.90%	0.038%	36.08	-1.07%	0.041%	23.06	0.04%	0.059%
32.35	2.70%	0.057%	25.62	6.09%	0.039%	36.47	5.01%	0.041%	23.05	3.60%	0.060%
31.50	-3.90%	0.057%	24.15	-1.02%	0.029%	34.73	-3.02%	0.036%	22.25	-2.28%	0.055%
32.78	4.49%	0.057%	24.40	-2.01%	0.030%	35.81	3.47%	0.035%	22.77	1.52%	0.055%
31.37	5.69%	0.054%	24.90	0.57%	0.035%	34.61	-0.37%	0.030%	22.43	-0.75%	0.053%
29.68	-0.40%	0.054%	24.76	-2.40%	0.036%	34.74	-2.28%	0.031%	22.60	-3.13%	0.059%
29.80	-3.25%	0.055%	25.37	-6.45%	0.035%	35.55	-3.45%	0.030%	23.33	0.43%	0.056%
30.80	-2.10%	0.054%	27.12	-2.41%	0.032%	36.82	0.49%	0.028%	23.23	-3.25%	0.057%
31.46	-0.06%	0.050%	27.79	2.06%	0.036%	36.64	-1.40%	0.026%	24.01	-0.66%	0.059%
31.48	-3.41%	0.050%	27.23	-2.68%	0.035%	37.16	-2.98%	0.027%	24.17	-1.95%	0.060%
32.59	2.61%	0.050%	27.98	0.29%	0.032%	38.30	-1.06%	0.028%	24.65	4.76%	0.061%
31.76	-2.96%	0.046%	27.90	-5.58%	0.031%	38.71	-3.08%	0.032%	23.53	-5.12%	0.051%
32.73	-4.47%	0.053%	29.55	-3.27%	0.043%	39.94	-5.49%	0.040%	24.80	-5.20%	0.060%
34.26	0.74%	0.044%	30.55	-0.52%	0.037%	42.26	3.10%	0.030%	26.16	-1.06%	0.050%
34.01	-4.39%	0.044%	30.71	-2.94%	0.039%	40.99	-3.55%	0.031%	26.44	-3.29%	0.051%

BETA ANALYSIS												
PGN			SO			WR			SPX		S&P 500	
Price	Return	Covar.	Price	Return	Covar.	Price	Return	Covar.	Price	Return	Variance	
42.70	0.90%	0.043%	35.84	-0.11%	0.044%	23.85	-1.97%	0.075%	1,079.25	-3.78%	0.083%	
42.32	0.50%	0.043%	35.88	1.56%	0.043%	24.33	1.88%	0.071%	1,121.64	1.82%	0.077%	
42.11	0.72%	0.043%	35.33	-1.56%	0.043%	23.88	0.80%	0.071%	1,101.60	-0.10%	0.076%	
41.81	3.29%	0.042%	35.89	3.19%	0.044%	23.69	3.68%	0.072%	1,102.66	3.55%	0.078%	
40.48	0.02%	0.040%	34.78	0.20%	0.044%	22.85	0.62%	0.072%	1,064.88	-1.21%	0.078%	
40.47	2.72%	0.040%	34.71	3.98%	0.043%	22.71	5.68%	0.072%	1,077.96	5.42%	0.078%	
39.40	0.31%	0.030%	33.38	0.30%	0.033%	21.49	-2.01%	0.060%	1,022.58	-5.03%	0.069%	
39.28	-2.63%	0.031%	33.28	-2.43%	0.034%	21.93	-3.73%	0.056%	1,076.76	-3.65%	0.060%	
40.34	3.86%	0.028%	34.11	3.27%	0.030%	22.78	4.35%	0.052%	1,117.51	2.37%	0.057%	
38.84	3.11%	0.025%	33.03	2.80%	0.027%	21.83	0.69%	0.048%	1,091.60	2.51%	0.055%	
37.67	-2.38%	0.021%	32.13	-1.74%	0.024%	21.68	-1.45%	0.047%	1,064.88	-2.25%	0.053%	
38.59	0.34%	0.022%	32.70	-2.74%	0.025%	22.00	0.41%	0.048%	1,089.41	0.16%	0.051%	
38.46	-3.85%	0.022%	33.62	-2.47%	0.025%	21.91	-6.05%	0.048%	1,087.69	-4.23%	0.051%	
40.00	3.01%	0.015%	34.47	1.62%	0.020%	23.32	4.62%	0.037%	1,135.68	2.23%	0.044%	
38.83	-2.73%	0.014%	33.92	-1.85%	0.019%	22.29	-5.91%	0.035%	1,110.88	-6.39%	0.044%	
39.92	0.83%	0.006%	34.56	-0.49%	0.014%	23.69	1.67%	0.020%	1,186.69	-2.51%	0.030%	
39.59	2.30%	0.008%	34.73	2.54%	0.022%	23.30	3.14%	0.027%	1,217.28	2.11%	0.034%	
38.70	-1.20%	0.007%	33.87	-0.18%	0.020%	22.59	0.00%	0.027%	1,192.13	-0.19%	0.034%	
39.17	-1.43%	0.008%	33.93	1.53%	0.021%	22.59	0.00%	0.028%	1,194.37	1.38%	0.034%	
39.74	1.09%	0.006%	33.42	0.97%	0.021%	22.59	2.87%	0.030%	1,178.10	0.99%	0.040%	
39.31	-1.33%	0.008%	33.10	-0.24%	0.021%	21.96	-1.83%	0.032%	1,166.59	0.58%	0.042%	
39.84	3.08%	0.008%	33.18	2.16%	0.022%	22.37	1.36%	0.039%	1,159.90	0.86%	0.045%	
38.65	-0.59%	0.008%	32.48	0.81%	0.024%	22.07	1.10%	0.040%	1,149.99	0.99%	0.046%	
38.88	1.54%	0.007%	32.22	1.42%	0.022%	21.83	2.01%	0.040%	1,138.70	3.10%	0.048%	
38.29	-0.60%	0.006%	31.77	-1.61%	0.021%	21.40	-3.52%	0.040%	1,104.49	-0.42%	0.046%	
38.52	3.24%	0.005%	32.29	3.59%	0.021%	22.18	4.52%	0.039%	1,109.17	3.13%	0.046%	
37.31	-3.74%	0.002%	31.17	-1.67%	0.017%	21.22	1.34%	0.034%	1,075.51	0.87%	0.044%	
38.76	-0.54%	0.002%	31.70	-0.94%	0.018%	20.94	-1.83%	0.034%	1,066.19	-0.72%	0.044%	
38.97	1.17%	0.001%	32.00	-1.66%	0.017%	21.33	-1.07%	0.035%	1,073.87	-1.64%	0.045%	
38.52	-1.05%	0.002%	32.54	-2.40%	0.015%	21.56	-3.06%	0.034%	1,091.76	-3.90%	0.044%	
38.93	-1.09%	0.009%	33.34	1.55%	0.016%	22.24	2.39%	0.033%	1,136.03	-0.78%	0.041%	
39.36	-4.02%	0.015%	32.83	-1.47%	0.022%	21.72	0.00%	0.046%	1,144.98	2.68%	0.054%	
41.01	-0.85%	0.022%	33.32	-0.39%	0.025%	21.72	-1.41%	0.050%	1,115.10	-1.01%	0.056%	
41.36	0.39%	0.023%	33.45	-1.01%	0.028%	22.03	0.69%	0.048%	1,126.48	2.18%	0.059%	
41.20	-1.86%	0.022%	33.79	-1.26%	0.027%	21.88	-0.14%	0.049%	1,102.47	-0.36%	0.059%	
41.98	3.63%	0.023%	34.22	4.23%	0.027%	21.91	2.67%	0.049%	1,106.41	0.04%	0.062%	
40.51	4.41%	0.024%	32.83	3.86%	0.028%	21.34	4.35%	0.050%	1,105.98	1.33%	0.062%	
38.80	0.75%	0.023%	31.61	0.67%	0.028%	20.45	1.44%	0.050%	1,091.49	0.01%	0.063%	
38.51	1.08%	0.026%	31.40	-0.57%	0.030%	20.16	1.10%	0.056%	1,091.38	-0.19%	0.066%	
38.10	1.28%	0.026%	31.58	-0.03%	0.030%	19.94	1.89%	0.057%	1,093.48	2.26%	0.066%	
37.62	0.24%	0.035%	31.59	1.28%	0.036%	19.57	2.19%	0.071%	1,069.30	3.20%	0.077%	
37.53	-0.40%	0.037%	31.19	-4.53%	0.034%	19.15	-2.74%	0.072%	1,036.19	-4.02%	0.085%	
37.68	-1.85%	0.036%	32.67	0.52%	0.024%	19.69	-2.91%	0.067%	1,079.60	-0.74%	0.077%	
38.39	2.51%	0.036%	32.50	2.07%	0.025%	20.28	3.47%	0.067%	1,087.68	1.51%	0.076%	
37.45	-1.89%	0.035%	31.84	0.35%	0.023%	19.60	2.08%	0.065%	1,071.49	4.51%	0.076%	
38.17	-3.07%	0.037%	31.73	-0.53%	0.023%	19.20	-1.59%	0.063%	1,025.21	-1.84%	0.071%	
39.38	0.69%	0.033%	31.90	-0.41%	0.024%	19.51	-6.20%	0.063%	1,044.38	-2.24%	0.071%	
39.11	1.09%	0.036%	32.03	3.22%	0.022%	20.80	2.16%	0.056%	1,068.30	2.45%	0.076%	
38.69	-1.45%	0.037%	31.03	-1.24%	0.022%	20.36	0.99%	0.056%	1,042.73	2.59%	0.075%	
39.26	-0.83%	0.033%	31.42	-0.51%	0.010%	20.16	-2.37%	0.059%	1,016.40	-1.22%	0.108%	
39.59	0.35%	0.060%	31.58	0.22%	0.034%	20.65	0.93%	0.085%	1,028.93	0.27%	0.133%	
39.45	-0.48%	0.071%	31.51	0.13%	0.034%	20.46	0.20%	0.091%	1,026.13	2.20%	0.146%	
39.64	1.05%	0.085%	31.47	-0.13%	0.046%	20.42	0.64%	0.121%	1,004.09	-0.63%	0.169%	
39.23	-0.53%	0.093%	31.51	0.35%	0.060%	20.29	3.15%	0.139%	1,010.48	2.33%	0.180%	
39.44	-0.70%	0.100%	31.40	-3.77%	0.061%	19.67	-1.60%	0.141%	987.48	0.84%	0.187%	
39.72	6.20%	0.101%	32.63	3.65%	0.063%	19.99	4.33%	0.140%	979.26	4.13%	0.188%	
37.40	3.34%	0.089%	31.48	2.54%	0.058%	19.16	5.74%	0.136%	940.38	6.97%	0.186%	
36.19	-3.18%	0.080%	30.70	-1.00%	0.053%	18.12	-2.69%	0.118%	879.13	-1.93%	0.177%	
37.38	-1.01%	0.089%	31.01	-2.79%	0.060%	18.62	1.03%	0.124%	896.42	-2.45%	0.183%	
37.76	2.25%	0.101%	31.90	4.21%	0.070%	18.43	-0.43%	0.144%	918.90	-0.25%	0.198%	
36.93	-0.86%	0.101%	30.61	0.20%	0.070%	18.51	-0.11%	0.144%	921.23	-2.64%	0.199%	
37.25	4.40%	0.100%	30.55	5.67%	0.071%	18.53	1.98%	0.144%	946.21	0.65%	0.196%	
35.68	0.48%	0.100%	28.91	1.76%	0.070%	18.17	1.79%	0.144%	940.09	2.28%	0.196%	
35.51	3.08%	0.098%	28.41	2.56%	0.066%	17.85	6.50%	0.146%	919.14	3.62%	0.197%	
34.45	1.12%	0.110%	27.70	-1.49%	0.075%	16.76	-1.18%	0.167%	887.00	0.47%	0.245%	

34.07	-3.87%	0.112%	28.12	-2.23%	0.068%	16.96	-6.30%	0.183%	882.88	-4.99%	0.274%
35.44	1.23%	0.109%	28.76	-0.21%	0.061%	18.10	1.74%	0.164%	929.23	5.89%	0.280%
35.01	3.27%	0.104%	28.82	-2.17%	0.057%	17.79	3.61%	0.159%	877.52	1.30%	0.272%
33.90	-2.53%	0.129%	29.46	-0.61%	0.057%	17.17	-3.76%	0.206%	866.23	-0.39%	0.314%
34.78	-1.17%	0.121%	29.64	-4.05%	0.047%	17.84	-1.16%	0.205%	869.60	1.52%	0.332%
35.19	-1.79%	0.125%	30.89	-0.61%	0.056%	18.05	0.45%	0.193%	856.56	1.67%	0.339%
35.83	-0.61%	0.264%	31.08	1.67%	0.144%	17.97	2.69%	0.310%	842.50	3.26%	0.459%
36.05	2.07%	0.257%	30.57	-0.03%	0.151%	17.50	1.69%	0.318%	815.94	6.17%	0.479%
35.32	9.21%	0.249%	30.58	12.68%	0.147%	17.21	8.44%	0.310%	768.54	1.58%	0.458%
32.34	-0.68%	0.238%	27.14	-3.24%	0.132%	15.87	1.86%	0.302%	756.55	10.71%	0.455%
32.56	-8.07%	0.242%	28.05	-7.46%	0.146%	15.58	-7.81%	0.294%	683.38	-7.03%	0.397%
35.42	-4.71%	0.229%	30.31	0.46%	0.133%	16.90	-1.86%	0.282%	735.09	-4.54%	0.388%
37.17	-4.30%	0.224%	30.17	-3.89%	0.134%	17.22	-9.46%	0.281%	770.05	-6.87%	0.386%
38.84	-3.31%	0.217%	31.39	-6.55%	0.129%	19.02	-7.85%	0.264%	826.84	-4.81%	0.376%
40.17	3.74%	0.214%	33.59	0.42%	0.123%	20.64	2.79%	0.257%	868.60	5.17%	0.372%
38.72	-1.22%	0.216%	33.45	-3.46%	0.131%	20.08	2.40%	0.252%	825.88	-0.73%	0.363%
39.20	2.94%	0.217%	34.65	-1.08%	0.131%	19.61	-2.05%	0.252%	831.95	-2.14%	0.363%
38.08	0.03%	0.218%	35.03	-1.41%	0.131%	20.02	1.78%	0.253%	850.12	-4.52%	0.364%
38.07	-6.35%	0.217%	35.53	-5.18%	0.125%	19.67	-4.98%	0.250%	890.35	-4.45%	0.363%
40.65	4.90%	0.208%	37.47	4.17%	0.118%	20.70	7.25%	0.243%	931.80	6.76%	0.358%
38.75	-0.36%	0.193%	35.97	0.36%	0.106%	19.30	-0.05%	0.220%	872.80	-1.70%	0.334%
38.89	-1.72%	0.194%	35.84	-1.38%	0.106%	19.31	0.57%	0.223%	887.88	0.93%	0.336%
39.57	-0.73%	0.197%	36.34	-1.49%	0.109%	19.20	-1.13%	0.224%	879.73	0.42%	0.335%
39.86	0.43%	0.198%	36.89	1.57%	0.110%	19.42	-4.00%	0.224%	876.07	-2.25%	0.334%
39.69	3.25%	0.199%	36.32	2.05%	0.112%	20.23	6.31%	0.224%	896.24	12.03%	0.334%
38.44	-1.03%	0.185%	35.59	1.08%	0.102%	19.03	-4.99%	0.192%	800.03	-8.39%	0.266%
38.84	-1.80%	0.183%	35.21	1.09%	0.106%	20.03	2.56%	0.180%	873.29	-6.20%	0.251%
39.55	0.46%	0.182%	34.83	1.43%	0.111%	19.53	0.21%	0.184%	930.99	-3.90%	0.249%
39.37	6.32%	0.183%	34.34	-0.78%	0.113%	19.49	11.95%	0.185%	968.75	10.49%	0.247%
37.03	2.66%	0.157%	34.61	3.34%	0.116%	17.41	0.29%	0.129%	876.77	-6.78%	0.195%
36.07	1.84%	0.161%	33.49	3.81%	0.123%	17.36	-6.87%	0.131%	940.55	4.60%	0.186%
35.42	-20.37%	0.158%	32.26	-13.16%	0.118%	18.64	-17.52%	0.153%	899.22	-18.20%	0.184%
44.48	1.44%	0.026%	37.15	-3.81%	0.033%	22.60	-5.16%	0.039%	1,099.23	-9.38%	0.073%
43.85	-1.19%	0.036%	38.62	0.57%	0.025%	23.83	-0.83%	0.022%	1,213.01	-3.35%	0.052%
44.38	0.34%	0.035%	38.40	0.68%	0.026%	24.03	4.25%	0.022%	1,255.08	0.27%	0.048%
44.23	4.76%	0.036%	38.14	2.80%	0.032%	23.05	5.88%	0.026%	1,251.70	0.76%	0.052%
42.22	-3.34%	0.035%	37.10	-1.09%	0.031%	21.77	-3.89%	0.024%	1,242.31	-3.16%	0.052%
43.68	-2.15%	0.032%	37.51	-0.74%	0.030%	22.65	-1.61%	0.022%	1,282.83	-0.73%	0.051%
44.64	0.09%	0.033%	37.79	0.93%	0.032%	23.02	0.00%	0.023%	1,292.20	-0.46%	0.052%
44.60	1.13%	0.033%	37.44	2.38%	0.032%	23.02	3.46%	0.023%	1,298.20	0.15%	0.052%
44.10	7.40%	0.033%	36.57	5.72%	0.032%	22.25	1.51%	0.021%	1,296.32	2.86%	0.053%
41.06	-0.05%	0.028%	34.59	-1.54%	0.032%	21.92	1.62%	0.022%	1,260.31	0.20%	0.057%
41.08	0.49%	0.036%	35.13	0.83%	0.039%	21.57	1.79%	0.036%	1,257.76	-0.23%	0.067%
40.88	-1.33%	0.035%	34.84	-3.20%	0.038%	21.19	-4.72%	0.036%	1,260.68	1.71%	0.067%
41.43	0.00%	0.044%	35.99	1.90%	0.050%	22.24	3.44%	0.051%	1,239.49	-1.85%	0.075%
41.43	-0.31%	0.044%	35.32	2.58%	0.050%	21.50	-0.05%	0.053%	1,262.90	-1.21%	0.075%
41.56	-1.87%	0.048%	34.43	-0.17%	0.052%	21.51	-5.28%	0.061%	1,278.38	-3.00%	0.081%
42.35	-1.58%	0.047%	34.49	-1.71%	0.053%	22.71	-3.24%	0.056%	1,317.93	-3.10%	0.078%
43.03	2.04%	0.046%	35.09	0.49%	0.053%	23.47	-0.89%	0.056%	1,360.03	-0.05%	0.076%
42.17	-1.38%	0.047%	34.92	-3.54%	0.053%	23.68	-1.33%	0.058%	1,360.68	-2.83%	0.078%
42.76	2.57%	0.048%	36.20	0.56%	0.052%	24.00	2.83%	0.057%	1,400.38	1.78%	0.077%
41.69	-0.79%	0.047%	36.00	-2.01%	0.051%	23.34	0.73%	0.057%	1,375.93	-3.47%	0.079%
42.02	0.89%	0.045%	36.74	1.24%	0.047%	23.17	-1.49%	0.057%	1,425.35	2.67%	0.075%
41.65	-2.89%	0.043%	36.29	-2.21%	0.046%	23.52	-1.09%	0.058%	1,388.28	-1.81%	0.072%
42.89	4.25%	0.041%	37.11	0.03%	0.045%	23.78	2.37%	0.059%	1,413.90	1.15%	0.076%
41.14	-2.95%	0.038%	37.10	0.41%	0.045%	23.23	-1.48%	0.057%	1,397.84	0.54%	0.076%
42.39	0.57%	0.042%	36.95	1.79%	0.047%	23.58	2.75%	0.062%	1,390.33	4.31%	0.078%
42.15	-1.61%	0.046%	36.30	-0.58%	0.049%	22.95	1.10%	0.063%	1,332.83	-2.74%	0.074%
42.84	3.30%	0.045%	36.51	3.22%	0.049%	22.70	0.53%	0.065%	1,370.40	4.20%	0.073%
41.47	-0.84%	0.039%	35.37	-2.10%	0.044%	22.58	-3.96%	0.069%	1,315.22	-1.07%	0.066%
41.82	1.21%	0.039%	36.13	4.88%	0.043%	23.51	3.80%	0.068%	1,329.51	3.21%	0.066%
41.32	-0.53%	0.040%	34.45	0.47%	0.038%	22.65	1.80%	0.066%	1,288.14	-0.40%	0.065%
41.54	-0.88%	0.042%	34.29	-0.70%	0.041%	22.25	-2.11%	0.068%	1,293.37	-2.80%	0.068%
41.91	-4.03%	0.042%	34.53	-2.79%	0.041%	22.73	-2.99%	0.066%	1,330.63	-1.66%	0.066%
43.67	-1.47%	0.040%	35.52	-0.73%	0.040%	23.43	-0.89%	0.065%	1,353.11	0.23%	0.065%
44.32	-0.16%	0.041%	35.78	0.08%	0.040%	23.64	-2.48%	0.065%	1,349.99	1.40%	0.068%
44.39	-2.27%	0.041%	35.75	-4.16%	0.040%	24.24	-1.98%	0.067%	1,331.29	-4.60%	0.067%
45.42	4.15%	0.044%	37.30	3.35%	0.038%	24.73	7.10%	0.068%	1,395.42	4.87%	0.060%
43.61	-5.03%	0.037%	36.09	-4.37%	0.033%	23.09	-1.95%	0.055%	1,330.61	0.41%	0.051%
45.92	-4.59%	0.042%	37.74	-5.08%	0.037%	23.55	-6.36%	0.068%	1,325.19	-5.41%	0.059%
48.13	1.69%	0.034%	39.76	2.71%	0.028%	25.15	1.09%	0.056%	1,401.02	-0.75%	0.050%
47.33	-2.97%	0.036%	38.71	-1.12%	0.029%	24.88	-5.54%	0.058%	1,411.63	-4.52%	0.051%

BETA ANALYSIS

Average Proxy Group		
Proxy Group	Raw Beta	Adj. Beta
0.069%	0.829	0.886
0.067%	0.864	0.909
0.066%	0.868	0.912
0.067%	0.864	0.909
0.067%	0.851	0.901
0.066%	0.848	0.899
0.055%	0.792	0.862
0.053%	0.886	0.924
0.049%	0.860	0.907
0.045%	0.819	0.879
0.043%	0.816	0.877
0.043%	0.837	0.891
0.043%	0.837	0.891
0.035%	0.798	0.865
0.034%	0.758	0.839
0.020%	0.667	0.778
0.025%	0.717	0.811
0.024%	0.707	0.804
0.024%	0.704	0.803
0.027%	0.685	0.790
0.029%	0.698	0.798
0.032%	0.708	0.805
0.033%	0.724	0.816
0.033%	0.689	0.793
0.031%	0.673	0.782
0.030%	0.658	0.772
0.027%	0.618	0.745
0.027%	0.614	0.742
0.027%	0.594	0.729
0.026%	0.591	0.727
0.026%	0.622	0.748
0.033%	0.610	0.740
0.036%	0.638	0.759
0.036%	0.613	0.742
0.036%	0.615	0.743
0.036%	0.577	0.718
0.037%	0.588	0.726
0.037%	0.586	0.724
0.040%	0.604	0.736
0.040%	0.606	0.737
0.051%	0.665	0.777
0.049%	0.570	0.713
0.043%	0.565	0.710
0.044%	0.572	0.714
0.043%	0.567	0.711
0.040%	0.565	0.710
0.038%	0.541	0.694
0.034%	0.454	0.636
0.034%	0.456	0.638
0.035%	0.324	0.549
0.057%	0.431	0.621
0.064%	0.439	0.626
0.090%	0.532	0.688
0.102%	0.567	0.711
0.106%	0.567	0.712
0.105%	0.562	0.708
0.101%	0.545	0.697
0.092%	0.519	0.679
0.096%	0.525	0.684
0.110%	0.554	0.703
0.109%	0.548	0.699
0.110%	0.560	0.707
0.109%	0.558	0.706
0.109%	0.552	0.702
0.128%	0.523	0.682



0.135%	0.494	0.662
0.126%	0.450	0.634
0.129%	0.475	0.650
0.156%	0.496	0.664
0.153%	0.461	0.640
0.156%	0.461	0.641
0.269%	0.586	0.724
0.276%	0.577	0.718
0.274%	0.597	0.732
0.264%	0.580	0.720
0.259%	0.653	0.768
0.249%	0.642	0.761
0.247%	0.641	0.761
0.232%	0.619	0.746
0.227%	0.610	0.740
0.227%	0.626	0.750
0.227%	0.625	0.750
0.227%	0.625	0.750
0.224%	0.618	0.745
0.219%	0.610	0.740
0.203%	0.606	0.738
0.206%	0.612	0.742
0.205%	0.613	0.742
0.206%	0.617	0.745
0.206%	0.617	0.745
0.179%	0.671	0.781
0.174%	0.694	0.796
0.176%	0.706	0.804
0.174%	0.706	0.804
0.143%	0.734	0.823
0.146%	0.787	0.858
0.147%	0.800	0.867
0.039%	0.536	0.691
0.032%	0.611	0.741
0.030%	0.619	0.746
0.032%	0.617	0.745
0.031%	0.596	0.731
0.030%	0.579	0.720
0.032%	0.606	0.737
0.031%	0.602	0.735
0.031%	0.580	0.720
0.029%	0.509	0.673
0.036%	0.534	0.689
0.035%	0.522	0.681
0.046%	0.610	0.740
0.048%	0.641	0.761
0.052%	0.638	0.759
0.048%	0.614	0.743
0.048%	0.628	0.752
0.050%	0.637	0.758
0.051%	0.660	0.774
0.051%	0.644	0.762
0.049%	0.654	0.769
0.048%	0.673	0.782
0.047%	0.618	0.745
0.045%	0.596	0.730
0.049%	0.629	0.753
0.050%	0.668	0.778
0.050%	0.694	0.796
0.047%	0.708	0.805
0.047%	0.702	0.802
0.046%	0.700	0.800
0.047%	0.698	0.799
0.046%	0.695	0.797
0.044%	0.677	0.785
0.045%	0.663	0.776
0.046%	0.684	0.789
0.046%	0.765	0.843
0.040%	0.785	0.857
0.051%	0.863	0.909
0.041%	0.827	0.885
0.042%	0.836	0.891

CAPM USING ALTERNATIVE MARKET RISK PREMIUM CALCULATIONS

	[3] Average Beta	[4]	[5] Market Risk Premium		[7] Return on Equity		[8]
			Sharpe Ratio Derived	Ex-Ante DCF Derived	Sharpe Ratio Derived	Ex-Ante DCF Derived	
CURRENT BETA							
[1] Current 30-Year Treasury (30-day average)	4.00%	0.886	10.08%	9.32%	12.93%	12.26%	
[2] Near-Term Projected 30-Year Treasury	4.48%	0.886	10.08%	9.32%	13.41%	12.74%	
HISTORIC BETA							
[1] Current 30-Year Treasury (30-day average)	4.00%	0.709	10.08%	9.32%	11.15%	10.61%	
[2] Near-Term Projected 30-Year Treasury	4.48%	0.709	10.08%	9.32%	11.63%	11.09%	

Notes:

- [1] Source: Bloomberg
- [2] Source: Blue Chip Financial Forecasts, Vol. 29, No. 8, August 1, 2010, at 1
- [3] see Notes [1] and [2]
- [4] Source: Current = Exhibit RBH-4, Historic = Value Line & Bloomberg
- [5] Equals Col. [13]
- [6] Source: Exhibit RBH-5t
- [7] Equals (Col. [4] x Col. [5]) + Col. [3]
- [8] Equals (Col. [4] x Col. [6]) + Col. [3]

MARKET RISK PREMIUM USING EXPECTED MARKET VOLATILITY

[9]	[10]	[11]	[12]	[13]
RP _n	Vol _n	VOL _e	Historical Market Sharpe Ratio	RP _e
6.70%	20.40%	30.69%	32.85%	10.08%

Date	[14]	[15]	[16]	[17]
	VXV	Dec10 VIX Futures	Jan11 VIX Futures	Feb11 VIX Futures
		08/13/2010	29.97	31.25
08/12/2010	29.25	30.70	31.95	31.90
08/11/2010	28.69	30.45	31.75	31.80
08/10/2010	26.31	29.05	30.40	30.55
08/09/2010	26.03	28.65	30.20	30.45
08/06/2010	26.12	28.85	30.35	30.55
08/05/2010	26.16	28.75	30.25	30.40
08/04/2010	25.96	28.55	30.10	30.15
08/03/2010	26.01	28.65	30.15	30.30
08/02/2010	25.40	28.40	29.90	30.05
07/30/2010	27.14	29.35	30.80	30.90
07/29/2010	27.12	29.50	30.95	31.05
07/28/2010	26.71	29.50	30.95	31.00
07/27/2010	26.37	29.75	31.20	31.25
07/26/2010	26.44	29.95	31.45	31.40
07/23/2010	26.99	31.05	32.45	32.50
07/22/2010	27.90	31.30	32.70	32.75
07/21/2010	29.08	32.10	33.55	33.50
07/20/2010	28.22	32.00	33.35	33.20
07/19/2010	30.08	32.90	34.15	33.80
07/16/2010	30.60	33.05	34.20	33.90
07/15/2010	29.23	31.70	32.80	32.65
07/14/2010	28.83	31.20	32.30	32.20
07/13/2010	28.32	30.55	31.80	31.75
07/12/2010	28.39	31.00	32.20	32.05
07/09/2010	28.17	31.30	32.35	32.20
07/08/2010	28.83	31.55	32.60	32.60
07/07/2010	29.72	32.05	32.95	33.00
07/06/2010	32.01	33.50	34.50	34.45
07/02/2010	33.29	34.00	34.85	34.80
Average		30.69		

Notes:

- [9] Source: Morningstar, Inc
RP_n = historical arithmetic average Risk Premium
- [10] Source: Morningstar, Inc
Vol_n = historical market volatility
- [11] Vol_e = expected market volatility (average of Cols. [14]-[17])
- [12] Equals Col. [9] / Col. [10]
- [13] Equals Col. [11] x Col. [12]
- [14] Source: Bloomberg
- [15] Source: Bloomberg
- [16] Source: Bloomberg
- [17] Source: Bloomberg

$$\frac{RP_n}{Vol_n} \times Vol_e = RP_e$$

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

[1]	[2]	[3]
Estimated Weighted Index Dividend Yield	Weighted Index Long-Term Growth Rate	S&P 500 Est. Required Market Return
2.03%	11.17%	13.32%
	[4] Current 30-Year Treasury (30-day average)	4.00%
	[5] Implied Market Risk Premium:	9.32%
[6] percent of Index Capitalization Represented by Estimate		96.58%

STANDARD AND POOR'S 500 INDEX

		[7]	[8]	[9]	[10]	[11]	
Name		Ticker	Weight in Index	Long-Term Growth Est.	Cap-Weighted Long-Term Growth Est.	Estimated Dividend Yield	Cap-Weighted Dividend Yield
MMM	UN Equity	AGILENT TECHNOLOGIES INC	A	0.10%	n/a	n/a	0.00%
ABT	UN Equity	ALCOA INC	AA	0.11%	9.00%	0.01%	1.13%
ANF	UN Equity	APPLE INC	AAPL	2.28%	16.38%	0.42%	0.00%
ADBE	UN Equity	AMERISOURCEBERGEN CORP	ABC	0.08%	12.13%	0.01%	0.97%
AMD	UN Equity	ABBOTT LABORATORIES	ABT	0.77%	11.38%	0.09%	3.53%
AES	UN Equity	ACE LTD	ACE	0.18%	13.04%	0.02%	2.38%
AET	UN Equity	ADOBE SYSTEMS INC	ADBE	0.15%	14.38%	0.02%	0.00%
AFL	UN Equity	ANALOG DEVICES INC	ADI	0.08%	13.50%	0.01%	2.97%
A	UN Equity	ARCHER-DANIELS-MIDLAND CO	ADM	0.19%	10.00%	0.02%	1.99%
APD	UN Equity	AUTOMATIC DATA PROCESSING	ADP	0.20%	10.43%	0.02%	3.53%
ARG	UN Equity	AUTODESK INC	ADSK	0.06%	15.91%	0.01%	0.00%
AKS	UN Equity	AMEREN CORPORATION	AEE	0.07%	n/a	n/a	5.59%
AKAM	UN Equity	AMERICAN ELECTRIC POWER	AEP	0.17%	5.00%	0.01%	4.74%
AA	UN Equity	AES CORP	AES	0.08%	9.50%	0.01%	0.00%
AYE	UN Equity	AETNA INC	AET	0.12%	10.50%	0.01%	0.06%
ATI	UN Equity	AFLAC INC	AFL	0.23%	13.30%	0.03%	2.38%
AGN	UN Equity	ALLERGAN INC	AGN	0.20%	14.50%	0.03%	0.37%
ALL	UN Equity	AMERICAN INTERNATIONAL GROUP	AIG	0.26%	9.00%	0.02%	0.00%
ALTR	UN Equity	APARTMENT INVT & MGMT CO -A	AIV	0.02%	5.42%	0.00%	1.97%
MO	UN Equity	ASSURANT INC	AIZ	0.04%	9.67%	0.00%	1.70%
AMZN	UN Equity	AKAMAI TECHNOLOGIES INC	AKAM	0.08%	14.22%	0.01%	0.00%
AEE	UN Equity	AK STEEL HOLDING CORP	AKS	0.01%	10.00%	0.00%	1.53%
AEP	UN Equity	ALLSTATE CORP	ALL	0.15%	8.20%	0.01%	2.85%
AXP	UN Equity	ALTERA CORPORATION	ALTR	0.08%	20.00%	0.02%	0.88%
AIG	UN Equity	APPLIED MATERIALS INC	AMAT	0.15%	12.75%	0.02%	2.28%
AMT	UN Equity	ADVANCED MICRO DEVICES	AMD	0.04%	13.75%	0.01%	0.00%
AMP	UN Equity	AMGEN INC	AMGN	0.53%	8.78%	0.05%	0.00%
ABC	UN Equity	AMERIPRISE FINANCIAL INC	AMP	0.11%	13.03%	0.01%	1.66%
AMGN	UN Equity	AMERICAN TOWER CORP-CL A	AMT	0.18%	20.34%	0.04%	0.00%
APH	UN Equity	AMAZON.COM INC	AMZN	0.56%	26.60%	0.15%	0.00%
APC	UN Equity	AUTONATION INC	AN	0.03%	15.82%	0.01%	0.00%
ADI	UN Equity	ABERCROMBIE & FITCH CO-CL A	ANF	0.03%	17.43%	0.01%	1.85%
AON	UN Equity	AON CORP	AON	0.10%	6.50%	0.01%	1.66%
APA	UN Equity	APACHE CORP	APA	0.33%	9.21%	0.03%	0.66%
AIV	UN Equity	ANADARKO PETROLEUM CORP	APC	0.26%	14.48%	0.04%	0.69%
APOL	UN Equity	AIR PRODUCTS & CHEMICALS INC	APD	0.16%	10.14%	0.02%	2.53%
AAPL	UN Equity	AMPHENOL CORP-CL A	APH	0.07%	15.00%	0.01%	0.15%
AMAT	UN Equity	APOLLO GROUP INC-CL A	APOL	0.06%	12.73%	0.01%	0.00%
ADM	UN Equity	AIRGAS INC	ARG	0.05%	13.92%	0.01%	1.38%
AIZ	UN Equity	ALLEGHENY TECHNOLOGIES INC	ATI	0.04%	20.00%	0.01%	1.62%
T	UN Equity	AVALONBAY COMMUNITIES INC	AVB	0.09%	7.08%	0.01%	3.49%
ADSK	UN Equity	AVON PRODUCTS INC	AVP	0.13%	11.67%	0.01%	2.99%
ADP	UN Equity	AVERY DENNISON CORP	AVY	0.04%	7.00%	0.00%	2.35%
AN	UN Equity	AMERICAN EXPRESS CO	AXP	0.50%	10.83%	0.05%	1.73%
AZO	UN Equity	ALLEGHENY ENERGY INC	AYE	0.04%	1.50%	0.00%	2.71%
AVB	UN Equity	AUTOZONE INC	AZO	0.10%	14.23%	0.01%	0.00%

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

AVY	UN Equity	BOEING CO/THE	BA	0.47%	14.48%	0.07%	2.64%	0.01%
AVP	UN Equity	BANK OF AMERICA CORP	BAC	1.33%	9.13%	0.12%	0.30%	0.00%
BHI	UN Equity	BAXTER INTERNATIONAL INC	BAX	0.27%	9.57%	0.03%	2.52%	0.01%
BLL	UN Equity	BED BATH & BEYOND INC	BBBY	0.10%	13.78%	0.01%	0.00%	0.00%
BK	UN Equity	BB&T CORP	BBT	0.17%	n/a	n/a	2.55%	0.00%
BAC	UN Equity	BEST BUY CO INC	BBY	0.14%	13.09%	0.02%	1.69%	0.00%
BAX	UN Equity	CR BARD INC	BCR	0.07%	12.00%	0.01%	0.87%	0.00%
BBT	UN Equity	BECTON DICKINSON AND CO	BDX	0.16%	10.50%	0.02%	2.04%	0.00%
BDX	UN Equity	FRANKLIN RESOURCES INC	BEN	0.22%	6.83%	0.02%	3.42%	0.01%
BBBY	UN Equity	BROWN-FORMAN CORP-CLASS B	BF/B	0.06%	n/a	n/a	2.04%	0.00%
BMS	UN Equity	BAKER HUGHES INC	BHI	0.17%	n/a	n/a	1.46%	0.00%
BRK/B	UN Equity	BIG LOTS INC	BIG	0.02%	14.20%	0.00%	0.00%	0.00%
BBY	UN Equity	BIODEN IDEC INC	BIIB	0.15%	8.33%	0.01%	0.00%	0.00%
BIG	UN Equity	BANK OF NEW YORK MELLON CORP	BK	0.30%	13.40%	0.04%	1.62%	0.00%
BIIB	UN Equity	BALL CORP	BLL	0.05%	8.65%	0.00%	0.70%	0.00%
BMC	UN Equity	BMC SOFTWARE INC	BMC	0.06%	20.00%	0.01%	0.00%	0.00%
BA	UN Equity	BEMIS COMPANY	BMS	0.03%	9.13%	0.00%	3.18%	0.00%
BXP	UN Equity	BRISTOL-MYERS SQUIBB CO	BMY	0.45%	4.21%	0.02%	4.84%	0.02%
BSX	UN Equity	BROADCOM CORP-CL A	BRCM	0.14%	20.29%	0.03%	1.00%	0.00%
BMY	UN Equity	BERKSHIRE HATHAWAY INC-CL B	BRK/B	0.77%	n/a	n/a	0.00%	0.00%
BRCM	UN Equity	BOSTON SCIENTIFIC CORP	BSX	0.08%	9.78%	0.01%	0.00%	0.00%
BF/B	UN Equity	PEABODY ENERGY CORP	BTU	0.12%	11.00%	0.01%	0.61%	0.00%
CA	UN Equity	BOSTON PROPERTIES INC	BXP	0.11%	5.40%	0.01%	2.47%	0.00%
COG	UN Equity	CITIGROUP INC	C	1.13%	9.33%	0.11%	0.00%	0.00%
CAM	UN Equity	CA INC	CA	0.09%	8.50%	0.01%	0.90%	0.00%
CPB	UN Equity	CONAGRA FOODS INC	CAG	0.10%	8.20%	0.01%	3.85%	0.00%
COF	UN Equity	CARDINAL HEALTH INC	CAH	0.11%	11.11%	0.01%	2.47%	0.00%
CAH	UN Equity	CAMERON INTERNATIONAL CORP	CAM	0.09%	57.30%	0.05%	0.00%	0.00%
CFN	UN Equity	CATERPILLAR INC	CAT	0.43%	12.75%	0.05%	2.54%	0.01%
CCL	UN Equity	CHUBB CORP	CB	0.17%	8.73%	0.01%	2.78%	0.00%
CAT	UN Equity	CB RICHARD ELLIS GROUP INC-A	CBG	0.05%	13.33%	0.01%	0.00%	0.00%
CBG	UN Equity	CBS CORP-CLASS B NON VOTING	CBS	0.09%	6.48%	0.01%	1.45%	0.00%
CBS	UN Equity	COCA-COLA ENTERPRISES	CCE	0.14%	9.00%	0.01%	1.24%	0.00%
CELG	UN Equity	CARNIVAL CORP	CCL	0.20%	14.75%	0.03%	1.18%	0.00%
CNP	UN Equity	CONSTELLATION ENERGY GROUP	CEG	0.06%	6.00%	0.00%	3.23%	0.00%
CTL	UN Equity	CELGENE CORP	CELG	0.26%	22.97%	0.06%	0.00%	0.00%
CEPH	UN Equity	CEPHALON INC	CEPH	0.04%	12.71%	0.01%	0.00%	0.00%
CERN	UN Equity	CERNER CORP	CERN	0.06%	18.19%	0.01%	0.00%	0.00%
CF	UN Equity	CF INDUSTRIES HOLDINGS INC	CF	0.06%	5.00%	0.00%	0.47%	0.00%
CHRW	UN Equity	CAREFUSION CORP	CFN	0.05%	6.04%	0.00%	0.00%	0.00%
CHK	UN Equity	CHESAPEAKE ENERGY CORP	CHK	0.14%	9.80%	0.01%	1.45%	0.00%
CVX	UN Equity	C.H. ROBINSON WORLDWIDE INC	CHRW	0.11%	16.00%	0.02%	1.55%	0.00%
CB	UN Equity	CIGNA CORP	CI	0.09%	10.19%	0.01%	0.14%	0.00%
CI	UN Equity	CINCINNATI FINANCIAL CORP	CINF	0.04%	n/a	n/a	5.96%	0.00%
CINF	UN Equity	COLGATE-PALMOLIVE CO	CL	0.37%	9.80%	0.04%	2.60%	0.01%
CTAS	UN Equity	CLIFFS NATURAL RESOURCES INC	CLF	0.08%	13.50%	0.01%	0.80%	0.00%
CSCO	UN Equity	CLOROX COMPANY	CLX	0.09%	9.90%	0.01%	3.42%	0.00%
C	UN Equity	COMERICA INC	CMA	0.06%	6.07%	0.00%	0.56%	0.00%
CTXS	UN Equity	COMCAST CORP-CLASS A	CMCSA	0.37%	16.59%	0.06%	2.08%	0.01%
CLF	UN Equity	CME GROUP INC	CME	0.16%	13.67%	0.02%	1.92%	0.00%
CLX	UN Equity	CUMMINS INC	CMI	0.15%	11.50%	0.02%	1.00%	0.00%
CME	UN Equity	CMS ENERGY CORP	CMS	0.04%	6.00%	0.00%	3.45%	0.00%
CMS	UN Equity	CENTROPOINT ENERGY INC	CNP	0.06%	6.38%	0.00%	5.40%	0.00%
COH	UN Equity	CONSOL ENERGY INC	CNX	0.08%	10.00%	0.01%	1.10%	0.00%
KO	UN Equity	CAPITAL ONE FINANCIAL CORP	COF	0.18%	9.92%	0.02%	0.52%	0.00%
CCE	UN Equity	CABOT OIL & GAS CORP	COG	0.03%	n/a	n/a	0.34%	0.00%
CTSH	UN Equity	COACH INC	COH	0.11%	14.67%	0.02%	1.56%	0.00%
CL	UN Equity	ROCKWELL COLLINS INC.	COL	0.09%	9.26%	0.01%	1.75%	0.00%
CMCSA	UN Equity	CONOCOPHILLIPS	COP	0.82%	21.64%	0.18%	3.89%	0.03%
CMA	UN Equity	COSTCO WHOLESALE CORP	COST	0.24%	12.76%	0.03%	1.37%	0.00%
CSC	UN Equity	CAMPBELL SOUP CO	CPB	0.12%	8.25%	0.01%	3.15%	0.00%
CPWR	UN Equity	COMPUWARE CORP	CPWR	0.02%	5.00%	0.00%	0.00%	0.00%
CAG	UN Equity	SALESFORCE.COM INC	CRM	0.13%	27.89%	0.03%	0.00%	0.00%
COP	UN Equity	COMPUTER SCIENCES CORP	CSC	0.06%	8.50%	0.01%	0.83%	0.00%
ED	UN Equity	CISCO SYSTEMS INC	CSCO	1.22%	10.68%	0.13%	0.00%	0.00%
CNX	UN Equity	CSX CORP	CSX	0.19%	10.72%	0.02%	1.91%	0.00%
CEG	UN Equity	CINTAS CORP	CTAS	0.04%	10.20%	0.00%	1.93%	0.00%
STZ	UN Equity	CENTURYLINK INC	CTL	0.11%	0.53%	0.00%	8.04%	0.01%
GLW	UN Equity	COGNIZANT TECH SOLUTIONS-A	CTSH	0.18%	18.14%	0.03%	0.00%	0.00%
COST	UN Equity	CITRIX SYSTEMS INC	CTXS	0.11%	12.00%	0.01%	0.00%	0.00%
CVH	UN Equity	COVENTRY HEALTH CARE INC	CVH	0.03%	12.00%	0.00%	0.00%	0.00%
BCR	UN Equity	CVS CAREMARK CORP	CVS	0.39%	11.88%	0.05%	1.20%	0.00%
CSX	UN Equity	CHEVRON CORP	CVX	1.56%	20.49%	0.32%	3.68%	0.06%
CMI	UN Equity	DOMINION RESOURCES INC/VA	D	0.26%	3.50%	0.01%	4.17%	0.01%
CVS	UN Equity	DU PONT (E.I.) DE NEMOURS	DD	0.37%	11.30%	0.04%	4.07%	0.01%
DHR	UN Equity	DEERE & CO	DE	0.28%	8.75%	0.02%	1.85%	0.01%
DRI	UN Equity	DELL INC	DELL	0.24%	11.00%	0.03%	0.00%	0.00%
DVA	UN Equity	DEAN FOODS CO	DF	0.02%	2.33%	0.00%	0.00%	0.00%
DF	UN Equity	DISCOVER FINANCIAL SERVICES	DFS	0.08%	6.00%	0.00%	0.65%	0.00%
DE	UN Equity	QUEST DIAGNOSTICS	DGX	0.08%	11.95%	0.01%	0.88%	0.00%
DELL	UN Equity	DR HORTON INC	DHI	0.03%	7.67%	0.00%	1.46%	0.00%
DNR	UN Equity	DANAHER CORP	DHR	0.24%	14.72%	0.04%	0.21%	0.00%
XRAY	UN Equity	WALT DISNEY CO/THE	DIS	0.64%	10.84%	0.07%	1.07%	0.01%
DVN	UN Equity	DISCOVERY COMMUNICATIONS-A	DISCA	0.05%	20.89%	0.01%	0.00%	0.00%
DV	UN Equity	DUN & BRADSTREET CORP	DNB	0.03%	11.50%	0.00%	2.07%	0.00%
DO	UN Equity	DENBURY RESOURCES INC	DNR	0.06%	6.50%	0.00%	0.00%	0.00%
DTV	UN Equity	DIAMOND OFFSHORE DRILLING	DO	0.08%	16.00%	0.01%	8.68%	0.01%
DFS	UN Equity	DOVER CORP	DOV	0.09%	12.00%	0.01%	2.31%	0.00%
DISCA	UN Equity	DOW CHEMICAL	DOW	0.29%	7.50%	0.02%	2.42%	0.01%
D	UN Equity	DR PEPPER SNAPPLE GROUP INC	DPS	0.09%	9.00%	0.01%	2.31%	0.00%
DOV	UN Equity	DARDEN RESTAURANTS INC	DRI	0.06%	12.39%	0.01%	3.27%	0.00%
DOW	UN Equity	DTE ENERGY COMPANY	DTE	0.08%	4.80%	0.00%	4.69%	0.00%
DHI	UN Equity	DIRECTV-CLASS A	DTV	0.33%	27.40%	0.09%	0.00%	0.00%
DPS	UN Equity	DUKE ENERGY CORP	DUK	0.22%	3.83%	0.01%	5.71%	0.01%
DTE	UN Equity	DEVRY INC	DV	0.03%	19.83%	0.01%	0.48%	0.00%
DD	UN Equity	DAVITA INC	DVA	0.07%	12.06%	0.01%	0.00%	0.00%
DUK	UN Equity	DEVON ENERGY CORPORATION	DVN	0.28%	6.02%	0.02%	1.02%	0.00%
DNB	UN Equity	EBAY INC	EBAY	0.28%	8.78%	0.02%	0.00%	0.00%
ETFC	UN Equity	ECOLAB INC	ECL	0.11%	13.50%	0.02%	1.30%	0.00%
EMN	UN Equity	CONSOLIDATED EDISON INC	ED	0.13%	4.36%	0.01%	4.99%	0.01%
EK	UN Equity	EQUIFAX INC	EFX	0.04%	9.75%	0.00%	0.53%	0.00%
ETN	UN Equity	EDISON INTERNATIONAL	EIX	0.11%	3.50%	0.00%	3.77%	0.00%
EBAY	UN Equity	EASTMAN KODAK CO	EK	0.01%	10.00%	0.00%	0.00%	0.00%
ECL	UN Equity	ESTEE LAUDER COMPANIES-CL A	EL	0.07%	13.72%	0.01%	1.10%	0.00%
EIX	UN Equity	EMC CORP/MASS	EMC	0.39%	14.89%	0.06%	0.00%	0.00%
EP	UN Equity	EASTMAN CHEMICAL COMPANY	EMN	0.04%	11.50%	0.01%	2.94%	0.00%
ERTS	UN Equity	EMERSON ELECTRIC CO	EMR	0.36%	13.43%	0.05%	2.85%	0.01%
LLY	UN Equity	EOG RESOURCES INC	EOG	0.24%	18.67%	0.04%	0.66%	0.00%
EMC	UN Equity	EL PASO CORP	EP	0.08%	5.90%	0.00%	0.34%	0.00%
EMR	UN Equity	EQUITY RESIDENTIAL	EQR	0.13%	5.72%	0.01%	3.02%	0.00%
ETR	UN Equity	EQT CORP	EQT	0.05%	14.50%	0.01%	2.52%	0.00%
EOG	UN Equity	ELECTRONIC ARTS INC	ERTS	0.05%	15.83%	0.01%	0.00%	0.00%
EQT	UN Equity	EXPRESS SCRIPTS INC	ESRX	0.25%	18.23%	0.05%	0.00%	0.00%
EFX	UN Equity	E*TRADE FINANCIAL CORP	ETFC	0.03%	90.00%	0.03%	0.00%	0.00%
EQR	UN Equity	EATON CORP	ETN	0.13%	10.25%	0.01%	2.88%	0.00%

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

EL	UN Equity	ENTERGY CORP	ETR	0.15%	3.33%	0.00%	4.15%	0.01%
EXC	UN Equity	EXELON CORP	EXC	0.27%	n/a	n/a	5.15%	0.00%
EXPE	UW Equity	EXPEDITORS INTL WASH INC	EXPD	0.09%	15.93%	0.01%	0.98%	0.00%
EXPD	UW Equity	EXPEDIA INC	EXPE	0.06%	13.75%	0.01%	0.59%	0.00%
ESRX	UW Equity	FORD MOTOR CO	F	0.41%	10.39%	0.04%	0.00%	0.00%
XOM	UN Equity	FASTENAL CO	FAST	0.07%	23.15%	0.02%	1.70%	0.00%
FDO	UN Equity	FREEMPORT-MCMORAN COPPER	FCX	0.33%	10.00%	0.03%	1.48%	0.00%
FAST	UW Equity	FAMILY DOLLAR STORES	FDO	0.06%	14.14%	0.01%	1.36%	0.00%
FI	UN Equity	FEDEX CORP	FDX	0.25%	14.20%	0.04%	0.59%	0.00%
FDX	UN Equity	FIRSTENERGY CORP	FE	0.11%	3.67%	0.00%	6.14%	0.01%
FIS	UN Equity	FIRST HORIZON NATIONAL CORP	FHN	0.02%	8.00%	0.00%	0.00%	0.00%
FITB	UW Equity	FEDERATED INVESTORS INC-CL B	FII	0.02%	6.00%	0.00%	10.19%	0.00%
FHN	UN Equity	FIDELITY NATIONAL INFORMATIO	FIS	0.08%	13.27%	0.01%	0.75%	0.00%
FSLR	UW Equity	FISERV INC	FISV	0.07%	12.67%	0.01%	0.00%	0.00%
FE	UN Equity	FIFTH THIRD BANCORP	FITB	0.10%	4.68%	0.00%	0.33%	0.00%
FISV	UW Equity	FLIR SYSTEMS INC	FLIR	0.04%	14.50%	0.01%	0.00%	0.00%
FLIR	UW Equity	FLUOR CORP	FLR	0.08%	13.25%	0.01%	1.23%	0.00%
FLS	UN Equity	FLOWSERVE CORP	FLS	0.05%	9.00%	0.00%	1.20%	0.00%
FLR	UN Equity	FMC CORP	FMC	0.04%	8.15%	0.00%	0.82%	0.00%
FMC	UN Equity	FORTUNE BRANDS INC	FO	0.07%	11.33%	0.01%	1.76%	0.00%
FTI	UN Equity	FOREST LABORATORIES INC	FRX	0.08%	1.70%	0.00%	0.00%	0.00%
F	UN Equity	FIRST SOLAR INC	FSLR	0.11%	18.10%	0.02%	0.00%	0.00%
FRX	UN Equity	FMC TECHNOLOGIES INC	FTI	0.07%	36.80%	0.03%	0.00%	0.00%
FO	UN Equity	FRONTIER COMMUNICATIONS CORP	FTR	0.08%	2.14%	0.00%	11.55%	0.01%
FPL	UN Equity	NICOR INC	GAS	0.02%	3.13%	0.00%	4.35%	0.00%
BEN	UN Equity	GANNETT CO	GCI	0.03%	5.50%	0.00%	1.26%	0.00%
FCX	UN Equity	GENERAL DYNAMICS CORP	GD	0.23%	7.83%	0.02%	2.67%	0.01%
FTR	UN Equity	GENERAL ELECTRIC CO	GE	1.65%	18.68%	0.31%	2.75%	0.05%
GME	UN Equity	GENZYME CORP	GENZ	0.17%	20.77%	0.04%	0.00%	0.00%
GCI	UN Equity	GILEAD SCIENCES INC	GILD	0.29%	13.86%	0.04%	0.00%	0.00%
GPS	UN Equity	GENERAL MILLS INC	GIS	0.23%	8.48%	0.02%	3.07%	0.01%
GD	UN Equity	CORNING INC	GLW	0.26%	11.40%	0.03%	1.19%	0.00%
GE	UN Equity	GAMESTOP CORP-CLASS A	GME	0.03%	11.00%	0.00%	0.00%	0.00%
GIS	UN Equity	GENWORTH FINANCIAL INC-CL A	GNW	0.06%	14.05%	0.01%	0.00%	0.00%
GPC	UN Equity	GOOGLE INC-CL A	GOOG	1.20%	17.86%	0.21%	0.00%	0.00%
GNW	UN Equity	GENUINE PARTS CO	GPC	0.07%	9.06%	0.01%	3.90%	0.00%
GENZ	UW Equity	GAP INC/THE	GPS	0.12%	10.80%	0.01%	2.18%	0.00%
GILD	UW Equity	GOODRICH CORP	GR	0.09%	7.04%	0.01%	1.48%	0.00%
GS	UN Equity	GOLDMAN SACHS GROUP INC	GS	0.76%	7.41%	0.06%	0.95%	0.01%
GR	UN Equity	GOODYEAR TIRE & RUBBER CO	GT	0.02%	21.74%	0.01%	0.00%	0.00%
GT	UN Equity	VW GRAINGER INC	GWV	0.08%	13.82%	0.01%	1.87%	0.00%
GOOG	UW Equity	HALLIBURTON CO	HAL	0.26%	5.13%	0.01%	1.28%	0.00%
HRB	UN Equity	HARMAN INTERNATIONAL	HAR	0.02%	30.00%	0.01%	0.00%	0.00%
HAL	UN Equity	HASBRO INC	HAS	0.06%	10.00%	0.01%	2.34%	0.00%
HOG	UN Equity	HUNTINGTON BANCSHARES INC	HBAN	0.04%	4.67%	0.00%	0.71%	0.00%
HAR	UN Equity	HUDSON CITY BANCORP INC	HCBK	0.06%	4.50%	0.00%	5.21%	0.00%
HRS	UN Equity	HEALTH CARE REIT INC	HCN	0.06%	7.68%	0.00%	6.13%	0.00%
HIG	UN Equity	HCP INC	HCP	0.11%	8.42%	0.01%	5.39%	0.01%
HAS	UN Equity	HOME DEPOT INC	HD	0.46%	12.98%	0.06%	3.50%	0.02%
HCP	UN Equity	HESS CORP	HES	0.17%	8.71%	0.02%	0.76%	0.00%
HCN	UN Equity	HARTFORD FINANCIAL SVCS GRP	HIG	0.09%	12.28%	0.01%	0.96%	0.00%
HP	UN Equity	HJ HEINZ CO	HNZ	0.15%	7.28%	0.01%	3.95%	0.01%
HSY	UN Equity	HARLEY-DAVIDSON INC	HOG	0.06%	9.33%	0.01%	1.56%	0.00%
HES	UN Equity	HONEYWELL INTERNATIONAL INC	HON	0.32%	10.28%	0.03%	2.96%	0.01%
HPQ	UN Equity	STARWOOD HOTELS & RESORTS	HOT	0.09%	16.00%	0.01%	0.55%	0.00%
HNZ	UN Equity	HELMERICH & PAYNE	HP	0.04%	10.00%	0.00%	0.40%	0.00%
HD	UN Equity	HEWLETT-PACKARD CO	HPQ	0.95%	10.25%	0.10%	0.79%	0.01%
HON	UN Equity	H&R BLOCK INC	HRB	0.05%	11.00%	0.01%	4.25%	0.00%
HRL	UN Equity	HORMEL FOODS CORP	HRL	0.06%	11.00%	0.01%	1.95%	0.00%
HSP	UN Equity	HARRIS CORP	HRS	0.06%	6.00%	0.00%	1.69%	0.00%
HST	UN Equity	HOSPIRA INC	HSP	0.09%	11.29%	0.01%	0.00%	0.00%
HCBK	UW Equity	HOST HOTELS & RESORTS INC	HST	0.09%	11.60%	0.01%	0.33%	0.00%
HUM	UN Equity	HERSHEY CO/THE	HSY	0.08%	8.80%	0.01%	2.83%	0.00%
HBAN	UW Equity	HUMANA INC	HUM	0.08%	8.95%	0.01%	0.00%	0.00%
IBM	UN Equity	INTL BUSINESS MACHINES CORP	IBM	1.61%	11.67%	0.19%	1.82%	0.03%
ITW	UN Equity	INTERCONTINENTALEXCHANGE INC	ICE	0.07%	17.75%	0.01%	0.00%	0.00%
TEG	UN Equity	INTL FLAVORS & FRAGRANCES	IFF	0.04%	9.25%	0.00%	2.26%	0.00%
INTC	UW Equity	INTL GAME TECHNOLOGY	IGT	0.05%	16.00%	0.01%	1.58%	0.00%
ICE	UN Equity	INTEL CORP	INTC	1.07%	10.38%	0.11%	3.28%	0.03%
IPG	UN Equity	INTUIT INC	INTU	0.12%	15.32%	0.02%	0.00%	0.00%
IFF	UN Equity	INTERNATIONAL PAPER CO	IP	0.10%	5.50%	0.01%	1.83%	0.00%
IGT	UN Equity	INTERPUBLIC GROUP OF COS INC	IPG	0.04%	13.25%	0.01%	0.00%	0.00%
IP	UN Equity	IRON MOUNTAIN INC	IRM	0.04%	18.00%	0.01%	1.00%	0.00%
INTU	UW Equity	INTUITIVE SURGICAL INC	ISRG	0.12%	25.83%	0.03%	0.00%	0.00%
ISRG	UW Equity	ITT CORP	ITT	0.08%	11.00%	0.01%	2.20%	0.00%
IVZ	UN Equity	ILLINOIS TOOL WORKS	ITW	0.22%	19.15%	0.04%	3.00%	0.01%
IRM	UN Equity	INVESCO LTD	IVZ	0.09%	9.65%	0.01%	2.34%	0.00%
ITT	UN Equity	JABIL CIRCUIT INC	JBL	0.03%	13.33%	0.00%	2.42%	0.00%
JCP	UN Equity	JOHNSON CONTROLS INC	JCI	0.18%	13.92%	0.03%	1.87%	0.00%
JBL	UN Equity	J.C. PENNEY CO INC	JCP	0.05%	14.75%	0.01%	4.06%	0.00%
JEC	UN Equity	JDS UNIPHASE CORP	JDSU	0.02%	9.00%	0.00%	0.00%	0.00%
JNS	UN Equity	JACOBS ENGINEERING GROUP INC	JEC	0.04%	14.00%	0.01%	0.00%	0.00%
JDSU	UW Equity	JOHNSON & JOHNSON	JNJ	1.60%	6.63%	0.11%	3.59%	0.06%
SJM	UN Equity	JUNIPER NETWORKS INC	JNPR	0.13%	17.10%	0.02%	0.00%	0.00%
JCI	UN Equity	JANUS CAPITAL GROUP INC	JNS	0.02%	2.80%	0.00%	0.41%	0.00%
JNJ	UN Equity	JPMORGAN CHASE & CO	JPM	1.49%	8.40%	0.13%	0.85%	0.01%
JPM	UN Equity	NORDSTROM INC	JWN	0.07%	11.83%	0.01%	2.29%	0.00%
JNPR	UN Equity	KELLOGG CO	K	0.19%	9.19%	0.02%	3.08%	0.01%
K	UN Equity	KEYCORP	KEY	0.07%	4.75%	0.00%	0.49%	0.00%
KEY	UN Equity	KRAFT FOODS INC-CLASS A	KFT	0.52%	7.43%	0.04%	3.97%	0.02%
KMB	UN Equity	KING PHARMACEUTICALS INC	KG	0.02%	6.90%	0.00%	0.00%	0.00%
KIM	UN Equity	KIMCO REALTY CORP	KIM	0.06%	9.50%	0.01%	4.39%	0.00%
KG	UN Equity	KLA-TENCOR CORPORATION	KLAC	0.05%	10.50%	0.01%	3.45%	0.00%
KLAC	UW Equity	KIMBERLY-CLARK CORP	KMB	0.27%	8.22%	0.02%	4.00%	0.01%
KSS	UN Equity	CARMAX INC	KMX	0.05%	14.00%	0.01%	0.00%	0.00%
KFT	UN Equity	COCA-COLA CO/THE	KO	1.29%	8.50%	0.11%	3.16%	0.04%
KR	UN Equity	KROGER CO	KR	0.14%	10.20%	0.01%	1.83%	0.00%
LLL	UN Equity	KOHL'S CORP	KSS	0.14%	13.67%	0.02%	0.00%	0.00%
LH	UN Equity	LOEWS CORP	L	0.16%	n/a	n/a	0.67%	0.00%
LM	UN Equity	LEGG MASON INC	LEG	0.03%	4.70%	0.00%	5.28%	0.00%
LEG	UN Equity	LENNAR CORP-CL A	LEN	0.02%	8.00%	0.00%	1.17%	0.00%
LEN	UN Equity	LABORATORY CRP OF AMER HLDGS	LH	0.08%	12.17%	0.01%	0.00%	0.00%
LUK	UN Equity	LIFE TECHNOLOGIES CORP	LIFE	0.08%	10.45%	0.01%	0.00%	0.00%
LXK	UN Equity	L-3 COMMUNICATIONS HOLDINGS	LLL	0.08%	8.13%	0.01%	2.25%	0.00%
LIFE	UW Equity	LINEAR TECHNOLOGY CORP	LLTC	0.07%	9.67%	0.01%	3.26%	0.00%
LNC	UN Equity	ELI LILLY & CO	LLY	0.41%	n/a	n/a	5.46%	0.00%
LLTC	UW Equity	LEGG MASON INC	LM	0.04%	7.50%	0.00%	0.55%	0.00%
LMT	UN Equity	LOCKHEED MARTIN CORP	LMT	0.26%	8.25%	0.02%	3.55%	0.01%
L	UN Equity	LINCOLN NATIONAL CORP	LNC	0.07%	10.43%	0.01%	0.18%	0.00%
LO	UN Equity	LORILLARD INC	LO	0.11%	6.00%	0.01%	5.73%	0.01%
LOW	UN Equity	LOWE'S COS INC	LOW	0.28%	14.14%	0.04%	2.12%	0.01%
LSI	UN Equity	LSI CORP	LSI	0.03%	5.50%	0.00%	0.00%	0.00%
LTD	UN Equity	LTD BRANDS INC	LTD	0.08%	14.86%	0.01%	6.41%	0.01%
MTB	UN Equity	LEUCADIA NATIONAL CORP	LUK	0.05%	n/a	n/a	0.00%	0.00%
M	UN Equity	SOUTHWEST AIRLINES CO	LUV	0.09%	8.33%	0.01%	0.14%	0.00%
MRO	UN Equity	LEXMARK INTERNATIONAL INC-A	LXK	0.03%	n/a	n/a	0.00%	0.00%

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MAR	UN Equity	MACY'S INC	M	0.09%	9.08%	0.01%	1.00%	0.00%
MMC	UN Equity	MASTERCARD INC-CLASS A	MA	0.25%	19.64%	0.05%	0.29%	0.00%
MI	UN Equity	MARRIOTT INTERNATIONAL-CL A	MAR	0.12%	11.20%	0.01%	0.48%	0.00%
MAS	UN Equity	MASCO CORP	MAS	0.04%	10.00%	0.00%	2.87%	0.00%
MEE	UN Equity	MATTEL INC	MAT	0.08%	7.00%	0.01%	3.83%	0.00%
MA	UN Equity	MCDONALD'S CORP	MCD	0.77%	10.25%	0.08%	3.15%	0.02%
MAT	UN Equity	MICROCHIP TECHNOLOGY INC	MCHP	0.05%	15.00%	0.01%	4.74%	0.00%
MFE	UN Equity	MCKESSON CORP	MCK	0.16%	11.73%	0.02%	0.90%	0.00%
MKC	UN Equity	MOODY'S CORP	MCO	0.05%	11.00%	0.01%	1.87%	0.00%
MCD	UN Equity	MEREDITH CORP	MDP	0.01%	n/a	n/a	2.96%	0.00%
MHP	UN Equity	MEDTRONIC INC	MDT	0.39%	10.67%	0.04%	2.49%	0.01%
MCK	UN Equity	MASSEY ENERGY CO	MEE	0.03%	18.00%	0.01%	0.79%	0.00%
MJN	UN Equity	METLIFE INC	MET	0.36%	10.58%	0.04%	1.92%	0.01%
MVW	UN Equity	MCAFFEE INC	MFE	0.05%	13.36%	0.01%	0.00%	0.00%
MHS	UN Equity	MCGRRAW-HILL COMPANIES INC	MHP	0.09%	8.93%	0.01%	3.35%	0.00%
MDT	UN Equity	MEDCO HEALTH SOLUTIONS INC	MHS	0.20%	17.28%	0.04%	0.06%	0.00%
WFR	UN Equity	MARSHALL & ILSLEY CORP	MI	0.04%	6.33%	0.00%	0.60%	0.00%
MRK	UN Equity	MEAD JOHNSON NUTRITION CO	MJN	0.11%	9.57%	0.01%	1.61%	0.00%
MDP	UN Equity	MCCORMICK & CO-NON VTG SHRS	MKC	0.05%	8.20%	0.00%	2.56%	0.00%
MET	UN Equity	MARSH & MCLENNAN COS	MMC	0.13%	7.00%	0.01%	3.43%	0.00%
PCS	UN Equity	3M CO	MMM	0.60%	11.90%	0.07%	2.51%	0.02%
MCHP	UN Equity	ALTRIA GROUP INC	MO	0.47%	7.50%	0.03%	6.51%	0.03%
MJ	UN Equity	MOLEX INC	MOLX	0.02%	11.87%	0.00%	3.38%	0.00%
MSFT	UN Equity	MONSANTO CO	MON	0.31%	11.00%	0.03%	1.83%	0.01%
MIL	UN Equity	MOTOROLA INC	MOT	0.18%	11.87%	0.02%	0.00%	0.00%
MOLX	UN Equity	MERCK & CO. INC.	MRK	1.08%	5.94%	0.06%	4.05%	0.05%
TAP	UN Equity	MARATHON OIL CORP	MRO	0.23%	11.56%	0.03%	3.01%	0.01%
MON	UN Equity	MORGAN STANLEY	MS	0.36%	n/a	n/a	0.77%	0.00%
MWV	UN Equity	MICROSOFT CORP	MSFT	2.11%	11.83%	0.25%	2.18%	0.05%
MCO	UN Equity	M & T BANK CORP	MTB	0.10%	4.95%	0.01%	3.28%	0.00%
MS	UN Equity	MICRON TECHNOLOGY INC	MU	0.07%	11.75%	0.01%	0.00%	0.00%
MOT	UN Equity	MURPHY OIL CORP	MUR	0.11%	15.00%	0.02%	1.90%	0.00%
MUR	UN Equity	MEADOWS VACO CORP	MWV	0.04%	10.00%	0.00%	4.19%	0.00%
MYL	UN Equity	MONSTER WORLDWIDE INC	MWW	0.02%	20.20%	0.00%	0.00%	0.00%
NBR	UN Equity	MYLAN INC	MYL	0.05%	15.36%	0.01%	1.78%	0.00%
NDAQ	UN Equity	NOBLE ENERGY INC	NBL	0.12%	7.00%	0.01%	1.09%	0.00%
NOV	UN Equity	NABORS INDUSTRIES LTD	NBR	0.05%	10.00%	0.00%	0.00%	0.00%
NSM	UN Equity	NASDAQ OMX GROUP/THE	NDAQ	0.04%	12.00%	0.00%	0.00%	0.00%
NTAP	UN Equity	NEXTERA ENERGY INC	NEE	0.22%	5.94%	0.01%	3.85%	0.01%
NYT	UN Equity	NEWMONT MINING CORP	NEM	0.28%	24.43%	0.07%	0.92%	0.00%
NWL	UN Equity	NISOURCE INC	NI	0.05%	5.33%	0.00%	5.60%	0.00%
NEM	UN Equity	NIKE INC -CL B	NKE	0.28%	11.03%	0.03%	1.59%	0.00%
NWSA	UN Equity	NORTHROP GRUMMAN CORP	NOC	0.17%	10.51%	0.02%	3.22%	0.01%
GAS	UN Equity	NATIONAL OILWELL VARCO INC	NOV	0.17%	n/a	n/a	1.06%	0.00%
NKE	UN Equity	NOVELL INC	NOVL	0.02%	8.33%	0.00%	0.00%	0.00%
NI	UN Equity	NRG ENERGY INC	NRG	0.06%	3.50%	0.00%	0.00%	0.00%
NBL	UN Equity	NORFOLK SOUTHERN CORP	NSC	0.20%	10.60%	0.02%	2.56%	0.01%
JWN	UN Equity	NATIONAL SEMICONDUCTOR CORP	NSM	0.03%	7.00%	0.00%	2.65%	0.00%
NSC	UN Equity	NETAPP INC	NTAP	0.13%	17.60%	0.02%	0.00%	0.00%
NU	UN Equity	NORTHERN TRUST CORP	NTRS	0.12%	11.20%	0.01%	2.24%	0.00%
NTRS	UN Equity	NORTHEAST UTILITIES	NU	0.05%	6.83%	0.00%	3.57%	0.00%
NOC	UN Equity	NUCOR CORP	NUE	0.12%	15.00%	0.02%	3.77%	0.00%
NOVL	UN Equity	NVIDIA CORP	NVDA	0.05%	15.60%	0.01%	0.00%	0.00%
NVLS	UN Equity	NOVELLUS SYSTEMS INC	NVLS	0.02%	14.00%	0.00%	0.00%	0.00%
NRG	UN Equity	NEWELL RUBBERMAID INC	NWL	0.04%	10.13%	0.00%	1.38%	0.00%
NUE	UN Equity	NEWS CORP-CL A	NWSA	0.24%	6.38%	0.02%	1.16%	0.00%
NVDA	UN Equity	NEW YORK TIMES CO -CL A	NYT	0.01%	12.00%	0.00%	0.00%	0.00%
NYX	UN Equity	NYSE EURONEXT	NYX	0.08%	10.44%	0.01%	4.10%	0.00%
ORLY	UN Equity	OFFICE DEPOT INC	ODP	0.01%	10.67%	0.00%	0.00%	0.00%
OXY	UN Equity	OWENS-ILLINOIS INC	OI	0.04%	5.00%	0.00%	0.00%	0.00%
ODP	UN Equity	ONEOK INC	OKE	0.05%	5.83%	0.00%	3.92%	0.00%
OMC	UN Equity	OMNICOM GROUP	OMC	0.11%	11.33%	0.01%	2.18%	0.00%
OKE	UN Equity	ORACLE CORP	ORCL	1.14%	13.97%	0.16%	0.96%	0.01%
ORCL	UN Equity	O'REILLY AUTOMOTIVE INC	ORLY	0.07%	16.50%	0.01%	0.00%	0.00%
OI	UN Equity	OCCIDENTAL PETROLEUM CORP	OXY	0.61%	7.81%	0.05%	1.80%	0.01%
PCAR	UN Equity	PAYCHEX INC	PAYX	0.09%	12.00%	0.01%	4.99%	0.00%
PTV	UN Equity	PEOPLE'S UNITED FINANCIAL	PBCT	0.05%	7.75%	0.00%	4.69%	0.00%
PLL	UN Equity	PITNEY BOWES INC	PBI	0.04%	n/a	n/a	7.47%	0.00%
PH	UN Equity	PACCAR INC	PCAR	0.15%	11.00%	0.02%	0.86%	0.00%
PDCO	UN Equity	P G & E CORP	PCG	0.18%	7.00%	0.01%	3.97%	0.01%
PAYX	UN Equity	PLUM CREEK TIMBER CO	PCL	0.06%	5.00%	0.00%	4.85%	0.00%
BTU	UN Equity	PRICELINE.COM INC	PCLN	0.14%	17.75%	0.03%	0.00%	0.00%
PBCT	UN Equity	PRECISION CAST PARTS CORP	PCP	0.17%	6.90%	0.01%	0.11%	0.00%
POM	UN Equity	METROPOLIS COMMUNICATIONS INC	PCS	0.03%	18.16%	0.01%	0.00%	0.00%
PEP	UN Equity	PATTERSON COS INC	PDCO	0.03%	14.33%	0.00%	1.50%	0.00%
PKI	UN Equity	PUBLIC SERVICE ENTERPRISE GP	PEG	0.16%	4.25%	0.00%	4.32%	0.01%
PFE	UN Equity	PEPSICO INC	PEP	1.10%	10.47%	0.12%	2.89%	0.03%
PCG	UN Equity	PFIZER INC	PFE	1.29%	2.21%	0.03%	4.48%	0.06%
PM	UN Equity	PRINCIPAL FINANCIAL GROUP	PFG	0.07%	12.50%	0.01%	2.30%	0.00%
PNW	UN Equity	PROCTER & GAMBLE CO/THE	PG	1.70%	9.30%	0.16%	3.27%	0.06%
PXD	UN Equity	PROGRESS ENERGY INC	PGN	0.13%	4.20%	0.01%	5.88%	0.01%
PBI	UN Equity	PROGRESSIVE CORP	PGR	0.13%	5.61%	0.01%	1.26%	0.00%
PCL	UN Equity	PARKER HANNIFIN CORP	PH	0.10%	8.50%	0.01%	1.68%	0.00%
PNC	UN Equity	PULTE GROUP INC	PHM	0.03%	10.00%	0.00%	0.04%	0.00%
RL	UN Equity	PERKINELMER INC	PKI	0.03%	15.15%	0.00%	1.31%	0.00%
PPG	UN Equity	PROLOGIS	PLD	0.05%	18.23%	0.01%	5.81%	0.00%
PPL	UN Equity	PALL CORP	PLL	0.04%	12.33%	0.01%	1.78%	0.00%
PX	UN Equity	PHILIP MORRIS INTERNATIONAL	PM	0.95%	10.00%	0.10%	4.72%	0.05%
PCP	UN Equity	PNC FINANCIAL SERVICES GROUP	PNC	0.29%	4.88%	0.01%	0.73%	0.00%
PCLN	UN Equity	PINNACLE WEST CAPITAL	PNW	0.04%	7.00%	0.00%	5.34%	0.00%
PFG	UN Equity	PEPCO HOLDINGS INC	POM	0.04%	6.67%	0.00%	6.22%	0.00%
PG	UN Equity	PPG INDUSTRIES INC	PPG	0.11%	7.50%	0.01%	3.31%	0.00%
PGN	UN Equity	PPL CORPORATION	PPL	0.13%	5.06%	0.01%	5.22%	0.01%
PGR	UN Equity	PRUDENTIAL FINANCIAL INC	PRU	0.26%	12.18%	0.03%	1.40%	0.00%
PLD	UN Equity	PUBLIC STORAGE	PSA	0.17%	4.33%	0.01%	3.11%	0.01%
PRU	UN Equity	PACTIV CORPORATION	PTV	0.04%	9.85%	0.00%	0.00%	0.00%
PEG	UN Equity	QUANTA SERVICES INC	PWR	0.04%	14.48%	0.01%	0.00%	0.00%
PSA	UN Equity	PRAXAIR INC	PX	0.27%	11.33%	0.03%	2.06%	0.01%
PHM	UN Equity	PIONEER NATURAL RESOURCES CO	PXD	0.07%	10.67%	0.01%	0.30%	0.00%
QLGC	UN Equity	QWEST COMMUNICATIONS INTL	Q	0.10%	5.20%	0.01%	5.62%	0.01%
QCOM	UN Equity	QUALCOMM INC	QCOM	0.61%	17.09%	0.10%	1.67%	0.01%
PWR	UN Equity	QEP RESOURCES INC	QEP	0.05%	n/a	n/a	0.13%	0.00%
DGX	UN Equity	QLOGIC CORP	QLGC	0.02%	11.50%	0.00%	0.00%	0.00%
STR	UN Equity	RYDER SYSTEM INC	R	0.02%	14.85%	0.00%	2.58%	0.00%
Q	UN Equity	REYNOLDS AMERICAN INC	RAI	0.16%	6.00%	0.01%	6.43%	0.01%
RSH	UN Equity	ROWAN COMPANIES INC	RDC	0.03%	16.00%	0.00%	0.00%	0.00%
RRC	UN Equity	REGIONS FINANCIAL CORP	RF	0.09%	7.00%	0.01%	0.55%	0.00%
RTN	UN Equity	ROBERT HALF INTL INC	RHI	0.04%	16.50%	0.01%	2.18%	0.00%
RHT	UN Equity	RED HAT INC	RHT	0.06%	17.78%	0.01%	0.00%	0.00%
RF	UN Equity	POLO RALPH LAUREN CORP	RL	0.05%	12.00%	0.01%	0.41%	0.00%
RSG	UN Equity	ROCKWELL AUTOMATION INC	ROK	0.07%	22.28%	0.02%	2.33%	0.00%
RAI	UN Equity	ROPER INDUSTRIES INC	ROP	0.06%	13.50%	0.01%	0.62%	0.00%
RHI	UN Equity	ROSS STORES INC	ROST	0.06%	14.00%	0.01%	1.35%	0.00%
ROK	UN Equity	RANGE RESOURCES CORP	RRC	0.06%	15.75%	0.01%	0.43%	0.00%
COL	UN Equity	RR DONNELLEY & SONS CO	RRD	0.03%	10.00%	0.00%	6.35%	0.00%
ROP	UN Equity	REPUBLIC SERVICES INC	RSG	0.11%	13.00%	0.01%	2.62%	0.00%

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ROST	UN Equity	RADIOSHACK CORP	RSH	0.02%	7.83%	0.00%	1.31%	0.00%
RDC	UN Equity	RAYTHEON COMPANY	RTN	0.17%	8.00%	0.01%	3.23%	0.01%
RRD	UN Equity	SPRINT NEXTEL CORP	S	0.13%	4.50%	0.01%	0.00%	0.00%
R	UN Equity	SAIC INC	SAI	0.06%	12.05%	0.01%	0.00%	0.00%
SWY	UN Equity	STARBUCKS CORP	SBUX	0.18%	16.00%	0.03%	1.25%	0.00%
SAI	UN Equity	SCANA CORP	SCG	0.05%	4.88%	0.00%	4.93%	0.00%
CRM	UN Equity	SCHWAB (CHARLES) CORP	SCHW	0.17%	13.00%	0.02%	1.65%	0.00%
SNDK	UN Equity	SPECTRA ENERGY CORP	SE	0.14%	6.67%	0.01%	4.70%	0.01%
SLE	UN Equity	SEALED AIR CORP	SEE	0.03%	6.00%	0.00%	1.63%	0.00%
SCG	UN Equity	SEARS HOLDINGS CORP	SHLD	0.08%	7.50%	0.01%	0.00%	0.00%
SLB	UN Equity	SHERWIN-WILLIAMS CO/THE	SHW	0.08%	7.15%	0.01%	2.08%	0.00%
SCHW	UN Equity	SIGMA-ALDRICH	SIAL	0.07%	9.50%	0.01%	1.19%	0.00%
SNI	UN Equity	SMITH INTERNATIONAL INC	SII	0.10%	16.00%	0.02%	1.12%	0.00%
SEE	UN Equity	JM SMUCKER CO/THE	SJM	0.07%	7.05%	0.00%	2.78%	0.00%
SHLD	UN Equity	SCHLUMBERGER LTD	SLB	0.70%	14.95%	0.10%	1.44%	0.01%
SRE	UN Equity	SARA LEE CORP	SLE	0.10%	9.12%	0.01%	3.08%	0.00%
SHW	UN Equity	SLM CORP	SLM	0.06%	10.00%	0.01%	0.00%	0.00%
SIAL	UN Equity	SNAP-ON INC	SNA	0.02%	10.00%	0.00%	0.00%	0.00%
SPG	UN Equity	SANDISK CORP	SNDK	0.10%	14.33%	0.01%	0.00%	0.00%
SLM	UN Equity	SCRIPPS NETWORKS INTER-CL A	SNI	0.05%	12.75%	0.01%	0.45%	0.00%
SII	UN Equity	SOUTHERN CO	SO	0.30%	4.86%	0.01%	5.04%	0.02%
SNA	UN Equity	SIMON PROPERTY GROUP INC	SPG	0.26%	5.04%	0.01%	2.72%	0.01%
SO	UN Equity	STAPLES INC	SPLS	0.14%	14.48%	0.02%	1.94%	0.00%
LUV	UN Equity	STERICYCLE INC	SRCL	0.06%	17.80%	0.01%	0.00%	0.00%
SWN	UN Equity	SEMPRA ENERGY	SRE	0.13%	6.50%	0.01%	3.09%	0.00%
SE	UN Equity	SUNTRUST BANKS INC	STI	0.12%	5.50%	0.01%	0.16%	0.00%
S	UN Equity	ST JUDE MEDICAL INC	STJ	0.12%	12.65%	0.02%	0.00%	0.00%
STJ	UN Equity	STATE STREET CORP	STT	0.19%	10.78%	0.02%	0.25%	0.00%
SWK	UN Equity	CONSTELLATION BRANDS INC-A	STZ	0.03%	10.00%	0.00%	0.00%	0.00%
SPLS	UN Equity	SUNOCO INC	SUN	0.04%	0.61%	0.00%	1.68%	0.00%
SBUX	UN Equity	SUPERVALU INC	SVU	0.02%	n/a	n/a	3.32%	0.00%
HOT	UN Equity	STANLEY BLACK & DECKER INC	SWK	0.09%	14.00%	0.01%	2.32%	0.00%
STT	UN Equity	SOUTHWESTERN ENERGY CO	SWN	0.12%	26.00%	0.03%	0.00%	0.00%
SRCL	UN Equity	SAFEWAY INC	SWY	0.08%	8.27%	0.01%	2.12%	0.00%
SYK	UN Equity	STRYKER CORP	SYK	0.19%	13.53%	0.03%	1.24%	0.00%
SUN	UN Equity	SYMANTEC CORP	SYMC	0.10%	9.23%	0.01%	0.00%	0.00%
STI	UN Equity	SYSCO CORP	SYU	0.18%	n/a	n/a	3.59%	0.00%
SVU	UN Equity	AT&T INC	T	1.58%	6.19%	0.10%	6.35%	0.10%
SYMC	UN Equity	MOLSON COORS BREWING CO -B	TAP	0.07%	12.00%	0.01%	2.33%	0.00%
SYU	UN Equity	TERADATA CORP	TDC	0.05%	11.50%	0.01%	0.00%	0.00%
TROW	UN Equity	TECO ENERGY INC	TE	0.03%	7.63%	0.00%	5.04%	0.00%
TGT	UN Equity	INTEGRYS ENERGY GROUP INC	TEG	0.04%	9.90%	0.00%	5.62%	0.00%
TE	UN Equity	TERADYNE INC	TER	0.02%	15.00%	0.00%	0.00%	0.00%
TLAB	UN Equity	TARGET CORP	TGT	0.37%	13.72%	0.05%	1.60%	0.01%
THC	UN Equity	TENET HEALTHCARE CORP	THC	0.02%	8.25%	0.00%	0.00%	0.00%
TDC	UN Equity	TITANIUM METALS CORP	TIE	0.03%	10.00%	0.00%	0.52%	0.00%
TER	UN Equity	TIFFANY & CO	TIF	0.05%	13.72%	0.01%	2.05%	0.00%
TSO	UN Equity	TJX COMPANIES INC	TJX	0.17%	14.00%	0.02%	1.41%	0.00%
TXN	UN Equity	TELLABS INC	TLAB	0.03%	10.33%	0.00%	1.17%	0.00%
TXT	UN Equity	TORCHMARK CORP	TMK	0.04%	7.33%	0.00%	1.19%	0.00%
TMO	UN Equity	THERMO FISHER SCIENTIFIC INC	TMO	0.18%	11.20%	0.02%	0.00%	0.00%
TIF	UN Equity	T ROWE PRICE GROUP INC	TROW	0.12%	7.83%	0.01%	2.31%	0.00%
TWC	UN Equity	TRAVELERS COS INC/THE	TRV	0.24%	12.81%	0.03%	2.79%	0.01%
TWX	UN Equity	TYSON FOODS INC-CL A	TSN	0.05%	8.50%	0.00%	0.99%	0.00%
TIE	UN Equity	TESORO CORP	TSO	0.02%	17.65%	0.00%	0.16%	0.00%
TJX	UN Equity	TOTAL SYSTEM SERVICES INC	TSS	0.03%	9.00%	0.00%	1.95%	0.00%
TMK	UN Equity	TIME WARNER CABLE	TWC	0.19%	14.74%	0.03%	2.94%	0.01%
TSS	UN Equity	TIME WARNER INC	TWX	0.35%	13.82%	0.05%	2.77%	0.01%
TRV	UN Equity	TEXAS INSTRUMENTS INC	TXN	0.29%	10.75%	0.03%	1.99%	0.01%
TSN	UN Equity	TEXTRON INC	TXT	0.05%	35.51%	0.02%	0.45%	0.00%

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

UNP	UN Equity	UNITEDHEALTH GROUP INC	UNH	0.36%	11.12%	0.04%	0.98%	0.00%
UPS	UN Equity	UNUM GROUP	UNM	0.07%	9.25%	0.01%	1.74%	0.00%
UTX	UN Equity	UNION PACIFIC CORP	UNP	0.37%	14.30%	0.05%	1.71%	0.01%
UNH	UN Equity	UNITED PARCEL SERVICE-CL B	UPS	0.47%	13.47%	0.06%	2.92%	0.01%
UNM	UN Equity	URBAN OUTFITTERS INC	URBN	0.05%	19.75%	0.01%	0.00%	0.00%
URBN	UW Equity	US BANCORP	USB	0.43%	6.67%	0.03%	1.06%	0.00%
USB	UN Equity	UNITED TECHNOLOGIES CORP	UTX	0.66%	10.93%	0.07%	2.39%	0.02%
X	UN Equity	VISA INC-CLASS A SHARES	V	0.36%	19.85%	0.07%	0.68%	0.00%
VLO	UN Equity	VARIAN MEDICAL SYSTEMS INC	VAR	0.07%	15.00%	0.01%	0.00%	0.00%
VAR	UN Equity	VF CORP	VFC	0.08%	11.00%	0.01%	3.12%	0.00%
VTR	UN Equity	VIACOM INC-CLASS B	VIA/B	0.18%	11.08%	0.02%	0.18%	0.00%
VRSN	UW Equity	VALERO ENERGY CORP	VLO	0.10%	23.72%	0.02%	1.17%	0.00%
VZ	UN Equity	VULCAN MATERIALS CO	VMC	0.05%	8.50%	0.00%	2.61%	0.00%
VFC	UN Equity	VORNADO REALTY TRUST	VNO	0.15%	10.32%	0.02%	3.21%	0.00%
VIA/B	UN Equity	VERISIGN INC	VRSN	0.05%	10.71%	0.01%	0.00%	0.00%
V	UN Equity	VENTAS INC	VTR	0.08%	5.11%	0.00%	4.29%	0.00%
VNO	UN Equity	VERIZON COMMUNICATIONS INC	VZ	0.85%	3.81%	0.03%	6.37%	0.05%
VMC	UN Equity	WALGREEN CO	WAG	0.27%	14.38%	0.04%	1.96%	0.01%
WMT	UN Equity	WATERS CORP	WAT	0.06%	13.33%	0.01%	0.00%	0.00%
WAG	UN Equity	WESTERN DIGITAL CORP	WDC	0.06%	8.40%	0.00%	0.00%	0.00%
DIS	UN Equity	WISCONSIN ENERGY CORP	WEC	0.06%	8.00%	0.01%	2.86%	0.00%
WFO	UN Equity	WELLS FARGO & CO	WFC	1.35%	5.26%	0.07%	0.81%	0.01%
WMI	UN Equity	WHOLE FOODS MARKET INC	WFMJ	0.06%	19.50%	0.01%	0.00%	0.00%
WAT	UN Equity	MEMC ELECTRONIC MATERIALS	WFR	0.02%	17.50%	0.00%	0.00%	0.00%
WPI	UN Equity	WHIRLPOOL CORP	WHR	0.06%	15.00%	0.01%	2.25%	0.00%
WLP	UN Equity	WINDSTREAM CORP	WIN	0.05%	n/a	n/a	8.83%	0.00%
WFC	UN Equity	WELLPOINT INC	WLP	0.21%	10.60%	0.02%	0.00%	0.00%
WDC	UN Equity	WASTE MANAGEMENT INC	WM	0.16%	12.00%	0.02%	3.76%	0.01%
WU	UN Equity	WILLIAMS COS INC	WMB	0.11%	15.63%	0.02%	2.52%	0.00%
WY	UN Equity	WAL-MART STORES INC	WMT	1.87%	11.01%	0.21%	2.40%	0.04%
WHR	UN Equity	WATSON PHARMACEUTICALS INC	WPI	0.05%	9.52%	0.00%	0.00%	0.00%
WFMJ	UW Equity	WASHINGTON POST-CLASS B	WPO	0.03%	n/a	n/a	0.00%	0.00%
WMB	UN Equity	WESTERN UNION CO	WU	0.11%	11.64%	0.01%	1.53%	0.00%
WIN	UW Equity	WEYERHAEUSER CO	WY	0.03%	5.50%	0.00%	3.32%	0.00%
WEC	UN Equity	WYNDHAM WORLDWIDE CORP	WYN	0.04%	5.20%	0.00%	1.93%	0.00%
GWW	UN Equity	WYNN RESORTS LTD	WYNN	0.11%	17.13%	0.02%	0.85%	0.00%
WYN	UN Equity	UNITED STATES STEEL CORP	X	0.06%	17.50%	0.01%	0.44%	0.00%
WYNN	UW Equity	XCEL ENERGY INC	XEL	0.10%	6.17%	0.01%	4.48%	0.00%
XEL	UN Equity	XL GROUP PLC	XL	0.06%	n/a	n/a	2.23%	0.00%
XRX	UN Equity	XLINX INC	XLNX	0.06%	12.00%	0.01%	2.58%	0.00%
XLNX	UW Equity	EXXON MOBIL CORP	XOM	2.82%	16.75%	0.47%	2.92%	0.08%
XL	UN Equity	DENTSPLY INTERNATIONAL INC	XRAY	0.04%	11.75%	0.01%	0.69%	0.00%
XTO	UN Equity	XEROX CORP	XRX	0.12%	n/a	n/a	1.96%	0.00%
YHOO	UW Equity	YAHOO! INC	YHOO	0.19%	10.54%	0.02%	0.00%	0.00%
YUM	UN Equity	YUM! BRANDS INC	YUM	0.19%	11.85%	0.02%	2.16%	0.00%
ZMH	UN Equity	ZIONS BANCORPORATION	ZION	0.03%	8.75%	0.00%	0.20%	0.00%
ZION	UW Equity	ZIMMER HOLDINGS INC	ZMH	0.10%	11.01%	0.01%	0.00%	0.00%

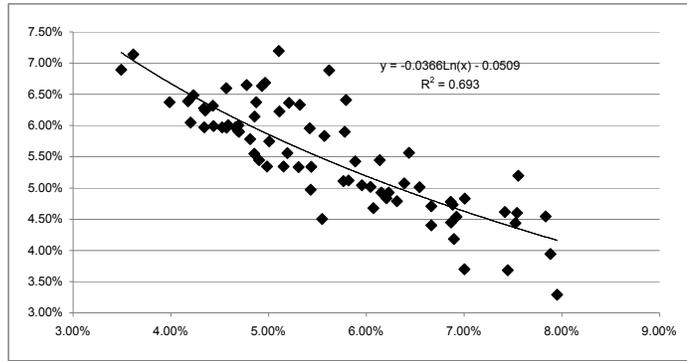
Notes:

- [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]# 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

BOND YIELD PLUS
RISK PREMIUM ANALYSIS

	[1]	[2]	[3]
	Average		
Quarter	Average Electric ROE	U.S. Govt. 30-year Treasury	Risk Premium
1992.1	12.38%	7.84%	4.55%
1992.2	11.83%	7.88%	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	11.64%	6.86%	4.78%
1993.3	11.15%	6.23%	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	12.75%	7.55%	5.20%
1994.4	11.24%	7.95%	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	11.58%	6.14%	5.45%
1996.1	11.46%	6.39%	5.07%
1996.2	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	11.62%	6.88%	4.73%
1997.3	12.00%	6.44%	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	11.65%	5.32%	6.33%
1998.4	12.30%	5.11%	7.20%
1999.1	10.40%	5.43%	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	11.08%	6.15%	4.93%
2000.2	11.00%	5.95%	5.05%
2000.3	11.68%	5.78%	5.90%
2000.4	12.50%	5.62%	6.88%
2001.1	11.38%	5.42%	5.96%
2001.2	10.88%	5.77%	5.11%
2001.3	10.78%	5.44%	5.34%
2001.4	11.57%	5.21%	6.36%
2002.1	10.05%	5.55%	4.50%
2002.2	11.41%	5.57%	5.83%
2002.3	11.65%	4.96%	6.69%
2002.4	11.57%	4.93%	6.63%
2003.1	11.43%	4.78%	6.65%
2003.2	11.16%	4.57%	6.60%
2003.3	10.50%	5.15%	5.35%
2003.4	11.34%	5.11%	6.23%
2004.1	11.00%	4.86%	6.14%
2004.2	10.64%	5.31%	5.33%
2004.3	10.75%	5.01%	5.74%
2004.4	11.24%	4.87%	6.37%
2005.1	10.60%	4.69%	5.91%
2005.2	10.31%	4.34%	5.97%
2005.3	10.75%	4.43%	6.32%
2005.4	10.63%	4.66%	5.97%
2006.1	10.70%	4.69%	6.00%
2006.2	10.75%	5.19%	5.56%
2006.3	10.35%	4.90%	5.45%
2006.4	10.59%	4.70%	5.90%
2007.1	10.59%	4.81%	5.78%
2007.2	10.33%	4.98%	5.34%
2007.3	10.40%	4.85%	5.55%
2007.4	10.50%	4.53%	5.97%
2008.1	10.62%	4.34%	6.28%
2008.2	10.54%	4.57%	5.97%
2008.3	10.43%	4.44%	5.99%
2008.4	10.39%	3.49%	6.89%
2009.1	10.75%	3.62%	7.14%
2009.2	10.72%	4.23%	6.49%
2009.3	10.57%	4.18%	6.39%
2009.4	10.59%	4.35%	6.24%
2010.1	10.59%	4.59%	6.01%
2010.2	10.25%	4.20%	6.05%
2010.3	10.36%	3.99%	6.37%
AVERAGE	11.12%	5.62%	5.50%
MEDIAN	11.07%	5.43%	5.55%

BOND YIELD PLUS
RISK PREMIUM ANALYSIS



SUMMARY OUTPUT

	<i>Coefficients</i>
Intercept	-0.051
U.S. Govt. 30-year Treasury	-0.037

	[6]	[7]	[8]
	<i>Risk-Free</i>	<i>Risk</i>	
	<i>Rate</i>	<i>Premium</i>	<i>ROE</i>
Current 30-year Treasury Bond Yield (30-day average) [4]	4.00%	6.82%	10.82%
Blue Chip Consensus Forecast (July 2010 - December 2011) [5]	4.48%	6.40%	10.88%
MEAN		6.61%	10.85%

Notes:

- [1] Source: Regulatory Research Associates, Rate Case Statistics, accessed August 13, 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. 8, August 1, 2010, at 2.
- [6] see Notes [4] & [5]
- [7] Equals $-0.0509 + (-0.037 \times \ln(\text{Col. [6]}))$
- [8] Equals Col. [6] + Col. [7]

Proxy Group Companies and Jurisdictional Rankings

		[1]	[2]
		Standard & Poor's Rankings	
		Rank	Numeric Rank
American Electric Power Company, Inc.	Indiana	More credit supportive	4
	Ohio	Credit supportive	3
	Oklahoma	Credit supportive	3
	Texas	Less credit supportive	2
	Virginia	Credit supportive	3
	West Virginia	Less credit supportive	2
	Arkansas	Credit supportive	3
	Kentucky	Credit supportive	3
	Louisiana	Less credit supportive	2
	Tennessee	NA	
Michigan	Credit supportive	3	
Cleco Corp.	Louisiana	Less credit supportive	2
DPL Inc.	Ohio	Credit supportive	3
Empire District Electric Company	Missouri	Less credit supportive	2
	Kansas	Credit supportive	3
	Oklahoma	Credit supportive	3
	Arkansas	Credit supportive	3
IDACORP, Inc.	Idaho	Credit supportive	3
	Oregon	Credit supportive	3
Northeast Utilities	Connecticut	Less credit supportive	2
	New Hampshire	Credit supportive	3
	Massachusetts	Credit supportive	3
Pinnacle West Capital Corp.	Arizona	Least credit supportive	1
Portland General Electric Company	Oregon	Credit supportive	3
Progress Energy, Inc.	North Carolina	Credit supportive	3
	South Carolina	More credit supportive	4
	Florida	Credit supportive	3
Southern Company	Georgia	More credit supportive	4
	Alabama	More credit supportive	4
	Florida	Credit supportive	3
	Mississippi	Credit supportive	3
Westar Energy, Inc.	Kansas	Credit supportive	3
Proxy Group Average			2.87
AmerenUE	Missouri	Less credit supportive	2

Notes

[1] Source: Standard & Poor's Updates Its U.S. Utility Regulatory Assessments, March 12, 2010.

[2] Least credit supportive = 1, Less credit supportive = 2, Credit supportive = 3, More credit supportive = 4