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MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. ER-2012-0166

DIRECT TESTIMONY

OF

ROBERT B. HEVERT

ON

BEHALF OF

UNION ELECTRIC COMPANY
d/b/a Ameren Missouri

St. Louis, Missouri
February 2012

Ameren Exhibit No. 20
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DIRECT TESTIMONY

OF

ROBERT B. HEVERT

CASE NO. ER-2012-0166

I. INTRODUCTION

Q. Please state your name, affiliation and business address.

A. My name is Robert B. Hevert. I am Managing Partner of Sussex Economic Advisors, LLC, and an Executive Advisor to Concentric Energy Advisors, Inc. ("Concentric"), located at 293 Boston Post Road West, Suite 500, Marlborough, Massachusetts 01752.

Q. On whose behalf are you submitting this testimony?

A. I am submitting this testimony on behalf of Union Electric Company d/b/a Ameren Missouri ("Ameren Missouri" or the "Company") in this proceeding before the Missouri Public Service Commission ("Commission").

Q. Please describe your educational background and professional experience in the energy and utility industries.

A. I received my Bachelors of Science degree in Finance from the University of Delaware, and my Master's degree in Business Administration from the University of Massachusetts. I also hold the Chartered Financial Analyst designation. I have served as an executive and manager with other consulting firms (REED Consulting Group and Navigant Consulting, Inc.), and as a financial officer of Bay State Gas Company. I have provided testimony regarding strategic and financial matters, including the cost of capital, before several state utility regulatory agencies as well as the Federal Energy Regulatory Commission ("FERC") on approximately 80 occasions, and have advised numerous energy and utility clients on a wide range of financial and economic issues including both asset and corporate-based transactions.

Many of those assignments have included the determination of the cost of capital for valuation purposes. Additional information on my qualifications and a listing of testimony that I have provided in prior proceedings is included as Attachment A to my direct testimony.

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

A. Concentric provides financial and economic advisory services to many and various energy and utility clients across North America. The firm's regulatory economic and market analysis services include utility ratemaking and regulatory advisory services; energy market assessments; market entry and exit analysis; corporate and business unit strategy development; demand forecasting, resource planning, and energy contract negotiations. Its financial advisory activities include both buy and sell side merger, acquisition and divestiture assignments, due diligence and valuation assignments, project and corporate finance services, and transaction support services. In addition, Concentric provides litigation support services on a wide range of financial and economic issues on behalf of clients throughout North America.

II. PURPOSE AND OVERVIEW OF TESTIMONY

Q. What is the purpose of your direct testimony?

A. The purpose of my direct testimony is to present evidence and provide a recommendation regarding the Company's Return on Equity ("ROE").[1] My analyses and recommendations are supported by the data presented in Schedule Nos. RBH-E1 through RBH-E8, which have been prepared by me or under my direction.

Q. What are your conclusions regarding the appropriate Cost of Equity for the Company?

A. My analyses indicate that the Company's Cost of Equity is currently within the range of 10.50 percent to 11.00 percent. Based on the quantitative and qualitative analyses

[1] Throughout my direct testimony, I interchangeably use the terms "ROE" and "Cost of Equity."

discussed throughout my direct testimony, and in light of the Commission's traditional reliance on the Discounted Cash Flow ("DCF") model and, in particular, in recognition of the Commission's recent reliance on the multi-stage form of that model, I recommend that the Commission authorize Ameren Missouri the opportunity to earn an ROE of 10.75 percent.

Q. Please provide a brief overview of the analyses that led to your ROE recommendation.

A. As discussed in more detail in Section VI, in light of recent capital market conditions, and given the fact that equity analysts and investors tend to use multiple methodologies in developing their return requirements, it is extremely important to consider the results of several analytical approaches in determining the Company's ROE. In order to develop my ROE recommendation, I therefore applied two forms of the DCF model and two forms of the Capital Asset Pricing Model ("CAPM"), as well as the Risk Premium approach. As discussed more fully in Section VI, in light of the weight given to the Constant Growth and multi-stage forms of the DCF model by the Commission in the previous Ameren Missouri electric rate case,[2] my recommendation places greater emphasis on the results of those models than it does on the other methodologies.

In addition to the analyses discussed above, my recommendation also takes into consideration the regulatory environment in which the Company operates, including the regulatory mechanisms in place at Ameren Missouri as compared to those for the proxy group.[3] While I did not make any explicit adjustments to my ROE estimates for those factors, I did take them into consideration when determining where the Company's ROE falls within the range of analytical results.

[2] Report and Order, Case No. ER-2011-0028, at 68-72.
[3] Section V of my direct testimony discusses the process by which the proxy companies were selected.

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

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

III. REGULATORY GUIDELINES AND FINANCIAL CONSIDERATIONS

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

A. The United States Supreme Court's precedent-setting *Hope* and *Bluefield* cases established the standards for determining the fairness or reasonableness of a utility's allowed ROE. Among the standards established by the Court in those cases are: (1) consistency with other businesses having similar or comparable risks; (2) adequacy of the return to support credit quality and access to capital; and (3) the principle that the specific means of arriving at a fair return are not important, only that the end result leads to just and reasonable rates.[4]

[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).

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

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

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

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

Q. Is it important for a utility to be allowed the opportunity to earn a return that is adequate to attract equity capital at reasonable terms?

A. Yes. A return that is adequate to attract capital at reasonable terms enables the Company to provide safe, reliable electric service while maintaining its financial integrity. While the "capital attraction" and "financial integrity" standards are important principles in normal economic conditions, the practical implications of those standards are even more

[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.

pronounced in the current financial environment. As discussed in more detail in Section IV, continued equity market volatility, together with sustained increases in utility debt credit spreads (that is, the difference in debt yields of utilities with varying credit ratings) have intensified the importance of maintaining a strong financial profile.

IV. CAPITAL MARKET ENVIRONMENT

Q. How do economic conditions influence the required cost of capital and required ROE?

A. The required cost of capital, including the ROE, is a function of prevailing and expected economic and capital market conditions. During times of capital market instability, risk aversion increases, which causes investors to seek the relative safety of U.S. Treasury debt, resulting in lower Treasury yields. At the same time, current and expected market volatility, as measured by indicators such as the Chicago Board Options Exchange ("CBOE") Volatility Index ("VIX"), tends to increase. A direct result of elevated volatility is a corresponding increase in the risk premium required by investors as compensation for taking on the risks associated with equity ownership.

Q. What analysis have you conducted to assess current capital market conditions?

A. As discussed below, I considered several widely-recognized measures of investor risk sentiment, including: (1) incremental credit spreads; (2) market volatility; and (3) the relationship between the dividend yields of the proxy group companies and Treasury yields. Except where noted, I compared current market conditions to the two-year period prior to the 2007-2009 recession (*i.e.*, January 2006 through November 2007), and to the capital market contraction period of 2002-2003. As shown in Table 1, those metrics indicate that current levels

of instability and risk aversion are significantly higher than the levels observed prior to the recent recession, as well as the levels experienced during the 2002-2003 capital market contraction.

Table 1: Risk Sentiment Indicators

(90-day average unless otherwise specified)

	December 31, 2011[6]	Pre-recession (Jan-2006 through Nov-2007)	Jan-2002 through Dec-2003
Credit Spreads (Moody's Utility Bond Index) Baa-rated bond to A-rated bond	0.68%	0.25%	0.46%
Market Volatility CBOE VXV and CBOE VIX Futures	30.82[7]	14.90[8]	24.64[9]
Dividend Yield Spreads Proxy Group to 10-year Treasury	2.34%	-0.75%	1.43%

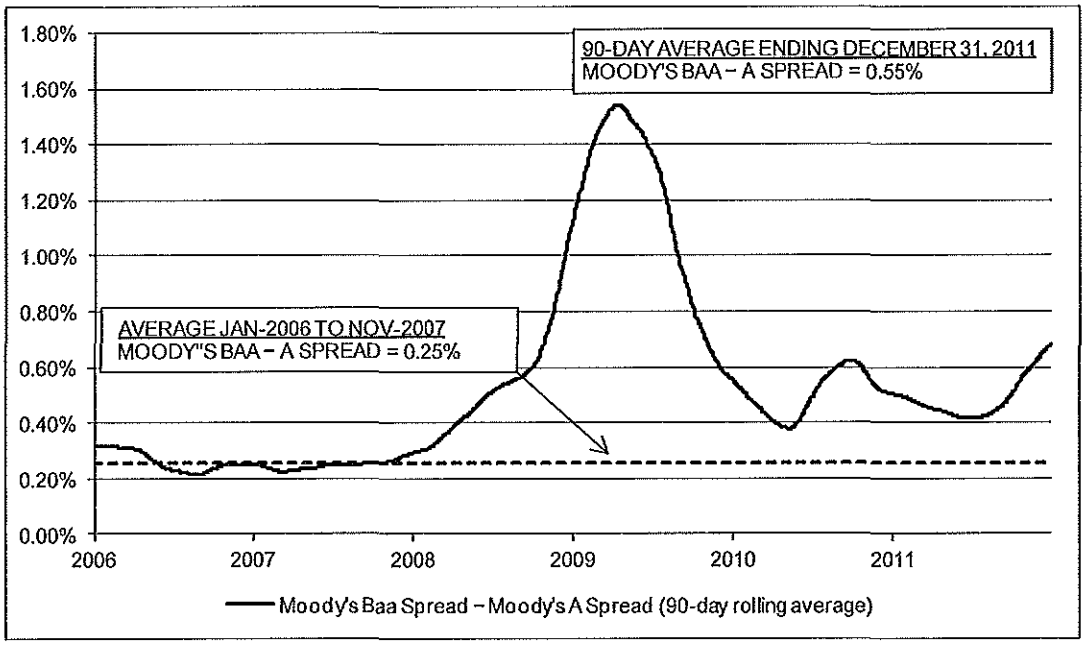
A. Incremental Credit Spreads

Q. How have credit spreads been affected by current market conditions?

A. As a preliminary matter, the "credit spread" is the incremental return required by debt investors to take on the default risk associated with securities of differing credit quality. As shown in Table 1 and as Chart 1 demonstrates, the 90-day moving average spread as of December 31, 2011 between the Moody's Baa-rated utility bond index and the Moody's A-rated utility bond index is 43 basis points above – or approximately 173.00 percent higher than – the comparable average credit spread immediately prior to the onset of the recent recession.

[6] Represents the 90-trading day average as of December 31, 2011, except as noted otherwise.
[7] Represents the 30-trading day average pricing of six-month forward volatility. Please note that the VIX is a one-month measure of volatility, while the VXV is a three-month measure.
[8] Represents the average VIX measured from January 2006 to November 2007.
[9] Represents the average VIX measured from January 2002 to December 2003.

Chart 1: Moody's Utility Bond Index Baa-A Credit Spread



Q. What are the implications of higher credit spreads as compared to the long-term average?

A. To the extent that credit spreads have increased, it is an observable measure of the capital markets' increased risk aversion; increased risk aversion clearly is associated with a higher Cost of Equity. Although increased credit spreads have recently coincided with a reduction in the absolute level of utility bond and Treasury yields, that fact does not imply a lower Cost of Equity; as discussed in more detail later in my testimony, there is a clear and well-established inverse relationship between the level of interest rates and the equity risk premium.[10] Consequently, lower utility bond yields, which are a function of lower Treasury yields, do not imply a lower Cost of Equity, particularly considering that the current level of credit spreads is higher than the long-term average.

[10] Robert S. Harris and Felicia C. Marston, *Estimating Shareholder Risk Premia Using Analysts' Growth* R. Vinson, *The Risk Premium Approach to Measuring a Utility's Cost of Equity*, Financial Management, Spring 1985, at 33-45; and Farris M. Maddox, Donna T. Pippert, and Rodney N. Sullivan, *An Empirical Study of Ex Ante Risk Premiums for the Electric Utility Industry*, Financial Management, Autumn 1995, at 89-95.

B. Equity Market Volatility

Q. What does equity market volatility suggest about current market conditions and the Company's Cost of Equity?

A. A directly observable measure of market volatility is the VIX. The VIX represents the forward-looking *(ex-ante)* implied (one-month) volatility of the Standard and Poor's ("S&P") 500 Index and as such, is an observable measure of investors' expectations of volatility and, therefore, risk. Since the inception of the VIX in 1990, its average has been approximately 20.57.[11] In contrast, forward-looking estimates of volatility as of December 31, 2011 (as measured by futures prices on the VIX and the CBOE S&P 500 VXV index, which is a three-month volatility index) average approximately 30.82. The currently anticipated level of volatility is measurably above the pre-recessionary period (*i.e.,* January 2006 to November 2007) during which the VIX averaged 14.90, and also is approximately 25.09 percent higher than the volatility experienced during the market contraction in 2002 and 2003, when the VIX averaged 24.64. As discussed earlier, there is a direct relationship between market volatility and the equity risk premium and, as such, the comparatively high forward-looking volatility measures indicate higher, not lower, required equity returns.

C. Yield Spreads

Q. Please discuss your analysis of the relationship between dividend yields and Treasury yields.

A. As a preliminary matter, the "yield spread" is the difference between dividend yields and long-term Treasury yields.[12] Investors often consider yield spreads in their assessment of security valuation and capital market conditions. As shown in Chart 2, the 2008 – 2009

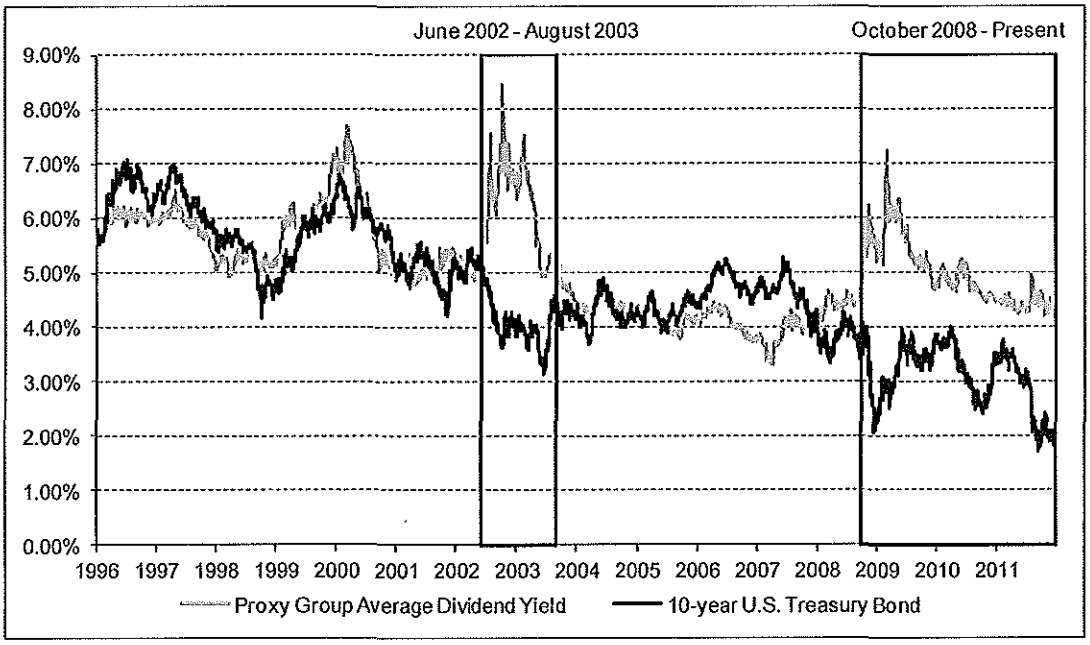
[11] The 20.57 percent average volatility is approximately equal to the long run (*i.e.*, 1926-2010) market volatility reported by Morningstar, Inc.

[12] The analysis presented here is based on yield spreads calculated using 10-year Treasury Bond Yields.

financial market dislocation created the first significant inversion of the yield spread (*i.e.*, the average dividend yield for the proxy group was higher than the 90-day average Treasury yield) in five years. Prior to that time, the most recent period during which dividend yields for the proxy group were significantly higher than Treasury yields was from mid-2002 through mid-2003, which itself was a period of credit and equity valuation contraction.

Chart 2: Treasury Yield/Dividend Yield Divergence

(January 1, 1996 – December 31, 2011)



An article in *The Wall Street Journal* noted this same relationship between utility dividend yields and the ten-year Treasury yield, observing that, "Dividend yields have tended to track the yield on 10-year Treasurys closely."[13]

[13] Denning, Liam, A Short Circuit in the Stock Market, The Wall Street Journal, October 23, 2009, at C10.

Q. Why is the continued divergence between utility dividend yields and ten-year Treasury yields relevant in determining the Company's Cost of Equity?

A. First, as suggested by *The Wall Street Journal*, investors often look to the relationships among financial metrics to assess current and expected levels of market stability. To the extent that such relationships materially and persistently deviate from long-term norms, it may be an indication of continuing or expected instability. In the case of the yield spread, the fact that continued Federal intervention in the capital markets has been required to maintain relatively low Treasury yields introduces yet another significant element of capital market uncertainty. Again, investors require increased returns to compensate for taking on such risk.

It also is important to recognize that Federal intervention in the capital markets has created additional uncertainty. For example, in its second round of "Quantitative Easing", the Federal Reserve Board ("Fed") purchased $600 billion of Treasury securities between November 2010 and June 2011, thereby injecting additional liquidity into capital markets. In an effort to reduce interest rates on longer-term government bonds, on September 21, 2011, the Fed announced plans to purchase by June 2012 $400 billion in Treasury securities with remaining maturities of six to 30 years and to sell an equal amount of Treasury securities with remaining maturities of three years or less.

The widened yield spread, which began in 2008, has continued. From January 2000 through September 15, 2008 (*i.e.*, the time of the Lehman Brothers bankruptcy filing), the average yield spread between the proxy group average dividend yield and ten-year Treasury securities was 23 basis points. During the two-year period[14] prior to the recession, the average yield on ten-year Treasury securities exceeded the proxy group average dividend yield by

[14] This analysis includes the 23 months beginning January 2006 and ending November 30, 2007, just prior to the start of the recent recession, as defined by the National Bureau of Economic Research.

approximately 75 basis points. As Chart 3 indicates, the 90-day average yield spread as of December 31, 2011 was 234 basis points.

Chart 3: Proxy Company Yield Spread

Finally, while not included in Chart 3 (above), another measure of the unusual capital market conditions is the relationship between the yield on ten-year Treasury securities and the average dividend yield on the S&P 500 index. Over time, the ten-year Treasury yield has been consistently higher than the S&P 500 dividend yield. Since 1958, there have been only two instances in which those yields became inverted (*i.e.*, the dividend yield exceeded the Treasury yield): November 2008,[15] and the period from August 2011 through present. As noted earlier, such deviations from long-term market relationships demonstrate the significant degree of uncertainty and instability in financial markets.

[15] *See*, for example, Randall W. Forsyth, Reversal of Fortunes Between Stocks and Bonds, *Barron's Online*, November 19, 2008.

Q. What conclusions do you draw from those analyses?

A. First, those analyses clearly demonstrate that current market conditions are similar to the 2002-2003 market dislocation that affected all market segments, including utilities. One outcome of the 2002-2003 market dislocation was a renewed emphasis on capital market access and the importance of maintaining a strong financial profile, both of which are equally important in the current market environment. The result of market instability and risk aversion, of course, is an increased, not a decreased Cost of Equity. The extent of that uncertainty manifested, at least in part, in the significant decrease in long-term Treasury yields since S&P downgraded U.S. sovereign debt on August 5, 2011. Even though that ratings action would call into question the meaning and application of the "Risk Free Rate," investors still have sought safety in Treasury securities. In summary, market instability and measures of risk aversion remain above historical norms.

V. PROXY GROUP SELECTION

Q. Why have you used a group of proxy companies to determine the Cost of Equity for Ameren Missouri?

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

Ameren Missouri in certain fundamental business and financial respects to serve as its "proxy" for purposes of the ROE estimation process.

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

The importance of selecting a proxy group that is similar in overall financial and business risk to the subject company was endorsed by the United States Court of Appeals for the District of Columbia (the "Court of Appeals") in the *Petal Gas Storage* decision. The Court of Appeals acknowledged that the goal of a proxy group is to rely on companies that possess similar risk to the subject company for the determination of the Cost of Equity:

> That proxy group arrangements must be risk-appropriate is the common theme in each argument. The principle is well-established. *See Hope Natural Gas Co.*, 320 U.S. at 603 ("[T]he return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks."); *CAPP I*, 254 F.3d at 293 ("[A] utility must offer a risk-adjusted expected rate of return sufficient to attract investors."). The principle captures what proxy groups do, namely, provide market-determined stock and dividend figures from public companies comparable to a target company for which those figures are unavailable. *CAPP I*, 254 F.3d at 293–94. Market determined stock figures reflect a company's risk level and, when combined with dividend values, permit calculation of the "risk-adjusted expected rate of return sufficient to attract investors."[16]
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> What matters is that the overall proxy group arrangement makes sense in terms of relative risk and, even more importantly, in terms of the statutory command to set "just and reasonable" rates, 15 U.S.C. § 717c, that are

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

> "commensurate with returns on investments in other enterprises having corresponding risks" and "sufficient to assure confidence in the financial integrity of the enterprise . . . [and] maintain its credit and . . . attract capital," *Hope Natural Gas Co.*, 320 U.S. at 603.[17]

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

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

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

Q. Please provide a summary profile of Ameren Missouri.

A. Ameren Missouri, a direct subsidiary of Ameren Corporation, provides electric service to approximately 1,200,000 retail customers, and natural gas distribution service to approximately 127,000 retail customers in Missouri. Operating income from regulated electric operations accounted for approximately 97.64 percent of Ameren Missouri's total operating

[17] *Ibid.*, at 7.

income in 2010.[18] Ameren Missouri currently has Long Term Issuer credit ratings from S&P of BBB- (Outlook: Positive), from Moody's Investors Service ("Moody's") of Baa2 (Outlook: Stable) and from Fitch Ratings of BBB+ (Outlook: Stable).

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

A. I began with the companies that Value Line classifies as "Electric Utilities", which comprise a group of 53 domestic U.S. utilities, and simultaneously applied the following screening criteria to exclude:

- Companies that do not pay consistent quarterly cash dividends;
- Companies that are not covered by at least two generally recognized utility industry equity analysts;
- Companies that do not have senior bond and/or corporate ratings from Standard and Poor's of BBB- to AAA;
- Companies that are not vertically integrated utilities (*i.e.*, utilities that own and operate regulated generating assets);
- Companies whose regulated operating income in 2008, 2009, and 2010 comprised less than 60.00 percent of the respective totals for the company;
- Companies whose regulated electric operating income in 2008, 2009, and 2010 represented less than 90.00 percent of the respective totals for the company;
- Companies where coal-fired generation does not constitute at least 10.00 percent of net generation[19]; and

[18] Source: Union Electric Company, 2010 FERC Form No. 1, Annual Report of Major Electric Utilities, Licensees and Others and Supplemental Form 3-Q Quarterly Financial Report, at 114-115.

[19] The average percentage of coal-fired generation for the proxy group companies in 2010 was 64.93 percent.

- Companies that are currently known to be party to a merger or other transforming transaction.

Q. Did you include Ameren Corporation in your proxy group?

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

Q. What companies met the screening criteria for your proxy group?

A. As shown in Table 2 (below), based on the above screening criteria the proxy group consists of the following eleven companies.

Table 2: Proxy Group

Company	Ticker
American Electric Power Company, Inc.	AEP
Cleco Corp.	CNL
Edison International	EIX
Great Plains Energy Incorporated	GXP
IDACORP, Inc.	IDA
Integrys Energy Group, Inc.	TEG
Otter Tail Corporation	OTTR
Pinnacle West Capital Corp.	PNW
Portland General Electric Company	POR
Southern Company	SO
Westar Energy, Inc.	WR

VI. COST OF EQUITY ESTIMATION

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

A. Regulated utilities primarily use common stock and long-term debt to finance their permanent property, plant, and equipment. The overall rate of return ("ROR") for a regulated utility is based on its weighted average cost of capital, in which the cost rates of the

individual sources of capital are weighted by their respective book values. While the costs of debt and preferred stock can be directly observed, the Cost of Equity is market-based and, therefore, must be estimated based on observable market information.

Q. How is the required ROE determined?

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

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

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

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

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

As a practical matter, however, all of the models available for estimating the Cost of Equity are subject to limiting assumptions or other methodological constraints. Consequently, many finance texts recommend using multiple approaches when estimating the Cost of Equity. For example, Copeland, Koller and Murrin,[20] suggest using the CAPM and Arbitrage Pricing Theory model, while Brigham and Gapenski,[21] recommend the CAPM, DCF and "bond yield plus risk premium" approaches.

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

[20] 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.
[21] Eugene Brigham, Louis Gapenski, Financial Management: Theory and Practice, 7th Ed. (Orlando: Dryden Press, 1994), at 341.

therefore considers alternative methodologies, observable market data, and the reasonableness of their individual and collective results.

Consequently, in my view, it is both prudent and appropriate to use multiple methodologies in order to mitigate the effects of assumptions and inputs associated with relying exclusively on any single approach. Such use, however, must be tempered with due caution as to the results generated by each individual approach. Therefore, in light of the capital market practices discussed above, I have relied on the results of both the Constant Growth and multi-stage forms of the DCF model, the CAPM and the Risk Premium approach. The importance of considering multiple approaches also has been recognized by the Commission, which noted in a recent Ameren Missouri case that "[f]inancial analysts use variations on three generally accepted methods to estimate a company's fair rate of return on equity." The three methods noted by the Commission were the DCF, the Risk Premium and the CAPM approaches. The Commission further noted that "[n]o one method is any more 'correct' than any other method in all circumstances. Analysts balance their use of all three methods to reach a recommended return on equity."[22]

Q. Are you aware that in prior orders, the Commission has looked to the average authorized return for electric utilities as a point of reference for the purpose of assessing the reasonableness of ROE estimates and recommendations?

A. Yes, I am. As the Commission recognized in prior proceedings, the results of quantitative models, when viewed in the context of capital market requirements, produce a range of results from which the market required ROE is selected. In its Order in the Company's most recent rate case, the Commission noted that:

[22] *In the Matter of Union Electric Company, d/b/a Ameren Missouri's Tariffs to Increase Its Annual Revenues for Electric Service,* Report and Order, Missouri Public Service Commission, Case No. ER-2011-0028, July 13, 2011, at 67.

> Before examining the analysts' use of these various methods to arrive at a recommended return on equity, it is important to look at another number. For 2010, the average return on equity awarded to integrated electric utilities by state commissions in the country was 10.30 percent. Among states neighboring Missouri, the average authorized return on equity over the same period was 10.23 percent.
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> The Commission mentions the average allowed return on equity not because the Commission should, or would slavishly follow the national average in awarding a return on equity to Ameren Missouri. However, Ameren Missouri must compete with other utilities all over the country for the same capital. Therefore, the average allowed return on equity provides a reasonableness test for the recommendations offered by the return on equity experts.[23]

As discussed later in my direct testimony, the range of recently authorized returns fully supports my ROE recommendation of 10.75 percent.[24]

A. Constant Growth DCF Model

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

A. Yes. DCF models are widely used in regulatory proceedings and have sound theoretical bases, although neither the DCF model nor any other model can be applied without considerable judgment in the selection of input data and the interpretation of results. In its simplest form, the DCF model expresses the Cost of Equity as the sum of the expected dividend yield and long-term growth rate.

Q. Please describe the DCF approach.

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

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[23] *Ibid.*

[24] As discussed later in this section, the Risk Premium method also relies on authorized ROEs as an important model input.

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

where:

P_0 = the current stock price;

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

k = the discount rate or required ROE.

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

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

Equation [2] is often referred to as the "Constant Growth DCF" model in which the first term (D) is the expected dividend yield and the second term (g) is the expected long-term growth rate.

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

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

B. Dividend Yield for the Constant Growth DCF Model

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

A. The dividend yield is based on the proxy companies' current annualized dividend, and average closing stock prices over the 30, 90, and 180-trading days ended December 31, 2011.

Q. Why did you use three averaging periods?

A. I believe it is important to use an average of recent trading days to calculate the stock price for each proxy company (term P_0 in the DCF model) to ensure that the calculated ROE is not skewed by anomalous events that may affect stock prices on any given trading day. In that regard, the averaging period should be reasonably representative of expected capital market conditions over the long term. At the same time, it is important to reflect the extraordinary conditions that have defined the financial markets over the recent past. In my view, the use of the 30, 90 and 180-day averaging periods reasonably balances those concerns.

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

A. Yes. Since utility companies tend to increase their quarterly dividends at different times throughout the year, it is reasonable to assume that dividend increases will be evenly distributed over calendar quarters. Given that assumption, it is reasonable to apply one-half of the expected annual dividend growth for purposes of calculating the expected dividend yield component of the DCF model. This adjustment ensures that the expected dividend yield is, on average, representative of the coming twelve-month period, and does not overstate the aggregated dividends to be paid during that time. Accordingly, the DCF estimates provided in

Schedule RBH-E1 reflect one-half of the expected growth in the dividend yield component of the model. The Commission endorsed this approach in its recent Missouri Gas Energy Order.[25]

C. Growth Rates for the DCF Model

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

A. Yes. In its Constant Growth form, the DCF model (*i.e.*, Equation [2]) assumes a single growth estimate in perpetuity. In order to reduce the long-term growth rate to a single measure, one must assume a constant payout ratio, and that earnings per share, dividends per share and book value per share all grow at the same constant rate. Over the long term, however, dividend growth can only be sustained by earnings growth. Consequently, it is important to incorporate a variety of measures of long-term earnings growth into the Constant Growth DCF model. This can be accomplished by averaging those measures of long-term growth that tend to be least influenced by capital allocation decisions that companies may make in response to near-term changes in the business environment. Since such decisions may directly affect near-term dividend payout ratios, estimates of earnings growth are more indicative of long-term investor expectations than are dividend growth estimates. Therefore, for the purposes of the Constant Growth form of the DCF model, growth in earnings per share represents the appropriate measure of long-term growth.

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

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

[25] *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. The average daily closing prices for the 30-, 90-, and 180-trading days ended December 31, 2011 for the term P_0; and
2. The annualized dividend per share as of December 31, 2011 for the term D_0.

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

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

D. Multi-Stage DCF Model

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

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

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

A. As noted above, the model sets the subject company's stock price equal to the present value of future cash flows received over three "stages". In the first two stages, "cash flows" are defined as projected dividends. In the third stage, "cash flows" equal both dividends and the expected price at which the stock will be sold at the end of the period. The expected terminal stock price is based on the Gordon model, which defines the price as the expected dividend divided by the difference between the Cost of Equity (*i.e.*, the discount rate) and the long-term expected growth rate. In essence, the terminal price is defined by the present value of

the remaining "cash flows" in perpetuity. In each of the three stages, the dividend is the product of the projected earnings per share and the expected dividend payout ratio. A summary description of the model is provided in Table 3 (below).

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

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

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. 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 elevated capital expenditures, payout ratios may be somewhat lower than they otherwise would be.

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.[26] While the form of the three-stage model I have used relies on Value Line for projected payout ratios, the potential bias resulting from reliance on a single analyst is mitigated by the use of consensus earnings forecasts. The model also enables the analyst to assess the reasonableness of the inputs and results by reference to certain market-based metrics. For example, when using the Gordon model to estimate the terminal price, the stock price estimate can be divided by the expected earnings per share in the final year to calculate an average P/E ratio. To the extent that the projected P/E ratio is inconsistent with either historical or expected levels, it may indicate incorrect or inconsistent assumptions within the balance of the model.

Q. Please summarize your inputs to the Multi-Stage DCF model.

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

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

Table 4: Multi-Stage DCF Model Assumptions

Stage	0	1	2	3
Stock Price	30, 90, and 180-day average stock price as of December 31, 2011			
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 industry average payout ratio
Terminal Value				Expected dividend in final year divided by solved cost of equity less long-term growth rate

Q. How did you calculate the long-term Gross Domestic Product ("GDP") growth rate?

A. The long-term growth rate of 5.61 percent is based on the real GDP growth rate of 3.26 percent from 1929 through 2010,[27] and an inflation rate of 2.28 percent. The GDP growth rate is calculated as the compound growth rate in the chain-weighted GDP for the period from 1929 through 2010. The rate of inflation of 2.28 percent is a compound annual forward rate starting in ten years (*i.e.*, 2022, which is the beginning of the terminal period) and is based on the 30-day average as of December 31, 2011 of projected inflation from three sources. The first

[27] Bureau of Economic Analysis, December 20, 2011 update.

estimate (2.29 percent) is based on the spread between yields on long-term nominal Treasury Securities and long-term Treasury Inflation-Protected Securities ("TIPS"), known as the "TIPS spread". The second estimate (2.56 percent) is based on the imbedded inflation in Zero-Coupon Inflation Index Swaps. The final estimate is the average of the compound annual Consumer Price Index ("CPI") growth rate of 2.07 percent and the annual GDP Price Index growth rate of 1.87 percent projected by the Energy Information Administration ("EIA") in the Annual Energy Outlook 2011.[28] The long-term growth rate therefore, reflects long-term historical real growth, and the market's expectation of long-term inflation.

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

A. As noted in Table 4, for the first two periods I relied on the first year and long-term projected payout ratios reported by Value Line for each of the proxy group companies. I then assumed that by the end of the second period (*i.e.*, the end of year ten), the payout ratio will converge to the long-term industry median payout ratio of 66.42 percent for the period from 1987 through the present.

E. Discounted Cash Flow Model Results

Q. Please summarize the results of your DCF analyses.

A. Table 5 (below), (*see* also Schedules RBH-E1 and RBH-E2), presents the results of the Constant Growth and multi-stage DCF analyses. The Constant Growth DCF model produces a range of mean results from 10.12 percent to 10.26 percent; the mean high DCF results range from 11.54 percent to 11.69 percent. The multi-stage DCF analysis produces a range of mean results from 10.64 percent to 10.81 percent.

[28] EIA Annual Energy Outlook 2011, Table 20, Macroeconomic Indicators. Please note that 5.61% = [(1+3.26%) x (1+2.28%)]−1.

Table 5: Discounted Cash Flow Analyses Results

	Mean Low	Mean	Mean High
Constant Growth DCF			
30-Day Average	8.76%	10.12%	11.54%
90-Day Average	8.88%	10.24%	11.67%
180-Day Average	8.90%	10.26%	11.69%
Multi-Stage DCF	**Low**	**Mean**	**High**
30-Day Average	9.81%	10.64%	11.38%
90-Day Average	9.94%	10.76%	11.50%
180-Day Average	10.12%	10.81%	11.47%

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

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

Q. Referring now to your multi-stage DCF model, are those results consistent with other market indicators?

A. Yes, they are. Based on the assumptions described earlier, when using the Gordon model method to estimate the terminal price, the multi-stage model produces median price to earnings ("P/E") multiples of 13.24 to 13.61 (depending upon the stock price averaging

period). This range is generally consistent with the historical median P/E ratio of the proxy group companies of 13.73.[29]

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

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

F. CAPM Analysis

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

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

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

where:

K_e = the required market ROE;

β = Beta of an individual security;

r_f = the risk-free rate of return; and

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

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

[29] Equals the average median payout ratio for the proxy group companies for the period 1992-2011.

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

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

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

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

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

Finally, Beta coefficient estimates reported by Bloomberg and Value Line calculate the Beta for each company over historical periods of 24 and 60 months, respectively. Because the Value Line Beta coefficients include market data from the financial market dislocation, those Beta coefficients tend to underestimate the "systematic" risk that investors are compensated for

in the CAPM analyses. For that reason, I place a greater amount of weight on the Beta coefficients calculated over a two-year period as provided by Bloomberg.

Q. How might the CAPM be misapplied under current market conditions?

A. As a consequence of the current market conditions discussed above, it is possible to derive unreliable results from the CAPM, if the model is not properly applied. For example, it would not be appropriate to use the current yield on Treasury securities as the risk-free rate in conjunction with a historical Market Risk Premium, because the current Treasury yield is affected by increased risk aversion and volatility that is not reflected in the historical Market Risk Premium. That application would understate the required ROE.

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

A. Since both the DCF and CAPM models assume long-term investment horizons, I used the current 30-day average yield on 30-year Treasury bonds (*i.e.*, 2.97 percent) and the near-term projected 30-year Treasury yield (*i.e.*, 3.43 percent) as my estimate of the risk-free rate.

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

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

Q. Please describe your first approach to estimating the Market Risk Premium.

A. The first approach is based on the expected return on the S&P 500 Index, less the current 30-year Treasury bond yield. The expected return on the S&P 500 is calculated using the constant growth DCF model discussed earlier in my testimony for the companies in the S&P 500 Index for which long-term earnings projections are available.

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

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

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

where:

X = the investment;

R_x = the average return of X;

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

Std Dev = the standard deviation of r_x.

As shown in Schedule RBH-E4, the constant Sharpe Ratio is the ratio of the historical Market Risk Premium of 6.70 percent (the numerator of Equation 5) and the historical market volatility of 20.28 percent (the denominator of Equation 5).[30] The expected Market Risk Premium is then calculated as the product of the Sharpe Ratio and the expected market volatility. For the purpose of that calculation, I used the thirty-day average of the Chicago Board Options Exchange's three-month volatility index (*i.e.*, the VXV) and the same thirty-day average of settlement prices of futures on the CBOE's one-month volatility index (*i.e.*, the VIX) for April 2012 through June 2012.

[30] The standard deviation is easily calculated from the Morningstar data. *See* also Morningstar Inc., Ibbotson, Stocks, Bonds, Bills and Inflation, 2011 Valuation Yearbook, Large Company Stocks: Total Returns Table B-1, at 162-163.

Q. What measures of the Beta coefficient did you use in your CAPM model?

A. I considered two separate Beta coefficients for the proxy group companies: (1) the reported Beta coefficients from Bloomberg (which are calculated using 24 months of data); and (2) the reported Beta coefficients from Value Line (which are calculated using 60 months of data). As discussed above, I place a greater amount of weight on the Beta coefficients provided by Bloomberg because their default calculation does not include the financial market dislocation of 2008 and 2009.

Q. How did you apply your CAPM?

A. I relied on the *ex-ante* Market Risk Premium and the Bloomberg and Value Line Beta coefficients for the proxy group to calculate the CAPM model using both the current 30-day average yield on the 30-year U.S. Treasury bond and near-term projections of the 30-year Treasury Bond yield as the risk-free rate. As shown in Schedule RBH–E4, the use of *ex-ante* market risk premia and risk-free rates produces a range of results that is generally consistent with the range of results produced by the other calculation methods.

Q. What are the results of your CAPM analyses?

A. As shown in Table 7 (below), (*see* also Schedule RBH-E4), the CAPM analysis based on Bloomberg estimates of Beta coefficients results in a range of returns from 10.68 percent to 11.33 percent, while relying on Value Line estimates of Beta coefficients produces a range of returns from 10.38 percent to 11.02 percent.

Table 7: *Ex-Ante* CAPM Results

	Sharpe Ratio Derived Market Risk Premium	DCF Derived Market Risk Premium
Bloomberg Beta Coefficient		
Current 30-Year Treasury (2.97%)	10.87%	10.68%
Projected 30-Year Treasury (3.43%)	11.33%	11.14%
Value Line Beta Coefficient		
Current 30-Year Treasury (2.97%)	10.56%	10.38%
Projected 30-Year Treasury (3.43%)	11.02%	10.84%

Q. Does your ROE recommendation substantially rely on any of the CAPM results you presented in Schedule RBH-E4?

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

G. Bond Yield Plus Risk Premium Analysis

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

A. In general terms, this approach is based on the fundamental principle that equity investors bear the residual risk associated with ownership and therefore require a premium over the return they would have earned as a bondholder. That is, since returns to equity holders are more risky than returns to bondholders, equity investors must be compensated for bearing that risk. Risk premium approaches, therefore, estimate the Cost of Equity as the sum of the equity risk premium and the yield on a particular class of bonds. As noted in my discussion of the CAPM, since the equity risk premium is not directly observable, it typically is estimated using a variety of approaches, some of which incorporate *ex-ante*, or forward-looking estimates of the

Cost of Equity, and others that consider historical, or *ex-post*, estimates. In the case of the CAPM, those estimates are with respect to the return on the broad market. An alternative approach is to use actual authorized returns for electric utilities as the measure of the Cost of Equity to determine the Equity Risk Premium.

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

A. As shown on Chart 5 (below), from 1992 through 2011, there was, in fact, a strong negative relationship between risk premia and interest rates. To estimate that relationship, I conducted a regression analysis using the following equation:

$$RP = a + b \times T \quad [6]$$

where:

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

a = Intercept term;

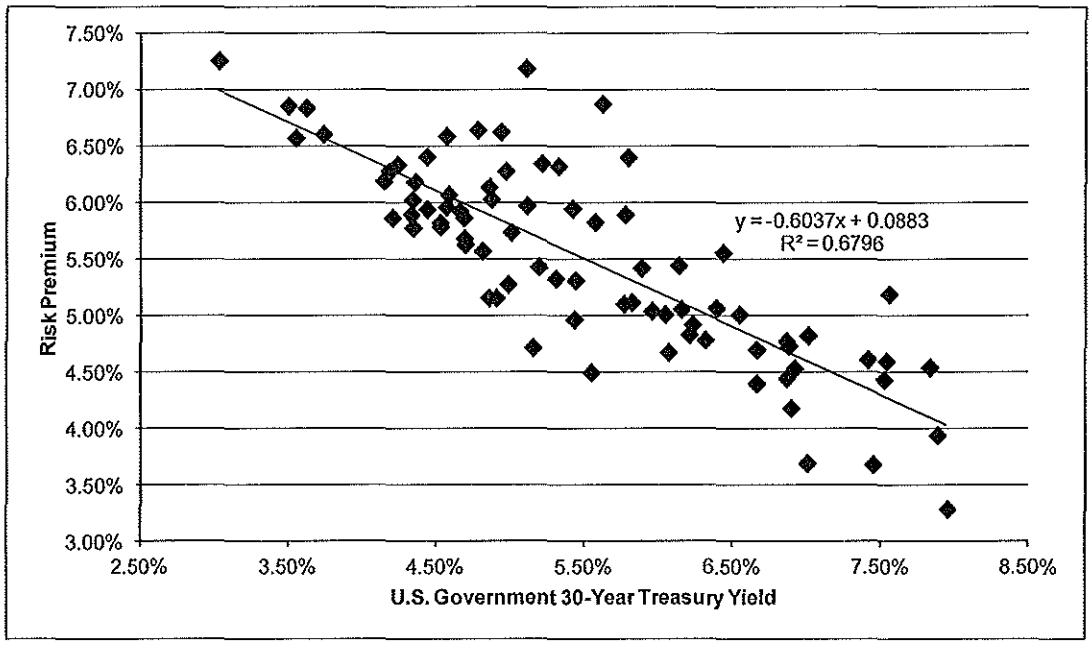
b = Slope term; and

T = 30-Year Treasury Yield.

Data regarding allowed ROEs were derived from 520 electric utility rate cases[31] from 1992 through December 31, 2011, as reported by Regulatory Research Associates.

[31] Includes both vertically-integrated and T&D only companies.

Chart 5: Risk Premium Results



As shown on Schedule RBH-E5, from 1992 through December 31, 2011, the average risk premium was approximately 5.50 percent. Based on the regression coefficients provided in Schedule RBH-E5, however, the risk premium would be 7.03 percent when using the current 30-day average of the 30-year Treasury bond yield, resulting in an ROE of 10.00 percent. When using the near- and long-term projections of the 30-year Treasury bond yield, the risk premium would be 6.75 percent and 5.63 percent, respectively, resulting in a 10.19 percent and 10.93 percent ROE, respectively. 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.

H. Recently Authorized Returns

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?

A. Yes, it has. In the Order in Ameren Missouri's most recent rate case, the Commission determined that it was appropriate to consider the average authorized ROE for integrated electric utilities in other jurisdictions during 2010 to test the reasonableness of recommended returns on equity.[32]

Q. Have you conducted any analysis of recently authorized returns in other jurisdictions?

A. Yes, I have analyzed recently authorized returns for integrated electric utility companies as reported by RRA. For the twelve months ending December 31, 2011, RRA reports a range of authorized ROEs for integrated electric utility companies from 9.80 percent to 11.35 percent, with an average allowed ROE of 10.27 percent.

VII. REGULATORY RISKS

Q. Do the mean DCF, CAPM, and Risk Premium results for the proxy group provide an appropriate estimate of the Cost of Equity for Ameren Missouri?

A. No, the mean results do not necessarily provide an appropriate estimate of the Company's Cost of Equity. In my view, there are additional factors that must be taken into consideration when determining where the Company's Cost of Equity falls within the range of results. Those factors include the regulatory environment in which the company operates, including the cost recovery mechanisms in place at Ameren Missouri as compared to those for

[32] Report and Order, Case No. ER-2011-0028, at 67.

the proxy group. Those risk factors, which are discussed below, should be considered with respect to their overall effect on the Company's risk profile and therefore its Cost of Equity.

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

A. The regulatory environment can significantly affect both the access to, and cost of capital in several ways. First, the proportion and cost of debt capital available to utility companies are influenced by the rating agencies' assessment of the regulatory environment. As noted by Moody's, "the predictability and supportiveness of the regulatory framework in which a regulated utility operates is a key credit consideration and the one that differentiates the industry from most other corporate sectors."[33] As discussed in the testimony of Company witness Reed, investors recognize that a reasonable allowed ROE that is subject to earnings attrition due to unfavorable regulatory or economic factors does not provide any assurance that the utility will actually recover its costs or earn a reasonable return.

S&P notes that regulatory commissions should eliminate, or at least greatly reduce, the issue of rate-case lag.[34] Moody's agrees that timely cost recovery is an important determinant of credit quality, stating that "[t]he ability to recover prudently incurred costs in a timely manner is perhaps the single most important credit consideration for regulated utilities, as the lack of timely recovery of such costs has caused financial stress for utilities on several occasions."[35] Similarly, Fitch Ratings ("Fitch") notes that in the current environment of rising costs, utilities will require

[33] Moody's Global Infrastructure Finance, *Regulated Electric and Gas Utilities*, August 2009, at 6.
[34] Standard and Poor's, *Assessing Vertically Integrated Utilities' Business Risk Drivers*, U.S. Utilities and Power Commentary, November 2006, at 10.
[35] Moody's, Global Infrastructure Finance, *Regulated Electric and Gas Utilities*, August 2009, at 7.

more frequent rate increases to maintain financial results, resulting in further exposure to regulatory risks.[36]

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

Q. Please explain how credit rating agencies consider regulatory risk in establishing a company's credit rating.

A. While both S&P and Moody's consider regulatory risk in establishing credit ratings, Moody's has published a report quantifying the importance of this metric. Moody's establishes credit ratings based on four key factors: (1) regulatory framework; (2) the ability to recover costs and earn returns; (3) diversification; and (4) financial strength, liquidity, and key financial metrics. Of those criteria, regulatory framework and the ability to recover costs and earn returns are each given a broad rating factor of 25.00 percent. Therefore, Moody's assigns regulatory risk a 50.00 percent weighting in the overall assessment of business and financial risk for regulated utilities.[37]

[36] Fitch Ratings, *U.S. Utilities, Power, and Gas 2010 Outlook*, December 4, 2009, at 1.
[37] Moody's Global Infrastructure Finance, *Regulated Electric and Gas Utilities*, August 2009, at 4.

With respect to Ameren Missouri in particular, Moody's has noted that the Company "operates in what Moody's has considered to be a below average regulatory framework, which has resulted in significant regulatory lag and prevented the utility from earning close to its allowed return on equity."[38] As a consequence, Moody's assigned the Company's Regulatory Framework factor a rating of Ba (which corresponds to below investment grade, for that factor).[39] In discussing the reasoning for the Company's Ba rating for the Regulatory Framework factor, Moody's explained that its assessment reflects "lengthy 11 month base rate case timelines; the lack of interim rate relief; the use of historical test years; and less than full recovery of fuel costs in rates."[40]

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

A. The regulatory environment is one of the most important issues considered by both debt and equity investors in assessing the risks and prospects of utility companies. From the perspective of debt investors, the authorized return should enable the Company to generate the cash flow needed to meet its near-term financial obligations, make the capital investments needed to maintain and expand its system, and maintain sufficient levels of liquidity to fund unexpected events. This financial liquidity must be derived not only from internally generated funds, but also by efficient access to capital markets. Moreover, because fixed income investors have many investment alternatives, even within a given market sector, the Company's financial profile must be adequate on a relative basis to ensure its ability to attract capital under a variety of economic and financial market conditions. From the perspective of Ameren Corporation, the parent holding company of Ameren Missouri, the authorized return must be sufficient to provide

[38] Moody's Investors Service, *Credit Opinion, Union Electric Company*, August 12, 2011.
[39] *Ibid.*
[40] *Ibid.*

Ameren Corporation with an incentive to allocate equity capital to Ameren Missouri in order to fund capital investments that will assure the Company's ability to continue to provide safe and reliable service. From the perspective of equity investors, the authorized return must be adequate to provide a risk-comparable return on the equity portion of the Company's capital investments. Because equity investors are the residual claimants on the Company's cash flows (which is to say that the equity return is subordinate to interest payments), they are particularly concerned with regulatory uncertainty and its effect on future cash flows.

Q. Have you compared Ameren Missouri's regulatory risks to those of the proxy group companies?

A. Yes, I have compared the regulatory risk of operating in Missouri, which is the risk faced by Ameren Missouri, to the regulatory risk of each of the proxy group companies using the scale developed by S&P.[41] I used a numerical ranking system that ranks jurisdictions from 5 (most credit supportive) to 1 (least credit supportive). Under this approach, higher values indicate a more credit supportive jurisdiction. I applied that ranking system to the proxy group companies by regulatory jurisdiction. For each proxy group company that operates in multiple jurisdictions, I considered the ranking for each regulatory jurisdiction in which they operate. As shown in Schedule RBH-E6, the simple average of the S&P rankings for each of the proxy group companies, in all jurisdictions, is 2.93 (*i.e.,* credit supportive) whereas Ameren Missouri's ranking is 2.00 (*i.e.,* less credit supportive).

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

Q. What is your conclusion regarding the effect of Ameren Missouri's regulatory risk on its ROE?

A. As discussed above, the regulatory environment in which a company operates is of significant importance to investors. From the perspective of both debt and equity investors, Ameren Missouri appears to be subject to greater regulatory risks than the proxy companies.

Q. Have you examined the regulatory mechanisms in place at Ameren Missouri and the proxy group companies operating in other jurisdictions in order to further evaluate the extent of regulatory protection at Ameren Missouri relative to the proxy group?

A. Yes, I have. As shown in Schedule RBH-E7, the Company has implemented for fuel and purchased power cost adjustments, vegetation management and infrastructure inspection, pension and other post-employment benefits, and a FIN 48 tracker. Similarly, the proxy group companies operating in other jurisdictions also have implemented regulatory mechanisms, including rate adjustment clauses, that allow them to stabilize revenues and enhance the predictability of cash flows. Although the individual mechanisms are specific to each company within the proxy group, the results of my study indicate that both Ameren Missouri and the proxy group companies have been allowed to recover certain costs through adjustment clauses, tracking mechanisms, and surcharges.

Q. Have you considered the effect of those cost recovery mechanisms on the Cost of Equity?

A. Yes, I have. In my view, the relevant analytical issue is not whether the Company's revenue is less volatile as a result of cost recovery mechanisms than it would be in the absence of such mechanisms, nor is it whether certain elements of regulatory risk may be

mitigated or deferred in an absolute sense. Rather, the relevant issue is whether Ameren Missouri's mechanisms render the Company more or less risky relative to the proxy companies in the long run so that investors would knowingly and meaningfully change their return requirements as a direct result of those mechanisms. A necessary first step in making that determination is to review the overall rate structures that have been implemented by Ameren Missouri and the proxy companies.

Q. Please summarize the findings of that review.

A. Schedule RBH-E7 summarizes the rate structures for Ameren Missouri and the proxy group companies operating in other jurisdictions. As shown in that Schedule, some of the proxy group companies have implemented more comprehensive adjustment mechanisms than Ameren Missouri's current adjustment clauses, tracking mechanisms and riders/surcharges. For example, Ameren Missouri's fuel and purchased power adjustment clause allows for recovery of 95.00 percent of the variation between projected fuel costs and actual fuel costs, while the vast majority of operating utilities within the proxy group are allowed to recover 100.00 percent of fuel and purchased power costs. In addition, each of the proxy group companies has cost recovery mechanisms for capital replacement programs or other cost trackers for exogenous expenses that provide for revenue stabilization that are similar to the effect of Ameren Missouri's current and proposed cost recovery mechanisms. On balance, Schedule RBH-E7 demonstrates that the proxy group companies operating in other jurisdictions, have rate mechanisms that provide for more timely recovery of capital costs than does Ameren Missouri.

Q. Have you also considered any other factors related to cost recovery at Ameren Missouri as compared to the proxy group?

A. Yes, I have. In addition to the mechanisms discussed above, I also compared Ameren Missouri to the proxy group companies on three other factors: (1) the ability to earn a cash return on construction work in progress ("CWIP") by placing it in rate base; (2) the type of test year used (e.g., historical, forecasted, hybrid, etc.) by the Commission to establish base rates; and (3) whether the utility is allowed to request interim rates to mitigate the effects of regulatory lag while a rate case is pending.

Q. Have you reviewed the proxy group companies relative to Ameren Missouri on the basis of those cost recovery factors?

A. Yes. Ameren Missouri is not allowed to earn a cash return on CWIP, is required to establish base rates using a historical test year adjusted for known and measurable changes, and has limited ability to request interim rates under emergency circumstances while a rate case is pending. By contrast, as shown on Schedule RBH-E8, 64.71 percent (i.e., 22 of 34 companies) of the operating subsidiaries in the proxy group are allowed to earn a cash return on CWIP by placing it in rate base, 55.88 percent (i.e., 19 of 34 companies) of the operating subsidiaries are allowed to use a forecasted or partially forecasted test year to establish base rates, and interim rate relief is commonly available to the operating subsidiaries in certain jurisdictions. Consequently, the proxy group companies have substantially more protection against regulatory lag than does Ameren Missouri, and therefore a better opportunity to earn their authorized ROE than does Ameren Missouri.

Q. Have credit rating agencies commented on the importance of reducing regulatory lag and enhancing cost recovery for a regulated utility such as Ameren Missouri?

A. Yes. Moody's has commented on the effect of the regulatory framework in Missouri on Ameren Missouri's ability to earn its authorized ROE as follows:

> Union Electric operates in what Moody's has considered to be a below average regulatory framework, which has resulted in significant regulatory lag and prevented the utility from earnings close to its allowed return on equity. Factors contributing to Moody's below average regulatory assessment include lengthy 11 month base rate case timelines; the lack of interim rate relief; the use of historical test years; and less than full recovery of fuel costs in rates.[42]

Q. What are your conclusions regarding whether Ameren Missouri has adequate cost recovery mechanisms that would serve to mitigate regulatory lag and reduce earnings attrition relative to the proxy group?

A. As discussed above, Ameren Missouri is not allowed to earn a cash return on CWIP, is required to set rates based on a historic test year adjusted for known and measurable changes, and is not allowed to implement interim rates except under emergency circumstances. For all of those reasons, I have determined that Ameren Missouri's existing mechanisms are not adequate to mitigate regulatory lag and substantially undermine the Company's ability to have a reasonable opportunity to earn its authorized ROE. By contrast, many of the proxy group companies have more favorable cost recovery mechanisms in terms of reducing regulatory lag and providing a supportive credit environment.

[42] Moody's Investors Service, Credit Opinion: Union Electric Company, August 12, 2011, at 2.

VIII. CONCLUSIONS AND RECOMMENDATION

Q. What is your conclusion regarding a fair ROE for Ameren Missouri?

A. As discussed earlier in my direct testimony, while I have performed several analyses to estimate the Company's Cost of Equity, I recognize that the Commission has expressed its preference for DCF-based methodologies. I also appreciate that in past proceedings, the Commission has been inclined to attribute certain weight to the multi-stage form of the DCF model, and to take into consideration (but not be bound by) authorized returns from other regulatory commissions. In light of those considerations, and given the corroborating nature of the CAPM analyses, I believe that a reasonable range of results is from 10.50 percent to 11.00 percent.

In light of the relative risks of Ameren Missouri compared to the proxy group, and reflecting the Commission's practice of considering returns authorized in other jurisdictions, it is my view that an ROE of 10.75 percent is reasonable. That estimate reasonably balances the interests of customers and shareholders by enabling the Company to maintain its financial integrity and therefore its ability to attract capital at reasonable rates under a variety of different economic and financial market conditions.

Table 8: Summary of Analytical Results

	Mean Low	Mean	Mean High
Constant Growth DCF			
30-Day Average	8.76%	10.12%	11.54%
90-Day Average	8.88%	10.24%	11.67%
180-Day Average	8.90%	10.26%	11.69%
	Low	**Mean**	**High**
Multi-Stage DCF – Gordon Growth Model			
30-Day Average	9.81%	10.64%	11.38%
90-Day Average	9.94%	10.76%	11.50%
180-Day Average	10.12%	10.81%	11.47%
Supporting Methodologies			
		Sharpe Ratio Derived Market Risk Premium	**DCF Derived Market Risk Premium**
CAPM – Bloomberg Beta			
Current 30-year Treasury (2.97%)		10.87%	10.68%
Near-Term Projected 30-year Treasury (3.43%)		11.33%	11.14%
CAPM – Value Line Beta			
Current 30-year Treasury (2.97%)		10.56%	10.38%
Near-Term Projected 30-year Treasury (3.43%)		11.02%	10.84%
Treasury Yield Plus Risk Premium			
	Low	**Mean**	**High**
Risk Premium	10.00%	10.37%	10.93%

Q. Does this conclude your direct testimony?

A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Union Electric Company d/b/a Ameren Missouri's Tariffs to Increase Its Revenues for Electric Service.	)))	**Case No. ER-2012-0166**

AFFIDAVIT OF ROBERT B. HEVERT

COMMONWEALTH OF MASSACHUSETTS)
) **ss**
COUNTY OF MIDDLESEX)

Robert B. Hevert, being first duly sworn on his oath, states:

1. My name is Robert B. Hevert and my office is located in Norfolk, Massachusetts. I am Managing Partner of Sussex Economic Advisors, LLC and Executive Advisor to Concentric Energy Advisors, Inc.

2. Attached hereto and made a part hereof for all purposes is my Direct Testimony on behalf of Union Electric Company d/b/a Ameren Missouri consisting of 49 pages and Schedules RBH-E 1 through RBH-E 8, all of which have been prepared in written form for introduction into evidence in the above-referenced docket.

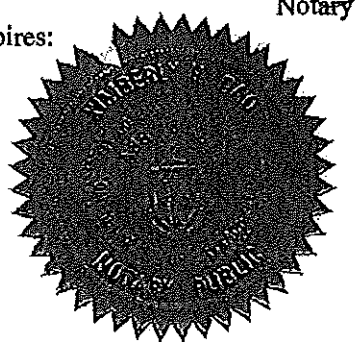
3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct.

Robert B. Hevert

Subscribed and sworn to before me this 15th day of February, 2012.

Notary Public

My commission expires:



Robert B. Hevert, CFA
Executive Advisor

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

REPRESENTATIVE PROJECT EXPERIENCE

Financial and Economic Advisory Services

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

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

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

Representative non-confidential clients have included:

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

Representative confidential engagements have included:

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

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

Regulatory Analysis and Ratemaking

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

Representative engagements have included:

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

Litigation Support and Expert Testimony

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

Energy Market Assessment

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

Representative engagements have included:

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

Resource Procurement, Contracting and Analysis

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

Business Strategy and Operations

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

Representative engagements have included:

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

PROFESSIONAL HISTORY

Sussex Economic Advisors, LLC (2012 – Present)
Managing Partner

Concentric Energy Advisors, Inc. (2002 – Present)
Executive Advisor
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
Arizona Corporation Commission				
Southwest Gas Corporation	11/10	Southwest Gas Corporation	Docket No. G-01551A-10-0458	Return on Equity
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				
Public Service Company of Colorado	11/11	Public Service Company of Colorado	Docket No. 11AL-947E	Return on Equity (electric)
Xcel Energy, Inc.	12/10	Public Service Company of Colorado	Docket No. 10AL-963G	Return on Equity (electric)
Atmos Energy Corporation	07/09	Atmos Energy Colorado-Kansas Division	Docket No. 09AL-507G	Return on Equity (gas)
Xcel Energy, Inc.	12/06	Public Service Company of Colorado	Docket No. 06S-656G	Return on Equity (gas)
Xcel Energy, Inc.	04/06	Public Service Company of Colorado	Docket No. 06S-234EG	Return on Equity (electric)
Xcel Energy, Inc.	08/05	Public Service Company of Colorado	Docket No. 05S-369ST	Return on Equity (steam)
Xcel Energy, Inc.	05/05	Public Service Company of Colorado	Docket No. 05S-264G	Return on Equity (gas)
Columbia Public Service Commission				
Potomac Electric Power Company	07/11	Potomac Electric Power Company	Formal Case No. FC1087	Return on Equity
Connecticut Department of Public Utility Control				
Southern Connecticut Gas Company	09/08	Southern Connecticut Gas Company	Docket No. 08-08-17	Return on Equity

SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
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
Delaware Public Service Commission				
Delmarva Power & Light Company	12/11	Delmarva Power & Light Company	Case No. 11-528	Return on Equity
Federal Energy Regulatory Commission				
Public Service Company of New Mexico	10/10	Public Service Company of New Mexico	Docket No. ER11-1915-000	Return on Equity
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
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

SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Georgia Public Service Commission				
Atlanta Gas Light Company	05/10	Atlanta Gas Light Company	Docket No. 31647-U	Return on Equity
Illinois Commerce Commission				
Ameren Illinois Company d/b/a Ameren Illinois	02/11	Ameren Illinois Company d/b/a Ameren Illinois	Docket No. 11-0279	Return on Equity (electric)
Ameren Illinois Company d/b/a Ameren Illinois	02/11	Ameren Illinois Company d/b/a Ameren Illinois	Docket No. 11-0282	Return on Equity (gas)
Maine Public Utilities Commission				
Central Maine Power Company	06/11	Central Maine Power Company	Docket No. 2010-327	Response to Bench Analysis provided by Commission Staff relating to the Company's credit and collections processes
Maryland Public Service Commission				
Delmarva Power & Light Company	12/11	Delmarva Power & Light Company	Case No. 9285	Return on Equity
Potomac Electric Power Company	12/11	Potomac Electric Power Company	Case No. 9286	Return on Equity
Delmarva Power & Light Company	12/10	Delmarva Power & Light Company	Case No. 9249	Return on Equity
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

SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
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
Minnesota Public Utilities Commission				
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. E-015/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. E-017/GR-07-1178	Return on Equity
Xcel Energy, Inc.	11/05	NSP-Minnesota	Docket No. E-002/GR-05-1428	Return on Equity (electric)
Xcel Energy, Inc.	09/04	NSP Minnesota	Docket No. G-002/GR-04-1511	Cost of Capital (gas)

SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
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	09/10	Union Electric Company d/b/a AmerenUE	Case No. ER-2011-0028	Return on Equity (electric)
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)
Nevada Public Utilities Commission				
Nevada Power Company	06/11	Nevada Power Company	Docket No. 11-06006	Return on Equity
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				
Atlantic City Electric Company	08/11	Atlantic City Electric Company	Docket No. ER11080469	Return on Equity
Pepco Holdings, Inc.	09/06	Atlantic City Electric Company	Docket No. EMO6090638	Divestiture and Valuation of Electric Generating Assets

SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Pepco Holdings, Inc.	12/05	Atlantic City Electric Company	Docket No. EM05121058	Market Value of Electric Generation Assets; Auction
Conectiv	06/03	Atlantic City Electric Company	Docket No. EO03020091	Market Value of Electric Generation Assets; Auction Process
New Mexico Public Regulation Commission				
Southwestern Public Service Company	02/11	Southwestern Public Service Company	Case No. 10-00395-UT	Return on Equity (electric)
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, Inc.	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.	07/11	Orange and Rockland Utilities, Inc.	Case No. 11-E-0408	Return on Equity (electric)
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

SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
North Carolina Utilities Commission				
Duke Energy Carolinas, LLC	07/11	Duke Energy Carolinas, LLC	Docket No. E-7, Sub 989	Return on Equity (electric)
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				
Oklahoma Gas & Electric Company	07/11	Oklahoma Gas & Electric Company	Cause No. PUD201100087	Return on Equity
CenterPoint Energy Resources Corp., d/b/a CenterPoint Energy Oklahoma Gas	03/09	CenterPoint Energy Oklahoma Gas	Cause 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				
Duke Energy Carolinas, LLC	08/11	Duke Energy Carolinas, LLC	Docket No. 2011-271-E	Return on Equity (electric)
South Carolina Electric & Gas	03/10	South Carolina Electric & Gas	Docket No. 2009-489-E	Return on Equity
South Dakota Public Utilities Commission				
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)

SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Texas Public Utility Commission				
Oncor Electric Delivery Company, LLC	01/11	Oncor Electric Delivery Company, LLC	Docket No. 38929	Return on Equity
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, Inc.	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, Inc.	05/06	Southwestern Public Service Company	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	12/10	Centerpoint Energy Resources Corp. d/b/a Centerpoint Energy Entex and Centerpoint Energy Texas Gas	GUD 10038	Return on Equity
Atmos Pipeline - Texas	09/10	Atmos Pipeline - Texas	GUD 10000	Return on Equity
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				

SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Questar Gas Company	12/07	Questar Gas Company	Docket No. 07-057-13	Return on Equity
Vermont Public Service Board				
Central Vermont Public Service Corporation	12/10	Central Vermont Public Service Corporation	Docket No. 7627	Return on Equity (electric)
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

Company	Ticker	[1] Annualized Dividend	[2] Stock Price	[3] Dividend Yield	[4] Expected Dividend Yield	[5] First Call Earnings Growth	[6] Zacks Earnings Growth	[7] Value Line Earnings Growth	[8] Average Earnings Growth	[9] Low ROE	[10] Mean ROE	[11] High ROE
American Electric Power Company, Inc.	AEP	$1.88	$39.50	4.76%	4.86%	3.87%	4.00%	4.50%	4.12%	8.72%	8.98%	9.37%
Cleco Corp.	CNL	$1.25	$36.20	3.45%	3.55%	3.00%	7.00%	6.00%	5.33%	6.51%	8.88%	10.57%
Edison International	EIX	$1.30	$39.46	3.29%	3.36%	3.18%	5.00%	n/a	4.09%	6.53%	7.45%	8.38%
Great Plains Energy Inc.	GXP	$0.85	$20.98	4.05%	4.16%	4.10%	6.50%	6.00%	5.53%	8.23%	9.70%	10.68%
IDACORP, Inc.	IDA	$1.20	$40.76	2.94%	3.01%	4.50%	4.70%	4.00%	4.40%	7.00%	7.41%	7.71%
Integrys Energy Group, Inc.	TEG	$2.72	$51.48	5.28%	5.49%	9.40%	4.50%	9.00%	7.63%	9.90%	13.12%	14.93%
Otter Tail Corporation	OTTR	$1.19	$21.20	5.61%	5.83%	5.00%	5.00%	13.00%	7.67%	10.75%	13.50%	18.98%
Pinnacle West Capital Corp.	PNW	$2.10	$46.61	4.51%	4.63%	5.58%	5.30%	6.00%	5.63%	9.92%	10.26%	10.64%
Portland General Electric Company	POR	$1.06	$24.61	4.31%	4.44%	5.88%	5.00%	7.50%	6.13%	9.41%	10.57%	11.97%
Southern Company	SO	$1.89	$44.38	4.26%	4.38%	5.92%	5.10%	6.00%	5.67%	9.47%	10.05%	10.39%
Westar Energy, Inc.	WR	$1.28	$27.40	4.67%	4.83%	5.08%	6.10%	8.50%	6.56%	9.87%	11.39%	13.37%
MEAN				4.29%	4.41%	5.05%	5.29%	7.05%	5.71%	8.76%	10.12%	11.54%

Notes:
[1] Source: Bloomberg Professional
[2] Source: Bloomberg Professional, equals 30-trading day average as of December 31, 2011
[3] Equals [1] / [2]
[4] Equals [3] x (1 + 0.5 x [8])
[5] Source: Yahoo! Finance
[6] Source: Zacks
[7] Source: Value Line
[8] Equals Average([5], [6], [7])
[9] Equals [3] x (1 + 0.5 x Minimum([5], [6], [7])) + Minimum([5], [6], [7])
[10] Equals [4] + [8]
[11] Equals [3] x (1 + 0.5 x Maximum([5], [6], [7])) + Maximum([5], [6], [7])

90-DAY CONSTANT GROWTH DCF

Company	Ticker	[1] Annualized Dividend	[2] Stock Price	[3] Dividend Yield	[4] Expected Dividend Yield	[5] First Call Earnings Growth	[6] Zacks Earnings Growth	[7] Value Line Earnings Growth	[8] Average Earnings Growth	[9] Low ROE	[10] Mean ROE	[11] High ROE
American Electric Power Company, Inc.	AEP	$1.88	$38.69	4.86%	4.96%	3.87%	4.00%	4.50%	4.12%	8.82%	9.08%	9.47%
Cleco Corp.	CNL	$1.25	$35.57	3.51%	3.61%	3.00%	7.00%	6.00%	5.33%	6.57%	8.94%	10.64%
Edison International	EIX	$1.30	$38.63	3.37%	3.43%	3.18%	5.00%	n/a	4.09%	6.60%	7.52%	8.45%
Great Plains Energy Inc.	GXP	$0.85	$20.28	4.19%	4.31%	4.10%	6.50%	6.00%	5.53%	8.38%	9.84%	10.83%
IDACORP, Inc.	IDA	$1.20	$39.48	3.04%	3.11%	4.50%	4.70%	4.00%	4.40%	7.10%	7.51%	7.81%
Integrys Energy Group, Inc.	TEG	$2.72	$50.46	5.39%	5.60%	9.40%	4.50%	9.00%	7.63%	10.01%	13.23%	15.04%
Otter Tail Corporation	OTTR	$1.19	$20.17	5.90%	6.12%	5.00%	5.00%	13.00%	7.67%	11.05%	13.79%	19.28%
Pinnacle West Capital Corp.	PNW	$2.10	$45.08	4.66%	4.79%	5.58%	5.30%	6.00%	5.63%	10.08%	10.42%	10.80%
Portland General Electric Company	POR	$1.06	$24.24	4.37%	4.51%	5.88%	5.00%	7.50%	6.13%	9.48%	10.63%	12.04%
Southern Company	SO	$1.89	$43.09	4.39%	4.51%	5.92%	5.10%	6.00%	5.67%	9.60%	10.18%	10.52%
Westar Energy, Inc.	WR	$1.28	$26.84	4.77%	4.92%	5.08%	6.10%	8.50%	6.56%	9.97%	11.48%	13.47%
MEAN				4.40%	4.53%	5.05%	5.29%	7.05%	5.71%	8.88%	10.24%	11.67%

Notes:

[1] Source: Bloomberg Professional
[2] Source: Bloomberg Professional, equals 90-trading day average as of December 31, 2011
[3] Equals [1] / [2]
[4] Equals [3] x (1 + 0.5 x [8])
[5] Source: Yahoo! Finance
[6] Source: Zacks
[7] Source: Value Line
[8] Equals Average([5], [6], [7])
[9] Equals [3] x (1 + 0.5 x Minimum([5], [6], [7])) + Minimum([5], [6], [7])
[10] Equals [4] + [8]
[11] Equals [3] x (1 + 0.5 x Maximum([5], [6], [7])) + Maximum([5], [6], [7])

180-DAY CONSTANT GROWTH DCF

Company	Ticker	[1] Annualized Dividend	[2] Stock Price	[3] Dividend Yield	[4] Expected Dividend Yield	[5] First Call Earnings Growth	[6] Zacks Earnings Growth	[7] Value Line Earnings Growth	[8] Average Earnings Growth	[9] Low ROE	[10] Mean ROE	[11] High ROE
American Electric Power Company, Inc.	AEP	$1.88	$37.96	4.95%	5.05%	3.87%	4.00%	4.50%	4.12%	8.92%	9.18%	9.56%
Cleco Corp.	CNL	$1.25	$35.04	3.57%	3.66%	3.00%	7.00%	6.00%	5.33%	6.62%	9.00%	10.69%
Edison International	EIX	$1.30	$38.48	3.38%	3.45%	3.18%	5.00%	n/a	4.09%	6.61%	7.54%	8.46%
Great Plains Energy Inc.	GXP	$0.85	$20.27	4.19%	4.31%	4.10%	6.50%	6.00%	5.53%	8.38%	9.84%	10.83%
IDACORP, Inc.	IDA	$1.20	$39.09	3.07%	3.14%	4.50%	4.70%	4.00%	4.40%	7.13%	7.54%	7.84%
Integrys Energy Group, Inc.	TEG	$2.72	$50.70	5.36%	5.57%	9.40%	4.50%	9.00%	7.63%	9.99%	13.20%	15.02%
Otter Tail Corporation	OTTR	$1.19	$20.82	5.72%	5.94%	5.00%	5.00%	13.00%	7.67%	10.86%	13.60%	19.09%
Pinnacle West Capital Corp.	PNW	$2.10	$44.28	4.74%	4.88%	5.58%	5.30%	6.00%	5.63%	10.17%	10.50%	10.88%
Portland General Electric Company	POR	$1.06	$24.55	4.32%	4.45%	5.88%	5.00%	7.50%	6.13%	9.43%	10.58%	11.98%
Southern Company	SO	$1.89	$41.42	4.56%	4.69%	5.92%	5.10%	6.00%	5.67%	9.78%	10.37%	10.70%
Westar Energy, Inc.	WR	$1.28	$26.63	4.81%	4.97%	5.08%	6.10%	8.50%	6.56%	10.01%	11.53%	13.51%
MEAN				4.42%	4.55%	5.05%	5.29%	7.05%	5.71%	8.90%	10.26%	11.69%

Notes:
[1] Source: Bloomberg Professional
[2] Source: Bloomberg Professional, equals 180-trading day average as of December 31, 2011
[3] Equals [1] / [2]
[4] Equals [3] x (1 + 0.5 x [8])
[5] Source: Yahoo! Finance
[6] Source: Zacks
[7] Source: Value Line
[8] Equals Average([5], [6], [7])
[9] Equals [3] x (1 + 0.5 x Minimum([5], [6], [7])) + Minimum([5], [6], [7])
[10] Equals [4] + [8]
[11] Equals [3] x (1 + 0.5 x Maximum([5], [6], [7])) + Maximum([5], [6], [7])

MULTI-STAGE DCF MODEL – 30-DAY AVERAGE PRICE

Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
		Stock	2010	Earnings	GDP		Payout Ratio		Solver Cells	
Company	Ticker	Price	EPS	Growth	Growth	2011	2015	2022	Beta	ROE
American Electric Power Company, Inc.	AEP	$39.50	$2.60	4.12%	5.61%	59.50%	65.00%	66.42%	$0.00	10.02%
Cleco Corp.	CNL	$36.20	$2.29	5.33%	5.61%	46.00%	59.00%	66.42%	$0.00	10.23%
Edison International	EIX	$39.45	$3.35	4.09%	5.61%	50.00%	45.00%	66.42%	$0.00	11.03%
Great Plains Energy Inc.	GXP	$20.58	$1.53	8.53%	5.61%	63.00%	60.00%	66.42%	$0.00	11.12%
IDACORP, Inc.	IDA	$40.78	$2.95	4.40%	5.61%	39.00%	45.00%	66.42%	$0.00	10.26%
Integrys Energy Group, Inc.	TEG	$51.45	$3.24	7.63%	5.61%	82.00%	68.00%	66.42%	$0.00	11.36%
Otter Tail Corporation	OTTR	$21.20	$0.38	7.67%	5.61%	NMF	92.00%	66.42%	n/a	n/a
Pinnacle West Capital Corp.	PNW	$46.61	$3.63	5.63%	5.61%	76.00%	65.00%	66.42%	$0.00	10.79%
Portland General Electric Company	POR	$24.61	$1.66	6.13%	5.61%	53.00%	52.00%	66.42%	$0.00	10.73%
Southern Company	SO	$44.38	$2.37	5.67%	5.61%	73.00%	68.00%	66.42%	$0.00	9.81%
Westar Energy, Inc.	WR	$27.40	$1.80	8.56%	5.61%	72.00%	59.00%	66.42%	$0.00	10.98%
AVERAGE				5.71%		61.30%	60.82%			10.64%

Earnings Per Share		[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]
Company	Ticker	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
American Electric Power Company, Inc.	AEP	$2.60	$2.71	$2.82	$2.94	$3.06	$3.18	$3.31	$3.45	$3.62	$3.79	$3.99	$4.20	$4.44	$4.69	$4.95	$5.23	$5.52
Cleco Corp.	CNL	$2.29	$2.41	$2.54	$2.68	$2.82	$2.97	$3.13	$3.30	$3.47	$3.65	$3.87	$4.08	$4.31	$4.55	$4.81	$5.08	$5.36
Edison International	EIX	$3.35	$3.49	$3.63	$3.78	$3.93	$4.09	$4.26	$4.45	$4.65	$4.88	$5.12	$5.40	$5.70	$6.02	$6.36	$6.71	$7.09
Great Plains Energy Inc.	GXP	$1.53	$1.61	$1.70	$1.80	$1.90	$2.00	$2.11	$2.23	$2.35	$2.49	$2.62	$2.77	$2.93	$3.09	$3.26	$3.45	$3.64
IDACORP, Inc.	IDA	$2.95	$3.08	$3.22	$3.36	$3.50	$3.66	$3.82	$4.00	$4.19	$4.43	$4.68	$4.88	$5.15	$5.44	$5.74	$6.06	$6.40
Integrys Energy Group, Inc.	TEG	$3.24	$3.49	$3.76	$4.04	$4.35	$4.68	$5.04	$5.41	$5.78	$6.16	$6.55	$6.94	$7.33	$7.74	$8.17	$8.63	$9.12
Otter Tail Corporation	OTTR	$0.38	$0.41	$0.44	$0.47	$0.51	$0.55	$0.59	$0.64	$0.68	$0.72	$0.77	$0.82	$0.88	$0.91	$0.96	$1.02	$1.07
Pinnacle West Capital Corp.	PNW	$3.08	$3.25	$3.44	$3.63	$3.83	$4.05	$4.28	$4.52	$4.77	$5.04	$5.32	$5.62	$5.94	$6.27	$6.62	$6.99	$7.38
Portland General Electric Company	POR	$1.65	$1.78	$1.87	$1.98	$2.11	$2.23	$2.37	$2.51	$2.66	$2.82	$2.98	$3.15	$3.33	$3.52	$3.71	$3.92	$4.14
Southern Company	SO	$2.37	$2.50	$2.65	$2.80	$2.96	$3.12	$3.30	$3.49	$3.68	$3.89	$4.11	$4.34	$4.59	$4.84	$5.11	$5.40	$5.70
Westar Energy, Inc.	WR	$1.80	$1.92	$2.04	$2.18	$2.32	$2.47	$2.64	$2.80	$2.95	$3.16	$3.35	$3.54	$3.74	$3.95	$4.17	$4.40	$4.65

Dividend Payout Ratio		[27]	[28]	[29]	[30]	[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]
Company	Ticker	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
American Electric Power Company, Inc.	AEP	59.00%	58.00%	57.00%	56.00%	55.00%	56.63%	58.26%	59.89%	61.53%	63.16%	64.79%	66.42%	66.42%	66.42%	66.42%	66.42%
Cleco Corp.	CNL	46.00%	49.25%	52.50%	55.75%	59.00%	60.06%	61.12%	62.18%	63.24%	64.30%	65.35%	66.42%	66.42%	66.42%	66.42%	66.42%
Edison International	EIX	50.00%	49.00%	48.00%	47.00%	46.00%	48.92%	51.83%	54.75%	57.67%	60.59%	63.50%	66.42%	66.42%	66.42%	66.42%	66.42%
Great Plains Energy Inc.	GXP	63.00%	62.25%	61.50%	60.75%	60.00%	60.92%	61.83%	62.75%	63.67%	64.59%	65.50%	66.42%	66.42%	66.42%	66.42%	66.42%
IDACORP, Inc.	IDA	39.00%	40.50%	42.00%	43.50%	45.00%	48.06%	51.12%	54.18%	57.24%	60.30%	63.36%	66.42%	66.42%	66.42%	66.42%	66.42%
Integrys Energy Group, Inc.	TEG	82.00%	78.50%	75.00%	71.50%	68.00%	67.77%	67.55%	67.32%	67.10%	66.87%	66.65%	66.42%	66.42%	66.42%	66.42%	66.42%
Otter Tail Corporation	OTTR	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Pinnacle West Capital Corp.	PNW	76.00%	73.25%	70.50%	67.75%	65.00%	65.20%	65.41%	65.61%	65.81%	66.01%	66.22%	66.42%	66.42%	66.42%	66.42%	66.42%
Portland General Electric Company	POR	53.00%	52.75%	52.50%	52.25%	52.00%	54.06%	56.12%	58.18%	60.24%	62.30%	64.36%	66.42%	66.42%	66.42%	66.42%	66.42%
Southern Company	SO	73.00%	71.75%	70.50%	69.25%	68.00%	67.77%	67.55%	67.32%	67.10%	66.87%	66.65%	66.42%	66.42%	66.42%	66.42%	66.42%
Westar Energy, Inc.	WR	72.00%	68.75%	65.50%	62.25%	59.00%	60.06%	61.12%	62.18%	63.24%	64.30%	65.36%	66.42%	66.42%	66.42%	66.42%	66.42%

Dividends Per Share & Terminal Market Value		[43]	[44]	[45]	[46]	[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]
																	Terminal	Terminal
Company	Ticker	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Price	P/E Ratio
American Electric Power Company, Inc.	AEP	$1.63	$1.67	$1.71	$1.75	$1.88	$2.01	$2.17	$2.33	$2.52	$2.72	$2.95	$3.11	$3.29	$3.47	$3.67	$87.78	15.91
Cleco Corp.	CNL	$1.25	$1.41	$1.57	$1.75	$1.88	$2.01	$2.15	$2.32	$2.49	$2.67	$2.86	$3.02	$3.19	$3.37	$3.56	$81.22	15.17
Edison International	EIX	$1.78	$1.81	$1.85	$1.88	$2.08	$2.30	$2.55	$2.81	$3.10	$3.43	$3.79	$4.00	$4.22	$4.46	$4.71	$91.63	12.92
Great Plains Energy Inc.	GXP	$1.06	$1.11	$1.16	$1.20	$1.29	$1.38	$1.48	$1.58	$1.70	$1.82	$1.94	$2.05	$2.17	$2.29	$2.42	$48.28	12.71
IDACORP, Inc.	IDA	$1.30	$1.41	$1.52	$1.65	$1.84	$2.04	$2.27	$2.52	$2.79	$3.09	$3.42	$3.61	$3.81	$4.03	$4.25	$95.82	14.96
Integrys Energy Group, Inc.	TEG	$2.95	$3.03	$3.11	$3.18	$3.41	$3.65	$3.89	$4.14	$4.38	$4.63	$4.87	$5.14	$5.43	$5.73	$6.06	$110.74	12.15
Otter Tail Corporation	OTTR	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Pinnacle West Capital Corp.	PNW	$2.52	$2.58	$2.60	$2.63	$2.79	$2.96	$3.13	$3.32	$3.51	$3.72	$3.94	$4.16	$4.40	$4.64	$4.90	$99.64	13.53
Portland General Electric Company	POR	$0.99	$1.04	$1.10	$1.16	$1.28	$1.41	$1.55	$1.70	$1.86	$2.03	$2.21	$2.34	$2.47	$2.61	$2.75	$56.65	13.68
Southern Company	SO	$1.90	$1.97	$2.05	$2.12	$2.24	$2.36	$2.48	$2.61	$2.75	$2.89	$3.05	$3.22	$3.40	$3.59	$3.79	$95.17	15.69
Westar Energy, Inc.	WR	$1.41	$1.43	$1.44	$1.46	$1.58	$1.71	$1.85	$2.00	$2.15	$2.31	$2.48	$2.62	$2.77	$2.92	$3.09	$59.70	13.05

Investor Cash Flows		[60]	[61]	[62]	[63]	[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]
		Initial																
Company	Ticker	Outflow	12/31/2011	07/01/2012	07/01/2013	07/01/2014	07/01/2015	07/01/2016	07/01/2017	07/01/2018	07/01/2019	07/01/2020	07/01/2021	07/01/2022	07/01/2023	07/01/2024	07/01/2025	07/01/2026
American Electric Power Company, Inc.	AEP	($39.50)	$0.00	$1.63	$1.67	$1.71	$1.75	$1.88	$2.01	$2.17	$2.33	$2.52	$2.72	$2.95	$3.11	$3.29	$3.47	$91.44
Cleco Corp.	CNL	($36.20)	$0.00	$1.25	$1.41	$1.57	$1.75	$1.88	$2.01	$2.15	$2.32	$2.49	$2.67	$2.86	$3.02	$3.19	$3.37	$84.83
Edison International	EIX	($39.45)	$0.00	$1.78	$1.81	$1.85	$1.88	$2.08	$2.30	$2.55	$2.81	$3.10	$3.43	$3.79	$4.00	$4.22	$4.46	$96.34
Great Plains Energy Inc.	GXP	($20.58)	$0.00	$1.06	$1.11	$1.16	$1.20	$1.29	$1.38	$1.48	$1.58	$1.70	$1.82	$1.94	$2.05	$2.17	$2.29	$48.69
IDACORP, Inc.	IDA	($40.78)	$0.00	$1.30	$1.41	$1.52	$1.65	$1.84	$2.04	$2.27	$2.52	$2.79	$3.09	$3.42	$3.61	$3.81	$4.03	$100.07
Integrys Energy Group, Inc.	TEG	($51.45)	$0.00	$2.95	$3.03	$3.11	$3.18	$3.41	$3.65	$3.89	$4.14	$4.38	$4.63	$4.87	$5.14	$5.43	$5.73	$116.79
Otter Tail Corporation	OTTR	n/a	$0.00	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Pinnacle West Capital Corp.	PNW	($46.61)	$0.00	$2.52	$2.58	$2.60	$2.63	$2.79	$2.96	$3.13	$3.32	$3.51	$3.72	$3.94	$4.16	$4.40	$4.64	$104.64
Portland General Electric Company	POR	($24.61)	$0.00	$0.99	$1.04	$1.10	$1.16	$1.28	$1.41	$1.55	$1.70	$1.86	$2.03	$2.21	$2.34	$2.47	$2.61	$59.41
Southern Company	SO	($44.38)	$0.00	$1.90	$1.97	$2.05	$2.12	$2.24	$2.36	$2.48	$2.61	$2.75	$2.89	$3.05	$3.22	$3.40	$3.59	$98.99
Westar Energy, Inc.	WR	($27.40)	$0.00	$1.41	$1.43	$1.44	$1.46	$1.58	$1.71	$1.85	$2.00	$2.15	$2.31	$2.48	$2.62	$2.77	$2.92	$63.78

MULTI-STAGE DCF MODEL – 90-DAY AVERAGE PRICE

Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
		Stock	2010	Earnings	GDP	Payout Ratio			Solver Cells	
Company	Ticker	Price	EPS	Growth	Growth	2015	2015	2025	Delta	ROE
American Electric Power Company, Inc.	AEP	$38.69	$2.60	4.12%	5.61%	59.00%	55.00%	66.42%	$0.00	10.11%
Cleco Corp.	CNL	$35.57	$2.29	5.33%	5.61%	46.00%	59.00%	66.42%	$0.00	10.31%
Edison International	EIX	$38.63	$3.35	4.09%	5.61%	50.00%	45.00%	66.42%	$0.00	11.15%
Great Plains Energy Inc.	GXP	$20.28	$1.53	5.53%	5.61%	63.00%	60.00%	66.42%	$0.00	11.32%
IDACORP, Inc.	IDA	$39.48	$2.95	4.40%	5.61%	39.00%	45.00%	66.42%	$0.00	10.44%
Integrys Energy Group, Inc.	TEG	$50.45	$3.24	7.63%	5.61%	82.00%	68.00%	66.42%	$0.00	11.50%
Otter Tail Corporation	OTTR	$20.17	$0.38	7.67%	5.61%	NMF	92.00%	66.42%	n/a	n/a
Pinnacle West Capital Corp.	PNW	$45.08	$3.08	5.63%	5.61%	76.00%	66.00%	66.42%	$0.00	10.97%
Portland General Electric Company	POR	$24.24	$1.66	6.13%	5.61%	53.00%	52.00%	66.42%	$0.00	10.81%
Southern Company	SO	$43.09	$2.37	5.67%	5.61%	73.00%	68.00%	66.42%	$0.00	9.94%
Westar Energy, Inc.	WR	$29.84	$1.60	6.56%	5.61%	72.00%	59.00%	66.42%	$0.00	11.09%
AVERAGE				5.71%		61.30%	60.82%			10.76%

Earnings Per Share		[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]
Company	Ticker	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
American Electric Power Company, Inc.	AEP	$2.60	$2.71	$2.82	$2.94	$3.06	$3.18	$3.31	$3.45	$3.62	$3.79	$3.99	$4.20	$4.44	$4.69	$4.95	$5.23	$5.52
Cleco Corp.	CNL	$2.29	$2.41	$2.54	$2.68	$2.82	$2.97	$3.13	$3.30	$3.47	$3.65	$3.87	$4.08	$4.31	$4.55	$4.81	$5.08	$5.36
Edison International	EIX	$3.35	$3.49	$3.63	$3.78	$3.93	$4.09	$4.26	$4.45	$4.65	$4.68	$5.12	$5.40	$5.70	$6.02	$6.36	$6.71	$7.09
Great Plains Energy Inc.	GXP	$1.53	$1.61	$1.70	$1.80	$1.90	$2.00	$2.11	$2.23	$2.35	$2.49	$2.62	$2.77	$2.93	$3.09	$3.26	$3.45	$3.64
IDACORP, Inc.	IDA	$2.95	$3.08	$3.22	$3.36	$3.50	$3.65	$3.82	$4.00	$4.19	$4.40	$4.63	$4.88	$5.15	$5.44	$5.74	$6.06	$6.40
Integrys Energy Group, Inc.	TEG	$3.24	$3.49	$3.75	$4.04	$4.35	$4.68	$5.04	$5.41	$5.73	$6.15	$6.55	$6.94	$7.33	$7.74	$8.17	$8.63	$9.12
Otter Tail Corporation	OTTR	$0.38	$0.41	$0.44	$0.47	$0.51	$0.55	$0.59	$0.64	$0.68	$0.72	$0.77	$0.82	$0.86	$0.91	$0.96	$1.02	$1.07
Pinnacle West Capital Corp.	PNW	$3.08	$3.25	$3.44	$3.63	$3.83	$4.05	$4.25	$4.52	$4.77	$5.04	$5.32	$5.62	$5.94	$6.27	$6.62	$6.99	$7.38
Portland General Electric Company	POR	$1.66	$1.76	$1.87	$1.98	$2.11	$2.23	$2.37	$2.51	$2.66	$2.82	$2.98	$3.15	$3.33	$3.52	$3.71	$3.92	$4.14
Southern Company	SO	$2.37	$2.50	$2.65	$2.80	$2.96	$3.12	$3.30	$3.49	$3.68	$3.89	$4.11	$4.34	$4.59	$4.84	$5.11	$5.40	$5.70
Westar Energy, Inc.	WR	$1.60	$1.82	$2.04	$2.18	$2.32	$2.47	$2.64	$2.80	$2.98	$3.16	$3.35	$3.54	$3.74	$3.95	$4.17	$4.40	$4.65

Dividend Payout Ratio		[27]	[28]	[29]	[30]	[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]
Company	Ticker	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
American Electric Power Company, Inc.	AEP	59.00%	58.00%	57.00%	56.00%	55.00%	56.63%	58.26%	59.89%	61.53%	63.16%	64.79%	66.42%	66.42%	66.42%	66.42%	66.42%
Cleco Corp.	CNL	46.00%	49.25%	52.50%	55.75%	59.00%	60.06%	61.12%	62.18%	63.24%	64.30%	65.36%	66.42%	66.42%	66.42%	66.42%	66.42%
Edison International	EIX	50.00%	49.00%	48.00%	47.00%	46.00%	43.92%	51.83%	54.75%	57.67%	60.59%	63.50%	66.42%	66.42%	66.42%	66.42%	66.42%
Great Plains Energy Inc.	GXP	63.00%	62.25%	61.50%	60.75%	60.00%	60.92%	61.83%	62.75%	63.67%	64.59%	65.50%	66.42%	66.42%	66.42%	66.42%	66.42%
IDACORP, Inc.	IDA	39.00%	40.50%	42.00%	43.50%	45.00%	45.06%	51.12%	54.18%	57.24%	60.30%	63.36%	66.42%	66.42%	66.42%	66.42%	66.42%
Integrys Energy Group, Inc.	TEG	82.00%	78.50%	75.00%	71.50%	68.00%	67.77%	67.55%	67.32%	67.10%	66.87%	66.65%	66.42%	66.42%	66.42%	66.42%	66.42%
Otter Tail Corporation	OTTR	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Pinnacle West Capital Corp.	PNW	76.00%	73.25%	70.50%	67.75%	66.00%	66.20%	66.41%	66.61%	66.81%	66.01%	66.22%	66.42%	66.42%	66.42%	66.42%	66.42%
Portland General Electric Company	POR	53.00%	52.75%	52.50%	52.25%	52.00%	54.06%	56.12%	58.18%	60.24%	62.30%	64.36%	66.42%	66.42%	66.42%	66.42%	66.42%
Southern Company	SO	73.00%	71.25%	70.50%	69.25%	68.00%	67.77%	67.55%	67.32%	67.10%	66.87%	66.65%	66.42%	66.42%	66.42%	66.42%	66.42%
Westar Energy, Inc.	WR	72.00%	68.75%	65.50%	62.25%	59.00%	60.06%	61.12%	62.18%	63.24%	64.30%	65.36%	66.42%	66.42%	66.42%	66.42%	66.42%

Dividends Per Share & Terminal Market Valu		[43]	[44]	[45]	[46]	[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]
																	Terminal	Terminal
Company	Ticker	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Price	P/E Ratio
American Electric Power Company, Inc.	AEP	$1.63	$1.67	$1.71	$1.75	$1.88	$2.01	$2.17	$2.33	$2.52	$2.72	$2.95	$3.11	$3.29	$3.47	$3.67	$55.93	15.58
Cleco Corp.	CNL	$1.25	$1.41	$1.57	$1.75	$1.88	$2.01	$2.16	$2.32	$2.49	$2.67	$2.86	$3.02	$3.19	$3.37	$3.56	$79.03	14.91
Edison International	EIX	$1.78	$1.81	$1.85	$1.88	$2.08	$2.30	$2.55	$2.81	$3.10	$3.43	$3.79	$4.00	$4.22	$4.46	$4.71	$69.78	12.66
Great Plains Energy Inc.	GXP	$1.06	$1.11	$1.15	$1.20	$1.29	$1.38	$1.48	$1.58	$1.70	$1.82	$1.94	$2.05	$2.17	$2.29	$2.42	$44.73	12.29
IDACORP, Inc.	IDA	$1.30	$1.41	$1.52	$1.65	$1.84	$2.04	$2.27	$2.52	$2.79	$3.09	$3.42	$3.61	$3.81	$4.03	$4.25	$92.56	14.52
Integrys Energy Group, Inc.	TEG	$2.95	$3.03	$3.11	$3.18	$3.41	$3.65	$3.89	$4.14	$4.38	$4.63	$4.87	$5.14	$5.43	$5.73	$6.06	$108.50	11.90
Otter Tail Corporation	OTTR	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Pinnacle West Capital Corp.	PNW	$2.52	$2.56	$2.60	$2.63	$2.79	$2.96	$3.13	$3.32	$3.51	$3.72	$3.94	$4.16	$4.40	$4.64	$4.90	$96.56	13.08
Portland General Electric Company	POR	$0.99	$1.04	$1.10	$1.16	$1.28	$1.41	$1.55	$1.70	$1.86	$2.03	$2.21	$2.34	$2.47	$2.61	$2.75	$55.84	13.48
Southern Company	SO	$1.90	$1.97	$2.05	$2.12	$2.24	$2.36	$2.48	$2.61	$2.75	$2.89	$3.05	$3.22	$3.40	$3.59	$3.79	$32.34	10.19
Westar Energy, Inc.	WR	$1.41	$1.43	$1.44	$1.45	$1.58	$1.71	$1.85	$2.00	$2.15	$2.31	$2.48	$2.62	$2.77	$2.92	$3.09	$59.47	12.79

Investor Cash Flows		[60]	[61]	[62]	[63]	[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]
		Initial																
Company	Ticker	Outlow	12/31/2011	07/01/2012	07/01/2013	07/01/2014	07/01/2015	07/01/2016	07/01/2017	07/01/2018	07/01/2019	07/01/2020	07/01/2021	07/01/2022	07/01/2023	07/01/2024	07/01/2025	07/01/2026
American Electric Power Company, Inc.	AEP	($38.69)	$0.00	$1.63	$1.67	$1.71	$1.75	$1.88	$2.01	$2.17	$2.33	$2.52	$2.72	$2.95	$3.11	$3.29	$3.47	$59.60
Cleco Corp.	CNL	($35.57)	$0.00	$1.25	$1.41	$1.57	$1.75	$1.88	$2.01	$2.16	$2.32	$2.49	$2.67	$2.86	$3.02	$3.19	$3.37	$53.49
Edison International	EIX	($38.63)	$0.00	$1.78	$1.81	$1.85	$1.88	$2.08	$2.30	$2.55	$2.81	$3.10	$3.43	$3.79	$4.00	$4.22	$4.46	$64.49
Great Plains Energy Inc.	GXP	($20.28)	$0.00	$1.06	$1.11	$1.15	$1.20	$1.29	$1.38	$1.48	$1.58	$1.70	$1.82	$1.94	$2.05	$2.17	$2.29	$47.15
IDACORP, Inc.	IDA	($39.48)	$0.00	$1.30	$1.41	$1.52	$1.65	$1.84	$2.04	$2.27	$2.52	$2.79	$3.09	$3.42	$3.61	$3.81	$4.03	$97.22
Integrys Energy Group, Inc.	TEG	($50.45)	$0.00	$2.95	$3.03	$3.11	$3.18	$3.41	$3.65	$3.89	$4.14	$4.38	$4.63	$4.87	$5.14	$5.43	$5.73	$114.56
Otter Tail Corporation	OTTR	n/a	$0.00	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Pinnacle West Capital Corp.	PNW	($45.08)	$0.00	$2.52	$2.56	$2.60	$2.63	$2.79	$2.96	$3.13	$3.32	$3.51	$3.72	$3.94	$4.16	$4.40	$4.64	$101.45
Portland General Electric Company	POR	($24.24)	$0.00	$0.99	$1.04	$1.10	$1.16	$1.28	$1.41	$1.55	$1.70	$1.86	$2.03	$2.21	$2.34	$2.47	$2.61	$58.59
Southern Company	SO	($43.09)	$0.00	$1.90	$1.97	$2.05	$2.12	$2.24	$2.36	$2.45	$2.61	$2.75	$2.89	$3.05	$3.22	$3.40	$3.59	$36.12
Westar Energy, Inc.	WR	($29.84)	$0.00	$1.41	$1.43	$1.44	$1.45	$1.58	$1.71	$1.85	$2.00	$2.15	$2.31	$2.48	$2.62	$2.77	$2.92	$62.56

MULTI-STAGE DCF MODEL – 180-DAY AVERAGE PRICE

Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
		Stock	2010	Earnings	GDP		Payout Ratio		Solver Cells	
Company	Ticker	Price	EPS	Growth	Growth	2011	2015	2025	Delta	ROE
American Electric Power Company, Inc.	AEP	$37.96	$2.60	4.12%	5.61%	59.00%	55.00%	66.42%	$0.00	10.19%
Cleco Corp.	CNL	$35.04	$2.29	5.33%	5.61%	45.00%	59.00%	66.42%	$0.00	10.36%
Edison International	EIX	$38.48	$3.35	4.09%	5.61%	50.00%	45.00%	66.42%	$0.00	11.17%
Great Plains Energy Inc.	GXP	$20.27	$1.53	5.53%	5.61%	63.00%	60.00%	66.42%	$0.00	11.32%
IDACORP, Inc.	IDA	$39.09	$2.95	4.40%	5.61%	39.00%	45.00%	66.42%	$0.00	10.46%
Integrys Energy Group, Inc.	TEG	$50.70	$3.24	7.63%	5.61%	62.00%	68.00%	66.42%	$0.00	11.47%
Otter Tail Corporation	OTTR	$20.82	$0.38	7.57%	5.61%	NMF	92.00%	66.42%	n/a	n/a
Pinnacle West Capital Corp.	PNW	$44.28	$3.08	5.53%	5.61%	76.00%	65.00%	66.42%	$0.00	11.07%
Portland General Electric Company	POR	$24.55	$1.66	6.13%	5.61%	53.00%	52.00%	66.42%	$0.00	10.75%
Southern Company	SO	$41.42	$2.37	5.67%	5.61%	73.00%	68.00%	66.42%	$0.00	10.12%
Westar Energy, Inc.	WR	$26.63	$1.80	6.56%	5.61%	72.00%	59.00%	66.42%	$0.00	11.14%
AVERAGE				5.71%		61.30%	60.82%			10.81%

Earnings Per Share		[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]
Company	Ticker	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
American Electric Power Company, Inc.	AEP	$2.60	$2.71	$2.82	$2.94	$3.06	$3.18	$3.31	$3.46	$3.62	$3.79	$3.99	$4.20	$4.44	$4.69	$4.95	$5.23	$5.52
Cleco Corp.	CNL	$2.29	$2.41	$2.54	$2.68	$2.82	$2.97	$3.13	$3.30	$3.47	$3.66	$3.87	$4.08	$4.31	$4.55	$4.81	$5.08	$5.36
Edison International	EIX	$3.35	$3.49	$3.63	$3.78	$3.93	$4.09	$4.25	$4.45	$4.65	$4.88	$5.12	$5.40	$5.70	$6.02	$6.36	$6.71	$7.09
Great Plains Energy Inc.	GXP	$1.53	$1.61	$1.70	$1.80	$1.90	$2.00	$2.11	$2.23	$2.35	$2.49	$2.62	$2.77	$2.93	$3.09	$3.26	$3.45	$3.64
IDACORP, Inc.	IDA	$2.95	$3.08	$3.22	$3.36	$3.50	$3.66	$3.82	$4.00	$4.19	$4.40	$4.63	$4.88	$5.15	$5.44	$5.74	$6.06	$6.40
Integrys Energy Group, Inc.	TEG	$3.24	$3.49	$3.75	$4.04	$4.35	$4.68	$5.04	$5.41	$5.78	$6.16	$6.55	$6.94	$7.33	$7.74	$8.17	$8.63	$9.12
Otter Tail Corporation	OTTR	$0.38	$0.41	$0.44	$0.47	$0.51	$0.55	$0.59	$0.64	$0.68	$0.72	$0.77	$0.82	$0.88	$0.91	$0.96	$1.02	$1.07
Pinnacle West Capital Corp.	PNW	$3.08	$3.25	$3.44	$3.63	$3.83	$4.05	$4.28	$4.52	$4.77	$5.04	$5.32	$5.62	$5.94	$6.27	$6.62	$6.99	$7.38
Portland General Electric Company	POR	$1.66	$1.76	$1.87	$1.98	$2.11	$2.23	$2.37	$2.51	$2.66	$2.82	$2.98	$3.15	$3.33	$3.52	$3.71	$3.92	$4.14
Southern Company	SO	$2.37	$2.50	$2.65	$2.80	$2.96	$3.12	$3.30	$3.49	$3.68	$3.89	$4.11	$4.34	$4.59	$4.84	$5.11	$5.40	$5.70
Westar Energy, Inc.	WR	$1.80	$1.92	$2.04	$2.18	$2.32	$2.47	$2.64	$2.80	$2.98	$3.16	$3.35	$3.54	$3.74	$3.96	$4.17	$4.40	$4.65

Dividend Payout Ratio		[27]	[28]	[29]	[30]	[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]
Company	Ticker	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
American Electric Power Company, Inc.	AEP	59.00%	58.00%	57.00%	56.00%	55.00%	56.63%	58.26%	59.89%	61.53%	63.15%	64.79%	66.42%	66.42%	66.42%	66.42%	66.42%
Cleco Corp.	CNL	45.00%	49.25%	52.50%	55.75%	59.00%	60.06%	61.12%	62.18%	63.24%	64.30%	65.36%	66.42%	66.42%	66.42%	66.42%	66.42%
Edison International	EIX	50.00%	49.00%	48.00%	47.00%	46.00%	48.92%	51.83%	54.75%	57.67%	60.59%	63.50%	66.42%	66.42%	66.42%	66.42%	66.42%
Great Plains Energy Inc.	GXP	63.00%	62.25%	61.50%	60.75%	60.00%	60.92%	61.83%	62.75%	63.67%	64.59%	65.50%	66.42%	66.42%	66.42%	66.42%	66.42%
IDACORP, Inc.	IDA	39.00%	40.50%	42.00%	43.50%	45.00%	48.06%	51.12%	54.18%	57.24%	60.30%	63.36%	66.42%	66.42%	66.42%	66.42%	66.42%
Integrys Energy Group, Inc.	TEG	82.00%	78.50%	75.00%	71.50%	68.00%	67.77%	67.55%	67.32%	67.10%	66.87%	66.65%	66.42%	66.42%	66.42%	66.42%	66.42%
Otter Tail Corporation	OTTR	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Pinnacle West Capital Corp.	PNW	76.00%	73.25%	70.50%	67.75%	65.00%	65.20%	65.41%	65.61%	65.81%	66.01%	66.22%	66.42%	66.42%	66.42%	66.42%	66.42%
Portland General Electric Company	POR	53.00%	52.75%	52.50%	52.25%	52.00%	54.06%	56.12%	58.18%	60.24%	62.30%	64.36%	66.42%	66.42%	66.42%	66.42%	66.42%
Southern Company	SO	73.00%	71.75%	70.50%	69.25%	68.00%	67.77%	67.55%	67.32%	67.10%	66.87%	66.65%	66.42%	66.42%	66.42%	66.42%	66.42%
Westar Energy, Inc.	WR	72.00%	68.75%	65.50%	62.25%	59.00%	60.06%	61.12%	62.18%	63.24%	64.30%	65.36%	66.42%	66.42%	66.42%	66.42%	66.42%

Dividends Per Share & Terminal Market Valu			[43]	[44]	[45]	[46]	[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]
Company	Ticker		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Terminal Price
American Electric Power Company, Inc.	AEP		$1.63	$1.67	$1.71	$1.75	$1.68	$2.01	$2.17	$2.33	$2.52	$2.72	$2.95	$3.11	$3.29	$3.47	$3.67	$54.36
Cleco Corp.	CNL		$1.25	$1.41	$1.57	$1.75	$1.68	$2.01	$2.16	$2.32	$2.49	$2.67	$2.86	$3.02	$3.19	$3.37	$3.56	$76.76
Edison International	EIX		$1.78	$1.81	$1.85	$1.88	$2.08	$2.30	$2.55	$2.81	$3.10	$3.43	$3.79	$4.00	$4.22	$4.46	$4.71	$89.44
Great Plains Energy Inc.	GXP		$1.06	$1.11	$1.15	$1.20	$1.29	$1.38	$1.48	$1.58	$1.70	$1.82	$1.94	$2.05	$2.17	$2.29	$2.42	$44.70
IDACORP, Inc.	IDA		$1.30	$1.41	$1.52	$1.65	$1.84	$2.04	$2.27	$2.52	$2.79	$3.09	$3.42	$3.61	$3.81	$4.03	$4.25	$92.10
Integrys Energy Group, Inc.	TEG		$2.95	$3.03	$3.11	$3.18	$3.41	$3.65	$3.89	$4.14	$4.38	$4.63	$4.87	$5.14	$5.43	$5.73	$6.08	$109.03
Otter Tail Corporation	OTTR		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Pinnacle West Capital Corp.	PNW		$2.52	$2.56	$2.60	$2.63	$2.79	$2.95	$3.13	$3.32	$3.51	$3.72	$3.94	$4.16	$4.40	$4.64	$4.90	$94.80
Portland General Electric Company	POR		$0.99	$1.04	$1.10	$1.18	$1.23	$1.41	$1.55	$1.70	$1.86	$2.03	$2.21	$2.34	$2.47	$2.61	$2.75	$56.53
Southern Company	SO		$1.90	$1.97	$2.05	$2.12	$2.24	$2.36	$2.48	$2.61	$2.75	$2.89	$3.05	$3.22	$3.40	$3.59	$3.79	$58.65
Westar Energy, Inc.	WR		$1.41	$1.43	$1.44	$1.46	$1.58	$1.71	$1.85	$2.00	$2.15	$2.31	$2.48	$2.62	$2.77	$2.92	$3.09	$53.95

Investor Cash Flows		[59]	[61]	[62]	[63]	[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]
		Initial																
Company	Ticker	Outlow	12/31/2011	07/01/2012	07/01/2013	07/01/2014	07/01/2015	07/01/2016	07/01/2017	07/01/2018	07/01/2019	07/01/2020	07/01/2021	07/01/2022	07/01/2023	07/01/2024	07/01/2025	07/01/2026
American Electric Power Company, Inc.	AEP	($37.96)	$0.00	$1.63	$1.67	$1.71	$1.75	$1.88	$2.01	$2.17	$2.33	$2.52	$2.72	$2.95	$3.11	$3.29	$3.47	$58.03
Cleco Corp.	CNL	($35.04)	$0.00	$1.25	$1.41	$1.57	$1.75	$1.88	$2.01	$2.16	$2.32	$2.49	$2.67	$2.86	$3.02	$3.19	$3.37	$82.33
Edison International	EIX	($38.48)	$0.00	$1.78	$1.81	$1.85	$1.88	$2.08	$2.30	$2.55	$2.81	$3.10	$3.43	$3.79	$4.00	$4.22	$4.46	$94.15
Great Plains Energy Inc.	GXP	($20.27)	$0.00	$1.06	$1.11	$1.15	$1.20	$1.29	$1.38	$1.48	$1.58	$1.70	$1.82	$1.94	$2.05	$2.17	$2.29	$47.12
IDACORP, Inc.	IDA	($39.09)	$0.00	$1.30	$1.41	$1.52	$1.65	$1.84	$2.04	$2.27	$2.52	$2.79	$3.09	$3.42	$3.61	$3.81	$4.03	$96.36
Integrys Energy Group, Inc.	TEG	($50.70)	$0.00	$2.95	$3.03	$3.11	$3.18	$3.41	$3.65	$3.89	$4.14	$4.38	$4.63	$4.87	$5.14	$5.43	$5.73	$115.08
Otter Tail Corporation	OTTR	n/a	$0.00	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Pinnacle West Capital Corp.	PNW	($44.28)	$0.00	$2.52	$2.56	$2.60	$2.63	$2.79	$2.95	$3.13	$3.32	$3.51	$3.72	$3.94	$4.16	$4.40	$4.64	$99.70
Portland General Electric Company	POR	($24.55)	$0.00	$0.99	$1.04	$1.10	$1.16	$1.23	$1.41	$1.55	$1.70	$1.86	$2.03	$2.21	$2.34	$2.47	$2.61	$59.28
Southern Company	SO	($41.42)	$0.00	$1.90	$1.97	$2.05	$2.12	$2.24	$2.36	$2.48	$2.61	$2.75	$2.89	$3.05	$3.22	$3.40	$3.59	$92.44
Westar Energy, Inc.	WR	($26.63)	$0.00	$1.41	$1.43	$1.44	$1.46	$1.58	$1.71	$1.85	$2.00	$2.15	$2.31	$2.48	$2.62	$2.77	$2.92	$62.07

Multi-Stage DCF Notes:

[1] Source: Bloomberg; based on 30, 90, and 180-day historical average
[2] Source: Value Line
[3] Source: Yahoo! Finance, Zacks & Value Line; equals average earnings growth estimate
[4] Source: EIA Annual Energy Outlook 2011, Bloomberg Professional, Bureau of Economic Analysis
[5] Source: Value Line
[6] Source: Value Line
[7] Equals industry average historical payout ratio (1987-present)
[8] Equals Column [1] + Column [60]
[9] Equals result of Excel Solver function; goal: Column [8] equals $0.00
[10] Equals Column [2]
[11] Equals Column [10] x (1 + Column [3])
[12] Equals Column [11] x (1 + Column [3])
[13] Equals Column [11] x (1 + Column [3])
[14] Equals Column [11] x (1 + Column [3])
[15] Equals Column [14] x (1 + Column [3])
[16] Equals Column [15] x (1 + Column [3])
[17] Equals (1 + (Column [3] + (((Column [4] – Column [3]) / (2021 – 2016 + 1)) x (2017 – 2016)))) x Column [16]
[18] Equals (1 + (Column [3] + (((Column [4] – Column [3]) / (2021 – 2016 + 1)) x (2018 – 2016)))) x Column [17]
[19] Equals (1 + (Column [3] + (((Column [4] – Column [3]) / (2021 – 2016 + 1)) x (2019 – 2016)))) x Column [18]
[20] Equals (1 + (Column [3] + (((Column [4] – Column [3]) / (2021 – 2016 + 1)) x (2020 – 2016)))) x Column [19]
[21] Equals (1 + (Column [3] + (((Column [4] – Column [3]) / (2021 – 2016 + 1)) x (2021 – 2016)))) x Column [20]
[22] Equals Column [21] x (1 + Column [4])
[23] Equals Column [22] x (1 + Column [4])
[24] Equals Column [23] x (1 + Column [4])
[25] Equals Column [24] x (1 + Column [4])
[26] Equals Column [25] x (1 + Column [4])
[27] Equals Column [5]
[28] Equals Column [27] + ((Column [31] – Column [27]) / 4)
[29] Equals Column [28] + ((Column [31] – Column [27]) / 4)
[30] Equals Column [29] + ((Column [31] – Column [27]) / 4)
[31] Equals Column [6]
[32] Equals Column [31] + ((Column [38] – Column [31]) / 7)
[33] Equals Column [32] + ((Column [38] – Column [31]) / 7)
[34] Equals Column [33] + ((Column [38] – Column [31]) / 7)
[35] Equals Column [34] + ((Column [38] – Column [31]) / 7)
[36] Equals Column [35] + ((Column [38] – Column [31]) / 7)
[37] Equals Column [36] + ((Column [38] – Column [31]) / 7)
[38] Equals Column [7]
[39] Equals Column [7]
[40] Equals Column [7]
[41] Equals Column [7]
[42] Equals Column [7]
[43] Equals Column [12] x Column [28]
[44] Equals Column [13] x Column [29]
[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 [57] x (1 + Column [4])) / (Column [9] – Column [4])
[59] Equals Column [58] / Column [26]
[60] Equals negative net present value; discount rate equals Column [9], cash flows equal Column [61] through Column [76]
[61] Equals $0.00
[62] Equals Column [43]
[63] Equals Column [44]
[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] + Column [58]

AVERAGE HISTORICAL BETAS
BLOOMBERG AND VALUE LINE
AS OF DECEMBER 31, 2011

		[1]	[2]
		Bloomberg	Value Line
American Electric Power Company, Inc.	AEP	0.69	0.70
Cleco Corp.	CNL	0.80	0.70
Edison International	EIX	0.76	0.80
Great Plains Energy Inc.	GXP	0.83	0.75
IDACORP, Inc.	IDA	0.86	0.70
Integrys Energy Group, Inc.	TEG	0.83	0.90
Otter Tail Corporation	OTTR	0.91	0.90
Pinnacle West Capital Corp.	PNW	0.77	0.70
Portland General Electric Company	POR	0.78	0.75
Southern Company	SO	0.57	0.55
Westar Energy, Inc.	WR	0.75	0.75
Average		0.776	0.745

Notes:
[1] Source: Bloomberg Professional
[2] Source: Value Line; dated Nov. 2, 2011; Nov. 25, 2011; and Dec. 23, 2011

CAPM USING ALTERNATIVE MARKET RISK PREMIUM CALCULATIONS

	[3]	[4]	[5]	[6]	[7]	[8]
			Market Risk Premium		Return on Equity CAPM	
	Risk-Free Rate	Average Beta	Sharpe Ratio Derived	Market DCF Derived	Sharpe Ratio Derived	Market DCF Derived
PROXY GROUP BLOOMBERG BETA						
[1] Current 30-Year Treasury (30-day average)	2.97%	0.776	10.18%	9.94%	10.87%	10.68%
[2] Near-Term Projected 30-Year Treasury	3.43%	0.776	10.18%	9.94%	11.33%	11.14%
					11.10%	10.91%
PROXY GROUP VALUE LINE BETA						
[1] Current 30-Year Treasury (30-day average)	2.97%	0.745	10.18%	9.94%	10.56%	10.38%
[2] Near-Term Projected 30-Year Treasury	3.43%	0.745	10.18%	9.94%	11.02%	10.84%
					10.79%	10.61%

Notes:
[1] Source: Bloomberg Professional
[2] Source: Blue Chip Financial Forecasts, Vol. 30, No. 12, December 1, 2011, at 2
[3] see *Notes [1] and [2]*
[4] Source: Schedule RBH-E3
[5] Equals Col. [13]
[6] Source: Schedule RBH-E3
[7] Equals Col. [3] + (Col. [4] x Col. [5])
[8] Equals Col. [3] + (Col. [4] x Col. [6])

MARKET RISK PREMIUM USING EXPECTED MARKET SHARPE RATIO

[9]	[10]	[11]	[12]	[13]
RP_h	Vol_h	VOL_e	Historical Market Sharpe Ratio	RP_e
6.70%	20.28%	30.82%	33.04%	10.18%

	[14]	[15]	[16]	[17]
Date	VXV	Apr 12 VIX Futures	May 12 VIX Futures	Jun 12 VIX Futures
12/30/2011	26.86	28.40	28.70	29.10
12/29/2011	26.25	28.05	28.45	28.90
12/28/2011	26.75	28.40	28.90	29.25
12/27/2011	25.54	27.90	28.30	28.70
12/23/2011	25.22	28.15	28.55	28.95
12/22/2011	25.28	28.10	28.50	28.85
12/21/2011	$\frac{RP_h}{Vol_h} \times Vol_e = RP_e$	.90	28.45	28.75
12/20/2011		.45	29.85	30.20
12/19/2011	28.74	30.70	30.85	31.10
12/16/2011	29.03	30.95	31.10	31.30
12/15/2011	29.46	31.05	31.15	31.35
12/14/2011	30.42	31.70	31.70	31.85
12/13/2011	30.17	31.60	31.55	31.70
12/12/2011	30.17	31.35	31.30	31.45
12/09/2011	29.53	30.80	30.80	31.00
12/08/2011	32.09	31.70	31.55	31.60
12/07/2011	30.62	30.85	30.70	30.80
12/06/2011	30.16	30.50	30.35	30.45
12/05/2011	29.90	30.55	30.35	30.45
12/02/2011	29.85	30.95	30.65	30.80
12/01/2011	30.03	31.05	30.85	30.85
11/30/2011	30.58	31.35	31.05	31.00
11/29/2011	33.21	32.90	32.55	32.70
11/28/2011	33.94	33.15	32.85	33.00
11/25/2011	36.45	34.70	34.10	34.15
11/23/2011	35.87	34.10	33.65	33.70
11/22/2011	34.24	33.30	32.85	33.05
11/21/2011	34.78	33.50	33.10	33.25
11/18/2011	34.20	33.20	32.65	32.60
11/17/2011	35.32	33.35	32.80	32.60
Average		30.82		

Notes:
[9] Source: Morningstar, Inc.
RP_h = historical arithmetic average Risk Premium
[10] Source: Morningstar, Inc.
Vol_h = 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 Professional
[15] Source: Bloomberg Professional
[16] Source: Bloomberg Professional
[17] Source: Bloomberg Professional

MARKET RISK PREMIUM DERIVED FROM ANALYSTS LONG-TERM GROWTH ESTIMATES

[18] Estimated Weighted Index Dividend Yield	[19] Weighted Index Long-Term Growth Rate	[20] S&P 500 Est. Required Market Return
2.12%	10.68%	12.91%

[21] Current 30-Year Treasury (30-day average): 2.97%

[22] Implied Market Risk Premium: 9.94%

STANDARD AND POOR'S 500 INDEX

Name	Ticker	[23] Weight in Index	[24] Estimated Dividend Yield	[25] Cap-Weighted Dividend Yield	[26] Long-Term Growth Est.	[27] Cap-Weighted Long-Term Growth Est.
3M CO	MMM	0.49%	2.73%	0.01%	12.67%	0.0621%
ABBOTT LABORATORIES	ABT	0.75%	3.37%	0.03%	9.12%	0.0684%
ABERCROMBIE & FITCH CO-CL A	ANF	0.04%	1.44%	0.00%	19.38%	0.0070%
ACCENTURE PLC-CL A	ACN	0.30%	2.46%	0.01%	14.00%	0.0413%
ACE LTD	ACE	0.20%	1.92%	0.00%	11.20%	0.0228%
ADOBE SYSTEMS INC	ADBE	0.12%	0.00%	0.00%	10.22%	0.0122%
ADVANCED MICRO DEVICES	AMD	0.03%	0.00%	0.00%	11.16%	0.0036%
AES CORP	AES	0.08%	0.00%	0.00%	8.00%	0.0062%
AETNA INC	AET	0.13%	1.06%	0.00%	10.50%	0.0138%
AFLAC INC	AFL	0.17%	2.83%	0.00%	12.00%	0.0209%
AGILENT TECHNOLOGIES INC	A	0.10%	0.00%	0.00%	14.52%	0.0151%
AGL RESOURCES INC	GAS	0.04%	4.22%	0.00%	4.00%	0.0017%
AIR PRODUCTS & CHEMICALS INC	APD	0.15%	2.83%	0.00%	9.48%	0.0146%
AIRGAS INC	ARG	0.05%	1.56%	0.00%	13.65%	0.0070%
AKAMAI TECHNOLOGIES INC	AKAM	0.05%	0.00%	0.00%	13.57%	0.0067%
ALCOA INC	AA	0.08%	1.38%	0.00%	10.00%	0.0078%
ALLEGHENY TECHNOLOGIES INC	ATI	0.04%	1.51%	0.00%	15.00%	0.0065%
ALLERGAN INC	AGN	0.23%	0.23%	0.00%	15.26%	0.0351%
ALLSTATE CORP	ALL	0.12%	3.05%	0.00%	10.00%	0.0119%
ALPHA NATURAL RESOURCES INC	ANR	0.04%	0.00%	0.00%	n/a	n/a
ALTERA CORP	ALTR	0.10%	0.74%	0.00%	14.71%	0.0150%
ALTRIA GROUP INC	MO	0.52%	5.38%	0.03%	8.00%	0.0417%
AMAZON.COM INC	AMZN	0.67%	0.00%	0.00%	31.26%	0.2105%
AMEREN CORPORATION	AEE	0.07%	4.66%	0.00%	n/a	n/a
AMERICAN ELECTRIC POWER	AEP	0.17%	4.45%	0.01%	3.67%	0.0063%
AMERICAN EXPRESS CO	AXP	0.47%	1.53%	0.01%	11.40%	0.0535%
AMERICAN INTERNATIONAL GROUP	AIG	0.38%	0.00%	0.00%	11.00%	0.0415%
AMERICAN TOWER CORP-CL A	AMT	0.20%	0.17%	0.00%	20.59%	0.0418%
AMERIPRISE FINANCIAL INC	AMP	0.10%	1.73%	0.00%	12.33%	0.0119%
AMERISOURCEBERGEN CORP	ABC	0.08%	1.13%	0.00%	13.00%	0.0107%
AMGEN INC	AMGN	0.49%	1.03%	0.00%	10.03%	0.0489%
AMPHENOL CORP-CL A	APH	0.06%	0.13%	0.00%	15.00%	0.0097%
ANADARKO PETROLEUM CORP	APC	0.33%	0.47%	0.00%	19.35%	0.0632%
ANALOG DEVICES INC	ADI	0.09%	2.84%	0.00%	11.25%	0.0103%
AON CORP	AON	0.13%	1.29%	0.00%	8.33%	0.0108%
APACHE CORP	APA	0.30%	0.71%	0.00%	9.52%	0.0284%
APARTMENT INVT & MGMT CO -A	AIV	0.02%	2.10%	0.00%	9.69%	0.0023%
APOLLO GROUP INC-CL A	APOL	0.06%	0.00%	0.00%	10.30%	0.0062%
APPLE INC	AAPL	3.22%	0.00%	0.00%	21.14%	0.6810%
APPLIED MATERIALS INC	AMAT	0.12%	2.71%	0.00%	13.00%	0.0156%
ARCHER-DANIELS-MIDLAND CO	ADM	0.16%	2.30%	0.00%	10.00%	0.0163%
ASSURANT INC	AIZ	0.03%	1.70%	0.00%	10.33%	0.0034%
AT&T INC	T	1.53%	5.71%	0.09%	4.92%	0.0755%
AUTODESK INC	ADSK	0.06%	0.00%	0.00%	15.00%	0.0088%
AUTOMATIC DATA PROCESSING	ADP	0.23%	2.74%	0.01%	10.67%	0.0242%
AUTONATION INC	AN	0.04%	0.00%	0.00%	17.34%	0.0077%
AUTOZONE INC	AZO	0.11%	0.00%	0.00%	15.50%	0.0171%
AVALONBAY COMMUNITIES INC	AVB	0.11%	2.71%	0.00%	13.60%	0.0145%
AVERY DENNISON CORP	AVY	0.03%	3.49%	0.00%	7.00%	0.0018%
AVON PRODUCTS INC	AVP	0.06%	5.25%	0.00%	11.00%	0.0071%
BAKER HUGHES INC	BHI	0.18%	1.22%	0.00%	23.75%	0.0433%
BALL CORP	BLL	0.05%	0.76%	0.00%	5.00%	0.0025%
BANK OF NEW YORK MELLON CORP	BK	0.21%	2.41%	0.00%	10.70%	0.0221%
BANK OF AMERICA CORP	BAC	0.48%	0.73%	0.00%	8.67%	0.0414%
BAXTER INTERNATIONAL INC	BAX	0.24%	2.56%	0.01%	10.00%	0.0239%
BB&T CORP	BBT	0.15%	2.55%	0.00%	7.00%	0.0105%
BEAM INC	BEAM	0.07%	1.48%	0.00%	11.50%	0.0078%
BECTON DICKINSON AND CO	BDX	0.14%	2.36%	0.00%	8.86%	0.0122%
BED BATH & BEYOND INC	BBBY	0.12%	0.00%	0.00%	15.67%	0.0191%
BEMIS COMPANY	BMS	0.03%	3.19%	0.00%	7.00%	0.0019%
BERKSHIRE HATHAWAY INC-CL B	BRK/B	0.70%	n/a	n/a	n/a	n/a
BEST BUY CO INC	BBY	0.07%	2.68%	0.00%	8.25%	0.0060%
BIG LOTS INC	BIG	0.02%	n/a	n/a	11.00%	0.0023%
BIOGEN IDEC INC	BIIB	0.23%	0.00%	0.00%	10.53%	0.0242%
BLACKROCK INC	BLK	0.21%	3.08%	0.01%	11.00%	0.0233%
BMC SOFTWARE INC	BMC	0.05%	0.00%	0.00%	8.00%	0.0038%
BOEING CO/THE	BA	0.47%	2.33%	0.01%	12.83%	0.0599%
BORGWARNER INC	BWA	0.06%	0.00%	0.00%	21.75%	0.0131%
BOSTON PROPERTIES INC	BXP	0.13%	2.00%	0.00%	7.32%	0.0093%
BOSTON SCIENTIFIC CORP	BSX	0.07%	0.00%	0.00%	7.00%	0.0046%
BRISTOL-MYERS SQUIBB CO	BMY	0.51%	3.73%	0.02%	2.56%	0.0131%
BROADCOM CORP-CL A	BRCM	0.12%	1.22%	0.00%	15.00%	0.0183%
BROWN-FORMAN CORP-CLASS B	BF/B	0.06%	1.82%	0.00%	n/a	n/a
CA INC	CA	0.09%	0.99%	0.00%	11.00%	0.0094%
CABLEVISION SYSTEMS-NY GRP-A	CVC	0.03%	4.04%	0.00%	8.67%	0.0024%
CABOT OIL & GAS CORP	COG	0.07%	0.16%	0.00%	10.00%	0.0069%

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Name	Ticker	[23] Weight in Index	[24] Estimated Dividend Yield	[25] Cap-Weighted Dividend Yield	[26] Long-Term Growth Est.	[27] Cap-Weighted Long-Term Growth Est.
CAMERON INTERNATIONAL CORP	CAM	0.10%	0.00%	0.00%	17.00%	0.0176%
CAMPBELL SOUP CO	CPB	0.09%	3.64%	0.00%	6.00%	0.0054%
CAPITAL ONE FINANCIAL CORP	COF	0.17%	0.47%	0.00%	10.33%	0.0173%
CARDINAL HEALTH INC	CAH	0.12%	1.86%	0.00%	12.75%	0.0154%
CAREFUSION CORP	CFN	0.05%	0.00%	0.00%	13.32%	0.0065%
CARMAX INC	KMX	0.06%	n/a	n/a	13.99%	0.0083%
CARNIVAL CORP	CCL	0.17%	3.46%	0.01%	13.11%	0.0218%
CATERPILLAR INC	CAT	0.50%	1.96%	0.01%	13.33%	0.0672%
CBRE GROUP INC	CBG	0.04%	0.00%	0.00%	13.33%	0.0057%
CBS CORP-CLASS B NON VOTING	CBS	0.14%	1.24%	0.00%	14.43%	0.0206%
CELGENE CORP	CELG	0.26%	0.00%	0.00%	26.57%	0.0687%
CENTERPOINT ENERGY INC	CNP	0.07%	3.93%	0.00%	5.50%	0.0040%
CENTURYLINK INC	CTL	0.20%	7.76%	0.02%	-1.30%	-0.0026%
CERNER CORP	CERN	0.09%	0.00%	0.00%	19.83%	0.0177%
CF INDUSTRIES HOLDINGS INC	CF	0.08%	0.69%	0.00%	12.00%	0.0098%
C.H. ROBINSON WORLDWIDE INC	CHRW	0.10%	1.67%	0.00%	15.00%	0.0148%
CHESAPEAKE ENERGY CORP	CHK	0.13%	1.45%	0.00%	11.50%	0.0146%
CHEVRON CORP	CVX	1.82%	2.89%	0.05%	-1.18%	-0.0214%
CHIPOTLE MEXICAN GRILL INC	CMG	0.09%	0.00%	0.00%	20.49%	0.0186%
CHUBB CORP	CB	0.17%	2.28%	0.00%	9.75%	0.0161%
CIGNA CORP	CI	0.10%	0.09%	0.00%	9.98%	0.0103%
CINCINNATI FINANCIAL CORP	CINF	0.04%	5.26%	0.00%	5.00%	0.0021%
CINTAS CORP	CTAS	0.04%	1.52%	0.00%	11.33%	0.0044%
CISCO SYSTEMS INC	CSCO	0.83%	1.33%	0.01%	8.89%	0.0740%
CITIGROUP INC	C	0.66%	0.11%	0.00%	10.33%	0.0682%
CITRIX SYSTEMS INC	CTXS	0.10%	0.00%	0.00%	16.14%	0.0156%
CLIFFS NATURAL RESOURCES INC	CLF	0.08%	1.34%	0.00%	12.00%	0.0092%
CLOROX COMPANY	CLX	0.08%	3.60%	0.00%	9.33%	0.0070%
CME GROUP INC	CME	0.14%	2.19%	0.00%	15.00%	0.0208%
CMS ENERGY CORP	CMS	0.05%	3.78%	0.00%	6.00%	0.0029%
COACH INC	COH	0.15%	1.51%	0.00%	15.16%	0.0234%
COCA-COLA CO/THE	KO	1.36%	2.67%	0.04%	8.00%	0.1089%
COCA-COLA ENTERPRISES	CCE	0.07%	1.97%	0.00%	8.50%	0.0059%
COGNIZANT TECH SOLUTIONS-A	CTSH	0.17%	0.00%	0.00%	20.03%	0.0334%
COLGATE-PALMOLIVE CO	CL	0.38%	2.40%	0.01%	9.00%	0.0344%
COMCAST CORP-CLASS A	CMCSA	0.42%	1.88%	0.01%	13.49%	0.0573%
COMERICA INC	CMA	0.04%	1.55%	0.00%	5.64%	0.0025%
COMPUTER SCIENCES CORP	CSC	0.03%	3.36%	0.00%	8.67%	0.0027%
COMPUWARE CORP	CPWR	0.02%	n/a	n/a	10.50%	0.0016%
CONAGRA FOODS INC	CAG	0.09%	3.58%	0.00%	8.00%	0.0075%
CONOCOPHILLIPS	COP	0.83%	3.55%	0.03%	-2.98%	-0.0248%
CONSOLIDATED EDISON INC	ED	0.16%	3.86%	0.01%	3.55%	0.0055%
CONSOL ENERGY INC	CNX	0.07%	1.14%	0.00%	n/a	n/a
CONSTELLATION ENERGY GROUP	CEG	0.07%	2.39%	0.00%	2.33%	0.0016%
CONSTELLATION BRANDS INC-A	STZ	0.03%	0.00%	0.00%	7.00%	0.0022%
COOPER INDUSTRIES PLC	CBE	0.07%	2.12%	0.00%	15.00%	0.0110%
CORNING INC	GLW	0.17%	1.79%	0.00%	11.00%	0.0192%
COSTCO WHOLESALE CORP	COST	0.31%	1.17%	0.00%	13.75%	0.0428%
COVENTRY HEALTH CARE INC	CVH	0.04%	0.00%	0.00%	12.33%	0.0046%
COVIDIEN PLC	COV	0.19%	1.89%	0.00%	11.29%	0.0210%
CR BARD INC	BCR	0.06%	0.89%	0.00%	10.83%	0.0068%
CSX CORP	CSX	0.19%	2.14%	0.00%	17.80%	0.0336%
CUMMINS INC	CMI	0.15%	1.37%	0.00%	11.50%	0.0168%
CVS CAREMARK CORP	CVS	0.46%	1.12%	0.01%	13.50%	0.0616%
DANAHER CORP	DHR	0.28%	0.19%	0.00%	14.33%	0.0397%
DARDEN RESTAURANTS INC	DRI	0.05%	3.68%	0.00%	12.42%	0.0064%
DAVITA INC	DVA	0.06%	0.00%	0.00%	12.57%	0.0076%
DEAN FOODS CO	DF	0.02%	0.00%	0.00%	10.50%	0.0018%
DEERE & CO	DE	0.27%	1.99%	0.01%	14.67%	0.0394%
DELL INC	DELL	0.23%	0.00%	0.00%	6.00%	0.0135%
DENBURY RESOURCES INC	DNR	0.05%	0.00%	0.00%	n/a	n/a
DENTSPLY INTERNATIONAL INC	XRAY	0.04%	0.43%	0.00%	11.67%	0.0050%
DEVON ENERGY CORPORATION	DVN	0.21%	1.07%	0.00%	7.05%	0.0151%
DEVRY INC	DV	0.02%	0.67%	0.00%	10.88%	0.0024%
DIAMOND OFFSHORE DRILLING	DO	0.07%	6.33%	0.00%	18.00%	0.0119%
DIRECTV-CLASS A	DTV	0.26%	0.00%	0.00%	20.06%	0.0520%
DISCOVER FINANCIAL SERVICES	DFS	0.11%	1.60%	0.00%	10.50%	0.0119%
DISCOVERY COMMUNICATIONS-A	DISCA	0.05%	0.00%	0.00%	20.73%	0.0103%
DOLLAR TREE INC	DLTR	0.09%	0.00%	0.00%	19.40%	0.0166%
DOMINION RESOURCES INC/VA	D	0.26%	3.70%	0.01%	5.00%	0.0130%
DOVER CORP	DOV	0.09%	2.02%	0.00%	14.50%	0.0134%
DOW CHEMICAL CO/THE	DOW	0.29%	3.09%	0.01%	6.00%	0.0175%
DR HORTON INC	DHI	0.03%	1.19%	0.00%	7.67%	0.0026%
DR PEPPER SNAPPLE GROUP INC	DPS	0.07%	3.04%	0.00%	8.00%	0.0058%
DTE ENERGY COMPANY	DTE	0.08%	4.22%	0.00%	5.00%	0.0040%
DU PONT (E.I.) DE NEMOURS	DD	0.36%	3.58%	0.01%	9.64%	0.0349%
DUKE ENERGY CORP	DUK	0.25%	4.53%	0.01%	4.67%	0.0117%
DUN & BRADSTREET CORP	DNB	0.03%	1.92%	0.00%	10.00%	0.0031%
E*TRADE FINANCIAL CORP	ETFC	0.02%	0.00%	0.00%	11.00%	0.0021%
EASTMAN CHEMICAL CO	EMN	0.05%	2.43%	0.00%	7.50%	0.0035%
EATON CORP	ETN	0.12%	3.12%	0.00%	10.60%	0.0132%
EBAY INC	EBAY	0.33%	0.00%	0.00%	12.30%	0.0411%
ECOLAB INC	ECL	0.15%	1.20%	0.00%	13.00%	0.0194%
EDISON INTERNATIONAL	EIX	0.12%	3.10%	0.00%	1.00%	0.0012%
EDWARDS LIFESCIENCES CORP	EW	0.07%	0.00%	0.00%	29.28%	0.0202%
EL PASO CORP	EP	0.18%	0.15%	0.00%	n/a	n/a
ELECTRONIC ARTS INC	EA	0.06%	0.00%	0.00%	19.44%	0.0115%
ELI LILLY & CO	LLY	0.41%	4.78%	0.02%	-4.72%	-0.0195%
EMC CORP/MASS	EMC	0.38%	0.00%	0.00%	15.86%	0.0596%

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Name	Ticker	[23] Weight in Index	[24] Estimated Dividend Yield	[25] Cap-Weighted Dividend Yield	[26] Long-Term Growth Est.	[27] Cap-Weighted Long-Term Growth Est.
EMERSON ELECTRIC CO	EMR	0.29%	3.36%	0.01%	12.80%	0.0376%
ENTERGY CORP	ETR	0.11%	4.55%	0.01%	-0.77%	-0.0008%
EOG RESOURCES INC	EOG	0.23%	0.65%	0.00%	69.25%	0.1572%
EQT CORP	EQT	0.07%	1.60%	0.00%	25.20%	0.0177%
EQUIFAX INC	EFX	0.04%	1.64%	0.00%	10.00%	0.0040%
EQUITY RESIDENTIAL	EQR	0.15%	2.73%	0.00%	8.17%	0.0119%
ESTEE LAUDER COMPANIES-CL A	EL	0.11%	0.88%	0.00%	11.75%	0.0132%
EXELON CORP	EXC	0.25%	4.82%	0.01%	0.40%	0.0010%
EXPEDIA INC	EXPE	0.03%	1.35%	0.00%	11.42%	0.0034%
EXPEDITORS INTL WASH INC	EXPD	0.07%	1.18%	0.00%	13.16%	0.0098%
EXPRESS SCRIPTS INC	ESRX	0.19%	0.00%	0.00%	16.00%	0.0299%
EXXON MOBIL CORP	XOM	3.48%	2.18%	0.08%	3.29%	0.1146%
F5 NETWORKS INC	FFIV	0.07%	0.00%	0.00%	22.30%	0.0162%
FAMILY DOLLAR STORES	FDO	0.06%	1.28%	0.00%	14.30%	0.0083%
FASTENAL CO	FAST	0.11%	1.48%	0.00%	20.10%	0.0223%
FEDERATED INVESTORS INC-CL B	FII	0.01%	6.36%	0.00%	7.00%	0.0009%
FEDEX CORP	FDX	0.23%	0.62%	0.00%	13.49%	0.0303%
FIDELITY NATIONAL INFORMATIO	FIS	0.07%	0.76%	0.00%	11.75%	0.0080%
FIFTH THIRD BANCORP	FITB	0.10%	2.12%	0.00%	4.24%	0.0042%
FIRST HORIZON NATIONAL CORP	FHN	0.02%	0.49%	0.00%	7.50%	0.0013%
FIRST SOLAR INC	FSLR	0.02%	0.00%	0.00%	16.71%	0.0041%
FIRSTENERGY CORP	FE	0.16%	4.94%	0.01%	2.50%	0.0040%
FISERV INC	FISV	0.07%	0.00%	0.00%	12.13%	0.0086%
FLIR SYSTEMS INC	FLIR	0.03%	0.48%	0.00%	13.93%	0.0047%
FLOWSERVE CORP	FLS	0.05%	1.28%	0.00%	n/a	n/a
FLUOR CORP	FLR	0.07%	1.02%	0.00%	12.67%	0.0092%
FMC CORP	FMC	0.05%	0.66%	0.00%	9.64%	0.0050%
FMC TECHNOLOGIES INC	FTI	0.11%	0.00%	0.00%	13.00%	0.0139%
FORD MOTOR CO	F	0.34%	0.00%	0.00%	3.61%	0.0123%
FOREST LABORATORIES INC	FRX	0.07%	0.00%	0.00%	1.13%	0.0008%
FRANKLIN RESOURCES INC	BEN	0.18%	1.12%	0.00%	9.33%	0.0168%
FREEPORT-MCMORAN COPPER	FCX	0.30%	4.07%	0.01%	n/a	n/a
FRONTIER COMMUNICATIONS CORP	FTR	0.04%	14.48%	0.01%	-5.92%	-0.0026%
GAMESTOP CORP-CLASS A	GME	0.03%	0.00%	0.00%	9.50%	0.0027%
GANNETT CO	GCI	0.03%	1.58%	0.00%	n/a	n/a
GAP INC/THE	GPS	0.08%	2.38%	0.00%	7.70%	0.0060%
GENERAL DYNAMICS CORP	GD	0.20%	2.68%	0.01%	7.57%	0.0153%
GENERAL ELECTRIC CO	GE	1.62%	3.33%	0.05%	13.50%	0.2188%
GENERAL MILLS INC	GIS	0.22%	3.02%	0.01%	8.17%	0.0182%
GENUINE PARTS CO	GPC	0.08%	2.92%	0.00%	9.96%	0.0082%
GENWORTH FINANCIAL INC-CL A	GNW	0.03%	0.00%	0.00%	30.80%	0.0085%
GILEAD SCIENCES INC	GILD	0.26%	0.00%	0.00%	16.29%	0.0429%
GOLDMAN SACHS GROUP INC	GS	0.38%	1.54%	0.01%	11.33%	0.0433%
GOODRICH CORP	GR	0.13%	0.94%	0.00%	10.73%	0.0142%
GOODYEAR TIRE & RUBBER CO	GT	0.03%	0.00%	0.00%	42.46%	0.0127%
GOOGLE INC-CL A	GOOG	1.41%	0.00%	0.00%	19.82%	0.2803%
H&R BLOCK INC	HRB	0.04%	4.09%	0.00%	11.00%	0.0045%
HALLIBURTON CO	HAL	0.27%	1.04%	0.00%	21.80%	0.0594%
HARLEY-DAVIDSON INC	HOG	0.08%	1.19%	0.00%	13.00%	0.0101%
HARMAN INTERNATIONAL	HAR	0.02%	0.25%	0.00%	20.00%	0.0046%
HARRIS CORP	HRS	0.04%	3.09%	0.00%	6.50%	0.0023%
HARTFORD FINANCIAL SVCS GRP	HIG	0.06%	2.26%	0.00%	9.50%	0.0059%
HASBRO INC	HAS	0.04%	3.72%	0.00%	n/a	n/a
HCP INC	HCP	0.15%	4.60%	0.01%	6.95%	0.0101%
HEALTH CARE REIT INC	HCN	0.09%	5.18%	0.00%	11.58%	0.0104%
HELMERICH & PAYNE	HP	0.05%	0.45%	0.00%	8.00%	0.0043%
HERSHEY CO/THE	HSY	0.09%	2.22%	0.00%	7.00%	0.0061%
HESS CORP	HES	0.17%	0.72%	0.00%	7.73%	0.0128%
HEWLETT-PACKARD CO	HPQ	0.44%	1.41%	0.01%	9.00%	0.0394%
HJ HEINZ CO	HNZ	0.15%	3.55%	0.01%	7.33%	0.0109%
HOME DEPOT INC	HD	0.56%	2.48%	0.01%	15.33%	0.0853%
HONEYWELL INTERNATIONAL INC	HON	0.36%	2.43%	0.01%	14.50%	0.0522%
HORMEL FOODS CORP	HRL	0.07%	1.99%	0.00%	11.00%	0.0073%
HOSPIRA INC	HSP	0.04%	0.00%	0.00%	4.52%	0.0019%
HOST HOTELS & RESORTS INC	HST	0.09%	0.91%	0.00%	10.00%	0.0089%
HUDSON CITY BANCORP INC	HCBK	0.03%	5.87%	0.00%	4.00%	0.0011%
HUMANA INC	HUM	0.12%	0.43%	0.00%	13.00%	0.0160%
HUNTINGTON BANCSHARES INC	HBAN	0.04%	1.73%	0.00%	5.50%	0.0022%
INTL BUSINESS MACHINES CORP	IBM	1.86%	1.52%	0.03%	10.00%	0.1863%
ILLINOIS TOOL WORKS	ITW	0.19%	2.90%	0.01%	11.28%	0.0218%
INGERSOLL-RAND PLC	IR	0.08%	1.48%	0.00%	12.00%	0.0098%
INTEGRYS ENERGY GROUP INC	TEG	0.04%	5.02%	0.00%	4.50%	0.0016%
INTEL CORP	INTC	1.06%	3.20%	0.03%	10.40%	0.1104%
INTERCONTINENTALEXCHANGE INC	ICE	0.08%	0.00%	0.00%	16.50%	0.0124%
INTERPUBLIC GROUP OF COS INC	IPG	0.04%	2.46%	0.00%	9.00%	0.0035%
INTL FLAVORS & FRAGRANCES	IFF	0.04%	2.15%	0.00%	4.00%	0.0015%
INTL GAME TECHNOLOGY	IGT	0.04%	1.56%	0.00%	14.67%	0.0064%
INTERNATIONAL PAPER CO	IP	0.11%	3.35%	0.00%	n/a	n/a
INTUIT INC	INTU	0.13%	0.71%	0.00%	13.50%	0.0181%
INTUITIVE SURGICAL INC	ISRG	0.16%	n/a	n/a	20.50%	0.0318%
INVESCO LTD	IVZ	0.08%	2.42%	0.00%	11.00%	0.0085%
IRON MOUNTAIN INC	IRM	0.05%	2.50%	0.00%	13.67%	0.0067%
J.C. PENNEY CO INC	JCP	0.06%	2.34%	0.00%	13.50%	0.0087%
JABIL CIRCUIT INC	JBL	0.04%	1.57%	0.00%	12.00%	0.0042%
JACOBS ENGINEERING GROUP INC	JEC	0.04%	0.00%	0.00%	14.33%	0.0064%
JDS UNIPHASE CORP	JDSU	0.02%	0.00%	0.00%	15.00%	0.0031%
JM SMUCKER CO/THE	SJM	0.08%	2.45%	0.00%	7.67%	0.0058%
JOHNSON CONTROLS INC	JCI	0.18%	2.07%	0.00%	17.15%	0.0312%
JOHNSON & JOHNSON	JNJ	1.53%	3.47%	0.05%	6.18%	0.0946%

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Name	Ticker	[23] Weight in Index	[24] Estimated Dividend Yield	[25] Cap-Weighted Dividend Yield	[26] Long-Term Growth Est.	[27] Cap-Weighted Long-Term Growth Est.
JOY GLOBAL INC	JOY	0.07%	0.96%	0.00%	16.77%	0.0114%
JPMORGAN CHASE & CO	JPM	1.08%	2.89%	0.03%	5.88%	0.0636%
JUNIPER NETWORKS INC	JNPR	0.09%	0.00%	0.00%	16.67%	0.0154%
KELLOGG CO	K	0.16%	3.30%	0.01%	8.90%	0.0138%
KEYCORP	KEY	0.06%	1.30%	0.00%	5.71%	0.0036%
KIMBERLY-CLARK CORP	KMB	0.25%	3.80%	0.01%	4.10%	0.0101%
KIMCO REALTY CORP	KIM	0.06%	4.44%	0.00%	10.36%	0.0059%
KLA-TENCOR CORPORATION	KLAC	0.07%	2.87%	0.00%	9.67%	0.0067%
KOHLS CORP	KSS	0.11%	2.02%	0.00%	12.00%	0.0129%
KRAFT FOODS INC-CLASS A	KFT	0.56%	3.11%	0.02%	8.33%	0.0471%
KROGER CO	KR	0.12%	1.77%	0.00%	9.58%	0.0114%
L-3 COMMUNICATIONS HOLDINGS	LLL	0.06%	2.65%	0.00%	2.85%	0.0016%
LABORATORY CRP OF AMER HLDGS	LH*	0.07%	0.00%	0.00%	12.57%	0.0092%
LEGG MASON INC	LM	0.03%	1.32%	0.00%	10.67%	0.0031%
LEGGETT & PLATT INC	LEG	0.03%	4.64%	0.00%	15.00%	0.0042%
LENNAR CORP-A	LEN	0.03%	0.83%	0.00%	6.00%	0.0016%
LEUCADIA NATIONAL CORP	LUK	0.05%	n/a	n/a	n/a	n/a
LEXMARK INTERNATIONAL INC-A	LXK	0.02%	0.44%	0.00%	-9.00%	-0.0019%
LIFE TECHNOLOGIES CORP	LIFE	0.06%	0.00%	0.00%	7.98%	0.0048%
LIMITED BRANDS INC	LTD	0.10%	6.83%	0.01%	14.24%	0.0147%
LINCOLN NATIONAL CORP	LNC	0.05%	1.41%	0.00%	10.63%	0.0053%
LINEAR TECHNOLOGY CORP	LLTC	0.06%	3.22%	0.00%	9.67%	0.0057%
LOCKHEED MARTIN CORP	LMT	0.23%	4.02%	0.01%	7.92%	0.0178%
LOEWS CORP	L	0.13%	0.66%	0.00%	n/a	n/a
LORILLARD INC	LO	0.13%	4.53%	0.01%	9.50%	0.0125%
LOWE'S COS INC	LOW	0.27%	2.08%	0.01%	15.80%	0.0432%
LSI CORP	LSI	0.03%	n/a	n/a	14.50%	0.0042%
M & T BANK CORP	MTB	0.08%	3.65%	0.00%	7.00%	0.0058%
MACY'S INC	M	0.12%	1.11%	0.00%	6.70%	0.0077%
MARATHON OIL CORP	MRO	0.18%	2.67%	0.00%	4.85%	0.0086%
MARATHON PETROLEUM CORP	MPC	0.10%	1.86%	0.00%	20.00%	0.0204%
MARRIOTT INTERNATIONAL-CL A	MAR	0.08%	1.31%	0.00%	16.75%	0.0140%
MARSH & MCLENNAN COS	MMC	0.15%	2.71%	0.00%	10.67%	0.0156%
MASCO CORP	MAS	0.03%	2.85%	0.00%	15.00%	0.0048%
MASTERCARD INC-CLASS A	MA	0.39%	0.16%	0.00%	19.22%	0.0747%
MATTEL INC	MAT	0.08%	3.29%	0.00%	10.00%	0.0081%
MCCORMICK & CO-NON VTG SHRS	MKC	0.05%	2.37%	0.00%	8.75%	0.0045%
MCDONALD'S CORP	MCD	0.88%	2.53%	0.02%	9.81%	0.0863%
MCGRAW-HILL COMPANIES INC	MHP	0.11%	2.26%	0.00%	9.50%	0.0108%
MCKESSON CORP	MCK	0.16%	0.83%	0.00%	14.12%	0.0231%
MEAD JOHNSON NUTRITION CO	MJN	0.12%	1.51%	0.00%	10.33%	0.0124%
MEADWESTVACO CORP	MWV	0.04%	3.32%	0.00%	10.00%	0.0044%
MEDCO HEALTH SOLUTIONS INC	MHS	0.18%	0.00%	0.00%	13.83%	0.0256%
MEDTRONIC INC	MDT	0.35%	2.57%	0.01%	8.27%	0.0287%
MERCK & CO. INC.	MRK	0.98%	4.12%	0.04%	4.92%	0.0484%
METLIFE INC	MET	0.28%	2.44%	0.01%	9.83%	0.0278%
METROPCS COMMUNICATIONS INC	PCS	0.03%	0.00%	0.00%	19.53%	0.0053%
MICROCHIP TECHNOLOGY INC	MCHP	0.06%	3.78%	0.00%	10.67%	0.0064%
MICRON TECHNOLOGY INC	MU	0.05%	0.00%	0.00%	8.82%	0.0047%
MICROSOFT CORP	MSFT	1.87%	2.93%	0.05%	11.58%	0.2172%
MOLEX INC	MOLX	0.02%	3.17%	0.00%	12.50%	0.0025%
MOLSON COORS BREWING CO -B	TAP	0.06%	2.84%	0.00%	8.00%	0.0047%
MONSANTO CO	MON	0.32%	1.77%	0.01%	11.21%	0.0361%
MOODY'S CORP	MCO	0.06%	1.39%	0.00%	12.00%	0.0077%
MORGAN STANLEY	MS	0.25%	1.37%	0.00%	10.67%	0.0266%
MOSAIC CO/THE	MOS	0.13%	0.40%	0.00%	n/a	n/a
MOTOROLA MOBILITY HOLDINGS I	MMI	0.10%	0.00%	0.00%	13.33%	0.0132%
MOTOROLA SOLUTIONS INC	MSI	0.13%	0.51%	0.00%	n/a	n/a
MURPHY OIL CORP	MUR	0.09%	1.97%	0.00%	11.20%	0.0104%
MYLAN INC	MYL	0.08%	0.01%	0.00%	12.42%	0.0098%
NABORS INDUSTRIES LTD	NBR	0.04%	0.00%	0.00%	8.00%	0.0034%
NASDAQ OMX GROUP/THE	NDAQ	0.04%	0.00%	0.00%	11.00%	0.0041%
NATIONAL OILWELL VARCO INC	NOV	0.25%	0.64%	0.00%	18.00%	0.0447%
NETAPP INC	NTAP	0.11%	0.00%	0.00%	16.38%	0.0183%
NETFLIX INC	NFLX	0.03%	0.00%	0.00%	19.00%	0.0062%
NEWELL RUBBERMAID INC	NWL	0.04%	1.80%	0.00%	9.67%	0.0039%
NEWFIELD EXPLORATION CO	NFX	0.04%	0.00%	0.00%	5.90%	0.0026%
NEWMONT MINING CORP	NEM	0.25%	1.74%	0.00%	-3.00%	-0.0075%
NEWS CORP-CL A	NWSA	0.26%	0.95%	0.00%	22.28%	0.0585%
NEXTERA ENERGY INC	NEE	0.22%	3.59%	0.01%	5.50%	0.0121%
NIKE INC -CL B	NKE	0.31%	1.39%	0.00%	13.37%	0.0415%
NISOURCE INC	NI	0.06%	3.86%	0.00%	n/a	n/a
NOBLE CORP	NE	0.07%	1.99%	0.00%	32.33%	0.0213%
NOBLE ENERGY INC	NBL	0.14%	0.85%	0.00%	18.25%	0.0261%
NORDSTROM INC	JWN	0.09%	1.73%	0.00%	11.80%	0.0106%
NORFOLK SOUTHERN CORP	NSC	0.21%	2.25%	0.00%	16.88%	0.0355%
NORTHEAST UTILITIES	NU	0.05%	3.04%	0.00%	7.32%	0.0040%
NORTHERN TRUST CORP	NTRS	0.08%	2.94%	0.00%	13.50%	0.0110%
NORTHROP GRUMMAN CORP	NOC	0.13%	3.33%	0.00%	8.66%	0.0113%
NOVELLUS SYSTEMS INC	NVLS	0.02%	0.00%	0.00%	10.00%	0.0024%
NRG ENERGY INC	NRG	0.04%	0.00%	0.00%	2.51%	0.0009%
NUCOR CORP	NUE	0.11%	3.65%	0.00%	8.50%	0.0091%
NVIDIA CORP	NVDA	0.07%	0.00%	0.00%	16.23%	0.0118%
NYSE EURONEXT	NYX	0.06%	4.57%	0.00%	10.00%	0.0059%
O'REILLY AUTOMOTIVE INC	ORLY	0.09%	0.00%	0.00%	17.35%	0.0153%
OCCIDENTAL PETROLEUM CORP	OXY	0.65%	1.86%	0.01%	9.26%	0.0604%
OMNICOM GROUP	OMC	0.10%	2.23%	0.00%	8.00%	0.0084%
ONEOK INC	OKE	0.08%	2.52%	0.00%	15.00%	0.0115%
ORACLE CORP	ORCL	1.11%	0.93%	0.01%	14.38%	0.1591%

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OWENS-ILLINOIS INC	OI	0.03%	0.00%	0.00%	5.00%	0.0014%
PACCAR INC	PCAR	0.12%	2.53%	0.00%	12.33%	0.0142%
PALL CORP	PLL	0.06%	1.24%	0.00%	11.00%	0.0062%
PARKER HANNIFIN CORP	PH	0.10%	2.03%	0.00%	6.00%	0.0060%
PATTERSON COS INC	PDCO	0.03%	0.99%	0.00%	10.33%	0.0029%
PAYCHEX INC	PAYX	0.09%	4.20%	0.00%	10.50%	0.0098%
PEABODY ENERGY CORP	BTU	0.08%	1.02%	0.00%	n/a	n/a
PEOPLE'S UNITED FINANCIAL	PBCT	0.04%	4.89%	0.00%	7.67%	0.0030%
PEPCO HOLDINGS INC	POM	0.04%	5.32%	0.00%	6.50%	0.0026%
PEPSICO INC	PEP	0.89%	3.06%	0.03%	6.75%	0.0599%
PERKINELMER INC	PKI	0.02%	1.40%	0.00%	5.00%	0.0010%
PERRIGO CO	PRGO	0.08%	0.25%	0.00%	12.29%	0.0096%
PFIZER INC	PFE	1.43%	3.67%	0.05%	4.22%	0.0603%
P G & E CORP	PCG	0.14%	4.42%	0.01%	3.47%	0.0050%
PHILIP MORRIS INTERNATIONAL	PM	1.17%	3.66%	0.04%	11.50%	0.1342%
PINNACLE WEST CAPITAL	PNW	0.05%	4.35%	0.00%	5.00%	0.0023%
PIONEER NATURAL RESOURCES CO	PXD	0.09%	0.14%	0.00%	33.55%	0.0315%
PITNEY BOWES INC	PBI	0.03%	7.96%	0.00%	n/a	n/a
PLUM CREEK TIMBER CO	PCL	0.05%	4.56%	0.00%	5.00%	0.0025%
PNC FINANCIAL SERVICES GROUP	PNC	0.26%	2.01%	0.01%	5.53%	0.0144%
PPG INDUSTRIES INC	PPG	0.11%	2.70%	0.00%	8.00%	0.0089%
PPL CORPORATION	PPL	0.15%	4.77%	0.01%	12.18%	0.0178%
PRAXAIR INC	PX	0.28%	1.86%	0.01%	11.02%	0.0303%
PRECISION CASTPARTS CORP	PCP	0.20%	0.07%	0.00%	13.25%	0.0271%
PRICELINE.COM INC	PCLN	0.20%	0.00%	0.00%	23.00%	0.0463%
PRINCIPAL FINANCIAL GROUP	PFG	0.06%	2.77%	0.00%	11.87%	0.0077%
PROCTER & GAMBLE CO/THE	PG	1.57%	3.13%	0.05%	9.20%	0.1443%
PROGRESS ENERGY INC	PGN	0.14%	4.44%	0.01%	5.00%	0.0071%
PROGRESSIVE CORP	PGR	0.10%	1.49%	0.00%	7.75%	0.0080%
PROLOGIS INC	PLD	0.11%	3.57%	0.00%	56.96%	0.0642%
PRUDENTIAL FINANCIAL INC	PRU	0.20%	2.80%	0.01%	13.23%	0.0267%
PUBLIC SERVICE ENTERPRISE GP	PEG	0.14%	4.13%	0.01%	3.50%	0.0050%
PUBLIC STORAGE	PSA	0.20%	2.72%	0.01%	5.35%	0.0106%
PULTEGROUP INC	PHM	0.02%	0.00%	0.00%	10.00%	0.0021%
QEP RESOURCES INC	QEP	0.04%	0.18%	0.00%	24.33%	0.0108%
QUALCOMM INC	QCOM	0.79%	1.59%	0.01%	15.59%	0.1229%
QUANTA SERVICES INC	PWR	0.04%	n/a	n/a	9.93%	0.0038%
QUEST DIAGNOSTICS INC	DGX	0.08%	0.73%	0.00%	12.33%	0.0096%
RALPH LAUREN CORP	RL	0.07%	0.60%	0.00%	13.20%	0.0096%
RANGE RESOURCES CORP	RRC	0.09%	0.26%	0.00%	17.25%	0.0149%
RAYTHEON COMPANY	RTN	0.14%	3.36%	0.00%	9.00%	0.0130%
RED HAT INC	RHT	0.07%	0.00%	0.00%	18.14%	0.0124%
REGIONS FINANCIAL CORP	RF	0.05%	0.93%	0.00%	5.20%	0.0024%
REPUBLIC SERVICES INC	RSG	0.09%	2.99%	0.00%	n/a	n/a
REYNOLDS AMERICAN INC	RAI	0.21%	5.16%	0.01%	8.00%	0.0165%
ROBERT HALF INTL INC	RHI	0.03%	1.97%	0.00%	12.67%	0.0044%
ROCKWELL AUTOMATION INC	ROK	0.09%	2.29%	0.00%	12.92%	0.0116%
ROCKWELL COLLINS INC	COL	0.07%	1.85%	0.00%	11.63%	0.0082%
ROPER INDUSTRIES INC	ROP	0.07%	0.50%	0.00%	14.00%	0.0101%
ROSS STORES INC	ROST	0.09%	0.93%	0.00%	14.32%	0.0133%
ROWAN COMPANIES INC	RDC	0.03%	0.00%	0.00%	15.33%	0.0050%
RR DONNELLEY & SONS CO	RRD	0.02%	7.18%	0.00%	n/a	n/a
RYDER SYSTEM INC	R	0.02%	2.11%	0.00%	13.40%	0.0031%
SAFEWAY INC	SWY	0.06%	2.44%	0.00%	10.57%	0.0065%
SAIC INC	SAI	0.04%	n/a	n/a	3.60%	0.0013%
SALESFORCE.COM INC	CRM	0.12%	0.00%	0.00%	26.90%	0.0319%
SANDISK CORP	SNDK	0.10%	0.00%	0.00%	15.80%	0.0161%
SARA LEE CORP	SLE	0.10%	2.69%	0.00%	7.25%	0.0069%
SCANA CORP	SCG	0.05%	4.29%	0.00%	4.55%	0.0023%
SCHLUMBERGER LTD	SLB	0.78%	1.42%	0.01%	23.90%	0.1876%
SCHWAB (CHARLES) CORP	SCHW	0.12%	2.13%	0.00%	16.00%	0.0196%
SCRIPPS NETWORKS INTER-CL A	SNI	0.05%	0.83%	0.00%	14.89%	0.0068%
SEALED AIR CORP	SEE	0.03%	2.95%	0.00%	7.00%	0.0020%
SEARS HOLDINGS CORP	SHLD	0.03%	0.00%	0.00%	n/a	n/a
SEMPRA ENERGY	SRE	0.11%	3.22%	0.00%	7.00%	0.0079%
SHERWIN-WILLIAMS CO/THE	SHW	0.08%	1.64%	0.00%	11.00%	0.0087%
SIGMA-ALDRICH	SIAL	0.06%	1.15%	0.00%	8.75%	0.0056%
SIMON PROPERTY GROUP INC	SPG	0.33%	2.67%	0.01%	7.53%	0.0246%
SLM CORP	SLM	0.06%	2.47%	0.00%	10.00%	0.0059%
SNAP-ON INC	SNA	0.03%	n/a	n/a	10.00%	0.0025%
SOUTHERN CO/THE	SO	0.34%	4.03%	0.01%	6.00%	0.0205%
SOUTHWEST AIRLINES CO	LUV	0.06%	0.23%	0.00%	3.00%	0.0017%
SOUTHWESTERN ENERGY CO	SWN	0.10%	0.00%	0.00%	13.95%	0.0133%
SPECTRA ENERGY CORP	SE	0.17%	3.48%	0.01%	5.00%	0.0085%
SPRINT NEXTEL CORP	S	0.06%	0.00%	0.00%	4.00%	0.0024%
ST JUDE MEDICAL INC	STJ	0.09%	2.44%	0.00%	11.30%	0.0106%
STANLEY BLACK & DECKER INC	SWK	0.10%	2.42%	0.00%	n/a	n/a
STAPLES INC	SPLS	0.08%	2.82%	0.00%	8.50%	0.0071%
STARBUCKS CORP	SBUX	0.29%	1.51%	0.00%	16.87%	0.0496%
STARWOOD HOTELS & RESORTS	HOT	0.08%	0.69%	0.00%	23.46%	0.0190%
STATE STREET CORP	STT	0.17%	1.65%	0.00%	12.00%	0.0204%
STERICYCLE INC	SRCL	0.06%	n/a	n/a	17.50%	0.0099%
STRYKER CORP	SYK	0.16%	1.14%	0.00%	10.92%	0.0179%
SUNOCO INC	SUN	0.04%	1.47%	0.00%	28.95%	0.0109%
SUNTRUST BANKS INC	STI	0.08%	0.63%	0.00%	3.14%	0.0026%
SUPERVALU INC	SVU	0.01%	4.30%	0.00%	1.87%	0.0003%
SYMANTEC CORP	SYMC	0.10%	0.00%	0.00%	8.67%	0.0086%
SYSCO CORP	SYY	0.15%	3.77%	0.01%	10.00%	0.0147%
T ROWE PRICE GROUP INC	TROW	0.12%	2.18%	0.00%	12.33%	0.0152%

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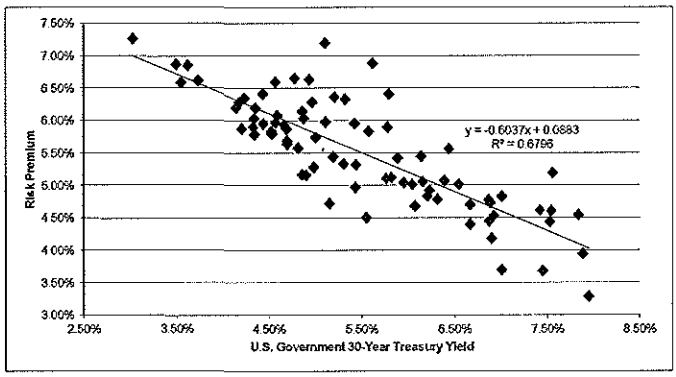
TARGET CORP	TGT	0.30%	2.11%	0.01%	11.58%	0.0342%
TE CONNECTIVITY LTD	TEL	0.11%	2.39%	0.00%	15.00%	0.0169%
TECO ENERGY INC	TE	0.04%	4.43%	0.00%	5.00%	0.0018%
TENET HEALTHCARE CORP	THC	0.02%	0.00%	0.00%	8.25%	0.0016%
TERADATA CORP	TDC	0.07%	n/a	n/a	15.00%	0.0105%
TERADYNE INC	TER	0.02%	0.00%	0.00%	11.25%	0.0024%
TESORO CORP	TSO	0.03%	0.03%	0.00%	-24.75%	-0.0069%
TEXAS INSTRUMENTS INC	TXN	0.29%	1.89%	0.01%	10.07%	0.0288%
TEXTRON INC	TXT	0.04%	0.44%	0.00%	47.12%	0.0207%
THERMO FISHER SCIENTIFIC INC	TMO	0.15%	0.00%	0.00%	12.57%	0.0183%
TIFFANY & CO	TIF	0.07%	1.68%	0.00%	17.80%	0.0129%
TIME WARNER CABLE	TWC	0.17%	3.01%	0.01%	15.14%	0.0264%
TIME WARNER INC	TWX	0.31%	2.61%	0.01%	13.98%	0.0434%
TITANIUM METALS CORP	TIE	0.02%	0.99%	0.00%	n/a	n/a
TJX COMPANIES INC	TJX	0.21%	1.17%	0.00%	13.38%	0.0280%
TORCHMARK CORP	TMK	0.04%	1.09%	0.00%	8.25%	0.0031%
TOTAL SYSTEM SERVICES INC	TSS	0.03%	1.56%	0.00%	9.71%	0.0033%
TRAVELERS COS INC/THE	TRV	0.21%	2.70%	0.01%	8.67%	0.0182%
TRIPADVISOR INC	TRIP	0.03%	n/a	n/a	17.25%	0.0045%
TYCO INTERNATIONAL LTD	TYC	0.18%	2.26%	0.00%	12.67%	0.0233%
TYSON FOODS INC-CL A	TSN	0.05%	0.79%	0.00%	6.00%	0.0032%
UNION PACIFIC CORP	UNP	0.44%	1.72%	0.01%	14.42%	0.0632%
UNITED PARCEL SERVICE-CL B	UPS	0.45%	2.84%	0.01%	9.23%	0.0419%
UNITED TECHNOLOGIES CORP	UTX	0.57%	2.54%	0.01%	11.82%	0.0672%
UNITEDHEALTH GROUP INC	UNH	0.46%	1.17%	0.01%	12.62%	0.0585%
UNUM GROUP	UNM	0.05%	1.83%	0.00%	9.50%	0.0050%
URBAN OUTFITTERS INC	URBN	0.03%	0.00%	0.00%	16.70%	0.0057%
US BANCORP	USB	0.44%	1.81%	0.01%	8.43%	0.0373%
UNITED STATES STEEL CORP	X	0.03%	0.76%	0.00%	6.50%	0.0021%
VALERO ENERGY CORP	VLO	0.10%	1.27%	0.00%	3.45%	0.0035%
VARIAN MEDICAL SYSTEMS INC	VAR	0.07%	0.00%	0.00%	12.80%	0.0083%
VENTAS INC	VTR	0.14%	4.15%	0.01%	5.97%	0.0082%
VERISIGN INC	VRSN	0.05%	0.00%	0.00%	13.00%	0.0064%
VERIZON COMMUNICATIONS INC	VZ	0.97%	4.91%	0.05%	8.80%	0.0856%
VF CORP	VFC	0.12%	2.00%	0.00%	12.20%	0.0147%
VIACOM INC-CLASS B	VIAB	0.20%	1.94%	0.00%	15.18%	0.0297%
VISA INC-CLASS A SHARES	V	0.45%	0.87%	0.00%	18.63%	0.0847%
VORNADO REALTY TRUST	VNO	0.12%	3.56%	0.00%	-1.43%	-0.0017%
VULCAN MATERIALS CO	VMC	0.04%	1.93%	0.00%	9.25%	0.0040%
WAL-MART STORES INC	WMT	1.75%	2.44%	0.04%	11.50%	0.2015%
WALGREEN CO	WAG	0.25%	2.59%	0.01%	13.67%	0.0340%
WALT DISNEY CO/THE	DIS	0.58%	1.24%	0.01%	11.20%	0.0646%
WASHINGTON POST-CLASS B	WPO	0.02%	n/a	n/a	n/a	n/a
WASTE MANAGEMENT INC	WM	0.13%	4.15%	0.01%	10.00%	0.0129%
WATERS CORP	WAT	0.06%	0.00%	0.00%	12.20%	0.0069%
WATSON PHARMACEUTICALS INC	WPI	0.07%	0.00%	0.00%	11.66%	0.0077%
WELLPOINT INC	WLP	0.20%	1.49%	0.00%	11.60%	0.0229%
WELLS FARGO & CO	WFC	1.25%	1.74%	0.02%	8.62%	0.1074%
WESTERN DIGITAL CORP	WDC	0.06%	0.00%	0.00%	5.50%	0.0034%
WESTERN UNION CO	WU	0.10%	1.61%	0.00%	11.67%	0.0113%
WEYERHAEUSER CO	WY	0.09%	3.19%	0.00%	n/a	n/a
WHIRLPOOL CORP	WHR	0.03%	4.04%	0.00%	15.00%	0.0047%
WHOLE FOODS MARKET INC	WFM	0.11%	0.72%	0.00%	17.79%	0.0190%
WILLIAMS COS INC	WMB	0.17%	2.46%	0.00%	n/a	n/a
WINDSTREAM CORP	WIN	0.06%	8.49%	0.00%	0.21%	0.0001%
WISCONSIN ENERGY CORP	WEC	0.07%	2.96%	0.00%	6.33%	0.0044%
WW GRAINGER INC	GWW	0.11%	1.31%	0.00%	13.70%	0.0154%
WYNDHAM WORLDWIDE CORP	WYN	0.05%	1.58%	0.00%	14.40%	0.0072%
WYNN RESORTS LTD	WYNN	0.12%	1.61%	0.00%	28.78%	0.0343%
XCEL ENERGY INC	XEL	0.11%	3.73%	0.00%	5.50%	0.0063%
XEROX CORP	XRX	0.09%	2.13%	0.00%	n/a	n/a
XILINX INC	XLNX	0.07%	2.36%	0.00%	13.17%	0.0095%
XL GROUP PLC	XL	0.05%	2.16%	0.00%	10.00%	0.0055%
XYLEM INC	XYL	0.04%	0.53%	0.00%	n/a	n/a
YAHOO! INC	YHOO	0.17%	0.00%	0.00%	12.73%	0.0219%
YUM! BRANDS INC	YUM	0.23%	1.76%	0.00%	12.85%	0.0299%
ZIMMER HOLDINGS INC	ZMH	0.08%	0.00%	0.00%	10.20%	0.0084%
ZIONS BANCORPORATION	ZION	0.03%	0.24%	0.00%	8.20%	0.0021%

Notes:
[18] Equals sum of Col. [25]
[19] Equals sum of Col. [27]
[20] Equals ([18] x (1 + (0.5 x [19]))) + [19]
[21] Source: Bloomberg Professional
[22] Equals [20] – [21]
[23] Equals weight in S&P 500 based on market capitalization
[24] Source: Bloomberg Professional
[25] Equals Col. [23] x Col. [24]
[26] Source: Bloomberg Professional
[27] Equals Col. [23] x Col. [26]

BOND YIELD PLUS RISK PREMIUM

	[1] Average Authorized Electric ROE	[2] U.S. Govt. 30-year Treasury	[3] 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	11.21%	6.15%	5.06%
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	10.76%	5.44%	5.32%
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	11.25%	4.96%	6.29%
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	9.88%	5.15%	4.72%
2003.4	11.09%	5.11%	5.98%
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	10.91%	4.87%	6.04%
2005.1	10.56%	4.69%	5.87%
2005.2	10.13%	4.34%	5.78%
2005.3	10.85%	4.43%	6.41%
2005.4	10.59%	4.66%	5.93%
2006.1	10.38%	4.69%	5.69%
2006.2	10.63%	5.19%	5.44%
2006.3	10.06%	4.90%	5.16%
2006.4	10.33%	4.70%	5.64%
2007.1	10.39%	4.81%	5.58%
2007.2	10.27%	4.98%	5.28%
2007.3	10.02%	4.85%	5.16%
2007.4	10.36%	4.53%	5.83%
2008.1	10.37%	4.34%	6.03%
2008.2	10.54%	4.57%	5.97%
2008.3	10.38%	4.44%	5.95%
2008.4	10.36%	3.49%	6.86%
2009.1	10.46%	3.62%	6.85%
2009.2	10.58%	4.23%	6.34%
2009.3	10.46%	4.18%	6.28%
2009.4	10.54%	4.35%	6.19%
2010.1	10.66%	4.59%	6.06%
2010.2	10.08%	4.20%	5.87%
2010.3	10.34%	3.73%	6.61%
2010.4	10.34%	4.14%	6.20%
2011.1	10.32%	4.53%	5.80%
2011.2	10.23%	4.33%	5.90%
2011.3	10.13%	3.54%	6.58%
2011.4	10.29%	3.03%	7.26%
AVERAGE	11.01%	5.51%	5.50%
MEDIAN	11.00%	5.31%	5.57%



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.824348
R Square	0.679550
Adjusted R Square	0.675442
Standard Error	0.004862
Observations	80

ANOVA

	df	*SS*	*MS*	*F*	*Sig. F*
Regression	1	0.003910	0.003910	165.407894	0.000000
Residual	78	0.001844	0.000024		
Total	79	0.005753			

	Coefficients	*Std. Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.088268	0.002642	33.403541	0.000000	0.083007	0.093529	0.083007	0.093529
U.S. Govt. 30-year Treasury	-0.603735	0.046943	-12.861100	0.000000	-0.697191	-0.510279	-0.697191	-0.510279

	[7] U.S. Govt. 30-year Treasury	[8] Risk Premium	[9] ROE
Current 30-Day Average [4]	2.97%	7.03%	10.00%
Blue Chip Consensus Forecast (Q4 2011-Q1 2013) [5]	3.43%	6.75%	10.19%
Blue Chip Consensus Forecast (2013-2022) [6]	5.30%	5.63%	10.93%
AVERAGE			10.37%

Notes:
[1] Source: Regulatory Research Associates, accessed January 5, 2012
[2] Source: Bloomberg Professional, quarterly bond yields are the average of the last trading day of each month in the quarter
[3] Equals Column [1] -- Column [2]
[4] Source: Bloomberg Professional
[5] Source: Blue Chip Financial Forecasts, Vol. 30, No. 12, December 1, 2011, at 2
[6] Source: Blue Chip Financial Forecasts, Vol. 30, No. 12, December 1, 2011, at 14
[7] *See notes [4], [5] & [6]*
[8] Equals 0.088268 + (-0.603735 x Column [7])
[9] Equals Column [7] + Column [8]

PROXY GROUP COMPANIES' REGULATORY RANKING BY JURISDICTION

		[1] S&P Rank	[2] Numeric Rank
American Electric Power Company, Inc. (AEP)	Arkansas	Credit Supportive	3
	Indiana	More Credit Supportive	4
	Kentucky	Credit Supportive	3
	Louisiana	Less Credit Supportive	2
	Michigan	Credit Supportive	3
	Ohio	Credit Supportive	3
	Oklahoma	Credit Supportive	3
	Tennessee	n/a	n/a
	Texas	Less Credit Supportive	2
	Virginia	Credit Supportive	3
	West Virginia	Less Credit Supportive	2
Cleco Corp. (CNL)	Louisiana	Less Credit Supportive	2
Edison International (EIX)	California	More Credit Supportive	4
Great Plains Energy Inc. (GXP)	Kansas	Credit Supportive	3
	Missouri	Less Credit Supportive	2
IDACORP, Inc. (IDA)	Idaho	Credit Supportive	3
	Oregon	Credit Supportive	3
Integrys Energy Group, Inc. (TEG)	Michigan	Credit Supportive	3
	Wisconsin	More Credit Supportive	4
Otter Tail Corporation (OTTR)	Minnesota	Credit Supportive	3
	North Dakota	Credit Supportive	3
	South Dakota	Credit Supportive	3
Pinnacle West Capital Corp. (PNW)	Arizona	Least Credit Supportive	1
Portland General Electric Company (POR)	Oregon	Credit Supportive	3
Southern Company (SO)	Alabama	More Credit Supportive	4
	Florida	Credit Supportive	3
	Georgia	More Credit Supportive	4
	Mississippi	Credit Supportive	3
Westar Energy, Inc. (WR)	Kansas	Credit Supportive	3
Proxy Group Average			2.93
Ameren Missouri	Missouri	Less Credit Supportive	2

Notes:

[1] Source: Standard & Poor's Rating Service, Assessing U.S. Utility Regulatory Environments, March 12, 2010, at 1-2.

[2] Most Credit Supportive = 5; More Credit Supportive = 4; Credit Supportive = 3; Less Credit Supportive = 2; Least Credit Supportive = 1

Revenue Stabilization Mechanisms in Effect at Utility Subsidiaries of the Proxy Group Companies

Union Electric Company

Fuel and Purchased Power Adjustment Clause (FAC)	Allows for the recovery from/flow through to ratepayers of 95 percent of incremental variations in fuel and purchased power costs, and off-system sales (OSS) from the levels included in base rates. The differences between the cost of fuel incurred and the cost of fuel recovered from UE's customers are deferred as regulatory assets or liabilities. The deferred amounts are either billed or refunded to UE's electric utility customers in a subsequent period. The net cost of SO_2 and NOx emission allowances are also recovered through this mechanism. The FAC is adjusted every four months, with a true-up after the conclusion of each 8-month recovery period. [Source: Union Electric, Tariff, Sheet Nos. 98.1-98.21].
Vegetation Management/Infrastructure Inspection Tracker	Allows the Company the opportunity to recover vegetation management and infrastructure inspection costs. Base levels for both vegetation management and infrastructure inspection costs are set and the Company tracks actual expenditures around the base levels. In years where the Company spends less than base rates, a regulatory liability is created. In years where the Company spends more than base rates, a regulatory asset is created. These regulatory assets/liabilities are netted and considered in the Company's next rate case. Originally approved in Case No. ER-2008-0318 (January 27, 2009) and renewed in Case No. ER-2010-0036 (May 28, 2010) and Case No. ER-2011-0028 (July 13, 2011) until the Company's next rate case. [Source: Public Service Commission of Missouri, Case No. ER-2011-0028, Report and Order, July 13, 2011, p. 18]
Municipal Underground Cost Recovery Rider	Allows for the recovery of any additional costs associated with a municipal or government subdivision requirement that the Company construct transmission or distribution lines underground when the Company would otherwise have constructed overhead lines. [Source: Union Electric, Tariff, Sheet Nos. 118-120].
Pension and Other-Post-Employment-Benefits Tracking Mechanism	Allows the creation of a regulatory asset or liability relating to costs associated with employee pensions and other post-employment benefits providing the opportunity to reflect the asset/liability in rates in a future rate case. [Source: Public Service Commission of Missouri, Case No. ER-2010-0036, First Non-unanimous Stipulation and Agreement, p. 4; SNL Financial].
Energy Efficiency and DSM Program Costs	Between rate cases, the Company is allowed to book its direct costs incurred while implementing energy efficiency and DSM programs to a regulatory asset. In the rate case, the amount in the regulatory asset can be added to the company's rate base and amortized over a six-year period. [Source: Public Service Commission of Missouri, Case No. ER-2011-0028, Report and Order, July 13, 2011, p. 40]

American Electric Power (AEP)

AEP Texas Central Company	
Rider NDC - Nuclear Decommissioning Collections	Charges collected under this rider are transferred to a trust that will hold the funds for future nuclear plant decommissioning. [Source: AEP Texas Central Company, Tariff for Retail Delivery Service, pp. 177-180].
Schedule TCRF - Transmission Cost Recovery Factor	Each retail customer connected to the Company's transmission or distribution system will be assessed a non-by-passable transmission service charge adjustment pursuant to this rider. [Source: AEP Texas Central Company, Tariff for Retail Delivery Service, pp. 182-184].
Rider EECRF - Energy Efficiency Cost Recovery Factors	Recovers the cost of energy efficiency programs not already included in base distribution service rates and is applicable to the kWh sales of retail customers taking retail electric delivery service from the Company. [Source: AEP Texas Central Company, Tariff for Retail Delivery Service, p. 184-1].
Rider AMSCRF - Advanced Metering System Cost Recovery Fee	Applicable to retail customers receiving metered service for which the Company will install an advanced metering system during the recovery period approved by the PUCT. [Source: AEP Texas Central Company, Tariff for Retail Delivery Service, p. 189].
AEP Texas North Company	
Schedule TCRF - Transmission Cost Recovery Factor- ERCOT System	Each retail customer connected to the Company's transmission or distribution system will be assessed a non-by-passable transmission service charge adjustment. [Source: AEP Texas North Company, Tariff for Retail Delivery Service, pp. 137-139].
Rider AMSCRF- Advanced Metering System Cost Recovery Fee	Applicable to retail customers receiving metered service for which the Company will install an Advanced Metering Infrastructure system during the recovery period approved by the PUCT. [Source: AEP Texas North Company, Tariff for Retail Delivery Service, p. 141-1].
Rider EECRF- Energy Efficiency Cost Recovery Factors	Recovers the cost of energy efficiency programs not already included in base distribution service rates and is applicable to the kWh sales of retail customers taking retail electric delivery service from the Company. [Source: AEP Texas North Company, Tariff for Retail Delivery Service, p. 141-2].
Appalachian Power Company (Virginia)	
Sale and Use Tax Surcharge	Surcharge shall be applied to all customer bills to reflect the estimated sales and use tax the company expects to pay in the coming year. [Source: Appalachian Power Company, Tariff No. 23, Sheet No. 25D].
Environmental and Reliability Cost Recovery Surcharge	The Company will collect an incremental environmental compliance and Transmission and Distribution system reliability cost recovery surcharge.[1] [Source: Appalachian Power Company, Tariff No. 23, Sheet No. 27-1D].
Fuel Factor Rider	Allows the Company to recover its cost of fuel used in generation of electricity. [Sources: Appalachian Power Company - Virginia, Tariff, Sheet No. 29; SNL Financial].

[1] While the Environmental and Reliability Cost Recovery (ERCR) surcharge still remains in the Company's tariff, per the tariff, the ERCR surcharge ceased being charged to customers effective January 1, 2011 (i.e., the E&R Factors are set to zero).

Transmission Rate Adjustment Clause Rider	Applied to all standard customer bills rendered under the applicable standard schedules or special contracts. This Rider allows the Company to recover transmission related investment. [Sources: Appalachian Power Company - Virginia, Tariff, Sheet No. 33; SNL Financial].
Columbus Southern Power Company (Ohio)	
Universal Service Fund Rider	All electric utility customers pay into a universal service fund to help balance the difference between what PIPP (Percentage of Income Payment Plan) customers pay and the charges for their actual use. [Source: Columbus Southern Power Company, Tariff, Sheet No. 60-1].
Monongahela Power Litigation Termination Rider	This temporary Rider shall remain in effect until the amounts authorized by the Commission in Case No. 05-765-EL-UNC have been collected. [Source: Columbus Southern Power Company, Tariff, Sheet No. 73-1].
Transmission Cost Recovery Rider	Allows the Company to recover the costs associated with transmission investment that are not recovered in base rates. [Source: Columbus Southern Power Company, Tariff, Sheet No. 75-1].
Fuel Adjustment Clause Rider	Permits the Company to pass along to customers the net actual cost of fuel used in power procurement. [Source: Columbus Southern Power Company, Tariff, Sheet No. 80-1].
Energy Efficiency and Peak Demand Reduction Cost Recovery Rider	Provides for the recovery of costs related to energy efficiency programs and demand side management programs used to attenuate peak demand. [Source: Columbus Southern Power Company, Tariff, Sheet No. 81-1].
Enhanced Service Reliability Rider	Allows for the recovery of costs associated with improvements made to the reliability and integrity of the distribution system. [Source: Columbus Southern Power Company, Tariff, Sheet No. 83-1].
gridSMART Rider	Recovers the cost of purchasing and installing SMART technology. [Source: Columbus Southern Power Company, Tariff, Sheet No. 84-1].
Economic Development Cost Recovery Rider	Recovers economic development costs authorized by the Commission. [Source: Columbus Southern Power Company, Tariff, Sheet No. 82-1].
Environmental Investment Carrying Cost Rider	Recovers Commission approved costs through a set percentage charge applied to the customer's Non-Fuel generation charges, excluding charges under other applicable Riders. [Source: Columbus Southern Power Company, Tariff, Sheet No. 85-1].
Indiana Michigan Power Company (Indiana)	
Fuel Cost Adjustment Rider	Permits the Company to pass along to customers the net actual cost of fuel used in power procurement. The costs eligible for recovery include the average cost of fossil and nuclear fuel consumed at the Company's own plants, plus net purchased power costs, and nuclear fuel disposal costs. [Source: Indiana Michigan Power Company – Indiana, Tariff, Sheet No. 50].
Demand-Side Management/ Energy Efficiency Program Cost Rider	Allows for cost recovery associated with demand-side management and energy efficiency programs. [Source: Indiana Michigan Power Company – Indiana, Tariff, Sheet Nos. 51 and 51.1].

PJM Cost Rider	Allows for the recovery of demand-related and energy-related costs related to PJM. [Source: Indiana Michigan Power Company – Indiana, Tariff, Sheet Nos. 53 and 53.1].
Environmental Compliance Cost Rider	Allows for the recovery of environmental compliance costs not included in base rates. [Source: Indiana Michigan Power Company – Indiana, Tariff, Sheet No. 54].
Clean Coal Technology Rider	Provides for the cost recovery of the revenue requirement associated with CCTR investment, depreciation expense on in-service CCTR property, operation and maintenance expenses on CCTR property, and costs of consumables and chemical agents. [Source: Indiana Michigan Power Company – Indiana, Tariff, Sheet No. 55].
Off-System Sales Margin Sharing Rider	Provides for the sharing of off-system sales margins through a per kWh adjustment to applicable customer bills. The adjustment for each tariff class is based upon a specified cost sharing factor calculation. [Source: Indiana Michigan Power Company – Indiana, Tariff, Sheet Nos. 52 and 52.1].
Indiana Michigan Power Company (Michigan)	
Nuclear Decommissioning Surcharge Rider	Provides for cost recovery of future nuclear decommissioning costs. The charge is a per kWh charge by rate class. [Source: Indiana Michigan Power Company – Michigan, Tariff, Sheet No. D-108].
Customer Choice Cost Recovery	Surcharge recovers costs incurred to implement Customer Choice in Michigan. This surcharge shall remain in effect through the last complete billing cycle that fully collects all choice implementation costs. [Source: Indiana Michigan Power Company – Michigan, Tariff, Sheet No. D-109].
Surcharge EO (Energy Optimization Surcharge)	Surcharge funds energy optimization programs conducted by a Commission-approved energy optimization program administrator. [Source: Indiana Michigan Power Company – Michigan, Tariff, Sheet No. D-107].
Power Supply Cost Recovery Factor	Permits the monthly adjustment of rates to recover the booked costs, including transportation costs, reclamation costs, and disposal and reprocessing costs, of fuel burned for electric generation, the booked costs of purchased and net interchange power transactions and the cost of transmission service incurred under reasonable and prudent policies and practices. [Source: Indiana Michigan Power Company – Michigan, Tariff, Sheet No. D-104].
Net Lost Revenue Recovery Surcharge	The Commission approved settlement of Case No. U-16180 authorized the creation of a regulatory asset for the Net Lost Revenue associated with lost sales that are caused by the Company's energy optimization program. The lost revenue is to be recovered through this surcharge. [Source: Michigan Public Service Commission, Case No. U-16531, Order Approving Settlement Agreement, June 28, 2011].
Kentucky Power Company	
Fuel Adjustment Clause	Allows for the recovery of fossil fuel and nuclear fuel consumed in the utility's own plants and the net costs of purchased power. This periodic adjustment allows for the recovery of the difference between actual fuel costs and sales. [Source: Kentucky Power Company, Tariff, Sheet Nos. 5-1 and 5-2].
Demand-Side Management Adjustment Clause	Allows for the recovery of demand-side management programs, net lost revenues, incentives, and any over/under recovery balances. [Source: Kentucky Power Company, Tariff, Sheet No. 22-1 and 22-2].

Environmental Surcharge	Provides for monthly adjustments based on the difference between the environmental compliance costs in a base period and the current period. [Source: Kentucky Power Company, Tariff, Sheet No. 29-1 through 29-5].
Capacity Charge	Recovers from retail ratepayers the supplemental annual payments tied to the 18-year extension of the Rockpower Unit Power Agreement. The Company will apply surcharges under this Rider designed to enable the recovery from each tariff class of customers. [Source: Kentucky Power Company, Tariff, Sheet No. 28-1].
System Sales Clause	When the monthly net revenues from system sales are above or below the monthly base net revenues from system sales, as specified, an additional charge or credit is implemented based on a kWh system sales adjustment factor. [Source: Kentucky Power Company, Tariff, Sheet No. 19-1 and 19-2].
Kingsport Power Company (Tennessee)	
Purchased Power Adjustment Rider	Applies a surcharge to all customer bills to allow for changes in the non-fuel cost of purchased power from the Company's wholesale power supplier. [Source: Kingsport Power Company, Tariff, Sheet Nos. 2-8 through 2-10].
Fuel Clause Rider	Adjusts customers' bills each month when the unit cost of fuel purchased under FERC Rate Schedule No. 23 from Appalachian Power Company is above or below a set value. [Source: Kingsport Power Company, Tariff, Sheet Nos. 2-11 through 2-12].
Tennessee Inspection Fee Rider	Applies a surcharge to all customer bills rendered by the company to allow for changes in the Tennessee Inspection Fee. [Source: Kingsport Power Company, Tariff, Sheet No. 2-13].
Ohio Power Company	
Universal Service Fund Rider	All electric utility customers pay into a universal service fund to help balance the difference between what PIPP (Percentage of Income Payment Plan) customers pay and the charges for their actual use. [Source: Ohio Power Company, Tariff, Sheet No. 60-1].
Transmission Cost Recovery Rider	Allows the Company to recover the costs associated with transmission investment that are not recovered in base rates. [Source: Ohio Power Company, Tariff, Sheet No. 75-1].
Fuel Adjustment Clause Rider	Permits the Company to pass along to customers the net actual cost of fuel used in power procurement. [Source: Ohio Power Company, Tariff, Sheet No. 80-1].
Energy Efficiency and Peak Demand Reduction Cost Recovery Rider	Provides for the recovery of costs related to energy efficiency programs and demand side management programs used to reduce peak demand. [Source: Ohio Power Company, Tariff, Sheet No. 81-1].
Enhanced Service Reliability Rider	Allows for the recovery of costs associated with improvements made to the reliability and integrity of the distribution system. [Source: Ohio Power Company, Tariff, Sheet No. 83-1].
Economic Development Cost Recovery Rider	Recovers economic development costs authorized by the Commission. [Source: Ohio Power Company, Tariff, Sheet No. 82-1].
Environmental Investment Carrying Cost Rider	Recovers Commission approved costs through a set percentage charge applied to the customer's Non-Fuel generation charges, excluding charges under other applicable Riders. [Source: Ohio Power Company, Tariff, Sheet No. 85-1].

Public Service Company of Oklahoma	
Fuel Cost Adjustment Rider	Allows for the recovery of the cost of fuel used in generation of electric services plus net purchased power costs. [Source: Public Service Company of Oklahoma, Tariff, Sheet 70-1A through 70-3A].
Tax Adjustment Rider	If there shall be imposed after the effective date of this rate schedule, by Federal, State or other Governmental Authority, any tax, other than income tax, payable by Company upon gross revenue, or upon the production, transmission or sale of electric energy, a proportionate share of such additional tax or taxes shall be added to the monthly bills payable by the customer to reimburse the Company for furnishing electric energy to the customer under the applicable pricing schedule. Reduction likewise shall be made in bills payable by customer for any decrease in any such taxes. [Source: Public Service Company of Oklahoma, Tariff, Sheet 71].
Regulatory Assessment Rider	Allows for the recovery of an annual assessment as billed by the Commission, and applies to all retail monthly customer billings. [Source: Public Service Company of Oklahoma, Tariff, Sheet 73].
Reliability Vegetation/ Undergrounding Rider	Determined on a quarterly basis for each major rate class to incorporate the previous quarter's Eligible Reliability Costs expended and adjusted by any over or under recovery of costs from the previous three month billing period and applied to the billings for the next quarter. This rider allows for the recovery of reliability costs associated with vegetation management not included in base rates. [Source: Public Service Company of Oklahoma, Tariff, Sheet 80-1A through 80-4A].
Purchased Power Capacity Rider	Allows for recovery of purchased power capacity costs. [Source: Public Service Company of Oklahoma, Tariff, Sheet 87].
Demand-Side Management Cost Recovery Rider	Designed to recover costs associated with Energy Efficiency and Demand-side Management programs. [Source: Public Service Company of Oklahoma, Tariff, Sheet 85-1A through 85-5A].
Regulatory Asset Recovery Rider	Designed to recover costs associated with extraordinary operation and maintenance expenses resulting from the January and December 2007 ice storms. [Source: Public Service Company of Oklahoma, Tariff, Sheet 86-1 and 86-2].
Regulatory Asset Recovery Rider 2	Designed to recover costs associated with extraordinary operation and maintenance expenses resulting from the January 2010 ice storm. [Source: Public Service Company of Oklahoma, Tariff, Sheet 89].
Long-Term Base Load Purchased Power Rider	Designed to recover all costs associated with a particular contract, and with recovery of the one-time RFP costs. [Source: Public Service Company of Oklahoma, Tariff, Sheet 88-1 through 88-3].
Southwestern Electric Power Company (Arkansas)	
Energy Cost Recovery Rider (ECR)	Recovers the Company's net fuel and purchased energy cost. [Source: Southwestern Electric Power Company - Arkansas, Tariff, Sheet Nos. R-27.1 through 27.14].
Charges for Special or Additional Facilities	In the event facilities in excess of a normal installation are found to be required to serve the Customer's load, or are requested by the Customer and approved by the Company, the Company is required to furnish, install, and maintain such facilities with a monthly charge to the Customer. [Source: Southwestern Electric Power Company - Arkansas, Tariff, Sheet No. R-29.1].

Redundant Service Policy for Municipal Accounts	Certain customers are charged additional fees for redundant service. Additional charges are based on consumption. [Source: Southwestern Electric Power Company - Arkansas, Tariff, Sheet Nos. R-34.1 and 34.2].
Radio Frequency Meter Installation Rider	A customer may request (or elect upon request by the Company) to have a radio frequency meter installed under the terms of this Rider as a mutually agreeable solution to Company personnel's lack of meter reading access to Company metering equipment on a customer's premises, due to a locked gate, animal concern, safety concern or other reason. This Rider lays out the one-time, non-refundable installation fee from the customer to the Company. [Source: Southwestern Electric Power Company - Arkansas, Tariff, Sheet No. R-42.1].
Energy Efficiency Cost Rate Rider (EECR)	Recovers the incremental costs of energy efficiency programs approved by the Commission. [Source: Southwestern Electric Power Company - Arkansas, Tariff, Sheet Nos. R-45.1 through 45.6].
Federal Litigation Consulting Fee Rider	Enables the Company to recover the fees and expenses paid by the Company to contract attorneys and consultants retained by the Arkansas Public Service Commission, as authorized by the General Assembly, when it participates in litigation before a federal agency or federal court in proceedings that affect the Company. [Source: Southwestern Electric Power Company - Arkansas, Tariff, Sheet Nos. R-46.1 through 46.5].
Alternative Generation Recovery Rider	Designed to adjust monthly billings to recover costs associated with the Stall Generating Facility. The Rider is designed to recover return on and of the generation facility and operation and maintenance expenditures after the facility commences commercial operation. [Source: Southwestern Electric Power Company - Arkansas, Tariff, Sheet Nos. R-47.1 through 47.5].
Tax Adjustment Rider	Provides for the Company to pass directly to its customers within a municipality the proportionate part of any franchise or street rental taxes levied or imposed on the Company by that municipality on gross revenues from those customers. [Source: Southwestern Electric Power Company - Arkansas, Sheet Nos. R-25.1 and 25.2].
Southwestern Electric Power Company (Louisiana)	
Fuel Adjustment Rider	All kilowatt-hours sold will be adjusted to reflect the current cost of fuel. This rider recovers the net cost of fuel consumed in the Company's generating plants, plus the net cost of purchased economy and emergency energy, as well as energy purchased from qualifying small production or cogeneration facilities. [Source: Southwestern Electric Power Company - Louisiana, Section B, Sheet No. 8].
Tax Adjustment Rider	The net monthly bill will be increased by the proportionate part of any new tax, or increased rate of tax, or governmental imposition or charge (except state, parish, city and special district ad valorem taxes and any taxes on net income) levied or assessed against the Company's electric business as a result of any new or amended laws or ordinances after December 31, 1997, except as the power and/or energy sold under this schedule may be exempt from the effects of any such taxes or levies. [Source: Southwestern Electric Power Company - Louisiana, Section B, Sheet No. 9].
Charges for Special or Additional Facilities	In the event facilities in excess of a normal installation are found to be required to serve the Customer's load, or are requested by the Customer and approved by the Company, the Company is required to furnish, install, and maintain such facilities with a monthly charge to the Customer. [Source: Southwestern Electric Power Company - Louisiana, Section B, Sheet No. 10].

Rider for Radio Frequency Meter Installation	A customer may request (or elect upon request by the Company) to have a radio frequency meter installed under the terms of this Rider as a mutually agreeable solution to Company personnel's lack of meter reading access to Company metering equipment on a customer's premises, due to a locked gate, animal concern, safety concern or other reason. This Rider lays out the one-time, non-refundable installation fee from the customer to the Company. [Source: Southwestern Electric Power Company - Louisiana, Section B, Sheet No. 13].
Formula Rate Plan Rider Schedule (FRP)	Defines the procedure by which the rates contained in the Company rate schedules may be periodically adjusted. The FRP stipulates an authorized rate of return with a bandwidth. [Source: Southwestern Electric Power Company - Louisiana, Section B, Sheet No. 14].
Southwestern Electric Power Company (East Texas)	
Fixed Fuel Factor Tariff	Recovers the net costs of fuel used to procure electricity for retail customers. [Source: Southwestern Electric Power Company – Texas, Tariff, Sheet No. IV-34].
Energy Efficiency Cost Recovery Rider	Recovers the cost of energy efficiency programs not included in base rates. [Source: Southwestern Electric Power Company – Texas, Tariff, Sheet No. IV-35].
Purchased Power and Conservation Factor (PPCF)	Recovers the costs of demand-side management resources and renewable energy resources that are approved for PPCF cost recovery by the Commission but are not recovered in base rates. [Source: Southwestern Electric Power Company – Texas, Tariff, Sheet No. IV-36].
Southwestern Electric Power Company (North Texas)	
Fixed Fuel Factor Rider	Recovers the net costs of fuel used to procure electricity for retail customers. [Source: Southwestern Electric Power Company – Texas, Tariff, Sheet No. IV-34].
Energy Efficiency Cost Recovery Rider	Recovers the cost of energy efficiency programs not included in base rates. [Source: Southwestern Electric Power Company – Texas, Tariff, Sheet No. IV-35].
Wheeling Power Company (West Virginia)	
Schedule L.E.- Line Extensions	Customers are charged for line extensions based on installed extensions on a monthly basis. [Source: Appalachian Power Company, P.S.C. W.VA. Tariff No. 13 and Wheeling Power Company, P.S.C. W.VA. Tariff No. 18, Sheet Nos. 32-1 and 32-2].
Construction / 765 kV Surcharge	A construction surcharge is applied to customers' bills (effective July 2011 to June 2012), including both the energy and demand component of rates, to recover costs associated with the construction of new transmission lines. [Source: Appalachian Power Company, P.S.C. W.VA. Tariff No. 13 and Wheeling Power Company, P.S.C. W.VA. Tariff No. 18, Sheet No. 27].
Energy Efficiency / Demand Response Cost Recovery Rider	Collects energy efficiency and demand response costs through a bill adjustment, by rate schedule, using a specified adjustment factor per kWh. [Source: Appalachian Power Company, P.S.C. W.VA. Tariff No. 13 and Wheeling Power Company, P.S.C. W.VA. Tariff No. 18, Sheet No. 33].

Cleco Corporation (CNL)

Cleco Power LLC (Louisiana)	
Fuel Cost Adjustment (FAC)	Monthly adjustment to recover the actual cost of fuel, including the cost of fuel to the company's generation and the cost of purchased power. Any sales of power are credited through this mechanism. [Source: Cleco Power, Tariff, Rate Schedule FA].
Storm Recovery Charge Adjustment	Recovers applicable storm restoration costs approved by the Louisiana Public Service Commission. This adjustment is reconciled semi-annually. [Source: Cleco Power, Tariff, Rate Schedule SCRA].
Formula Rate Plan (FRP)	Allows for recovery of future revenue requirements for approved capacity purchases, construction or acquisition projects and exceptional costs/savings. The Company can propose additional projects to the Louisiana PSC during the FRP's initial four-year term. [Sources: Cleco Power, Tariff, Rate Schedule FRP; SNL Financial].
Environmental Cost Adjustment	Provides for the recovery of certain costs of environmental compliance as an adder to customers' bills. The costs eligible for recovery are prudently incurred air emissions credits associated with complying with federal, state, and local air emission regulations and variable emission mitigation costs. [Source: Cleco Power, Tariff, Rate Schedule EA].

Edison International (EIX)

Southern California Edison Company	
Palo Verde Balancing Account	Records the difference between: operations and maintenance (O&M); administrative and general (A&G); pension and benefits (P&B); and payroll taxes expenses authorized by the Commission; actual O&M expenses billed by Arizona Public Service Company (APS) under the Palo Verde Operating Agreement for the Company's share of expenses, including refueling outage O&M expense and contractual overheads for A&G, P&B, and payroll taxes; and, actual Company oversight expenses. [Source: Southern California Edison, Tariff, Revised Cal. PUC Sheet No. 47626-E].
Nuclear Decommissioning Adjustment Mechanism	Records NDAM revenue, and records certain authorized and recorded costs associated with the Company's ownership share of the San Onofre Nuclear Generating Station (SONGS) and the Palo Verde Nuclear Generating Station (Palo Verde). [Source: Southern California Edison, Tariff, Revised Cal. PUC Sheet No. 36582-E].
Purchase Agreement Administrative Costs Balancing Account	Records differences between the Company's actual and authorized administrative costs associated with four third-party demand response contracts and two third-party demand response contracts authorized by the Commission. [Source: Southern California Edison, Tariff, Revised Cal. PUC Sheet No. 46061-E].
Income Tax Component of Contribution Provision	All Contributions in Aid of Construction and Advances For Construction (Contributions) made to the Company pursuant to its tariffs shall include a cost component to cover the Company's estimated liability for Federal and State Income Tax resulting there from. [Source: Southern California Edison, Tariff, Revised Cal. PUC Sheet No. 47683-E].
Memorandum Accounts	Record all costs incurred by the Company for specified projects authorized by the Commission: • Self-Generation Program Incremental Cost • Catastrophic Event • Reliability Costs • Wildfire Expense • Result Sharing • SONGS 2&3 Seismic Projects • Research, Development, and Demonstration Royalties • Distributed Generation Implementation Cost • California Power Exchange Wind-Up Charge • Income Tax Component of Contribution • DWR Franchise Fee Obligation • Renewable Transmission Feasibility Study Costs • Air Resources Board Fee • Hydrogen Energy California • Distributed Energy Resources • Nuclear Claims • Energy Efficiency 2009-2011 • Eldorado-Ivanpah Transmission Project • Four Corners Capital Expenditures

	• PBR Distribution Revenue Sharing • PBR Distribution Rate Performance • Energy Efficiency DSM • Energy Settlements Memorandum Account • Affiliate Transfer Fee • Employee Stock Ownership Plan Tax • Smart Grid American Recovery and Reinvestment Act • GRC Revenue Requirement • Antelope Transmission Projects • Residential Service Disconnection • Renewables Portfolio Standard Costs • Market Redesign and Technology Upgrade • Department of Energy Litigation • Fuel Cell Program • Project Development Division • California Solar Initiative (CSI) Measurement and Evaluation (M&E) Expenses • Solar Photovoltaic Program • Clean Hydrogen Power Generation Plant Feasibility • Carbon Sequestration Evaluation • Long-Term Procurement Plan Technical Assistance • Non-Discretionary Service Costs • Fire Hazard Prevention [Source: Southern California Edison, Tariff, Revised Cal. PUC Sheet Nos. 21344-E, 48727-E, 48575-E].
California Alternate Rates for Energy (CARE)	Recovers the costs associated with the CARE program including the amount of discount to CARE households, group living facilities, and agricultural employee housing as well as incremental administrative and general expenses (increased to provide for franchise fees and uncollectible accounts). Reflected in the Public Purpose Programs Charge. [Source: Southern California Edison, Tariff, Revised Cal. PUC Sheet Nos. 34705-E, 41902-E].
Optional Pricing Adjustment Clause	Records the shareholder's portion of net incremental or decremental revenue changes due to Commission-approved business retention or customer choice optional pricing agreements. [Source: Southern California Edison, Tariff, Revised Cal. PUC Sheet No. 27670-E].
Demand Side Management Adjustment Clause	Records the difference between the authorized annual expenditures associated with demand side management (DSM) programs reflected in the authorized DSM program funding levels established by the Commission; and the recorded annual expenditure associated with DSM programs; and to implement the DSM performance mechanism which uses a formula to convert an incentive period performance factor into dollars of earned incentive. [Source: Southern California Edison, Tariff, Revised Cal. PUC Sheet No. 24255-E].
Procurement Energy Efficiency Balancing Account	A "one-way" balancing account; its purpose is to track the difference between actual incremental procurement-related energy efficiency costs and authorized procurement-related energy efficiency revenues. [Source: Southern California Edison, Tariff, Revised Cal. PUC Sheet No. 48581-E].

California Solar Initiative Program Balancing Account (CSIPBA)	Tracks the recorded incremental California Solar Initiative Program costs and authorized distribution revenue requirement recorded in the base revenue requirement balancing account associated with the Company's California Solar Initiative Program. The CSIPBA will separately track in the performance base incentives (PBI) sub-account the forecast PBI payment amounts for all completed solar projects receiving PBI to ensure fund security for the duration of the PBI contract incentive periods. [Source: Southern California Edison, Tariff, Revised Cal. PUC Sheet No. 44471-E].
Hazardous Substance Cleanup Cost Recovery Mechanism	Provides a methodology for allocating costs and related recoveries associated with cleaning up certain properties contaminated with hazardous substances between the Company's ratepayers and shareholders. [Source: Southern California Edison, Tariff, Revised Cal. PUC Sheet No. 18853-E].
Departing Load and Customer Generation Departing Load Cost Responsibility	Recovers stranded costs associated with departing load and customer generation. [Source: Southern California Edison, Tariff, Revised Cal. PUC Sheet No. 33558-E].
Research, Development and Demonstration Adjustment Clause	Records the difference between the authorized expenditures associated with research, development and demonstration (RD&D) programs reflected in the authorized RD&D funding level; and the recorded expenditures associated with RD&D programs. [Source: Southern California Edison, Tariff, Revised Cal. PUC Sheet No. 47629-E].
Demand Response Program Balancing Account	Records the difference between the actual capital-related revenue requirement and O&M costs incurred by SCE and the authorized demand response revenue requirement approved by the Commission. [Source: Southern California Edison, Tariff, Revised Cal. PUC Sheet No. 46062-E].
SONGS 2 & 3 Steam Generator Replacement Balancing Account	Records the Company's ownership share of its actual San Onofre Nuclear Generating Station Unit 2 and Unit 3 steam generator replacement project replacement costs revenue requirements. [Source: Southern California Edison, Tariff, Revised Cal. PUC Sheet No. 45399-E].
California Alternate Rates for Energy Balancing Account	Records on a monthly basis: (1) the under or overcollection in revenue which results from the difference between the amount of the CARE discount provided to CARE-eligible customers and the CARE surcharge charged to non-CARE customers; (2) the difference between the Commission-authorized CARE and Family Electric Rate Assistance (FERA) administrative costs recorded in the Public Purpose Programs Adjustment Mechanism (PPPAM) and actually incurred CARE and FERA administrative costs; (3) actual costs incurred associated with the automatic enrollment program; and (4) reimbursements made to the Energy Division associated with Energy Division's audit of SCE's CARE programs. [Source: Southern California Edison, Tariff, Revised Cal. PUC Sheet No. 44454-E].
Cost of Capital Trigger Mechanism	The purpose of the cost of capital trigger mechanism is to automatically adjust the Company's authorized return on equity for changes in interest rates, and to adjust PBR distribution revenue requirement to account for changes in the authorized return on equity. [Source: Southern California Edison, Tariff, Revised Cal. PUC Sheet No. 31356-E].
Public Purpose Programs Adjustment Mechanism	Records Public Goods Charge (PGC) revenue; PGC expenses authorized in P.U. Code §399.8; other CPUC Public Purpose Program Revenue; and other CPUC-authorized Public Purpose Program expenses. [Source: Southern California Edison, Tariff, Revised Cal. PUC Sheet No. 46179-E].

Energy Efficiency Program Adjustment Mechanism	Tracks the difference between actual incurred non procurement-related PGC energy efficiency costs and authorized non-procurement PGC energy efficiency revenue requirements. [Source: Southern California Edison, Tariff, Revised Cal. PUC Sheet No. 40530-E].
Low Income Energy Efficiency Program Adjustment Mechanism	Establishes the Low Income Energy Efficiency Program Balancing Account to track the Public Purpose Program Charge (PPPC) funds allocable to the Low Income Energy Efficiency programs, and the Low Income Energy Efficiency programs expenses. [Source: Southern California Edison, Tariff, Revised Cal. PUC Sheet No. 44459-E].
Bond Charge Balancing Account	Tracks California Department of Water Resources (DWR) bond charge payments, DWR bond cost responsibilities, kWh consumption, and over/underpayments. [Source: Southern California Edison, Tariff, Revised Cal. PUC Sheet No. 32855-E].
Direct Access Cost Responsibility Surcharge Tracking Account	Tracks the difference between: recorded DA CRS Revenues, and authorized DA CRS obligations; and tracks the difference between CRS revenues collected from the City Of Cerritos' Community Aggregation (CA) customers, and Cerritos' CA customers CRS obligations. [Source: Southern California Edison, Tariff, Revised Cal. PUC Sheet No. 40656-E].
Reliability Investment Incentive Mechanism	Determines the difference between: actual (recorded) reliability-related capital additions; and the authorized level of reliability-related capital additions. [Source: Southern California Edison, Tariff, Revised Cal. PUC Sheet No. 46160-E].
Community Choice Aggregation Balancing Account	Records costs incurred to implement, support and maintain Community Choice Aggregation programs. [Source: Southern California Edison, Tariff, Revised Cal. PUC Sheet No. 44964-E].
Mohave Balancing Account	Tracks the difference between: recorded capital-related expenses, operating expenses and worker protection expenses associated with the Mohave Generating Station (Mohave); and the authorized Mohave revenue requirement. [Source: Southern California Edison, Tariff, Revised Cal. PUC Sheet No. 47630-E].
Pension Costs Balancing Account	Records the difference between: pension costs authorized by the Commission, and recorded pension expenses. [Source: Southern California Edison, Tariff, Revised Cal. PUC Sheet No. 47631-E].
Post Employment Benefits Other Than Pensions (PBOP) Costs Balancing Account	Records the difference between: PBOP costs authorized by the Commission, and recorded PBOP expenses. [Source: Southern California Edison, Tariff, Revised Cal. PUC Sheet No. 47632-E].
Edison SmartConnect Balancing Account	Records all costs incurred by the Company, up to $1,633.5 million (and corresponding revenue requirements), and to capture the operational benefits, associated with the Phase III Edison SmartConnect advanced metering deployment activities as authorized by the Commission. [Source: Southern California Edison, Tariff, Revised Cal. PUC Sheet No. 44310-E].
New System Generation Balancing Account	Records the benefits and costs of Power Purchase Agreements (PPAs) and Company-owned peaker generation units. [Source: Southern California Edison, Tariff, Revised Cal. PUC Sheet No. 47633-E].

SONGS 2 & 3 Steam Generator Removal and Disposal Balancing Account	Records the Company's ownership share of its actual San Onofre Nuclear Generating Station Unit 2 and Unit 3 steam generator replacement project removal and disposal costs revenue requirements. [Source: Southern California Edison, Tariff, Revised Cal. PUC Sheet No. 45404-E].
Solar PV Program Balancing Account	Records the actual incremental O&M and capital-related revenue requirement (i.e. depreciation, return on rate base, and applicable taxes) associated with the Solar PV Program. [Source: Southern California Edison, Tariff, Revised Cal. PUC Sheet No. 45458-E].
Medical Programs Balancing Account	Records the difference between: medical, dental and vision expenses authorized by the Commission, and recorded medical, dental and vision service plan expenses. [Source: Southern California Edison, Tariff, Revised Cal. PUC Sheet No. 47634-E].
Community Choice Aggregation Cost Responsibility Surcharge Tracking Account	Tracks the difference between Community Choice Aggregation Cost Responsibility Surcharge revenues; and Community Choice Aggregation customers' Cost Responsibility Surcharge obligations. [Source: Southern California Edison, Tariff, Revised Cal. PUC Sheet No. 37950-E].
Clean Technology Generation Balancing Account	Records up to $4.6 million of costs associated with the carbon sequestration evaluation and other commission approved costs. The Company shall record the costs in the CTGBA each month and transfer the December 31 balance in the CTGBA to the generation sub-account of the Base Revenue Requirement Balancing Account (BRRBA) for recovery annually. [Source: Southern California Edison, Tariff, Revised Cal. PUC Sheet No. 43893-E].
Base Revenue Requirement Balancing Account	Records the difference between the Company's authorized distribution and generation base revenue requirements and recorded revenues from authorized distribution and generation rates; and record other authorized and recorded costs authorized by the Commission. [Source: Southern California Edison, Tariff, Revised Cal. PUC Sheet No. 47635-E].
Energy Resource Recovery Account	Records the Company's: ERRA revenue, (2) utility retained generation (URG) fuel costs, and (3) purchased power-related expenses, excluding California Department of Water Resources power contract expenses. Electric Energy Transaction Administration (EETA) costs should be excluded from the ERRA. The Company is authorized to record the above-market cost of qualifying facilities and purchase agreements in the ERRA. The Company established the SO_2 Credit-Account (SO2CSA) to track the revenue and cost associated with the sale and purchase of both Mohave and non-Mohave SO_2 allowances. [Source: Southern California Edison, Tariff, Revised Cal. PUC Sheet No. 43213-E].
Post Test Year Ratemaking Mechanism	Provides the Company with additional authorized distribution and generation base revenues during 2010 and 2011. [Source: Southern California Edison, Tariff, Revised Cal. PUC Sheet No. 44986-E].
Cost of Capital Mechanism	The purpose of the Cost of Capital Mechanism (CCM) is to adjust the Company's authorized cost of capital (return on equity, preferred stock and long-term debt rates) for changes in interest rates between cost of capital applications. [Source: Southern California Edison, Tariff, Revised Cal. PUC Sheet No. 44218-E].
2010-2012 On Bill Financing Balancing Account	A "one-way" balancing account whose purpose is to record authorized OBF loan funding; OBF loan amounts; and OBF loan payment proceeds. [Source: Southern California Edison, Tariff, Revised Cal. PUC Sheet No. 46188-E].

Great Plains Energy, Inc. (GXP)

Kansas City Power & Light Company (Kansas)	
Energy Cost Adjustment (ECA)	Volumetric rate that recovers generation costs including fuel, purchased power, emission allowances, transmission costs. Rate is established monthly. [Source: Kansas City Power & Light - Kansas, Tariff, Schedule 2].
Energy Efficiency Rider	Recovers the costs associated with Commission-approved affordability, energy efficiency and demand response programs. Rider and the cost estimates are filed annually with the Commission. [Source: Kansas City Power & Light - Kansas, Tariff, Schedule 15].

IDACORP, Inc. (IDA)

Idaho Power Company (Idaho)	
Power Cost Adjustment	Monthly adjustment mechanism allowing the Company to recover 95% of the difference between projected power costs and normal power costs included in base rates. Cost variations are associated with water supply for hydro-electric production, wholesale energy prices, and retail load charges. [Source: Idaho Power - Idaho, Tariff, Schedule 55].
Energy Efficiency Rider	Recovers the cost of analysis and implementation of energy conservation and demand response programs. [Source: Idaho Power - Idaho, Tariff, Schedule 91].
Fixed Cost Adjustment (FCA) - Decoupling	The Company establishes the costs charged to customers based on a fixed cost per customer that is then allocated on based on units of consumption. The Fixed Cost Adjustment is the difference between the allowed fixed cost recovery and the actual fixed cost recovery, adjusted for normal weather. Actual sales are adjusted for weather, and there is a 3% cap on annual rate increases. The current FCA is calculated monthly and will expire on May 31, 2012 unless renewed by the Idaho Commission. [Source: Idaho Power - Idaho, Tariff, Schedule 54; SNL Financial].
Adjustment for Municipal Franchise Fees	Sets forth the charges such as license, privilege, franchise, business, occupation, operating, excise, sales or use of street taxes or other charges imposed on the Company by municipal corporations and billed separately by the Company to its Customers within the corporate limits of a municipality. [Source: Idaho Power - Idaho, Tariff, Schedule 95].
Idaho Power Company (Oregon)	
Power Cost Adjustment Mechanism (PCAM)	Annual adjustment allowing the Company to recover 90% of the difference between actual power costs and normal power costs included in base rates. The PCAM is subject to an earnings test with a deadband of 100 basis points. If the company earns less than its ROE by 100 basis points or more, the PCAM true up is a charge to customers. If the Company has earned in excess of 100 basis points more than its allowed ROE, the company is required to include the PCAM in a true-up balancing account as a credit to customers (back to a threshold of the authorized ROE plus 100 basis points). [Source: Idaho Power - Idaho, Tariff, Schedule 56].
Annual Power Cost Update (APCU)	Allows Idaho Power to reestablish its Oregon base net power supply costs annually, separate from a general rate case, and to forecast net power supply costs for the upcoming water year. [Source: Idaho Power - Idaho, Tariff, Schedule 55].
Depreciation Adjustment Rider	Recovers accelerated depreciation of the existing metering infrastructure that is replaced by AMI metering, less the revenue requirement impact of the revised depreciation rates. [Source: Idaho Power - Idaho, Tariff, Schedule 92].
Energy Efficiency Rider	Recovers the cost of analysis and implementation of energy conservation and demand response programs. [Source: Idaho Power – Idaho, Tariff, Schedule 91].

Integrys Energy Group, Inc.

Upper Peninsula Power Company (Michigan)	
Power Supply Cost Recovery	Recovers projected power supply costs. [Source: Upper Peninsula Power, Tariff, Schedule D1].
Energy Optimization Surcharge	Permits the adjustment of distribution rates, via the application of an Energy Optimization Surcharge, to allow recovery of the energy optimization alternative compliance payment made by the Company in compliance with Section 91(1) of 2008 Pa 295. [Source: Upper Peninsula Power, Tariff, Schedule D2].
Uncollectible Expense Tracking Mechanism	Allows for the deferral and subsequent recovery or refund of 80% of the difference between actual write-offs (net of recoveries) and bad debt expense included in utility rates, effective January 1, 2010. A settlement agreement approved in the Company's 2011 rate case requires the Company to terminate the UETM effective December 31, 2010, but retains the decoupling mechanism. [Source: Integrys Energy Group, Form 10-K for the fiscal year ended December 31, 2010, pg. 134].
Decoupling	Approved for all customer groups by the Michigan Public Service Commission, effective January 1, 2010. [Source: Integrys Energy Group, Form 10-K for the fiscal year ended December 31, 2010, pg. 134].
Wisconsin Public Service Corp. (Michigan)	
Power Supply Cost Recovery	Recovers projected power supply and transmission service costs. [Source: Wisconsin Public Service, Tariff, Schedule D1].
Energy Optimization Surcharge	Permits the adjustment of distribution rates, via the application of an Energy Optimization Surcharge, to allow recovery of the energy optimization alternative compliance payment made by the Company in compliance with Section 91(1) of 2008 Pa 295. [Source: Wisconsin Public Service, Tariff, Schedule D13].
Wisconsin Public Service Corp. (Wisconsin)	
Adjustment for Cost of Fuel	Adjusts rates for the cost of fuel. [Source: Wisconsin Public Service, Tariff, Schedule ACF].
Electric Revenue Stabilization Mechanism	Four-year pilot program approved December 30, 2008, which allows the Company to defer and recover or refund in future rate proceedings all or a portion of the differences between the actual and authorized margin per customer impact of variations in volumes. The annual deferral or refund is limited to $14.0 million. The mechanism does not adjust for changes in volume resulting from changes in customer count and does not cover large commercial and industrial customers. [Source: Wisconsin Public Service, Tariff, Schedule ERSM].

Otter Tail Corporation (OTTR)

Otter Tail Power Company (Minnesota)	
Energy Adjustment Rider	Adjusts rates for the amount above or below the average cost of energy. The average cost of energy is based on the cost of energy during the two months immediately preceding the month when the cost of energy is calculated. Includes cost of fuel used in the Company's generating plants, the energy cost of purchased power, net energy cost of purchases from a cogeneration or small power production facility, and all Midwest ISO costs and revenues associated with retail sales. [Source: Otter Tail Power – Minnesota, Tariff, Section 13.01].
Conservation Improvement Project Rider	Adjusts rates for expenses associated with conservation improvement projects. Includes financial incentives awarded by the Minnesota Public Utilities Commission. [Source: Otter Tail Power, Tariff, Section 13.02].
Renewable Resource Cost Recovery Rider	Recovers the cost of renewable energy resources. [Source: Otter Tail Power – Minnesota, Tariff, Section 13.04].
Transmission Cost Recovery Rider	Recovers the cost of electric transmission. [Source: Otter Tail Power – Minnesota, Tariff, Section 13.05].
Otter Tail Power Company (North Dakota)	
Energy Adjustment Rider	Adjusts rates for the amount above or below the average cost of energy. The average cost of energy is based on the cost of energy during the four months immediately preceding the month when the cost of energy is calculated. Includes cost of fuel used in the Company's generating plants; the energy cost of purchased power including all Midwest ISO energy and ancillary service market charges; and the net energy cost of energy purchases from a renewable energy source including hydropower, wood, windpower, and biomass. [Source: Otter Tail Power – North Dakota, Tariff, Section 13.01].
Renewable Resource Cost Recovery	Recovers the cost of renewable energy resources. [Source: Otter Tail Power – North Dakota, Tariff, Section 13.04].
Big Stone II Cost Recovery Rider	Recovers costs associated with the Company's now terminated Big Stone II coal-fired generation facility. [Source: Otter Tail Power – North Dakota, Tariff, Section 13.06].
Otter Tail Power Company (South Dakota)	
Fuel Adjustment Clause Rider	Adjusts rates for the amount above or below the average cost of fuel. The average cost of fuel is based on the cost of fuel during the three months immediately preceding the month when the cost of energy is calculated. Includes the expense of fossil and other fuels, the Company's share of the expense of fossil fuel used in jointly owned or leased plants, the net energy cost of energy purchases when purchased on an economic dispatch basis, and the net cost of energy purchases from any facility utilizing wind or other renewable energy conversion systems for the generation of electric energy. [Source: Otter Tail Power – South Dakota, Tariff, Section 13.01].
Energy Efficiency Partnership Cost Recovery Rider	Adjusts rates for expenses associated with energy efficiency projects. Includes financial incentives awarded by the South Dakota Public Utilities Commission. [Source: Otter Tail Power – South Dakota, Tariff, Section 13.04].
Transmission Cost Recovery Rider	Recovers the cost of electric transmission. [Source: Otter Tail Power – South Dakota, Tariff, Section 13.05].

Pinnacle West Capital (PNW)

Arizona Public Service Company	
Renewable Energy Standard (RES) Adjustment Charge	A component of the Environmental Benefits Surcharge that collects costs associated with compliance to state renewable energy standards. Related charges and caps may be modified periodically by the Commission. [Source: Arizona Public Service, Tariff, Adjustment Schedule RES].
Environmental Improvement Surcharge	Recovers costs associated with investment and expenses for environmental improvements at Company generation facilities that the ACC has approved for recovery. Improvements must have been implemented on or after January 1, 2004, and include ongoing environmental improvement projects and environmental improvement projects designed to comply with prospective required environmental standards. [Source: Arizona Public Service, Tariff, Adjustment Schedule EIS].
Demand Side Management Adjustment Charge	A component of the Environmental Benefits Charge that recovers costs related to Commission approved demand side management programs above those costs included in base rates. The Charge is collected on a monthly basis. [Source: Arizona Public Service, Tariff, Adjustment Schedule DSMAC-1].
Power Supply Adjustment (PSA)	Recovers costs associated with fuel and purchased power not otherwise in base rates. [Source: Arizona Public Service, Tariff, Adjustment Schedule PSA-1; SNL Financial].
Transmission Cost Adjustment (TCA)	Provides flow through recovery of FERC-approved transmission rate changes. [Source: Arizona Public Service, Tariff, Adjustment Schedule TCA-1; SNL Financial].
System Benefits Adjustment Clause	Provides for recovery of prudent costs associated with system benefits programs. [Source: SNL Financial].

Portland General Electric Company (POR)

Portland General Electric Company	
Regulatory Adjustments	Reflects the effects of regulatory adjustments such as net gains from nonrecurring property transactions, and costs associated with implementation of SB 1149 as well as miscellaneous nonrecurring items. [Source: Portland General, Tariff, Schedule 105].
Multnomah County Business Income Tax Recovery	Recovers from Customers in Multnomah County the Multnomah County Business Income Tax (MCBIT) paid by the Company and to establish an associated Automatic Adjustment Clause and balancing account. The Balancing Account will be maintained to accrue any difference between the Company's actual local income tax liability and the amount collected from Customers under this Schedule. Any over or under-collection reflected in this account will be considered when the MCBIT Rate is established. The Balancing Account will accrue interest at the Commission-authorized rate for deferred accounts. [Source: Portland General, Tariff, Schedule 106].
Public Purpose Charge	Designed to collect funds associated with activities mandated for the benefit of the general public, such as energy conservation, new market transformation, new renewable energy resources and new low-income weatherization. [Source: Portland General, Tariff, Schedule 108].
Energy Efficiency Customer Service	Designed to fund Company activities associated with enabling customers to achieve energy efficiency, including but not limited to project facilitation, technical assistance, education and assistance to support programs administered by the Energy Trust of Oregon. [Source: Portland General, Tariff, Schedule 110].
Energy Efficiency Funding Adjustment	Designed to fund the acquisition of additional Energy Efficiency Measures for the benefit of the Company's customers, pursuant to the Oregon Renewable Energy Act, through programs administered by the Energy Trust of Oregon. [Source: Portland General, Tariff, Schedule 109].
Renewable Resources Automatic Adjustment Clause	Recovers the revenue requirements of qualifying Company-owned or contracted new renewable energy resource projects (including associated transmission) not otherwise included in rates. Additional new renewable projects may be incorporated into this schedule as they are placed in service. [Source: Portland General, Tariff, Schedule 122].
Sales Normalization Adjustment (SNA) - Decoupling	Establishes balancing accounts and rate adjustment mechanisms to track and mitigate a portion of the transmission, distribution and fixed generation revenue variations caused by variations in applicable Customer Energy usage. Reconciles on a monthly basis, differences between The monthly revenues resulting from applying distribution, transmission and fixed generation charges (Fixed Charge Energy Rate) to weather-normalized kWh Energy sales, and The Fixed Charge Revenues that would be collected by applying the Monthly Fixed Charge per Customer and to the numbers of active Customers, respectively, for each month. [Source: Portland General, Tariff, Schedule 123].
Annual Power Cost Update	Rates are adjusted annually to account for changes in the Company's projected Net Variable Power Costs. The rate adjustment will be based on the Adjusted NVPC less the NVPC revenues that would occur at the NVPC prices determined in the Company's most recent general rate case applied to forecast loads used to determine changes in Net Variable Power Costs. [Source: Portland General, Tariff, Schedule 125].

Annual Power Cost Variance Mechanism	Recognizes in rates part of the difference between actual and forecasted Net Variable Power Costs for a given year. The Company recovers 90% of the Annual Power Cost Variance, subject to the earnings test. [Source: Portland General, Tariff, Schedule 126].
Demand Response Cost Recovery Mechanism	Recovers expenses associated with the implementation and operation (on a pilot basis) of an automated demand response program not otherwise included in rates. Rate adjustments will commence on January 1, 2012. [Source: Portland General, Tariff, Schedule 135].
Short-Term Transition Adjustment	Calculates the Short-Term Transition Adjustment to reflect the results of an ongoing valuation under OAR 860-038-0140. The Short-Term Transition Adjustment will reflect the difference between the Energy Charge(s) under the Cost of Service option and the market price of power for the period of the adjustment applied to the load shape of the applicable schedule. [Source: Portland General, Tariff, Schedule 128].
Long-Term Transition Cost Adjustment	Calculates the Long-Term Transition Adjustment applicable to large non-residential customers. Annually, changes in fixed generation revenues resulting from either return to or departure from cost of service pricing relative to the Company's most recent general rate case will be incorporated into the System Usage Charges of the large non-residential rate schedules. [Source: Portland General, Tariff, Schedule 129].
Underground Conversion Cost Recovery	Recovers costs incurred by the Company to convert electric facilities from overhead to underground from customers within the boundaries of the local government requiring such conversion at the Company's expense. [Source: Portland General, Tariff, Schedule 142].
Boardman Power Plant Operating Life Adjustment	Provides for recovery of the incremental revenue requirement effect of a shortened operating life for PGE's Boardman plant. [Source: Portland General, Tariff, Schedule 145-1 through 145-3].

Southern Company (SO)

Alabama Power Company	
Adjustment for Commercial Operation of Certificated New Plant (Rate CNP)	Designed to recover costs associated with: • A generating facility that has been granted a certificate of convenience and necessity by the Alabama Public Service Commission (AL PSC), • A power purchase arrangement that has been granted a certificate of convenience and necessity by the AL PSC, or • Compliance with environmental laws, regulations, or other such mandates. [Source: Alabama Power, Tariff, Rate CNP].
Energy Cost Recovery (ECR) Rate	Provides the Company with a means to recover fuel costs, net purchased power costs, and hedging costs associated with fuel purchases. [Source: Alabama Power, Tariff, Rate ECR].
Energy Cost Recovery Rate Differential Factors	Captures the effects of energy losses along the service chain, as well as the effect of seasonal differentials associated with costs recovered under ECR (above). [Source: Alabama Power, Tariff, Rate RDF].
Natural Disaster Reserve Rate Rider (NDR)	Designed to adjust monthly billings to address the financial impact of operating and maintenance (O&M) expenses attributable to certain natural disasters. [Source: Alabama Power, Tariff, Rate NDR].
Rate Stabilization and Equalization Factor (RSE)	Lessens the impact, frequency and size of retail rate increase requests by permitting the Company to adjust its charges more readily to achieve the rate of return authorized by the AL PSC. Charges are increased if projections for the upcoming year show that the designated rate of return range will not be met, and are decreased if projections show that the designated rate of return range will be exceeded. [Source: Alabama Power, Tariff, Rate RSE].
Tax Adjustment	In the event of a change (increase or decrease) in the composite federal and state income tax rate that is not accounted for in calculations used to establish the base rates set forth in the Company's current retail rate schedules, each electric service bill will be increased or decreased by applying thereto an "Income Tax Adjustment Percentage." The Income Tax Adjustment Percentage shall capture the effect of the change in the composite tax rate using the Company's original projection of its twelve (12) months ending operations for the subject rate year, as submitted to the Commission in the prior year. The Income Tax Adjustment Percentage shall be applied to electric service bills as soon as practicable after such tax rate change becomes effective and shall remain in effect until the Company's base rates are adjusted to include the change in federal and/or state income tax rates. [Source: Alabama Power, Tariff, Rate T].
Georgia Power Company	
Fuel Cost Recovery Rider / Time of Use Fuel Cost Recovery	Generally provides for the recovery of fuel and emissions costs associated with wholly or partially company-owned generation, net cost of energy purchases and other costs associated with the procurement of fuel. [Source: Georgia Power, Tariff, Recovery Schedule FCR-22 and TOU-FCR-2].
Environmental Compliance Cost Recovery Rider	Recovers capital costs and O&M costs associated with government mandated environmental costs. [Source: Georgia Power, Tariff, Recovery Schedule ECCR-2].

Demand Side Management Residential (DSM-R) Rider	Collects the projected program costs approved and certified residential DSM programs, as well as an additional sum amount for certified residential Demand Side Management (DSM) programs. [Source: Georgia Power, Tariff, Recovery Schedule DSM-R-3].
Demand Side Management Commercial (DSM-C) Rider	Collects the projected program costs for approved and certified commercial DSM programs, as well as an additional sum amount for approved and certified Commercial DSM programs. [Source: Georgia Power, Tariff, Recovery Schedule DSM-C-2].
Nuclear Construction Cost Recovery	Recovers the cost of financing associated with the construction of a nuclear generating plant which has been certified by the Commission. The Georgia Nuclear Financing Act and the Georgia PSC certification of Plant Vogtle Units 3 and 4 allows Georgia Power to recover financing costs for construction of the new nuclear units during the construction period beginning in 2011. [Source: Georgia Power, Tariff, Recovery Schedule NCCR-2].
Municipal Franchise Fee	Provides recovery of municipal franchise fees from its customers. The recovery fee is updated annually. [Source: Georgia Power, Tariff, Recovery Schedule MFF-2].
Local Tax Adjustment	If any political subdivision of the state or any taxing district collects or receives from the Company any payment whether in money, service, or other thing of value; (1) for or by reason of the use of the streets, alleys, or public places of the political subdivision or taxing district, or (2) for or by reason of any license, privilege, inspection, franchise tax, fee, charge, or other imposition, the aggregate amount of such payments shall be billed insofar as practicable, pro rata to the customers within such political subdivision, taxing district or part of either in which such payments are applicable, allocated among such customers on the basis of the revenue derived by the Company from each such customer. [Source: Georgia Power, Tariff, Recovery Schedule LT-1].
Alternative Rate Plan	On December 21, 2010, the Georgia PSC approved the 2010 ARP. If at any time during the term of the 2010 ARP, Georgia Power projects that retail earnings will be below 10.25% for any calendar year, it may petition the Georgia PSC for the implementation of an Interim Cost Recovery (ICR) tariff to adjust Georgia Power's earnings back to a 10.25% retail ROE. In lieu of requesting implementation of an ICR tariff, or if the Georgia PSC chooses not to implement the ICR, Georgia Power may file a full rate case. [Sources: Southern Company, SEC Form 10-K February 25, 2011; SNL Financial].
Gulf Power Company	
Cost Recovery Clause – Fossil Fuel and Purchased Power	Gulf Power files a rate clause request annually with the Florida Public Service Commission (FPSC) to recover costs associated with changing efficiency, cost of fossil fuel, and cost of purchased power. Revenues are adjusted for differences between recoverable costs and amounts actually recovered in current rates. [Source: Gulf Power, Tariff, Rate Schedule CR].
Purchased Power Capacity Cost Recovery Clause	Recovers payments made by the Company for capacity, net of revenues received by the Company for capacity sales. [Source: Gulf Power, Tariff, Rate Schedule PPCC].
Energy Conservation Cost Recovery	Gulf Power files a rate clause request annually with the FPSC to recover costs associated with energy conservation. Revenues are adjusted for differences between recoverable costs and amounts actually recovered in rates. [Source: Gulf Power, Tariff, Rate Schedule ECC].

Tax Adjustment	Bills shall be increased to offset the applicable proportionate part of any taxes, assessments, license fees or rentals against the Company's property imposed by any Government Authority in excess of those in effect December 31, 1990, which are assessed on the basis of poles, meters or customers or the price of or revenues from electric energy or service sold or the volume of energy generated or purchased for sale or sold. [Source: Gulf Power, Tariff, Section No. VI, Sheet No. 6.37].
Environmental Cost Recovery Clause	Recovers certain environmental investments and expenses that are not being recovered through base rates. [Source: Gulf Power, Tariff, Rate Schedule ECR].
Mississippi Power Company	
Fuel Cost Recovery Clause	Adjusts rates associated with any over/under collections associated with ad valorem taxes. [Source: Mississippi Power, Tariff, Rate Schedule ATA-1].
Energy Cost Management Clause	Fuel cost recovery provisions are adjusted annually to reflect increases or decreases in such costs. Includes a true-up adjustment for any over/under collection in the twelve month period immediately preceding the calculation month. [Source: Mississippi Power, Tariff, Rate Schedule FCR-1].
Performance Evaluation Plan	Recovers budgeted transaction costs for entering forward or financial contracts such as option premiums for both gas and electricity futures contracts and budgeted gas transportation and electricity transmission necessary to meet futures contract obligations for a twelve month period. Includes a true-up adjustment for any over/under collection in the twelve month period immediately preceding the calculation month. [Source: Mississippi Power, Tariff, Rate Schedule ECM-1].
Environmental Compliance Overview Plan	Annually on or before November 15, a determination will be made as to whether or not the Company's revenues should be increased, decreased, or remain the same. Based on a twelve month ending Projected Retail Return on Investment as well as the Company's Performance Rating and a Range of No Change. No annual revenue adjustment may exceed 4.00%. [Source: Mississippi Power, Tariff, Rate Schedule PEP-5].
System Restoration Rider (SRR)	Approved environmental compliance costs are recovered through cost recovery provisions. Within limits, these rates are adjusted to reflect increases or decreases in such costs as required. [Source: Mississippi Power, Tariff, Rate Schedule ECO-1].
Ad Valorem Tax Adjustment	Allows recovery of costs associated with property damage caused by severe storms. [Source: Mississippi Power, Tariff, Rate Schedule SRR].

Westar Energy, Inc. (WR)

Northern and Southern Region	
Environmental Cost Recovery Rider (ECRR)	Designed to recover annual capital investment-related revenue requirements that are associated with Westar's Environmental Improvement Projects. The ECRR is collected on a monthly basis and includes an annual true-up. [Source: Westar Energy, Tariff, Schedule ECRR].
Fuel Charge / Retail Energy Cost Adjustment (RECA)	Includes costs incurred in production of electricity, as well as the Off-system Sales Adjustment, which credits profits from wholesale sales to retail customers. The RECA recovers differences in costs associated with the fuel costs to produce electricity, purchased power cost, emission allowance costs, and the off-system sales adjustment, which credits profits from wholesale sales to retail customers. [Source: Westar Energy, Tariff, Schedule RECA].
Transmission Delivery Charge	Includes costs related to the construction and maintenance of Westar Energy's transmission system and the unbundling of FERC-regulation transmission charges. [Source: Westar Energy, Tariff, Schedule TDC].
Property Tax Surcharge	The Company shall collect or refund the difference between the actual property tax and the amount approved in its most recent rate case in 2010, subject to annual true-up. [Source: Westar Energy, Tariff, Schedule PTS].
Tax Adjustment	Provides for the recovery of any franchise, occupation, business, sales, license, excise, privilege or similar taxes or charges imposed on the Company that are based on the sale of electric service to customers, the amount of electric energy sold to customers or the gross receipts or revenues to the Company. [Source: Westar Energy, Tariff, Schedule TA].
Energy Efficiency Rider	Designed to recover costs associated with Commission-approved energy efficiency and demand response programs deferred but not recovered. The Company accumulates and defers for future recovery costs related to its various energy efficiency programs. The Company will amortize such costs over a one-year period. The Company does not earn a return on this asset. [Sources: Westar Energy, Tariff, Schedule EER; SNL Financial].

Operating Utility	CWIP in Rate Base?
Union Electric Company (Missouri)	Prohibited by law (§393.135)
American Electric Power Company, Inc. (AEP)	
AEP Texas Central Company (Texas)	Generally prohibited; utility must demonstrate need to maintain financial integrity; not permitted since early 1990s
AEP Texas North (Texas)	Generally prohibited; utility must demonstrate need to maintain financial integrity; not permitted since early 1990s
Appalachian Power Company (Virginia)	Permitted by law (§56-585.1) for certain generation facilities; generally permitted by the State Corporation Commission for facilities that will be commercially operable within one year of the end of the test year
Columbus Southern Power (Ohio)	Permitted by law (§4909.15) if the project is at least 75 percent complete, non-pollution control CWIP cannot exceed 10 percent of total rate base excluding CWIP, pollution control CWIP can account for an additional 10 percent of rate base
Indiana Michigan Power (Indiana)	Permitted by law (§8-1-2-6.8) for qualified pollution control equipment
Indiana Michigan Power (Michigan)	Permitted by law (§460.6s) for certain generation facilities exceeding $500 million
Kentucky Power Company (Kentucky)	Generally permitted
Kingsport Power Company (Tennessee)	Generally permitted
Ohio Power Company (Ohio)	Permitted by law (§4909.15) if the project is at least 75 percent complete, non-pollution control CWIP cannot exceed 10 percent of total rate base excluding CWIP, pollution control CWIP can account for an additional 10 percent of rate base
Public Service Company of Oklahoma (Oklahoma)	Permitted by Corporation Commission rules (165:35-38-3 and 165:35-38-4) for transmission upgrades and capital expenditures to meet environmental requirements; generally permitted for facilities that will be placed in service within six months of the end of the test year and on CWIP associated with the replacement of, or improvements to, existing plant
Southwestern Electric Power (Arkansas)	Generally prohibited
Southwestern Electric Power (Louisiana)	Permitted by Louisiana Public Service Commission rule (Docket No. R-29712) for nuclear generation facilities; otherwise, permitted on occasion

Southwestern Electric Power (Texas)	Generally prohibited; utility must demonstrate need to maintain financial integrity; not permitted since early 1990s
Wheeling Power (West Virginia)	Generally permitted
Cleco Corporation (CNL)	
Cleco Power LLC (Louisiana)	Permitted by Louisiana Public Service Commission rule (Docket No. R-29712) for nuclear generation facilities; otherwise, permitted on occasion
Edison International (EIX)	
Southern California Edison Co. (California)	Prohibited by law (Public Utilities Code §454.8)
Great Plains Energy Inc. (GXP)	
Kansas City Power & Light Co. (Kansas)	Permitted by law (§66-128) for nuclear generation facilities; otherwise, generally permitted
Kansas City Power & Light Co. (Missouri)	Prohibited by law (§393.135)
KCP&L Greater Missouri Operations Co. (Missouri)	Prohibited by law (§393.135)
IDACORP, Inc. (IDA)	
Idaho Power Company (Idaho)	Prohibited by law (§61-502A) unless the public interest will be served by the inclusion of CWIP in rate base
Idaho Power Company (Oregon)	Prohibited by law (§757.355)
Integrys Energy Group, Inc.	
Upper Peninsula Power Company (Michigan)	Permitted by law (§460.6s) for certain generation facilities exceeding $500 million
Wisconsin Public Service Corp. (Michigan)	Permitted by law (§460.6s) for certain generation facilities exceeding $500 million
Wisconsin Public Service Corp. (Wisconsin)	Prohibited; but the Public Service Commission of Wisconsin typically allows for a cash return on 50 percent of CWIP through an adder to the return on rate base
Otter Tail Corporation (OTTR)	
Otter Tail Power Co. (Minnesota)	Permitted by law (§216B.16, §216B.683, and §216B.1645) for mercury emissions reduction projects, certain other emissions reductions projects, certain renewable energy projects, and certain transmission projects
Otter Tail Power Co. (North Dakota)	Permitted by law (§49-05-04.2, §49-05-04.3, and §49-06-02) for transmission projects, federally-mandated environmental compliance projects, and

	for new and existing generation facilities that use North Dakota lignite
Otter Tail Power Co. (South Dakota)	Permitted by law (§49-34A-98) for environmental compliance and transmission projects, but never permitted by the South Dakota Public Utilities Commission; otherwise generally prohibited
Pinnacle West Capital Corp. (PNW)	
Arizona Public Service Co. (Arizona)	Generally prohibited
Portland General Electric Co. (POR) (Oregon)	Prohibited by law (§757.355)
Southern Company (SO)	
Alabama Power Company (Alabama)	Generally prohibited
Georgia Power Company (Georgia)	Permitted by law (§46-2-25) for nuclear generation facilities; otherwise, generally prohibited
Gulf Power Company (Florida)	Permitted by law (§366.93) for nuclear and integrated gasification combined-cycle generation facilities
Mississippi Power Company (Mississippi)	Permitted by law (§77-3-103 and §77-3-105) for coal-fired generation facilities greater than 300 MW and nuclear generation facilities greater than 800 MW; otherwise, generally prohibited
Westar Energy, Inc. (WR)	
Northern & Southern Region (Kansas)	Permitted by law (§66-128) for nuclear generation facilities; otherwise, generally permitted

Sources: SNL Financial, State Commission Summaries, accessed January 2012; Regulatory Research Associates, Special Report, Construction Work in Progress, April 7, 2009; and Regulatory Research Associates, Special Report, Pre-Approval of Regulated Utility Generation Investment, May 13, 2010.

Operating Utility	Interim Rates Allowed?
Union Electric Company (Missouri)	Permitted if utility demonstrates an emergency; rarely requested or authorized
American Electric Power Company, Inc. (AEP)	
AEP Texas Central Company (Texas)	Permitted if the Commission has failed to make a final determination before the 151st day after the date the rate change would otherwise be effective (Sec 36.110)
AEP Texas North (Texas)	Permitted if the Commission has failed to make a final determination before the 151st day after the date the rate change would otherwise be effective (Sec 36.110)
Appalachian Power Company (Virginia)	Permitted in the context of prolonged fuel, purchased power, and other rate mechanism proceedings
Columbus Southern Power (Ohio)	Permitted if utility demonstrates a financial emergency
Indiana Michigan Power (Indiana)	Permitted if utility demonstrates a financial emergency; rarely requested or authorized;
Indiana Michigan Power (Michigan)	Permitted 180 days after filing, if utility utilizes historical test year; prohibited if utility utilizes forecasted test year until beginning of test year
Kentucky Power Company (Kentucky)	Permitted if utility demonstrates material impairment to credit profile or operations; rarely requested or authorized
Kingsport Power Company (Tennessee)	Permitted if utility demonstrates a financial emergency; rarely requested or authorized
Ohio Power Company (Ohio)	Permitted if utility demonstrates a financial emergency
Public Service Company of Oklahoma (Oklahoma)	Permitted at Corporation Commission's discretion; rarely requested
Southwestern Electric Power (Arkansas)	Permitted for the recovery of government-required health, safety, and environmental expenditures if utility demonstrates immediate need; rarely requested or authorized
Southwestern Electric Power (Louisiana)	Permitted; rarely requested
Southwestern Electric Power (Texas)	Permitted if the Commission has failed to make a final determination before the 151st day after the date the rate change would otherwise be effective (Sec 36.110)
Wheeling Power (West Virginia)	Permitted; rarely requested

Cleco Corporation (CNL)	
Cleco Power LLC (Louisiana)	Permitted; rarely requested
Edison International (EIX)	
Southern California Edison Co. (California)	Permitted; rarely requested
Great Plains Energy Inc. (GXP)	
Kansas City Power & Light Co. (Kansas)	Permitted; rarely requested
Kansas City Power & Light Co. (Missouri)	Permitted if utility demonstrates an emergency; rarely requested or authorized
KCP&L Greater Missouri Operations Co. (Missouri)	Permitted if utility demonstrates an emergency; rarely requested or authorized
IDACORP, Inc. (IDA)	
Idaho Power Company (Idaho)	Permitted if utility demonstrates a financial emergency or immediate need; rarely requested
Idaho Power Company (Oregon)	Permitted if utility is under severe financial stress
Integrys Energy Group, Inc.	
Upper Peninsula Power Company (Michigan)	Permitted 180 days after filing, if utility utilizes historical test year; prohibited if utility utilizes forecasted test year until beginning of test year
Wisconsin Public Service Corp. (Michigan)	Permitted 180 days after filing, if utility utilizes historical test year; prohibited if utility utilizes forecasted test year until beginning of test year
Wisconsin Public Service Corp. (Wisconsin)	Permitted; rarely requested
Otter Tail Corporation (OTTR)	
Otter Tail Power Co. (Minnesota)	Permitted 60 days after filing; frequently authorized
Otter Tail Power Co. (North Dakota)	Permitted within 60 days of filing; frequently authorized
Otter Tail Power Co. (South Dakota)	Permitted if South Dakota Public Utilities Commission does not issue a decision within six months of a utility's filing
Pinnacle West Capital Corp. (PNW)	
Arizona Public Service Co. (Arizona)	Permitted if utility demonstrates a financial emergency
Portland General Electric Co. (POR) (Oregon)	Permitted if utility is under severe financial stress
Southern Company (SO)	
Alabama Power Company (Alabama)	Permitted if utility demonstrates a financial

	emergency
Georgia Power Company (Georgia)	Permitted; rarely requested
Gulf Power Company (Florida)	Permitted; frequently authorized
Mississippi Power Company (Mississippi)	Permitted; rarely requested
Westar Energy, Inc. (WR)	
Northern & Southern Region (Kansas)	Permitted; rarely requested

Source: SNL Financial, State Commission Summaries, accessed January 2012.

Operating Utility	Test Year
Union Electric Company (Missouri)	Historic with known and measurable changes
American Electric Power Company, Inc. (AEP)	
AEP Texas Central Company (Texas)	Historic with certain post-test year plant additions and retirements
AEP Texas North (Texas)	Historic with certain post-test year plant additions and retirements
Appalachian Power Company (Virginia)	Historic with known and measurable changes
Columbus Southern Power (Ohio)	Partially forecasted
Indiana Michigan Power (Indiana)	Historic with known and measurable changes
Indiana Michigan Power (Michigan)	Forecasted
Kentucky Power Company (Kentucky)	Historic with known and measurable changes; or forecasted test year permitted by statute
Kingsport Power Company (Tennessee)	Forecasted
Ohio Power Company (Ohio)	Partially forecasted
Public Service Company of Oklahoma (Oklahoma)	Historic with known and measurable changes
Southwestern Electric Power (Arkansas)	Historic with known and measurable changes; or partially forecasted
Southwestern Electric Power (Louisiana)	Historic
Southwestern Electric Power (Texas)	Historic with adjustments for certain post-test year plant additions and retirements
Wheeling Power (West Virginia)	Historic with known and measurable changes
Cleco Corporation (CNL)	
Cleco Power LLC (Louisiana)	Historic
Edison International (EIX)	
Southern California Edison Co. (California)	Forecasted
Great Plains Energy Inc. (GXP)	
Kansas City Power & Light Co. (Kansas)	Historic with known and measurable changes
Kansas City Power & Light Co. (Missouri)	Historic with known and measurable changes
KCP&L Greater Missouri Operations Co. (Missouri)	Historic with known and measurable changes
IDACORP, Inc. (IDA)	
Idaho Power Company (Idaho)	Historic with known and measurable changes; or partially forecasted
Idaho Power Company (Oregon)	Partially or fully forecasted
Integrys Energy Group, Inc.	

Upper Peninsula Power Company (Michigan)	Forecasted
Wisconsin Public Service Corp. (Michigan)	Forecasted
Wisconsin Public Service Corp. (Wisconsin)	Forecasted
Otter Tail Corporation (OTTR)	
Otter Tail Power Co. (Minnesota)	Forecasted
Otter Tail Power Co. (North Dakota)	Historic, partially forecasted, or fully forecasted
Otter Tail Power Co. (South Dakota)	Historic with known and measurable changes
Pinnacle West Capital Corp. (PNW)	
Arizona Public Service Co. (Arizona)	Historic with known and measurable changes
Portland General Electric Co. (POR) (Oregon)	Partially or fully forecasted
Southern Company (SO)	
Alabama Power Company (Alabama)	Historic with known and measurable changes; or forecasted under rate stabilization and equalization plans
Georgia Power Company (Georgia)	Forecasted
Gulf Power Company (Florida)	Partially or fully forecasted
Mississippi Power Company (Mississippi)	Forecasted
Westar Energy, Inc. (WR)	
Northern & Southern Region (Kansas)	Historic with known and measurable changes

Source: SNL Financial, State Commission Summaries, accessed January 2012.