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Missouri Public
Service Commission

DIRECT TESTIMONY

OF

ROBERT B. HEVERT

ON BEHALF OF

KANSAS CITY POWER & LIGHT COMPANY

Kansas City, Missouri
July 1, 2016

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GLOSSARY OF FREQUENTLY USED TERMS

TERM	DESCRIPTION
Beta Coefficient	A component of the CAPM that measures the risk of a given stock relative to the risk of the overall market.
Capital Asset Pricing Model (“CAPM”)	A risk premium-based model used to estimate the Cost of Equity, assuming the stock is added to a well-diversified portfolio. The CAPM assumes that investors are compensated for the time value of money (represented by the Risk-Free Rate), and risk (represented by the combination of the Beta Coefficient and the Market Risk Premium).
Constant Growth DCF Model	A form of the DCF model that assumes cash flows will grow at a constant rate, in perpetuity. The model simplifies to a form that expresses the Cost of Equity as the sum of the expected dividend yield and the expected growth rate.
Cost of Equity	The return required by investors to invest in equity securities. The terms “Return on Equity” and “Cost of Equity” are used interchangeably.
Discounted Cash Flow (“DCF”) Model	A model used to estimate the Cost of Equity based on expected cash flows. The Cost of Equity equals the discount rate that sets the current market price equal to the present value of expected cash flows.
Dividend Yield	For a given stock, the current dividend divided by the current market price.
Gross Domestic Product (“GDP”)	The value of all finished goods and services produced within a country during a given period of time (usually measured annually). GDP includes public and private consumption, government expenditures, investments, and exports less imports.
Market Return	The expected return on the equity market, taken as a portfolio.
Market Risk Premium	The additional compensation required by investing in the equity market as a portfolio over the Risk-Free rate. The Market Risk Premium is a component of the CAPM.
Multi-Stage DCF Model	A form of the DCF model in which the rate of growth may change over different stages.
Proxy Group	A group of publicly traded companies used as the “proxy” for the subject company (in this case, KCP&L). Proxy companies are sometimes referred to as “Comparable Companies.”

TERM	DESCRIPTION
Return on Equity ("ROE")	The return required by investors to invest in equity securities. The terms "Return on Equity" and "Cost of Equity" are used interchangeably.
Risk-Free Rate	The rate of return on an asset with no risk of default.
Risk Premium	The additional compensation required by investors for taking on additional increments of risk. Risk Premium-based approaches are used in addition to the DCF and CAPM to estimate the Cost of Equity.
Terminal Growth	The expected rate of growth in the final, or terminal, stage of the Multi-Stage DCF model.
Treasury Inflation Protected Securities ("TIPS")	Treasury securities that are indexed to inflation. The principal value of TIPS increase with inflation and decrease with deflation, as measured by the Consumer Price Index.
Treasury Yield	The return on Treasury securities; the yield on long-term Treasury bonds is considered to be a measure of the Risk-Free Rate.

DIRECT TESTIMONY

OF

ROBERT B. HEVERT

Case No. ER-2016-0285

1 **I. INTRODUCTION AND SUMMARY OF RECOMMENDATIONS**

2 **Q: Please state your name and business address.**

3 A: My name is Robert B. Hevert and my business address is ScottMadden, Inc., 1900 West
4 Park Drive, Suite 250, Westborough, MA 01581.

5 **Q: On whose behalf are you submitting this testimony?**

6 A: I am submitting this direct testimony (“Direct Testimony”) before the Missouri Public
7 Service Commission (“Commission”) on behalf of Kansas City Power & Light
8 (“KCP&L” or the “Company”).

9 **Q: Please describe your educational background.**

10 A: I hold a Bachelor’s degree in Business and Economics from the University of Delaware,
11 and an MBA with a concentration in Finance from the University of Massachusetts. I
12 also hold the Chartered Financial Analyst designation.

13 **Q: Please describe your experience in the energy and utility industries.**

14 A: I have worked in regulated industries for over twenty-five years, having served as an
15 executive and manager with consulting firms, a financial officer of a publicly-traded
16 natural gas utility (at the time, Bay State Gas Company), and an analyst at a
17 telecommunications utility. In my role as a consultant, I have advised numerous energy
18 and utility clients on a wide range of financial and economic issues, including corporate

1 and asset-based transactions, asset and enterprise valuation, transaction due diligence,
2 and strategic matters. As an expert witness, I have provided testimony in approximately
3 150 proceedings regarding various financial and regulatory matters before numerous state
4 utility regulatory agencies and the Federal Energy Regulatory Commission. A summary
5 of my professional and educational background, including a list of my testimony in prior
6 proceedings, is included in Attachment A to my Direct Testimony.

7 II. PURPOSE AND OVERVIEW OF TESTIMONY

8 **Q: What is the purpose of your Direct Testimony?**

9 A: On behalf of KCP&L, my Direct Testimony presents evidence and provides a
10 recommendation regarding the Company's ROE,¹ and assesses the reasonableness of the
11 Company's capital structure and Cost of Debt. My analyses and conclusions are
12 supported by the data presented in Schedules RBH-1 through RBH-12, which have been
13 prepared by me or under my direction.

14 **Q: What are your conclusions regarding the appropriate Cost of Capital for the**
15 **Company?**

16 A: The Company's 5.51 percent Cost of Debt reflects the prevailing level of interest rates at
17 the times of issuance. As such, I conclude that the Company's proposed Cost of Debt is
18 reasonable and appropriate.

19 As to the Company's requested capital structure, which includes 49.88 percent
20 common equity and 50.12 percent long-term debt, I conclude that it is consistent with

¹ Throughout my Direct Testimony, I interchangeably use the terms "ROE" and "Cost of Equity."

1 those in place at similarly-situated utilities, whose capital structures include common
2 equity ratios in the range of 45.95 percent to 57.69 percent.

3 As to the Company's Cost of Equity, my analyses indicate that an ROE in the
4 range of 9.75 percent to 10.50 percent represents the range of equity investors' required
5 return for investment in vertically integrated electric utilities similar to the Company in
6 today's capital markets. I note that the Cost of Equity, which is the return required by
7 equity investors to assume the risks of ownership, is a market-based concept. As
8 discussed further in my testimony, as opposed to the earned return on common equity,
9 which is an accounting construct that can be observed in historical data, the Cost of
10 Equity is unobservable and must be estimated based on observable capital market data.
11 As a consequence, there may be differences of opinion among analysts as to the data,
12 assumptions and models used in the estimation process.

13 Further, I am aware that in KCP&L's most recent rate proceeding, the
14 Commission's Report and Order (Case No. ER-2014-0370) discussed the importance of
15 recommendations that rely on verifiable and independent market data, and accepted
16 market-based rate of return models.² As discussed throughout my Direct Testimony, the
17 analyses that underlie my recommended range consider the Commission's findings, and
18 reflect the types of analyses and data discussed in its Order. Based on the those analyses
19 and data, and in light of the KCP&L Order, it is my view that the Company's ROE is
20 within the range of 9.75 percent to 10.50 percent, and represents a reasonable, but
21 conservative range of the Company's Cost of Equity.

² *In the Matter of Kansas City Power & Light Company's Request for Authority to Implement a General Rate Increase for Electric Service*, Case No. ER-2014-0370, Report and Order (Sep. 2, 2015) ("KCP&L Order").

1 **Q: Please discuss the KCP&L Order as it relates to your recommended ROE for the**
2 **Company in this proceeding.**

3 A: My recommendation takes into consideration various aspects of the Commission's
4 findings in the KCP&L Order. In particular, the Commission found that ROEs between
5 9.40 percent and 9.60 percent represented "accurate estimate[s] of the current market cost
6 of capital for KCPL,"³ and determined that an ROE of 9.50 percent was reasonable.⁴ At
7 the same time, capital market conditions have evolved since KCP&L's last rate
8 proceeding; those changes should be reflected in the market-based return in this case. On
9 balance, given the current capital market environment, business risks faced by the
10 Company, and the Commission's findings in Case No. ER-2014-0370, I believe my
11 recommendation represents a proper (if not somewhat conservative) zone of
12 reasonableness, and that the Company's market-based Cost of Equity falls within that
13 range.

14 **Q: How does your recommendation compare to recently authorized returns?**

15 A: In the KCP&L Order, the Commission noted that it is appropriate to look to authorized
16 ROEs in other jurisdictions to evaluate the reasonableness of ROE recommendations.⁵
17 As shown in Chart 1, below, my recommendation is highly consistent with recently
18 authorized ROEs for vertically integrated electric utilities.

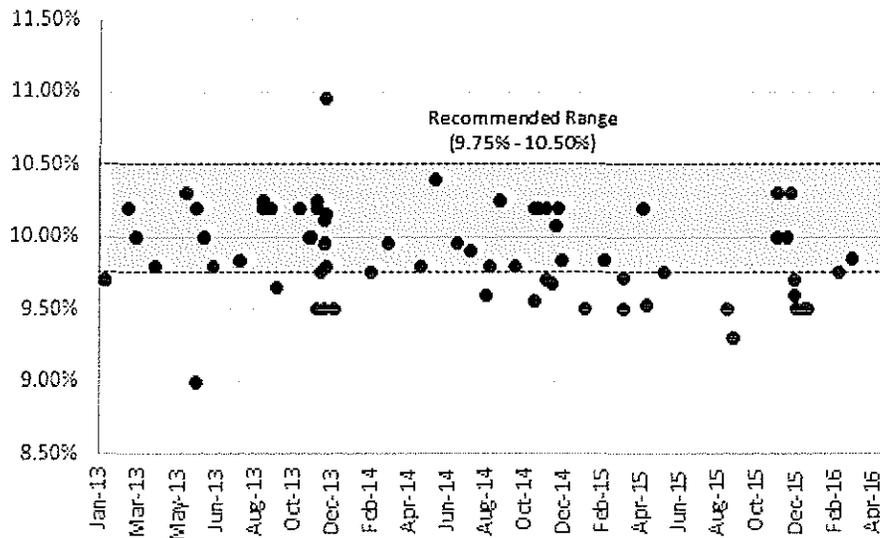
³ *Ibid.*, at 22.

⁴ *Ibid.*

⁵ *Ibid.*, at 19.

1

Chart 1: Authorized Returns⁶



2

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

5 **A:** Because all financial models are subject to various assumptions and constraints, equity
6 analysts and investors tend to use multiple methods to develop their return requirements.
7 I therefore relied on three widely-accepted approaches to develop my ROE
8 recommendation: (1) the Discounted Cash Flow (“DCF”) model, including the Constant
9 Growth, and Multi-Stage forms; (2) the Capital Asset Pricing Model (“CAPM”); and (3)
10 the Bond Yield Plus Risk Premium approach. As discussed in Sections V, VI and VII, I
11 considered the results of those methods in the context of both Company-specific, and
12 general capital market factors. Based on those analyses, I conclude that a range of 9.75
13 percent to 10.50 percent represents reasonable estimates of the Company’s Cost of
14 Equity.

⁶ Source: SNL Financial

1 **Q: How is the remainder of your Direct Testimony organized?**

2 **A:** The remainder of my Direct Testimony is organized as follows:

3 Section III – Provides a summary of issues regarding Cost of Equity estimation in
4 regulatory proceedings and discusses the regulatory guidelines pertinent to the
5 development of the cost of capital;

6 Section IV – Explains my selection of the proxy group used to develop my
7 analytical results;

8 Section V – Explains my analyses and the analytical bases for my ROE
9 recommendation;

10 Section VI – Provides a discussion of specific business risks and other
11 considerations that have a direct bearing on the Company's Cost of Equity;

12 Section VII – Highlights the current capital market conditions and their effect on
13 the Company's Cost of Equity;

14 Section VIII – Analyzes the Company's embedded Cost of Debt;

15 Section IX – Provides my analyses of the Company's capital structure and
16 presents the overall rate of return;

17 Section X – Summarizes my conclusions and recommendations.

III. SUMMARY OF ISSUES SURROUNDING COST OF EQUITY ESTIMATION IN REGULATORY PROCEEDINGS

1 Q: Before addressing the specific aspects of this proceeding, please provide an overview
2 of the issues surrounding the Cost of Equity in regulatory proceedings, generally.

3 A: In very general terms, the Cost of Equity is the return that investors require to make an
4 equity investment in a firm. That is, investors will only provide funds to a firm if the
5 return that they *expect* is equal to, or greater than, the return that they *require* to accept
6 the risk of providing funds to the firm. From the firm's perspective, that required return,
7 whether it is provided to debt or equity investors, has a cost. Individually, we speak of
8 the "Cost of Debt" and the "Cost of Equity;" together, they are referred to as the "Cost of
9 Capital."

10 The Cost of Capital (including the costs of both debt and equity) is based on the
11 economic principle of "opportunity costs." Investing in any asset, whether debt or equity
12 securities, implies a forgone opportunity to invest in alternative assets. For any
13 investment to be sensible, its expected return must be at least equal to the return expected
14 on alternative, comparable investment opportunities. Because investments with like risks
15 should offer similar returns, the opportunity cost of an investment should equal the return
16 available on an investment of comparable risk.

17 Although both debt and equity have required costs, they differ in certain
18 fundamental ways. Most noticeably, the Cost of Debt is contractually defined and can be
19 directly observed as the interest rate or yield on debt securities.⁷ The Cost of Equity, on
20 the other hand, is neither directly observable nor a contractual obligation. Rather, equity

⁷ The observed interest rate may be adjusted to reflect issuance or other directly observable costs.

1 investors have a claim on cash flows only after debt holders are paid; the uncertainty (or
2 risk) associated with those residual cash flows determines the Cost of Equity. Because
3 equity investors bear the “residual risk,” they take greater risks and require higher returns
4 than debt holders. In that basic sense, equity and debt investors differ: They invest in
5 different securities, face different risks, and require different returns.

6 Whereas the Cost of Debt can be directly observed, the Cost of Equity must be
7 estimated or inferred based on market data and various financial models. As discussed
8 throughout my Direct Testimony, each of those models is subject to certain assumptions,
9 which may be more or less applicable under differing market conditions. In addition,
10 because the Cost of Equity is premised on opportunity costs, the models typically are
11 applied to a group of “comparable” or “proxy” companies. The choice of models
12 (including their inputs), the selection of proxy companies, and the interpretation of the
13 model results all require the application of reasoned judgment. That judgment should
14 consider data and information that is not necessarily included in the models themselves.

15 In the end, the estimated Cost of Equity should reflect the return that investors
16 require in light of the subject company’s risks, and the returns available on comparable
17 investments. A given utility stock may require a higher return based on the risks to
18 which it is exposed relative to other utilities. That is, simply because utilities are viewed
19 as a “sector”, that does not mean that all utilities require the same return. The assessment
20 of relative risk, and its effect on the Cost of Equity necessarily requires the application of
21 reasoned, experienced judgment applied to a variety of data, much of which is qualitative
22 in nature.

1 **Q: Please now provide a brief summary of the regulatory guidelines established for the**
2 **purpose of determining the ROE.**

3 A: The United States Supreme Court (the “Court”) established the guiding principles for
4 establishing a fair return for capital in two cases: (1) *Bluefield Water Works and*
5 *Improvement Co. v. Public Service Comm’n of West Virginia*, 262 U.S. 679 (1923)
6 (“*Bluefield*”); and (2) *Federal Power Comm’n v. Hope Natural Gas Co.*, 320 U.S. 591
7 (1944) (“*Hope*”). In those cases, the Court recognized that the fair rate of return on
8 equity should be: (1) comparable to returns investors expect to earn on other investments
9 of similar risk; (2) sufficient to assure confidence in the company’s financial integrity;
10 and (3) adequate to maintain and support the company’s credit and to attract capital.

11 **Q: Does Missouri precedent provide similar guidance?**

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

15 The standard for rates is “just and reasonable,” a standard founded on
16 constitutional provisions, as the United States Supreme Court has
17 explained. But the Commission must also consider the customers.
18 Balancing the interests of investor and consumer is not reducible to a
19 single formula, and making pragmatic adjustments is part of the
20 Commission’s duty. Thus, the law requires a just and reasonable end,
21 but does not specify a means. The Commission is charged with
22 approving rate schedules that are as “just and reasonable” to
23 consumers as they are to the utility.⁸

24 Based on those standards, the authorized ROE should provide the Company with the
25 opportunity to earn a fair and reasonable return, and should enable efficient access to
26 external capital under a variety of market conditions.

1 In addition, the Missouri Court of Appeals provided the following guidance,
2 citing a federal court's observation:

3 The cases also recognize that the fixing of rates is a matter largely of
4 prophecy and because of this commissions, in carrying out their
5 functions, necessarily deal in what are called 'zones of reasonableness'
6 the result of which is that they have some latitude in exercising this
7 most difficult function.⁹

8 That is, the Commission has found it appropriate to consider both quantitative and
9 qualitative information when developing its zone of reasonableness, which has been
10 viewed as a range within 100 basis points of the national average.¹⁰ Further, Missouri
11 precedent notes that the authorized ROE must balance a utility's need to compensate
12 investors with the interest of consumers.¹¹ Consistent with Missouri precedent, I discuss
13 throughout my Direct Testimony that the estimation of the market required ROE, and the
14 zone of reasonableness, does not lend itself to a strict mathematical solution.

15 **Q: Why is it important for a utility to be allowed the opportunity to earn a return**
16 **adequate to attract equity capital at reasonable terms?**

17 **A:** A return that is adequate to attract capital at reasonable terms enables the utility to
18 provide service while maintaining its financial integrity. As discussed above, and in
19 keeping with the *Hope* and *Bluefield* standards, that return should be commensurate with
20 the returns expected elsewhere in the market for investments of equivalent risk. The
21 consequence of the Commission's order in this case, therefore, should be to provide

⁸ *In the Matter of KCP&L Greater Missouri Operations Company's Request for Authority to Implement a General Rate Increase for Electric Service*, Case No. ER-2012-0175, Report and Order (Jan. 9, 2013), at 11 ("2013 GMO Order").

⁹ KCP&L Order, at 21, citing *State ex rel. Laclede Gas Co. v. Public Service Commission*, 535 S.W.2d 561, 570 - 571 (Mo. App. 1976), quoting *Mountain States Tel. & Tel. Co. v. Public Util. Comm'n*, 345 F. Supp. 80 (D. Colo. 1972).

¹⁰ *State ex rel. Public Counsel v. Public Serv. Comm'n*, 274 S.W.3d 569, 574 (Mo. App. W.D. 2009).

¹¹ *State ex rel. Mo. Gas Energy v. Public Serv. Comm'n*, 186 S.W.3d 376, 383 (Mo. App. W.D. 2005).

1 KCP&L with the opportunity to earn a return on equity that is: (1) adequate to attract
2 capital at reasonable terms; (2) sufficient to ensure its financial integrity; and (3)
3 commensurate with returns on investments in enterprises having corresponding risks. To
4 the extent KCP&L is provided a reasonable opportunity to earn its market-based Cost of
5 Equity, neither customers nor shareholders should be disadvantaged. In fact, a return that
6 is adequate to attract capital at reasonable terms enables the Company to provide safe,
7 reliable electric utility service while maintaining its financial integrity.

8 **Q: How is the Cost of Equity estimated in regulatory proceedings?**

9 A: As noted earlier and as discussed later in more detail, the Cost of Equity is estimated by
10 the use of various financial models. By their very nature, those models produce a range
11 of results from which the ROE is estimated. Both practitioners and academics, however,
12 recognize that financial models simply are tools to be used in the ROE estimation
13 process, and that strict adherence to any single approach, or to the specific results of any
14 single approach, can lead to flawed or misleading conclusions. That position is
15 consistent with the *Hope* and *Bluefield* principle that it is the analytical result, as opposed
16 to the methodology, that is controlling in arriving at ROE determinations. Thus, a
17 reasonable ROE estimate appropriately considers alternative methodologies and the
18 reasonableness of their individual and collective results in the context of observable,
19 relevant market information.

IV. PROXY GROUP SELECTION

1 Q: As a preliminary matter, why is it necessary to select a group of proxy companies to
2 determine the Cost of Equity for the Company?

3 A: Since the ROE is a market-based concept, and KCP&L is not a publicly traded entity, it is
4 necessary to establish a group of comparable, publicly traded companies to serve as its
5 “proxy.” Even if the Company were a publicly traded entity, short-term events could bias
6 its market value during a given period of time. A significant benefit of using a proxy
7 group is that it moderates the effects of anomalous, temporary events associated with any
8 one company.

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

11 A: No. For example, the Constant Growth DCF approach defines the Cost of Equity as the
12 sum of the expected dividend yield and projected long-term growth. Despite the care
13 taken to ensure risk comparability, market expectations with respect to future risks and
14 growth opportunities will vary from company to company. Therefore, even within a
15 group of similarly-situated companies, it is common for analytical results to reflect a
16 seemingly wide range. Consequently, at issue is how to estimate the Cost of Equity from
17 within that range. Such a determination necessarily must consider a wide range of both
18 quantitative and qualitative information.

19 Q: Please provide a summary profile of KCP&L.

20 A: KCP&L, a wholly owned subsidiary of Great Plains Energy Incorporated (“GPE”),
21 provides electric service to approximately 527,000 retail customers in Missouri and

1 Kansas.¹² GPE's current long-term issuer credit rating from Standard & Poor's ("S&P")
2 is BBB+ (outlook: Stable) and Baa2 (outlook: Stable) from Moody's Investors Service
3 ("Moody's").¹³

4 **Q: How did you select the companies included in your proxy group?**

5 A: I began with the universe of companies that Value Line classifies as Electric Utilities, and
6 applied the following screening criteria:

- 7 • I excluded companies that do not consistently pay quarterly cash dividends;
- 8 • I excluded companies that were not covered by at least two utility industry equity
9 analysts;
- 10 • I excluded companies that do not have investment grade senior unsecured bond
11 and/or corporate credit ratings from S&P;
- 12 • I excluded companies that were not vertically-integrated, *i.e.* utilities that own and
13 operate regulated generation, transmission and distribution assets;
- 14 • I excluded any companies whose regulated operating income over the three most
15 recently reported fiscal years comprised less than 60.00 percent of the respective
16 totals for that company;
- 17 • I excluded any companies whose regulated electric operating income over the
18 three most recently reported fiscal years represented less than 60.00 percent of
19 total regulated operating income;¹⁴ and

¹² See Great Plains Energy Inc., SEC Form 10-K for year-end December 31, 2014, at 9.

¹³ Source: SNL Financial, Great Plains Energy Incorporated company profile.

¹⁴ In the KCP&L's most recent case (Case No. ER-2014-0370), I excluded companies whose regulated electric operating income over the three most recently reported fiscal years represented less than 90.00 percent of total regulated operating income. However, due to recent consolidation in the industry, that threshold would produce a relatively small group of proxy companies. As such, in this proceeding, I have lowered the threshold to 60.00 percent.

1 • I eliminated companies that are currently known to be party to a merger, or other
2 significant transaction.

3 **Q: Did you include GPE in your proxy group?**

4 A: No. To avoid the circular logic that would otherwise occur, it has been my consistent
5 practice to exclude the subject company (or its parent) from the proxy group.

6 **Q: What companies met those screening criteria?**

7 A: The criteria discussed above resulted in a proxy group of the following sixteen
8 companies:

9 **Table 1: Proxy Group Screening Results**

Company	Ticker
ALLETE, Inc.	ALE
Alliant Energy Corporation	LNT
Ameren Corporation	AEE
American Electric Power Company, Inc.	AEP
Avista Corporation	AVA
CMS Energy Corporation	CMS
DTE Energy Company	DTE
IDACORP, Inc.	IDA
NorthWestern Corporation	NWE
OGE Energy Corp.	OGE
Otter Tail Corporation	OTTR
Pinnacle West Capital Corporation	PNW
PNM Resources, Inc.	PNM
Portland General Electric Company	POR
SCANA Corporation	SCG
Xcel Energy Inc.	XEL

V. COST OF EQUITY ESTIMATION

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

2 A: Regulated utilities primarily use common stock and long-term debt to finance their
3 capital investments. The Weighted Average Cost of Capital weights the costs of the
4 individual sources of capital by their respective book values. While the Cost of Debt can
5 be directly observed, the Cost of Equity is market-based and, therefore, must be estimated
6 based on observable market information.

7 **Q: How is the required ROE determined?**

8 A: I estimated the ROE using analyses based on market data to quantify a range of investor
9 expectations of required equity returns. By their very nature, quantitative models
10 produce a range of results from which the market required ROE must be estimated. As
11 discussed throughout my Direct Testimony, that estimation must be based on a
12 comprehensive review of relevant data and information, and does not necessarily lend
13 itself to a strict mathematical solution. Consequently, the key consideration in
14 determining the ROE is to ensure that the overall analysis reasonably reflects investors'
15 view of the financial markets in general, and the subject company (in the context of the
16 proxy companies) in particular.

17 Because the Cost of Equity is not directly observable, it must be estimated based
18 on both quantitative and qualitative information. Although a number of empirical models
19 have been developed for that purpose, all are subject to limiting assumptions or other
20 constraints. Consequently, many finance texts recommend using multiple approaches to

1 estimate the Cost of Equity.¹⁵ When faced with the task of estimating the Cost of Equity,
2 analysts and investors are inclined to gather and evaluate as much relevant data as
3 reasonably can be analyzed and, therefore, rely on multiple analytical approaches.

4 I also note that as a practical matter, no individual model is more reliable than all
5 others under all market conditions. Therefore, it is both prudent and appropriate to use
6 multiple methodologies in order to mitigate the effects of assumptions and inputs
7 associated with any single approach. As such, I have considered the results of the
8 Constant Growth and Multi-Stage forms of the DCF model; the Capital Asset Pricing
9 Model; and the Bond Yield Plus Risk Premium approach.

10 **A. Constant Growth Discounted Cash Flow Model**

11 **Q: Please more fully describe the Constant Growth DCF approach.**

12 **A:** The Constant Growth DCF approach is based on the theory that a stock's current price
13 represents the present value of all expected future cash flows. In its simplest form, the
14 Constant Growth DCF model expresses the Cost of Equity as the discount rate that sets
15 the current price equal to expected cash flows:

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

17 where P represents the current stock price, $D_1 \dots D_\infty$ represent expected future dividends,
18 and k is the discount rate, or required ROE. Equation [1] is a standard present value
19 calculation that can be simplified and rearranged into the familiar form:

$$20 \quad k = \frac{D_0 (1+g)}{P} + g \quad \text{Equation [2]}$$

¹⁵ See, e.g., Eugene Brigham, Louis Gapenski, Financial Management: Theory and Practice, 7th Ed., 1994, at 341, and Tom Copeland, Tim Koller and Jack Murrin, Valuation: Measuring and Managing the Value of Companies,

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

4 **Q: What assumptions are inherent in the Constant Growth DCF model?**

5 A: The Constant Growth DCF model assumes: (1) a constant average annual growth rate for
6 earnings and dividends; (2) a stable dividend payout ratio; (3) a constant Price to
7 Earnings multiple; and (4) a discount rate greater than the expected growth rate.

8 **Q: What market data did you use to calculate the dividend yield in your Constant
9 Growth DCF model?**

10 A: The dividend yield is based on the proxy companies’ current annualized dividend, and
11 average closing stock prices over the 30, 90, and 180-trading day periods as of May 31,
12 2016.

13 **Q: Why did you use three averaging periods to calculate an average stock price?**

14 A: I did so to ensure that the model’s results are not skewed by anomalous events that may
15 affect stock prices on any given trading day. At the same time, the averaging period
16 should be reasonably representative of expected capital market conditions over the long
17 term. In my view, using 30-, 90-, and 180-day averaging periods reasonably balances
18 those concerns.

19 **Q: Did you make any adjustments to the dividend yield to account for periodic growth
20 in dividends?**

21 A: Yes, I did. Since utility companies tend to increase their quarterly dividends at different
22 times throughout the year, it is reasonable to assume that dividend increases will be

3rd ed., 2000, at 214.

1 evenly distributed over calendar quarters. Given that assumption, it is appropriate to
2 calculate the expected dividend yield by applying one-half of the long-term growth rate
3 to the current dividend yield. That adjustment ensures that the expected dividend yield is,
4 on average, representative of the coming twelve-month period, and does not overstate the
5 dividends to be paid during that time.

6 **Q: Is it important to select appropriate measures of long-term growth in applying the**
7 **DCF model?**

8 **A:** Yes. In its Constant Growth form, the DCF model (*i.e.*, as presented in Equation [2]
9 above) assumes a single growth estimate in perpetuity. Accordingly, in order to reduce
10 the long-term growth rate to a single measure, one must assume a fixed payout ratio, and
11 the same constant growth rate for earnings per share (“EPS”), dividends per share, and
12 book value per share. Since dividend growth can only be sustained by earnings growth,
13 the model should incorporate a variety of measures of long-term earnings growth. That
14 can be accomplished by averaging those measures of long-term growth that tend to be
15 least influenced by capital allocation decisions that companies may make in response to
16 near-term changes in the business environment. Because such decisions may directly
17 affect near-term dividend payout ratios, estimates of earnings growth are more indicative
18 of long-term investor expectations than are dividend growth estimates. For the purposes
19 of the Constant Growth DCF model, therefore, growth in EPS represents the appropriate
20 measure of long-term growth.

1 Q: Please summarize the findings of academic research on the appropriate measure for
2 estimating equity returns using the DCF model.

3 A: The relationship between various growth rates and stock valuation metrics has been the
4 subject of much academic research.¹⁶ As noted over 40 years ago by Charles Phillips in
5 The Economics of Regulation:

6 For many years, it was thought that investors bought utility stocks
7 largely on the basis of dividends. More recently, however, studies
8 indicate that the market is valuing utility stocks with reference to total
9 per share earnings, so that the earnings-price ratio has assumed
10 increased emphasis in rate cases.¹⁷

11 Philips' conclusion continues to hold true. Subsequent academic research has
12 clearly and consistently indicated that measures of earnings and cash flow are strongly
13 related to returns, and that analysts' forecasts of growth are superior to other measures of
14 growth in predicting stock prices.¹⁸ For example, Vander Weide and Carleton state that,
15 "[our] results ... are consistent with the hypothesis that investors use analysts' forecasts,
16 rather than historically oriented growth calculations, in making stock buy-and-sell
17 decisions."¹⁹ Other research specifically notes the importance of analysts' growth
18 estimates in determining the Cost of Equity, and in the valuation of equity securities. Dr.
19 Robert Harris noted that "a growing body of knowledge shows that analysts' earnings
20 forecast are indeed reflected in stock prices." Citing Cragg and Malkiel, Dr. Harris notes
21 that those authors "found that the evaluations of companies that analysts make are the

¹⁶ See Harris, Robert, *Using Analysts' Growth Forecasts to Estimate Shareholder Required Rate of Return*, Financial Management (Spring 1986).

¹⁷ Charles F. Phillips, Jr., The Economics of Regulation, at 285 (Rev. ed. 1969).

¹⁸ See, e.g., Christofi, Christofi, Lori and Moliver, *Evaluating Common Stocks Using Value Line's Projected Cash Flows and Implied Growth Rate*, Journal of Investing (Spring 1999); Harris and Marston, *Estimating Shareholder Risk Premia Using Analysts' Growth Forecasts*, Financial Management, 21 (Summer 1992); and Vander Weide and Carleton, *Investor Growth Expectations: Analysts vs. History*, The Journal of Portfolio Management (Spring 1988).

1 sorts of ones on which market valuation is based.”²⁰ Similarly, Brigham, Shome and
2 Vinson noted that “evidence in the current literature indicates that (i) analysts’ forecasts
3 are superior to forecasts based solely on time series data; and (ii) investors do rely on
4 analysts’ forecasts.”²¹

5 To that point, the research of Carleton and Vander Weide demonstrates that
6 earnings growth projections have a statistically significant relationship to stock valuation
7 levels, while dividend growth rates do not.²² Those findings suggest that investors form
8 their investment decisions based on expectations of growth in earnings, not dividends.
9 Consequently, earnings growth, not dividend growth, is the appropriate estimate for the
10 purpose of the Constant Growth DCF model.

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

12 **A:** I applied the DCF model to the proxy group of integrated electric utility companies using
13 the following inputs for the price and dividend terms:

- 14 • The average daily closing prices for the 30-trading days, 90-trading days, and
15 180-trading days ended May 31, 2016, for the term P_0 ; and
- 16 • The annualized dividend per share as of May 31, 2016, for the term D_0 .

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

- 18 • The Zacks consensus long-term earnings growth estimates;
- 19 • The First Call consensus long-term earnings growth estimates; and

¹⁹ Vander Weide and Carleton, *Investor Growth Expectations: Analysts vs. History*, The Journal of Portfolio Management (Spring 1988).

²⁰ Robert S. Harris, *Using Analysts’ Growth Forecasts to Estimate Shareholder Required Rate of Return*, Financial Management (Spring 1986).

²¹ Eugene F. Brigham, Dilip K. Shome, and Steve R. Vinson, *The Risk Premium Approach to Measuring a Utility’s Cost of Equity*, Financial Management (Spring 1985).

²² See Vander Weide and Carleton, *Investor Growth Expectations: Analysts vs. History*, The Journal of Portfolio Management (Spring 1988).

1 • The Value Line long-term earnings growth estimates.²³

2 **Q:** **In the KCP&L Order, the Commission suggested that your Constant Growth DCF**
3 **results were based on unsustainably high growth rates.²⁴ Do you believe the EPS**
4 **growth rates used in your Direct Testimony in this proceeding are too high?**

5 **A:** No, I do not. First, from a practical standpoint, the Constant Growth form of the DCF
6 model is subject to certain limiting assumptions, in particular, that expected growth rates
7 will continue in perpetuity. It is for this reason that I have also provided a Multi-Stage
8 DCF analysis (described below).

9 Second, as discussed in more detail below, the average long-term growth rate in
10 GDP has been 6.17 percent. In that regard, the median growth rate in my Constant
11 Growth DCF analysis of 5.29 percent is reasonable relative to historical measures.²⁵ That
12 median growth rate is approximately equal to the long-term expected GDP growth rate in
13 my Multi-Stage DCF analysis (see Schedule RBH-2).

14 Finally, as discussed above, consensus EPS growth rate forecasts are the
15 appropriate measure of expected growth because earnings growth enables both dividend
16 and book value growth and investors rely on analysts' forecasts. As such, I believe the
17 growth rates used in my Constant Growth DCF model are reasonable, while being
18 consistent with academic research, and historical and expected measures of long-term
19 growth.

²³ See Schedule RBH-1.

²⁴ KCP&L Order, at p. 19.

²⁵ See Schedule RBH-1.

1 **Q: How did you calculate the DCF results?**

2 A: For each proxy company, I calculated the mean, mean high, and mean low results. For
3 the mean result, I combined the average of the EPS growth rate estimates reported by
4 Value Line, Zacks, and First Call with the subject company's dividend yield for each
5 proxy company and then calculated the average result for those estimates. I calculated
6 the high DCF result by combining the maximum EPS growth rate estimate as reported by
7 Value Line, Zacks, and First Call with the subject company's dividend yield. The mean
8 high result simply is the average of those estimates. I used the same approach to
9 calculate the low DCF result, using instead the minimum of the Value Line, Zacks, and
10 First Call estimate for each proxy company, and calculating the average result for those
11 estimates.

12 **Q: What are the results of your Constant Growth DCF analysis?**

13 A: My Constant Growth DCF results are summarized in Table 2, below (see also Schedule
14 RBH-1).

15 **Table 2: Constant Growth DCF Results²⁶**

	<i>Mean Low</i>	<i>Mean</i>	<i>Mean High</i>
30-Day Average	8.25%	8.76%	9.24%
90-Day Average	8.31%	8.82%	9.30%
180-Day Average	8.49%	9.00%	9.48%

16 As noted earlier, the Constant Growth DCF model is subject to a number of
17 assumptions that likely are not consistent with current market conditions. For example,
18 the model assumes that the current payout ratio will remain constant in perpetuity, even

²⁶ See Schedule RBH-1.

1 though (on average, across the proxy companies) it has fallen below long-term levels.
2 Further, the model assumes that the return estimated today will be the same return
3 required in the future, even though the Federal Reserve only recently has begun its move
4 toward monetary policy normalization. That process of normalization, together with the
5 uncertainty surrounding the “unwinding” of the assets put on the Federal Reserve’s
6 balance sheet during its “Quantitative Easing” initiatives introduce a degree of risk, and a
7 likelihood of increasing interest rates not present in the current market.²⁷ As also
8 discussed later in my Direct Testimony, other methods more directly reflect the risk
9 premium required by investors in response to such risks. On balance, it is my view that
10 the Constant Growth DCF method should be given less weight than other methods in
11 establishing the Company’s ROE.

12 **Q. With those points in mind, how did you reflect the Constant Growth DCF results in**
13 **your ROE range and recommendation?**

14 **A. I first recognized that the model’s mean, and mean low results are well below a**
15 **reasonable estimate of the Company’s Cost of Equity. For example, of the 1,471 electric**
16 **utility rate cases provided by Regulatory Research Associates that disclosed the awarded**
17 **ROE since 1980, only one included an authorized ROE of 9.00 percent or lower for a**
18 **vertically integrated electric utility. On that basis alone, the mean low results are highly**
19 **improbable.**

²⁷ I recognize that Federal monetary policy typically is focused on the short-end of the yield curve and Chair Yellen referenced a “gradual pace” of adjustments to monetary policy in her speech before the Economic Club of New York on March 29, 2016. Fed Fund futures contracts, however, suggest the market continues to find it likely the Fed Fund rate will increase in the coming year (*see* <http://www.cmegroup.com/trading/interest-rates/countdown-to-fomc.html>).

1 I then considered why the Constant Growth model is producing such low
2 estimates of the Company's Cost of Equity. In one sense, relatively low dividend yields
3 should be associated with relatively high growth rates. That is, low dividend yields are
4 the result of relatively high stock prices which, in turn, should be associated with
5 relatively high growth rates. If those relationships do not hold, the model's results should
6 be viewed with some caution. Further (and as noted above), the relatively low payout
7 ratios recently observed are not likely to remain constant; as capital requirements fall in
8 the future, it is quite likely that payout ratios would increase. Although the Constant
9 Growth DCF model cannot accommodate changing payout ratios, the Multi-Stage model
10 can.

11 I also recognize that whereas the Constant Growth DCF model essentially
12 assumes that existing capital market conditions will remain constant, Risk Premium-
13 based methods (discussed later in this Section) directly reflect the changing capital
14 market environment (*see* Section VII). Because it is important to reflect the results of
15 different models, and the mean and mean low Constant Growth DCF results are far-
16 removed from recently authorized returns, I concluded that they should be given less
17 weight than other methods in determining the Company's ROE.

18
19 **B. Multi-Stage DCF Model**

20 **Q: What other forms of the DCF model have you used?**

21 **A:** In order to address certain limiting assumptions underlying the Constant Growth form of
22 the DCF model, I also considered the Multi-Stage (three-stage) DCF Model. The Multi-
23 Stage model, which is an extension of the Constant Growth form, enables the analyst to

1 specify growth rates over three distinct stages. As with the Constant Growth form of the
2 DCF model, the Multi-Stage form defines the Cost of Equity as the discount rate that sets
3 the current price equal to the discounted value of future cash flows. Unlike the Constant
4 Growth form, however, the Multi-Stage model must be solved in an iterative fashion.

5 **Q: Please generally describe the structure of your Multi-Stage DCF model.**

6 **A:** The Multi-Stage DCF model sets the subject company's stock price equal to the present
7 value of future cash flows received over three "stages" (e.g., Years 1 to 5; Years 5 to 10;
8 Year 11 and beyond). In the first two stages, "cash flows" are defined as projected
9 dividends. In the third stage, "cash flows" equal both dividends and the expected price at
10 which the stock will be sold at the end of the period (i.e., the "terminal price"). I
11 calculated the terminal price based on the Gordon model,²⁸ which defines the price as the
12 expected dividend divided by the difference between the Cost of Equity (i.e., the discount
13 rate) and the long-term expected growth rate. In essence, the terminal price is defined by
14 the present value of the remaining "cash flows" in perpetuity. In each of the three stages,
15 the dividend is the product of the projected earnings per share and the expected dividend
16 payout ratio. A summary description of the model is provided in Table 3 (below).

²⁸ See Morningstar, Inc., *2013 Ibbotson Stocks, Bonds, Bills and Inflation Valuation Yearbook*, at 48-52.

1

Table 3: Multi-Stage DCF Structure

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

2 **Q: What are the analytical benefits of your three-stage DCF model?**

3 **A:** The principal benefits relate to the flexibility provided by the model's formulation. Since
4 the model provides the ability to specify near, intermediate and long-term growth rates,
5 for example, it avoids the sometimes limiting assumption that the subject company will
6 grow at the same, constant rate in perpetuity. In addition, by calculating the dividend as
7 the product of earnings per share and the dividend payout ratio, the model enables
8 analysts to reflect assumptions regarding the timing and extent of changes in the payout
9 ratio to reflect, for example, increases or decreases in expected capital spending, or
10 transition from current payout levels to long-term expected levels. In that regard,
11 because the model relies on multiple sources of earnings growth rate assumptions, it is

1 not limited to a single source, such as Value Line, for all inputs, and mitigates the
2 potential bias associated with relying on a single source of growth estimates.²⁹

3 The model also enables the analyst to assess the reasonableness of the inputs and
4 results by reference to certain market-based metrics. For example, the stock price
5 estimate can be divided by the expected earnings per share in the final year to calculate
6 an average Price to Earnings (“P/E”) ratio. Similarly, the terminal P/E ratio can be
7 divided by the terminal growth rate to develop a Price to Earnings Growth (“PEG”) ratio.
8 To the extent that either the projected P/E or PEG ratios are inconsistent with either
9 historical or expected levels, it may indicate incorrect or inconsistent assumptions within
10 the balance of the model.

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

12 A: I applied the Multi-Stage model to the proxy group described earlier in my Direct
13 Testimony. My assumptions with respect to the various model inputs are described in
14 Table 4 (below).

²⁹ See Harris and Marston, *Estimating Shareholder Risk Premia Using Analysts’ Growth Forecasts*, Financial Management 21 (Summer 1992).

1

Table 4: Multi-Stage DCF Model Assumptions

Stage	Initial	First	Transition	Terminal
Stock Price	30-, 90-, and 180-day average stock price as of May 31, 2016			
Earnings Growth	2015 actual EPS escalated by Period 1 growth rate	EPS growth as average of (1) Value Line; (2) Zacks; and (3) First Call	Transition to Long-term GDP growth	Long-term GDP growth
Payout Ratio	Value Line company-specific	Value Line company-specific	Transition to long-term industry payout ratio	Long-term expected payout ratio
Terminal Value				Expected dividend in final year divided by solved Cost of Equity less long-term growth rate

2 **Q: How did you calculate the long-term GDP growth rate?**

3 A: The long-term growth rate of 5.28 percent is based on the real GDP growth rate of 3.24
4 percent from 1929 through 2015, and an inflation rate of 1.98 percent. The GDP growth
5 rate is calculated as the compound growth rate in the chain-weighted GDP for the period
6 from 1929 through 2015.³⁰ The rate of inflation of 1.98 percent is an average of two
7 components: (1) the compound annual forward rate starting in ten years (*i.e.*, 2026, which
8 is the beginning of the terminal period) based on the 180-day average spread between

³⁰ See Bureau of Economic Analysis, "Current-Dollar and 'Real' Gross Domestic Product," April 28, 2016 update.

1 yields on long-term nominal Treasury Securities and long-term Treasury Inflation
2 Protected Securities, known as the “TIPS spread” of 1.76 percent,³¹ and (2) and the
3 projected Blue Chip Financial Forecast of CPI for 2022 – 2026 of 2.20 percent.³²

4 I averaged these two measures of inflation because nominal Treasury yields are
5 related to inflation, which includes the effect of commodities such as oil, which may
6 cause the current TIPS spread to somewhat understate long-term expected inflation. To
7 account for that effect, I also considered the 2.20 percent long-term projected rate of
8 inflation as provided by Blue Chip Financial Forecast.³³ My long-term inflation rate,
9 therefore, is the average of those two estimates, or 1.98 percent.

10 **Q: Have you compared your long-term growth rate to historical measures?**

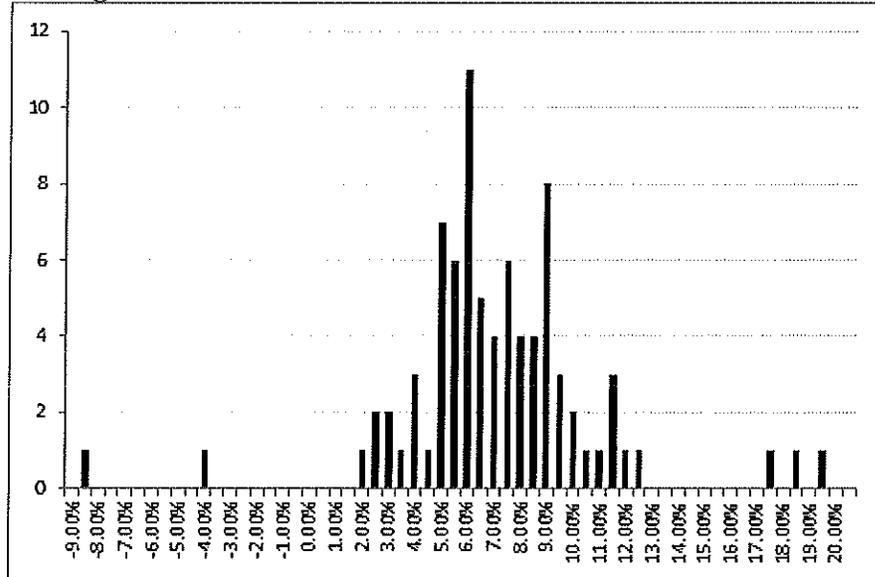
11 **A:** Yes, I have. From 1929 through 2015, the long-term geometric average growth in
12 nominal GDP was 6.17 percent. The arithmetic average annual growth rate over that
13 time was 6.40 percent. Considered in that context, my 5.28 percent assumption is
14 approximately 100 basis points below the long-term average. I also calculated the
15 average five-year average annual growth rates over the 1929 to 2014 period. I then
16 arranged that data in histograms to provide a perspective of how frequently various levels
17 of growth have occurred.

18 As Chart 2 demonstrates, average annual growth of 5.28 percent and above has
19 been observed frequently. When measured over five-year periods, average annual growth
20 exceeded 5.28 percent in 59 of 82 periods. That is, my result falls in approximately the
21 28th percentile of observed growth rates in GDP. As such, I believe my long-term growth
22 estimate is reasonable, if not conservative.

³¹ See Board of Governors of the Federal Reserve System, “Table H.15 Selected Interest Rates.”

1
2

Chart 2:
Average Annual GDP Growth Measured over Five-Year Periods³⁴



3

4 **Q: Have you compared other projections of GDP to historical measures?**

5 **A:** Yes, I have. Specifically, I reviewed GDP projections from the Social Security
6 Administration (“SSA”) and the Energy Information Administration (“EIA”). SSA
7 forecasts a long-term GDP growth rate of 4.35 percent between 2025 and 2085 under its
8 Intermediate scenario,³⁵ while EIA forecasts the GDP growth rate between 2013 and
9 2040 to be 4.24 percent in its Reference case.³⁶

10 Because they are perpetual, terminal growth rates that substantially deviate from
11 the long-term historical average should be viewed with considerable caution. As Chart 2
12 demonstrates, average annual growth as low as 4.24 percent has been observed very

³² Blue Chip Financial Forecasts, December 1, 2015, at 14.

³³ Ibid.

³⁴ Source: Bureau of Economic Analysis.

³⁵ Tables V.B.1 and V.B.2 of the 2015 ANNUAL REPORT OF THE BOARD OF TRUSTEES OF THE FEDERAL OLD-AGE AND SURVIVORS INSURANCE AND FEDERAL DISABILITY INSURANCE TRUST FUNDS includes “Intermediate” scenario assumptions of 2.30 percent and 2.00 percent for the GDP Price Index, and Real GDP Growth, respectively, over the period 2025 through 2085. Combined, those projections indicate nominal GDP growth of 4.35 percent.

1 infrequently. In fact, average annual growth exceeded 4.24 percent in 71 of 81 five-year
2 periods, which represents the 13th percentile of observed results. While the long-term
3 growth rate of 5.28 percent used in my Multi-Stage DCF model represents a conservative
4 measure of the GDP growth, the SSA and EIA forecasts are approximately 100 basis
5 points lower. As such, I believe my estimate of the long-term growth rate represents a
6 more reasonable measure of perpetual growth in the final stage of my Multi-Stage DCF
7 model.

8 Furthermore, both SSA and EIA provide alternative scenarios in addition to their
9 base case scenarios (Intermediate and Reference, respectively). SSA's Low-cost and
10 High-cost scenarios produce a range of nominal GDP forecasts from 2.82 percent to 5.88
11 percent.³⁷ EIA develops six scenarios which produce a range of nominal GDP forecasts
12 of 4.14 percent to 5.36 percent.³⁸ My estimated long-term growth rate is within the
13 ranges of scenarios produced by both SSA and EIA.

14 **Q: What were your specific assumptions with respect to the payout ratio?**

15 **A:** As noted in Table 4, for the first two periods, I relied on the first year and long-term
16 projected payout ratios reported by Value Line³⁹ for each of the proxy companies. I then

³⁶ Energy Information Administration, 2015 Annual Energy Outlook, Table 20. EIA forecasts the GDP Price Index, and Real GDP growth to be 1.80 percent and 2.40 percent, respectively. Combined those assumptions indicate nominal GDP growth of 4.24 percent.

³⁷ Tables V.B.1 and V.B.2 of the 2015 ANNUAL REPORT OF THE BOARD OF TRUSTEES OF THE FEDERAL OLD-AGE AND SURVIVORS INSURANCE AND FEDERAL DISABILITY INSURANCE TRUST FUNDS includes "Low-cost" and "High-cost" scenario assumptions of 3.10 percent and 1.50 percent for the GDP Price Index, and Real GDP Growth 2.70 percent and 1.30 percent, respectively, over the period 2025 through 2085. Combined, those projections indicate nominal GDP growth of 5.88 percent and 2.82 percent.

³⁸ Energy Information Administration, 2015 Annual Energy Outlook, Table 20. EIA forecasts the GDP Price Index, and Real GDP growth to be 1.70 percent and 2.40 percent, respectively for the Low Oil Price scenario and 3.50 percent and 1.80 percent, respectively for the Low Economic Growth scenario. Combined those assumptions indicate nominal GDP growth rates of 4.14 percent and 5.36 percent.

³⁹ As reported in the Value Line Investment Survey company reports as "All Div'ds to Net Prof."

1 assumed that by the end of the second period (*i.e.*, the end of year 10), the payout ratio
2 will converge to the historical industry average ratio of 66.88 percent.⁴⁰

3 **Q: What was your principal assumption regarding the terminal value?**

4 A: Although I performed a series of analyses in which the terminal value is calculated based
5 on the assumed long-term nominal GDP growth rate,⁴¹ I also performed a series of
6 analyses in which the terminal value is based on the current P/E ratio.⁴² The results of
7 those analyses are shown in Table 5, below. For the reasons discussed below, I believe
8 that assumption is reasonable and produces reliable results.

9 **Table 5: Multi-Stage DCF Model Results⁴³**

	<i>Mean Low</i>	<i>Mean</i>	<i>Mean High</i>
30-Day Average	9.15%	9.45%	9.73%
90-Day Average	9.30%	9.60%	9.88%
180-Day Average	9.78%	10.08%	10.36%

10 **Q: Why are the results presented in Table 5 reliable estimates of the Company's Cost
11 of Equity?**

12 A: As noted earlier, we can use aspects of the Multi-Stage DCF model to assess its
13 consistency with other market measures, including the terminal P/E ratio. On a relative
14 basis, the current proxy group P/E ratio of 19.45 is approximately equal to the current
15 market average P/E ratio of 19.20.⁴⁴ Over time, however, the proxy group traded at
16 discount to the market of approximately 12.00 percent. It is reasonable to assume that in
17 the future the group likewise would trade at a discount to the market. Assuming that in

⁴⁰ Source: Bloomberg Professional

⁴¹ See Schedule RBH-2.

⁴² Defined as the 30-day average of the proxy group P/E ratio, calculated as an Index.

1 the terminal year (that is, 2030) the 19.45 proxy group P/E ratio represents a 12.00
2 percent discount to the market P/E, the market would then trade at a P/E multiple of
3 approximately 21.78. That multiple (*i.e.*, 21.78) is less than one standard deviation from
4 the long-term average market P/E ratio.

5 **Q: Did you undertake any additional analyses to support your recommendation?**

6 **A:** Yes. As noted earlier, I also applied the CAPM and Risk Premium approaches.

7 **C. Capital Asset Pricing Model**

8 **Q: Please briefly describe the general form of the CAPM.**

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

14
$$k = r_f + \beta(r_m - r_f) \quad \text{Equation [3]}$$

15 where:

16 k = the required market ROE for a security;

17 β = the Beta coefficient of that security;

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

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

⁴³ See Schedule RBH-2.

⁴⁴ Source: Bloomberg Professional.

1 In Equation [3], the term $(r_m - r_f)$ represents the Market Risk Premium.⁴⁵
2 According to the theory underlying the CAPM, since unsystematic risk can be diversified
3 away by adding securities to investment portfolios, investors should be concerned only
4 with systematic or non-diversifiable risk. Non-diversifiable risk is measured by the Beta
5 coefficient, which is defined as:

$$\beta_j = \frac{\sigma_j}{\sigma_m} \times \rho_{j,m} \quad \text{Equation [4]}$$

7 Where σ_j is the standard deviation of returns for company “j,” σ_m is the standard
8 deviation of returns for the broad market (as measured, for example, by the S&P 500
9 Index), and $\rho_{j,m}$ is the correlation of returns in between company j and the broad market.
10 The Beta coefficient therefore represents both relative volatility (*i.e.*, the standard
11 deviation) of returns, and the correlation in returns between the subject company and the
12 overall market.

13 Intuitively, higher Beta coefficients indicate that the subject company’s returns
14 have been relatively volatile, and have moved in tandem with the overall market.
15 Consequently, if a company has a Beta coefficient of 1.00, it is as risky as the market and
16 does not provide any diversification benefit.

⁴⁵ The Market Risk Premium is defined as the incremental return of the market portfolio over the risk-free rate.

1 **Q: What assumptions did you include in your CAPM analysis?**

2 A: Since utility equity is a long duration investment, I used two different measures of the
3 risk-free rate: (1) the current 30-day average yield on 30-year Treasury bonds (*i.e.*, 2.65
4 percent); and (2) the projected 30-year Treasury yield (*i.e.*, 3.08 percent).

5 **Q: Why have you relied upon the 30-year Treasury yield for your CAPM analysis?**

6 A: In determining the security most relevant to the application of the CAPM, it is important
7 to select the term (or maturity) that best matches the life of the underlying investment.
8 Electric utilities typically are long-duration investments and, as such, the 30-year
9 Treasury yield is more suitable for the purpose of calculating the Cost of Equity.

10 **Q: Please describe your *ex-ante*, or forward-looking, approach to estimating the
11 Market Risk Premium (“MRP”).**

12 A: The approach is based on the market required return, less the current 30-year Treasury
13 yield. To estimate the market required return, I calculated the market capitalization
14 weighted average ROE based on the Constant Growth DCF model. To do so, I relied on
15 data from two sources: (1) Bloomberg; and (2) Value Line.⁴⁶ With respect to
16 Bloomberg-derived growth estimates, I calculated the expected dividend yield (using the
17 same one-half growth rate assumption described earlier), and combined that amount with
18 the projected earnings growth rate to arrive at the market capitalization weighted average
19 DCF result. I performed that calculation for each of the S&P 500 companies for which
20 Bloomberg provided consensus growth rates. I then subtracted the current 30-year
21 Treasury yield from that amount to arrive at the market DCF-derived *ex-ante* market risk
22 premium estimate. In the case of Value Line, I performed the same calculation, again

⁴⁶ See Schedule RBH-3.

1 using all companies for which five-year earnings growth rates were available. The results
2 of those calculations are provided in Schedule RBH-3.

3 As discussed above each input to the CAPM should be forward-looking.
4 Witnesses in prior rate cases have relied on historical measures of the MRP.⁴⁷ While it
5 may be instructive to review historical MRPs to inform the reasonableness of an *ex-ante*
6 estimate (as I have done below), they do not include investors' expectations, and
7 therefore are not appropriate for use in the CAPM. Simply relying on the historical MRP
8 may produce results that are inconsistent with investor sentiment and current conditions
9 in capital markets. As such, I believe my *ex-ante* approach is reasonable.

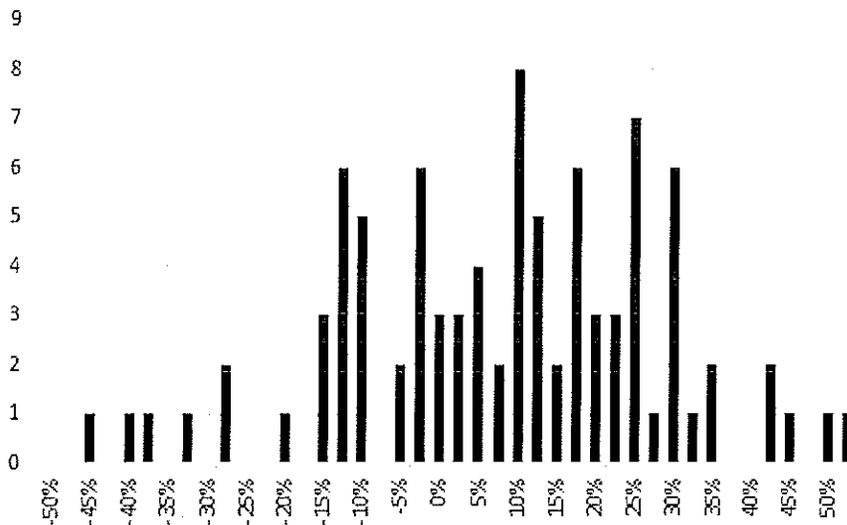
10 **Q: Have you undertaken any analyses to determine the reasonableness of the *ex-ante***
11 **MRP calculation?**

12 **A:** Yes, I have considered how often various ranges of MRPs have been observed over the
13 1926 to 2015 period. To perform that analysis, I gathered the annual Market Risk Premia
14 reported by Morningstar and produced a histogram of those observations. The results of
15 that analysis, which are presented in Chart 3, demonstrate that MRPs in the range of
16 approximately 10.80 percent (the average of my MRP estimates) and higher occurred
17 quite often. In fact, there is approximately a 56.10 percent probability that an MRP of at
18 least 10.80 percent will occur in any given year.

⁴⁷ See, for example, Staff Report, Revenue Requirement and Cost of Service, Kansas City Power & Light Company, Case No. ER-2014-0370, at 55.

1

Chart 3: Frequency Distribution of MRP, 1926 -2015⁴⁸



2

3 **Q: How did you apply your expected Market Risk Premium and risk-free rate**
4 **estimates?**

5 **A:** I relied on the *ex-ante* Market Risk Premia discussed above, together with the current and
6 near-term projected 30-year Treasury yields as inputs to my CAPM analyses.

7 **Q: What Beta coefficient did you use in your CAPM model?**

8 **A:** As shown in Schedule RBH-4, I considered the Beta coefficients reported by two
9 sources: Bloomberg and Value Line.⁴⁹ While both of those services adjust their
10 calculated (or “raw”) Beta coefficients to reflect the tendency of the Beta coefficient to
11 regress to the market mean of 1.00, Value Line calculates the Beta coefficient over a five-
12 year period, while Bloomberg’s calculation is based on two years of data.

⁴⁸ Source: Morningstar, Inc., Ibbotson Stocks Bonds Bills and Inflation 2015 Classic Yearbook, at 196-197.

⁴⁹ While the Beta coefficient is not observable for KCP&L because it is not publicly traded, I note that GPE’s reported Beta coefficients are 0.607 and 0.80 from Bloomberg and Value Line, respectively..

1 Q: What are the results of your CAPM analysis?

2 A: As shown in Table 6 the CAPM analyses suggest an ROE range of 9.11 percent to 11.62
3 percent (see also Schedule RBH-5).

4 **Table 6: Summary of CAPM Results⁵⁰**

	<i>Bloomberg Derived Market Risk Premium</i>	<i>Value Line Derived Market Risk Premium</i>
<i>Average Bloomberg Beta Coefficient</i>		
Current 30-Year Treasury (2.65%)	9.11%	9.49%
Near Term Projected 30-Year Treasury (3.08%)	9.55%	9.92%
<i>Average Value Line Beta Coefficient</i>		
Current 30-Year Treasury (2.65%)	10.72%	11.18%
Near Term Projected 30-Year Treasury (3.08%)	11.15%	11.62%

5 **D. Bond Yield Plus Risk Premium Approach**

6 Q: Please generally describe the Bond Yield Plus Risk Premium approach.

7 A: This approach is based on the basic financial tenet that equity investors bear the residual
8 risk associated with ownership and therefore require a premium over the return they
9 would have earned as a bondholder. That is, since returns to equity holders are more
10 risky than returns to bondholders, equity investors must be compensated for bearing that
11 additional risk. Risk premium approaches, therefore, estimate the Cost of Equity as the
12 sum of the equity risk premium and the yield on a particular class of bonds. As noted in
13 my discussion of the CAPM, since the equity risk premium is not directly observable, it
14 typically is estimated using a variety of approaches, some of which incorporate *ex-ante*,
15 or forward-looking estimates of the Cost of Equity, and others that consider historical, or

⁵⁰ See Schedule RBH-5.

1 *ex-post*, estimates. An alternative approach is to use actual authorized returns for electric
2 utilities to estimate the Equity Risk Premium.

3 **Q: Please explain how you performed your Bond Yield Plus Risk Premium analysis.**

4 A: As suggested above, I first defined the Risk Premium as the difference between the
5 authorized ROE and the then-prevailing level of long-term (*i.e.*, 30-year) Treasury yield.
6 I then gathered data for 1,471 electric utility rate proceedings between January, 1980 and
7 May 31, 2016. In addition to the authorized ROE, I also calculated the average period
8 between the filing of the case and the date of the final order (the “lag period”). In order
9 to reflect the prevailing level of interest rates during the pendency of the proceedings, I
10 calculated the average 30-year Treasury yield over the average lag period (approximately
11 200 days).

12 Because the data cover a number of economic cycles, the analysis also may be
13 used to assess the stability of the Equity Risk Premium. Prior research, for example, has
14 shown that the Equity Risk Premium is inversely related to the level of interest rates.
15 That analysis is particularly relevant given the relatively low, but increasing level of
16 current Treasury yields.

17 **Q: How did you analyze the relationship between interest rates and the Equity Risk
18 Premium?**

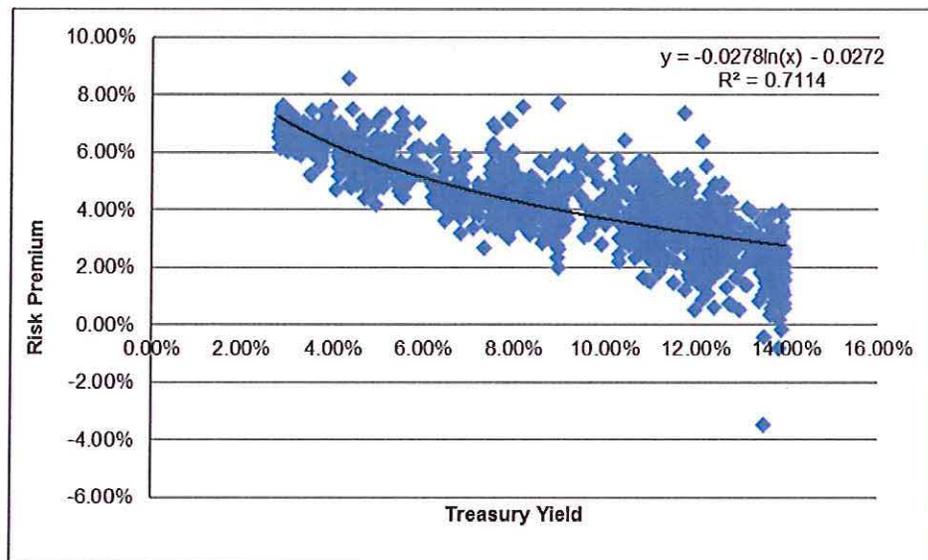
19 A: The basic method used was regression analysis, in which the observed Equity Risk
20 Premium is the dependent variable, and the average 30-year Treasury yield is the
21 independent variable. Relative to the long-term historical average, the analytical period
22 includes interest rates and authorized ROEs that are quite high during one period (*i.e.*, the
23 1980s) and that are quite low during another (*i.e.*, the post-Lehman bankruptcy period).

1 To account for that variability, I used the semi-log regression, in which the Equity Risk
2 Premium is expressed as a function of the natural log of the 30-year Treasury yield:

$$3 \quad RP = \alpha + \beta(\text{LN}(T_{30})) \quad \text{Equation [5]}$$

4 As shown on Chart 4 (below), the semi-log form is useful when measuring an
5 absolute change in the dependent variable (in this case, the Risk Premium) relative to a
6 proportional change in the independent variable (the 30-year Treasury yield).

7 **Chart 4: Equity Risk Premium⁵¹**



11 As Chart 4 illustrates, over time there has been a statistically significant, negative
12 relationship between the 30-year Treasury yield and the Equity Risk Premium.
13 Consequently, simply applying the long-term average Equity Risk Premium of 4.50
14 percent would significantly understate the Cost of Equity and produce results well below
15 any reasonable estimate. Based on the regression coefficients in Chart 4, however, the
16 implied ROE is between 10.04 percent and 10.39 percent (see Table 7 and Schedule
17 RBH-6).

1

Table 7: Summary of Bond Yield Plus Risk Premium Results⁵²

	<i>Return on Equity</i>
Current 30-Year Treasury (2.65%)	10.04%
Near Term Projected 30-Year Treasury (3.08%)	10.05%
Long Term Projected 30-Year Treasury (4.45%)	10.39%

2 **Q: Has the Commission considered authorized ROEs in other jurisdictions in setting**
3 **the authorized ROE for a subject company?**

4 **A:** Yes, it has. For example, in the 2013 GMO Order and the KCP&L Order the
5 Commission determined that recently authorized ROEs for utilities throughout the United
6 States supported its authorized ROE, noting in the KCP&L Order:

7 KCPL must compete with other utilities all over the country for the
8 same capital. Therefore, the industry authorized return on equity
9 provides a reasonableness test for the recommendations offered by the
10 return on equity witnesses.⁵³

11 The Bond Yield Plus Risk Premium approach relies on the same data over an
12 approximately 36-year period, while also considering the inverse relationship between
13 Treasury yields and the Equity Risk Premium. That is, the Bond Yield Plus Risk
14 Premium approach provides additional information beyond a simple average of
15 authorized ROEs in that it accounts for different market environments and considers the
16 long-term relationship between the inputs to the analysis.

⁵¹ See Schedule RBH-6.

⁵² See Schedule RBH-6.

⁵³ KCP&L Order, at 19. See 2013 GMO Order, at 18.

1 Q: Have you provided an alternative Bond Yield Plus Risk Premium analysis to
2 account for how market conditions may affect the inverse relationship between
3 interest rates and the Equity Risk Premium?

4 A: Yes. To address the prospect that the market conditions affect the relationship between
5 interest rates and the Equity Risk Premium, I first calculated the “credit spread,” or the
6 difference between the Moody’s A-Utility Bond yield and the 30-Year Treasury yield.
7 To reflect the risk of equity investments, I calculated the market volatility as measured by
8 the CBOE Volatility Index (the “VIX”) since 1990, the first year for which data was
9 available. I then performed a regression analysis in which the Equity Risk Premium is
10 the dependent variable, and Treasury yields, credit spreads, and the VIX were the
11 explanatory variables. There were three principal findings from those analyses (*see*
12 Schedule RBH-7):

- 13 1. Credit spreads and the VIX do not negate the statistically significant inverse
14 relationship between Treasury yields and the Equity Risk Premium.
- 15 2. There is a high degree of correlation between credit spreads and the VIX,
16 indicating that the two move closely together. That is, the “relative risk” of the
17 two is not a meaningful factor.
- 18 3. Based on the current, and projected Treasury yields, the expected ROE falls in the
19 range of 9.74 percent to 10.04 percent. Those results overlap with my
20 recommended range, and are only slightly below the results of my Bond Yield
21 Plus Risk Premium analysis (*see* Schedule RBH-7).

22 Lastly, please note that neither the VIX nor credit spreads added significantly to the
23 explanatory value of the regression equations.

VI. BUSINESS RISKS AND OTHER CONSIDERATIONS

1 **Q: Do the mean DCF, CAPM, and Bond Yield Plus Risk Premium results for the proxy**
2 **group provide an appropriate estimate of the Cost of Equity for KCP&L?**

3 **A:** No, the mean results do not necessarily provide an appropriate estimate of the Company's
4 Cost of Equity. In my view, there are additional factors that must be taken into
5 consideration when determining where the Company's Cost of Equity falls within the
6 range of results. Those factors include: (1) the regulatory environment in which the
7 Company operates; (2) the Company's generation portfolio; and (3) the Company's
8 capital expenditure plans. Those risk factors, which are discussed below, should be
9 considered with respect to their overall effect on the KCP&L's risk profile and therefore
10 its Cost of Equity.

11 **A. Regulatory Environment**

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

14 **A:** The regulatory environment can significantly affect both the access to and the cost of
15 capital in several ways. First, the proportion and cost of debt capital available to utility
16 companies are influenced by rating agencies' assessment of the regulatory environment.
17 In addition, it is important to recognize that regulatory decisions regarding the authorized
18 ROE and capital structure have direct consequences for the subject utility's internal cash
19 flow generation (sometimes referred to as "Funds from Operations" or "FFO"). Since
20 credit ratings are intended to reflect the ability to meet financial obligations as they come

1 due, the ability to generate the cash flows required to meet those obligations (and to
2 provide an additional amount for unexpected events) is of critical importance to debt
3 investors. Two of the most important metrics used to assess that ability are the ratios of
4 FFO to debt, and FFO to interest expense, both of which are directly affected by
5 regulatory decisions regarding the appropriate rate of return and capital structure.

6 Investors recognize that a reasonable allowed ROE that is subject to earnings
7 attrition due to unfavorable regulatory or economic factors does not provide any
8 assurance that the utility actually will recover its costs or earn a reasonable return. The
9 authorized ROE affects not only the cash flow-related metrics that measure financial
10 strength, but also provides an indication of the degree of regulatory support, as well as
11 risk associated with a given utility and jurisdiction. It is, therefore, an important measure
12 of regulatory support and financial integrity from several perspectives.

13 **Q: Have you compared KCP&L's regulatory risks to electric utilities in other**
14 **jurisdictions?**

15 **A:** Yes, I have. S&P assesses the credit-supportiveness of the regulatory environments in
16 which utilities operate. Based on an assessment of both qualitative and quantitative
17 factors, S&P created a rank order of 53 regulatory jurisdictions in the United States.⁵⁴
18 Based on S&P's rankings, Missouri's regulatory environment is ranked in the bottom
19 quarter of all jurisdictions. Rankings such as those provided by S&P are observable and
20 meaningful indicators of the financial community's view of the regulatory risks faced by
21 utilities. Given Missouri's ranking, the financial community appears to attribute higher
22 regulatory risk to KCP&L than to other utilities (on average). Investors rely on the

1 financial community's views of risk in making investment decisions, which given
2 Missouri's standing indicates that the Cost of Equity for utilities in Missouri is higher
3 than many other states' utilities.

4 **Q: Are there issues associated with regulatory lag that also are a consideration for**
5 **equity investors?**

6 **A:** Yes, there are. As noted in an April 2013 report by Regulatory Research Associates,
7 Missouri is one of only five states that prohibits utilities from including Construction
8 Work in Progress ("CWIP") in the rate base.⁵⁵ As a consequence, the Company's ability
9 to maintain its revenue and cash flow is disadvantaged relative to others that either have
10 the ability to include CWIP in rate base during general rate cases (and therefore earn a
11 cash return on that investment), or are provided a more timely cash return through
12 adjustment clauses. When the revenue per dollar of assets decreases, the earned return on
13 common equity also will decrease. Because that earned return is a principal element of
14 cash flow, the dilution in earnings resulting from the untimely recovery of capital
15 investments diminishes the Company's financial profile and increases its relative risk.

16 In addition, rates for Missouri utilities are usually set based on an historical test
17 year, with limited "known and measurable" changes.⁵⁶ In contrast, other utilities,
18 including utilities in the proxy group, have the ability to recover rate base additions
19 through forecast test years or alternative rate plans.⁵⁷ As Regulatory Research Associates
20 has noted, "[s]uch rate changes provide for improved cash flow and possibly earnings

⁵⁴ S&P Ratings Direct, *Utility Regulatory Assessments For U.S. Investor-Owned Utilities*, (January 7, 2014). Rankings include state regulatory commissions (including two commissions in Texas), the District of Columbia, and U.S. (federal) jurisdictions.

⁵⁵ Regulatory Research Associates, *Construction Work in Progress; Getting acquainted with an old issue*, April 22, 2013, at 2; and Regulatory Research Associates, *Missouri Regulatory Review*, October 1, 2015, at 2-3.

⁵⁶ Regulatory Research Associates, *Missouri Regulatory Review*, October 1, 2015, at 2-3.

1 through reduced regulatory lag.”⁵⁸ As with the inability to include CWIP in its rate base,
2 because it is subject to the regulatory lag otherwise mitigated by forecast test years or
3 alternative rate plans, KCP&L’s ability to generate earnings and cash flow is
4 disadvantaged relative to its peers.

5 **Q: As required by the Commission’s rule at 4 CSR 240-3.161(3)(N), please provide a**
6 **complete explanation of any changes in business risk to the Company resulting from**
7 **implementation of the fuel adjustment clause (“FAC”) it proposes to continue in this**
8 **proceeding, in addition to any other changes in business risk experienced by the**
9 **Company.**

10 **A:** First, the use of FAC mechanisms is prevalent throughout the industry. As shown in
11 Schedule RBH-8, each of the vertically integrated companies in my proxy group has a
12 fuel adjustment mechanism. As a consequence, the continuation of an FAC for KCP&L
13 would leave its business and regulatory risk profile comparable to the risk profiles of
14 other electric utilities, as it relates to fuel cost recovery. Therefore, no downward
15 adjustment to KCP&L’s rate of return would be reasonable or appropriate as a result of
16 continuation of an FAC. Of course, discontinuation of an FAC for KCP&L would likely
17 warrant an upward adjustment to the Company’s return due to what would be an
18 incremental risk for KCP&L in the area of fuel cost recovery relative to other electric
19 utilities.

⁵⁷

⁵⁸ Regulatory Research Associates, *Alternative Regulation/Incentive Plans, A State-by-State Review*, November 2013, at 1.

1 **Q:** Lastly, are you aware of GPE's May 31, 2016 announcement of its pending
2 acquisition of Westar Energy, Inc. ("Westar")?

3 **A:** Yes, I am. Because my analyses are focused on KCP&L on a standalone basis, and given
4 that the transaction between GPE and Westar will occur at the holding company level, the
5 announcement has not directly affected my recommendation.⁵⁹

6 **B. Generation Portfolio**

7 **Q:** Please provide an overview of the Company's generation portfolio.

8 **A:** KCP&L's operations are heavily dependent on coal-fired generation, which represented
9 75.00 percent of the Company's electric utility 2015 net generation.⁶⁰

10 **Q:** Please briefly describe the risks associated with KCP&L's generation portfolio.

11 **A:** In general, highly capital-intensive generation assets are subject to certain risks including
12 the recovery of the investors' capital in the event of a change in market structure or a
13 plant failure, and recovery of replacement power and repair costs in the event of extended
14 or unplanned outage. In addition, federal environmental and safety regulations present a
15 substantial risk of requiring investors to commit new capital to comply with new
16 regulations or operation restrictions or possibly closure. In fact, a report by the Staff of
17 the Missouri Public Service Commission estimated that known Environmental Protection
18 Agency regulations, which primarily affect coal-fired generating plants in Missouri,
19 would cost state electric utilities and their customers between approximately \$2.23 billion

⁵⁹ Please note that, based on the screening criterion regarding mergers or other significant transactions, Westar was excluded from the proxy group provided in Table I.

⁶⁰ Source: SNL Financial, KCP&L electric utility net generation.

1 and \$2.47 billion from 2012 to 2022.⁶¹ That report further highlighted the level of
2 uncertainty regarding emerging environmental regulations and the potential consequences
3 of those emerging environmental regulations, including additional plant investments.

4 In a September 2014 report, S&P noted that power generators have addressed
5 carbon-reduction policies that target coal-fired generating plants by implementing three
6 strategies: adding “scrubbers” to coal-fired plants; switching to burning natural gas; or
7 retiring coal-fired plants outright.⁶² To the extent these strategies increase costs for
8 utilities, their credit profiles may come under pressure. As noted by S&P:

9 Higher costs could become a key credit issue for regulated utilities given
10 the importance of managing customer rate increases, which has
11 implications for relations with regulators, as well as economic and
12 political ramifications that could heighten business risk. Any rating
13 actions would likely not occur until there is further clarity from a utility
14 about early plant retirements and related cost recovery. For utilities that
15 have significant coal-fired generation, recovery mechanisms will be
16 extremely important to continue to support operating cash flow and
17 maintain robust financial measures.⁶³

18 **Q: Does the Environmental Protection Agency’s (“EPA”) Clean Power Plan present**
19 **any additional risk to the Company?**

20 **A:** Yes. Although the Supreme Court stayed the effect of the Clean Power Plan on February
21 9, 2016, it still poses an additional risk to KCP&L. The Clean Power Plan established
22 “interim and final carbon dioxide emission performance rates for the two types of electric
23 generating units – steam electric and natural gas fired power plants – under Section

⁶¹ See Amended Updated Staff Report on The Cost of Compliance with Federal Environmental Regulations, Case No. EW-2012-0065 (Apr. 3, 2014) at 23. The report includes cost estimates for Kansas City Power & Light Company, KCP&L Greater Missouri Operations Co., Ameren Missouri, and Empire District Electric Company.

⁶² S&P Research, *The Clean Power Plan Will Spur Further Coal Plant Closings, But How Will U.S. Utilities Recover The Costs?* (September 2, 2014).

⁶³ *Ibid.*

1 111(d) of the Clean Air Act.”⁶⁴ In addition, the Clean Power Plan established state-
2 specific interim and final goals for Missouri. Missouri may choose between a rate-based
3 or mass-based approach to meeting those goals. The rate-based goal is based on a
4 reduction in carbon dioxide (“CO₂”) rates from 2,008 lbs/Net MWh in 2012 to 1,272
5 lbs/Net MWh in 2030. The mass-based goal is based on a reduction in CO₂ emissions
6 from 78 million short tons to 55 million short tons.⁶⁵

7 Both goals represent a significant reduction in CO₂ emissions in Missouri. As
8 discussed above, KCP&L’s operations are heavily dependent on coal-fired generation.
9 The need to further reduce carbon emissions as a result of the Clean Power Plan could
10 lead to increasing costs for KCP&L.

11 **Q: What are your conclusions regarding the Company’s generating portfolio?**

12 **A:** The Company’s generating portfolio consists of a high percentage of coal power plants
13 that face certain inherent risks associated with capital intensive assets such as the risk of
14 an extended forced outage and changing market dynamics. In particular, the Company
15 and its investors are faced with the risk that new and impending federal environmental
16 and safety regulations will require it to expend additional capital or face closure or
17 curtailment of generating capacity. For example, KCP&L announced that it will cease
18 burning coal at its Montrose, Lake Road, and Sibley power plants between 2016 and
19 2021, citing the cost-effectiveness of complying with environmental regulations.⁶⁶

20 Because investors consider these risks in establishing their return requirements, the

⁶⁴ Clean Power Plan: Stage at a Glance, Missouri, Environmental Protection Agency, Updated August 3, 2015.

⁶⁵ *Ibid.*

⁶⁶ See Kansas City Power & Light Company Release, “KCP&L Furthers Sustainability Commitment by Announcing Plans to Cease Burning Coal at Three Power Plants” (January 20, 2016).

1 Commission likewise should consider the effect of the additional risk associated with the
2 Company's generating portfolio in determining KCP&L's authorized ROE.

3 **C. Planned Capital Expenditures**

4 **Q: Please briefly summarize the Company's capital investment plans.**

5 A: As discussed in Attachment B, GPE's five-year capital expenditures budget over the
6 2016-2020 timeframe totals approximately \$3.04 billion, which includes substantial
7 investments for KCP&L.⁶⁷ Because the Company will continue to make substantial
8 investments in its utility operations, it will require efficient access to capital markets
9 during the period that rates established in this proceeding will be in effect.

10 **Q: Do credit rating agencies recognize risk associated with increased capital**
11 **expenditures?**

12 A: Yes, they do. From a credit perspective, the additional pressure on cash flows associated
13 with high levels of capital expenditures exerts corresponding pressure on credit metrics
14 and, therefore, credit ratings. S&P has noted that:

15 The real challenge for the industry is the combination of slow growth and
16 huge investment needs. We believe that for the remainder of 2012 and
17 beyond, state regulation will continue to be the single most influential
18 factor for the sector's credit quality. Cost increases, construction projects,
19 environmental compliance, and other public policy directives, together
20 with lackluster growth, will necessitate continued reliance on rate relief
21 requests.⁶⁸

22 The rating agency views noted above also are consistent with certain observations
23 discussed earlier in my Direct Testimony: (1) the benefits of maintaining a strong

⁶⁷ See GPE Earnings Presentation at 20 (February 26, 2016), attached as Attachment B.

⁶⁸ S&P Ratings Direct, *Industry Economic and Ratings Outlook: U.S. Regulated Utilities Will Likely Stay On A Stable Trajectory For The Rest Of 2012 And Into 2013*, at 6 (July 17, 2012).

1 financial profile are significant when capital access is required, and become particularly
2 acute during periods of market instability; and (2) the Commission's decision in this
3 proceeding will have a direct bearing on the Company's credit profile, and its ability to
4 access the capital needed to fund its investments.

5 **Q: Have you also considered the relationship between capital expenditures and the**
6 **earned return on common equity?**

7 **A:** Yes, I have. The "DuPont" formula decomposes the Return on Common Equity into
8 three components: (1) the Profit Margin (net income/revenues); (2) Asset Turnover
9 (revenues/net plant); and (3) the Equity Multiplier (net plant/equity).⁶⁹ As Schedule
10 RBH-9 demonstrates, based on the proxy companies, the Asset Turnover rate declined
11 from 2003 through 2015 (the historical period covered by Value Line) and is expected to
12 remain at its current level through Value Line's 2019 – 2021 projection period. Over that
13 same period, according to Value Line data, average Net Plant is expected to experience a
14 cumulative increase of approximately 202.30 percent. Since, as noted above, the utility
15 industry is going through a period of increased capital investment, the lag between the
16 addition of net plant and revenue generated by those investments dilute the Asset
17 Turnover ratio, at least in the near term.

18 In order to gain an additional perspective on the relationship between plant
19 additions and Asset Turnover, I performed a regression analysis in which the annual
20 change in the Asset Turnover rate was the dependent variable, and the annual change in
21 Net Plant was the independent variable. As shown in Schedule RBH-9, that analysis

1 indicates a statistically significant negative relationship between the two variables, such
2 that as annual net plant increases, the Asset Turnover ratio decreases. This, in turn,
3 suggests that an increase in capital expenditures also negatively affects the Return on
4 Common Equity, causing greater financial stress to the utility. To the extent investors
5 value a company based on earnings and cash flow, this additional financial strain is a key
6 concern.

7 **Q: What are your conclusions regarding the effect of the Company's capital spending**
8 **plans on its risk profile?**

9 A: It is clear that the Company's capital expenditure program is significant. The financial
10 community recognizes the additional risks associated with substantial capital
11 expenditures and the financing, regulatory and operating risks associated with those
12 plans. The Company must have access to the capital markets on a timely basis and at
13 reasonable cost rates in order to fund those investments. In my view, the Company's
14 capital investment plan remains an important consideration in establishing its ROE and
15 overall rate of return.

16 **Q: What are your conclusions regarding the Company's overall business risk profile?**

17 A: The regulatory environment is one of the most important issues considered by both debt
18 and equity investors in assessing the risks and prospects of utility companies. From the
19 perspective of debt investors, the authorized return should enable the Company to
20 generate the cash flow needed to meet its near-term financial obligations, make the

⁶⁹ The DuPont formula is commonly used by financial analysts to monitor specific operational and financial drivers of a company's earned ROE. The formula expands the calculation of the ROE into the product of three financial metrics: Profit Margin, Asset Turnover and the Equity Multiplier. That is, $ROE = (\text{earnings} / \text{revenue}) \times (\text{revenue} / \text{assets}) \times (\text{assets} / \text{equity})$. See, e.g., Eugene Brigham, Michael Ehrhardt, Financial Management: Theory and Practice, 12th Ed., 2008, at 140-141.

1 capital investments needed to maintain and expand its system, and maintain sufficient
2 levels of liquidity to fund unexpected events. That financial liquidity must be derived not
3 only from internally generated funds, but also by efficient access to capital markets.
4 Because investors have many investment alternatives, even within a given market sector,
5 the Company's financial profile must be adequate on a relative basis to ensure its ability
6 to attract capital under a variety of economic and financial market conditions.

7 From the perspective of GPE, the authorized return must be sufficient to fund
8 incremental capital investments in KCP&L's operations. From the perspective of equity
9 investors, the authorized return must be adequate to provide a risk-comparable return on
10 the equity portion of the Company's capital investments. Since (as discussed earlier)
11 equity investors are the residual claimants on the Company's cash, they are particularly
12 concerned with regulatory uncertainty and its effect on future cash flows.

13 In light of those risks, I believe that an ROE in the range of 9.75 percent to 10.50
14 percent is reasonable, if not conservative. An ROE in that range would permit the
15 Company to compete for capital at a time when it requires additional funds to finance
16 large projects as it confronts multiple new and emerging safety and environmental
17 regulations.

VII. CAPITAL MARKET ENVIRONMENT

18 **Q: Do economic conditions influence the required cost of capital and required return**
19 **on common equity?**

20 **A: Yes. As discussed in Section V, the models used to estimate the Cost of Equity are**
21 **influenced by current and expected capital market conditions. It therefore is important to**

1 assess the reasonableness of any financial model's results in the context of observable
2 market data. To the extent that certain ROE estimates are incompatible with such data or
3 inconsistent with basic financial principles, we should consider whether alternative
4 estimation techniques are likely to provide more meaningful and reliable results.

5 **Q: Do you have any general observations regarding the relationship between current**
6 **capital market conditions and the Company's Cost of Equity?**

7 A: Yes, I do. Much has been reported about the Federal Reserve's market intervention since
8 2007, and its effect on interest rates. Although the Federal Reserve completed its
9 Quantitative Easing initiative in October 2014, it was not until December 2015 that it
10 raised the Federal Funds rate, and began the process of rate normalization.⁷⁰ A
11 significant issue, then, is how investors will react as that process continues. A viable
12 outcome is that investors will perceive greater chances for economic growth, which will
13 increase the growth rates included in the Constant Growth DCF model. At the same
14 time, higher growth and the absence of Federal market intervention could provide the
15 opportunity for interest rates to increase, thereby increasing the dividend yield portion of
16 the DCF model. In that case, both terms of the Constant Growth DCF model would
17 increase, producing higher ROE estimates.

18 At this time, however, market data remains somewhat disjointed. As a
19 consequence, it is difficult to rely on a single model to estimate the Company's Cost of
20 Equity. A more reasoned approach is to understand the relationships among Federal
21 Reserve policies, interest rates and risk, and assess how those factors may affect different
22 models and their results. For the reasons discussed below, the current market is one in

⁷⁰ See Federal Reserve Press Release (December 16, 2015).

1 which it is very important to consider a broad range of data and models when
2 determining the Cost of Equity.

3 **Q: Please summarize the effect of recent Federal Reserve policies on interest rates and**
4 **the cost of capital.**

5 A: Beginning in 2008, the Federal Reserve proceeded on a steady path of initiatives intended
6 to lower long-term Treasury yields.⁷¹ The Federal Reserve policy actions “were designed
7 to put downward pressure on longer-term interest rates by having the Federal Reserve
8 take onto its balance sheet some of the duration and prepayment risks that would
9 otherwise have been borne by private investors.”⁷² Under that policy, “Securities held
10 outright” on the Federal Reserve’s balance sheet increased from approximately \$489
11 billion at the beginning of October 2008 to \$4.24 trillion by the end of May 2016.⁷³ To
12 put that increase in context, the securities held by the Federal Reserve represented
13 approximately 3.29 percent of GDP at the end of September 2008, and had risen to
14 approximately 23.25 percent of GDP in May 2016.⁷⁴ As such, the Federal Reserve
15 policy actions have represented a significant source of liquidity, and have had a
16 substantial effect on capital markets.

17 Just as market intervention by the Federal Reserve has reduced interest rates, it
18 also has had the effect of reducing market volatility. As shown in Chart 5 (below), each
19 time the Federal Reserve began to purchase bonds (as evidenced by the increase in
20 “Securities Held Outright” on its balance sheet), volatility subsequently declined. In fact,
21 in September 2012, when the Federal Reserve began to purchase long-term securities at a

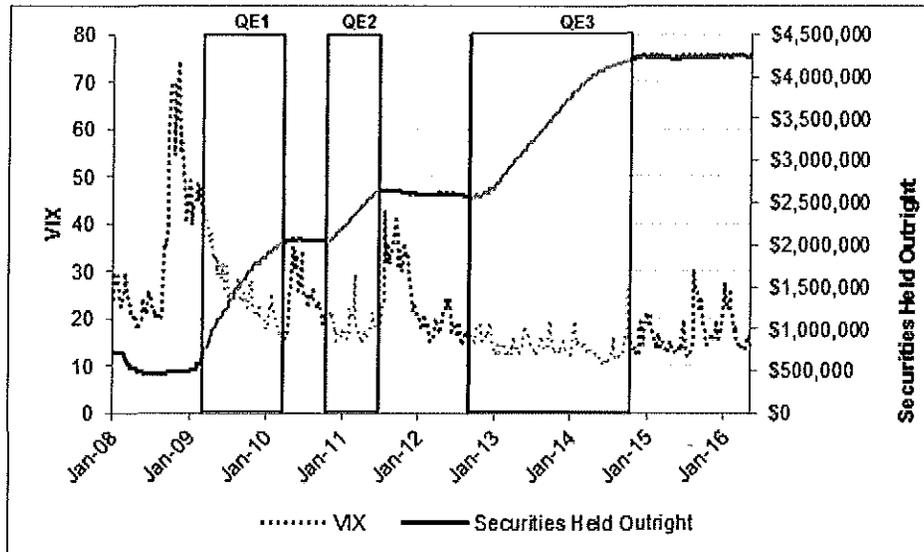
⁷¹ See Federal Reserve Press Release (June 19, 2013).

⁷² Federal Reserve Bank of New York, *Domestic Open Market Operations During 2012*, April 2013, at 29.

⁷³ Source: Federal Reserve Board Schedule H.4.1. “Securities held outright” include U.S. Treasury securities, Federal agency debt securities, and mortgage-backed securities.

1 pace of \$85 billion per month, volatility (as measured by the CBOE Volatility Index,
2 known as the “VIX”) fell, and through October 2014 remained in a relatively narrow
3 range. The reason is quite straight-forward: Investors became confident that the Federal
4 Reserve would intervene if markets were to become unstable.

5 **Chart 5: VIX and Federal Reserve Asset Purchases⁷⁵**



6 The important analytical issue is whether we can infer that risk aversion among
7 investors is at a historically low level, implying a Cost of Equity that is well below
8 recently authorized returns. Given the negative correlation between the expansion of the
9 Federal Reserve’s balance sheet and the VIX, it is difficult to conclude that fundamental
10 risk aversion and investor return requirements have fallen. If it were the case that
11 investors believe that volatility will remain at low levels (that is, that market risk and
12 uncertainty will remain low), it is not clear why they would decrease their return
13 requirements for defensive sectors such as utilities. In that respect, it appears that the
14 Constant Growth DCF results are at odds with market conditions.
15

⁷⁴ Source: Federal Reserve Board Schedule H.4.1; Bureau of Economic Analysis.

⁷⁵ Source: Federal Reserve Economic Data (FRED), Federal Reserve Bank of St. Louis; Federal Reserve Statistical Release H.4.1, Factors Affecting Reserve Balances.

1 **Q: Has the Federal Reserve's Quantitative Easing policy been associated with changes**
2 **in the proxy companies' trading levels?**

3 A: Yes, that appears to be the case. From January 2000 through the end of August 2012
4 (that is, immediately prior to the third round of Quantitative Easing), the proxy group's
5 average P/E ratio traded at a 12.00 percent discount to the market. From September 2012
6 through May 2013, when the Federal Reserve announced it would begin to taper its asset
7 purchases, the proxy group traded at a 17.00 percent premium to the market. More
8 recently, after the Federal Reserve began its process of rate normalization in December
9 2015, the proxy group's average P/E ratio fell to approximately 98.00 percent of the
10 market P/E (*i.e.*, a 2.00 percent discount), closer to the long-term relationship.

11 **Q: Have other economic events factored in the current level of interest rates?**

12 A: Yes. For example, given the recent vote on the United Kingdom European Union
13 membership referendum (commonly referred to as "Brexit") and subsequent capital
14 market reaction, the timing of Federal Reserve monetary policy normalization remains
15 uncertain. The Federal Reserve's monetary policy actions, including maintaining an
16 expanded balance sheet and keeping the Federal Funds rate low, have affected capital
17 markets and led to utility valuations that are elevated relative to historical levels, and to
18 the overall market. With Federal Reserve monetary policy now uncertain, the
19 sustainability of current utility valuation levels is likewise uncertain.

20 **Q: Does your recommendation also consider the current interest rate environment?**

21 A: Yes, it does. From an analytical perspective, it is important that the inputs and
22 assumptions used to arrive at an ROE recommendation, including assessments of capital
23 market conditions, are consistent with the recommendation itself. Because the Cost of

1 Equity is forward-looking, the salient issue is whether investors see the likelihood of
2 increased interest rates during the period in which the rates set in this proceeding will be
3 in effect. In that regard, the approximately 50 economists surveyed by Blue Chip
4 Financial Forecast see the 30-year Treasury yield as increasing to 3.90 percent by 2018.⁷⁶
5 Those projections are supported by the fact that investors recently have been willing to
6 pay about one and a half times the premium for the option to sell long-term Government
7 bonds in January 2018 (with an exercise price equal to the current price) than they have
8 been willing to pay for the option to buy those bonds.⁷⁷ Because the prices of bonds
9 move inversely to interest rates,⁷⁸ those option prices indicate that investors believe it is
10 considerably more likely that interest rates will increase over the coming year, than it is
11 likely that they will decrease. As noted in Section V (above), all else remaining equal an
12 increase in interest rates would increase the return required by equity holders.

13 Given that: (1) Federal monetary policy has begun its process of “normalization”;
14 and (2) economists and market data indicate expectations for increasing interest rates into
15 2018 and beyond, I believe that an ROE in the range of 9.75 percent to 10.50 percent
16 reflects the prevailing and expected interest rate environment.

17 **Q: What conclusions do you draw from your analyses of capital market conditions?**

18 **A:** From an analytical perspective, it is important that the inputs and assumptions used to
19 arrive at an ROE determination, including assessments of capital market conditions, are
20 consistent with the conclusion itself. Although I appreciate that all analyses require an
21 element of judgment, the application of that judgment must be made in the context of the
22 quantitative and qualitative information available to the analyst and the capital market

⁷⁶ See, *Blue Chip Financial Forecast*, Vol. 35 No. 6, June 1, 2016, at 14.

1 environment in which the analyses were undertaken. Because the application of financial
2 models and interpretation of their results often is the subject of differences among
3 analysts in regulatory proceedings, I believe that it is important to review and consider a
4 variety of data points; doing so enables us to put in context both quantitative analyses and
5 the associated recommendations.
6

VIII. COST OF DEBT

7 **Q: What is the Company's Cost of Debt?**

8 **A:** As shown in Schedule RBH-10, the Company's Cost of Debt is 5.51 percent.

9 **Q: How does the projected Cost of Debt as of December 31, 2016 compare to the actual
10 Cost of Debt as of December 31, 2015 and the Cost of Debt used in KCP&L's last
11 rate case (Case No. ER-2014-0370)?**

12 **A:** In Case No. ER-2014-0370, which was approved by the Commission in the KCP&L
13 Order, KCP&L based its cost of debt on GPE's consolidated cost of debt. In this
14 proceeding, the Company recommends using the weighted average cost of KCP&L-
15 specific debt.⁷⁷ The projected cost of KCP&L debt of 5.51 percent (as of December 31,
16 2016) is the same as the actual cost of KCP&L debt (5.51 percent as of December 31,
17 2015), but 5 basis points below the 5.56 percent Cost of GPE Consolidated Debt
18 approved in KCP&L's last rate case.

⁷⁷ Source: <http://www.nasdaq.com/symbol/tilt/option-chain?dateindex=7>

⁷⁸ That is, as interest rates move up (down), bond prices move down (up).

⁷⁹ See Direct Testimony of Kevin Bryant.

1 **Q: Have you assessed the Company's Cost of Debt?**

2 **A:** Yes, I reviewed the prevailing Bloomberg Fair Value Curves for A-rated and BBB-rated
3 utility debt concurrent with the date of issuance of the Company's debt instruments. As
4 shown Schedule RBH-11, the Company's weighted average coupon rate is consistent
5 with the prevailing yields at the times of issuance. As such, I believe the Company's
6 5.51 percent current Cost of Debt is reasonable.

IX. CAPITAL STRUCTURE AND OVERALL RATE OF RETURN

7 **Q: Please summarize the Company's requested capital structure and overall rate of**
8 **return.**

9 **A:** The requested capital structure components and resulting overall rate of return are
10 presented in Table 8 below:

11 **Table 8: Summary of Overall Rate of Return⁸⁰**

Capital Components	Ratio	Cost	Weighted Cost
Long-Term Debt	50.12%	5.51%	2.7633%
Common Equity	49.88%	9.90%	4.9382%
Total	100.00%		7.7015%

12 **Q: What is the basis for the Company's requested capital structure and overall rate of**
13 **return?**

14 **A:** The requested capital structure, as well as the Cost of Debt, are based on KCP&L's
15 projected capital structure at December 31, 2016. The data supporting the requested
16 capital structure is presented in Schedule RBH-10, with the December 31, 2016 summary

1 shown on page 1 of that schedule. The use of KCP&L's capital structure and cost of
2 capital is supported in the Direct Testimony of Kevin Bryant.

3 **Q: What are the principal differences between KCP&L's actual capital structure as of**
4 **December 31, 2015 and the requested projected capital structure as of December 31,**
5 **2016?**

6 A: The actual KCP&L capital structure as of December 31, 2015, is shown on page 2 of
7 Schedule RBH-10. The key differences between the actual capital structure and the
8 requested capital structure, projected as of December 31, 2016, are as follows:

- 9 • Net Long-Term Debt is projected to increase by \$2.11 million due to the
10 amortization of debt discounts and expenses.
- 11 • Equity is projected to increase by \$125 million due to additional earnings
12 and an increase in the accumulated other comprehensive income balance,
13 which is partially offset by common dividends declared.

14 **Q: How does the capital structure affect the Cost of Equity?**

15 A: In practice, the capital structure should enable the Company to maintain or enhance its
16 financial integrity, thereby enabling access to capital at competitive rates under a variety
17 of economic and financial market conditions. The capital structure relates to financial
18 risk, which is a function of the percentage of debt relative to equity (that relationship is
19 often referred to as "financial leverage"). As the percentage of debt in the capital
20 structure increases, so do the fixed obligations for the repayment of that debt and,
21 therefore, the risk that cash flows may not be sufficient to meet those obligations on a
22 timely basis. Consequently, as the degree of financial leverage increases, the risk of

⁸⁰ See Schedule RBH-10.

1 financial distress (*i.e.*, financial risk) also increases. Since the capital structure can affect
2 the subject company's overall level of risk, it is an important consideration in establishing
3 a just and reasonable rate of return. Therefore, it is important to consider the capital
4 structure in light of industry practice and investor requirements.

5 **Q: Please describe your analysis of the Company's capital structure relative to industry**
6 **practice.**

7 A: As a measure of industry practice, I calculated the average capital structure for each of
8 the utility operating companies held by the proxy companies over the last eight fiscal
9 quarters. As shown in Schedule RBH-12, the proxy group average capital structure over
10 that period includes 51.82 percent common equity and 48.18 percent long-term debt; the
11 average common equity ratios (on a company-specific basis) range from 45.95 percent to
12 57.69 percent. Based on that review, it is apparent that KCP&L's capital structure is
13 consistent with those in place at the proxy companies.

14 **Q: What is the basis for using average capital components rather than a point-in-time**
15 **measurement?**

16 A: Measuring the capital components at a particular point in time can skew the capital
17 structure by the specific circumstances of a particular period. Therefore, it is more
18 appropriate to normalize the relative relationship between the capital components over a
19 period of time.

20 **Q: What is your conclusion regarding an appropriate capital structure for KCP&L?**

21 A: Considering the range of proxy company average equity ratios from 45.95 percent to
22 57.69 percent, I believe that KCP&L's 49.88 percent common equity ratio is appropriate.

X. CONCLUSIONS AND RECOMMENDATION

1 **Q: What is your conclusion regarding the Company's Cost of Equity?**

2 A: As discussed in Section V (and as shown in Schedules RBH-1 through RBH-7), I have
3 performed several analyses to estimate KCP&L's Cost of Equity. In light of those
4 results, and taking into consideration other relevant and observable market data, as well
5 as the Commission's findings in the KCP&L Order, I believe that an ROE in the range of
6 9.75 percent to 10.50 percent represents the range of returns required by equity investors
7 under current and expected market conditions. As discussed earlier in my testimony, my
8 recommendation reflects analytical results based on a proxy group of electric utilities,
9 and takes into consideration the Company's risk profile, including the regulatory
10 environment in which KCP&L operates, its generation portfolio, and its planned capital
11 expenditures.

12 I also conclude that the Company's 5.51 percent Cost of Debt reflects prevailing
13 market conditions at the times of issuance, and therefore is reasonable and appropriate.
14 Lastly, I conclude that the Company's capital structure, which consists of 49.88 percent
15 common equity, 50.12 percent long-term debt is reasonable relative to its peers. The
16 Company's proposed capital structure is consistent with industry practice, and supports
17 KCP&L's financial integrity.

18 **Q: Does this conclude your Direct Testimony?**

19 A: Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Kansas City Power & Light)
Company's Request for Authority to Implement) Case No. ER-2016-0285
A General Rate Increase for Electric Service)

AFFIDAVIT OF ROBERT B. HEVERT

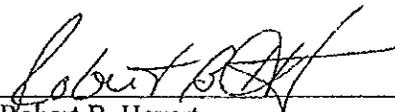
COMMONWEALTH OF MASSACHUSETTS)
) ss
COUNTY OF WORCESTER)

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

1. My name is Robert B. Hevert and my business address is ScottMadden, Inc., 1900 W. Park Drive, Suite 250, Westborough, MA 01581. I have been retained to serve as an expert witness to provide testimony on behalf of Kansas City Power & Light Company.

2. Attached hereto and made a part hereof for all purposes is my Direct Testimony on behalf of Kansas City Power & Light Company consisting of sixty-three (63) pages, having been prepared in written form for introduction into evidence in the above-captioned docket.

3. I have knowledge of the matters set forth therein. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded, including any attachments thereto, are true and accurate to the best of my knowledge, information and belief.


Robert B. Hevert

Subscribed and sworn before me this 24th day of June, 2016.


Notary Public

My commission expires: March 11, 2022



Summary

Bob Hevert is a financial and economic consultant with more than 30 years of broad experience in the energy and utility industries. He has an extensive background in the areas of corporate finance, mergers and acquisitions, project finance, asset and business unit valuation, rate and regulatory matters, energy market assessment, and corporate strategic planning. He has provided expert testimony on a wide range of financial, strategic, and economic matters on more than 100 occasions at the state, provincial, and federal levels.

Prior to joining ScottMadden, Bob served as managing partner at Sussex Economic Advisors, LLC. Throughout the course of his career, he has worked with numerous leading energy companies and financial institutions throughout North America. He has provided expert testimony and support of litigation in various regulatory proceedings on a variety of energy and economic issues. Bob earned a B.S. in business and economics from the University of Delaware and an M.B.A. with a concentration in finance from the University of Massachusetts at Amherst. Bob also holds the Chartered Financial Analyst designation.

Areas of Specialization

- Regulation and rates
- Utilities
- Fossil/hydro generation
- Markets and RTOs
- Nuclear generation
- Mergers and acquisitions
- Regulatory strategy and rate case support
- Capital project planning
- Strategic and business planning

Recent Expert Testimony Submission/Appearance

- Federal Energy Regulatory Commission – Return on Equity
- New Jersey Board of Public Utilities – Merger Approval
- New Mexico Public Regulation Commission – Cost of Capital and Financial Integrity
- United States District Court – PURPA and FERC Regulations
- Alberta Utilities Commission – Return on Equity and Capital Structure

Recent Assignments

- Provided expert testimony on the cost of capital for ratemaking purposes before numerous state utility regulatory agencies, the Alberta Utilities Commission, and the Federal Energy Regulatory Commission
- For an independent electric transmission provider in Texas, prepared an expert report on the economic damages with respect to failure to meet guaranteed completion dates. The report was filed as part of an arbitration proceeding and included a review of the ratemaking implications of economic damages
- Advised the board of directors of a publicly traded electric and natural gas combination utility on dividend policy issues, earnings payout trends and related capital market considerations
- Assisted a publicly traded utility with a strategic buy-side evaluation of a gas utility with more than \$1 billion in assets. The assignment included operational performance benchmarking, calculation of merger synergies, risk analysis, and review of the regulatory implications of the transaction
- Provided testimony before the Arkansas Public Service Commission in support of the acquisition of SourceGas LLC by Black Hills Corporation. The testimony addressed certain balance sheet capitalization and credit rating issues
- For the State of Maine Public Utility Commission, prepared a report that summarized the Northeast and Atlantic Canada natural gas power markets and analyzed the potential benefits and costs associated with natural gas pipeline expansions. The independent report was filed at the Maine Public Utility Commission



Resume of:
Robert B. Hevert
Partner

SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Regulatory Commission of Alaska				
ENSTAR Natural Gas Company	06/16	ENSTAR Natural Gas Company	Matter No. TA 285-4	Return on Equity
ENSTAR Natural Gas Company	08/14	ENSTAR Natural Gas Company	Matter No. TA 262-4	Return on Equity
Alberta Utilities Commission				
Altalink, L.P., and EPCOR Distribution & Transmission, Inc.	02/16	Altalink, L.P., and EPCOR Distribution & Transmission, Inc.	2016 General Cost of Capital, Proceeding ID. 20622	Rate of Return
Arizona Corporation Commission				
Southwest Gas Corporation	05/16	Southwest Gas Corporation	Docket No. G-01551A-16-017	Return on Equity
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	11/15	CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Arkansas Gas	Docket No. 15-098-U	Return on Equity
SourceGas Arkansas, Inc.	03/15	SourceGas Arkansas, Inc.	Docket No. 15-011-U	Return on Equity
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
California Public Utilities Commission				
Southwest Gas Corporation	12/12	Southwest Gas Corporation	Docket No. A-12-12-024	Return on Equity
Colorado Public Utilities Commission				
Xcel Energy, Inc.	03/15	Public Service Company of Colorado	Docket No. 15AL-0135G	Return on Equity (gas)
Xcel Energy, Inc.	06/14	Public Service Company of Colorado	Docket No. 14AL-0660E	Return on Equity (electric)
Xcel Energy, Inc.	12/12	Public Service Company of Colorado	Docket No. 12AL-1268G	Return on Equity (gas)
Xcel Energy, Inc.	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)



Resume of:
Robert B. Hevert
Partner

SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
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-246G	Return on Equity (gas)
Connecticut Public Utilities Regulatory Authority				
Connecticut Light and Power Company	06/14	Connecticut Light and Power Company	Docket No. 14-05-06	Return on Equity
Southern Connecticut Gas Company	09/08	Southern Connecticut Gas Company	Docket No. 08-08-17	Return on Equity
Southern Connecticut Gas Company	12/07	Southern Connecticut Gas Company	Docket No. 05-03-17PH02	Return on Equity
Connecticut Natural Gas Corporation	12/07	Connecticut Natural Gas Corporation	Docket No. 06-03-04PH02	Return on Equity
Delaware Public Service Commission				
Potomac Electric Power Company	05/16	Potomac Electric Power Company	Case No. 16-649 (Electric)	Return on Equity
Potomac Electric Power Company	05/16	Potomac Electric Power Company	Case No. 16-650 (Gas)	Return on Equity
Delmarva Power & Light Company	03/13	Delmarva Power & Light Company	Case No. 13-115	Return on Equity
Delmarva Power & Light Company	12/12	Delmarva Power & Light Company	Case No. 12-546	Return on Equity
Delmarva Power & Light Company	03/12	Delmarva Power & Light Company	Case No. 11-528	Return on Equity
District of Columbia Public Service Commission				
Washington Gas Light Company	02/16	Washington Gas Light Company	Formal Case No. FC1137	Return on Equity
Potomac Electric Power Company	03/13	Potomac Electric Power Company	Formal Case No. FC1103-2013-E	Return on Equity
Potomac Electric Power Company	07/11	Potomac Electric Power Company	Formal Case No. FC1087	Return on Equity
Federal Energy Regulatory Commission				
Sabine Pipeline, LLC	09/15	Sabine Pipeline, LLC	Docket No. RP15-1322-000	Return on Equity
Nextera Energy Transmission West, LLC	07/15	Nextera Energy Transmission West, LLC	Docket No. ER15-2239-000	Return on Equity
Maritimes & Northeast Pipeline, LLC	05/15	Maritimes & Northeast Pipeline, LLC	Docket No. RP15-1026-000	Return on Equity
Public Service Company of New Mexico	12/12	Public Service Company of New Mexico	Docket No. ER13-685-000	Return on Equity
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



ATTACHMENT A

Resume of:
Robert B. Hevert
Partner

SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
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
Florida Public Service Commission				
Florida Power & Light Company	03/16	Florida Power & Light Company	Docket No. 160021-EI	Return on Equity
Tampa Electric Company	04/13	Tampa Electric Company	Docket No. 130040-EI	Return on Equity
Georgia Public Service Commission				
Atlanta Gas Light Company	05/10	Atlanta Gas Light Company	Docket No. 31647-U	Return on Equity
Hawaii Public Utilities Commission				
Maui Electric Company, Limited	12/14	Maui Electric Company, Limited	Docket No. 2014-0318	Return on Equity
Hawaiian Electric Company	06/14	Hawaiian Electric Light Company	Docket No. 2013-0373	Return on Equity
Hawaii Electric Light Company	08/12	Hawaiian Electric Light Company	Docket No. 2012-0099	Return on Equity
Illinois Commerce Commission				
Ameren Illinois Company d/b/a Ameren Illinois	01/15	Ameren Illinois Company d/b/a Ameren Illinois	Docket No. 15-0142	Return on Equity
Liberty Utilities (Midstates Natural Gas) Corp. d/b/a Liberty Utilities	03/14	Liberty Utilities (Midstates Natural Gas) Corp. d/b/a Liberty Utilities	Docket No. 14-0371	Return on Equity
Ameren Illinois Company d/b/a Ameren Illinois	01/13	Ameren Illinois Company d/b/a Ameren Illinois	Docket No. 13-0192	Return on Equity



ATTACHMENT A

Resume of:
Robert B. Hevert
Partner

SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
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)
Indiana Utility Regulatory Commission				
Duke Energy Indiana, Inc.	12/15	Duke Energy Indiana, Inc.	Cause No. 44720	Return on Equity
Duke Energy Indiana, Inc.	12/14	Duke Energy Indiana, Inc.	Cause No. 44526	Return on Equity
Northern Indiana Public Service Company	05/09	Northern Indiana Public Service Company	Cause No. 43894	Assessment of Valuation Approaches
Kansas Corporation Commission				
Kansas City Power & Light Company	01/15	Kansas City Power & Light Company	Docket No. 15-KCPE-116-RTS	Return on Equity
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				
Potomac Electric Power Company	06/16	Potomac Electric Power Company	Case No. 9418	Return on Equity
Potomac Electric Power Company	12/13	Potomac Electric Power Company	Case No. 9336	Return on Equity
Delmarva Power & Light Company	03/13	Delmarva Power & Light Company	Case No. 9317	Return on Equity
Potomac Electric Power Company	11/12	Potomac Electric Power Company	Case No. 9311	Return on Equity
Potomac Electric Power Company	12/11	Potomac Electric Power Company	Case No. 9286	Return on Equity
Delmarva Power & Light Company	12/11	Delmarva Power & Light Company	Case No. 9285	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	11/15	Massachusetts Electric Company and Nantucket Electric Company d/b/a National Grid	DPU 15-155	Return on Equity



ATTACHMENT A

Resume of:
Robert B. Hevert
Partner

SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Fitchburg Gas and Electric Light Company d/b/a Unutil	06/15	Fitchburg Gas and Electric Light Company d/b/a Unutil	DPU 15-80	Return on Equity
NSTAR Gas Company	12/14	NSTAR Gas Company	DPU 14-150	Return on Equity
Fitchburg Gas and Electric Light Company d/b/a Unutil	07/13	Fitchburg Gas and Electric Light Company d/b/a Unutil	DPU 13-90	Return on Equity
Bay State Gas Company d/b/a Columbia Gas of Massachusetts	04/12	Bay State Gas Company d/b/a Columbia Gas of Massachusetts	DPU 12-25	Capital Cost Recovery
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	DPU 09-30	Return on Equity
NSTAR Electric	09/04	NSTAR Electric	DTE 04-85	Divestiture of Power Purchase Agreement
NSTAR Electric	08/04	NSTAR Electric	DTE 04-78	Divestiture of Power Purchase Agreement
NSTAR Electric	07/04	NSTAR Electric	DTE 04-68	Divestiture of Power Purchase Agreement
NSTAR Electric	07/04	NSTAR Electric	DTE 04-61	Divestiture of Power Purchase Agreement
NSTAR Electric	06/04	NSTAR Electric	DTE 04-60	Divestiture of Power Purchase Agreement
Unutil Corporation	01/04	Fitchburg Gas and Electric	DTE 03-52	Integrated Resource Plan; Gas Demand Forecast
Bay State Gas Company	01/93	Bay State Gas Company	DPU 93-14	Divestiture of Shelf Registration
Bay State Gas Company	01/91	Bay State Gas Company	DPU 91-25	Divestiture of Shelf Registration
Minnesota Public Utilities Commission				
Otter Tail Power Corporation	02/16	Otter Tail Power Company	Docket No. E017/GR-15-1033	Return on Equity
Minnesota Energy Resources Corporation	09/15	Minnesota Energy Resources Corporation	Docket No. G-011/GR-15-736	Return on Equity



ATTACHMENT A

Resume of:
Robert B. Hevert
Partner

SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Minnesota Gas	08/15	CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Minnesota Gas	Docket No. G-008/GR-15-424	Return on Equity
Xcel Energy, Inc.	11/13	Northern States Power Company	Docket No. E002/GR-13-868	Return on Equity
CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Minnesota Gas	08/13	CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Minnesota Gas	Docket No. G-008/GR-13-316	Return on Equity
Xcel Energy, Inc.	11/12	Northern States Power Company	Docket No. E002/GR-12-961	Return on Equity
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	Northern States Power Company -Minnesota	Docket No. E-002/GR-05-1428	Return on Equity (electric)
Xcel Energy, Inc.	09/04	Northern States Power Company - Minnesota	Docket No. G-002/GR-04-1511	Return on Equity (gas)
Mississippi Public Service Commission				
CenterPoint Energy Resources, Corp. d/b/a CenterPoint Energy Entex and CenterPoint Energy Mississippi Gas	07/09	CenterPoint Energy Mississippi Gas	Docket No. 09-UN-334	Return on Equity
Missouri Public Service Commission				
Kansas City Power & Light Company	02/16	Kansas City Power & Light Company	Case No. ER-2016-0156	Return on Equity (electric)
Kansas City Power & Light Company	10/14	Kansas City Power & Light Company	Case No. ER-2014-0370	Return on Equity (electric)
Union Electric Company d/b/a Ameren Missouri	07/14	Union Electric Company d/b/a Ameren Missouri	Case No. ER-2014-0258	Return on Equity (electric)
Union Electric Company d/b/a Ameren Missouri	06/14	Union Electric Company d/b/a Ameren Missouri	Case No. EC-2014-0223	Return on Equity (electric)
Liberty Utilities (Midstates Natural Gas) Corp. d/b/a Liberty Utilities	02/14	Liberty Utilities (Midstates Natural Gas) Corp. d/b/a Liberty Utilities	Case No. GR-2014-0152	Return on Equity
Laclede Gas Company	12/12	Laclede Gas Company	Case No. GR-2013-0171	Return on Equity



ATTACHMENT A

Resume of:
Robert B. Hevert
Partner

SPONSOR	DATE	CASE/APPLICANT	DOCKET No.	SUBJECT
Union Electric Company d/b/a Ameren Missouri	02/12	Union Electric Company d/b/a Ameren Missouri	Case No. ER-2012-0166	Return on Equity (electric)
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)
Montana Public Service Commission				
Northwestern Corporation	09/12	Northwestern Corporation d/b/a Northwestern Energy	Docket No. D2012.9.94	Return on Equity (gas)
Nevada Public Utilities Commission				
Southwest Gas Corporation	04/12	Southwest Gas Corporation	Docket No. 12-04005	Return on Equity (gas)
Nevada Power Company	06/11	Nevada Power Company	Docket No. 11-06006	Return on Equity (electric)
New Hampshire Public Utilities Commission				
Unitil Energy Systems, Inc.	04/16	Unitil Energy Systems, Inc.	Docket No. DE 16-384	Return on Equity
Liberty Utilities d/b/a EnergyNorth Natural Gas	08/14	Liberty Utilities d/b/a EnergyNorth Natural Gas	Docket No. DG 14-180	Return on Equity
Liberty Utilities d/b/a Granite State Electric Company	03/13	Liberty Utilities d/b/a Granite State Electric Company	Docket No. DE 13-063	Return on Equity
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., 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., 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				
The Southern Company; AGL Resources Inc.; AMS Corp. and Pivotal Holdings, Inc. d/b/a Elizabethtown Gas	04/16	The Southern Company; AGL Resources Inc.; AMS Corp. and Pivotal Holdings, Inc. d/b/a Elizabethtown Gas	BPU Docket No. GM15101196	Merger Approval
Atlantic City Electric Company	03/16	Atlantic City Electric Company	Docket No. ER16030252	Return on Equity
Pepco Holdings, Inc.	04/14	Atlantic City Electric Company	Docket No. ER14030245	Return on Equity



ATTACHMENT A

Resume of:
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SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Orange and Rockland Utilities	11/13	Rockland Electric Company	Docket No. ER13111135	Return on Equity
Atlantic City Electric Company	12/12	Atlantic City Electric Company	Docket No. ER12121071	Return on Equity
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. EM06090638	Divestiture and Valuation of Electric Generating Assets
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				
Public Service Company of New Mexico	08/15	Public Service Company of New Mexico	Case No. 15-00261-UT	Return on Equity (electric)
Public Service Company of New Mexico	12/14	Public Service Company of New Mexico	Case No. 14-00332-UT	Return on Equity (electric)
Public Service Company of New Mexico	12/14	Public Service Company of New Mexico	Case No. 13-00390-UT	Cost of Capital and Financial Integrity
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				
Consolidated Edison Company of New York, Inc.	01/15	Consolidated Edison Company of New York, Inc.	Case No. 15-E-0050	Return on Equity (electric)
Orange and Rockland Utilities, Inc.	11/14	Orange and Rockland Utilities, Inc.	Case Nos. 14-E-0493 and 14-G-0494	Return on Equity (electric and gas)
Consolidated Edison Company of New York, Inc.	01/13	Consolidated Edison Company of New York, Inc.	Case No. 13-E-0030	Return on Equity (electric)
Niagara Mohawk Corporation d/b/a National Grid for Electric Service	04/12	Niagara Mohawk Corporation d/b/a National Grid for Electric Service	Case No. 12-E-0201	Return on Equity (electric)



ATTACHMENT A

Resume of:
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SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Niagara Mohawk Corporation d/b/a National Grid for Gas Service	04/12	Niagara Mohawk Corporation d/b/a National Grid for Gas Service	Case No. 12-G-0202	Return on Equity (gas)
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
North Carolina Utilities Commission				
Public Service Company of North Carolina, Inc.	03/16	Public Service Company of North Carolina, Inc.	Docket No. G-5, Sub 565	Return on Equity
Dominion North Carolina Power	03/16	Dominion North Carolina Power	Docket No. E-22, Sub 532	Return on Equity
Duke Energy Carolinas, LLC	02/13	Duke Energy Carolinas, LLC	Docket No. E-7, Sub 1026	Return on Equity
Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc.	10/12	Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc.	Docket No. E-2, Sub 1023	Return on Equity
Virginia Electric and Power Company d/b/a Dominion North Carolina Power	03/12	Virginia Electric and Power Company d/b/a Dominion North Carolina Power	Docket No. E-22, Sub 479	Return on Equity (electric)
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				
CenterPoint Energy Resources Corp., d/b/a CenterPoint Energy Oklahoma Gas	03/16	CenterPoint Energy Resources Corp., d/b/a CenterPoint Energy Oklahoma Gas	Cause No. PUD201600094	Return on Equity
Oklahoma Gas & Electric Company	12/15	Oklahoma Gas & Electric Company	Cause No. PUD201500273	Return on Equity



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SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Public Service Company of Oklahoma	07/15	Public Service Company of Oklahoma	Cause No. PUD201500208	Return on Equity
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
Pennsylvania Public Utility Commission				
Pike County Light & Power Company	01/14	Pike County Light & Power Company	Docket No. R-2013-2397237	Return on Equity (electric & gas)
Veolia Energy Philadelphia, Inc.	12/13	Veolia Energy Philadelphia, Inc.	Docket No. R-2013-2386293	Return on Equity (steam)
Rhode Island Public Utilities Commission				
The Narragansett Electric Company d/b/a National Grid	04/12	The Narragansett Electric Company d/b/a National Grid	Docket No. 4323	Return on Equity (electric & gas)
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	03/13	Duke Energy Carolinas, LLC	Docket No. 2013-59-E	Return on Equity
South Carolina Electric & Gas	06/12	South Carolina Electric & Gas	Docket No. 2012-218-E	Return on Equity
Duke Energy Carolinas, LLC	08/11	Duke Energy Carolinas, LLC	Docket No. 2011-271-E	Return on Equity
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)
Texas Public Utility Commission				
Southwestern Public Service Company	02/16	Southwestern Public Service Company	Docket No. 44524	Return on Equity (electric)
Wind Energy Transmission Texas, LLC	05/15	Wind Energy Transmission Texas, LLC	Docket No. 44746	Return on Equity
Cross Texas Transmission	12/14	Cross Texas Transmission	Docket No. 43950	Return on Equity



ATTACHMENT A

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SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Southwestern Public Service Company	12/14	Southwestern Public Service Company	Docket No. 43695	Return on Equity (electric)
Sharyland Utilities, L.P.	05/13	Sharyland Utilities, L.P.	Docket No. 41474	Return on Equity
Wind Energy Texas Transmission, LLC	08/12	Wind Energy Texas Transmission, LLC	Docket No. 40606	Return on Equity
Southwestern Electric Power Company	07/12	Southwestern Electric Power Company	Docket No. 40443	Return on Equity
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	06/10	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	03/15	Centerpoint Energy Resources Corp. d/b/a Centerpoint Energy Entex and Centerpoint Energy Texas Gas	GUD 10432	Return on Equity
CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Entex and CenterPoint Energy Texas Gas	07/12	CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Entex and CenterPoint Energy Texas Gas	GUD 10182	Return on Equity
Atmos Energy Corporation – West Texas Division	06/12	Atmos Energy Corporation – West Texas Division	GUD 10175	Return on Equity
Atmos Energy Corporation – Mid-Texas Division	06/12	Atmos Energy Corporation – Mid-Texas Division	GUD 10171	Return on Equity
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



Resume of:
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SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Texas Gas	03/08	CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Texas Gas	GUD 9791	Return on Equity
Utah Public Service Commission				
Questar Gas Company	12/07	Questar Gas Company	Docket No. 07-057-13	Return on Equity
Vermont Public Service Board				
Central Vermont Public Service Corporation; Green Mountain Power	02/12	Central Vermont Public Service Corporation; Green Mountain Power	Docket No. 7770	Merger Policy
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				
Virginia Electric and Power Company	12/15	Virginia Electric and Power Company	Case Nos. PUE-2015-0058; PUE-2015-0059; PUE-2015-0060; PUE-2015-0061; PUE-2015-0075; PUE-2015-0089; PUE-2015-0102; PUE-2015-0104	Return on Equity
Virginia Electric and Power Company	03/15	Virginia Electric and Power Company	Case No. PUE-2015-00027	Return on Equity
Virginia Electric and Power Company	03/13	Virginia Electric and Power Company	Case No. PUE-2013-00020	Return on Equity
Virginia Natural Gas, Inc.	02/11	Virginia Natural Gas, Inc.	Case No. PUE-2010-00142	Capital Structure
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

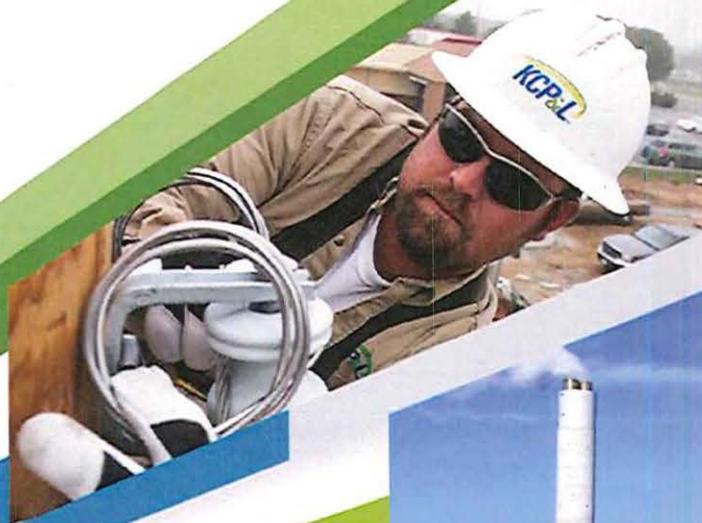
Expert Report

United States District Court, Western District of Texas, Austin Division				
Southwestern Public Service Company	02/12	Southwestern Public Service Company	C.A. No. A-09-CA-917-SS	PURPA and FERC regulations



GREAT PLAINS ENERGY

Proud Past. Confident Future.



Fourth Quarter and Year-End 2015
Earnings Presentation
February 25, 2016

Forward-Looking Statements

Statements made in this presentation that are not based on historical facts are forward-looking, may involve risks and uncertainties, and are intended to be as of the date when made. Forward-looking statements include, but are not limited to, the outcome of regulatory proceedings, cost estimates of capital projects and other matters affecting future operations. In connection with the safe harbor provisions of the Private Securities Litigation Reform Act of 1995, Great Plains Energy and KCP&L are providing a number of important factors that could cause actual results to differ materially from the provided forward-looking information. These important factors include: future economic conditions in regional, national and international markets and their effects on sales, prices and costs; prices and availability of electricity in regional and national wholesale markets; market perception of the energy industry, Great Plains Energy and KCP&L; changes in business strategy, operations or development plans; the outcome of contract negotiations for goods and services; effects of current or proposed state and federal legislative and regulatory actions or developments, including, but not limited to, deregulation, re-regulation and restructuring of the electric utility industry; decisions of regulators regarding rates the companies can charge for electricity; adverse changes in applicable laws, regulations, rules, principles or practices governing tax, accounting and environmental matters including, but not limited to, air and water quality; financial market conditions and performance including, but not limited to, changes in interest rates and credit spreads and in availability and cost of capital and the effects on nuclear decommissioning trust and pension plan assets and costs; impairments of long-lived assets or goodwill; credit ratings; inflation rates; effectiveness of risk management policies and procedures and the ability of counterparties to satisfy their contractual commitments; impact of terrorist acts, including but not limited to cyber terrorism; ability to carry out marketing and sales plans; weather conditions including, but not limited to, weather-related damage and their effects on sales, prices and costs; cost, availability, quality and deliverability of fuel; the inherent uncertainties in estimating the effects of weather, economic conditions and other factors on customer consumption and financial results; ability to achieve generation goals and the occurrence and duration of planned and unplanned generation outages; delays in the anticipated in-service dates and cost increases of generation, transmission, distribution or other projects; Great Plains Energy's ability to successfully manage transmission joint venture; the inherent risks associated with the ownership and operation of a nuclear facility including, but not limited to, environmental, health, safety, regulatory and financial risks; workforce risks, including, but not limited to, increased costs of retirement, health care and other benefits; and other risks and uncertainties.

This list of factors is not all-inclusive because it is not possible to predict all factors. Other risk factors are detailed from time to time in Great Plains Energy's and KCP&L's quarterly reports on Form 10-Q and annual report on Form 10-K filed with the Securities and Exchange Commission. Each forward-looking statement speaks only as of the date of the particular statement. Great Plains Energy and KCP&L undertake no obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future events or otherwise.

Today's Topics

Financial Highlights and Business Update (Terry Bassham, Chairman, President and CEO)

- ❑ 2015 results
- ❑ 2016 EPS guidance range and long-term growth targets
- ❑ Legislative and regulatory priorities
- ❑ Update of strategic plan

Financial Review (Kevin Bryant, SVP – Finance and Strategy and CFO)

- ❑ Fourth quarter and full-year 2015 results
- ❑ 2016 earnings drivers
- ❑ 2017 to 2020 considerations

Opening Remarks and Business Review

Terry Bassham
Chairman, President and CEO



2015 Financial Results and Long-Term Targets

- ❑ Solid execution of our 2015 plan
 - Fourth quarter EPS of \$0.15 compared with \$0.12 in 2014
 - Full year EPS of \$1.37 compared with \$1.57 in 2014
- ❑ 2016 EPS guidance range of \$1.65 to \$1.80
- ❑ Targets through 2020
 - Annualized EPS growth of 4% to 5%
 - Enhanced dividend growth of 5% to 7%
 - Dividend payout ratio of 60% to 70%
- ❑ Balanced total shareholder return profile

**EPS Growth
of 4% - 5%¹
(2016 - 2020)**

+

**Enhanced Dividend Growth
of 5% - 7%
Dividend Payout Ratio
of 60% - 70%
(2016-2020)**

=

**Attractive Platform
for Shareholders**

1. Based on our 2016 earnings per share guidance range of \$1.65 - \$1.80

Legislative and Regulatory Priorities

- ❑ Partnering with policy makers and other utilities on comprehensive, performance-based statewide energy legislation for investor owned utilities in Missouri
- ❑ GMO filed \$59.3 million general rate case on February 23, 2016
- ❑ File abbreviated rate case filing for KCP&L Kansas by November 2016
- ❑ Evaluating KCP&L Missouri rate case filing in the second half of 2016
- ❑ Monitoring recent developments regarding the Clean Power Plan

Clear Focus

Continue to promote the economic strength of the region,
improve the customer experience and grow earnings

Best in Class Electric Utility Operations	Customer Experience	Targeted Investment Opportunities
<ul style="list-style-type: none">❑ Disciplined execution to deliver reliable and low cost power❑ Focused on earning our allowed return by actively managing regulatory lag❑ Proactive economic development	<ul style="list-style-type: none">❑ Responsive to changing customer expectations<ul style="list-style-type: none">○ Technology investments that facilitate more informed customer interaction○ Expand comprehensive suite of energy-related products and services	<ul style="list-style-type: none">❑ Balanced strategic growth initiatives through national transmission opportunities and flexibility for opportunistic growth

Financial Review

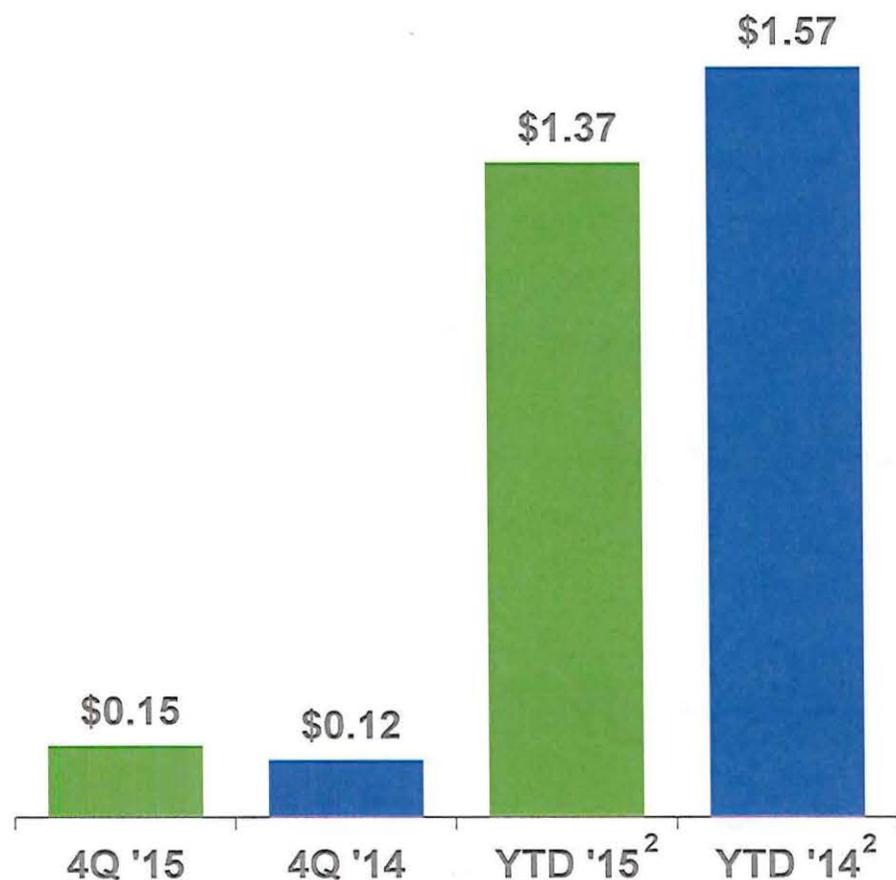
Kevin Bryant

SVP – Finance & Strategy and CFO



Earnings – 2015 versus 2014

Earnings Per Share



EPS: 2015 Compared to 2014¹

	4Q	YTD ²
New Retail Rates	\$0.11	\$0.14
Weather	(\$0.07)	(\$0.10)
WN Demand	\$0.02	\$0.02
KCP&L MO Wholesale Margin	-	(\$0.07)
Transmission	(\$0.01)	(\$0.03)
Fuel & Purchased Power	-	\$0.06
Other Margin	\$0.07	\$0.07
O&M	(\$0.02)	\$0.03
AFUDC	(\$0.03)	(\$0.12)
Depreciation & Amortization	(\$0.02)	(\$0.10)
2014 Release of Uncertain Tax Positions	-	(\$0.05)
Other	(\$0.02)	(\$0.05)
Total	\$0.03	(\$0.20)

1. Numbers may not add due to the effect of dilutive shares on EPS

2. As of December 31

2016 Earnings Guidance

2016 Earnings Per Share Guidance Range of \$1.65 to \$1.80

□ Earnings drivers:

- Full year of new retail electric rates and cost recovery mechanisms for KCP&L in Missouri and Kansas that became effective September 29, 2015 and October 1, 2015, respectively
- Weather-normalized demand growth of flat to 0.5%, net of energy efficiency
- Disciplined cost and capital management

□ Assumptions:

- NOLs and tax credits minimizing cash income tax payments
- No planned long-term debt issuances¹
- No plans to issue equity¹

1. Financing plans are subject to change, depending on capital expenditures, internal cash generation, rating agency views, market conditions, and other factors

Earnings Target: 2016 through 2020

Earnings growth driven by investments in regulated utility infrastructure, disciplined cost management and national transmission opportunities

Targeting earnings growth of 4% to 5% from 2016 to 2020¹

Rate Base Growth	Optimizing Cost Structure	Incremental Growth Opportunities
<ul style="list-style-type: none"> <input type="checkbox"/> Targeting compound annual rate base growth of 2% to 3%² <ul style="list-style-type: none"> ○ Modernizing Delivery infrastructure including physical & cyber security and system reliability ○ Implementing environmental and sustainability initiatives ○ Customer-focused initiatives 	<ul style="list-style-type: none"> <input type="checkbox"/> Disciplined cost and capital management <input type="checkbox"/> Regulatory and legislative initiatives to optimize regulatory model to address cost recovery, promote infrastructure investments 	<ul style="list-style-type: none"> <input type="checkbox"/> Transource national transmission investments and other targeted investments within the energy value chain <input type="checkbox"/> Retail weather-normalized demand growth driven by regional economic activity

1. Based on our 2016 earnings per share guidance range of \$1.65 - \$1.80

2. Includes the impact of bonus depreciation

2017 through 2020 Considerations

Earnings drivers:

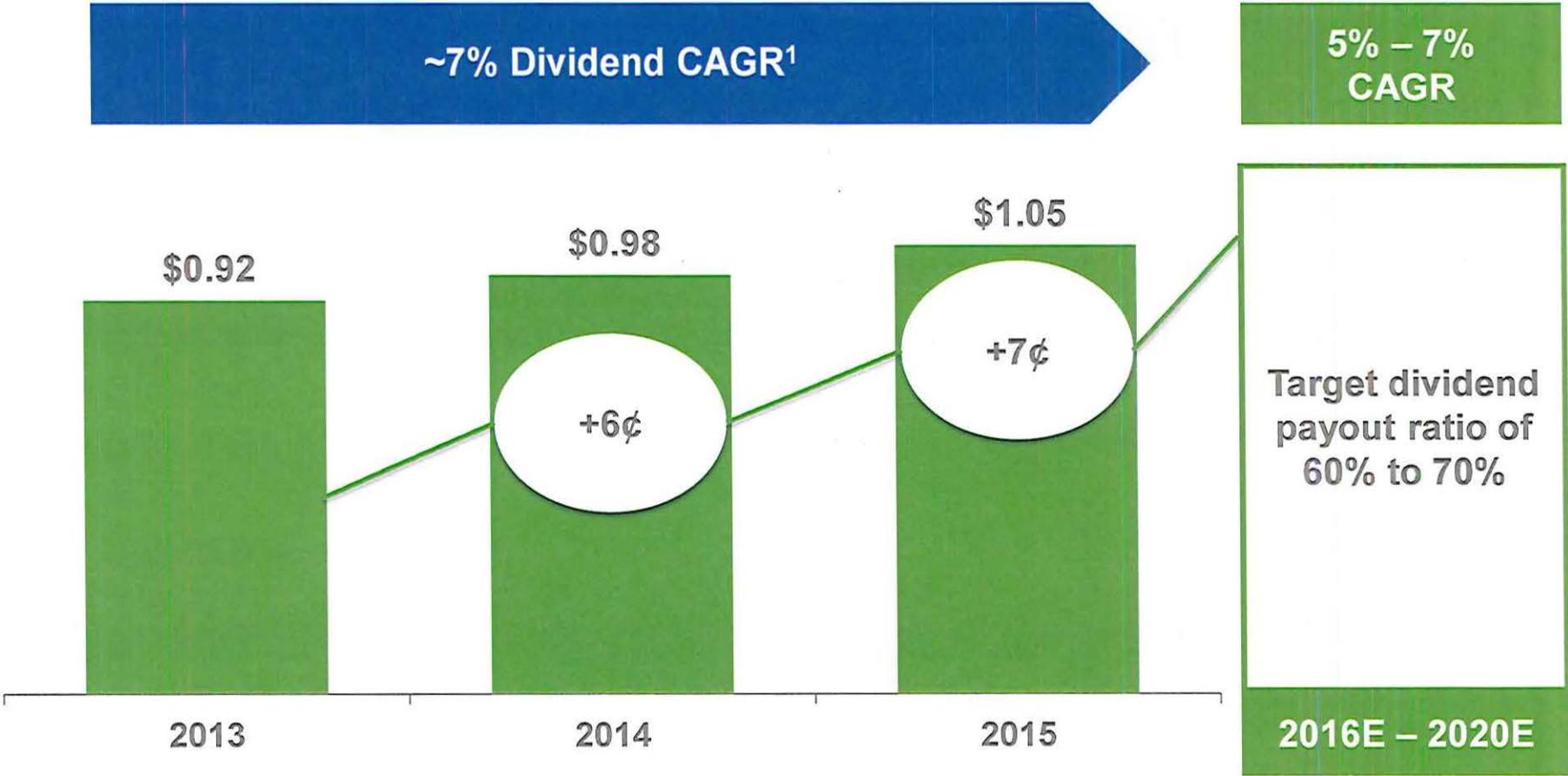
- Retail weather-normalized demand growth of flat to 0.5%, net of energy efficiency
- Focused cost and capital management
- More active general rate case filings for KCP&L Missouri and Kansas, and GMO

Assumptions:

- Utilization of NOLs and tax credits, minimizing cash income taxes
- Long-term debt re-financings
- No plans to issue equity

Dividend Target: 2016 through 2020

Increasing cash flexibility expected to drive dividend growth and potential share repurchases



1. 2013 – 2015 based on fourth quarter declared dividend

Great Plains Energy

Fourth Quarter and Year-End 2015 Earnings Presentation

February 25, 2016



Appendix



Great Plains Energy Reconciliation of Gross Margin to Operating Revenues (Unaudited)

	Three Months Ended December 31 (millions)		Year Ended December 31 (millions)	
	2015	2014	2015	2014
Operating revenues	\$ 562.7	\$ 552.2	\$ 2,502.2	\$ 2,568.2
Fuel	(89.4)	(96.3)	(421.4)	(489.2)
Purchased power	(41.0)	(67.6)	(187.3)	(253.3)
Transmission of electricity by others	(24.0)	(19.1)	(89.1)	(74.7)
Gross margin	\$ 408.3	\$ 369.2	\$ 1,804.4	\$ 1,751.0

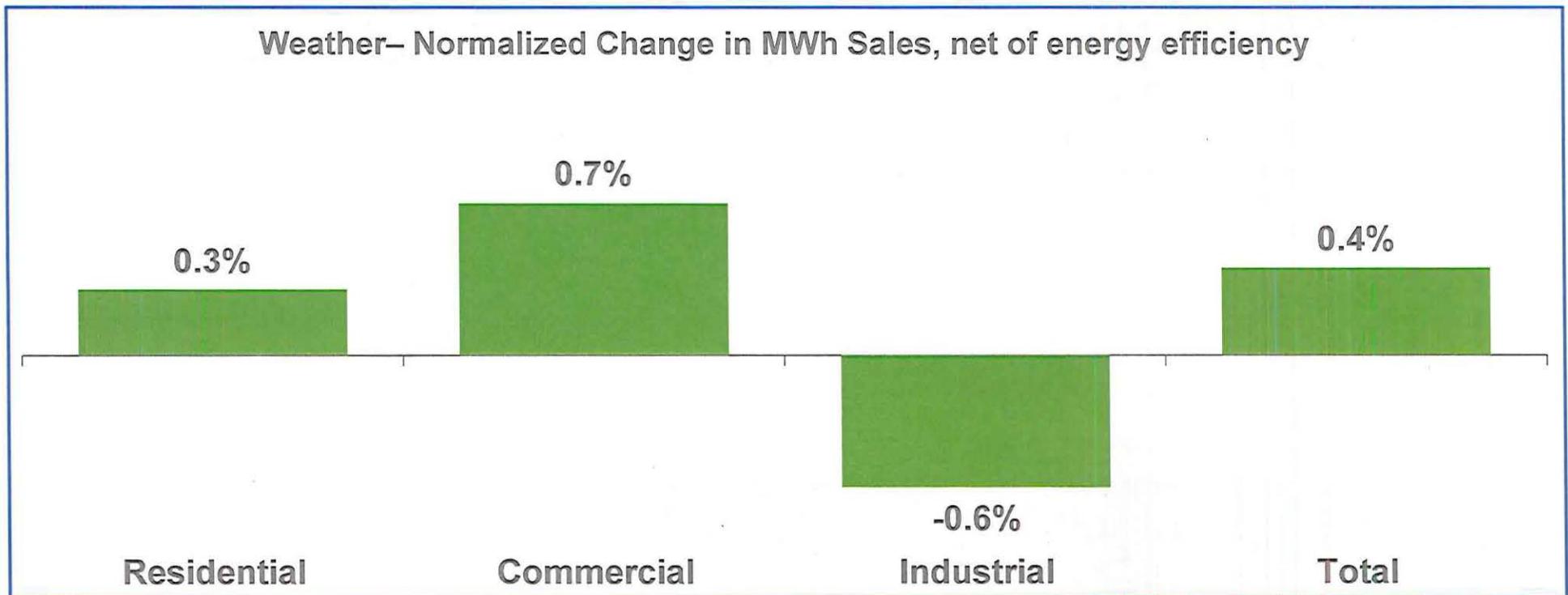
Gross margin is a financial measure that is not calculated in accordance with generally accepted accounting principles (GAAP). Gross margin, as used by Great Plains Energy, is defined as operating revenues less fuel, purchased power and transmission. The Company's expense for fuel, purchased power and transmission, offset by wholesale sales margin, is subject to recovery through cost adjustment mechanisms, except for KCP&L's Missouri retail operations prior to September 29, 2015. As a result, operating revenues increase or decrease in relation to a significant portion of these expenses. Management believes that gross margin provides a more meaningful basis for evaluating the Electric Utility segment's operations across periods than operating revenues because gross margin excludes the revenue effect of fluctuations in these expenses. Gross margin is used internally to measure performance against budget and in reports for management and the Board of Directors. The Company's definition of gross margin may differ from similar terms used by other companies. A reconciliation to GAAP operating revenues is provided in the table above.

Weather-Normalized Demand Trends

- ❑ 2015 marked third consecutive year of positive demand growth
- ❑ 2015 results in line with full-year projections of flat to 0.5%, net of energy efficiency

Full-Year 2015 Compared to Full-Year 2014

Weather-Normalized Change in MWh Sales, net of energy efficiency

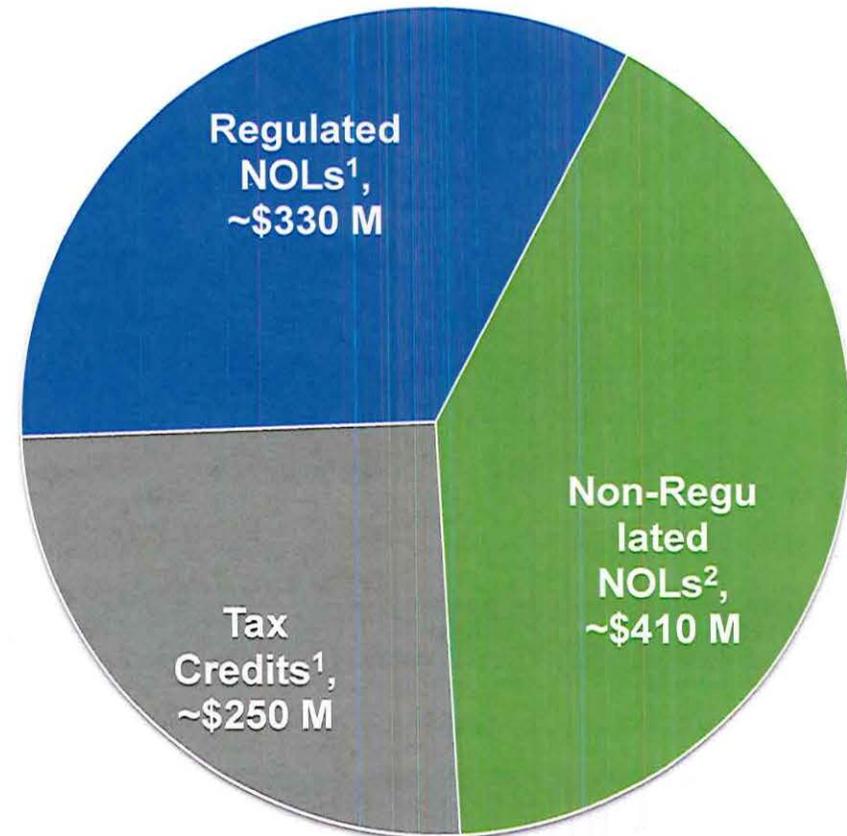


2016 projections of flat to 0.5%, net of energy efficiency

Favorable Income Tax Position

- Approximately \$990 million in future income tax benefits at year-end 2015:
 - ~ \$740 million of tax benefits on net operating loss (NOL) carryforwards
 - ~ \$250 million tax credit carryforwards primarily related to advanced coal investment tax credits (ITC), wind production tax credits, and alternative minimum tax (AMT) credits
- Do not anticipate paying significant income taxes through approximately 2024

\$990 Million of Tax Benefits



1. Regulated NOLs are included in rate base and tax credits are generally included in cost of service as generated except for ITC which is amortized over the life of the property it relates to
2. Non-Regulated NOLs, which include approximately \$350 million related to the GMO acquisition, are not included in rate base

GMO Consolidated Rate Case Summary

Case Number	Date Filed	Requested Increase (in Millions)	Requested Increase (Percent)	Rate Base (in Millions)	ROE	Cost of Debt	Rate – Making Equity Ratio	Capital Structure ROR	Anticipated Effective Date of New Rates
ER-2016-0156	2/23/16	\$59.3	8.17%	\$1,906 ¹	9.9%	5.09%	54.83%	7.73%	1/22/17

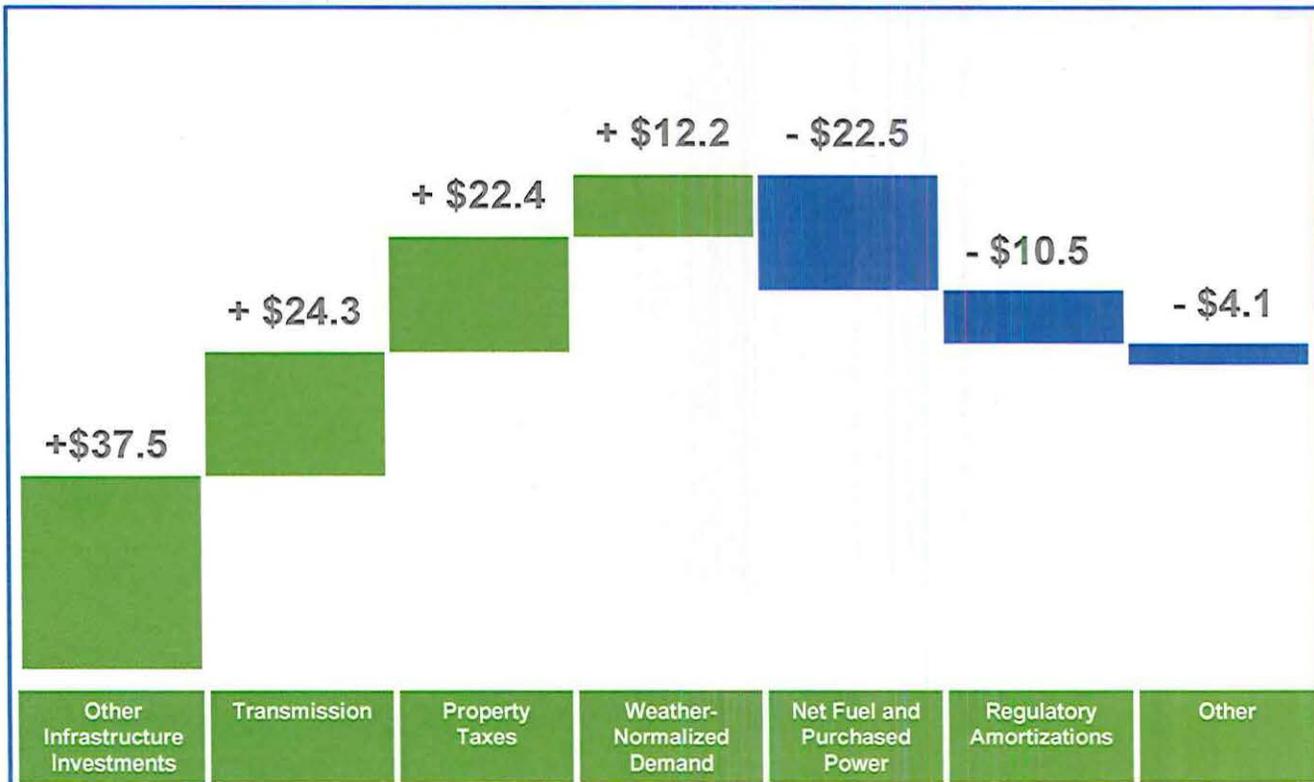
Rate Case Attributes:

Test year ended June 30, 2015 with a requested July 31, 2016 true-up date

Primary drivers:

- New infrastructure investments to ensure reliability, security and dependable service to customers
- GMO standalone capital structure
- Average of projected 2017-2018 expenses for both transmission costs and Critical Infrastructure Projection Standards (CIPS) / Cybersecurity

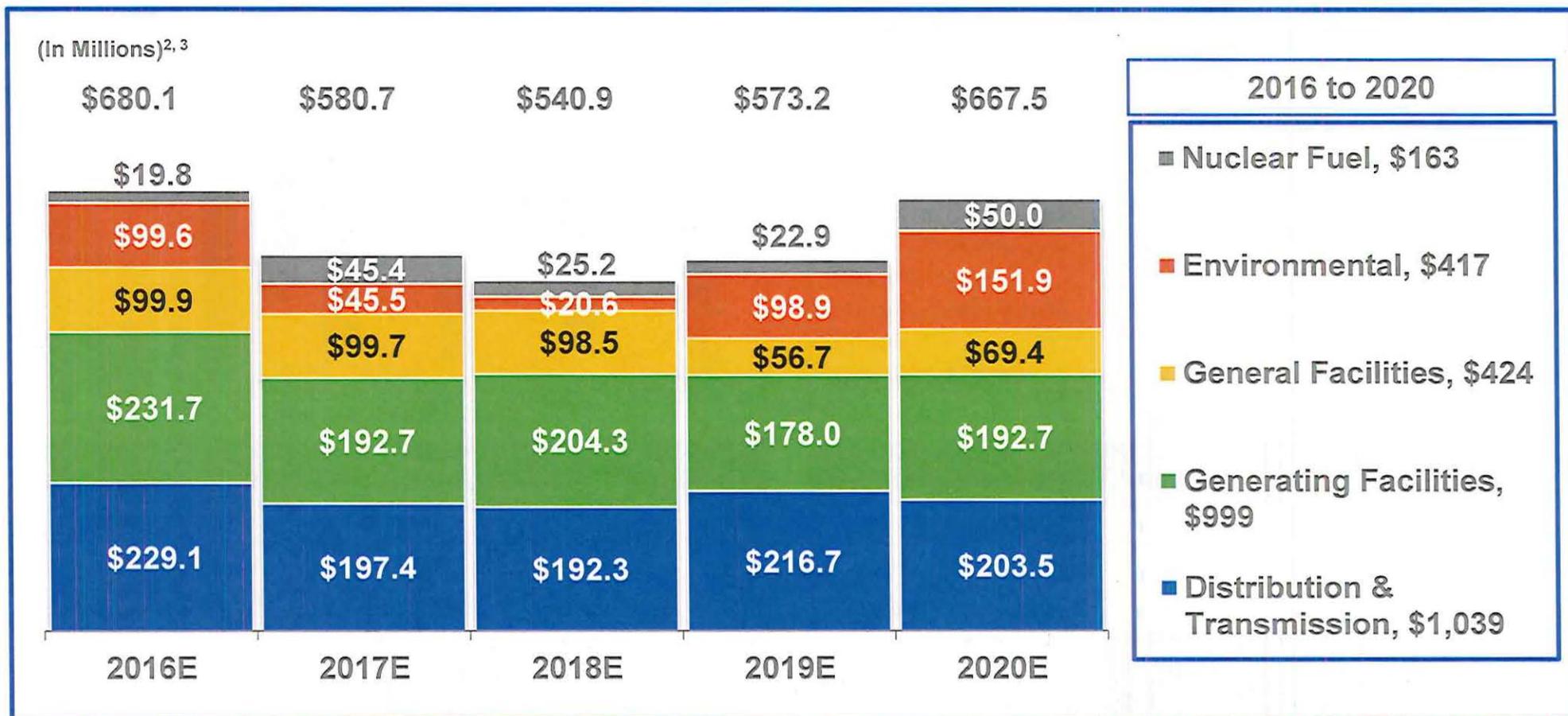
\$59.3 Million Rate Increase Request:



1. Projected rate base is approximately \$76 million or 4% higher than at the conclusion of the last GMO rate cases for the MPS and L&P jurisdictions

\$3.0 Billion Projected Utility Capital Expenditures

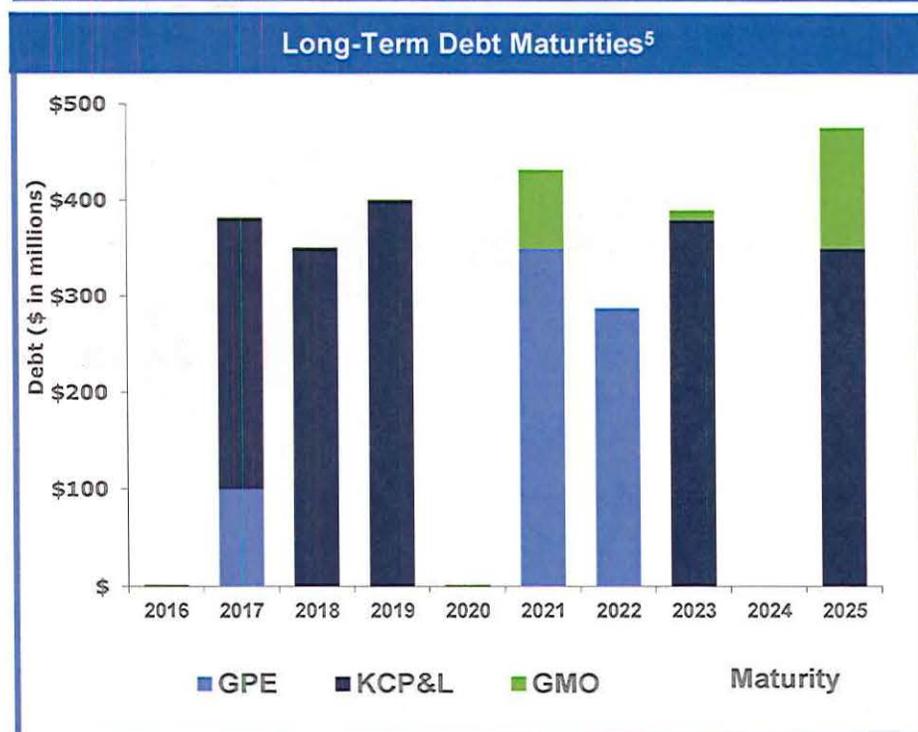
- ☐ Targeting compound annual rate base growth of 2% to 3% including impacts of bonus depreciation
- ☐ No equity needs, capital expenditures to be financed with long-term debt and internally generated funds¹



1. Financing plans are subject to change, depending on capital expenditures, internal cash generation, rating agency views, market conditions, and other factors
2. Projected capital expenditures for KCP&L and GMO; excludes Allowance for Funds Used During Construction (AFUDC)
3. Great Plains Energy accounts for its 13.5% ownership in Transource Energy, LLC (Transource) under the equity method of accounting. Great Plains Energy's capital contributions to Transource are not reflected in projected capital expenditures

December 31, 2015 Debt Profile and Credit Ratings

(\$ in Millions)	Great Plains Energy Debt							
	KCP&L		GMO ¹		GPE		Consolidated	
	Amount	Rate ²	Amount	Rate ²	Amount	Rate ²	Amount	Rate ²
Short-term debt	\$ 290.3	0.80%	\$ 108.7	0.86%	\$ 10.0	1.94%	\$ 409.0	0.84%
Long-term debt ³	2,563.1	4.94%	447.7	5.04%	735.4	5.30%	3,746.2	5.02%
Total	\$2,853.4	4.52%	\$556.4	4.22%	\$745.4	5.26%	\$4,155.2⁴	4.61%



Current Credit Ratings

	Moody's	Standard & Poor's
Great Plains Energy		
Outlook	Stable	Stable
Corporate Credit Rating	-	BBB+
Preferred Stock	Ba1	BBB-
Senior Unsecured Debt	Baa2	BBB
KCP&L		
Outlook	Stable	Stable
Senior Secured Debt	A2	A
Senior Unsecured Debt	Baa1	BBB+
Commercial Paper	P-2	A-2
GMO		
Outlook	Stable	Stable
Senior Unsecured Debt	Baa2	BBB+
Commercial Paper	P-2	A-2

¹ Great Plains Energy guarantees approximately 25% of GMO's debt; ² Weighted Average Rates – excludes premium/discounts and other amortizations; ³ Includes current maturities of long-term debt; ⁴ Secured debt = \$692M (17%), Unsecured debt = \$3,463M (83%); ⁵ Includes long-term debt maturities through December 31, 2025

Constant Growth Discounted Cash Flow Model
30 Day Average Stock Price

Company	Ticker	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
		Annualized Dividend	Average Stock Price	Dividend Yield	Expected Dividend Yield	Zacks Earnings Growth	First Call Earnings Growth	Value Line Earnings Growth	Average Earnings Growth	Low ROE	Mean ROE	High ROE
ALLETE, Inc.	ALE	\$2.08	\$56.26	3.70%	3.77%	4.50%	3.00%	4.00%	3.83%	6.75%	7.60%	8.28%
Alliant Energy Corporation	LNT	\$1.18	\$35.91	3.27%	3.37%	6.10%	6.60%	6.00%	6.23%	9.37%	9.61%	9.98%
Ameren Corporation	AEE	\$1.70	\$47.78	3.56%	3.65%	6.10%	5.20%	5.00%	5.43%	8.65%	9.09%	9.77%
American Electric Power Company, Inc.	AEP	\$2.24	\$64.21	3.49%	3.57%	4.90%	4.10%	4.50%	4.50%	7.66%	8.07%	8.47%
Avista Corporation	AVA	\$1.37	\$40.20	3.41%	3.49%	5.00%	5.00%	5.00%	5.00%	8.49%	8.49%	8.49%
CMS Energy Corporation	CMS	\$1.24	\$40.94	3.03%	3.13%	6.40%	7.24%	6.00%	6.55%	9.12%	9.67%	10.38%
DTE Energy Company	DTE	\$2.92	\$89.05	3.28%	3.36%	5.80%	5.35%	4.50%	5.22%	7.85%	8.58%	9.17%
IDACORP, Inc.	IDA	\$2.04	\$72.54	2.81%	2.86%	4.00%	4.00%	3.00%	3.67%	5.85%	6.53%	6.87%
NorthWestern Corporation	NWE	\$2.00	\$57.42	3.48%	3.58%	5.00%	5.00%	6.50%	5.50%	8.57%	9.08%	10.10%
OGE Energy Corp.	OGE	\$1.10	\$29.76	3.70%	3.77%	5.20%	4.30%	2.50%	4.00%	6.24%	7.77%	8.99%
Otter Tail Corporation	OTTR	\$1.25	\$29.38	4.25%	4.38%	NA	6.00%	6.00%	6.00%	10.38%	10.38%	10.38%
Pinnacle West Capital Corporation	PNW	\$2.50	\$72.71	3.44%	3.51%	4.00%	3.73%	4.00%	3.91%	7.23%	7.42%	7.51%
PNM Resources, Inc.	PNM	\$0.88	\$32.12	2.74%	2.86%	7.60%	8.76%	9.00%	8.45%	10.44%	11.31%	11.86%
Portland General Electric Company	POR	\$1.28	\$40.21	3.18%	3.28%	6.40%	6.57%	5.50%	6.16%	8.77%	9.44%	9.86%
SCANA Corporation	SCG	\$2.30	\$68.85	3.34%	3.42%	5.30%	4.80%	4.50%	4.87%	7.92%	8.29%	8.73%
Xcel Energy Inc.	XEL	\$1.36	\$40.51	3.36%	3.45%	5.30%	5.27%	5.50%	5.36%	8.72%	8.80%	8.95%
PROXY GROUP MEAN				3.38%	3.47%	5.44%	5.31%	5.09%	5.29%	8.25%	8.76%	9.24%
PROXY GROUP MEDIAN				3.38%	3.47%	5.30%	5.10%	5.00%	5.29%	8.53%	8.69%	9.08%

Notes:

[1] Source: Bloomberg Professional

[2] Source: Bloomberg Professional, equals 30-trading day average as of May 31, 2016

[3] Equals [1] / [2]

[4] Equals [3] x (1 + 0.5 x [8])

[5] Source: Zacks

[6] Source: Yahoo! Finance

[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])

Constant Growth Discounted Cash Flow Model
90 Day Average Stock Price

Company	Ticker	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
		Annualized Dividend	Average Stock Price	Dividend Yield	Expected Dividend Yield	Zacks Earnings Growth	First Call Earnings Growth	Value Line Earnings Growth	Average Earnings Growth	Low ROE	Mean ROE	High ROE
ALLETE, Inc.	ALE	\$2.08	\$55.04	3.78%	3.85%	4.50%	3.00%	4.00%	3.83%	6.84%	7.68%	8.36%
Alliant Energy Corporation	LNT	\$1.18	\$35.24	3.33%	3.44%	6.10%	6.60%	6.00%	6.23%	9.43%	9.67%	10.04%
Ameren Corporation	AEE	\$1.70	\$47.50	3.58%	3.68%	6.10%	5.20%	5.00%	5.43%	8.67%	9.11%	9.79%
American Electric Power Company, Inc.	AEP	\$2.24	\$63.66	3.52%	3.60%	4.90%	4.10%	4.50%	4.50%	7.69%	8.10%	8.50%
Avista Corporation	AVA	\$1.37	\$39.22	3.49%	3.58%	5.00%	5.00%	5.00%	5.00%	8.58%	8.58%	8.58%
CMS Energy Corporation	CMS	\$1.24	\$40.55	3.06%	3.16%	6.40%	7.24%	6.00%	6.55%	9.15%	9.71%	10.41%
DTE Energy Company	DTE	\$2.92	\$87.58	3.33%	3.42%	5.80%	5.35%	4.50%	5.22%	7.91%	8.64%	9.23%
IDACORP, Inc.	IDA	\$2.04	\$72.14	2.83%	2.88%	4.00%	4.00%	3.00%	3.67%	5.87%	6.55%	6.88%
NorthWestern Corporation	NWE	\$2.00	\$58.61	3.41%	3.51%	5.00%	5.00%	6.50%	5.50%	8.50%	9.01%	10.02%
OGE Energy Corp.	OGE	\$1.10	\$27.90	3.94%	4.02%	5.20%	4.30%	2.50%	4.00%	6.49%	8.02%	9.24%
Otter Tail Corporation	OTTR	\$1.25	\$28.40	4.40%	4.53%	NA	6.00%	6.00%	6.00%	10.53%	10.53%	10.53%
Pinnacle West Capital Corporation	PNW	\$2.50	\$71.24	3.51%	3.58%	4.00%	3.73%	4.00%	3.91%	7.30%	7.49%	7.58%
PNM Resources, Inc.	PNM	\$0.88	\$32.35	2.72%	2.83%	7.60%	8.76%	9.00%	8.45%	10.42%	11.29%	11.84%
Portland General Electric Company	POR	\$1.28	\$39.34	3.25%	3.35%	6.40%	6.57%	5.50%	6.16%	8.84%	9.51%	9.93%
SCANA Corporation	SCG	\$2.30	\$67.31	3.42%	3.50%	5.30%	4.80%	4.50%	4.87%	7.99%	8.37%	8.81%
Xcel Energy Inc.	XEL	\$1.36	\$40.14	3.39%	3.48%	5.30%	5.27%	5.50%	5.36%	8.75%	8.84%	8.98%
PROXY GROUP MEAN				3.44%	3.53%	5.44%	5.31%	5.09%	5.29%	8.31%	8.82%	9.30%
PROXY GROUP MEDIAN				3.41%	3.50%	5.30%	5.10%	5.00%	5.29%	8.54%	8.74%	9.24%

Notes:

[1] Source: Bloomberg Professional

[2] Source: Bloomberg Professional, equals 30-trading day average as of May 31, 2016

[3] Equals [1] / [2]

[4] Equals [3] x (1 + 0.5 x [8])

[5] Source: Zacks

[6] Source: Yahoo! Finance

[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])

Constant Growth Discounted Cash Flow Model
180 Day Average Stock Price

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
Company	Ticker	Annualized Dividend	Average Stock Price	Dividend Yield	Expected Dividend Yield	Zacks Earnings Growth	First Call Earnings Growth	Value Line Earnings Growth	Average Earnings Growth	Low ROE	Mean ROE	High ROE
ALLETE, Inc.	ALE	\$2.08	\$52.71	3.95%	4.02%	4.50%	3.00%	4.00%	3.83%	7.01%	7.86%	8.54%
Alliant Energy Corporation	LNT	\$1.18	\$32.61	3.60%	3.72%	6.10%	6.60%	6.00%	6.23%	9.71%	9.95%	10.32%
Ameren Corporation	AEE	\$1.70	\$45.24	3.76%	3.86%	6.10%	5.20%	5.00%	5.43%	8.85%	9.29%	9.97%
American Electric Power Company, Inc.	AEP	\$2.24	\$60.20	3.72%	3.80%	4.90%	4.10%	4.50%	4.50%	7.90%	8.30%	8.71%
Avista Corporation	AVA	\$1.37	\$36.62	3.74%	3.83%	5.00%	5.00%	5.00%	5.00%	8.83%	8.83%	8.83%
CMS Energy Corporation	CMS	\$1.24	\$38.00	3.26%	3.37%	6.40%	7.24%	6.00%	6.55%	9.36%	9.92%	10.62%
DTE Energy Company	DTE	\$2.92	\$83.96	3.48%	3.57%	5.80%	5.35%	4.50%	5.22%	8.06%	8.79%	9.38%
IDACORP, Inc.	IDA	\$2.04	\$69.33	2.94%	3.00%	4.00%	4.00%	3.00%	3.67%	5.99%	6.66%	7.00%
NorthWestern Corporation	NWE	\$2.00	\$56.25	3.56%	3.65%	5.00%	5.00%	6.50%	5.50%	8.64%	9.15%	10.17%
OGE Energy Corp.	OGE	\$1.10	\$27.27	4.03%	4.11%	5.20%	4.30%	2.50%	4.00%	6.58%	8.11%	9.34%
Otter Tail Corporation	OTTR	\$1.25	\$27.52	4.54%	4.68%	NA	6.00%	6.00%	6.00%	10.68%	10.68%	10.68%
Pinnacle West Capital Corporation	PNW	\$2.50	\$67.37	3.71%	3.78%	4.00%	3.73%	4.00%	3.91%	7.51%	7.69%	7.79%
PNM Resources, Inc.	PNM	\$0.88	\$30.47	2.89%	3.01%	7.60%	8.76%	9.00%	8.45%	10.60%	11.46%	12.02%
Portland General Electric Company	POR	\$1.28	\$37.99	3.37%	3.47%	6.40%	6.57%	5.50%	6.16%	8.96%	9.63%	10.05%
SCANA Corporation	SCG	\$2.30	\$62.73	3.67%	3.76%	5.30%	4.80%	4.50%	4.87%	8.25%	8.62%	9.06%
Xcel Energy Inc.	XEL	\$1.36	\$37.86	3.59%	3.69%	5.30%	5.27%	5.50%	5.36%	8.96%	9.05%	9.19%
PROXY GROUP MEAN				3.61%	3.71%	5.44%	5.31%	5.09%	5.29%	8.49%	9.00%	9.48%
PROXY GROUP MEDIAN				3.64%	3.74%	5.30%	5.10%	5.00%	5.29%	8.74%	8.94%	9.36%

Notes:

[1] Source: Bloomberg Professional

[2] Source: Bloomberg Professional, equals 30-trading day average as of May 31, 2016

[3] Equals [1] / [2]

[4] Equals [3] x (1 + 0.5 x [8])

[5] Source: Zacks

[6] Source: Yahoo! Finance

[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 Growth Discounted Cash Flow Model
30 Day Average Stock Price
Average EPS Growth Rate Estimate in First Stage

Inputs	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	Value		
														Stock	Terminal	
			EPS Growth Rate Estimates			Long-Term		Payout Ratio		Iterative Solution		Terminal	Terminal			
Company	Ticker	Price	Zacks	First Call	Line	Average	Growth	2016	2020	2026	Proof	IRR	P/E Ratio	PEG Ratio		
ALLETE, Inc	ALE	\$58.26	4.50%	3.00%	4.00%	3.83%	5.28%	66.00%	64.00%	66.68%	\$0.00	9.36%	17.25	3.27		
Alliant Energy Corporation	LMT	\$35.91	6.10%	6.60%	6.00%	6.23%	5.28%	64.00%	64.00%	66.68%	\$0.00	8.96%	19.00	3.60		
Ameren Corporation	AEE	\$47.78	6.10%	5.20%	5.00%	5.43%	5.26%	68.00%	63.00%	66.68%	\$0.00	9.02%	16.60	3.56		
American Electric Power Company, Inc.	AEP	\$64.21	4.90%	4.10%	4.50%	4.50%	5.28%	64.00%	66.00%	66.68%	\$0.00	9.26%	17.69	3.35		
Avista Corporation	AVA	\$40.20	5.00%	5.00%	5.00%	5.00%	5.26%	68.00%	63.00%	66.68%	\$0.00	8.71%	20.49	3.68		
CMS Energy Corporation	CMS	\$40.94	6.40%	7.24%	6.00%	6.55%	5.26%	63.00%	63.00%	66.68%	\$0.00	8.99%	18.69	3.60		
DTE Energy Company	DTE	\$89.05	5.80%	5.35%	4.50%	5.22%	5.26%	61.00%	64.00%	66.68%	\$0.00	8.55%	19.15	3.63		
IDACORP, Inc.	IDA	\$72.54	4.00%	4.00%	3.00%	3.67%	5.26%	53.00%	60.00%	66.68%	\$0.00	8.77%	20.17	3.82		
NorthWestern Corporation	NWE	\$57.42	5.00%	5.00%	6.50%	5.50%	5.26%	65.00%	59.00%	66.68%	\$0.00	9.05%	18.63	3.54		
OGE Energy Corp	OGE	\$29.76	5.20%	4.30%	2.50%	4.00%	5.26%	64.00%	74.00%	66.68%	\$0.00	9.30%	17.50	3.32		
Other Tail Corporation	OTTR	\$29.38	NA	6.00%	6.00%	6.00%	5.28%	60.00%	63.00%	66.68%	\$0.00	9.45%	16.74	3.17		
Pinnacle West Capital Corporation	PNW	\$72.71	4.00%	3.73%	4.00%	3.91%	5.26%	64.00%	65.00%	66.68%	\$0.00	8.95%	19.17	3.63		
PNM Resources, Inc.	PNM	\$32.12	7.60%	7.60%	9.00%	8.45%	5.26%	51.00%	55.00%	66.68%	\$0.00	9.74%	15.77	2.99		
Portland General Electric Company	POR	\$40.21	6.40%	6.57%	5.50%	6.16%	5.26%	58.00%	56.00%	66.68%	\$0.00	9.16%	18.14	3.44		
SCANA Corporation	SCG	\$68.65	5.30%	4.60%	4.50%	4.87%	5.26%	59.00%	60.00%	66.68%	\$0.00	9.22%	17.65	3.38		
Xcel Energy Inc	XEL	\$40.51	5.30%	5.27%	5.50%	5.36%	5.26%	62.00%	63.00%	66.68%	\$0.00	9.13%	18.27	3.46		

DCF Result			
Mean	9.13%	18.35	3.48
Max	9.74%	20.49	3.68
Min	8.71%	15.77	2.99

Projected Annual Earnings per Share	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]
Company	Ticker	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
ALLETE, Inc	ALE	\$3.38	\$3.51	\$3.64	\$3.78	\$3.93	\$4.08	\$4.25	\$4.43	\$4.63	\$4.85	\$5.10	\$5.37	\$5.65	\$5.95	\$6.28	\$6.64
Alliant Energy Corporation	LMT	\$1.69	\$1.79	\$1.90	\$2.02	\$2.15	\$2.28	\$2.42	\$2.56	\$2.71	\$2.86	\$3.02	\$3.18	\$3.34	\$3.52	\$3.70	\$3.90
Ameren Corporation	AEE	\$2.38	\$2.51	\$2.65	\$2.79	\$2.94	\$3.10	\$3.27	\$3.44	\$3.63	\$3.82	\$4.02	\$4.24	\$4.46	\$4.70	\$4.94	\$5.21
American Electric Power Company, Inc.	AEP	\$3.60	\$3.76	\$3.93	\$4.11	\$4.29	\$4.49	\$4.69	\$4.92	\$5.16	\$5.42	\$5.70	\$6.00	\$6.31	\$6.65	\$7.00	\$7.37
Avista Corporation	AVA	\$1.89	\$1.98	\$2.08	\$2.19	\$2.30	\$2.41	\$2.53	\$2.66	\$2.80	\$2.94	\$3.10	\$3.26	\$3.43	\$3.62	\$3.81	\$4.01
CMS Energy Corporation	CMS	\$1.89	\$2.01	\$2.15	\$2.29	\$2.44	\$2.60	\$2.76	\$2.93	\$3.10	\$3.28	\$3.46	\$3.64	\$3.83	\$4.04	\$4.25	\$4.47
DTE Energy Company	DTE	\$4.44	\$4.67	\$4.92	\$5.17	\$5.44	\$5.73	\$6.02	\$6.34	\$6.67	\$7.02	\$7.39	\$7.78	\$8.19	\$8.63	\$9.08	\$9.56
IDACORP, Inc.	IDA	\$3.87	\$4.01	\$4.16	\$4.31	\$4.47	\$4.63	\$4.82	\$5.02	\$5.24	\$5.49	\$5.77	\$6.07	\$6.39	\$6.73	\$7.08	\$7.46
NorthWestern Corporation	NWE	\$2.90	\$3.06	\$3.23	\$3.41	\$3.59	\$3.79	\$4.00	\$4.21	\$4.44	\$4.68	\$4.93	\$5.19	\$5.46	\$5.75	\$6.05	\$6.37
OGE Energy Corp	OGE	\$1.71	\$1.78	\$1.85	\$1.92	\$2.00	\$2.08	\$2.17	\$2.26	\$2.37	\$2.48	\$2.61	\$2.75	\$2.89	\$3.05	\$3.21	\$3.38
Other Tail Corporation	OTTR	\$1.66	\$1.65	\$1.75	\$1.86	\$1.97	\$2.09	\$2.21	\$2.34	\$2.47	\$2.61	\$2.75	\$2.89	\$3.04	\$3.20	\$3.37	\$3.55
Pinnacle West Capital Corporation	PNW	\$3.92	\$4.07	\$4.23	\$4.40	\$4.57	\$4.75	\$4.95	\$5.16	\$5.38	\$5.61	\$5.84	\$6.08	\$6.34	\$6.61	\$6.89	\$7.19
PNM Resources, Inc.	PNM	\$1.84	\$1.78	\$1.93	\$2.09	\$2.27	\$2.46	\$2.66	\$2.85	\$3.05	\$3.24	\$3.43	\$3.61	\$3.80	\$4.00	\$4.21	\$4.43
Portland General Electric Company	POR	\$2.04	\$2.17	\$2.30	\$2.44	\$2.59	\$2.75	\$2.92	\$3.09	\$3.26	\$3.44	\$3.63	\$3.82	\$4.03	\$4.24	\$4.46	\$4.70
SCANA Corporation	SCG	\$3.81	\$4.00	\$4.19	\$4.39	\$4.61	\$4.83	\$5.07	\$5.32	\$5.59	\$5.88	\$6.19	\$6.51	\$6.86	\$7.22	\$7.60	\$8.00
Xcel Energy Inc	XEL	\$2.10	\$2.21	\$2.33	\$2.46	\$2.59	\$2.73	\$2.87	\$3.02	\$3.19	\$3.35	\$3.53	\$3.72	\$3.91	\$4.12	\$4.34	\$4.57

Projected Annual Dividend Payout Ratio	[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]
Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
ALLETE, Inc	ALE	66.00%	63.50%	63.00%	64.50%	64.00%	64.48%	64.95%	65.44%	65.92%	66.40%	66.89%	66.68%	66.68%	66.68%	66.68%
Alliant Energy Corporation	LMT	68.00%	66.75%	65.50%	64.25%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.68%	66.68%	66.68%	66.68%
Ameren Corporation	AEE	64.00%	64.50%	65.00%	65.50%	66.00%	66.15%	66.29%	66.44%	66.59%	66.73%	66.88%	66.68%	66.68%	66.68%	66.68%
American Electric Power Company, Inc.	AEP	68.00%	66.75%	65.50%	64.25%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.68%	66.68%	66.68%	66.68%
Avista Corporation	AVA	63.00%	63.00%	63.00%	63.00%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.68%	66.68%	66.68%	66.68%
CMS Energy Corporation	CMS	61.00%	61.75%	62.50%	63.25%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.68%	66.68%	66.68%	66.68%
DTE Energy Company	DTE	63.00%	63.00%	63.00%	63.00%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.68%	66.68%	66.68%	66.68%
IDACORP, Inc.	IDA	53.00%	54.75%	56.50%	58.25%	60.00%	61.15%	62.29%	63.44%	64.59%	65.73%	66.88%	66.68%	66.68%	66.68%	66.68%
NorthWestern Corporation	NWE	65.00%	63.50%	62.00%	60.50%	59.00%	60.31%	61.63%	62.94%	64.25%	65.57%	66.88%	66.68%	66.68%	66.68%	66.68%
OGE Energy Corp	OGE	64.00%	68.00%	69.00%	71.50%	74.00%	72.81%	71.63%	70.44%	69.25%	68.07%	66.88%	66.68%	66.68%	66.68%	66.68%
Other Tail Corporation	OTTR	80.00%	75.75%	71.50%	67.25%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.68%	66.68%	66.68%	66.68%
Pinnacle West Capital Corporation	PNW	64.00%	64.25%	64.50%	64.75%	65.00%	65.31%	65.63%	65.94%	66.25%	66.57%	66.88%	66.68%	66.68%	66.68%	66.68%
PNM Resources, Inc.	PNM	51.00%	52.00%	53.00%	54.00%	55.00%	56.98%	59.95%	62.94%	65.92%	68.90%	66.88%	66.68%	66.68%	66.68%	66.68%
Portland General Electric Company	POR	66.00%	66.00%	66.00%	66.00%	66.00%	67.81%	69.63%	71.44%	73.25%	75.07%	66.88%	66.68%	66.68%	66.68%	66.68%
SCANA Corporation	SCG	59.00%	59.25%	59.50%	59.75%	60.00%	61.15%	62.29%	63.44%	64.59%	65.73%	66.88%	66.68%	66.68%	66.68%	66.68%
Xcel Energy Inc	XEL	62.00%	62.25%	62.50%	62.75%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.68%	66.68%	66.68%	66.68%

Projected Annual Cash Flows	[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	[63]	Terminal Value
Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
ALLETE, Inc	ALE	\$2.32	\$2.39	\$2.46	\$2.53	\$2.61	\$2.74	\$2.88	\$3.03	\$3.20	\$3.38	\$3.59	\$3.78	\$3.98	\$4.19	\$4.41	\$4.64	\$119.72
Alliant Energy Corporation	LMT	\$1.15	\$1.22	\$1.29	\$1.37	\$1.46	\$1.56	\$1.66	\$1.77	\$1.89	\$2.00	\$2.12	\$2.24	\$2.35	\$2.48	\$2.61	\$2.75	\$78.04
Ameren Corporation	AEE	\$1.71	\$1.77	\$1.83	\$1.89	\$1.95	\$2.03	\$2.11	\$2.20	\$2.29	\$2.37	\$2.47	\$2.58	\$2.69	\$2.81	\$2.93	\$3.07	\$103.02
American Electric Power Company, Inc.	AEP	\$2.41	\$2.54	\$2.67	\$2.81	\$2.96	\$3.10	\$3.26	\$3.43	\$3.61	\$3.80	\$4.01	\$4.22	\$4.44	\$4.68	\$4.93	\$5.19	\$137.14
Avista Corporation	AVA	\$1.35	\$1.39	\$1.43	\$1.48	\$1.52	\$1.61	\$1.71	\$1.82	\$1.93	\$2.05	\$2.18	\$2.30	\$2.42	\$2.55	\$2.68	\$2.82	\$66.47
CMS Energy Corporation	CMS	\$1.27	\$1.35	\$1.44	\$1.53	\$1.63	\$1.76	\$1.88	\$2.01	\$2.15	\$2.29	\$2.44	\$2.56	\$2.70	\$2.84	\$2.99	\$3.15	\$89.42
DTE Energy Company	DTE	\$2.85	\$3.04	\$3.23	\$3.44	\$3.66	\$3.88	\$4.12	\$4.37	\$4.63	\$4.91	\$5.21	\$5.48	\$5.77	\$6.07	\$6.40	\$6.73	\$192.65
IDACORP, Inc.	IDA	\$2.13	\$2.28	\$2.44	\$2.60	\$2.78	\$2.94	\$3.13	\$3.33	\$3.55	\$3.79	\$4.06	\$4.27	\$4.50	\$4.74	\$4.99	\$5.25	\$158.32
NorthWestern Corporation	NWE	\$1.99	\$2.05	\$2.11	\$2.17	\$2.24	\$2.41	\$2.60	\$2.80	\$3.01	\$3.23	\$3.47	\$3.65	\$3.85	\$4.05	\$4.26	\$4.49	\$125.34
OGE Energy Corp	OGE	\$1.14	\$1.23	\$1.33	\$													

Multi-Stage Growth Discounted Cash Flow Model
30 Day Average Stock Price
High EPS Growth Rate Estimate in First Stage

Inputs	Stock	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]
		Price	Zacks	First Cat	Value	High	Long-Term	Payout Ratio	Iterative Solution	Terminal	Terminal			
Company	Ticker	Price	Zacks	First Cat	Value	High	Growth	2016	2020	2026	Proof	IRR	PIE Ratio	PEG Ratio
ALLETE, Inc.	ALE	\$56.26	4.60%	3.00%	4.00%	4.50%	5.26%	65.00%	64.00%	66.68%	\$0.00	9.54%	18.52	3.13
Alliant Energy Corporation	LNT	\$35.91	6.10%	6.60%	6.00%	6.60%	5.26%	64.00%	64.00%	66.68%	\$0.00	9.07%	18.56	3.52
Amren Corporation	AEE	\$47.78	6.10%	5.20%	5.00%	6.10%	5.26%	68.00%	63.00%	66.68%	\$0.00	9.19%	18.01	3.41
American Electric Power Company, Inc.	AEP	\$64.21	4.60%	4.10%	4.50%	4.90%	5.26%	64.00%	60.00%	66.68%	\$0.00	9.36%	17.23	3.26
Avista Corporation	AVA	\$40.20	5.00%	5.00%	5.00%	5.00%	5.26%	68.00%	63.00%	66.68%	\$0.00	8.71%	20.49	3.68
CMS Energy Corporation	CMS	\$40.84	6.00%	7.24%	6.00%	7.24%	5.26%	63.00%	63.00%	66.68%	\$0.00	9.15%	18.17	3.44
DTE Energy Company	DTE	\$89.05	5.80%	5.35%	4.50%	5.80%	5.26%	61.00%	64.00%	66.68%	\$0.00	9.09%	18.45	3.50
IDACORP, Inc.	IDA	\$72.54	4.00%	4.00%	3.00%	4.00%	5.26%	53.00%	50.00%	66.68%	\$0.00	8.65%	19.73	3.74
NorthWestern Corporation	NWE	\$57.42	5.00%	5.00%	6.50%	6.50%	5.26%	65.00%	59.00%	66.68%	\$0.00	9.29%	17.53	3.32
OGE Energy Corp	OGE	\$29.76	5.20%	4.30%	2.50%	5.20%	5.26%	64.00%	74.00%	66.68%	\$0.00	9.63%	16.17	3.06
Oter Tail Corporation	OTTR	\$29.38	NA	6.00%	6.00%	6.00%	5.26%	80.00%	63.00%	66.68%	\$0.00	9.46%	16.74	3.17
Pinnacle West Capital Corporation	PNW	\$72.71	4.00%	3.73%	4.00%	4.00%	5.26%	64.00%	65.00%	66.68%	\$0.00	9.97%	19.05	3.61
PNM Resources, Inc.	PNM	\$32.12	7.60%	8.76%	9.00%	9.00%	5.26%	51.00%	55.00%	66.68%	\$0.00	9.69%	15.26	2.69
Portland General Electric Company	POR	\$40.21	6.40%	6.57%	5.50%	6.57%	5.26%	68.00%	68.00%	66.68%	\$0.00	9.26%	17.67	3.35
SCANA Corporation	SCG	\$68.65	5.30%	4.80%	4.50%	5.30%	5.26%	59.00%	60.00%	66.68%	\$0.00	9.33%	17.36	3.26
Xcel Energy Inc.	XEL	\$40.61	5.30%	5.27%	5.50%	5.50%	5.26%	62.00%	63.00%	66.68%	\$0.00	9.17%	18.11	3.43

DCF Result

Mean	9.25%	17.82	3.38
Max	8.69%	20.49	3.68
Min	8.71%	15.26	2.69

Projected Annual Earnings per Share	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]	
Company	Ticker	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
ALLETE, Inc.	ALE	\$3.38	\$3.53	\$3.69	\$3.86	\$4.03	\$4.21	\$4.41	\$4.62	\$4.84	\$5.09	\$5.35	\$5.63	\$5.93	\$6.24	\$6.57	\$6.92	\$7.28
Alliant Energy Corporation	LNT	\$1.69	\$1.80	\$1.91	\$2.04	\$2.18	\$2.32	\$2.47	\$2.62	\$2.77	\$2.93	\$3.09	\$3.25	\$3.43	\$3.61	\$3.80	\$4.00	\$4.21
Amren Corporation	AEE	\$2.38	\$2.53	\$2.68	\$2.84	\$3.02	\$3.20	\$3.39	\$3.59	\$3.79	\$4.00	\$4.22	\$4.44	\$4.68	\$4.92	\$5.18	\$5.46	\$5.75
American Electric Power Company, Inc.	AEP	\$3.60	\$3.78	\$3.96	\$4.16	\$4.36	\$4.57	\$4.80	\$5.04	\$5.30	\$5.57	\$5.86	\$6.17	\$6.50	\$6.84	\$7.20	\$7.58	\$7.98
Avista Corporation	AVA	\$1.69	\$1.98	\$2.08	\$2.19	\$2.30	\$2.41	\$2.53	\$2.66	\$2.80	\$2.94	\$3.10	\$3.26	\$3.43	\$3.62	\$3.81	\$4.01	\$4.22
CMS Energy Corporation	CMS	\$1.69	\$2.03	\$2.17	\$2.33	\$2.50	\$2.68	\$2.87	\$3.05	\$3.25	\$3.44	\$3.63	\$3.82	\$4.02	\$4.24	\$4.46	\$4.70	\$4.94
DTE Energy Company	DTE	\$4.44	\$4.70	\$4.97	\$5.26	\$5.56	\$5.89	\$6.22	\$6.57	\$6.94	\$7.31	\$7.71	\$8.11	\$8.54	\$8.99	\$9.47	\$9.97	\$10.49
IDACORP, Inc.	IDA	\$3.87	\$4.02	\$4.19	\$4.35	\$4.53	\$4.71	\$4.91	\$5.12	\$5.36	\$5.62	\$5.91	\$6.22	\$6.55	\$6.89	\$7.26	\$7.64	\$8.04
NorthWestern Corporation	NWE	\$2.50	\$3.09	\$3.29	\$3.50	\$3.73	\$3.97	\$4.22	\$4.48	\$4.74	\$5.01	\$5.29	\$5.57	\$5.86	\$6.17	\$6.50	\$6.84	\$7.20
OGE Energy Corp	OGE	\$1.71	\$1.60	\$1.69	\$1.79	\$1.89	\$2.00	\$2.12	\$2.24	\$2.37	\$2.50	\$2.64	\$2.79	\$2.93	\$3.08	\$3.24	\$3.38	\$3.53
Oter Tail Corporation	OTTR	\$1.56	\$1.65	\$1.75	\$1.86	\$1.97	\$2.09	\$2.21	\$2.34	\$2.47	\$2.61	\$2.75	\$2.89	\$3.04	\$3.20	\$3.37	\$3.55	\$3.74
Pinnacle West Capital Corporation	PNW	\$3.92	\$4.08	\$4.24	\$4.41	\$4.59	\$4.77	\$4.97	\$5.19	\$5.43	\$5.69	\$5.98	\$6.30	\$6.63	\$6.98	\$7.35	\$7.74	\$8.15
PNM Resources, Inc.	PNM	\$1.64	\$1.79	\$1.95	\$2.12	\$2.31	\$2.50	\$2.70	\$2.91	\$3.13	\$3.36	\$3.59	\$3.85	\$4.13	\$4.43	\$4.75	\$5.09	\$5.44
Portland General Electric Company	POR	\$2.04	\$2.17	\$2.32	\$2.48	\$2.63	\$2.80	\$2.99	\$3.19	\$3.40	\$3.61	\$3.84	\$4.08	\$4.34	\$4.62	\$4.91	\$5.21	\$5.52
SCANA Corporation	SCG	\$3.81	\$4.01	\$4.22	\$4.45	\$4.68	\$4.93	\$5.19	\$5.47	\$5.76	\$6.06	\$6.38	\$6.72	\$7.07	\$7.45	\$7.84	\$8.25	\$8.69
Xcel Energy Inc.	XEL	\$2.10	\$2.22	\$2.34	\$2.47	\$2.60	\$2.74	\$2.89	\$3.05	\$3.22	\$3.39	\$3.57	\$3.76	\$3.95	\$4.16	\$4.38	\$4.61	\$4.86

Projected Annual Dividend Payout Ratio

Projected Annual Dividend Payout Ratio	[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]	
Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
ALLETE, Inc.	ALE	68.00%	65.50%	65.00%	64.50%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Alliant Energy Corporation	LNT	64.00%	64.00%	64.00%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Amren Corporation	AEE	68.00%	68.75%	65.50%	64.25%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
American Electric Power Company, Inc.	AEP	64.00%	64.50%	65.00%	65.50%	66.00%	66.50%	67.00%	67.50%	68.00%	68.50%	69.00%	69.50%	70.00%	70.50%	71.00%	71.50%
Avista Corporation	AVA	68.00%	66.75%	65.50%	64.25%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
CMS Energy Corporation	CMS	63.00%	63.00%	63.00%	63.00%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
DTE Energy Company	DTE	61.00%	61.75%	62.50%	63.25%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
IDACORP, Inc.	IDA	53.00%	54.75%	56.50%	58.25%	60.00%	61.15%	62.29%	63.44%	64.59%	65.73%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
NorthWestern Corporation	NWE	65.00%	63.50%	62.00%	60.50%	59.00%	60.31%	61.63%	62.94%	64.25%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
OGE Energy Corp	OGE	64.00%	66.50%	69.00%	71.50%	74.00%	72.81%	71.63%	70.44%	69.25%	68.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Oter Tail Corporation	OTTR	80.00%	75.75%	71.50%	67.25%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Pinnacle West Capital Corporation	PNW	64.00%	64.25%	64.50%	64.75%	65.00%	65.31%	65.63%	65.94%	66.25%	66.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
PNM Resources, Inc.	PNM	51.00%	52.00%	53.00%	54.00%	55.00%	56.96%	58.90%	60.84%	62.78%	64.72%	66.66%	66.88%	66.88%	66.88%	66.88%	66.88%
Portland General Electric Company	POR	56.00%	56.00%	56.00%	56.00%	56.00%	57.81%	59.63%	61.44%	63.25%	65.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
SCANA Corporation	SCG	53.00%	58.25%	59.50%	59.75%	60.00%	61.69%	63.38%	65.07%	66.76%	68.45%	70.14%	71.83%	73.52%	75.21%	76.90%	78.59%
Xcel Energy Inc.	XEL	62.00%	62.25%	62.50%	62.75%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%

Projected Annual Cash Flows

Projected Annual Cash Flows	[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	[63]	Terminal Value
Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
ALLETE, Inc.	ALE	\$2.33	\$2.42	\$2.51	\$2.60	\$2.70	\$2.84	\$3.00	\$3.17	\$3.35	\$3.55	\$3.77	\$3.96	\$4.17	\$4.39	\$4.63	\$4.87	\$120.27
Alliant Energy Corporation	LNT	\$1.15	\$1.23	\$1.31	\$1.39	\$1.48	\$1.59	\$1.70	\$1.82	\$1.93	\$2.06	\$2.18	\$2.29	\$2.42	\$2.54	\$2.68	\$2.82	\$78.23
Amren Corporation	AEE	\$1.72	\$1.79	\$1.86	\$1.94	\$2.02	\$2.16	\$2.31	\$2.46	\$2.63	\$2.79	\$2.97	\$3.13	\$3.29	\$3.47	\$3.65	\$3.84	\$103.47
American Electric Power Company, Inc.	AEP	\$2.42	\$2.58	\$2.70	\$2.89	\$3.02	\$3.17	\$3.34	\$3.52	\$3.71	\$3.91	\$4.13	\$4.34	\$4.57	\$4.82	\$5.07	\$5.34	\$137.51
Avista Corporation	AVA	\$1.35	\$1.39	\$1.43	\$1.48	\$1.52	\$1.61	\$1.71	\$1.82	\$1.93	\$2.05	\$2.18	\$2.30	\$2.42	\$2.55	\$2.68	\$2.82	\$56.47
CMS Energy Corporation	CMS	\$1.28	\$1.37	\$1.47	\$1.57	\$1.69	\$1.82	\$1.96	\$2.11	\$2.26	\$2.41	\$2.56	\$2.69	\$2.83	\$2.98	\$3.14	\$3.31	\$69.84
DTE Energy Company	DTE	\$2.87	\$3.07	\$3.29	\$3.52	\$3.77	\$4.01	\$4.27	\$4.54	\$4.82	\$5.12	\$5.43	\$5.71	\$6.01	\$6.33	\$6.67	\$7.02	\$183.59
IDACORP, Inc.	IDA	\$2.13	\$2.29	\$2.46	\$2.64	\$2.83	\$3.00	\$3.19	\$3.40	\$3.63	\$3.88	\$4.16	\$4.38	\$4.61	\$4.85	\$5.11	\$5.38	\$158.66
NorthWestern Corporation	NWE	\$2.01	\$2.09	\$2.1														

Multi-Stage Growth Discounted Cash Flow Model
30 Day Average Stock Price
Low EPS Growth Rate Estimate in First Stage

Inputs	Stock	EPS Growth Rate Estimates										Long-Term Growth	Payoff Ratio			Iterative Solution	Terminal	[13]
		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]		[11]	[12]				
Company	Ticker	Price	Zecks	First Cat	Value	Low	Growth	2016	2020	2026	Proof	IRR	P/E Ratio	PEG Ratio				
ALLETE, Inc.	ALE	\$56.26	4.50%	3.00%	4.00%	3.00%	5.28%	66.00%	64.00%	66.63%	\$0.00	9.14%	18.22	3.45				
Alliant Energy Corporation	LNT	\$35.91	6.10%	6.00%	6.00%	6.00%	5.28%	61.00%	64.00%	66.63%	\$0.00	8.93%	19.29	3.66				
American Corporation	AEE	\$47.78	6.10%	5.20%	5.00%	5.00%	5.28%	68.00%	63.00%	66.63%	\$0.00	8.92%	19.34	3.66				
American Electric Power Company, Inc.	AEP	\$54.21	4.80%	4.10%	4.50%	4.10%	5.28%	64.00%	64.00%	66.63%	\$0.00	9.16%	18.15	3.44				
Avista Corporation	AVA	\$40.20	5.00%	5.00%	5.00%	5.00%	5.28%	68.00%	63.00%	66.63%	\$0.00	8.71%	20.49	3.88				
CVS Energy Corporation	CMS	\$40.84	6.40%	7.24%	6.00%	6.00%	5.28%	63.00%	63.00%	66.63%	\$0.00	8.86%	19.67	3.73				
DTE Energy Company	DTE	\$89.05	5.80%	5.35%	4.50%	4.50%	5.28%	61.00%	64.00%	66.63%	\$0.00	8.79%	20.08	3.60				
IDACORP, Inc.	IDA	\$72.54	4.00%	4.00%	3.00%	3.00%	5.28%	63.00%	60.00%	66.63%	\$0.00	8.62%	21.07	3.99				
NorthWestern Corporation	NWE	\$57.42	5.00%	5.00%	5.00%	5.00%	5.28%	65.00%	59.00%	66.63%	\$0.00	8.93%	19.29	3.66				
OG Energy Corp.	OGF	\$29.76	5.20%	4.30%	2.50%	2.50%	5.28%	64.00%	74.00%	66.63%	\$0.00	8.92%	19.35	3.67				
Oter Tail Corporation	OTTR	\$29.38	NA	6.00%	6.00%	6.00%	5.28%	60.00%	63.00%	66.63%	\$0.00	9.45%	16.74	3.17				
Pinnacle West Capital Corporation	PNW	\$72.71	4.00%	3.73%	4.00%	3.73%	5.28%	64.00%	65.00%	66.63%	\$0.00	8.91%	19.40	3.68				
PNM Resources, Inc.	PNM	\$32.12	7.60%	8.76%	9.00%	7.60%	5.28%	61.00%	55.00%	66.63%	\$0.00	9.52%	16.61	3.15				
Portland General Electric Company	POR	\$40.21	6.40%	6.57%	5.50%	5.50%	5.28%	66.00%	66.00%	66.63%	\$0.00	9.00%	18.91	3.58				
SCANA Corporation	SCG	\$68.65	5.30%	4.80%	4.50%	4.50%	5.28%	69.00%	60.00%	66.63%	\$0.00	9.13%	18.28	3.48				
Xcel Energy Inc.	XEL	\$49.51	5.30%	5.27%	5.50%	5.27%	5.28%	62.00%	63.00%	66.63%	\$0.00	9.11%	18.38	3.48				

DCF Result																
	Mean	9.01%	18.66	3.59												
	Max	9.52%	21.07	3.99												
	Min	8.62%	16.61	3.15												

Projected Annual Earnings per Share																		
Company	Ticker	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
ALLETE, Inc.	ALE	\$3.38	\$3.48	\$3.59	\$3.69	\$3.80	\$3.92	\$4.05	\$4.20	\$4.38	\$4.57	\$4.80	\$5.05	\$5.32	\$5.60	\$5.90	\$6.21	\$6.53
Alliant Energy Corporation	LNT	\$1.69	\$1.76	\$1.89	\$2.01	\$2.13	\$2.25	\$2.39	\$2.52	\$2.67	\$2.81	\$2.97	\$3.12	\$3.29	\$3.46	\$3.64	\$3.84	\$4.04
American Corporation	AEE	\$2.38	\$2.50	\$2.62	\$2.76	\$2.89	\$3.04	\$3.19	\$3.35	\$3.53	\$3.71	\$3.90	\$4.11	\$4.33	\$4.55	\$4.79	\$5.05	\$5.31
American Electric Power Company, Inc.	AEP	\$3.60	\$3.75	\$3.90	\$4.05	\$4.23	\$4.40	\$4.60	\$4.80	\$5.02	\$5.27	\$5.53	\$5.83	\$6.13	\$6.48	\$6.87	\$7.28	\$7.73
Avista Corporation	AVA	\$1.89	\$1.98	\$2.08	\$2.19	\$2.30	\$2.41	\$2.53	\$2.66	\$2.80	\$2.94	\$3.10	\$3.26	\$3.43	\$3.62	\$3.81	\$4.01	\$4.22
CVS Energy Corporation	CMS	\$1.89	\$2.00	\$2.12	\$2.25	\$2.39	\$2.53	\$2.68	\$2.83	\$2.99	\$3.16	\$3.33	\$3.50	\$3.69	\$3.88	\$4.09	\$4.30	\$4.53
DTE Energy Company	DTE	\$4.44	\$4.64	\$4.85	\$5.07	\$5.29	\$5.53	\$5.79	\$6.06	\$6.36	\$6.68	\$7.02	\$7.40	\$7.79	\$8.20	\$8.63	\$9.08	\$9.56
IDACORP, Inc.	IDA	\$3.87	\$3.99	\$4.11	\$4.23	\$4.36	\$4.49	\$4.64	\$4.81	\$5.01	\$5.24	\$5.49	\$5.78	\$6.09	\$6.41	\$6.75	\$7.11	\$7.48
NorthWestern Corporation	NWE	\$2.90	\$3.05	\$3.20	\$3.36	\$3.52	\$3.70	\$3.89	\$4.09	\$4.30	\$4.52	\$4.76	\$5.01	\$5.27	\$5.55	\$5.84	\$6.15	\$6.47
OG Energy Corp.	OGF	\$1.71	\$1.75	\$1.80	\$1.84	\$1.89	\$1.93	\$1.99	\$2.05	\$2.14	\$2.23	\$2.34	\$2.46	\$2.59	\$2.73	\$2.88	\$3.03	\$3.19
Oter Tail Corporation	OTTR	\$1.56	\$1.65	\$1.75	\$1.86	\$1.97	\$2.09	\$2.21	\$2.34	\$2.47	\$2.61	\$2.75	\$2.89	\$3.04	\$3.20	\$3.37	\$3.55	\$3.74
Pinnacle West Capital Corporation	PNW	\$3.92	\$4.07	\$4.22	\$4.38	\$4.54	\$4.71	\$4.90	\$5.10	\$5.33	\$5.59	\$5.87	\$6.18	\$6.50	\$6.85	\$7.21	\$7.59	\$7.99
PNM Resources, Inc.	PNM	\$1.64	\$1.76	\$1.90	\$2.04	\$2.20	\$2.37	\$2.54	\$2.71	\$2.88	\$3.06	\$3.23	\$3.40	\$3.58	\$3.77	\$3.97	\$4.18	\$4.40
Portland General Electric Company	POR	\$2.04	\$2.15	\$2.27	\$2.40	\$2.53	\$2.67	\$2.81	\$2.96	\$3.12	\$3.29	\$3.47	\$3.65	\$3.84	\$4.04	\$4.26	\$4.48	\$4.72
SCANA Corporation	SCG	\$3.81	\$3.98	\$4.16	\$4.35	\$4.54	\$4.75	\$4.97	\$5.20	\$5.45	\$5.73	\$6.03	\$6.35	\$6.68	\$7.03	\$7.40	\$7.80	\$8.21
Xcel Energy Inc.	XEL	\$2.10	\$2.21	\$2.33	\$2.45	\$2.58	\$2.71	\$2.86	\$3.01	\$3.17	\$3.33	\$3.51	\$3.70	\$3.89	\$4.10	\$4.31	\$4.54	\$4.78

Projected Annual Dividend Payout Ratio																	
Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
ALLETE, Inc.	ALE	66.00%	65.50%	65.00%	64.50%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	67.36%	67.84%	68.32%	68.80%	69.28%
Alliant Energy Corporation	LNT	64.00%	64.00%	64.00%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	67.36%	67.84%	68.32%	68.80%	69.28%
American Corporation	AEE	68.00%	68.75%	69.50%	64.25%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	67.53%	68.18%	68.83%	69.48%	70.13%
American Electric Power Company, Inc.	AEP	64.00%	64.50%	65.00%	65.50%	66.00%	66.15%	66.29%	66.44%	66.59%	66.73%	66.88%	67.03%	67.18%	67.33%	67.48%	67.63%
Avista Corporation	AVA	68.00%	68.75%	69.50%	64.25%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	67.53%	68.18%	68.83%	69.48%	70.13%
CVS Energy Corporation	CMS	63.00%	63.00%	63.00%	63.00%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	67.53%	68.18%	68.83%	69.48%	70.13%
DTE Energy Company	DTE	61.00%	61.75%	62.50%	63.25%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	67.36%	67.84%	68.32%	68.80%	69.28%
IDACORP, Inc.	IDA	53.00%	54.75%	56.50%	58.25%	60.00%	61.15%	62.29%	63.44%	64.59%	65.73%	66.88%	68.03%	69.18%	70.33%	71.48%	72.63%
NorthWestern Corporation	NWE	65.00%	63.50%	62.00%	60.50%	59.00%	60.31%	61.63%	62.94%	64.25%	65.57%	66.88%	68.19%	69.50%	70.81%	72.12%	73.43%
OG Energy Corp.	OGF	64.00%	66.50%	69.00%	71.50%	74.00%	72.81%	71.63%	70.44%	69.25%	68.07%	66.88%	65.69%	64.50%	63.31%	62.12%	60.93%
Oter Tail Corporation	OTTR	60.00%	75.75%	71.50%	67.25%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	67.53%	68.18%	68.83%	69.48%	70.13%
Pinnacle West Capital Corporation	PNW	64.00%	64.25%	64.50%	64.75%	65.00%	65.31%	65.63%	65.94%	66.25%	66.57%	66.88%	67.19%	67.50%	67.81%	68.12%	68.43%
PNM Resources, Inc.	PNM	51.00%	52.00%	53.00%	54.00%	55.00%	56.96%	58.96%	60.94%	62.92%	64.90%	66.88%	68.86%	70.84%	72.82%	74.80%	76.78%
Portland General Electric Company	POR	56.00%	56.00%	56.00%	56.00%	56.00%	57.61%	59.63%	61.44%	63.25%	65.07%	66.88%	68.69%	70.50%	72.31%	74.12%	75.93%
SCANA Corporation	SCG	59.00%	59.25%	59.60%	59.75%	60.00%	61.15%	62.29%	63.44%	64.59%	65.73%	66.88%	68.03%	69.18%	70.33%	71.48%	72.63%
Xcel Energy Inc.	XEL	62.00%	62.25%	62.60%	62.75%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	67.53%	68.18%	68.83%	69.48%	70.13%

Projected Annual Cash Flows																		
Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Terminal Value
ALLETE, Inc.	ALE	\$2.30	\$2.35	\$2.40	\$2.45	\$2.51	\$2.61	\$2.73	\$2.86	\$3.02	\$3.19	\$3.38	\$3.56	\$3.74	\$3.94	\$4.15	\$4.37	\$119.07
Alliant Energy Corporation	LNT	\$1.14	\$1.21	\$1.28	\$1.36	\$1.44	\$1.54	\$1.64	\$1.75	\$1.86	\$1.97	\$2.09	\$2.20	\$2.32	\$2.44	\$2.57	\$2.70	\$77.92
American Corporation	AEE	\$1.70	\$1.75	\$1.80	\$1.86	\$1.91	\$2.03	\$2.18	\$2.29	\$2.43	\$2.58	\$2.75	\$2.89	\$3.05	\$3.21	\$3.38	\$3.55	\$102.73
American Electric Power Company, Inc.	AEP	\$2.40	\$2.52	\$2.64	\$2.77	\$2.90	\$3.04	\$3.18	\$3.34	\$3.51	\$3.69	\$3.90	\$4.10	\$4.32	\$4.55	\$4.79	\$5.04	\$196.79
Avista Corporation	AVA	\$1.35	\$1.39	\$1.43	\$1.48	\$1.52	\$1.61	\$1.71	\$1.82	\$1.93	\$2.05	\$2.18	\$2.30	\$2.42	\$2.55	\$2.68	\$2.82	\$88.47
CVS Energy Corporation	CMS	\$1.20	\$1.34	\$1.42	\$1.50	\$1.59	\$1.70	\$1.82	\$1.94	\$2.07	\$2.20	\$2.34	\$2.47	\$2.62	\$2.73	\$2.88	\$3.03	\$69.10
DTE Energy Company	DTE	\$2.83	\$2.99	\$3.17	\$3.35	\$3.54	\$3.73	\$3.94	\$4.16	\$4.40	\$4.66	\$4.95	\$5.21	\$5.48	\$5.77	\$6.08	\$6.40	\$192.00
IDACORP, Inc.	IDA	\$2.11	\$2.25	\$2.39	\$2.54	\$2.69	\$2.84	\$3.00	\$3.18	\$3.38	\$3.61	\$3.87	\$4.07	\$4.29	\$4.51	\$4.75	\$5.00	\$157.66
NorthWestern Corporation	NWE	\$1.88	\$2.03	\$2.08	\$2.13	\$2.18	\$2.34	\$2.52	\$2.70	\$								

Multi-Stage Growth Discounted Cash Flow Model
60 Day Average Stock Price
Average EPS Growth Rate Estimate in First Stage

Inputs	[1]	[2]	[3] [4] [5] [6] [7]					[8]	[9]	[10]	[11]	[12]	[13]	
			EPS Growth Rate Estimates											Long-Term
Company	Ticker	Price	Zacks	First Call	Value	Average	Growth	2016	2020	2026	Proof	IRR	P/E Ratio	PEG Ratio
ALLETE, Inc.	ALE	\$55.04	4.50%	3.00%	4.00%	3.83%	5.26%	66.00%	64.00%	66.68%	\$0.00	9.45%	16.87	3.20
Alliant Energy Corporation	LNT	\$55.24	6.10%	6.00%	6.00%	6.23%	5.26%	64.00%	64.00%	66.68%	\$0.00	9.05%	18.65	3.53
Ameren Corporation	AEE	\$47.50	6.10%	5.20%	5.00%	5.43%	5.26%	68.00%	63.00%	66.68%	\$0.00	9.05%	18.69	3.54
American Electric Power Company, Inc.	ASP	\$63.66	4.90%	4.10%	4.50%	4.50%	5.26%	64.00%	66.00%	66.68%	\$0.00	9.29%	17.53	3.32
Avista Corporation	AVA	\$39.22	5.00%	5.00%	5.00%	5.00%	5.26%	68.00%	63.00%	66.68%	\$0.00	8.60%	19.99	3.79
CMS Energy Corporation	CMS	\$40.55	6.40%	7.24%	6.00%	6.55%	5.26%	63.00%	63.00%	66.68%	\$0.00	9.02%	18.81	3.56
DTE Energy Company	DTE	\$87.58	5.80%	5.35%	4.50%	5.22%	5.26%	61.00%	64.00%	66.68%	\$0.00	9.02%	18.64	3.57
IDACORP, Inc.	IDA	\$72.14	4.00%	4.00%	3.00%	3.67%	5.26%	53.00%	60.00%	66.68%	\$0.00	8.79%	20.05	3.60
NorthWestern Corporation	NWE	\$58.61	5.00%	5.00%	6.50%	5.50%	5.26%	65.00%	69.00%	66.68%	\$0.00	8.97%	19.07	3.61
OGE Energy Corp.	OGE	\$27.60	5.20%	4.30%	2.50%	4.00%	5.26%	64.00%	74.00%	66.68%	\$0.00	9.58%	16.37	3.10
Other Tail Corporation	OTTR	\$28.40	NA	6.00%	6.00%	6.00%	5.26%	60.00%	63.00%	66.68%	\$0.00	9.63%	16.17	3.06
Pinnacle West Capital Corporation	PNW	\$71.24	4.00%	3.73%	4.00%	3.91%	5.26%	64.00%	65.00%	66.68%	\$0.00	9.03%	18.78	3.56
PNM Resources, Inc.	PNM	\$32.35	7.60%	8.76%	9.00%	8.45%	5.26%	51.00%	55.00%	66.68%	\$0.00	9.71%	15.88	3.01
Portland General Electric Company	POR	\$39.34	6.40%	6.71%	5.50%	5.16%	5.26%	66.00%	66.00%	66.68%	\$0.00	9.24%	17.76	3.36
SCANA Corporation	SCG	\$67.31	5.30%	4.80%	4.50%	4.87%	5.26%	59.00%	60.00%	66.68%	\$0.00	9.31%	17.45	3.31
Xcel Energy Inc.	XEL	\$40.14	5.30%	5.27%	5.50%	5.36%	5.26%	62.00%	63.00%	66.68%	\$0.00	9.17%	16.11	3.43

DCF Result			
Mean	9.19%	18.06	3.42
Max	9.71%	20.05	3.60
M.n	8.79%	15.88	3.01

Projected Annual Earnings per Share	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]	
Company	Ticker	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
ALLETE, Inc.	ALE	\$3.51	\$3.64	\$3.78	\$3.93	\$4.08	\$4.25	\$4.43	\$4.63	\$4.85	\$5.10	\$5.37	\$5.65	\$5.95	\$6.26	\$6.59	\$6.94	\$7.31
Alliant Energy Corporation	LNT	\$1.69	\$1.79	\$1.90	\$2.02	\$2.15	\$2.28	\$2.42	\$2.58	\$2.71	\$2.86	\$3.02	\$3.18	\$3.34	\$3.52	\$3.70	\$3.89	\$4.11
Ameren Corporation	AEE	\$2.38	\$2.51	\$2.65	\$2.79	\$2.94	\$3.10	\$3.27	\$3.44	\$3.63	\$3.82	\$4.02	\$4.24	\$4.48	\$4.70	\$4.94	\$5.21	\$5.48
American Electric Power Company, Inc.	AEP	\$3.60	\$3.76	\$3.93	\$4.11	\$4.29	\$4.49	\$4.69	\$4.92	\$5.16	\$5.42	\$5.70	\$6.00	\$6.31	\$6.65	\$7.00	\$7.37	\$7.75
Avista Corporation	AVA	\$1.89	\$1.98	\$2.08	\$2.19	\$2.30	\$2.41	\$2.53	\$2.66	\$2.80	\$2.94	\$3.10	\$3.26	\$3.43	\$3.62	\$3.81	\$4.01	\$4.22
CMS Energy Corporation	CMS	\$1.89	\$2.01	\$2.15	\$2.29	\$2.44	\$2.60	\$2.76	\$2.93	\$3.10	\$3.28	\$3.46	\$3.64	\$3.83	\$4.04	\$4.25	\$4.47	\$4.71
DTE Energy Company	DTE	\$4.44	\$4.67	\$4.92	\$5.17	\$5.44	\$5.73	\$6.02	\$6.34	\$6.67	\$7.02	\$7.39	\$7.78	\$8.19	\$8.63	\$9.08	\$9.56	\$10.07
IDACORP, Inc.	IDA	\$3.87	\$4.01	\$4.16	\$4.31	\$4.47	\$4.63	\$4.82	\$5.02	\$5.24	\$5.49	\$5.77	\$6.07	\$6.39	\$6.73	\$7.08	\$7.46	\$7.85
NorthWestern Corporation	NWE	\$2.90	\$3.06	\$3.23	\$3.41	\$3.59	\$3.79	\$4.00	\$4.21	\$4.44	\$4.68	\$4.93	\$5.19	\$5.46	\$5.75	\$6.05	\$6.37	\$6.71
OGE Energy Corp.	OGE	\$1.71	\$1.78	\$1.85	\$1.92	\$2.00	\$2.08	\$2.17	\$2.26	\$2.37	\$2.48	\$2.61	\$2.75	\$2.89	\$3.05	\$3.21	\$3.38	\$3.55
Other Tail Corporation	OTTR	\$1.56	\$1.65	\$1.75	\$1.85	\$1.97	\$2.09	\$2.21	\$2.34	\$2.47	\$2.61	\$2.75	\$2.89	\$3.04	\$3.20	\$3.37	\$3.55	\$3.74
Pinnacle West Capital Corporation	PNW	\$3.92	\$4.07	\$4.23	\$4.40	\$4.57	\$4.75	\$4.95	\$5.16	\$5.40	\$5.66	\$5.94	\$6.26	\$6.59	\$6.94	\$7.30	\$7.69	\$8.09
PNM Resources, Inc.	PNM	\$1.64	\$1.70	\$1.76	\$1.83	\$1.90	\$1.98	\$2.06	\$2.15	\$2.24	\$2.34	\$2.43	\$2.53	\$2.63	\$2.74	\$2.85	\$2.96	\$3.07
Portland General Electric Company	POR	\$2.04	\$2.17	\$2.30	\$2.44	\$2.59	\$2.75	\$2.92	\$3.09	\$3.26	\$3.44	\$3.63	\$3.82	\$4.03	\$4.24	\$4.46	\$4.70	\$4.94
SCANA Corporation	SCG	\$3.81	\$4.00	\$4.19	\$4.39	\$4.61	\$4.83	\$5.07	\$5.32	\$5.59	\$5.88	\$6.19	\$6.51	\$6.86	\$7.22	\$7.60	\$8.00	\$8.43
Xcel Energy Inc.	XEL	\$2.10	\$2.21	\$2.33	\$2.46	\$2.59	\$2.73	\$2.87	\$3.02	\$3.19	\$3.35	\$3.53	\$3.72	\$3.91	\$4.12	\$4.34	\$4.57	\$4.81

Projected Annual Dividend Payout Ratio	[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]		
Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
ALLETE, Inc.	ALE	66.00%	65.50%	65.00%	64.50%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Alliant Energy Corporation	LNT	64.00%	64.00%	64.00%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Ameren Corporation	AEE	68.00%	67.50%	67.00%	66.50%	66.00%	66.50%	67.00%	67.50%	68.00%	68.50%	69.00%	69.00%	69.00%	69.00%	69.00%	69.00%	69.00%
American Electric Power Company, Inc.	AEP	64.00%	64.50%	65.00%	65.50%	66.00%	66.50%	67.00%	67.50%	68.00%	68.50%	69.00%	69.00%	69.00%	69.00%	69.00%	69.00%	69.00%
Avista Corporation	AVA	68.00%	67.50%	67.00%	66.50%	66.00%	66.50%	67.00%	67.50%	68.00%	68.50%	69.00%	69.00%	69.00%	69.00%	69.00%	69.00%	69.00%
CMS Energy Corporation	CMS	63.00%	63.00%	63.00%	63.00%	63.00%	63.50%	64.00%	64.50%	65.00%	65.50%	66.00%	66.00%	66.00%	66.00%	66.00%	66.00%	66.00%
DTE Energy Company	DTE	61.00%	61.75%	62.50%	63.25%	64.00%	64.75%	65.50%	66.25%	67.00%	67.75%	68.50%	68.50%	68.50%	68.50%	68.50%	68.50%	68.50%
IDACORP, Inc.	IDA	53.00%	54.75%	56.50%	58.25%	60.00%	61.75%	63.50%	65.25%	67.00%	68.75%	70.50%	70.50%	70.50%	70.50%	70.50%	70.50%	70.50%
NorthWestern Corporation	NWE	65.00%	63.50%	62.00%	60.50%	59.00%	60.31%	61.63%	62.94%	64.25%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
OGE Energy Corp.	OGE	64.00%	66.50%	69.00%	71.50%	74.00%	72.81%	71.63%	70.44%	69.25%	68.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Other Tail Corporation	OTTR	60.00%	75.75%	71.50%	67.25%	63.00%	63.65%	64.29%	64.94%	65.59%	66.25%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Pinnacle West Capital Corporation	PNW	64.00%	64.25%	64.50%	64.75%	65.00%	65.31%	65.63%	65.94%	66.25%	66.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
PNM Resources, Inc.	PNM	51.00%	52.00%	53.00%	54.00%	55.00%	56.96%	58.95%	60.94%	62.92%	64.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Portland General Electric Company	POR	66.00%	66.00%	66.00%	66.00%	66.00%	67.81%	69.63%	71.44%	73.25%	75.07%	76.88%	76.88%	76.88%	76.88%	76.88%	76.88%	76.88%
SCANA Corporation	SCG	59.00%	59.25%	59.50%	59.75%	60.00%	61.61%	63.23%	64.84%	66.45%	68.06%	69.67%	69.67%	69.67%	69.67%	69.67%	69.67%	69.67%
Xcel Energy Inc.	XEL	62.00%	62.25%	62.50%	62.75%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%

Projected Annual Cash Flows	[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	[63]	Terminal Value
Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Value
ALLETE, Inc.	ALE	\$2.32	\$2.39	\$2.48	\$2.53	\$2.61	\$2.74	\$2.88	\$3.03	\$3.20	\$3.38	\$3.59	\$3.78	\$3.98	\$4.19	\$4.41	\$4.64	\$117.06
Alliant Energy Corporation	LNT	\$1.15	\$1.22	\$1.29	\$1.37	\$1.46	\$1.56	\$1.66	\$1.77	\$1.89	\$2.00	\$2.12	\$2.24	\$2.35	\$2.48	\$2.61	\$2.75	\$76.56
Ameren Corporation	AEE	\$1.71	\$1.77	\$1.83	\$1.89	\$1.95	\$2.08	\$2.21	\$2.36	\$2.51	\$2.67	\$2.83	\$2.98	\$3.14	\$3.31	\$3.48	\$3.67	\$102.41
American Electric Power Company, Inc.	ASP	\$2.41	\$2.54	\$2.67	\$2.81	\$2.95	\$3.10	\$3.26	\$3.43	\$3.61	\$3.80	\$4.01	\$4.22	\$4.44	\$4.68	\$4.93	\$5.19	\$135.96
Avista Corporation	AVA	\$1.35	\$1.39	\$1.43	\$1.48	\$1.52	\$1.61	\$1.71	\$1.82	\$1.93	\$2.05	\$2.18	\$2.30	\$2.42	\$2.55	\$2.68	\$2.82	\$84.34
CMS Energy Corporation	CMS	\$1.27	\$1.35	\$1.44	\$1.53	\$1.63	\$1.76	\$1.88	\$2.01	\$2.15	\$2.29	\$2.44	\$2.58	\$2.70	\$2.84	\$2.99	\$3.15	\$87.57
DTE Energy Company	DTE	\$2.85	\$3.04	\$3.23	\$3.44	\$3.66	\$3.88	\$4.12	\$4.37	\$4.63	\$4.91	\$5.21	\$5.48	\$5.77	\$6.07	\$6.40	\$6.73	\$169.65
IDACORP, Inc.	IDA	\$2.13	\$2.28	\$2.44	\$2.60	\$2.78	\$2.94	\$3.13	\$3.33	\$3.55	\$3.79	\$4.06	\$4.27	\$4.50	\$4.74	\$4.99	\$5.25	\$157.45
NorthWestern Corporation	NWE	\$1.99	\$2.05	\$2.11	\$2.17	\$2.24	\$2.41	\$2.60	\$2.80	\$3.01	\$3.23	\$3.47	\$3.65	\$4.04	\$4.26	\$4.49	\$4.73	\$127.93
OGE Energy Corp.	OGE	\$1.14	\$1.23	\$1.33	\$1.43	\$1.54	\$1.58	\$1.62	\$1.67	\$1.72	\$1.78	\$1.84	\$1.93	\$2.04	\$2.14	\$2.26	\$2.38	\$58.15
Other Tail Corporation	OTTR	\$1.32	\$1.33	\$1.33	\$1.32	\$1.32	\$1.41	\$1.50	\$1.60	\$1.71	\$1.82	\$1.93	\$2.04	\$2.14	\$2.26	\$2.38	\$2.50	\$60.48
Pinnacle West Capital Corporation	PNW	\$2.61	\$2.72	\$2.84	\$2.96	\$3.09	\$3.23	\$3.39	\$3.56	\$3.75	\$3.96	\$4.19	\$4.41	\$4.64	\$4.88	\$5.14	\$5.41	\$151.97
PNM Resources, Inc.	PNM	\$0.81	\$1.00	\$1.11	\$1.23	\$1.35	\$1.51	\$1.68	\$1.86	\$2.04	\$2.23	\$2.41	\$2.54	\$2.68	\$2.82	\$2.97	\$3.12	\$74.13
Portland General Electric Company	POR	\$1.21	\$1.29	\$1.37	\$1.45	\$1.54	\$1.69	\$1.84	\$2.00	\$2.18	\$2.36	\$2.56	\$2.69	\$2.83	\$2.98	\$3.14	\$3.31	\$87.79
SCANA Corporation	SCG	\$2.36	\$2.48	\$2.61	\$2.75	\$2.90	\$3.10	\$3.32	\$3.55	\$3.80	\$4.07	\$4.36	\$4.69	\$4.83				

Multi-Stage Growth Discounted Cash Flow Model
 90 Day Average Stock Price
 High EPS Growth Rate Estimate in First Stage

Inputs	Stock	EPS Growth Rate Estimates										Payout Ratio	Iterative Solution	Terminal	[13]	
		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]					[11]
Company	Ticker	Price	Yield	First Cal	Value	High	Growth	2016	2020	2026	Proof	IRR	P/E Ratio	PEG Ratio		
ALLETE, Inc	ALE	\$55.04	4.50%	3.00%	4.00%	4.50%	5.28%	66.00%	64.00%	66.88%	\$0.00	9.64%	16.15	3.06		
Alliant Energy Corporation	LNT	\$35.24	6.10%	6.60%	6.00%	6.60%	5.28%	64.00%	64.00%	66.88%	\$0.00	9.14%	18.21	3.45		
Ameren Corporation	AEE	\$47.50	6.10%	5.20%	6.10%	6.10%	5.28%	63.00%	63.00%	66.88%	\$0.00	9.21%	17.60	3.39		
American Electric Power Company, Inc	AEP	\$53.66	4.80%	4.10%	4.50%	4.50%	5.28%	64.00%	66.00%	66.88%	\$0.00	9.40%	17.08	3.24		
Avista Corporation	AVA	\$39.22	5.00%	5.00%	5.00%	5.00%	5.28%	68.00%	63.00%	66.88%	\$0.00	8.63%	19.99	3.78		
CMS Energy Corporation	CMS	\$40.55	6.40%	7.24%	6.00%	7.24%	5.28%	63.00%	63.00%	66.88%	\$0.00	9.16%	18.00	3.41		
DTE Energy Company	DTE	\$67.58	5.80%	5.35%	4.50%	5.80%	5.28%	61.00%	64.00%	66.88%	\$0.00	9.16%	18.14	3.44		
IDACORP, Inc	IDA	\$72.14	4.00%	4.00%	3.00%	4.00%	5.28%	53.00%	60.00%	66.88%	\$0.00	8.87%	19.62	3.72		
NorthWestern Corporation	NWE	\$58.61	5.00%	5.00%	6.50%	6.50%	5.28%	65.00%	59.00%	66.88%	\$0.00	9.21%	17.69	3.39		
OGE Energy Corp	OGE	\$27.90	5.20%	4.30%	2.50%	5.20%	5.28%	64.00%	74.00%	66.88%	\$0.00	9.63%	15.13	2.87		
Other Tail Corporation	OTTR	\$28.40	NA	6.00%	6.00%	6.00%	5.28%	60.00%	63.00%	66.88%	\$0.00	9.63%	16.17	3.06		
Pinnacle West Capital Corporation	PNW	\$71.24	4.00%	3.73%	4.00%	4.00%	5.28%	64.00%	65.00%	66.88%	\$0.00	9.05%	18.67	3.54		
PNM Resources, Inc	PNM	\$32.35	7.60%	8.76%	9.00%	9.00%	5.28%	51.00%	55.00%	66.88%	\$0.00	9.86%	15.36	2.91		
Portland General Electric Company	POR	\$39.34	6.40%	6.57%	5.50%	6.57%	5.28%	56.00%	56.00%	66.88%	\$0.00	9.35%	17.30	3.28		
SCANA Corporation	SCG	\$67.31	5.30%	4.83%	4.50%	5.30%	5.28%	69.00%	60.00%	66.88%	\$0.00	9.43%	16.63	3.22		
Xcel Energy Inc	XEL	\$10.14	5.90%	5.27%	5.50%	5.50%	5.28%	62.00%	63.00%	66.88%	\$0.00	9.20%	17.94	3.40		

DCF Result			
Mean	9.32%	17.53	3.32
Max	9.93%	19.69	3.79
Mn	8.80%	15.13	2.87

Projected Annual Earnings per Share																		
Company	Ticker	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
ALLETE, Inc	ALE	\$3.38	\$3.53	\$3.69	\$3.85	\$4.03	\$4.21	\$4.41	\$4.62	\$4.84	\$5.09	\$5.35	\$5.63	\$5.93	\$6.24	\$6.57	\$6.92	\$7.28
Alliant Energy Corporation	LNT	\$1.69	\$1.80	\$1.91	\$2.04	\$2.18	\$2.32	\$2.47	\$2.62	\$2.77	\$2.93	\$3.09	\$3.26	\$3.43	\$3.61	\$3.80	\$4.00	\$4.21
Ameren Corporation	AEE	\$2.58	\$2.68	\$2.84	\$3.02	\$3.20	\$3.39	\$3.59	\$3.79	\$4.00	\$4.22	\$4.44	\$4.68	\$4.92	\$5.18	\$5.46	\$5.75	\$6.05
American Electric Power Company, Inc	AEP	\$3.60	\$3.78	\$3.96	\$4.18	\$4.36	\$4.57	\$4.80	\$5.04	\$5.30	\$5.57	\$5.86	\$6.17	\$6.50	\$6.84	\$7.20	\$7.58	\$7.96
Avista Corporation	AVA	\$1.89	\$1.98	\$2.08	\$2.19	\$2.30	\$2.41	\$2.53	\$2.66	\$2.80	\$2.94	\$3.10	\$3.26	\$3.43	\$3.62	\$3.81	\$4.01	\$4.22
CMS Energy Corporation	CMS	\$1.89	\$2.03	\$2.17	\$2.33	\$2.50	\$2.68	\$2.87	\$3.05	\$3.25	\$3.44	\$3.63	\$3.82	\$4.02	\$4.24	\$4.46	\$4.70	\$4.94
DTE Energy Company	DTE	\$4.44	\$4.70	\$4.97	\$5.26	\$5.56	\$5.89	\$6.22	\$6.57	\$6.94	\$7.31	\$7.71	\$8.11	\$8.54	\$8.99	\$9.47	\$9.97	\$10.49
IDACORP, Inc	IDA	\$3.87	\$4.02	\$4.19	\$4.35	\$4.53	\$4.71	\$4.91	\$5.12	\$5.35	\$5.62	\$5.91	\$6.22	\$6.55	\$6.89	\$7.26	\$7.64	\$8.04
NorthWestern Corporation	NWE	\$2.90	\$3.09	\$3.29	\$3.50	\$3.73	\$3.97	\$4.22	\$4.48	\$4.74	\$5.01	\$5.29	\$5.57	\$5.86	\$6.17	\$6.50	\$6.84	\$7.20
OGE Energy Corp	OGE	\$1.71	\$1.80	\$1.89	\$1.99	\$2.09	\$2.20	\$2.32	\$2.44	\$2.57	\$2.70	\$2.84	\$2.99	\$3.15	\$3.32	\$3.49	\$3.68	\$3.87
Other Tail Corporation	OTTR	\$1.56	\$1.65	\$1.75	\$1.86	\$1.97	\$2.09	\$2.21	\$2.34	\$2.47	\$2.61	\$2.75	\$2.89	\$3.04	\$3.20	\$3.37	\$3.55	\$3.74
Pinnacle West Capital Corporation	PNW	\$3.92	\$4.08	\$4.24	\$4.41	\$4.59	\$4.77	\$4.97	\$5.19	\$5.43	\$5.69	\$5.96	\$6.30	\$6.63	\$6.98	\$7.35	\$7.74	\$8.15
PNM Resources, Inc	PNM	\$1.64	\$1.79	\$1.95	\$2.12	\$2.31	\$2.52	\$2.73	\$2.95	\$3.18	\$3.36	\$3.56	\$3.75	\$3.95	\$4.16	\$4.38	\$4.61	\$4.85
Portland General Electric Company	POR	\$2.04	\$2.17	\$2.32	\$2.47	\$2.63	\$2.80	\$2.98	\$3.17	\$3.37	\$3.54	\$3.74	\$3.94	\$4.14	\$4.36	\$4.59	\$4.84	\$5.09
SCANA Corporation	SCG	\$3.81	\$4.01	\$4.22	\$4.45	\$4.69	\$4.93	\$5.19	\$5.45	\$5.72	\$6.00	\$6.29	\$6.59	\$6.90	\$7.21	\$7.54	\$7.89	\$8.25
Xcel Energy Inc	XEL	\$2.10	\$2.22	\$2.34	\$2.47	\$2.60	\$2.74	\$2.89	\$3.05	\$3.22	\$3.39	\$3.57	\$3.76	\$3.95	\$4.16	\$4.38	\$4.61	\$4.86

Projected Annual Dividend Payout Ratio																	
Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
ALLETE, Inc	ALE	66.00%	65.50%	65.00%	64.50%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Alliant Energy Corporation	LNT	64.00%	64.00%	64.00%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Ameren Corporation	AEE	68.00%	69.75%	65.50%	64.25%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
American Electric Power Company, Inc	AEP	64.00%	64.50%	65.00%	65.50%	66.00%	66.15%	66.29%	66.44%	66.59%	66.73%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Avista Corporation	AVA	68.00%	68.75%	65.00%	64.25%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
CMS Energy Corporation	CMS	63.00%	63.00%	63.00%	63.00%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
DTE Energy Company	DTE	61.00%	61.75%	62.50%	63.25%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
IDACORP, Inc	IDA	53.00%	54.75%	56.50%	58.25%	60.00%	61.15%	62.29%	63.44%	64.59%	65.73%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
NorthWestern Corporation	NWE	65.00%	63.50%	62.00%	60.50%	59.00%	60.31%	61.63%	62.94%	64.25%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
OGE Energy Corp	OGE	64.00%	66.50%	69.00%	71.50%	74.00%	72.81%	71.63%	70.44%	69.25%	68.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Other Tail Corporation	OTTR	60.00%	75.75%	71.50%	67.25%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Pinnacle West Capital Corporation	PNW	64.00%	64.25%	64.50%	64.75%	65.00%	65.31%	65.63%	65.94%	66.25%	66.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
PNM Resources, Inc	PNM	51.00%	52.00%	53.00%	54.00%	55.00%	56.93%	58.86%	60.84%	62.92%	64.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Portland General Electric Company	POR	55.00%	60.00%	66.00%	66.00%	66.00%	57.81%	59.63%	61.44%	63.25%	65.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
SCANA Corporation	SCG	59.00%	59.25%	59.50%	59.75%	60.00%	61.15%	62.29%	63.44%	64.59%	65.73%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Xcel Energy Inc	XEL	62.00%	62.25%	62.50%	62.75%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%

Projected Annual Cash Flows																		
Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Terminal Value
ALLETE, Inc	ALE	\$2.33	\$2.42	\$2.51	\$2.60	\$2.70	\$2.84	\$3.00	\$3.17	\$3.35	\$3.55	\$3.77	\$3.96	\$4.17	\$4.39	\$4.63	\$4.87	\$117.61
Alliant Energy Corporation	LNT	\$1.15	\$1.23	\$1.31	\$1.39	\$1.48	\$1.59	\$1.70	\$1.82	\$1.93	\$2.06	\$2.18	\$2.29	\$2.42	\$2.54	\$2.68	\$2.82	\$76.75
Ameren Corporation	AEE	\$1.72	\$1.79	\$1.86	\$1.94	\$2.02	\$2.16	\$2.31	\$2.46	\$2.63	\$2.79	\$2.97	\$3.13	\$3.29	\$3.47	\$3.65	\$3.84	\$102.87
American Electric Power Company, Inc	AEP	\$2.42	\$2.56	\$2.70	\$2.86	\$3.02	\$3.17	\$3.34	\$3.52	\$3.71	\$3.91	\$4.13	\$4.34	\$4.57	\$4.82	\$5.07	\$5.34	\$136.32
Avista Corporation	AVA	\$1.35	\$1.39	\$1.43	\$1.48	\$1.52	\$1.61	\$1.71	\$1.82	\$1.93	\$2.05	\$2.18	\$2.30	\$2.42	\$2.55	\$2.68	\$2.82	\$64.34
CMS Energy Corporation	CMS	\$1.28	\$1.37	\$1.47	\$1.57	\$1.69	\$1.82	\$1.96	\$2.11	\$2.26	\$2.41	\$2.56	\$2.69	\$2.83	\$2.98	\$3.14	\$3.31	\$83.99
DTE Energy Company	DTE	\$2.87	\$3.07	\$3.29	\$3.52	\$3.77	\$4.01	\$4.27	\$4.54	\$4.82	\$5.12	\$5.43	\$5.71	\$6.01	\$6.33	\$6.67	\$7.02	\$180.39
IDACORP, Inc	IDA	\$2.13	\$2.29	\$2.46	\$2.64	\$2.83	\$3.00	\$3.19	\$3.40	\$3.63	\$3.88	\$4.18	\$4.38	\$4.61	\$4.85	\$5.11	\$5.38	\$157.79
NorthWestern Corporation	NWE	\$2.01	\$2.09	\$2.17	\$2.26	\$2.34	\$2.55	\$2.76	\$2.99	\$3.22	\$3.47	\$3.72	\$3.92	\$4.13	\$4.35	\$4.57	\$4.82	\$128.63
OGE Energy Corp	OGE	\$1.15	\$1.26	\$1.37	\$1.50	\$1.63	\$1.69	\$1.75	\$1.81	\$1.87	\$1.94	\$2.00	\$2.11	\$2.22	\$2.34	\$2.46	\$2.59	\$58.61
Other Tail Corporation	OTTR	\$1.32	\$1.33	\$1.33	\$1.32	\$1.32	\$1.41	\$1.60	\$1.60	\$1.71	\$1.82	\$1.93	\$2.04	\$2.14	\$2.26	\$2.38	\$2.50	\$60.48
Pinnacle West Capital Corporation	PNW	\$2.61	\$2.72	\$2.84	\$2.97	\$3.10	\$3.25	\$3.41	\$3.58	\$3.77	\$3.98	\$4.21	\$4.43	\$4.67	\$4.92	\$5.17	\$5.45	\$152.06
PNM Resources, Inc	PNM	\$0.91	\$1.01	\$1.13	\$1.25	\$1.39	\$1.56	\$1.74	\$1.92	\$2.12	\$2.31	\$2.51	\$2.64	\$2.78	\$2.93	\$3.06	\$3.24	\$74.50
Portland General Electric Company	POR	\$1.22	\$1.30	\$1.38	\$1.47	\$1.57	\$1.72	\$1.89	\$2.06	\$2.24	\$2.43	\$2.63	\$2.77	\$2.92	\$3.07	\$3.23	\$3.40	\$68.08
SCANA Corporation	SCG	\$2.37	\$2.50	\$2.65	\$2.80	\$2.96	\$3.18	\$3.41	\$3.65	\$3.92	\$4.20	\$4.49	\$4.73	\$4.98	\$5.24	\$5.52	\$5.81	\$147.52
Xcel Energy Inc	XEL	\$1.37	\$1.46	\$1.54	\$1.63	\$1.73	\$1.84	\$1.96	\$2.09	\$2.22	\$2.36	\$2.51	\$2.65	\$2.78	\$2.93	\$3.09	\$3.25	\$87.17

Projected Annual Data Investor Cash Flows																
Company	Ticker	Outflow	5/31/16	12/31/												

Multistage Growth Discounted Cash Flow Model
90 Day Average Stock Price
Low EPS Growth Rate Estimate in First Stage

Inputs	Stock	EPS Growth Rate Estimates										Long-Term Growth	Payout Ratio			Iterative Solution	Terminal	Terminal
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)		(11)	(12)	(13)			
Company	Ticker	Price	Zacks	First Call	Value Line	Low Growth	2016	2020	2025	Proof	IRR	P/E Ratio	PEG Ratio					
ALLETE, Inc.	ALE	\$55.04	4.50%	3.00%	4.00%	3.00%	5.28%	68.00%	64.00%	66.88%	\$0.00	9.23%	17.82	3.58				
Alliant Energy Corporation	LNT	\$35.24	6.10%	6.00%	6.00%	6.00%	5.26%	64.00%	64.00%	66.88%	\$0.00	9.00%	18.93	3.64				
Ameren Corporation	AEE	\$47.60	6.10%	5.20%	5.00%	5.00%	5.26%	68.00%	63.00%	66.88%	\$0.00	8.84%	19.22	3.64				
American Electric Power Company, Inc.	AEP	\$63.66	4.90%	4.10%	4.50%	4.10%	5.28%	64.00%	66.00%	66.88%	\$0.00	9.17%	18.00	3.41				
Avista Corporation	AVA	\$39.22	5.00%	5.00%	5.00%	5.00%	5.26%	68.00%	63.00%	66.88%	\$0.00	8.85%	19.69	3.79				
CMS Energy Corporation	CMS	\$40.55	6.00%	7.24%	6.00%	6.00%	5.26%	63.00%	63.00%	66.88%	\$0.00	8.69%	19.48	3.69				
DTE Energy Company	DTE	\$87.58	5.80%	5.35%	4.50%	4.50%	5.26%	61.00%	64.00%	66.88%	\$0.00	8.84%	19.74	3.74				
IDACORP, Inc.	IDA	\$72.14	4.00%	4.00%	3.00%	3.00%	5.28%	53.00%	60.00%	66.88%	\$0.00	8.64%	20.96	3.97				
NorthWestern Corporation	NWE	\$58.61	5.00%	5.00%	6.50%	5.00%	5.26%	65.00%	59.00%	66.88%	\$0.00	8.65%	19.69	3.73				
OGE Energy Corp.	OGE	\$27.90	5.20%	4.30%	2.50%	2.50%	5.26%	64.00%	74.00%	66.88%	\$0.00	9.17%	18.09	3.43				
Oter Tail Corporation	OTTR	\$28.40	NA	6.00%	6.00%	6.00%	5.26%	60.00%	63.00%	66.88%	\$0.00	9.63%	16.17	3.06				
Pinnacle West Capital Corporation	PWV	\$71.24	4.00%	3.73%	4.00%	3.73%	5.26%	64.00%	65.00%	66.88%	\$0.00	8.96%	19.00	3.60				
PNM Resources, Inc.	PNM	\$32.35	7.90%	8.70%	9.00%	7.60%	5.26%	51.00%	55.00%	66.88%	\$0.00	9.49%	16.73	3.17				
Portland General Electric Company	POR	\$39.34	6.40%	6.57%	5.50%	5.50%	5.26%	66.00%	60.00%	66.88%	\$0.00	9.05%	18.51	3.51				
SCANA Corporation	SCG	\$67.31	5.30%	4.80%	4.50%	4.50%	5.26%	60.00%	60.00%	66.88%	\$0.00	9.22%	17.87	3.39				
Xcel Energy Inc.	XEL	\$40.14	5.30%	5.27%	5.50%	5.27%	5.26%	62.00%	63.00%	66.88%	\$0.00	9.14%	18.21	3.45				

DCF Result

Mean	9.07%	18.65	3.53
Max	9.63%	20.96	3.97
Min	8.64%	16.17	3.06

Projected Annual Earnings per Share

Company	Ticker	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
ALLETE, Inc.	ALE	\$3.38	\$3.48	\$3.59	\$3.69	\$3.80	\$3.92	\$4.05	\$4.20	\$4.38	\$4.57	\$4.80	\$5.05	\$5.32	\$5.60	\$5.90	\$6.21	\$6.53
Alliant Energy Corporation	LNT	\$1.69	\$1.79	\$1.89	\$2.01	\$2.13	\$2.25	\$2.39	\$2.52	\$2.67	\$2.81	\$2.97	\$3.12	\$3.29	\$3.45	\$3.64	\$3.84	\$4.04
Ameren Corporation	AEE	\$2.38	\$2.50	\$2.62	\$2.76	\$2.89	\$3.04	\$3.19	\$3.35	\$3.53	\$3.71	\$3.89	\$4.11	\$4.33	\$4.55	\$4.79	\$5.05	\$5.31
American Electric Power Company, Inc.	AEP	\$3.60	\$3.75	\$3.90	\$4.06	\$4.23	\$4.40	\$4.59	\$4.80	\$5.02	\$5.27	\$5.53	\$5.83	\$6.13	\$6.46	\$6.80	\$7.16	\$7.53
Avista Corporation	AVA	\$1.89	\$1.98	\$2.08	\$2.19	\$2.30	\$2.41	\$2.53	\$2.66	\$2.80	\$2.94	\$3.10	\$3.26	\$3.43	\$3.62	\$3.81	\$4.01	\$4.22
CMS Energy Corporation	CMS	\$1.69	\$2.00	\$2.12	\$2.25	\$2.39	\$2.53	\$2.68	\$2.83	\$2.99	\$3.16	\$3.33	\$3.50	\$3.68	\$3.88	\$4.09	\$4.30	\$4.53
DTE Energy Company	DTE	\$4.44	\$4.64	\$4.85	\$5.07	\$5.29	\$5.53	\$5.79	\$6.06	\$6.36	\$6.68	\$7.02	\$7.40	\$7.79	\$8.20	\$8.63	\$9.08	\$9.56
IDACORP, Inc.	IDA	\$3.87	\$3.99	\$4.11	\$4.23	\$4.36	\$4.49	\$4.64	\$4.81	\$5.01	\$5.24	\$5.49	\$5.78	\$6.09	\$6.41	\$6.75	\$7.11	\$7.48
NorthWestern Corporation	NWE	\$2.60	\$3.05	\$3.20	\$3.38	\$3.52	\$3.70	\$3.89	\$4.09	\$4.30	\$4.52	\$4.78	\$5.01	\$5.27	\$5.55	\$5.84	\$6.15	\$6.47
OGE Energy Corp.	OGE	\$1.71	\$1.75	\$1.80	\$1.84	\$1.89	\$1.93	\$1.99	\$2.06	\$2.14	\$2.23	\$2.34	\$2.45	\$2.59	\$2.73	\$2.88	\$3.03	\$3.19
Oter Tail Corporation	OTTR	\$1.56	\$1.65	\$1.75	\$1.85	\$1.97	\$2.09	\$2.21	\$2.34	\$2.47	\$2.61	\$2.75	\$2.89	\$3.04	\$3.20	\$3.37	\$3.55	\$3.74
Pinnacle West Capital Corporation	PWV	\$3.92	\$4.07	\$4.22	\$4.38	\$4.54	\$4.71	\$4.90	\$5.10	\$5.33	\$5.59	\$5.87	\$6.18	\$6.50	\$6.85	\$7.21	\$7.59	\$7.99
PNM Resources, Inc.	PNM	\$1.76	\$1.80	\$1.82	\$1.84	\$1.86	\$1.88	\$1.90	\$1.92	\$1.94	\$1.96	\$1.98	\$2.00	\$2.02	\$2.04	\$2.06	\$2.08	\$2.10
Portland General Electric Company	POR	\$2.04	\$2.15	\$2.27	\$2.40	\$2.53	\$2.67	\$2.81	\$2.96	\$3.12	\$3.29	\$3.47	\$3.65	\$3.84	\$4.04	\$4.26	\$4.48	\$4.72
SCANA Corporation	SCG	\$3.81	\$3.98	\$4.16	\$4.35	\$4.54	\$4.75	\$4.97	\$5.20	\$5.46	\$5.73	\$6.03	\$6.35	\$6.68	\$7.03	\$7.40	\$7.80	\$8.21
Xcel Energy Inc.	XEL	\$2.10	\$2.21	\$2.33	\$2.45	\$2.58	\$2.71	\$2.86	\$3.01	\$3.17	\$3.33	\$3.51	\$3.70	\$3.89	\$4.10	\$4.31	\$4.54	\$4.78

Projected Annual Dividend Payout Ratio

Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
ALLETE, Inc.	ALE	66.00%	65.50%	65.00%	64.50%	64.00%	64.00%	64.43%	64.95%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%
Alliant Energy Corporation	LNT	64.00%	64.00%	64.00%	64.00%	64.00%	64.00%	64.43%	64.95%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%
Ameren Corporation	AEE	68.00%	67.75%	67.50%	67.25%	67.00%	66.75%	66.50%	66.25%	66.00%	65.75%	65.50%	65.25%	65.00%	64.75%	64.50%	64.25%
American Electric Power Company, Inc.	AEP	64.00%	64.50%	65.00%	65.50%	66.00%	66.50%	67.00%	67.50%	68.00%	68.50%	69.00%	69.50%	70.00%	70.50%	71.00%	71.50%
Avista Corporation	AVA	68.00%	67.75%	67.50%	67.25%	67.00%	66.75%	66.50%	66.25%	66.00%	65.75%	65.50%	65.25%	65.00%	64.75%	64.50%	64.25%
CMS Energy Corporation	CMS	63.00%	63.00%	63.00%	63.00%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
DTE Energy Company	DTE	61.00%	61.75%	62.50%	63.25%	64.00%	64.43%	64.86%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
IDACORP, Inc.	IDA	53.00%	54.75%	56.50%	58.25%	60.00%	61.15%	62.29%	63.44%	64.59%	65.73%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
NorthWestern Corporation	NWE	65.00%	63.50%	62.00%	60.50%	59.00%	60.31%	61.63%	62.94%	64.25%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
OGE Energy Corp.	OGE	64.00%	66.50%	69.00%	71.50%	74.00%	72.61%	71.63%	70.44%	69.25%	68.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Oter Tail Corporation	OTTR	60.00%	75.75%	71.50%	67.25%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Pinnacle West Capital Corporation	PWV	64.00%	64.25%	64.50%	64.75%	65.00%	65.31%	65.63%	65.94%	66.25%	66.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
PNM Resources, Inc.	PNM	51.00%	52.00%	53.00%	54.00%	55.00%	56.98%	58.96%	60.94%	62.92%	64.89%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Portland General Electric Company	POR	56.00%	56.00%	56.00%	56.00%	56.00%	57.81%	59.63%	61.44%	63.25%	65.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
SCANA Corporation	SCG	69.00%	69.25%	69.50%	69.75%	70.00%	68.15%	67.29%	66.44%	65.59%	64.73%	63.88%	63.03%	62.18%	61.33%	60.48%	59.63%
Xcel Energy Inc.	XEL	62.00%	62.25%	62.50%	62.75%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%

Projected Annual Cash Flows

Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Terminal Value
ALLETE, Inc.	ALE	\$2.30	\$2.35	\$2.40	\$2.45	\$2.51	\$2.61	\$2.73	\$2.86	\$3.02	\$3.19	\$3.38	\$3.56	\$3.74	\$3.94	\$4.15	\$4.37	\$116.42
Alliant Energy Corporation	LNT	\$1.14	\$1.21	\$1.28	\$1.36	\$1.44	\$1.54	\$1.64	\$1.75	\$1.86	\$1.97	\$2.09	\$2.20	\$2.32	\$2.44	\$2.57	\$2.70	\$76.45
Ameren Corporation	AEE	\$1.70	\$1.75	\$1.80	\$1.86	\$1.91	\$2.03	\$2.16	\$2.29	\$2.43	\$2.58	\$2.75	\$2.89	\$3.05	\$3.21	\$3.38	\$3.55	\$102.13
American Electric Power Company, Inc.	AEP	\$2.40	\$2.52	\$2.64	\$2.77	\$2.90	\$3.04	\$3.18	\$3.34	\$3.51	\$3.69	\$3.90	\$4.10	\$4.32	\$4.55	\$4.79	\$5.04	\$135.61
Avista Corporation	AVA	\$1.35	\$1.37	\$1.43	\$1.49	\$1.55	\$1.61	\$1.67	\$1.74	\$1.82	\$1.90	\$1.98	\$2.06	\$2.14	\$2.22	\$2.30	\$2.38	\$64.34
CMS Energy Corporation	CMS	\$1.26	\$1.34	\$1.42	\$1.50	\$1.59	\$1.70	\$1.82	\$1.94	\$2.07	\$2.20	\$2.34	\$2.47	\$2.60	\$2.73	\$2.88	\$3.03	\$89.25
DTE Energy Company	DTE	\$2.83	\$2.99	\$3.17	\$3.35	\$3.54	\$3.73	\$3.94	\$4.16	\$4.40	\$4.66	\$4.95	\$5.21	\$5.48	\$5.77	\$6.08	\$6.40	\$163.60
IDACORP, Inc.	IDA	\$2.11	\$2.25	\$2.39	\$2.54	\$2.69	\$2.84	\$3.00	\$3.18	\$3.38	\$3.61	\$3.87	\$4.07	\$4.29	\$4.51	\$4.75	\$5.00	\$156.79
NorthWestern Corporation	NWE	\$1.98	\$2.03	\$2.08	\$2.13	\$2.18	\$2.24	\$2.32	\$2.40	\$2.50	\$2.60	\$2.70	\$2.80	\$2.90	\$3.00	\$3.10	\$3.20	\$127.50
OGE Energy Corp.	OGE	\$1.12	\$1.19	\$1.27	\$1.35	\$1.43	\$1.45	\$1.48	\$1.51	\$1.55	\$1.59	\$1.65	\$1.74	\$1.83	\$1.92	\$2.02	\$2.13	\$57.65
Oter Tail Corporation	OTTR	\$1.32	\$1.33	\$1.33	\$1.32	\$1.32	\$1.41	\$1.50	\$1.60	\$1.71	\$1.82	\$1.93	\$2.04	\$2.14	\$2.26	\$2.38	\$2.50	\$60.48
Pinnacle West Capital Corporation	PWV	\$2.60	\$2.71	\$2.82	\$2.94	\$3.06	\$3.20	\$3.35	\$3.52	\$3.70	\$3.91	\$4.13	\$4.35	\$4.58	\$4.82	\$5.08	\$5.34	\$151.81
PNM Resources, Inc.	PNM	\$0.90	\$0.99	\$1.08	\$1.19	\$1.30	\$1.45	\$1.60	\$1.76	\$1.92	\$2.10	\$2.28	\$2.46	\$2.62	\$2.79	\$2.94	\$3.09	\$73.69
Portland General Electric Company	POR	\$1.21	\$1.27	\$1.34	\$1.42	\$1.49	\$1.63	\$1.77	\$1.92	\$2.08	\$2.26	\$2.44	\$2.62	\$2.71	\$2.85	\$3.00	\$3.16	\$87.36
SCANA Corporation	SCG	\$2.35	\$2.47	\$2.59	\$2.71	\$2.85	\$3.04	\$3.24	\$3.46	\$3.70	\$3.96	\$4.24	\$4.47	\$4.70	\$4.95	\$5.21	\$5.49	\$146.66
Xcel Energy Inc.	XEL	\$1.37	\$1.45	\$1.53	\$1.62	\$1.71	\$1.82	\$1.93	\$2.06	\$2.19	\$2.33	\$2.47	\$2.62	\$2.74	\$2.88	\$3.04	\$3.20	\$87.03

Projected Annual Data Investor Cash Flows

Company	Ticker	Outflow	5/31/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30	6/30/31
ALLE																			

Multi-Stage Growth Discounted Cash Flow Model
180 Day Average Stock Price
Average EPS Growth Rate Estimate in First Stage

Inputs	Stock	EPS Growth Rate Estimates										Long-Term	Payout Ratio	Iterative Solution	Terminal	Terminal
		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]					
Company	Ticker	Price	Zacks	First Call	Value	Average	Growth	2016	2020	2026	Proof	IRR	P/E Ratio	PEG Ratio		
ALLETE, Inc	ALE	\$52.71	4.50%	3.00%	4.00%	3.83%	5.28%	60.00%	64.00%	66.88%	\$0.00	9.64%	16.14	3.06		
Alliant Energy Corporation	LNT	\$32.61	6.10%	6.60%	6.00%	6.23%	5.26%	64.00%	64.00%	66.88%	\$0.00	9.36%	17.25	3.27		
Ameren Corporation	AEE	\$45.24	6.10%	5.20%	5.00%	5.43%	5.28%	63.00%	63.00%	66.88%	\$0.00	9.24%	17.19	3.37		
American Electric Power Company, Inc	AEP	\$69.20	4.60%	1.0%	4.50%	4.50%	5.28%	64.00%	66.00%	66.88%	\$0.00	9.53%	16.56	3.14		
Avista Corporation	AVA	\$36.62	5.00%	5.0%	5.00%	5.00%	5.28%	63.00%	63.00%	66.88%	\$0.00	9.05%	18.65	3.53		
CMS Energy Corporation	CMS	\$38.00	6.0%	7.2%	6.00%	6.55%	5.28%	63.00%	63.00%	66.88%	\$0.00	9.27%	17.63	3.34		
DTE Energy Company	DTE	\$83.96	5.60%	5.35%	4.60%	5.22%	5.28%	61.00%	64.00%	66.88%	\$0.00	9.16%	18.06	3.42		
IDACORP, Inc	IDA	\$69.33	4.00%	4.00%	3.00%	3.67%	5.28%	53.00%	60.00%	66.88%	\$0.00	8.93%	19.28	3.65		
NorthWestern Corporation	NWE	\$58.25	5.00%	5.00%	6.50%	5.50%	5.28%	65.00%	59.00%	66.88%	\$0.00	9.13%	18.30	3.47		
OGE Energy Corp	OGE	\$27.27	5.20%	4.30%	2.50%	4.00%	5.28%	64.00%	74.00%	66.88%	\$0.00	9.66%	15.68	3.03		
Other Tail Corporation	OTTR	\$27.52	NA	6.00%	6.00%	6.00%	5.28%	80.00%	63.00%	66.88%	\$0.00	9.77%	15.66	2.97		
Pinnacle West Capital Corporation	PWV	\$67.37	4.00%	3.73%	4.00%	3.91%	5.28%	64.00%	65.00%	66.88%	\$0.00	9.25%	17.74	3.36		
PNM Resources, Inc	PNM	\$30.47	7.60%	8.76%	9.00%	8.45%	5.28%	51.00%	55.00%	66.88%	\$0.00	9.97%	15.00	2.84		
Portland General Electric Company	POR	\$37.99	6.40%	6.57%	5.50%	6.16%	5.28%	69.00%	66.00%	66.88%	\$0.00	9.38%	17.19	3.25		
SCANA Corporation	SCG	\$62.73	5.30%	4.80%	4.50%	4.87%	5.28%	59.00%	60.00%	66.88%	\$0.00	9.61%	16.27	3.08		
Xcel Energy Inc	XEL	\$37.66	5.30%	5.27%	5.60%	5.36%	5.28%	62.00%	63.00%	66.88%	\$0.00	9.40%	17.07	3.24		

DCF Result			
Mean	9.40%	17.16	3.26
Max	9.97%	19.28	3.65
Min	8.93%	15.00	2.84

Projected Annual Earnings per Share	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]	
Company	Ticker	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
ALLETE, Inc	ALE	\$3.38	\$3.51	\$3.64	\$3.78	\$3.93	\$4.08	\$4.25	\$4.43	\$4.63	\$4.85	\$5.10	\$5.37	\$5.65	\$5.95	\$6.26	\$6.59	\$6.94
Alliant Energy Corporation	LNT	\$1.69	\$1.79	\$1.90	\$2.02	\$2.15	\$2.28	\$2.42	\$2.56	\$2.71	\$2.86	\$3.02	\$3.18	\$3.34	\$3.52	\$3.70	\$3.90	\$4.11
Ameren Corporation	AEE	\$2.38	\$2.51	\$2.65	\$2.79	\$2.94	\$3.10	\$3.27	\$3.44	\$3.63	\$3.82	\$4.02	\$4.24	\$4.46	\$4.70	\$4.94	\$5.21	\$5.48
American Electric Power Company, Inc	AEP	\$3.60	\$3.76	\$3.93	\$4.11	\$4.29	\$4.49	\$4.69	\$4.92	\$5.16	\$5.42	\$5.70	\$6.00	\$6.31	\$6.65	\$7.00	\$7.37	\$7.75
Avista Corporation	AVA	\$1.89	\$1.98	\$2.08	\$2.19	\$2.30	\$2.41	\$2.53	\$2.66	\$2.80	\$2.94	\$3.10	\$3.26	\$3.43	\$3.62	\$3.81	\$4.01	\$4.22
CMS Energy Corporation	CMS	\$1.69	\$2.01	\$2.15	\$2.29	\$2.44	\$2.60	\$2.76	\$2.93	\$3.10	\$3.28	\$3.46	\$3.64	\$3.83	\$4.04	\$4.25	\$4.47	\$4.71
DTE Energy Company	DTE	\$4.44	\$4.67	\$4.92	\$5.17	\$5.44	\$5.73	\$6.02	\$6.34	\$6.67	\$7.02	\$7.39	\$7.78	\$8.19	\$8.63	\$9.08	\$9.56	\$10.07
IDACORP, Inc	IDA	\$3.87	\$4.01	\$4.16	\$4.31	\$4.47	\$4.63	\$4.82	\$5.02	\$5.24	\$5.49	\$5.77	\$6.07	\$6.39	\$6.73	\$7.08	\$7.46	\$7.85
NorthWestern Corporation	NWE	\$2.90	\$3.06	\$3.23	\$3.41	\$3.59	\$3.78	\$4.00	\$4.21	\$4.44	\$4.68	\$4.93	\$5.19	\$5.46	\$5.75	\$6.05	\$6.37	\$6.71
OGE Energy Corp	OGE	\$1.71	\$1.78	\$1.85	\$1.92	\$2.00	\$2.08	\$2.17	\$2.26	\$2.37	\$2.48	\$2.61	\$2.75	\$2.89	\$3.06	\$3.21	\$3.38	\$3.55
Other Tail Corporation	OTTR	\$1.56	\$1.65	\$1.75	\$1.86	\$1.97	\$2.09	\$2.21	\$2.34	\$2.47	\$2.61	\$2.75	\$2.89	\$3.04	\$3.20	\$3.37	\$3.55	\$3.74
Pinnacle West Capital Corporation	PWV	\$3.92	\$4.07	\$4.23	\$4.40	\$4.57	\$4.75	\$4.95	\$5.16	\$5.40	\$5.66	\$5.94	\$6.26	\$6.59	\$6.94	\$7.30	\$7.69	\$8.09
PNM Resources, Inc	PNM	\$1.64	\$1.78	\$1.93	\$2.09	\$2.27	\$2.45	\$2.66	\$2.85	\$3.05	\$3.24	\$3.43	\$3.61	\$3.80	\$4.00	\$4.21	\$4.43	\$4.67
Portland General Electric Company	POR	\$2.04	\$2.17	\$2.30	\$2.44	\$2.59	\$2.75	\$2.92	\$3.09	\$3.26	\$3.44	\$3.63	\$3.82	\$4.03	\$4.24	\$4.46	\$4.70	\$4.94
SCANA Corporation	SCG	\$3.81	\$4.00	\$4.19	\$4.39	\$4.61	\$4.83	\$5.07	\$5.32	\$5.59	\$5.88	\$6.19	\$6.51	\$6.86	\$7.22	\$7.60	\$8.00	\$8.43
Xcel Energy Inc	XEL	\$2.10	\$2.21	\$2.33	\$2.46	\$2.59	\$2.73	\$2.87	\$3.02	\$3.19	\$3.35	\$3.53	\$3.72	\$3.91	\$4.12	\$4.34	\$4.57	\$4.81

Projected Annual Dividend Payout Ratio	[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]		
Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
ALLETE, Inc	ALE	66.00%	65.50%	65.00%	64.50%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	
Alliant Energy Corporation	LNT	64.00%	64.00%	64.00%	64.00%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	
Ameren Corporation	AEE	68.00%	66.75%	65.50%	64.25%	63.00%	63.69%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%	
American Electric Power Company, Inc	AEP	64.00%	64.50%	65.00%	65.50%	66.00%	66.50%	67.00%	67.50%	68.00%	68.50%	69.00%	69.50%	69.50%	69.50%	69.50%	69.50%	
Avista Corporation	AVA	68.00%	66.75%	65.50%	64.25%	63.00%	63.69%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%	
CMS Energy Corporation	CMS	63.00%	63.00%	63.00%	63.00%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%	
DTE Energy Company	DTE	61.00%	61.75%	62.50%	63.25%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%	
IDACORP, Inc	IDA	53.00%	54.75%	56.50%	58.25%	60.00%	61.15%	62.29%	63.44%	64.59%	65.73%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%	
NorthWestern Corporation	NWE	65.00%	63.50%	62.00%	60.50%	59.00%	60.31%	61.63%	62.94%	64.25%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%	
OGE Energy Corp	OGE	64.00%	66.50%	69.00%	71.50%	74.00%	72.81%	71.63%	70.44%	69.25%	68.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%	
Other Tail Corporation	OTTR	80.00%	75.75%	71.50%	67.25%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%	
Pinnacle West Capital Corporation	PWV	64.00%	64.25%	64.50%	64.75%	65.00%	65.31%	65.63%	65.94%	66.25%	66.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%	
PNM Resources, Inc	PNM	51.00%	52.00%	53.00%	54.00%	55.00%	56.00%	56.96%	57.90%	58.84%	59.76%	60.68%	61.59%	62.50%	63.41%	64.31%	65.21%	66.11%
Portland General Electric Company	POR	56.00%	56.00%	56.00%	56.00%	56.00%	57.81%	59.63%	61.44%	63.25%	65.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%	
SCANA Corporation	SCG	59.00%	59.25%	59.50%	59.75%	60.00%	61.15%	62.29%	63.44%	64.59%	65.73%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%	
Xcel Energy Inc	XEL	62.00%	62.25%	62.50%	62.75%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%	

Projected Annual Cash Flows	[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	[63]	Terminal Value
Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Value
ALLETE, Inc	ALE	\$2.32	\$2.39	\$2.46	\$2.53	\$2.61	\$2.74	\$2.88	\$3.03	\$3.20	\$3.38	\$3.59	\$3.78	\$3.98	\$4.19	\$4.41	\$4.64	\$111.99
Alliant Energy Corporation	LNT	\$1.15	\$1.22	\$1.29	\$1.37	\$1.46	\$1.56	\$1.66	\$1.77	\$1.89	\$2.00	\$2.12	\$2.24	\$2.35	\$2.48	\$2.61	\$2.75	\$70.84
Ameren Corporation	AEE	\$1.71	\$1.77	\$1.83	\$1.89	\$1.95	\$2.08	\$2.21	\$2.36	\$2.51	\$2.67	\$2.83	\$2.98	\$3.14	\$3.31	\$3.48	\$3.67	\$97.47
American Electric Power Company, Inc	AEP	\$2.41	\$2.54	\$2.67	\$2.81	\$2.95	\$3.10	\$3.26	\$3.43	\$3.61	\$3.80	\$4.01	\$4.22	\$4.44	\$4.68	\$4.93	\$5.19	\$128.44
Avista Corporation	AVA	\$1.35	\$1.39	\$1.43	\$1.48	\$1.52	\$1.61	\$1.71	\$1.82	\$1.93	\$2.05	\$2.18	\$2.30	\$2.42	\$2.55	\$2.68	\$2.82	\$78.71
CMS Energy Corporation	CMS	\$1.27	\$1.35	\$1.44	\$1.53	\$1.63	\$1.76	\$1.88	\$2.01	\$2.15	\$2.29	\$2.44	\$2.56	\$2.70	\$2.84	\$2.99	\$3.15	\$83.03
DTE Energy Company	DTE	\$2.65	\$3.04	\$3.23	\$3.44	\$3.66	\$3.88	\$4.12	\$4.37	\$4.63	\$4.91	\$5.21	\$5.48	\$5.77	\$6.07	\$6.40	\$6.73	\$181.78
IDACORP, Inc	IDA	\$2.13	\$2.28	\$2.44	\$2.60	\$2.78	\$2.94	\$3.13	\$3.33	\$3.55	\$3.79	\$4.09	\$4.27	\$4.50	\$4.74	\$4.99	\$5.25	\$151.34
NorthWestern Corporation	NWE	\$1.99	\$2.05	\$2.11	\$2.17	\$2.24	\$2.41	\$2.60	\$2.80	\$3.01	\$3.23	\$3.47	\$3.65	\$4.04	\$4.24	\$4.46	\$4.69	\$122.79
OGE Energy Corp	OGE	\$1.14	\$1.23	\$1.33	\$1.43	\$1.54	\$1.68	\$1.82	\$1.97	\$2.12	\$2.28	\$2.44	\$2.61	\$2.78	\$2.94	\$3.11	\$3.28	\$56.78
Other Tail Corporation	OTTR	\$1.32	\$1.33	\$1.33	\$1.32	\$1.32	\$1.41	\$1.50	\$1.60	\$1.71	\$1.82	\$1.93	\$2.04	\$2.14	\$2.26	\$2.38	\$2.50	\$58.67
Pinnacle West Capital Corporation	PWV	\$2.61	\$2.72	\$2.84	\$2.96	\$3.09	\$3.23	\$3.39	\$3.56	\$3.75	\$3.96	\$4.19	\$4.41	\$4.64	\$4.88	\$5.14	\$5.41	\$143.57
PNM Resources, Inc	PNM	\$0.91	\$1.00	\$1.11	\$1.23	\$1.35	\$1.51	\$1.68	\$1.86	\$2.04	\$2.23	\$2.41	\$2.54	\$2.68	\$2.82	\$2.97	\$3.12	\$70.01
Portland General Electric Company	POR	\$1.21	\$1.29	\$1.37	\$1.45	\$1.54	\$1.69	\$1.84	\$2.00	\$2.18	\$2.36	\$2.56	\$2.69	\$2.83	\$2.98	\$3.14	\$3.31	\$84.85
SCANA Corporation	SCG	\$2.36	\$2.48	\$2.61	\$2.75	\$2.90	\$3.10	\$3.32	\$3.55	\$3.80	\$4.07	\$4.36	\$4.66	\$4.93	\$5.26	\$5.55	\$5.83	\$137.06
Xcel Energy Inc	XEL	\$1.3																

M/S-Stage Growth Discounted Cash Flow Model
180 Day Average Stock Price
High EPS Growth Rate Estimate in First Stage

Inputs	Stock	EPS Growth Rate Estimates										Iterative Solution	(12)	(13)
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)			
Company	Ticker	Price	Zacks	First Call	Value Line	High Growth	Long-Term Growth	2018	2020	2028	Proof	IRR	P/E Ratio	PEG Ratio
ALLETE, Inc.	ALE	\$52.71	4.50%	3.00%	4.00%	4.50%	5.28%	66.00%	64.00%	66.68%	\$0.00	9.83%	15.48	2.93
Altant Energy Corporation	LNT	\$32.61	6.10%	6.50%	6.00%	6.60%	5.28%	64.00%	64.00%	66.68%	\$0.00	9.45%	16.66	3.19
Ameren Corporation	AEE	\$45.24	6.10%	5.20%	5.00%	6.10%	5.28%	68.00%	63.00%	66.68%	\$0.00	9.41%	17.04	3.23
American Electric Power Company, Inc.	AEP	\$60.20	4.90%	4.10%	4.50%	4.90%	5.28%	64.00%	66.00%	66.68%	\$0.00	9.64%	16.14	3.05
Avista Corporation	AVA	\$36.62	5.00%	5.00%	5.00%	5.00%	5.28%	68.00%	63.00%	66.68%	\$0.00	9.05%	18.65	3.53
CMS Energy Corporation	CMS	\$38.00	6.40%	7.24%	6.00%	7.24%	5.28%	63.00%	63.00%	66.68%	\$0.00	9.45%	16.68	3.20
DTE Energy Company	DTE	\$83.96	5.80%	5.35%	4.50%	5.80%	5.28%	61.00%	64.00%	66.68%	\$0.00	9.33%	17.39	3.30
IDACORP, Inc.	IDA	\$69.33	4.00%	4.00%	3.00%	4.00%	5.28%	63.00%	60.00%	66.68%	\$0.00	9.01%	18.66	3.57
NorthWestern Corporation	NWE	\$56.25	5.00%	5.00%	6.50%	6.50%	5.28%	65.00%	59.00%	66.68%	\$0.00	9.38%	17.18	3.25
OGE Energy Corp	OGE	\$27.27	5.20%	4.30%	2.50%	5.20%	5.28%	64.00%	74.00%	66.68%	\$0.00	10.04%	14.78	2.69
Other Tail Corporation	OTTR	\$27.52	NA	6.00%	6.00%	6.00%	5.28%	60.00%	63.00%	66.68%	\$0.00	9.77%	15.66	2.97
Pinnacle West Capital Corporation	PNW	\$67.37	4.00%	3.73%	4.00%	4.00%	5.28%	64.00%	65.00%	66.68%	\$0.00	9.27%	17.64	3.34
PNM Resources, Inc.	PNM	\$30.47	7.00%	6.76%	9.00%	9.00%	5.28%	61.00%	65.00%	66.68%	\$0.00	10.13%	14.51	2.75
Portland General Electric Company	POR	\$37.99	6.40%	6.57%	5.50%	6.57%	5.28%	56.00%	56.00%	66.68%	\$0.00	9.46%	16.72	3.17
SCANA Corporation	SCG	\$62.73	5.30%	4.60%	4.50%	5.30%	5.28%	59.00%	60.00%	66.68%	\$0.00	9.73%	15.83	3.00
Xcel Energy Inc.	XEL	\$37.66	5.30%	5.27%	5.50%	5.50%	5.28%	62.00%	63.00%	66.68%	\$0.00	9.44%	16.92	3.21

DCF Result

Mean	9.53%	16.66	3.16
Max	10.13%	18.66	3.57
Min	9.01%	14.51	2.75

Projected Annual Earnings per Share	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)
Company	Ticker	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
ALLETE, Inc.	ALE	\$3.38	\$3.53	\$3.69	\$3.86	\$4.03	\$4.21	\$4.41	\$4.62	\$4.84	\$5.09	\$5.35	\$5.63	\$5.93	\$6.24	\$6.57	\$6.92
Altant Energy Corporation	LNT	\$1.69	\$1.80	\$1.91	\$2.04	\$2.18	\$2.32	\$2.47	\$2.62	\$2.77	\$2.93	\$3.09	\$3.26	\$3.43	\$3.61	\$3.80	\$4.00
Ameren Corporation	AEE	\$2.38	\$2.53	\$2.68	\$2.84	\$3.02	\$3.20	\$3.39	\$3.59	\$3.79	\$4.00	\$4.22	\$4.44	\$4.68	\$4.92	\$5.18	\$5.46
American Electric Power Company, Inc.	AEP	\$3.60	\$3.78	\$3.96	\$4.16	\$4.36	\$4.57	\$4.80	\$5.04	\$5.30	\$5.57	\$5.86	\$6.17	\$6.50	\$6.84	\$7.20	\$7.58
Avista Corporation	AVA	\$1.69	\$1.98	\$2.08	\$2.19	\$2.30	\$2.41	\$2.53	\$2.66	\$2.80	\$2.94	\$3.10	\$3.26	\$3.43	\$3.62	\$3.81	\$4.01
CMS Energy Corporation	CMS	\$1.89	\$2.03	\$2.17	\$2.33	\$2.50	\$2.68	\$2.87	\$3.05	\$3.25	\$3.44	\$3.63	\$3.82	\$4.02	\$4.24	\$4.46	\$4.70
DTE Energy Company	DTE	\$4.44	\$4.70	\$4.97	\$5.26	\$5.56	\$5.89	\$6.22	\$6.57	\$6.94	\$7.31	\$7.71	\$8.11	\$8.54	\$8.99	\$9.47	\$9.97
IDACORP, Inc.	IDA	\$3.87	\$4.02	\$4.19	\$4.35	\$4.53	\$4.71	\$4.91	\$5.12	\$5.38	\$5.62	\$5.91	\$6.22	\$6.55	\$6.89	\$7.26	\$7.64
NorthWestern Corporation	NWE	\$2.90	\$3.09	\$3.29	\$3.50	\$3.73	\$3.97	\$4.22	\$4.48	\$4.74	\$5.01	\$5.29	\$5.57	\$5.86	\$6.17	\$6.50	\$6.84
OGE Energy Corp	OGE	\$1.71	\$1.80	\$1.89	\$1.99	\$2.09	\$2.20	\$2.32	\$2.44	\$2.57	\$2.70	\$2.84	\$2.99	\$3.15	\$3.32	\$3.49	\$3.68
Other Tail Corporation	OTTR	\$1.56	\$1.65	\$1.75	\$1.86	\$1.97	\$2.09	\$2.22	\$2.34	\$2.47	\$2.61	\$2.75	\$2.89	\$3.04	\$3.20	\$3.37	\$3.55
Pinnacle West Capital Corporation	PNW	\$3.92	\$4.08	\$4.24	\$4.41	\$4.59	\$4.77	\$4.97	\$5.19	\$5.43	\$5.69	\$5.98	\$6.30	\$6.63	\$6.98	\$7.35	\$7.74
PNM Resources, Inc.	PNM	\$1.64	\$1.79	\$1.92	\$2.12	\$2.31	\$2.52	\$2.73	\$2.95	\$3.18	\$3.45	\$3.75	\$4.06	\$4.38	\$4.61	\$4.81	\$5.05
Portland General Electric Company	POR	\$2.04	\$2.17	\$2.32	\$2.47	\$2.63	\$2.80	\$2.98	\$3.17	\$3.35	\$3.54	\$3.74	\$3.94	\$4.14	\$4.36	\$4.59	\$4.84
SCANA Corporation	SCG	\$3.61	\$4.01	\$4.22	\$4.45	\$4.68	\$4.93	\$5.19	\$5.47	\$5.76	\$6.05	\$6.38	\$6.72	\$7.07	\$7.45	\$7.84	\$8.25
Xcel Energy Inc.	XEL	\$2.22	\$2.34	\$2.47	\$2.60	\$2.74	\$2.89	\$3.05	\$3.22	\$3.39	\$3.57	\$3.76	\$3.95	\$4.16	\$4.38	\$4.61	\$4.86

Projected Annual Dividend Payout Ratio	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)	(41)	(42)	(43)	(44)	(45)	(46)
Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
ALLETE, Inc.	ALE	66.00%	65.50%	65.00%	64.50%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%
Altant Energy Corporation	LNT	64.00%	64.00%	64.00%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%
Ameren Corporation	AEE	68.00%	66.75%	65.50%	64.25%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%
American Electric Power Company, Inc.	AEP	64.00%	64.50%	65.00%	65.50%	66.00%	66.15%	66.29%	66.44%	66.59%	66.73%	66.88%	66.88%	66.88%	66.88%	66.88%
Avista Corporation	AVA	68.00%	66.75%	65.50%	64.25%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%
CMS Energy Corporation	CMS	63.00%	63.00%	63.00%	63.00%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%
DTE Energy Company	DTE	61.00%	61.75%	62.50%	63.25%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%
IDACORP, Inc.	IDA	53.00%	54.75%	56.50%	58.25%	60.00%	60.15%	62.29%	63.44%	64.59%	65.73%	66.88%	66.88%	66.88%	66.88%	66.88%
NorthWestern Corporation	NWE	65.00%	63.50%	62.00%	60.50%	59.00%	60.31%	61.63%	62.94%	64.25%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%
OGE Energy Corp	OGE	64.00%	66.50%	69.00%	71.50%	74.00%	72.81%	71.63%	70.44%	69.25%	68.07%	66.88%	66.88%	66.88%	66.88%	66.88%
Other Tail Corporation	OTTR	60.00%	75.75%	71.50%	67.25%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%
Pinnacle West Capital Corporation	PNW	64.00%	64.25%	64.50%	64.75%	65.00%	65.31%	65.63%	65.94%	66.25%	66.57%	66.88%	66.88%	66.88%	66.88%	66.88%
PNM Resources, Inc.	PNM	51.00%	52.00%	53.00%	54.00%	55.00%	56.66%	58.33%	60.00%	62.22%	64.44%	66.66%	66.88%	66.88%	66.88%	66.88%
Portland General Electric Company	POR	68.00%	66.75%	65.50%	64.25%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%
SCANA Corporation	SCG	59.00%	59.25%	59.50%	59.75%	60.00%	61.15%	62.29%	63.44%	64.59%	65.73%	66.88%	66.88%	66.88%	66.88%	66.88%
Xcel Energy Inc.	XEL	62.00%	62.25%	62.50%	62.75%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%

Projected Annual Cash Flows	(47)	(48)	(49)	(50)	(51)	(52)	(53)	(54)	(55)	(56)	(57)	(58)	(59)	(60)	(61)	(62)	(63)	Terminal Value
Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
ALLETE, Inc.	ALE	\$2.33	\$2.42	\$2.51	\$2.60	\$2.70	\$2.84	\$3.00	\$3.17	\$3.35	\$3.55	\$3.77	\$3.96	\$4.17	\$4.39	\$4.63	\$4.87	\$112.54
Altant Energy Corporation	LNT	\$1.15	\$1.23	\$1.31	\$1.39	\$1.48	\$1.59	\$1.70	\$1.82	\$1.93	\$2.06	\$2.18	\$2.29	\$2.42	\$2.54	\$2.68	\$2.82	\$71.03
Ameren Corporation	AEE	\$1.72	\$1.79	\$1.86	\$1.94	\$2.02	\$2.16	\$2.31	\$2.46	\$2.63	\$2.79	\$2.97	\$3.13	\$3.29	\$3.47	\$3.65	\$3.84	\$97.93
American Electric Power Company, Inc.	AEP	\$2.42	\$2.56	\$2.70	\$2.86	\$3.02	\$3.17	\$3.34	\$3.52	\$3.71	\$3.91	\$4.13	\$4.34	\$4.57	\$4.82	\$5.07	\$5.34	\$128.63
Avista Corporation	AVA	\$1.35	\$1.39	\$1.43	\$1.48	\$1.52	\$1.61	\$1.71	\$1.82	\$1.93	\$2.05	\$2.18	\$2.30	\$2.42	\$2.55	\$2.68	\$2.82	\$78.71
CMS Energy Corporation	CMS	\$1.28	\$1.37	\$1.47	\$1.57	\$1.69	\$1.82	\$1.96	\$2.11	\$2.26	\$2.41	\$2.56	\$2.69	\$2.83	\$2.98	\$3.14	\$3.31	\$83.45
DTE Energy Company	DTE	\$2.67	\$3.07	\$3.29	\$3.52	\$3.77	\$4.01	\$4.27	\$4.54	\$4.82	\$5.12	\$5.43	\$5.71	\$6.01	\$6.33	\$6.67	\$7.02	\$182.51
IDACORP, Inc.	IDA	\$2.13	\$2.29	\$2.46	\$2.64	\$2.83	\$3.00	\$3.19	\$3.40	\$3.63	\$3.88	\$4.16	\$4.38	\$4.61	\$4.85	\$5.11	\$5.38	\$151.68
NorthWestern Corporation	NWE	\$2.01	\$2.09	\$2.17	\$2.26	\$2.34	\$2.55	\$2.78	\$2.99	\$3.22	\$3.47	\$3.72	\$3.92	\$4.13	\$4.35	\$4.57	\$4.82	\$123.69
OGE Energy Corp	OGE	\$1.15	\$1.26	\$1.37	\$1.50	\$1.63	\$1.69	\$1.75	\$1.81	\$1.87	\$1.94	\$2.00	\$2.11	\$2.22	\$2.34	\$2.46	\$2.59	\$57.24
Other Tail Corporation	OTTR	\$1.32	\$1.33	\$1.33	\$1.32	\$1.32	\$1.41	\$1.50	\$1.60	\$1.71	\$1.82	\$1.93	\$2.04	\$2.14	\$2.26	\$2.38	\$2.50	\$58.67
Pinnacle West Capital Corporation	PNW	\$2.61	\$2.72	\$2.84	\$2.97	\$3.10	\$3.25	\$3.41	\$3.58	\$3.77	\$3.98	\$4.21	\$4.43	\$4.67	\$4.92	\$5.17	\$5.45	\$143.66
PNM Resources, Inc.	PNM	\$0.91	\$1.01	\$1.13	\$1.25	\$1.39	\$1.56	\$1.74	\$1.92	\$2.12	\$2.31	\$2.51	\$2.64	\$2.78	\$2.93	\$3.08	\$3.24	\$70.37
Portland General Electric Company	POR	\$1.22	\$1.30	\$1.38	\$1.47	\$1.57	\$1.72	\$1.89	\$2.06	\$2.24	\$2.43	\$2.63	\$2.77	\$2.92	\$3.07	\$3.23	\$3.40	\$65.14
SCANA Corporation	SCG	\$2.37	\$2.50	\$2.65	\$2.80	\$2.96	\$3.18	\$3.41	\$3.65	\$3.92	\$4.20	\$4.49	\$4.73	\$4.98	\$5.24	\$5.52	\$5.81	\$137.53
Xcel Energy Inc.	XEL	\$1.37	\$1.49	\$1.64	\$1.83	\$1.73	\$1.84	\$1.99	\$2.09	\$2.22	\$2.36	\$2.51	\$2.65	\$2.78	\$2.93	\$3.09	\$3.25	\$82.19

Projected Annual Data Investor Cash Flows	(64)	(65)	(66)	(67)	(68)	(69)	(70)	(71)	(72)	(73)	(74)	(75)	(76)	(77)	(78)	(79)	(80)	(81)
Company	Ticker	Initial Outflow	6/30/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20										

Multi-Stage Growth Discounted Cash Flow Model
160 Day Average Stock Price
Low EPS Growth Rate Estimate in First Stage

Inputs	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	DCF Result		
														Mean	Min	
Company	Ticker	Price	Zacks	First Call	Value Line	Low Growth	Long-Term Growth	2016	2020	2026	Profit	IRR	P/E Ratio	PEG Ratio	3.36	2.97
ALLETE, Inc.	ALE	\$52.71	4.50%	3.00%	4.00%	3.00%	5.26%	66.00%	64.00%	66.68%	\$0.00	9.41%	17.04	3.23		
Altant Energy Corporation	LNT	\$32.61	6.10%	6.00%	6.00%	6.00%	5.26%	64.00%	64.00%	66.68%	\$0.00	9.30%	17.51	3.32		
Ameren Corporation	AEE	\$45.24	6.10%	5.20%	5.00%	5.00%	5.26%	68.00%	63.00%	66.68%	\$0.00	9.13%	18.29	3.47		
American Electric Power Company, Inc.	AEP	\$60.20	4.90%	4.10%	4.50%	4.10%	5.26%	64.00%	66.00%	66.68%	\$0.00	9.42%	17.00	3.22		
Avista Corporation	AVA	\$36.62	5.00%	5.00%	5.00%	5.00%	5.26%	68.00%	63.00%	66.68%	\$0.00	9.05%	18.65	3.53		
CMS Energy Corporation	CMS	\$38.00	6.40%	7.24%	6.00%	6.00%	5.26%	63.00%	63.00%	66.68%	\$0.00	9.13%	18.26	3.46		
DTE Energy Company	DTE	\$83.96	5.80%	5.35%	4.50%	4.50%	5.26%	61.00%	64.00%	66.68%	\$0.00	9.00%	18.92	3.58		
IDACORP, Inc.	IDA	\$69.33	4.00%	4.00%	3.00%	3.00%	5.26%	53.00%	60.00%	66.68%	\$0.00	8.77%	20.14	3.82		
NorthWestern Corporation	NWE	\$56.25	5.00%	5.00%	5.50%	5.00%	5.26%	65.00%	59.00%	66.68%	\$0.00	9.00%	18.90	3.58		
OGE Energy Corp.	OGE	\$27.27	5.20%	4.30%	2.50%	2.50%	5.26%	64.00%	74.00%	66.68%	\$0.00	9.27%	17.66	3.35		
Otter Tail Corporation	OTTR	\$27.52	NA	6.00%	6.00%	6.00%	5.26%	60.00%	63.00%	66.68%	\$0.00	9.71%	15.08	2.97		
Pinnacle West Capital Corporation	PWV	\$67.37	4.00%	3.75%	4.00%	3.75%	5.26%	64.00%	65.00%	66.68%	\$0.00	9.20%	17.95	3.40		
PNM Resources, Inc.	PNM	\$30.47	7.00%	8.76%	9.00%	7.00%	5.26%	51.00%	55.00%	66.68%	\$0.00	9.74%	15.78	2.99		
Portland General Electric Company	POR	\$37.99	6.40%	6.57%	5.50%	5.50%	5.26%	56.00%	56.00%	66.68%	\$0.00	9.21%	17.69	3.39		
SCANA Corporation	SCG	\$62.73	5.30%	4.80%	4.50%	4.50%	5.26%	59.00%	60.00%	66.68%	\$0.00	8.51%	18.65	3.16		
Xcel Energy Inc.	XEL	\$37.86	5.30%	5.27%	5.50%	5.27%	5.26%	62.00%	63.00%	66.68%	\$0.00	9.38%	17.17	3.26		

Company	Ticker	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
ALLETE, Inc.	ALE	\$3.38	\$3.48	\$3.59	\$3.69	\$3.80	\$3.92	\$4.05	\$4.20	\$4.38	\$4.57	\$4.80	\$5.05	\$5.32	\$5.60	\$5.93	\$6.21	\$6.53
Altant Energy Corporation	LNT	\$1.69	\$1.79	\$1.89	\$2.01	\$2.13	\$2.26	\$2.39	\$2.52	\$2.67	\$2.81	\$2.97	\$3.12	\$3.28	\$3.46	\$3.64	\$3.84	\$4.04
Ameren Corporation	AEE	\$2.38	\$2.50	\$2.62	\$2.76	\$2.89	\$3.04	\$3.19	\$3.35	\$3.53	\$3.71	\$3.90	\$4.11	\$4.33	\$4.55	\$4.79	\$5.05	\$5.31
American Electric Power Company, Inc.	AEP	\$3.60	\$3.75	\$3.90	\$4.06	\$4.23	\$4.40	\$4.59	\$4.80	\$5.02	\$5.27	\$5.53	\$5.83	\$6.13	\$6.46	\$6.80	\$7.16	\$7.53
Avista Corporation	AVA	\$1.89	\$1.98	\$2.08	\$2.19	\$2.30	\$2.41	\$2.53	\$2.66	\$2.80	\$2.94	\$3.10	\$3.26	\$3.43	\$3.62	\$3.81	\$4.01	\$4.22
CMS Energy Corporation	CMS	\$1.89	\$2.00	\$2.12	\$2.25	\$2.39	\$2.53	\$2.68	\$2.83	\$2.99	\$3.16	\$3.33	\$3.50	\$3.69	\$3.88	\$4.09	\$4.30	\$4.53
DTE Energy Company	DTE	\$4.44	\$4.64	\$4.85	\$5.07	\$5.29	\$5.53	\$5.79	\$6.06	\$6.36	\$6.68	\$7.02	\$7.40	\$7.79	\$8.20	\$8.63	\$9.08	\$9.56
IDACORP, Inc.	IDA	\$3.87	\$3.99	\$4.11	\$4.23	\$4.36	\$4.49	\$4.64	\$4.81	\$5.01	\$5.24	\$5.49	\$5.78	\$6.09	\$6.41	\$6.75	\$7.11	\$7.48
NorthWestern Corporation	NWE	\$2.90	\$3.05	\$3.20	\$3.36	\$3.52	\$3.70	\$3.89	\$4.09	\$4.30	\$4.52	\$4.76	\$5.01	\$5.27	\$5.55	\$5.84	\$6.15	\$6.47
OGE Energy Corp.	OGE	\$1.71	\$1.75	\$1.80	\$1.84	\$1.89	\$1.93	\$1.99	\$2.06	\$2.14	\$2.23	\$2.34	\$2.46	\$2.59	\$2.73	\$2.88	\$3.03	\$3.19
Otter Tail Corporation	OTTR	\$1.56	\$1.65	\$1.75	\$1.86	\$1.97	\$2.09	\$2.21	\$2.34	\$2.47	\$2.61	\$2.75	\$2.89	\$3.04	\$3.20	\$3.37	\$3.55	\$3.74
Pinnacle West Capital Corporation	PWV	\$3.62	\$4.07	\$4.22	\$4.38	\$4.54	\$4.71	\$4.89	\$5.10	\$5.33	\$5.59	\$5.87	\$6.18	\$6.50	\$6.85	\$7.21	\$7.59	\$7.99
PNM Resources, Inc.	PNM	\$1.64	\$1.76	\$1.89	\$2.04	\$2.20	\$2.37	\$2.54	\$2.71	\$2.88	\$3.06	\$3.23	\$3.40	\$3.58	\$3.77	\$3.97	\$4.18	\$4.40
Portland General Electric Company	POR	\$2.04	\$2.15	\$2.27	\$2.40	\$2.53	\$2.67	\$2.81	\$2.96	\$3.12	\$3.29	\$3.47	\$3.65	\$3.84	\$4.04	\$4.26	\$4.48	\$4.72
SCANA Corporation	SCG	\$3.81	\$3.98	\$4.16	\$4.35	\$4.54	\$4.75	\$4.97	\$5.20	\$5.45	\$5.73	\$6.03	\$6.35	\$6.68	\$7.03	\$7.40	\$7.80	\$8.21
Xcel Energy Inc.	XEL	\$2.10	\$2.33	\$2.45	\$2.58	\$2.71	\$2.86	\$3.01	\$3.17	\$3.33	\$3.51	\$3.70	\$3.89	\$4.10	\$4.31	\$4.54	\$4.78	

Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
ALLETE, Inc.	ALE	66.00%	65.50%	65.00%	64.50%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Altant Energy Corporation	LNT	64.00%	64.00%	64.00%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Ameren Corporation	AEE	68.00%	67.75%	67.50%	67.25%	67.00%	67.65%	68.30%	68.95%	69.60%	70.25%	70.90%	71.55%	72.20%	72.85%	73.50%	74.15%
American Electric Power Company, Inc.	AEP	64.00%	64.50%	65.00%	65.50%	66.00%	66.15%	66.30%	66.45%	66.60%	66.75%	66.90%	67.05%	67.20%	67.35%	67.50%	67.65%
Avista Corporation	AVA	68.00%	68.75%	69.50%	70.25%	71.00%	71.65%	72.30%	72.95%	73.60%	74.25%	74.90%	75.55%	76.20%	76.85%	77.50%	78.15%
CMS Energy Corporation	CMS	63.00%	63.00%	63.00%	63.00%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
DTE Energy Company	DTE	61.00%	61.75%	62.50%	63.25%	64.00%	64.68%	65.36%	66.04%	66.72%	67.40%	68.08%	68.76%	69.44%	70.12%	70.80%	71.48%
IDACORP, Inc.	IDA	53.00%	54.75%	56.50%	58.25%	60.00%	61.15%	62.29%	63.44%	64.59%	65.73%	66.88%	68.03%	69.18%	70.33%	71.48%	72.63%
NorthWestern Corporation	NWE	65.00%	63.50%	62.00%	60.50%	59.00%	60.31%	61.63%	62.94%	64.25%	65.57%	66.88%	68.19%	69.50%	70.81%	72.12%	73.43%
OGE Energy Corp.	OGE	64.00%	65.00%	66.00%	67.00%	68.00%	68.81%	69.63%	70.44%	71.25%	72.06%	72.87%	73.68%	74.49%	75.30%	76.11%	76.92%
Otter Tail Corporation	OTTR	60.00%	60.75%	61.50%	62.25%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	67.53%	68.18%	68.83%	69.48%	70.13%
Pinnacle West Capital Corporation	PWV	64.00%	64.25%	64.50%	64.75%	65.00%	65.31%	65.63%	65.94%	66.25%	66.57%	66.88%	67.19%	67.50%	67.81%	68.12%	68.43%
PNM Resources, Inc.	PNM	51.00%	52.00%	53.00%	54.00%	55.00%	56.95%	58.90%	60.84%	62.79%	64.74%	66.69%	68.64%	70.59%	72.54%	74.49%	76.44%
Portland General Electric Company	POR	66.00%	66.00%	66.00%	66.00%	66.00%	67.81%	69.63%	71.45%	73.27%	75.09%	76.91%	78.73%	80.55%	82.37%	84.19%	86.01%
SCANA Corporation	SCG	59.00%	59.25%	59.50%	59.75%	60.00%	61.15%	62.29%	63.44%	64.59%	65.73%	66.88%	68.03%	69.18%	70.33%	71.48%	72.63%
Xcel Energy Inc.	XEL	62.00%	62.25%	62.50%	62.75%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	67.53%	68.18%	68.83%	69.48%	70.13%

Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Terminal Value
ALLETE, Inc.	ALE	\$2.30	\$2.35	\$2.40	\$2.45	\$2.51	\$2.61	\$2.73	\$2.86	\$3.02	\$3.19	\$3.38	\$3.56	\$3.74	\$3.94	\$4.15	\$4.37	\$111.35
Altant Energy Corporation	LNT	\$1.14	\$1.21	\$1.28	\$1.35	\$1.44	\$1.54	\$1.64	\$1.75	\$1.86	\$1.97	\$2.09	\$2.20	\$2.32	\$2.44	\$2.57	\$2.70	\$70.73
Ameren Corporation	AEE	\$1.70	\$1.75	\$1.80	\$1.86	\$1.91	\$2.03	\$2.16	\$2.29	\$2.43	\$2.58	\$2.75	\$2.89	\$3.05	\$3.21	\$3.38	\$3.55	\$77.19
American Electric Power Company, Inc.	AEP	\$1.64	\$1.76	\$1.89	\$2.04	\$2.20	\$2.37	\$2.54	\$2.71	\$2.88	\$3.06	\$3.23	\$3.40	\$3.58	\$3.77	\$3.97	\$4.18	\$128.09
Avista Corporation	AVA	\$1.35	\$1.39	\$1.43	\$1.48	\$1.52	\$1.61	\$1.71	\$1.82	\$1.93	\$2.05	\$2.18	\$2.30	\$2.42	\$2.55	\$2.68	\$2.82	\$78.71
CMS Energy Corporation	CMS	\$1.26	\$1.34	\$1.42	\$1.50	\$1.59	\$1.70	\$1.82	\$1.94	\$2.07	\$2.20	\$2.34	\$2.47	\$2.60	\$2.73	\$2.88	\$3.03	\$82.72
DTE Energy Company	DTE	\$2.83	\$2.99	\$3.17	\$3.35	\$3.54	\$3.73	\$3.94	\$4.16	\$4.40	\$4.66	\$4.95	\$5.21	\$5.48	\$5.77	\$6.08	\$6.40	\$180.93
IDACORP, Inc.	IDA	\$2.11	\$2.25	\$2.39	\$2.54	\$2.69	\$2.84	\$3.02	\$3.18	\$3.38	\$3.61	\$3.87	\$4.07	\$4.29	\$4.51	\$4.75	\$5.00	\$150.69
NorthWestern Corporation	NWE	\$1.98	\$2.03	\$2.08	\$2.13	\$2.18	\$2.34	\$2.50	\$2.70	\$2.90	\$3.12	\$3.35	\$3.52	\$3.71	\$3.91	\$4.11	\$4.33	\$122.37
OGE Energy Corp.	OGE	\$1.12	\$1.19	\$1.27	\$1.35	\$1.43	\$1.45	\$1.48	\$1.51	\$1.55	\$1.59	\$1.65	\$1.74	\$1.83	\$1.92	\$2.02	\$2.13	\$56.28
Otter Tail Corporation	OTTR	\$1.32	\$1.33	\$1.33	\$1.32	\$1.31	\$1.41	\$1.50	\$1.60	\$1.71	\$1.82	\$1.93	\$2.04	\$2.14	\$2.26	\$2.38	\$2.50	\$59.57
Pinnacle West Capital Corporation	PWV	\$2.60	\$2.71	\$2.82	\$2.94	\$3.06	\$3.20	\$3.35	\$3.52	\$3.70	\$3.91	\$4.13	\$4.35	\$4.58	\$4.82	\$5.08	\$5.34	\$143.41
PNM Resources, Inc.	PNM	\$0.90	\$0.99	\$1.08	\$1.19	\$1.30	\$1.45	\$1.60	\$1.76	\$1.92	\$2.10	\$2.28	\$2.40	\$2.52	\$2.65	\$2.79	\$2.94	\$69.47
Portland General Electric Company	POR	\$1.21	\$1.27	\$1.34	\$1.42	\$1.49	\$1.63	\$1.77	\$1.92	\$2.08	\$2.26	\$2.44	\$2.57	\$2.71	\$2.85	\$3.00	\$3.16	\$84.42
SCANA Corporation	SCG	\$2.35	\$2.47	\$2.59	\$2.71	\$2.85	\$3.04	\$3.24	\$3.46	\$3.70	\$3.96	\$4.24	\$4.47	\$4.70	\$4.95	\$5.21	\$5.49	\$196.68
Xcel Energy Inc.	XEL	\$1.37	\$1.45	\$1.53	\$1.62	\$1.71	\$1.82	\$1.93	\$2.06	\$2.19	\$2.33	\$2.47	\$2.60	\$2.74	\$2.88	\$3.04	\$3.20	\$82.06

Company	Ticker	Q3/2016	5/31/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30	6/30/31
ALLETE, Inc.	ALE	(\$52.71)	\$0.00	\$1.35	\$2.33	\$2.40	\$2.45	\$											

Multistage DCF Notes

- [1] Source: Bloomberg, based on 30-, 90-, and 180-day historical average as of May 31, 2016
 [2] Source: Zacks
 [3] Source: Yahoo! Finance
 [4] Source: Value Line
 [5] Equals indicated value (average, minimum, maximum) of Columns [2], [3], [4]
 [6] Source: Federal Reserve, Bureau of Economic Analysis
 [7] Source: Value Line
 [8] Source: Value Line
 [9] Source: Bloomberg Professional
 [10] Equals Column [1] + Column [62]
 [11] Equals result of Excel Solver function, goal: Column [10] equals \$0.00
 [12] Equals Column [51] / Column [36]
 [13] Equals Column [12] / (Column [6] x 100)
 [14] Source: Value Line
 [15] Equals Column [14] x (1 + Column [5])
 [16] Equals Column [15] x (1 + Column [5])
 [17] Equals Column [16] x (1 + Column [5])
 [18] Equals Column [17] x (1 + Column [5])
 [19] Equals Column [18] x (1 + Column [5])
 [20] Equals (1 + (Column [6] + (((Column [7] - Column [6]) / (2026 - 2021 + 1)) x (2021 - 2020)))) x Column [19]
 [21] Equals (1 + (Column [6] + (((Column [7] - Column [6]) / (2026 - 2021 + 1)) x (2022 - 2020)))) x Column [20]
 [22] Equals (1 + (Column [6] + (((Column [7] - Column [6]) / (2026 - 2021 + 1)) x (2023 - 2020)))) x Column [21]
 [23] Equals (1 + (Column [6] + (((Column [7] - Column [6]) / (2026 - 2021 + 1)) x (2024 - 2020)))) x Column [22]
 [24] Equals (1 + (Column [6] + (((Column [7] - Column [6]) / (2026 - 2021 + 1)) x (2025 - 2020)))) x Column [23]
 [25] Equals Column [24] x (1 + Column [6])
 [26] Equals Column [25] x (1 + Column [6])
 [27] Equals Column [26] x (1 + Column [6])
 [28] Equals Column [27] x (1 + Column [6])
 [29] Equals Column [28] x (1 + Column [6])
 [30] Equals Column [29] x (1 + Column [6])
 [31] Equals Column [7]
 [32] Equals Column [31] + ((Column [35] - Column [31]) / 4)
 [33] Equals Column [32] + ((Column [35] - Column [31]) / 4)
 [34] Equals Column [33] + ((Column [35] - Column [31]) / 4)
 [35] Equals Column [8]
 [36] Equals Column [36] + ((Column [41] - Column [35]) / 6)
 [37] Equals Column [36] + ((Column [41] - Column [35]) / 6)
 [38] Equals Column [37] + ((Column [41] - Column [35]) / 6)
 [39] Equals Column [38] + ((Column [41] - Column [35]) / 6)
 [40] Equals Column [39] + ((Column [41] - Column [35]) / 6)
 [41] Equals Column [9]
 [42] Equals Column [9]
 [43] Equals Column [9]
 [44] Equals Column [9]
 [45] Equals Column [9]
 [46] Equals Column [9]
 [47] Equals Column [15] x Column [31]
 [48] Equals Column [16] x Column [32]
 [49] Equals Column [17] x Column [33]
 [50] Equals Column [18] x Column [34]
 [51] Equals Column [19] x Column [35]
 [52] Equals Column [20] x Column [36]
 [53] Equals Column [21] x Column [37]
 [54] Equals Column [22] x Column [38]
 [55] Equals Column [23] x Column [39]
 [56] Equals Column [24] x Column [40]
 [57] Equals Column [25] x Column [41]
 [58] Equals Column [26] x Column [42]
 [59] Equals Column [27] x Column [43]
 [60] Equals Column [28] x Column [44]
 [61] Equals Column [29] x Column [45]
 [62] Equals Column [30] x Column [46]
 [63] Equals (Column [62] x (1 + Column [6])) / (Column [11] - Column [6])
 [64] Equals negative net present value, discount rate equals Column [11], cash flows equal Column [65] through Column [81]
 [65] Equals \$0.00
 [66] Equals Column [47] x (12/31/2016 - 5/31/2016) / 365
 [67] Equals Column [47] + (0.5 x Column [5])
 [68] Equals Column [49]
 [69] Equals Column [50]
 [70] Equals Column [51]
 [71] Equals Column [52]
 [72] Equals Column [53]
 [73] Equals Column [54]
 [74] Equals Column [55]
 [75] Equals Column [56]
 [76] Equals Column [57]
 [77] Equals Column [58]
 [78] Equals Column [59]
 [79] Equals Column [60]
 [80] Equals Column [61]
 [81] Equals Column [62] + [63]

Multi-Stage Growth Discounted Cash Flow Model
30 Day Average Stock Price
Average EPS Growth Rate Estimate In First Stage

Inputs	(1) Stock	(2) Price	(3) (4) (5) EPS Growth Rate Estimates			(6) Long-Term Growth	(7) 2016	(8) 2020	(9) 2026	(10) Payout Ratio	(11) Iterative Solution	(12) Terminal	(13) Terminal
			Zacks	First Cal	Line								
Company	Ticker	Price	Zacks	First Cal	Line	Average	2016	2020	2026	Prof.	IRR	P/E Ratio/PEG Ratio	
ALLETE, Inc	ALLE	\$56.26	4.50%	3.00%	4.00%	3.63%	5.26%	66.00%	64.00%	66.58%	\$0.00	10.00% 19.45 3.68	
Aliant Energy Corporation	LMT	\$35.91	6.10%	6.60%	6.00%	6.23%	5.26%	64.00%	64.00%	66.85%	\$0.00	9.11% 19.45 3.68	
Ameren Corporation	AEE	\$47.78	6.10%	5.20%	5.00%	5.43%	5.26%	68.00%	63.00%	66.85%	\$0.00	9.21% 19.45 3.68	
American Electric Power Company, Inc.	AEP	\$64.21	4.90%	4.10%	4.50%	4.50%	5.26%	64.00%	66.00%	66.66%	\$0.00	9.77% 19.45 3.68	
Avista Corporation	AVA	\$40.20	5.00%	5.00%	5.00%	5.00%	5.26%	68.00%	63.00%	66.85%	\$0.00	8.43% 19.45 3.68	
CMS Energy Corporation	CMS	\$40.94	6.40%	7.24%	6.00%	6.55%	5.26%	63.00%	63.00%	66.88%	\$0.00	9.12% 19.45 3.68	
DTE Energy Company	DTE	\$59.05	5.80%	5.35%	4.50%	5.22%	5.26%	61.00%	64.00%	66.88%	\$0.00	9.03% 19.45 3.68	
IDACORP, Inc.	IDA	\$72.54	4.00%	4.00%	3.00%	3.67%	5.26%	53.00%	60.00%	66.88%	\$0.00	8.57% 19.45 3.68	
NorthWestern Corporation	NWE	\$57.42	5.00%	5.00%	6.50%	5.50%	5.26%	65.00%	59.00%	66.85%	\$0.00	9.27% 19.45 3.68	
OGE Energy Corp	OGE	\$29.76	5.20%	4.30%	2.50%	4.00%	5.26%	64.00%	74.00%	66.85%	\$0.00	9.66% 19.45 3.68	
Oter Tail Corporation	OTTR	\$29.38	1A	6.00%	6.00%	6.00%	5.26%	80.00%	63.00%	66.85%	\$0.00	10.26% 19.45 3.68	
Pinnacle West Capital Corporation	PNW	\$72.71	4.00%	3.75%	4.00%	3.91%	5.26%	64.00%	65.00%	66.86%	\$0.00	9.03% 19.45 3.68	
PNM Resources, Inc.	PNM	\$32.12	7.60%	8.76%	9.00%	8.43%	5.26%	61.00%	55.00%	66.85%	\$0.00	10.87% 19.45 3.68	
Portland General Electric Company	POR	\$40.21	6.40%	6.57%	5.50%	6.16%	5.26%	58.00%	56.00%	66.88%	\$0.00	9.54% 19.45 3.68	
SCANA Corporation	SCG	\$68.65	5.30%	4.82%	4.50%	4.87%	5.26%	59.00%	60.00%	66.85%	\$0.00	9.68% 19.45 3.68	
Xcel Energy Inc.	XEL	\$40.51	5.30%	5.27%	5.50%	5.36%	5.26%	62.00%	63.00%	66.88%	\$0.00	9.47% 19.45 3.68	

DCF Result

Mean	9.45%	19.45	3.68
Max	10.87%	19.45	3.68
Min	8.43%	19.45	3.68

Projected Annual Earnings per Share	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	
Company	Ticker	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
ALLETE, Inc	ALLE	\$3.38	\$3.51	\$3.64	\$3.78	\$3.93	\$4.08	\$4.25	\$4.43	\$4.63	\$4.85	\$5.10	\$5.37	\$5.65	\$5.95	\$6.26	\$6.59	\$6.94
Aliant Energy Corporation	LMT	\$1.69	\$1.79	\$1.90	\$2.02	\$2.15	\$2.28	\$2.42	\$2.56	\$2.71	\$2.86	\$3.02	\$3.18	\$3.34	\$3.52	\$3.70	\$3.90	\$4.11
Ameren Corporation	AEE	\$2.38	\$2.51	\$2.65	\$2.79	\$2.94	\$3.10	\$3.27	\$3.44	\$3.63	\$3.82	\$4.02	\$4.24	\$4.46	\$4.70	\$4.95	\$5.21	\$5.48
American Electric Power Company, Inc.	AEP	\$3.60	\$3.76	\$3.93	\$4.11	\$4.29	\$4.49	\$4.69	\$4.92	\$5.16	\$5.42	\$5.70	\$6.00	\$6.31	\$6.65	\$7.00	\$7.37	\$7.75
Avista Corporation	AVA	\$1.89	\$1.98	\$2.08	\$2.19	\$2.30	\$2.41	\$2.53	\$2.66	\$2.80	\$2.94	\$3.10	\$3.26	\$3.43	\$3.62	\$3.81	\$4.01	\$4.22
CMS Energy Corporation	CMS	\$1.69	\$2.01	\$2.15	\$2.29	\$2.44	\$2.60	\$2.76	\$2.93	\$3.10	\$3.28	\$3.46	\$3.64	\$3.83	\$4.04	\$4.25	\$4.47	\$4.71
DTE Energy Company	DTE	\$4.44	\$4.67	\$4.92	\$5.17	\$5.44	\$5.73	\$6.02	\$6.34	\$6.67	\$7.02	\$7.39	\$7.78	\$8.19	\$8.63	\$9.08	\$9.56	\$10.07
IDACORP, Inc.	IDA	\$3.87	\$4.01	\$4.16	\$4.31	\$4.47	\$4.63	\$4.82	\$5.02	\$5.24	\$5.49	\$5.77	\$6.07	\$6.39	\$6.73	\$7.08	\$7.46	\$7.85
NorthWestern Corporation	NWE	\$2.90	\$3.06	\$3.23	\$3.41	\$3.59	\$3.78	\$4.00	\$4.21	\$4.44	\$4.68	\$4.93	\$5.19	\$5.46	\$5.75	\$6.05	\$6.37	\$6.71
OGE Energy Corp	OGE	\$1.71	\$1.78	\$1.85	\$1.92	\$2.00	\$2.08	\$2.17	\$2.26	\$2.37	\$2.48	\$2.61	\$2.75	\$2.89	\$3.05	\$3.21	\$3.38	\$3.55
Oter Tail Corporation	OTTR	\$1.56	\$1.65	\$1.75	\$1.86	\$1.97	\$2.09	\$2.21	\$2.34	\$2.47	\$2.61	\$2.75	\$2.89	\$3.04	\$3.20	\$3.37	\$3.55	\$3.74
Pinnacle West Capital Corporation	PNW	\$3.62	\$4.07	\$4.23	\$4.40	\$4.57	\$4.75	\$4.95	\$5.16	\$5.40	\$5.66	\$5.94	\$6.24	\$6.56	\$6.94	\$7.30	\$7.69	\$8.09
PNM Resources, Inc.	PNM	\$1.64	\$1.78	\$1.93	\$2.09	\$2.27	\$2.46	\$2.66	\$2.85	\$3.05	\$3.24	\$3.43	\$3.61	\$3.80	\$4.00	\$4.21	\$4.43	\$4.67
Portland General Electric Company	POR	\$2.04	\$2.17	\$2.30	\$2.44	\$2.59	\$2.75	\$2.92	\$3.09	\$3.26	\$3.44	\$3.63	\$3.82	\$4.03	\$4.24	\$4.46	\$4.70	\$4.94
SCANA Corporation	SCG	\$3.81	\$4.00	\$4.19	\$4.39	\$4.61	\$4.83	\$5.07	\$5.32	\$5.59	\$5.88	\$6.19	\$6.51	\$6.86	\$7.22	\$7.60	\$8.00	\$8.43
Xcel Energy Inc.	XEL	\$2.10	\$2.21	\$2.33	\$2.46	\$2.59	\$2.73	\$2.87	\$3.02	\$3.19	\$3.35	\$3.53	\$3.72	\$3.91	\$4.12	\$4.34	\$4.57	\$4.81

Projected Annual Dividend Payout Ratio	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)	(41)	(42)	(43)	(44)	(45)	(46)	
Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
ALLETE, Inc	ALLE	66.00%	65.50%	65.00%	64.50%	64.00%	64.48%	64.85%	65.44%	65.92%	66.49%	66.85%	66.85%	66.85%	66.85%	66.85%	66.85%
Aliant Energy Corporation	LMT	64.00%	64.00%	64.00%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.49%	66.85%	66.85%	66.85%	66.85%	66.85%	66.85%
Ameren Corporation	AEE	68.00%	68.75%	65.50%	64.25%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.85%	66.85%	66.85%	66.85%	66.85%	66.85%
American Electric Power Company, Inc.	AEP	64.00%	64.50%	65.00%	65.50%	66.00%	66.15%	66.29%	66.44%	66.59%	66.73%	66.88%	66.85%	66.85%	66.85%	66.85%	66.85%
Avista Corporation	AVA	68.00%	66.75%	65.50%	64.25%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.85%	66.85%	66.85%	66.85%	66.85%	66.85%
CMS Energy Corporation	CMS	63.00%	63.00%	63.00%	63.00%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.85%	66.85%	66.85%	66.85%	66.85%	66.85%
DTE Energy Company	DTE	61.00%	61.75%	62.50%	63.25%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.85%	66.85%	66.85%	66.85%	66.85%	66.85%
IDACORP, Inc.	IDA	53.00%	54.75%	56.50%	58.25%	60.00%	61.15%	62.29%	63.44%	64.59%	65.73%	66.85%	66.85%	66.85%	66.85%	66.85%	66.85%
NorthWestern Corporation	NWE	65.00%	63.50%	62.00%	60.50%	59.00%	60.31%	61.63%	62.94%	64.25%	65.57%	66.85%	66.85%	66.85%	66.85%	66.85%	66.85%
OGE Energy Corp	OGE	64.00%	65.50%	69.00%	71.50%	74.00%	72.81%	71.63%	70.44%	69.25%	68.07%	66.85%	66.85%	66.85%	66.85%	66.85%	66.85%
Oter Tail Corporation	OTTR	80.00%	75.75%	71.50%	67.25%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.85%	66.85%	66.85%	66.85%	66.85%	66.85%
Pinnacle West Capital Corporation	PNW	64.00%	64.25%	64.50%	64.75%	65.00%	65.31%	65.63%	65.94%	66.25%	66.57%	66.88%	66.85%	66.85%	66.85%	66.85%	66.85%
PNM Resources, Inc.	PNM	51.00%	52.00%	53.00%	54.00%	55.00%	56.95%	58.95%	60.94%	62.92%	64.90%	66.85%	66.85%	66.85%	66.85%	66.85%	66.85%
Portland General Electric Company	POR	69.00%	66.00%	63.00%	60.00%	57.00%	57.81%	58.63%	59.44%	60.25%	61.07%	61.88%	62.69%	63.50%	64.31%	65.12%	65.93%
SCANA Corporation	SCG	59.00%	59.25%	59.50%	59.75%	60.00%	61.15%	62.29%	63.44%	64.59%	65.73%	66.85%	66.85%	66.85%	66.85%	66.85%	66.85%
Xcel Energy Inc.	XEL	62.00%	62.25%	62.50%	62.75%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.85%	66.85%	66.85%	66.85%	66.85%	66.85%

Projected Annual Cash Flows	(47)	(48)	(49)	(50)	(51)	(52)	(53)	(54)	(55)	(56)	(57)	(58)	(59)	(60)	(61)	(62)	(63)	Terminal Value
Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Terminal Value
ALLETE, Inc	ALLE	\$2.32	\$2.39	\$2.46	\$2.53	\$2.61	\$2.74	\$2.88	\$3.03	\$3.20	\$3.38	\$3.59	\$3.78	\$3.98	\$4.19	\$4.41	\$4.64	\$134.96
Aliant Energy Corporation	LMT	\$1.15	\$1.22	\$1.29	\$1.37	\$1.46	\$1.56	\$1.66	\$1.77	\$1.89	\$2.00	\$2.12	\$2.24	\$2.35	\$2.48	\$2.61	\$2.74	\$79.65
Ameren Corporation	AEE	\$1.71	\$1.77	\$1.83	\$1.89	\$1.95	\$2.08	\$2.21	\$2.36	\$2.51	\$2.67	\$2.83	\$2.99	\$3.14	\$3.31	\$3.48	\$3.67	\$106.97
American Electric Power Company, Inc.	AEP	\$1.64	\$1.71	\$1.78	\$1.85	\$1.92	\$2.06	\$2.20	\$2.35	\$2.50	\$2.65	\$2.80	\$2.95	\$3.10	\$3.25	\$3.40	\$3.55	\$150.63
Avista Corporation	AVA	\$1.35	\$1.39	\$1.43	\$1.48	\$1.52	\$1.61	\$1.71	\$1.82	\$1.93	\$2.05	\$2.18	\$2.30	\$2.42	\$2.55	\$2.68	\$2.82	\$82.05
CMS Energy Corporation	CMS	\$1.27	\$1.35	\$1.44	\$1.53	\$1.63	\$1.76	\$1.88	\$2.01	\$2.15	\$2.29	\$2.44	\$2.56	\$2.70	\$2.84	\$2.99	\$3.15	\$51.57
DTE Energy Company	DTE	\$2.85	\$3.04	\$3.23	\$3.44	\$3.66	\$3.88	\$4.12	\$4.37	\$4.63	\$4.91	\$5.21	\$5.48	\$5.77	\$6.07	\$6.40	\$6.73	\$195.76
IDACORP, Inc.	IDA	\$2.13	\$2.28	\$2.44	\$2.60	\$2.78	\$2.94	\$3.13	\$3.33	\$3.55	\$3.79	\$4.06	\$4.27	\$4.50	\$4.74	\$4.99	\$5.25	\$152.67
NorthWestern Corporation	NWE	\$1.99	\$2.05	\$2.11	\$2.17	\$2.24	\$2.41	\$2.60	\$2.80	\$3.01	\$3.23	\$3.47	\$3.65	\$3.85	\$4.05	\$4.26	\$4.49	\$130.47
OGE Energy Corp	OGE	\$1.14	\$1.23	\$1.33	\$1.43	\$1.54	\$1.58	\$1.										

Multi-Stage Growth Discounted Cash Flow Model
30 Day Average Stock Price
High EPS Growth Rate Estimate in First Stage

Inputs	[1] Stock	[2]	[3] [4] [5] [6]				[7]	[8]	[9]	[10]	[11]	[12]	[13]	
			EPS Growth Rate Estimates											Long-Term
Company	Ticker	Price	Zacks	First Cal	Line	High	Growth	2016	2020	2026	Preoff	IRR	P/E Ratio	PEG Ratio
ALLETE, Inc	ALE	\$56.26	4.50%	3.00%	4.00%	4.50%	5.26%	66.00%	64.00%	66.68%	\$2.00	10.41%	19.45	3.68
Alliant Energy Corporation	LITE	\$35.91	6.10%	6.00%	6.00%	6.00%	5.26%	64.00%	64.00%	66.68%	\$2.00	9.32%	19.45	3.68
Ameren Corporation	AEE	\$47.78	6.10%	5.20%	5.00%	6.10%	5.26%	68.00%	63.00%	66.68%	\$2.00	9.60%	19.45	3.68
American Electric Power Company, Inc.	AEP	\$64.21	4.60%	4.10%	4.50%	4.60%	5.26%	64.00%	66.00%	66.68%	\$2.00	10.01%	19.45	3.68
Avista Corporation	AVA	\$40.20	5.00%	5.00%	5.00%	5.00%	5.26%	68.00%	63.00%	66.68%	\$2.00	8.43%	19.45	3.68
CMS Energy Corporation	CMS	\$40.94	6.40%	7.24%	6.00%	7.24%	5.26%	63.00%	63.00%	66.68%	\$2.00	9.52%	19.45	3.68
DTE Energy Company	DTE	\$59.05	5.60%	5.35%	4.50%	5.60%	5.26%	61.00%	64.00%	66.68%	\$2.00	9.36%	19.45	3.68
IDACORP, Inc.	IDA	\$72.54	4.00%	4.00%	3.00%	4.00%	5.26%	53.00%	60.00%	66.68%	\$2.00	8.77%	19.45	3.68
NorthWestern Corporation	NWE	\$57.42	5.00%	5.00%	6.50%	6.50%	5.26%	65.00%	59.00%	66.68%	\$2.00	9.86%	19.45	3.68
OGE Energy Corp	OGE	\$29.76	5.20%	4.30%	2.50%	5.20%	5.26%	64.00%	74.00%	66.68%	\$2.00	10.60%	19.45	3.68
Oter Tail Corporation	OTTR	\$29.38	NA	6.00%	6.00%	6.00%	5.26%	60.00%	63.00%	66.68%	\$2.00	10.26%	19.45	3.68
Pinnacle West Capital Corporation	PNW	\$72.71	4.00%	3.78%	4.00%	4.00%	5.26%	64.00%	65.00%	66.68%	\$2.00	9.03%	19.45	3.68
PNM Resources, Inc.	PNM	\$32.12	7.00%	8.76%	9.00%	9.00%	5.26%	51.00%	55.00%	66.68%	\$2.00	11.19%	19.45	3.68
Portland General Electric Company	POR	\$40.21	6.40%	6.57%	5.50%	6.57%	5.26%	66.00%	66.00%	66.68%	\$2.00	9.76%	19.45	3.68
SCANA Corporation	SCG	\$68.65	5.30%	4.60%	4.50%	5.30%	5.26%	59.00%	60.00%	66.68%	\$2.00	9.84%	19.45	3.68
Xcel Energy Inc.	XEL	\$40.51	5.30%	5.27%	5.50%	5.50%	5.26%	62.00%	63.00%	66.68%	\$2.00	9.55%	19.45	3.68

DCF Result

Mean	9.73%	19.45	3.68
Max	11.19%	19.45	3.68
Min	8.43%	19.45	3.68

Projected Annual Earnings per Share	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]
Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
ALLETE, Inc	ALE	\$3.38	\$3.53	\$3.69	\$3.86	\$4.03	\$4.21	\$4.41	\$4.62	\$4.84	\$5.06	\$5.35	\$5.63	\$5.93	\$6.24	\$6.57	\$6.92
Alliant Energy Corporation	LITE	\$1.89	\$1.80	\$1.91	\$2.04	\$2.18	\$2.32	\$2.47	\$2.62	\$2.77	\$2.93	\$3.09	\$3.26	\$3.43	\$3.61	\$3.80	\$4.00
Ameren Corporation	AEE	\$2.38	\$2.53	\$2.68	\$2.84	\$3.02	\$3.20	\$3.39	\$3.59	\$3.78	\$4.00	\$4.22	\$4.44	\$4.68	\$4.92	\$5.18	\$5.46
American Electric Power Company, Inc.	AEP	\$3.60	\$3.78	\$3.96	\$4.16	\$4.36	\$4.57	\$4.80	\$5.04	\$5.30	\$5.57	\$5.86	\$6.17	\$6.50	\$6.84	\$7.20	\$7.68
Avista Corporation	AVA	\$1.69	\$1.98	\$2.08	\$2.19	\$2.30	\$2.41	\$2.53	\$2.66	\$2.80	\$2.94	\$3.10	\$3.26	\$3.43	\$3.62	\$3.81	\$4.01
CMS Energy Corporation	CMS	\$1.69	\$2.03	\$2.17	\$2.33	\$2.50	\$2.68	\$2.87	\$3.05	\$3.25	\$3.44	\$3.63	\$3.82	\$4.02	\$4.24	\$4.46	\$4.70
DTE Energy Company	DTE	\$4.44	\$4.70	\$4.97	\$5.26	\$5.56	\$5.89	\$6.22	\$6.57	\$6.94	\$7.31	\$7.71	\$8.11	\$8.54	\$8.99	\$9.47	\$9.97
IDACORP, Inc.	IDA	\$3.87	\$4.02	\$4.19	\$4.35	\$4.53	\$4.71	\$4.91	\$5.12	\$5.36	\$5.62	\$5.91	\$6.22	\$6.55	\$6.89	\$7.26	\$7.64
NorthWestern Corporation	NWE	\$2.90	\$3.09	\$3.29	\$3.50	\$3.73	\$3.97	\$4.22	\$4.48	\$4.74	\$5.01	\$5.29	\$5.57	\$5.86	\$6.17	\$6.50	\$6.84
OGE Energy Corp	OGE	\$1.71	\$1.80	\$1.89	\$1.99	\$2.09	\$2.20	\$2.32	\$2.44	\$2.57	\$2.70	\$2.84	\$2.99	\$3.15	\$3.32	\$3.49	\$3.68
Oter Tail Corporation	OTTR	\$1.56	\$1.65	\$1.75	\$1.86	\$1.97	\$2.09	\$2.21	\$2.34	\$2.47	\$2.61	\$2.75	\$2.89	\$3.04	\$3.20	\$3.37	\$3.55
Pinnacle West Capital Corporation	PNW	\$4.06	\$4.24	\$4.41	\$4.59	\$4.77	\$4.97	\$5.19	\$5.43	\$5.69	\$5.93	\$6.19	\$6.46	\$6.73	\$7.05	\$7.34	\$7.64
PNM Resources, Inc.	PNM	\$1.64	\$1.79	\$1.95	\$2.12	\$2.31	\$2.52	\$2.73	\$2.95	\$3.16	\$3.36	\$3.56	\$3.76	\$3.95	\$4.16	\$4.38	\$4.61
Portland General Electric Company	POR	\$2.04	\$2.17	\$2.32	\$2.47	\$2.63	\$2.80	\$2.98	\$3.17	\$3.35	\$3.54	\$3.74	\$3.94	\$4.14	\$4.36	\$4.59	\$4.84
SCANA Corporation	SCG	\$3.61	\$4.01	\$4.22	\$4.45	\$4.68	\$4.93	\$5.19	\$5.47	\$5.76	\$6.06	\$6.38	\$6.72	\$7.07	\$7.45	\$7.84	\$8.25
Xcel Energy Inc.	XEL	\$2.10	\$2.22	\$2.34	\$2.47	\$2.60	\$2.74	\$2.89	\$3.05	\$3.22	\$3.39	\$3.57	\$3.76	\$3.95	\$4.16	\$4.38	\$4.61

Projected Annual Dividend Payout Ratio	[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]	
Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
ALLETE, Inc	ALE	66.00%	65.50%	65.00%	64.50%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Alliant Energy Corporation	LITE	64.00%	64.00%	64.00%	64.00%	64.00%	64.43%	64.86%	65.29%	65.72%	66.15%	66.58%	66.58%	66.58%	66.58%	66.58%	66.58%
Ameren Corporation	AEE	68.00%	66.75%	65.50%	64.25%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
American Electric Power Company, Inc.	AEP	64.00%	64.50%	65.00%	65.50%	66.00%	66.15%	66.29%	66.44%	66.59%	66.73%	66.83%	66.88%	66.88%	66.88%	66.88%	66.88%
Avista Corporation	AVA	68.00%	66.75%	65.50%	64.25%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
CMS Energy Corporation	CMS	63.00%	63.00%	63.00%	63.00%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
DTE Energy Company	DTE	61.00%	61.75%	62.50%	63.25%	64.00%	64.43%	64.86%	65.29%	65.72%	66.15%	66.58%	66.58%	66.58%	66.58%	66.58%	66.58%
IDACORP, Inc.	IDA	53.00%	54.75%	56.50%	58.25%	60.00%	61.15%	62.29%	63.44%	64.59%	65.73%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
NorthWestern Corporation	NWE	65.00%	63.50%	62.00%	60.50%	59.00%	60.31%	61.63%	62.94%	64.25%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
OGE Energy Corp	OGE	64.00%	66.50%	69.00%	71.50%	74.00%	72.81%	71.63%	70.44%	69.25%	68.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Oter Tail Corporation	OTTR	60.00%	75.75%	71.50%	67.25%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Pinnacle West Capital Corporation	PNW	64.00%	64.25%	64.50%	64.75%	65.00%	65.31%	65.63%	65.94%	66.25%	66.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
PNM Resources, Inc.	PNM	51.00%	52.00%	53.00%	54.00%	55.00%	56.96%	58.93%	60.90%	62.87%	64.85%	66.83%	66.88%	66.88%	66.88%	66.88%	66.88%
Portland General Electric Company	POR	56.00%	56.00%	56.00%	56.00%	56.00%	57.81%	59.63%	61.47%	63.25%	65.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
SCANA Corporation	SCG	59.00%	59.25%	59.50%	59.75%	60.00%	61.15%	62.29%	63.44%	64.59%	65.73%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Xcel Energy Inc.	XEL	62.00%	62.25%	62.50%	62.75%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%

Projected Annual Cash Flows	[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	[63]	Terminal Val'ue
Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
ALLETE, Inc	ALE	\$2.33	\$2.42	\$2.51	\$2.60	\$2.70	\$2.84	\$3.00	\$3.17	\$3.35	\$3.55	\$3.77	\$3.96	\$4.17	\$4.39	\$4.63	\$4.87	\$141.58
Alliant Energy Corporation	LITE	\$1.15	\$1.23	\$1.31	\$1.39	\$1.48	\$1.59	\$1.70	\$1.82	\$1.93	\$2.06	\$2.18	\$2.29	\$2.42	\$2.54	\$2.68	\$2.82	\$81.95
Ameren Corporation	AEE	\$1.72	\$1.78	\$1.86	\$1.94	\$2.02	\$2.10	\$2.18	\$2.26	\$2.34	\$2.43	\$2.52	\$2.61	\$2.70	\$2.79	\$2.87	\$2.95	\$111.73
American Electric Power Company, Inc.	AEP	\$2.42	\$2.55	\$2.70	\$2.83	\$3.02	\$3.17	\$3.34	\$3.52	\$3.71	\$3.91	\$4.13	\$4.34	\$4.57	\$4.82	\$5.07	\$5.34	\$155.18
Avista Corporation	AVA	\$1.35	\$1.39	\$1.43	\$1.48	\$1.52	\$1.61	\$1.71	\$1.82	\$1.93	\$2.05	\$2.18	\$2.30	\$2.42	\$2.55	\$2.68	\$2.82	\$82.05
CMS Energy Corporation	CMS	\$1.28	\$1.37	\$1.47	\$1.57	\$1.69	\$1.82	\$1.96	\$2.11	\$2.26	\$2.41	\$2.56	\$2.69	\$2.83	\$2.98	\$3.14	\$3.31	\$96.14
DTE Energy Company	DTE	\$2.87	\$3.07	\$3.29	\$3.52	\$3.77	\$4.01	\$4.27	\$4.54	\$4.82	\$5.12	\$5.43	\$5.71	\$6.01	\$6.33	\$6.67	\$7.02	\$204.05
IDACORP, Inc.	IDA	\$2.13	\$2.29	\$2.46	\$2.64	\$2.83	\$3.00	\$3.19	\$3.40	\$3.63	\$3.88	\$4.16	\$4.38	\$4.61	\$4.85	\$5.11	\$5.38	\$196.39
NorthWestern Corporation	NWE	\$2.01	\$2.09	\$2.17	\$2.26	\$2.34	\$2.55	\$2.76	\$2.99	\$3.22	\$3.47	\$3.72	\$3.92	\$4.13	\$4.35	\$4.57	\$4.82	\$140.04
OGE Energy Corp	OGE	\$1.15	\$1.26	\$1.37	\$1.50	\$1.63	\$1.69	\$1.75	\$1.81	\$1.87	\$1.94	\$2.00	\$2.11	\$2.22	\$2.34	\$2.46	\$2.59	\$75.31
Oter Tail Corporation	OTTR	\$1.32	\$1.33	\$1.33	\$1.32	\$1.32	\$1.41	\$1.50	\$1.60	\$1.71	\$1.82	\$1.93	\$2.04	\$2.14	\$2.26	\$2.38	\$2.50	\$72.72
Pinnacle West Capital Corporation	PNW	\$2.61	\$2.72	\$2.84	\$2.97	\$3.10	\$3.25	\$3.41	\$3.58	\$3.77	\$3.98	\$4.21	\$4.43	\$4.67	\$4.92	\$5.17	\$5.45	\$158.41
PNM Resources, Inc.	PNM	\$0.91	\$1.01	\$1.13	\$1.25	\$1.39	\$1.56	\$1.74	\$1.92	\$2.12	\$2.31	\$2.51	\$2.64	\$2.79	\$2.93	\$3.08	\$3.24	\$94.30
Portland General Electric Company	POR	\$1.22	\$1.30	\$1.38	\$1.47	\$1.57	\$1.72	\$1.89	\$2.06	\$2.24	\$2.43	\$2.63	\$2.77	\$2.92	\$3.07	\$3.23	\$3.40	\$99.00
SCANA Corporation	SCG	\$2.37	\$2.50	\$2.65	\$2.80	\$2.96	\$3.18	\$3.41	\$3.65	\$3.92	\$4.20	\$4.49	\$4.73	\$4.98	\$5.24	\$5.52	\$5.81	\$168.99
Xcel Energy Inc.	XEL	\$1.37	\$1.46	\$1.54	\$1.63	\$1.73	\$1.84	\$1.96	\$2.09	\$2.22	\$2.36	\$2.51	\$2.65	\$2.78	\$2.93	\$3.09	\$3.25	\$94.48

Projected Annual Data Investor Cash Flows	[64]	[65]	[66]	[67]
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Multi-Stage Growth Discounted Cash Flow Model
30 Day Average Stock Price
Low EPS Growth Rate Estimate in First Stage

Inputs	(1) Stock	(2) - (5) EPS Growth Rate Estimates				(6) Long-Term Growth	(7) - (9) Payoff Ratio			(10) Iterative Solution	(11) Terminal	(12) Terminal	(13) Terminal	
		Zacks	First Call	Value Line	Low Growth		2016	2020	2026					
Company	Ticker	Price	Zacks	First Call	Value Line	Low Growth	Growth	2016	2020	2026	Proof	IRR	P/E Ratio	PEG Ratio
ALLETE, Inc.	ALLE	\$38.26	4.50%	3.00%	4.00%	3.00%	5.26%	60.00%	64.00%	66.68%	\$0.00	9.49%	19.45	3.68
Alleant Energy Corporation	LNT	\$35.91	6.10%	6.60%	6.00%	6.00%	5.26%	64.00%	64.00%	66.68%	\$0.00	8.97%	19.45	3.68
Ameren Corporation	AEE	\$47.78	6.10%	5.20%	5.00%	5.00%	5.26%	68.00%	63.00%	66.68%	\$0.00	8.65%	19.45	3.68
American Electric Power Company, Inc.	AEP	\$64.21	4.90%	4.10%	4.50%	4.10%	5.26%	64.00%	66.00%	66.68%	\$0.00	9.53%	19.45	3.68
Avista Corporation	AVA	\$40.20	5.00%	5.00%	5.00%	5.00%	5.26%	68.00%	63.00%	66.68%	\$0.00	8.43%	19.45	3.68
CMS Energy Corporation	CMS	\$40.94	6.40%	7.24%	6.00%	6.00%	5.26%	63.00%	63.00%	66.68%	\$0.00	8.80%	19.45	3.68
DTE Energy Company	DTE	\$89.05	5.60%	5.35%	4.50%	4.50%	5.26%	61.00%	64.00%	66.68%	\$0.00	8.61%	19.45	3.68
IDACORP, Inc.	IDA	\$72.54	4.00%	4.00%	3.00%	3.00%	5.26%	63.00%	60.00%	66.68%	\$0.00	8.15%	19.45	3.68
NorthWestern Corporation	NWE	\$57.42	5.00%	5.00%	6.50%	5.00%	5.26%	65.00%	59.00%	66.68%	\$0.00	8.97%	19.45	3.68
OGE Energy Corp	OGE	\$29.76	5.20%	4.30%	2.50%	2.50%	5.26%	64.00%	74.00%	66.68%	\$0.00	8.84%	19.45	3.68
Oter Tail Corporation	OTTR	\$29.38	NA	6.00%	6.00%	6.00%	5.26%	60.00%	63.00%	66.68%	\$0.00	10.28%	19.45	3.68
Pinnacle West Capital Corporation	PWV	\$72.71	4.00%	3.73%	4.00%	3.73%	5.26%	64.00%	65.00%	66.68%	\$0.00	8.62%	19.45	3.68
PNM Resources, Inc.	PNM	\$32.12	7.60%	6.76%	9.00%	7.60%	5.26%	51.00%	55.00%	66.68%	\$0.00	10.37%	19.45	3.68
Portland General Electric Company	POR	\$40.21	4.60%	6.57%	5.50%	5.00%	5.26%	56.00%	60.00%	66.68%	\$0.00	9.15%	19.45	3.68
SCANA Corporation	SCG	\$68.65	5.30%	4.60%	4.50%	4.50%	5.26%	59.00%	60.00%	66.68%	\$0.00	9.47%	19.45	3.68
Xcel Energy Inc.	XEL	\$40.51	5.30%	5.27%	5.50%	5.27%	5.26%	62.00%	63.00%	66.68%	\$0.00	9.42%	19.45	3.68

DCF Result

Mean	9.15%	19.45	3.68
Max	10.37%	19.45	3.68
Min	8.16%	19.45	3.68

Projected Annual Earnings per Share	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)
Company	Ticker	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
ALLETE, Inc.	ALLE	\$3.38	\$3.48	\$3.59	\$3.69	\$3.80	\$3.92	\$4.05	\$4.20	\$4.38	\$4.57	\$4.80	\$5.05	\$5.32	\$5.60	\$5.80	\$6.21
Alleant Energy Corporation	LNT	\$1.69	\$1.78	\$1.85	\$2.01	\$2.13	\$2.26	\$2.39	\$2.62	\$2.67	\$2.81	\$2.97	\$3.12	\$3.46	\$3.64	\$3.84	\$4.04
Ameren Corporation	AEE	\$2.38	\$2.50	\$2.62	\$2.76	\$2.89	\$3.04	\$3.19	\$3.35	\$3.53	\$3.71	\$3.90	\$4.11	\$4.33	\$4.55	\$4.79	\$5.05
American Electric Power Company, Inc.	AEP	\$3.60	\$3.75	\$3.90	\$4.06	\$4.23	\$4.40	\$4.59	\$4.80	\$5.02	\$5.27	\$5.53	\$5.83	\$6.13	\$6.46	\$6.80	\$7.16
Avista Corporation	AVA	\$1.89	\$1.98	\$2.08	\$2.19	\$2.30	\$2.41	\$2.53	\$2.66	\$2.80	\$2.94	\$3.10	\$3.26	\$3.43	\$3.62	\$3.81	\$4.01
CMS Energy Corporation	CMS	\$1.89	\$2.00	\$2.12	\$2.25	\$2.39	\$2.53	\$2.68	\$2.83	\$2.99	\$3.16	\$3.33	\$3.50	\$3.69	\$3.88	\$4.09	\$4.30
DTE Energy Company	DTE	\$4.44	\$4.64	\$4.85	\$5.07	\$5.29	\$5.53	\$5.78	\$6.06	\$6.36	\$6.68	\$7.02	\$7.40	\$7.78	\$8.20	\$8.63	\$9.08
IDACORP, Inc.	IDA	\$3.87	\$3.99	\$4.11	\$4.23	\$4.36	\$4.49	\$4.64	\$4.81	\$5.01	\$5.24	\$5.49	\$5.78	\$6.09	\$6.41	\$6.75	\$7.11
NorthWestern Corporation	NWE	\$2.90	\$3.05	\$3.20	\$3.36	\$3.52	\$3.70	\$3.89	\$4.09	\$4.30	\$4.62	\$4.76	\$5.01	\$5.27	\$5.55	\$5.84	\$6.15
OGE Energy Corp	OGE	\$1.71	\$1.75	\$1.80	\$1.84	\$1.89	\$1.93	\$1.99	\$2.06	\$2.14	\$2.23	\$2.34	\$2.46	\$2.59	\$2.73	\$2.88	\$3.03
Oter Tail Corporation	OTTR	\$1.56	\$1.65	\$1.75	\$1.86	\$1.97	\$2.09	\$2.21	\$2.34	\$2.47	\$2.61	\$2.76	\$2.92	\$3.04	\$3.20	\$3.37	\$3.55
Pinnacle West Capital Corporation	PWV	\$3.92	\$4.07	\$4.22	\$4.38	\$4.54	\$4.71	\$4.89	\$5.10	\$5.33	\$5.59	\$5.87	\$6.18	\$6.50	\$6.85	\$7.21	\$7.59
PNM Resources, Inc.	PNM	\$1.64	\$1.76	\$1.90	\$2.04	\$2.20	\$2.37	\$2.54	\$2.71	\$2.89	\$3.06	\$3.23	\$3.40	\$3.58	\$3.77	\$3.97	\$4.18
Portland General Electric Company	POR	\$2.04	\$2.15	\$2.27	\$2.40	\$2.53	\$2.67	\$2.81	\$2.96	\$3.12	\$3.29	\$3.47	\$3.65	\$3.84	\$4.04	\$4.26	\$4.48
SCANA Corporation	SCG	\$3.81	\$3.98	\$4.16	\$4.35	\$4.54	\$4.75	\$4.97	\$5.20	\$5.46	\$5.73	\$6.03	\$6.35	\$6.68	\$7.03	\$7.40	\$7.80
Xcel Energy Inc.	XEL	\$2.10	\$2.21	\$2.33	\$2.45	\$2.58	\$2.71	\$2.85	\$3.01	\$3.17	\$3.33	\$3.51	\$3.70	\$3.89	\$4.10	\$4.30	\$4.54

Projected Annual Dividend Payout Ratio	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)	(41)	(42)	(43)	(44)	(45)	(46)
Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
ALLETE, Inc.	ALLE	65.00%	65.00%	65.00%	64.50%	64.00%	64.48%	64.48%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%
Alleant Energy Corporation	LNT	64.00%	64.00%	64.00%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%
Ameren Corporation	AEE	68.00%	68.75%	69.50%	70.25%	71.00%	71.75%	72.50%	73.25%	74.00%	74.75%	75.50%	76.25%	77.00%	77.75%	78.50%
American Electric Power Company, Inc.	AEP	64.00%	64.50%	65.00%	65.50%	66.00%	66.50%	67.00%	67.50%	68.00%	68.50%	69.00%	69.50%	70.00%	70.50%	71.00%
Avista Corporation	AVA	68.00%	68.75%	69.50%	70.25%	71.00%	71.75%	72.50%	73.25%	74.00%	74.75%	75.50%	76.25%	77.00%	77.75%	78.50%
CMS Energy Corporation	CMS	63.00%	63.00%	63.00%	63.00%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%
DTE Energy Company	DTE	61.00%	61.75%	62.50%	63.25%	64.00%	64.75%	65.50%	66.25%	67.00%	67.75%	68.50%	68.50%	68.50%	68.50%	68.50%
IDACORP, Inc.	IDA	53.00%	54.75%	56.50%	58.25%	60.00%	61.75%	63.50%	65.25%	67.00%	68.75%	70.50%	72.25%	74.00%	75.75%	77.50%
NorthWestern Corporation	NWE	65.00%	65.00%	65.00%	65.00%	65.00%	65.00%	65.00%	65.00%	65.00%	65.00%	65.00%	65.00%	65.00%	65.00%	65.00%
OGE Energy Corp	OGE	64.00%	65.00%	66.00%	67.00%	68.00%	69.00%	70.00%	71.00%	72.00%	73.00%	74.00%	75.00%	76.00%	77.00%	78.00%
Oter Tail Corporation	OTTR	60.00%	60.00%	60.00%	60.00%	60.00%	60.00%	60.00%	60.00%	60.00%	60.00%	60.00%	60.00%	60.00%	60.00%	60.00%
Pinnacle West Capital Corporation	PWV	64.00%	64.25%	64.50%	64.75%	65.00%	65.25%	65.50%	65.75%	66.00%	66.25%	66.50%	66.75%	67.00%	67.25%	67.50%
PNM Resources, Inc.	PNM	51.00%	52.00%	53.00%	54.00%	55.00%	56.00%	57.00%	58.00%	59.00%	60.00%	61.00%	62.00%	63.00%	64.00%	65.00%
Portland General Electric Company	POR	68.00%	68.75%	69.50%	70.25%	71.00%	71.75%	72.50%	73.25%	74.00%	74.75%	75.50%	76.25%	77.00%	77.75%	78.50%
SCANA Corporation	SCG	59.00%	59.25%	59.50%	59.75%	60.00%	60.25%	60.50%	60.75%	61.00%	61.25%	61.50%	61.75%	62.00%	62.25%	62.50%
Xcel Energy Inc.	XEL	62.00%	62.25%	62.50%	62.75%	63.00%	63.25%	63.50%	63.75%	64.00%	64.25%	64.50%	64.75%	65.00%	65.25%	65.50%

Projected Annual Cash Flows	(47)	(48)	(49)	(50)	(51)	(52)	(53)	(54)	(55)	(56)	(57)	(58)	(59)	(60)	(61)	(62)	(63)	Terminal Value
Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Terminal Value
ALLETE, Inc.	ALLE	\$2.30	\$2.35	\$2.40	\$2.45	\$2.51	\$2.61	\$2.73	\$2.86	\$3.02	\$3.19	\$3.38	\$3.56	\$3.74	\$3.94	\$4.15	\$4.37	\$127.06
Alleant Energy Corporation	LNT	\$1.14	\$1.21	\$1.28	\$1.36	\$1.44	\$1.54	\$1.64	\$1.75	\$1.86	\$1.97	\$2.09	\$2.20	\$2.32	\$2.44	\$2.57	\$2.70	\$78.54
Ameren Corporation	AEE	\$1.70	\$1.75	\$1.80	\$1.86	\$1.91	\$2.03	\$2.16	\$2.29	\$2.43	\$2.58	\$2.75	\$2.89	\$3.06	\$3.21	\$3.38	\$3.55	\$103.93
American Electric Power Company, Inc.	AEP	\$2.40	\$2.52	\$2.64	\$2.77	\$2.89	\$3.04	\$3.18	\$3.34	\$3.51	\$3.69	\$3.90	\$4.10	\$4.32	\$4.55	\$4.79	\$5.04	\$146.53
Avista Corporation	AVA	\$1.35	\$1.39	\$1.43	\$1.48	\$1.52	\$1.61	\$1.71	\$1.82	\$1.93	\$2.05	\$2.18	\$2.32	\$2.46	\$2.60	\$2.75	\$2.90	\$82.05
CMS Energy Corporation	CMS	\$1.26	\$1.34	\$1.42	\$1.50	\$1.59	\$1.70	\$1.82	\$1.94	\$2.07	\$2.20	\$2.34	\$2.47	\$2.60	\$2.73	\$2.88	\$3.03	\$83.10
DTE Energy Company	DTE	\$2.83	\$2.99	\$3.17	\$3.35	\$3.54	\$3.73	\$3.94	\$4.16	\$4.40	\$4.66	\$4.95	\$5.21	\$5.48	\$5.77	\$6.08	\$6.40	\$185.99
IDACORP, Inc.	IDA	\$2.11	\$2.25	\$2.39	\$2.54	\$2.69	\$2.84	\$3.00	\$3.18	\$3.38	\$3.61	\$3.87	\$4.07	\$4.29	\$4.51	\$4.75	\$5.00	\$145.48
NorthWestern Corporation	NWE	\$1.89	\$2.03	\$2.08	\$2.13	\$2.18	\$2.24	\$2.32	\$2.40	\$2.49	\$2.58	\$2.67	\$2.76	\$2.85	\$2.94	\$3.01	\$3.08	\$125.90
OGE Energy Corp	OGE	\$1.12	\$1.19	\$1.27	\$1.35	\$1.43	\$1.45	\$1.48	\$1.51	\$1.55	\$1.59	\$1.65	\$1.74	\$1.83	\$1.92	\$2.02	\$2.13	\$61.99
Oter Tail Corporation	OTTR	\$1.32	\$1.33	\$1.33	\$1.32	\$1.32	\$1.41	\$1.50	\$1.60	\$1.71</								

Mult-Stage Growth Discounted Cash Flow Model
90 Day Average Stock Price
Average EPS Growth Rate Estimate in First Stage

Inputs	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	
														Stock
Company	Ticker	Price	Zacks	First Call	Value Average	Growth	2018	2020	2026	Proof	IRR	P/E Ratio	PEG Ratio	
ALLETE, Inc.	ALE	\$55.04	4.50%	3.00%	4.00%	3.83%	5.28%	66.00%	64.00%	66.68%	\$0.00	10.21%	19.45	3.68
Alliant Energy Corporation	LNT	\$35.24	6.10%	6.80%	6.00%	6.23%	5.28%	64.00%	64.00%	66.68%	\$0.00	9.29%	19.45	3.68
Ameren Corporation	AEE	\$47.50	6.10%	5.20%	5.00%	5.43%	5.28%	68.00%	63.00%	66.68%	\$0.00	9.26%	19.45	3.68
American Electric Power Company, Inc.	AEP	\$63.66	4.60%	4.10%	4.50%	4.50%	5.28%	64.00%	66.00%	66.68%	\$0.00	9.65%	19.45	3.68
Avista Corporation	AVA	\$39.22	5.00%	5.00%	5.00%	5.00%	5.28%	68.00%	63.00%	66.68%	\$0.00	8.65%	19.45	3.68
CMS Energy Corporation	CMS	\$40.55	6.40%	7.24%	6.00%	6.55%	5.28%	63.00%	63.00%	66.68%	\$0.00	9.20%	19.45	3.68
DTE Energy Company	DTE	\$87.58	5.80%	5.35%	4.50%	5.22%	5.28%	61.00%	64.00%	66.68%	\$0.00	9.19%	19.45	3.68
IDACORP, Inc.	IDA	\$72.14	4.00%	4.00%	3.00%	3.67%	5.28%	53.00%	60.00%	66.68%	\$0.00	8.62%	19.45	3.68
NorthWestern Corporation	NWE	\$58.61	5.00%	5.00%	6.50%	5.00%	5.28%	65.00%	59.00%	66.68%	\$0.00	9.08%	19.45	3.68
OGE Energy Corp	OGE	\$27.90	5.20%	4.30%	2.50%	4.00%	5.28%	64.00%	74.00%	66.68%	\$0.00	10.49%	19.45	3.68
Other Tail Corporation	OTTR	\$28.40	NA	6.00%	6.00%	6.00%	5.28%	60.00%	63.00%	66.68%	\$0.00	10.61%	19.45	3.68
Pinnacle West Capital Corporation	PNW	\$71.24	4.00%	3.73%	4.00%	3.91%	5.28%	64.00%	65.00%	66.68%	\$0.00	9.22%	19.45	3.68
PNM Resources, Inc.	PNM	\$32.35	7.60%	8.76%	9.00%	8.43%	5.28%	51.00%	55.00%	66.68%	\$0.00	10.67%	19.45	3.68
Portland General Electric Company	POR	\$39.34	6.40%	6.57%	5.50%	6.16%	5.28%	56.00%	66.00%	66.68%	\$0.00	9.74%	19.45	3.68
SCANA Corporation	SCG	\$67.31	5.30%	4.80%	4.50%	4.87%	5.28%	59.00%	60.00%	66.68%	\$0.00	9.69%	19.45	3.68
Xcel Energy Inc.	XEL	\$40.14	5.30%	5.27%	5.60%	5.36%	5.28%	62.00%	63.00%	66.68%	\$0.00	9.55%	19.45	3.68

DCF Result

Mean	9.60%	19.45	3.68
Max	10.80%	19.45	3.68
Min	8.62%	19.45	3.68

Projected Annual Earnings per Share	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]
ALLETE, Inc.	ALE	\$3.38	\$3.51	\$3.64	\$3.78	\$3.93	\$4.08	\$4.25	\$4.43	\$4.63	\$4.85	\$5.10	\$5.37	\$5.65	\$5.95	\$6.26	\$6.59
Alliant Energy Corporation	LNT	\$1.69	\$1.79	\$1.90	\$2.02	\$2.15	\$2.28	\$2.42	\$2.56	\$2.71	\$2.86	\$3.02	\$3.18	\$3.34	\$3.52	\$3.70	\$3.90
Ameren Corporation	AEE	\$2.38	\$2.51	\$2.65	\$2.79	\$2.94	\$3.10	\$3.27	\$3.44	\$3.63	\$3.82	\$4.02	\$4.24	\$4.46	\$4.70	\$4.94	\$5.18
American Electric Power Company, Inc.	AEP	\$3.60	\$3.76	\$3.93	\$4.11	\$4.29	\$4.49	\$4.69	\$4.92	\$5.16	\$5.42	\$5.70	\$6.00	\$6.31	\$6.65	\$7.00	\$7.37
Avista Corporation	AVA	\$1.89	\$1.98	\$2.08	\$2.19	\$2.30	\$2.41	\$2.53	\$2.66	\$2.80	\$2.94	\$3.10	\$3.26	\$3.43	\$3.62	\$3.81	\$4.01
CMS Energy Corporation	CMS	\$1.89	\$2.01	\$2.15	\$2.29	\$2.44	\$2.60	\$2.78	\$2.93	\$3.10	\$3.28	\$3.46	\$3.64	\$3.83	\$4.04	\$4.25	\$4.47
DTE Energy Company	DTE	\$4.44	\$4.67	\$4.92	\$5.17	\$5.44	\$5.73	\$6.02	\$6.34	\$6.67	\$7.02	\$7.39	\$7.78	\$8.19	\$8.63	\$9.08	\$9.56
IDACORP, Inc.	IDA	\$3.87	\$4.01	\$4.16	\$4.31	\$4.47	\$4.63	\$4.82	\$5.02	\$5.24	\$5.49	\$5.77	\$6.07	\$6.39	\$6.73	\$7.08	\$7.45
NorthWestern Corporation	NWE	\$2.90	\$3.06	\$3.23	\$3.41	\$3.59	\$3.79	\$4.00	\$4.21	\$4.44	\$4.68	\$4.93	\$5.19	\$5.46	\$5.75	\$6.05	\$6.37
OGE Energy Corp	OGE	\$1.71	\$1.78	\$1.85	\$1.92	\$2.00	\$2.08	\$2.17	\$2.26	\$2.37	\$2.48	\$2.61	\$2.75	\$2.89	\$3.05	\$3.21	\$3.38
Other Tail Corporation	OTTR	\$1.56	\$1.65	\$1.75	\$1.86	\$1.97	\$2.09	\$2.21	\$2.34	\$2.47	\$2.61	\$2.75	\$2.89	\$3.04	\$3.20	\$3.37	\$3.55
Pinnacle West Capital Corporation	PNW	\$3.62	\$4.07	\$4.23	\$4.40	\$4.57	\$4.75	\$4.95	\$5.16	\$5.40	\$5.65	\$5.94	\$6.25	\$6.59	\$6.94	\$7.30	\$7.69
PNM Resources, Inc.	PNM	\$1.78	\$1.87	\$1.97	\$2.07	\$2.17	\$2.27	\$2.37	\$2.47	\$2.57	\$2.67	\$2.77	\$2.87	\$2.97	\$3.07	\$3.17	\$3.27
Portland General Electric Company	POR	\$2.04	\$2.17	\$2.30	\$2.44	\$2.59	\$2.75	\$2.92	\$3.09	\$3.26	\$3.44	\$3.63	\$3.82	\$4.01	\$4.24	\$4.46	\$4.70
SCANA Corporation	SCG	\$3.81	\$4.00	\$4.19	\$4.39	\$4.61	\$4.83	\$5.07	\$5.32	\$5.59	\$5.88	\$6.19	\$6.51	\$6.86	\$7.22	\$7.60	\$8.00
Xcel Energy Inc.	XEL	\$2.10	\$2.21	\$2.33	\$2.46	\$2.59	\$2.73	\$2.87	\$3.02	\$3.19	\$3.35	\$3.53	\$3.72	\$3.91	\$4.12	\$4.34	\$4.57

Projected Annual Dividend Payout Ratio	[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]
ALLETE, Inc.	ALE	66.00%	65.50%	65.00%	64.50%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%
Alliant Energy Corporation	LNT	64.00%	64.00%	64.00%	64.00%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%
Ameren Corporation	AEE	68.00%	66.75%	65.50%	64.25%	63.00%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%
American Electric Power Company, Inc.	AEP	64.00%	64.50%	65.00%	65.50%	66.00%	66.00%	66.15%	66.29%	66.44%	66.59%	66.73%	66.88%	66.88%	66.88%	66.88%
Avista Corporation	AVA	68.00%	68.75%	69.50%	64.25%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%
CMS Energy Corporation	CMS	63.00%	63.00%	63.00%	63.00%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%
DTE Energy Company	DTE	61.00%	61.75%	62.50%	63.25%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%
IDACORP, Inc.	IDA	53.00%	54.75%	56.50%	58.25%	60.00%	61.15%	62.29%	63.44%	64.59%	65.73%	66.88%	66.88%	66.88%	66.88%	66.88%
NorthWestern Corporation	NWE	65.00%	63.50%	62.00%	60.50%	59.00%	60.31%	61.63%	62.94%	64.25%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%
OGE Energy Corp	OGE	84.00%	66.50%	69.00%	71.50%	74.00%	72.81%	71.63%	70.44%	69.25%	68.07%	66.88%	66.88%	66.88%	66.88%	66.88%
Other Tail Corporation	OTTR	80.00%	75.75%	71.50%	67.25%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%
Pinnacle West Capital Corporation	PNW	64.00%	64.25%	64.50%	64.75%	65.00%	65.31%	65.63%	65.94%	66.25%	66.57%	66.88%	66.88%	66.88%	66.88%	66.88%
PNM Resources, Inc.	PNM	51.00%	52.00%	53.00%	54.00%	55.00%	56.96%	58.96%	60.94%	62.92%	64.90%	66.88%	66.88%	66.88%	66.88%	66.88%
Portland General Electric Company	POR	68.00%	66.75%	65.50%	64.25%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%
SCANA Corporation	SCG	59.00%	59.25%	59.50%	59.75%	60.00%	61.15%	62.29%	63.44%	64.59%	65.73%	66.88%	66.88%	66.88%	66.88%	66.88%
Xcel Energy Inc.	XEL	62.00%	62.25%	62.50%	62.75%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%

Projected Annual Cash Flows	[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	[63]
ALLETE, Inc.	ALE	\$2.32	\$2.39	\$2.46	\$2.53	\$2.61	\$2.74	\$2.88	\$3.03	\$3.20	\$3.38	\$3.59	\$3.78	\$3.98	\$4.19	\$4.41	\$4.64
Alliant Energy Corporation	LNT	\$1.15	\$1.22	\$1.29	\$1.37	\$1.46	\$1.56	\$1.66	\$1.77	\$1.89	\$2.00	\$2.12	\$2.24	\$2.35	\$2.48	\$2.61	\$2.75
Ameren Corporation	AEE	\$1.71	\$1.77	\$1.83	\$1.89	\$1.95	\$2.08	\$2.21	\$2.36	\$2.51	\$2.67	\$2.83	\$2.99	\$3.14	\$3.31	\$3.48	\$3.67
American Electric Power Company, Inc.	AEP	\$1.64	\$1.79	\$1.93	\$2.07	\$2.21	\$2.37	\$2.54	\$2.71	\$2.89	\$3.07	\$3.26	\$3.44	\$3.63	\$3.83	\$4.03	\$4.24
Avista Corporation	AVA	\$1.35	\$1.39	\$1.43	\$1.48	\$1.52	\$1.61	\$1.71	\$1.82	\$1.93	\$2.05	\$2.18	\$2.30	\$2.42	\$2.55	\$2.68	\$2.82
CMS Energy Corporation	CMS	\$1.27	\$1.35	\$1.44	\$1.53	\$1.63	\$1.76	\$1.88	\$2.01	\$2.15	\$2.29	\$2.44	\$2.56	\$2.70	\$2.84	\$2.99	\$3.15
DTE Energy Company	DTE	\$2.85	\$3.04	\$3.23	\$3.44	\$3.66	\$3.88	\$4.12	\$4.37	\$4.63	\$4.91	\$5.21	\$5.48	\$5.77	\$6.07	\$6.40	\$6.73
IDACORP, Inc.	IDA	\$2.13	\$2.28	\$2.44	\$2.60	\$2.78	\$2.94	\$3.13	\$3.33	\$3.55	\$3.79	\$4.06	\$4.27	\$4.50	\$4.74	\$4.99	\$5.25
NorthWestern Corporation	NWE	\$1.99	\$2.05	\$2.11	\$2.17	\$2.24	\$2.41	\$2.60	\$2.80	\$3.01	\$3.23	\$3.47	\$3.65	\$3.85	\$4.05	\$4.26	\$4.49
OGE Energy Corp	OGE	\$1.14	\$1.23	\$1.33	\$1.43	\$1.54	\$1.58	\$1.62	\$1.67	\$1.72	\$1.78	\$1.84	\$1.93	\$2.04	\$2.14	\$2.26	\$2.38
Other Tail Corporation	OTTR	\$1.32	\$1.33	\$1.33	\$1.32	\$1.32	\$1.41	\$1.50	\$1.60	\$1.71	\$1.82	\$1.93	\$2.04	\$2.14	\$2.26	\$2.38	\$2.50
Pinnacle West Capital Corporation	PNW	\$2.61	\$2.72	\$2.84	\$2.96	\$3.09	\$3.23	\$3.39	\$3.56	\$3.75	\$3.96	\$4.19	\$4.41	\$4.64	\$4.88	\$5.14	\$5.41
PNM Resources, Inc.	PNM	\$0.91	\$1.00	\$1.11	\$1.23	\$1.35	\$1.51	\$1.68	\$1.86	\$2.04	\$2.23	\$2.41	\$2.54	\$2.68	\$2.82	\$2.97	\$3.12
Portland General Electric Company	POR	\$1.21	\$1.29	\$1.37	\$1.45	\$1.54	\$1.69	\$1.84	\$2.00	\$2.18	\$2.36	\$2.56	\$2.69	\$2.83	\$2.98	\$3.14	\$3.31
SCANA Corporation	SCG	\$2.36	\$2.48	\$2.61	\$2.75	\$2.90	\$3.10	\$3.32	\$3.55	\$3.80	\$4.07	\$4.36	\$4.69	\$4.83	\$5.08	\$5.35	\$5.63
Xcel Energy Inc.	XEL	\$1.37	\$1.45	\$1.53	\$1.62	\$1.72	\$1.83	\$1.94	\$2.07	\$2.20	\$2.34	\$2.49	\$2.62	\$2.76	\$2.90	\$3.06	\$3.22

Projected Annual Data Investor Cash Flows	[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]	[80]	[81]
ALLETE, Inc.	ALE	(\$55.04)	\$0.00	\$1.36	\$2.36	\$2.46	\$2.53	\$2.61	\$2.74	\$2.88	\$3.03	\$3.20	\$3.38	\$3.59	\$3.78	\$3.98	\$4.19	\$4.41
Alliant Energy Corporation	LNT	(\$35.24)	\$0.00	\$0.67	\$1.18	\$1.29	\$1.37	\$1.46	\$1.56	\$1.66	\$1.77	\$1.89	\$2.00	\$2.12	\$2.24	\$2.35	\$2.48	\$2.61
Ameren Corporation	AEE	(\$47.50)	\$0.00	\$1.00	\$1.75	\$1.83	\$1.89	\$1.95	\$2.08	\$2.21	\$2.36	\$2.51	\$2.67	\$2.83	\$2.99	\$3.14	\$3.31	\$3.48
American Electric Power Company, Inc.	AEP	(\$63.66)	\$0.00	\$1.41	\$2.46	\$2.67	\$2.81	\$2.96	\$3.10	\$3.26	\$3.43	\$3.61	\$3.80	\$4.01	\$4.24	\$4.46		

Multi-Stage Growth Discounted Cash Flow Model
60 Day Average Stock Price
High EPS Growth Rate Estimate in First Stage

Inputs	Stock	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]
Company	Ticker	Price	Zacks	First Cal	Value High	Growth	2016	2020	2026	Proof	IJR	P/E Ratio	PEG Ratio	
ALLETE, Inc	ALE	\$55.04	4.50%	3.00%	4.00%	4.50%	5.28%	65.00%	64.00%	66.88%	\$0.00	10.62%	19.45	3.68
Affiant Energy Corporation	LNT	\$35.24	6.10%	6.60%	6.00%	6.60%	5.28%	64.00%	64.00%	66.88%	\$0.00	9.50%	19.45	3.68
Ameren Corporation	AEE	\$47.50	6.10%	5.20%	5.00%	6.10%	5.28%	64.00%	63.00%	66.88%	\$0.00	9.65%	19.45	3.68
American Electric Power Company, Inc.	AEP	\$63.66	4.50%	4.10%	4.50%	4.60%	5.28%	64.00%	66.00%	66.88%	\$0.00	10.09%	19.45	3.68
Avista Corporation	AVA	\$39.22	5.00%	5.00%	5.00%	5.00%	5.28%	64.00%	63.00%	66.88%	\$0.00	8.65%	19.45	3.68
CMS Energy Corporation	CMS	\$40.55	6.40%	7.24%	6.00%	7.24%	5.28%	63.00%	63.00%	66.88%	\$0.00	9.61%	19.45	3.68
DTE Energy Company	DTE	\$87.58	5.80%	5.35%	4.50%	5.80%	5.28%	61.00%	64.00%	66.88%	\$0.00	9.53%	19.45	3.68
IDACORP, Inc.	IDA	\$72.14	4.00%	4.00%	3.00%	4.00%	5.26%	59.00%	60.00%	66.88%	\$0.00	8.82%	19.45	3.68
NorthWestern Corporation	NWE	\$58.61	5.00%	5.00%	6.50%	6.50%	5.26%	65.00%	59.00%	66.88%	\$0.00	9.67%	19.45	3.68
OGE Energy Corp	OGE	\$27.90	5.20%	4.30%	2.50%	5.20%	5.26%	64.00%	74.00%	66.88%	\$0.00	11.23%	19.45	3.68
Oter Tail Corporation	OTTR	\$28.40	NA	6.00%	6.00%	6.00%	5.26%	60.00%	63.00%	66.88%	\$0.00	10.61%	19.45	3.68
Pinnacle West Capital Corporation	PNW	\$71.24	4.00%	3.73%	4.00%	4.00%	5.26%	64.00%	65.00%	66.88%	\$0.00	9.27%	19.45	3.68
PNM Resources, Inc.	PNM	\$32.35	7.60%	8.76%	9.00%	9.00%	5.26%	51.00%	55.00%	66.88%	\$0.00	11.12%	19.45	3.68
Portland General Electric Company	POR	\$39.54	8.40%	6.57%	6.57%	6.57%	5.26%	59.00%	60.00%	66.88%	\$0.00	9.68%	19.45	3.68
SCANA Corporation	SCG	\$67.31	5.30%	4.50%	4.50%	5.30%	5.26%	59.00%	60.00%	66.88%	\$0.00	10.15%	19.45	3.68
Xcel Energy Inc.	XEL	\$40.14	5.30%	5.27%	5.50%	5.50%	5.26%	62.00%	63.00%	66.88%	\$0.00	9.64%	19.45	3.68

DCF Result			
Mean	9.68%	19.45	3.68
Max	11.23%	19.45	3.68
Mn	8.65%	19.45	3.68

Projected Annual Earnings per Share

Company	Ticker	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
ALLETE, Inc	ALE	\$3.38	\$3.53	\$3.69	\$3.85	\$4.03	\$4.21	\$4.41	\$4.62	\$4.84	\$5.09	\$5.35	\$5.63	\$5.93	\$6.24	\$6.57	\$6.92	\$7.28
Affiant Energy Corporation	LNT	\$1.69	\$1.80	\$1.91	\$2.04	\$2.18	\$2.32	\$2.47	\$2.62	\$2.77	\$2.93	\$3.09	\$3.26	\$3.43	\$3.61	\$3.80	\$4.00	\$4.21
Ameren Corporation	AEE	\$2.58	\$2.53	\$2.68	\$2.84	\$3.02	\$3.20	\$3.39	\$3.59	\$3.79	\$4.03	\$4.22	\$4.44	\$4.68	\$4.92	\$5.18	\$5.46	\$5.75
American Electric Power Company, Inc.	AEP	\$3.60	\$3.78	\$3.96	\$4.16	\$4.38	\$4.67	\$4.80	\$5.04	\$5.30	\$5.57	\$5.86	\$6.17	\$6.50	\$6.84	\$7.20	\$7.58	\$7.98
Avista Corporation	AVA	\$1.89	\$1.98	\$2.08	\$2.19	\$2.30	\$2.41	\$2.53	\$2.66	\$2.80	\$2.94	\$3.10	\$3.26	\$3.43	\$3.62	\$3.81	\$4.01	\$4.22
CMS Energy Corporation	CMS	\$1.89	\$2.03	\$2.17	\$2.33	\$2.50	\$2.68	\$2.87	\$3.05	\$3.25	\$3.44	\$3.63	\$3.82	\$4.02	\$4.24	\$4.46	\$4.70	\$4.94
DTE Energy Company	DTE	\$4.44	\$4.70	\$4.97	\$5.26	\$5.56	\$5.88	\$6.22	\$6.57	\$6.94	\$7.31	\$7.71	\$8.11	\$8.54	\$8.99	\$9.47	\$9.97	\$10.49
IDACORP, Inc.	IDA	\$3.87	\$4.02	\$4.19	\$4.35	\$4.53	\$4.71	\$4.91	\$5.12	\$5.36	\$5.62	\$5.91	\$6.22	\$6.56	\$6.93	\$7.26	\$7.64	\$8.04
NorthWestern Corporation	NWE	\$2.90	\$3.09	\$3.29	\$3.50	\$3.73	\$3.97	\$4.22	\$4.48	\$4.74	\$5.01	\$5.29	\$5.57	\$5.86	\$6.17	\$6.50	\$6.84	\$7.20
OGE Energy Corp	OGE	\$1.71	\$1.80	\$1.89	\$1.99	\$2.09	\$2.20	\$2.32	\$2.44	\$2.57	\$2.70	\$2.84	\$2.99	\$3.15	\$3.32	\$3.49	\$3.68	\$3.87
Oter Tail Corporation	OTTR	\$1.56	\$1.65	\$1.75	\$1.86	\$1.97	\$2.09	\$2.21	\$2.34	\$2.47	\$2.61	\$2.75	\$2.89	\$3.04	\$3.20	\$3.37	\$3.55	\$3.74
Pinnacle West Capital Corporation	PNW	\$3.92	\$4.08	\$4.24	\$4.41	\$4.59	\$4.77	\$4.97	\$5.19	\$5.43	\$5.69	\$5.98	\$6.30	\$6.63	\$6.98	\$7.35	\$7.74	\$8.15
PNM Resources, Inc.	PNM	\$1.64	\$1.79	\$1.95	\$2.12	\$2.31	\$2.52	\$2.73	\$2.95	\$3.16	\$3.36	\$3.56	\$3.75	\$3.95	\$4.16	\$4.38	\$4.61	\$4.85
Portland General Electric Company	POR	\$2.04	\$2.17	\$2.32	\$2.47	\$2.63	\$2.80	\$2.98	\$3.17	\$3.35	\$3.54	\$3.74	\$3.94	\$4.14	\$4.36	\$4.59	\$4.84	\$5.09
SCANA Corporation	SCG	\$3.81	\$4.01	\$4.22	\$4.45	\$4.68	\$4.93	\$5.19	\$5.47	\$5.76	\$6.06	\$6.38	\$6.72	\$7.07	\$7.45	\$7.84	\$8.25	\$8.69
Xcel Energy Inc.	XEL	\$2.10	\$2.22	\$2.34	\$2.47	\$2.60	\$2.74	\$2.89	\$3.05	\$3.22	\$3.39	\$3.57	\$3.76	\$3.95	\$4.16	\$4.38	\$4.61	\$4.85

Projected Annual Dividend Payout Ratio

Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
ALLETE, Inc	ALE	66.00%	65.50%	65.00%	64.50%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Affiant Energy Corporation	LNT	64.00%	64.00%	64.00%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Ameren Corporation	AEE	69.00%	69.75%	69.50%	64.25%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
American Electric Power Company, Inc.	AVA	68.00%	68.75%	68.50%	64.25%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
CMS Energy Corporation	CMS	63.00%	63.00%	63.00%	63.00%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
DTE Energy Company	DTE	61.00%	61.75%	62.50%	63.25%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
IDACORP, Inc.	IDA	53.00%	54.75%	56.50%	58.25%	60.00%	61.15%	62.29%	63.44%	64.59%	65.73%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
NorthWestern Corporation	NWE	65.00%	63.50%	62.00%	60.50%	59.00%	60.31%	61.63%	62.94%	64.25%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
OGE Energy Corp	OGE	64.00%	66.50%	69.00%	71.50%	74.00%	72.81%	71.63%	70.44%	69.25%	68.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Oter Tail Corporation	OTTR	80.00%	75.75%	71.50%	67.25%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Pinnacle West Capital Corporation	PNW	64.00%	64.25%	64.50%	64.75%	65.00%	65.31%	65.63%	65.94%	66.25%	66.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
PNM Resources, Inc.	PNM	51.00%	52.00%	53.00%	54.00%	55.00%	56.96%	58.90%	60.84%	62.82%	64.80%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Portland General Electric Company	POR	56.00%	56.00%	56.00%	56.00%	56.00%	57.61%	59.83%	61.44%	63.25%	65.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
SCANA Corporation	SCG	69.00%	69.25%	69.50%	69.75%	70.00%	61.15%	62.29%	63.44%	64.59%	65.73%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Xcel Energy Inc.	XEL	62.00%	62.25%	62.50%	62.75%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%

Projected Annual Cash Flows

Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Terminal Value
ALLETE, Inc	ALE	\$2.33	\$2.42	\$2.51	\$2.60	\$2.70	\$2.84	\$3.00	\$3.17	\$3.35	\$3.55	\$3.77	\$3.96	\$4.17	\$4.39	\$4.63	\$4.87	\$141.58
Affiant Energy Corporation	LNT	\$1.15	\$1.23	\$1.31	\$1.39	\$1.48	\$1.59	\$1.70	\$1.82	\$1.93	\$2.06	\$2.18	\$2.29	\$2.42	\$2.54	\$2.68	\$2.82	\$81.95
Ameren Corporation	AEE	\$1.72	\$1.79	\$1.86	\$1.94	\$2.02	\$2.16	\$2.31	\$2.46	\$2.63	\$2.79	\$2.97	\$3.13	\$3.29	\$3.47	\$3.65	\$3.84	\$111.73
American Electric Power Company, Inc.	AEP	\$2.42	\$2.56	\$2.70	\$2.86	\$3.02	\$3.17	\$3.34	\$3.52	\$3.71	\$3.91	\$4.13	\$4.34	\$4.57	\$4.82	\$5.07	\$5.34	\$155.18
Avista Corporation	AVA	\$1.35	\$1.39	\$1.43	\$1.48	\$1.52	\$1.61	\$1.71	\$1.82	\$1.93	\$2.05	\$2.18	\$2.30	\$2.42	\$2.55	\$2.68	\$2.82	\$82.05
CMS Energy Corporation	CMS	\$1.28	\$1.37	\$1.47	\$1.57	\$1.69	\$1.82	\$1.96	\$2.11	\$2.26	\$2.41	\$2.56	\$2.69	\$2.83	\$2.98	\$3.14	\$3.31	\$99.14
DTE Energy Company	DTE	\$2.87	\$3.07	\$3.29	\$3.52	\$3.77	\$4.01	\$4.27	\$4.54	\$4.82	\$5.12	\$5.43	\$5.71	\$6.01	\$6.33	\$6.67	\$7.02	\$234.05
IDACORP, Inc.	IDA	\$2.13	\$2.23	\$2.34	\$2.44	\$2.54	\$2.63	\$2.73	\$2.83	\$2.93	\$3.03	\$3.13	\$3.23	\$3.33	\$3.43	\$3.53	\$3.63	\$156.39
NorthWestern Corporation	NWE	\$2.01	\$2.09	\$2.17	\$2.26	\$2.34	\$2.55	\$2.76	\$2.99	\$3.22	\$3.47	\$3.72	\$3.92	\$4.13	\$4.35	\$4.57	\$4.82	\$140.04
OGE Energy Corp	OGE	\$1.15	\$1.26	\$1.37	\$1.50	\$1.63	\$1.69	\$1.75	\$1.81	\$1.87	\$1.94	\$2.00	\$2.11	\$2.22	\$2.34	\$2.46	\$2.59	\$75.31
Oter Tail Corporation	OTTR	\$1.32	\$1.33	\$1.33	\$1.32	\$1.32	\$1.41	\$1.50	\$1.60	\$1.71	\$1.82	\$1.93	\$2.04	\$2.14	\$2.26	\$2.38	\$2.50	\$72.72
Pinnacle West Capital Corporation	PNW	\$2.61	\$2.72	\$2.84	\$2.9													

Multi-Stage Growth Discounted Cash Flow Model
 90 Day Average Stock Price
 Low EPS Growth Rate Estimate in First Stage

Inputs	Stock	EPS Growth Rate Estimates										Payout Ratio	Iterative Solution	Terminal	Terminal								
		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]												
Company	Ticker	Price	Zacks	First Call	Value Line	Low Growth	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
ALLETE, Inc.	ALE	\$55.04	4.50%	3.00%	4.00%	3.00%	5.25%	66.00%	64.00%	66.88%	\$3.00	9.70%	19.45	3.68									
Alleant Energy Corporation	LNT	\$35.24	6.10%	6.60%	6.00%	6.00%	5.25%	64.00%	64.00%	66.88%	\$3.00	9.15%	19.45	3.68									
Ameren Corporation	AEE	\$47.50	5.10%	5.20%	5.00%	5.00%	5.25%	68.00%	63.00%	66.88%	\$3.00	9.00%	19.45	3.68									
American Electric Power Company, Inc.	AEP	\$63.66	4.90%	4.10%	4.50%	4.10%	5.25%	64.00%	66.00%	66.88%	\$3.00	9.61%	19.45	3.68									
Avista Corporation	AVA	\$39.22	5.00%	5.00%	5.00%	5.00%	5.25%	68.00%	63.00%	66.88%	\$3.00	8.85%	19.45	3.68									
CMS Energy Corporation	CMS	\$40.55	6.40%	7.24%	6.00%	6.00%	5.25%	63.00%	63.00%	66.88%	\$3.00	8.63%	19.45	3.68									
DTE Energy Company	DTE	\$87.58	5.60%	5.35%	4.50%	4.50%	5.25%	61.00%	64.00%	66.88%	\$3.00	8.76%	19.45	3.68									
IDACORP, Inc.	IDA	\$72.14	4.00%	4.00%	3.00%	3.00%	5.25%	53.00%	60.00%	66.88%	\$3.00	8.22%	19.45	3.68									
NorthWestern Corporation	NWE	\$58.61	5.00%	5.00%	6.50%	5.00%	5.25%	65.00%	59.00%	66.88%	\$3.00	8.78%	19.45	3.68									
OGE Energy Corp.	OGE	\$27.90	5.20%	4.30%	2.50%	2.50%	5.25%	64.00%	74.00%	66.88%	\$3.00	9.56%	19.45	3.68									
Oter Tail Corporation	OTTR	\$28.40	NA	6.00%	6.00%	6.00%	5.25%	60.00%	63.00%	66.88%	\$3.00	10.61%	19.45	3.68									
Pinnacle West Capital Corporation	PNW	\$71.24	4.00%	3.73%	4.00%	3.73%	5.25%	64.00%	65.00%	66.88%	\$3.00	9.11%	19.45	3.68									
PNM Resources, Inc.	PNM	\$32.35	7.00%	6.70%	9.00%	7.00%	5.25%	51.00%	55.00%	66.88%	\$3.00	10.30%	19.45	3.68									
Portland General Electric Company	POR	\$39.34	6.40%	6.77%	5.50%	5.50%	5.25%	66.00%	66.00%	66.88%	\$3.00	9.35%	19.45	3.68									
SCANA Corporation	SCG	\$67.31	5.30%	4.80%	4.50%	4.50%	5.25%	59.00%	60.00%	66.88%	\$3.00	9.67%	19.45	3.68									
Xcel Energy Inc.	XEL	\$40.14	5.30%	5.50%	5.27%	5.25%	5.25%	62.00%	63.00%	66.88%	\$3.00	9.50%	19.45	3.68									

DCF Result

Mean	9.30%	19.45	3.68
Max	10.61%	19.45	3.68
Min	8.22%	19.45	3.68

Projected Annual Earnings per Share

Company	Ticker	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
ALLETE, Inc.	ALE	\$3.38	\$3.48	\$3.69	\$3.69	\$3.80	\$3.92	\$4.05	\$4.20	\$4.33	\$4.57	\$4.80	\$5.05	\$5.32	\$5.60	\$5.90	\$6.21	\$6.53
Alleant Energy Corporation	LNT	\$1.69	\$1.79	\$1.89	\$2.01	\$2.13	\$2.25	\$2.39	\$2.52	\$2.67	\$2.81	\$2.97	\$3.12	\$3.29	\$3.46	\$3.64	\$3.84	\$4.04
Ameren Corporation	AEE	\$2.38	\$2.50	\$2.62	\$2.76	\$2.89	\$3.04	\$3.19	\$3.35	\$3.53	\$3.71	\$3.90	\$4.11	\$4.33	\$4.55	\$4.79	\$5.05	\$5.31
American Electric Power Company, Inc.	AEP	\$3.60	\$3.75	\$3.90	\$4.06	\$4.23	\$4.40	\$4.59	\$4.80	\$5.02	\$5.27	\$5.53	\$5.83	\$6.13	\$6.46	\$6.80	\$7.16	\$7.63
Avista Corporation	AVA	\$1.89	\$1.98	\$2.08	\$2.19	\$2.30	\$2.41	\$2.53	\$2.66	\$2.80	\$2.94	\$3.10	\$3.26	\$3.43	\$3.62	\$3.81	\$4.01	\$4.22
CMS Energy Corporation	CMS	\$1.89	\$2.00	\$2.12	\$2.25	\$2.39	\$2.53	\$2.68	\$2.83	\$2.99	\$3.16	\$3.33	\$3.50	\$3.69	\$3.88	\$4.09	\$4.30	\$4.53
DTE Energy Company	DTE	\$4.44	\$4.64	\$4.85	\$5.07	\$5.29	\$5.53	\$5.79	\$6.06	\$6.36	\$6.68	\$7.02	\$7.40	\$7.79	\$8.20	\$8.63	\$9.08	\$9.56
IDACORP, Inc.	IDA	\$3.87	\$3.99	\$4.11	\$4.23	\$4.36	\$4.49	\$4.64	\$4.81	\$5.01	\$5.24	\$5.49	\$5.78	\$6.09	\$6.41	\$6.75	\$7.11	\$7.48
NorthWestern Corporation	NWE	\$2.90	\$3.05	\$3.20	\$3.36	\$3.52	\$3.70	\$3.89	\$4.09	\$4.30	\$4.52	\$4.76	\$5.01	\$5.27	\$5.55	\$5.84	\$6.15	\$6.47
OGE Energy Corp.	OGE	\$1.71	\$1.75	\$1.80	\$1.84	\$1.89	\$1.93	\$1.99	\$2.06	\$2.14	\$2.23	\$2.34	\$2.46	\$2.59	\$2.73	\$2.88	\$3.03	\$3.19
Oter Tail Corporation	OTTR	\$5.56	\$1.65	\$1.75	\$1.86	\$1.97	\$2.09	\$2.21	\$2.34	\$2.47	\$2.61	\$2.76	\$2.89	\$3.04	\$3.20	\$3.37	\$3.55	\$3.74
Pinnacle West Capital Corporation	PNW	\$3.92	\$4.07	\$4.22	\$4.38	\$4.54	\$4.71	\$4.90	\$5.10	\$5.33	\$5.59	\$5.87	\$6.18	\$6.50	\$6.85	\$7.21	\$7.59	\$7.99
PNM Resources, Inc.	PNM	\$1.64	\$1.70	\$1.76	\$1.83	\$1.90	\$1.97	\$2.05	\$2.13	\$2.21	\$2.30	\$2.39	\$2.49	\$2.59	\$2.70	\$2.81	\$2.93	\$3.05
Portland General Electric Company	POR	\$2.04	\$2.15	\$2.27	\$2.40	\$2.52	\$2.67	\$2.81	\$2.96	\$3.12	\$3.29	\$3.47	\$3.66	\$3.84	\$4.04	\$4.26	\$4.49	\$4.72
SCANA Corporation	SCG	\$3.81	\$3.98	\$4.16	\$4.35	\$4.54	\$4.75	\$4.97	\$5.20	\$5.46	\$5.73	\$6.03	\$6.35	\$6.68	\$7.03	\$7.40	\$7.80	\$8.21
Xcel Energy Inc.	XEL	\$2.10	\$2.21	\$2.33	\$2.45	\$2.58	\$2.71	\$2.86	\$3.01	\$3.17	\$3.33	\$3.51	\$3.70	\$3.89	\$4.10	\$4.31	\$4.54	\$4.78

Projected Annual Dividend Payout Ratio

Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
ALLETE, Inc.	ALE	69.00%	65.50%	65.00%	64.50%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Alleant Energy Corporation	LNT	64.00%	64.00%	64.00%	64.25%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Ameren Corporation	AEE	68.00%	66.75%	65.50%	64.25%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
American Electric Power Company, Inc.	AEP	64.00%	64.50%	65.00%	65.50%	66.00%	66.15%	66.30%	66.44%	66.59%	66.73%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Avista Corporation	AVA	68.00%	67.75%	65.50%	64.25%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
CMS Energy Corporation	CMS	63.00%	63.00%	63.00%	63.00%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
DTE Energy Company	DTE	61.00%	61.75%	62.50%	63.25%	64.00%	64.86%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
IDACORP, Inc.	IDA	53.00%	54.75%	56.50%	58.25%	60.00%	61.15%	62.29%	63.44%	64.59%	65.73%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
NorthWestern Corporation	NWE	65.00%	63.50%	62.00%	60.50%	59.00%	60.31%	61.63%	62.94%	64.25%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
OGE Energy Corp.	OGE	64.00%	66.50%	69.00%	71.50%	74.00%	72.81%	71.63%	70.44%	69.25%	68.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Oter Tail Corporation	OTTR	80.00%	75.75%	71.50%	67.25%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Pinnacle West Capital Corporation	PNW	64.00%	64.25%	64.50%	64.75%	65.00%	65.31%	65.63%	65.94%	66.25%	66.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
PNM Resources, Inc.	PNM	51.00%	52.00%	53.00%	54.00%	55.00%	56.00%	56.96%	57.94%	58.92%	59.90%	60.88%	61.88%	62.88%	63.88%	64.88%	65.88%
Portland General Electric Company	POR	59.00%	59.25%	59.50%	59.75%	60.00%	60.25%	60.50%	60.75%	61.00%	61.25%	61.50%	61.75%	62.00%	62.25%	62.50%	62.75%
SCANA Corporation	SCG	59.00%	59.25%	59.50%	59.75%	60.00%	60.25%	60.50%	60.75%	61.00%	61.25%	61.50%	61.75%	62.00%	62.25%	62.50%	62.75%
Xcel Energy Inc.	XEL	62.00%	62.25%	62.50%	62.75%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%

Projected Annual Cash Flows

Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Terminal Value
ALLETE, Inc.	ALE	\$2.30	\$2.35	\$2.40	\$2.45	\$2.51	\$2.61	\$2.73	\$2.86	\$3.02	\$3.19	\$3.38	\$3.56	\$3.74	\$3.94	\$4.15	\$4.37	\$127.06
Alleant Energy Corporation	LNT	\$1.14	\$1.21	\$1.28	\$1.36	\$1.44	\$1.54	\$1.64	\$1.75	\$1.88	\$1.97	\$2.09	\$2.20	\$2.32	\$2.44	\$2.57	\$2.70	\$78.54
Ameren Corporation	AEE	\$1.70	\$1.75	\$1.80	\$1.86	\$1.91	\$2.03	\$2.16	\$2.29	\$2.43	\$2.58	\$2.75	\$2.89	\$3.05	\$3.21	\$3.38	\$3.55	\$103.33
American Electric Power Company, Inc.	AEP	\$2.40	\$2.52	\$2.64	\$2.77	\$2.90	\$3.04	\$3.18	\$3.34	\$3.51	\$3.69	\$3.90	\$4.10	\$4.32	\$4.54	\$4.79	\$5.04	\$148.53
Avista Corporation	AVA	\$1.35	\$1.39	\$1.43	\$1.48	\$1.52	\$1.61	\$1.71	\$1.82	\$1.93	\$2.04	\$2.16	\$2.30	\$2.42	\$2.55	\$2.68	\$2.82	\$82.05
CMS Energy Corporation	CMS	\$1.26	\$1.34	\$1.42	\$1.50	\$1.59	\$1.70	\$1.82	\$1.94	\$2.07	\$2.20	\$2.34	\$2.47	\$2.60	\$2.73	\$2.88	\$3.03	\$68.10
DTE Energy Company	DTE	\$2.83	\$2.99	\$3.17	\$3.35	\$3.54	\$3.73	\$3.94	\$4.16	\$4.40	\$4.66	\$4.95	\$5.21	\$5.48	\$5.77	\$6.08	\$6.40	\$165.69
IDACOR																		

Multi-Stage Growth Discounted Cash Flow Model
180 Day Average Stock Price
Average EPS Growth Rate Estimate in First Stage

Inputs	Stock	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]
		Price	Zacks	First Cat	Value	Average	Growth	2016	2020	2025	Proof	IRR	P/E Ratio	PEG Ratio
Company	Ticker	Price	Zacks	First Cat	Value	Average	Growth	2016	2020	2025	Proof	IRR	P/E Ratio	PEG Ratio
ALLETE, Inc	ALE	\$52.71	4.50%	3.00%	4.00%	3.83%	5.25%	65.00%	64.00%	65.88%	\$0.00	10.63%	19.45	3.68
Alleant Energy Corporation	LNT	\$32.01	6.10%	6.60%	6.00%	6.23%	5.25%	64.00%	64.00%	65.88%	\$0.00	10.00%	19.45	3.68
Ameren Corporation	AEE	\$45.24	6.10%	5.20%	5.00%	5.43%	5.25%	63.00%	63.00%	65.88%	\$0.00	9.72%	19.45	3.68
American Electric Power Company, Inc	AEP	\$60.20	4.90%	4.10%	4.50%	4.50%	5.25%	64.00%	63.00%	65.88%	\$0.00	10.38%	19.45	3.68
Avista Corporation	AVA	\$36.62	5.00%	5.00%	5.00%	5.00%	5.25%	63.00%	63.00%	65.88%	\$0.00	9.25%	19.45	3.68
CMS Energy Corporation	CMS	\$38.00	6.40%	7.24%	6.00%	6.55%	5.25%	63.00%	63.00%	65.88%	\$0.00	9.80%	19.45	3.68
DTE Energy Company	DTE	\$83.96	5.80%	5.35%	4.50%	5.22%	5.25%	61.00%	64.00%	65.88%	\$0.00	9.58%	19.45	3.68
IDACORP, Inc	IDA	\$69.33	4.00%	4.00%	3.00%	3.67%	5.25%	53.00%	60.00%	65.88%	\$0.00	8.96%	19.45	3.68
NorthWestern Corporation	NWE	\$56.25	5.00%	5.00%	5.00%	5.00%	5.25%	65.00%	59.00%	65.88%	\$0.00	9.45%	19.45	3.68
OGE Energy Corp	OGE	\$27.27	5.20%	4.30%	2.50%	4.00%	5.25%	64.00%	74.00%	65.88%	\$0.00	10.71%	19.45	3.68
Other Tail Corporation	OTTR	\$27.52	NA	6.00%	6.00%	6.00%	5.25%	60.00%	63.00%	65.88%	\$0.00	10.91%	19.45	3.68
Pinnacle West Capital Corporation	PNW	\$67.37	4.00%	3.73%	4.00%	3.91%	5.25%	64.00%	65.00%	65.88%	\$0.00	9.74%	19.45	3.68
PNM Resources, Inc	PNM	\$30.47	7.60%	8.76%	9.00%	8.45%	5.25%	51.00%	55.00%	65.88%	\$0.00	11.36%	19.45	3.68
Portland General Electric Company	POR	\$37.99	8.40%	6.57%	6.50%	6.16%	5.25%	60.00%	60.00%	65.88%	\$0.00	10.06%	19.45	3.68
SCANA Corporation	SCG	\$62.73	5.30%	4.80%	4.50%	4.87%	5.25%	59.00%	60.00%	65.88%	\$0.00	10.56%	19.45	3.68
Xcel Energy Inc	XEL	\$37.85	5.30%	5.27%	5.50%	5.35%	5.25%	62.00%	63.00%	65.88%	\$0.00	10.10%	19.45	3.68

DCF Result			
Mean	10.05%	19.45	3.68
Max	11.36%	19.45	3.68
Min	8.96%	19.45	3.68

Projected Annual Earnings per Share

Company	Ticker	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
ALLETE, Inc	ALE	\$3.38	\$3.51	\$3.64	\$3.78	\$3.93	\$4.08	\$4.25	\$4.43	\$4.63	\$4.85	\$5.10	\$5.37	\$5.65	\$5.95	\$6.26	\$6.59	\$6.94
Alleant Energy Corporation	LNT	\$1.69	\$1.79	\$1.90	\$2.02	\$2.15	\$2.28	\$2.42	\$2.56	\$2.71	\$2.86	\$3.02	\$3.16	\$3.34	\$3.52	\$3.70	\$3.90	\$4.11
Ameren Corporation	AEE	\$2.38	\$2.51	\$2.65	\$2.79	\$2.94	\$3.10	\$3.27	\$3.44	\$3.63	\$3.82	\$4.02	\$4.24	\$4.46	\$4.70	\$4.94	\$5.21	\$5.48
American Electric Power Company, Inc	AEP	\$3.60	\$3.78	\$3.93	\$4.11	\$4.29	\$4.49	\$4.69	\$4.92	\$5.16	\$5.42	\$5.70	\$6.00	\$6.31	\$6.65	\$7.00	\$7.37	\$7.75
Avista Corporation	AVA	\$1.89	\$1.98	\$2.08	\$2.19	\$2.30	\$2.41	\$2.53	\$2.65	\$2.80	\$2.94	\$3.10	\$3.26	\$3.43	\$3.62	\$3.81	\$4.01	\$4.22
CMS Energy Corporation	CMS	\$1.89	\$2.01	\$2.15	\$2.29	\$2.44	\$2.60	\$2.76	\$2.93	\$3.10	\$3.28	\$3.46	\$3.64	\$3.83	\$4.04	\$4.25	\$4.47	\$4.71
DTE Energy Company	DTE	\$4.44	\$4.67	\$4.92	\$5.17	\$5.44	\$5.73	\$6.02	\$6.34	\$6.67	\$7.02	\$7.39	\$7.78	\$8.19	\$8.63	\$9.09	\$9.56	\$10.07
IDACORP, Inc	IDA	\$3.87	\$4.01	\$4.16	\$4.31	\$4.47	\$4.63	\$4.82	\$5.02	\$5.24	\$5.49	\$5.77	\$6.07	\$6.39	\$6.73	\$7.08	\$7.45	\$7.85
NorthWestern Corporation	NWE	\$2.90	\$3.06	\$3.23	\$3.41	\$3.59	\$3.79	\$4.00	\$4.21	\$4.44	\$4.68	\$4.93	\$5.19	\$5.46	\$5.75	\$6.05	\$6.37	\$6.71
OGE Energy Corp	OGE	\$1.71	\$1.78	\$1.85	\$1.92	\$2.00	\$2.08	\$2.17	\$2.26	\$2.37	\$2.48	\$2.61	\$2.75	\$2.89	\$3.05	\$3.21	\$3.38	\$3.55
Other Tail Corporation	OTTR	\$1.56	\$1.65	\$1.75	\$1.86	\$1.97	\$2.09	\$2.21	\$2.34	\$2.47	\$2.61	\$2.75	\$2.89	\$3.04	\$3.20	\$3.37	\$3.55	\$3.74
Pinnacle West Capital Corporation	PNW	\$3.92	\$4.07	\$4.23	\$4.40	\$4.57	\$4.75	\$4.95	\$5.16	\$5.40	\$5.66	\$5.94	\$6.26	\$6.59	\$6.94	\$7.30	\$7.69	\$8.09
PNM Resources, Inc	PNM	\$1.64	\$1.78	\$1.93	\$2.09	\$2.27	\$2.45	\$2.66	\$2.85	\$3.05	\$3.24	\$3.43	\$3.61	\$3.80	\$4.00	\$4.21	\$4.43	\$4.67
Portland General Electric Company	POR	\$2.04	\$2.17	\$2.30	\$2.44	\$2.59	\$2.75	\$2.92	\$3.09	\$3.26	\$3.44	\$3.62	\$3.82	\$4.03	\$4.24	\$4.46	\$4.70	\$4.94
SCANA Corporation	SCG	\$3.81	\$4.00	\$4.19	\$4.38	\$4.61	\$4.83	\$5.07	\$5.32	\$5.59	\$5.88	\$6.19	\$6.51	\$6.85	\$7.22	\$7.60	\$8.00	\$8.43
Xcel Energy Inc	XEL	\$2.10	\$2.21	\$2.33	\$2.46	\$2.59	\$2.73	\$2.87	\$3.02	\$3.19	\$3.35	\$3.53	\$3.72	\$3.91	\$4.12	\$4.34	\$4.57	\$4.81

Projected Annual Dividend Payout Ratio

Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
ALLETE, Inc	ALE	65.00%	65.50%	65.00%	64.50%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%
Alleant Energy Corporation	LNT	64.00%	64.00%	64.00%	64.00%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%
Ameren Corporation	AEE	68.00%	68.75%	65.50%	64.25%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
American Electric Power Company, Inc	AVA	68.00%	68.75%	65.50%	64.25%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
CMS Energy Corporation	CMS	63.00%	63.00%	63.00%	63.00%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
DTE Energy Company	DTE	61.00%	61.75%	62.50%	63.25%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
IDACORP, Inc	IDA	53.00%	54.75%	56.50%	58.25%	60.00%	61.15%	62.29%	63.44%	64.59%	65.73%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
NorthWestern Corporation	NWE	65.00%	63.50%	62.00%	60.50%	59.00%	60.31%	61.63%	62.94%	64.25%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
OGE Energy Corp	OGE	64.00%	66.50%	69.00%	71.50%	74.00%	72.81%	71.63%	70.44%	69.25%	68.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Other Tail Corporation	OTTR	60.00%	75.75%	71.50%	67.25%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Pinnacle West Capital Corporation	PNW	64.00%	64.25%	64.50%	64.75%	65.00%	65.31%	65.63%	65.94%	66.25%	66.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
PNM Resources, Inc	PNM	51.00%	52.00%	53.00%	54.00%	55.00%	56.96%	58.96%	60.94%	62.92%	64.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Portland General Electric Company	POR	56.00%	56.00%	56.00%	56.00%	56.00%	57.81%	59.63%	61.44%	63.25%	65.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
SCANA Corporation	SCG	58.00%	59.25%	59.50%	59.75%	60.00%	61.15%	62.29%	63.44%	64.59%	65.73%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Xcel Energy Inc	XEL	62.00%	62.25%	62.50%	62.75%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%

Projected Annual Cash Flows

Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Terminal Value
ALLETE, Inc	ALE	\$2.32	\$2.39	\$2.46	\$2.53	\$2.61	\$2.74	\$2.88	\$3.03	\$3.20	\$3.38	\$3.59	\$3.78	\$3.98	\$4.19	\$4.41	\$4.64	\$134.96
Alleant Energy Corporation	LNT	\$1.15	\$1.22	\$1.29	\$1.37	\$1.46	\$1.56	\$1.66	\$1.77	\$1.89	\$2.00	\$2.12	\$2.24	\$2.35	\$2.48	\$2.61	\$2.75	\$79.65
Ameren Corporation	AEE	\$1.71	\$1.77	\$1.83	\$1.89	\$1.95	\$2.08	\$2.21	\$2.36	\$2.51	\$2.67	\$2.83	\$2.98	\$3.14	\$3.31	\$3.48	\$3.67	\$106.57
American Electric Power Company, Inc	AEP	\$2.41	\$2.54	\$2.67	\$2.81	\$2.96	\$3.10	\$3.26	\$3.43	\$3.61	\$3.80	\$4.01	\$4.22	\$4.44	\$4.68	\$4.93	\$5.19	\$150.60
Avista Corporation	AVA	\$1.35	\$1.39	\$1.43	\$1.48	\$1.52	\$1.61	\$1.71	\$1.82	\$1.93	\$2.05	\$2.18	\$2.30	\$2.42	\$2.55	\$2.68	\$2.82	\$82.05
CMS Energy Corporation	CMS	\$1.27	\$1.35	\$1.44	\$1.53	\$1.63	\$1.76	\$1.88	\$2.01	\$2.15	\$2.29	\$2.44	\$2.58	\$2.70	\$2.84	\$2.99	\$3.15	\$91.57
DTE Energy Company	DTE	\$2.85	\$3.04	\$3.23	\$3.44	\$3.66	\$3.88	\$4.12	\$4.37	\$4.63	\$4.91	\$5.21	\$5.48	\$5.77	\$6.07	\$6.40	\$6.73	\$195.76
IDACORP, Inc	IDA	\$2.13	\$2.28	\$2.44	\$2.60	\$2.78	\$2.94	\$3.13	\$3.33	\$3.55	\$3.79	\$4.06	\$4.27	\$4.50	\$4.74	\$4.99	\$5.25	\$152.67
NorthWestern Corporation	NWE	\$1.89	\$2.05	\$2.11	\$2.17	\$2.24	\$2.41	\$2.60	\$2.80	\$3.01	\$3.23	\$3.47	\$3.65	\$4.04	\$4.24	\$4.46	\$4.69	\$130.47
OGE Energy Corp	OGE	\$1.14	\$1.23	\$1.33	\$1.43	\$1.54	\$1.58	\$1.62	\$1.67	\$1.72	\$1.78	\$1.84	\$1.93	\$2.04	\$2.14	\$2.26	\$2.38	\$69.10
Other Tail Corporation	OTTR	\$1.32	\$1.33	\$1.33	\$1.32	\$1.32	\$1.41	\$1.50	\$1.60	\$1.71	\$1.82	\$1.93	\$2.04	\$2.14	\$2.26	\$2.38	\$2.50	\$72.72
Pinnacle West Capital Corporation	PNW	\$2.61	\$2.72	\$														

Mult-Stage Growth Discounted Cash Flow Model
180 Day Average Stock Price
High EPS Growth Rate Estimate in First Stage

Inputs	Stock	EPS Growth Rate Estimates										Payout Ratio	Relative Solution	Terminal	Terminal	
		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]					[11]
Company	Ticker	Price	Zacks	First Call	Value Line	High Growth	Long-Term Growth	2016	2020	2026	Proof	IRR	P/E Ratio	PEG Ratio		
ALLETE, Inc.	ALE	\$52.71	4.50%	3.00%	4.00%	4.50%	5.20%	60.00%	64.00%	66.68%	\$0.00	11.04%	19.45	3.68		
Alliant Energy Corporation	LMT	\$32.61	6.10%	6.00%	6.00%	6.00%	5.26%	64.00%	64.00%	66.68%	\$0.00	10.22%	19.45	3.68		
Ameren Corporation	AEE	\$45.24	6.10%	5.20%	5.00%	6.10%	5.26%	68.00%	63.00%	66.68%	\$0.00	10.11%	19.45	3.68		
American Electric Power Company, Inc.	AEP	\$69.20	4.00%	4.10%	4.50%	4.90%	5.26%	64.00%	66.00%	66.68%	\$0.00	10.62%	19.45	3.68		
Avista Corporation	AVA	\$36.62	5.00%	5.00%	5.00%	5.00%	5.26%	68.00%	63.00%	66.68%	\$0.00	9.26%	19.45	3.68		
CMS Energy Corporation	CMS	\$38.00	6.40%	7.24%	6.00%	7.24%	5.26%	63.00%	63.00%	66.68%	\$0.00	10.21%	19.45	3.68		
DTE Energy Company	DTE	\$63.96	5.60%	5.35%	4.50%	5.60%	5.26%	61.00%	64.00%	66.68%	\$0.00	9.62%	19.45	3.68		
IDACORP, Inc.	IDA	\$69.33	4.00%	4.00%	3.00%	4.00%	5.26%	53.00%	60.00%	66.68%	\$0.00	9.16%	19.45	3.68		
NorthWestern Corporation	NWE	\$56.25	5.00%	5.00%	6.50%	6.50%	5.26%	65.00%	59.00%	66.68%	\$0.00	10.05%	19.45	3.68		
OGE Energy Corp.	OGE	\$27.27	5.20%	4.30%	2.50%	5.20%	5.26%	64.00%	74.00%	66.68%	\$0.00	11.46%	19.45	3.68		
Other Tail Corporation	OTTR	\$27.52	NA	6.00%	6.00%	6.00%	5.26%	80.00%	63.00%	66.68%	\$0.00	10.91%	19.45	3.68		
Pinnacle West Capital Corporation	PNW	\$67.37	4.00%	3.73%	4.00%	4.00%	5.26%	64.00%	65.00%	66.68%	\$0.00	9.79%	19.45	3.68		
PNM Resources, Inc.	PNM	\$30.47	7.60%	8.70%	9.00%	9.00%	5.26%	51.00%	65.00%	66.68%	\$0.00	11.65%	19.45	3.68		
Portland General Electric Company	POR	\$37.99	6.40%	6.57%	5.50%	6.57%	5.26%	58.00%	56.00%	66.68%	\$0.00	10.39%	19.45	3.68		
SCANA Corporation	SCG	\$62.73	5.30%	4.50%	4.50%	5.30%	5.26%	59.00%	60.00%	66.68%	\$0.00	10.82%	19.45	3.68		
Xcel Energy Inc.	XEL	\$37.66	5.30%	5.27%	5.50%	5.50%	5.26%	62.00%	63.00%	66.68%	\$0.00	10.18%	19.45	3.68		

DCF Result			
Mean	10.36%	19.45	3.68
Max	11.65%	19.45	3.68
Min	9.16%	19.45	3.68

Projected Annual Earnings per Share	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]
ALLETE, Inc.	\$3.38	\$3.53	\$3.69	\$3.86	\$4.03	\$4.21	\$4.41	\$4.62	\$4.84	\$5.09	\$5.35	\$5.63	\$5.93	\$6.24	\$6.57	\$6.92	\$7.28
Alliant Energy Corporation	\$1.69	\$1.80	\$1.91	\$2.04	\$2.18	\$2.32	\$2.47	\$2.62	\$2.77	\$2.93	\$3.09	\$3.26	\$3.43	\$3.61	\$3.80	\$4.00	\$4.21
Ameren Corporation	\$2.38	\$2.53	\$2.68	\$2.84	\$3.02	\$3.20	\$3.39	\$3.59	\$3.79	\$4.00	\$4.22	\$4.44	\$4.68	\$4.92	\$5.18	\$5.46	\$5.75
American Electric Power Company, Inc.	\$3.60	\$3.78	\$3.96	\$4.16	\$4.36	\$4.57	\$4.80	\$5.04	\$5.30	\$5.57	\$5.86	\$6.17	\$6.50	\$6.84	\$7.20	\$7.58	\$7.98
Avista Corporation	\$1.69	\$1.98	\$2.08	\$2.19	\$2.30	\$2.41	\$2.53	\$2.66	\$2.80	\$2.94	\$3.10	\$3.26	\$3.43	\$3.62	\$3.81	\$4.01	\$4.22
CMS Energy Corporation	\$1.89	\$2.03	\$2.17	\$2.33	\$2.50	\$2.68	\$2.87	\$3.05	\$3.25	\$3.44	\$3.63	\$3.82	\$4.02	\$4.24	\$4.46	\$4.70	\$4.94
DTE Energy Company	\$4.44	\$4.70	\$4.97	\$5.26	\$5.56	\$5.89	\$6.27	\$6.64	\$7.01	\$7.38	\$7.71	\$8.11	\$8.54	\$8.99	\$9.47	\$9.97	\$10.49
IDACORP, Inc.	\$3.87	\$4.02	\$4.19	\$4.35	\$4.53	\$4.71	\$4.91	\$5.12	\$5.36	\$5.62	\$5.91	\$6.22	\$6.55	\$6.89	\$7.26	\$7.64	\$8.04
NorthWestern Corporation	\$2.90	\$3.09	\$3.29	\$3.60	\$3.73	\$3.97	\$4.22	\$4.48	\$4.74	\$5.01	\$5.29	\$5.57	\$5.86	\$6.17	\$6.50	\$6.84	\$7.20
OGE Energy Corp.	\$1.71	\$1.80	\$1.89	\$1.99	\$2.09	\$2.20	\$2.32	\$2.44	\$2.57	\$2.70	\$2.84	\$2.99	\$3.15	\$3.32	\$3.49	\$3.68	\$3.87
Other Tail Corporation	\$1.69	\$1.65	\$1.75	\$1.66	\$1.97	\$2.09	\$2.21	\$2.34	\$2.47	\$2.61	\$2.75	\$2.89	\$3.04	\$3.20	\$3.37	\$3.55	\$3.74
Pinnacle West Capital Corporation	\$4.08	\$4.24	\$4.41	\$4.59	\$4.77	\$4.97	\$5.19	\$5.43	\$5.69	\$5.96	\$6.25	\$6.56	\$6.89	\$7.25	\$7.74	\$8.15	\$8.58
PNM Resources, Inc.	\$1.64	\$1.79	\$1.65	\$2.12	\$2.31	\$2.52	\$2.77	\$3.06	\$3.38	\$3.76	\$4.18	\$4.62	\$5.09	\$5.58	\$6.10	\$6.64	\$7.21
Portland General Electric Company	\$2.04	\$2.17	\$2.32	\$2.47	\$2.63	\$2.80	\$2.98	\$3.17	\$3.35	\$3.54	\$3.74	\$3.94	\$4.14	\$4.38	\$4.59	\$4.84	\$5.00
SCANA Corporation	\$3.81	\$4.01	\$4.22	\$4.45	\$4.68	\$4.93	\$5.19	\$5.47	\$5.76	\$6.06	\$6.38	\$6.72	\$7.07	\$7.45	\$7.84	\$8.25	\$8.69
Xcel Energy Inc.	\$2.10	\$2.22	\$2.34	\$2.47	\$2.60	\$2.74	\$2.89	\$3.05	\$3.22	\$3.39	\$3.57	\$3.76	\$3.95	\$4.16	\$4.38	\$4.61	\$4.86

Projected Annual Dividend Payout Ratio	[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]
ALLETE, Inc.	66.00%	65.60%	65.00%	64.50%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%
Alliant Energy Corporation	64.00%	64.00%	64.00%	64.00%	64.00%	64.00%	64.00%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%
Ameren Corporation	68.00%	66.75%	65.50%	64.25%	63.00%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%
American Electric Power Company, Inc.	64.00%	64.00%	65.00%	65.00%	65.00%	65.00%	66.15%	66.29%	66.44%	66.59%	66.73%	66.88%	66.88%	66.88%	66.88%	66.88%
Avista Corporation	68.00%	69.75%	65.50%	64.25%	63.00%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%
CMS Energy Corporation	63.00%	63.00%	63.00%	63.00%	63.00%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%
DTE Energy Company	61.00%	61.75%	62.50%	63.25%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%
IDACORP, Inc.	53.00%	54.75%	56.50%	58.25%	60.00%	60.00%	61.15%	62.29%	63.44%	64.59%	65.73%	66.88%	66.88%	66.88%	66.88%	66.88%
NorthWestern Corporation	65.00%	63.60%	62.00%	60.50%	59.00%	60.31%	61.63%	62.94%	64.25%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
OGE Energy Corp.	64.00%	66.50%	69.00%	71.50%	74.00%	72.81%	71.63%	70.44%	69.25%	68.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Other Tail Corporation	80.00%	75.75%	71.50%	67.25%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Pinnacle West Capital Corporation	64.00%	64.25%	64.50%	64.75%	65.00%	65.31%	65.63%	65.94%	66.25%	66.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
PNM Resources, Inc.	51.00%	52.00%	53.00%	54.00%	55.00%	56.88%	58.93%	60.94%	62.92%	64.89%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Portland General Electric Company	66.00%	66.75%	67.50%	68.25%	69.00%	69.00%	69.65%	70.30%	70.94%	71.59%	72.23%	72.88%	73.52%	74.17%	74.81%	75.45%
SCANA Corporation	59.00%	59.25%	59.50%	59.75%	60.00%	61.15%	62.29%	63.44%	64.59%	65.73%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Xcel Energy Inc.	62.00%	62.25%	62.50%	62.75%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%

Projected Annual Cash Flows	[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	[63]	Terminal Value
ALLETE, Inc.	\$2.33	\$2.42	\$2.51	\$2.60	\$2.70	\$2.84	\$2.94	\$3.00	\$3.17	\$3.35	\$3.65	\$3.77	\$3.96	\$4.17	\$4.39	\$4.63	\$4.87	\$141.58
Alliant Energy Corporation	\$1.15	\$1.23	\$1.31	\$1.39	\$1.48	\$1.59	\$1.70	\$1.82	\$1.93	\$2.06	\$2.18	\$2.29	\$2.42	\$2.54	\$2.68	\$2.82	\$2.96	\$81.95
Ameren Corporation	\$1.72	\$1.79	\$1.86	\$1.94	\$2.02	\$2.16	\$2.31	\$2.46	\$2.63	\$2.79	\$2.97	\$3.13	\$3.29	\$3.47	\$3.65	\$3.84	\$4.03	\$111.73
American Electric Power Company, Inc.	\$2.42	\$2.56	\$2.70	\$2.84	\$3.02	\$3.21	\$3.42	\$3.64	\$3.87	\$4.11	\$4.34	\$4.57	\$4.82	\$5.07	\$5.34	\$5.62	\$5.94	\$155.18
Avista Corporation	\$1.35	\$1.39	\$1.43	\$1.48	\$1.52	\$1.61	\$1.71	\$1.82	\$1.92	\$2.05	\$2.18	\$2.30	\$2.42	\$2.56	\$2.68	\$2.82	\$2.96	\$82.05
CMS Energy Corporation	\$1.28	\$1.37	\$1.47	\$1.57	\$1.68	\$1.82	\$1.96	\$2.11	\$2.26	\$2.41	\$2.56	\$2.69	\$2.83	\$2.98	\$3.14	\$3.31	\$3.48	\$96.14
DTE Energy Company	\$2.87	\$3.07	\$3.29	\$3.52	\$3.77	\$4.01	\$4.27	\$4.54	\$4.82	\$5.12	\$5.43	\$5.71	\$6.01	\$6.33	\$6.67	\$7.02	\$7.39	\$204.05
IDACORP, Inc.	\$2.13	\$2.29	\$2.46	\$2.64	\$2.83	\$3.00	\$3.19	\$3.40	\$3.63	\$3.88	\$4.16	\$4.38	\$4.61	\$4.85	\$5.11	\$5.38	\$5.66	\$156.39
NorthWestern Corporation	\$2.01	\$2.09	\$2.17	\$2.26	\$2.34	\$2.55	\$2.76	\$2.99	\$3.22	\$3.47	\$3.72	\$3.92	\$4.13	\$4.35	\$4.57	\$4.82	\$5.08	\$140.04
OGE Energy Corp.	\$1.15	\$1.26	\$1.37	\$1.50	\$1.63	\$1.69	\$1.75	\$1.81	\$1.87	\$1.94	\$2.00	\$2.11	\$2.22	\$2.34	\$2.46	\$2.59	\$2.72	\$75.31
Other Tail Corporation	\$1.32	\$1.33	\$1.33	\$1.32	\$1.32	\$1.41	\$1.50	\$1.60	\$1.71	\$1.82	\$1.93	\$2.04	\$2.14	\$2.26	\$2.38	\$2.50	\$2.72	\$72.72
Pinnacle West Capital Corporation	\$2.61	\$2.72	\$2.84	\$2.97	\$3.10	\$3.25	\$3.41	\$3.58	\$3.77	\$3.96	\$4.21	\$4.43	\$4.67	\$4.92	\$5.17	\$5.45	\$5.74	\$158.41
PNM Resources, Inc.	\$0.91	\$1.01	\$1.13	\$1.26	\$1.39	\$1.56	\$1.74	\$1.92	\$2.12	\$2.31	\$2.51	\$2.64	\$2.78	\$2.93	\$3.08	\$3.24	\$3.40	\$94.30
Portland General Electric Company	\$1.22	\$1.30	\$1.38	\$1.47	\$1.57	\$1.72	\$1.89	\$2.08	\$2.24	\$2.43	\$2.63	\$2.77	\$2.92	\$3.07	\$3.23	\$3.40	\$3.59	\$99.00
SCANA Corporation	\$2.37	\$2.50	\$2.65	\$2.80	\$2.96	\$3.18	\$3.41	\$3.65	\$3.92	\$4.20	\$4.49	\$4.73	\$4.98	\$5.24	\$5.52	\$5.81	\$6.10	\$168.89
Xcel Energy Inc.	\$1.37	\$1.46	\$1.54	\$1.63	\$1.73	\$1.84	\$1.96	\$2.09	\$2.22	\$2.36	\$2.51	\$2.65	\$2.78	\$2.93	\$3.09	\$3.25	\$3.41	\$94.48

Projected Annual Data Investor Cash Flows	[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]	[80]	[81]
ALLETE, Inc.	\$0.00	\$1.37	\$2.38	\$2.51	\$2.60	\$2.70	\$2.84	\$3.00	\$3.17	\$3.35	\$3.65	\$3.77	\$3.96	\$4.17	\$4.39	\$4.63	\$4.87	\$146.45
Alliant Energy Corporation	\$0.00	\$0.6																

Multi-Stage Growth Discounted Cash Flow Model
180 Day Average Stock Price
Low EPS Growth Rate Estimate in First Stage

Inputs	Stock	EPS Growth Rate Estimate										Terminal	Terminal	
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)			(11)
Company	Ticker	Price	Zacks	First Call	Value Line	Low Growth	Growth	2018	2020	2026	Proof	IRR	P/E Ratio	PEG Ratio
ALLETE, Inc	ALE	\$52.71	4.50%	3.00%	4.00%	3.00%	5.28%	66.00%	64.00%	66.88%	\$0.00	10.11%	19.45	3.68
Alleant Energy Corporation	LNT	\$32.61	6.10%	6.00%	6.00%	6.00%	5.28%	64.00%	64.00%	66.88%	\$0.00	9.86%	19.45	3.68
Ameren Corporation	AEE	\$45.24	6.10%	5.20%	5.00%	5.00%	5.28%	68.00%	63.00%	66.88%	\$0.00	9.45%	19.45	3.68
American Electric Power Company, Inc	AEP	\$60.20	4.90%	4.10%	4.50%	4.10%	5.28%	64.00%	66.00%	66.88%	\$0.00	10.14%	19.45	3.68
Avista Corporation	AVA	\$36.82	5.00%	5.00%	5.00%	5.00%	5.28%	68.00%	63.00%	66.88%	\$0.00	9.26%	19.45	3.68
CMS Energy Corporation	CMS	\$38.00	6.40%	7.24%	6.00%	6.00%	5.28%	63.00%	63.00%	66.88%	\$0.00	9.46%	19.45	3.68
DTE Energy Company	DTE	\$83.96	5.80%	5.35%	4.50%	4.50%	5.28%	61.00%	64.00%	66.88%	\$0.00	9.15%	19.45	3.68
IDACORP, Inc	IDA	\$69.33	4.00%	4.00%	3.00%	3.00%	5.28%	53.00%	60.00%	66.88%	\$0.00	8.56%	19.45	3.68
NorthWestern Corporation	NWE	\$56.25	5.00%	5.00%	6.50%	6.00%	5.28%	65.00%	59.00%	66.88%	\$0.00	9.16%	19.45	3.68
OGE Energy Corp.	OGE	\$27.27	5.20%	4.30%	2.50%	2.50%	5.28%	64.00%	74.00%	66.88%	\$0.00	9.76%	19.45	3.68
Oter Tail Corporation	OTTR	\$27.52	NA	6.00%	6.00%	6.00%	5.28%	80.00%	63.00%	66.88%	\$0.00	10.91%	19.45	3.68
Pinnacle West Capital Corporation	PWV	\$67.37	4.00%	3.73%	4.00%	3.73%	5.28%	64.00%	65.00%	66.88%	\$0.00	9.63%	19.45	3.68
PNM Resources, Inc	PNM	\$30.47	7.00%	8.78%	9.00%	7.00%	5.28%	51.00%	65.00%	66.88%	\$0.00	10.85%	19.45	3.68
Portland General Electric Company	POR	\$37.99	6.40%	6.57%	5.50%	5.50%	5.28%	56.00%	59.00%	66.88%	\$0.00	9.87%	19.45	3.68
SCANA Corporation	SCG	\$62.73	5.30%	4.60%	4.50%	4.50%	5.28%	59.00%	60.00%	66.88%	\$0.00	10.33%	19.45	3.68
Xcel Energy Inc	XEL	\$37.86	5.30%	5.27%	5.50%	5.27%	5.28%	62.00%	63.00%	66.88%	\$0.00	10.05%	19.45	3.68

DCF Result			
Mean	9.76%	19.45	3.68
Max	10.91%	19.45	3.68
Min	8.56%	19.45	3.68

Projected Annual Earnings per Share																		
Company	Ticker	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
ALLETE, Inc	ALE	\$3.38	\$3.48	\$3.59	\$3.69	\$3.80	\$3.92	\$4.05	\$4.20	\$4.33	\$4.57	\$4.80	\$5.05	\$5.32	\$5.60	\$5.90	\$6.21	\$6.53
Alleant Energy Corporation	LNT	\$1.69	\$1.79	\$1.89	\$2.01	\$2.13	\$2.25	\$2.39	\$2.52	\$2.67	\$2.81	\$2.97	\$3.12	\$3.29	\$3.45	\$3.64	\$3.84	\$4.04
Ameren Corporation	AEE	\$2.38	\$2.60	\$2.82	\$2.78	\$2.89	\$3.04	\$3.19	\$3.35	\$3.53	\$3.71	\$3.90	\$4.11	\$4.33	\$4.55	\$4.79	\$5.05	\$5.31
American Electric Power Company, Inc	AEP	\$3.60	\$3.75	\$3.90	\$4.08	\$4.23	\$4.40	\$4.59	\$4.80	\$5.02	\$5.27	\$5.53	\$5.83	\$6.13	\$6.46	\$6.80	\$7.16	\$7.53
Avista Corporation	AVA	\$1.89	\$1.98	\$2.08	\$2.19	\$2.30	\$2.41	\$2.53	\$2.66	\$2.80	\$2.94	\$3.10	\$3.26	\$3.43	\$3.62	\$3.81	\$4.01	\$4.22
CMS Energy Corporation	CMS	\$1.89	\$2.00	\$2.12	\$2.25	\$2.39	\$2.53	\$2.68	\$2.83	\$2.99	\$3.16	\$3.33	\$3.50	\$3.69	\$3.88	\$4.09	\$4.30	\$4.53
DTE Energy Company	DTE	\$4.44	\$4.64	\$4.85	\$5.07	\$5.29	\$5.53	\$5.79	\$6.06	\$6.36	\$6.68	\$7.02	\$7.40	\$7.79	\$8.20	\$8.63	\$9.08	\$9.56
IDACORP, Inc	IDA	\$3.87	\$3.99	\$4.11	\$4.23	\$4.36	\$4.49	\$4.64	\$4.81	\$5.01	\$5.24	\$5.49	\$5.78	\$6.09	\$6.41	\$6.75	\$7.11	\$7.48
NorthWestern Corporation	NWE	\$2.90	\$3.05	\$3.20	\$3.36	\$3.52	\$3.70	\$3.89	\$4.09	\$4.30	\$4.52	\$4.78	\$5.01	\$5.27	\$5.55	\$5.84	\$6.15	\$6.47
OGE Energy Corp.	OGE	\$1.71	\$1.75	\$1.80	\$1.84	\$1.89	\$1.93	\$1.99	\$2.06	\$2.14	\$2.23	\$2.34	\$2.46	\$2.59	\$2.73	\$2.88	\$3.03	\$3.19
Oter Tail Corporation	OTTR	\$1.58	\$1.65	\$1.73	\$1.86	\$1.97	\$2.09	\$2.21	\$2.34	\$2.47	\$2.61	\$2.75	\$2.89	\$3.04	\$3.20	\$3.37	\$3.55	\$3.74
Pinnacle West Capital Corporation	PWV	\$3.82	\$4.07	\$4.22	\$4.38	\$4.54	\$4.71	\$4.90	\$5.10	\$5.33	\$5.59	\$5.87	\$6.18	\$6.50	\$6.85	\$7.21	\$7.59	\$7.99
PNM Resources, Inc	PNM	\$1.76	\$1.85	\$1.94	\$2.04	\$2.15	\$2.27	\$2.41	\$2.56	\$2.71	\$2.86	\$3.03	\$3.20	\$3.37	\$3.57	\$3.77	\$3.97	\$4.18
Portland General Electric Company	POR	\$2.04	\$2.15	\$2.27	\$2.40	\$2.53	\$2.67	\$2.81	\$2.96	\$3.12	\$3.28	\$3.47	\$3.65	\$3.84	\$4.04	\$4.26	\$4.48	\$4.72
SCANA Corporation	SCG	\$3.81	\$3.98	\$4.16	\$4.35	\$4.54	\$4.75	\$4.97	\$5.20	\$5.45	\$5.73	\$6.03	\$6.35	\$6.68	\$7.03	\$7.40	\$7.80	\$8.21
Xcel Energy Inc	XEL	\$2.10	\$2.21	\$2.33	\$2.45	\$2.58	\$2.71	\$2.86	\$3.01	\$3.17	\$3.33	\$3.51	\$3.70	\$3.89	\$4.10	\$4.31	\$4.54	\$4.78

Projected Annual Dividend Payout Rate																	
Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
ALLETE, Inc	ALE	65.00%	65.50%	65.00%	64.50%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%
Alleant Energy Corporation	LNT	64.00%	64.00%	64.00%	64.00%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%
Ameren Corporation	AEE	65.00%	66.75%	65.50%	64.25%	63.00%	63.50%	64.00%	64.50%	65.00%	65.50%	66.00%	66.50%	66.88%	66.88%	66.88%	66.88%
American Electric Power Company, Inc	AEP	64.00%	64.50%	65.00%	65.50%	66.00%	66.50%	67.00%	67.50%	68.00%	68.50%	69.00%	69.50%	69.88%	69.88%	69.88%	69.88%
Avista Corporation	AVA	68.00%	66.75%	65.50%	64.25%	63.00%	63.50%	64.00%	64.50%	65.00%	65.50%	66.00%	66.50%	66.88%	66.88%	66.88%	66.88%
CMS Energy Corporation	CMS	63.00%	63.00%	63.00%	63.00%	63.00%	63.50%	64.00%	64.50%	65.00%	65.50%	66.00%	66.50%	66.88%	66.88%	66.88%	66.88%
DTE Energy Company	DTE	61.00%	61.75%	62.50%	63.25%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%
IDACORP, Inc	IDA	53.00%	54.75%	56.50%	58.25%	60.00%	60.00%	61.15%	62.29%	63.44%	64.59%	65.73%	66.88%	66.88%	66.88%	66.88%	66.88%
NorthWestern Corporation	NWE	65.00%	63.50%	62.00%	60.50%	59.00%	60.31%	61.63%	62.94%	64.25%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
OGE Energy Corp.	OGE	64.00%	65.50%	69.00%	71.50%	74.00%	72.81%	71.63%	70.44%	69.25%	68.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Oter Tail Corporation	OTTR	80.00%	75.75%	71.50%	67.25%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
Pinnacle West Capital Corporation	PWV	64.00%	64.25%	64.50%	64.75%	65.00%	65.31%	65.63%	65.94%	66.25%	66.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
PNM Resources, Inc	PNM	51.00%	52.00%	53.00%	54.00%	55.00%	56.00%	56.93%	57.86%	58.79%	59.72%	60.64%	61.56%	62.47%	63.38%	64.29%	65.19%
Portland General Electric Company	POR	55.00%	56.00%	56.00%	56.00%	56.00%	57.81%	59.63%	61.44%	63.25%	65.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
SCANA Corporation	SCG	63.00%	63.25%	63.50%	63.75%	64.00%	64.25%	64.50%	64.75%	65.00%	65.25%	65.50%	65.75%	66.00%	66.25%	66.50%	66.75%
Xcel Energy Inc	XEL	62.00%	62.25%	62.50%	62.75%	63.00%	63.65%	64.29%	64.94%	65.59%	66.23%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%

Projected Annual Cash Flows																		
Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Terminal Value
ALLETE, Inc	ALE	\$2.30	\$2.35	\$2.40	\$2.45	\$2.51	\$2.61	\$2.73	\$2.86	\$3.02	\$3.19	\$3.38	\$3.56	\$3.74	\$3.94	\$4.15	\$4.37	\$127.06
Alleant Energy Corporation	LNT	\$1.14	\$1.21	\$1.28	\$1.38	\$1.44	\$1.54	\$1.64	\$1.75	\$1.86	\$1.97	\$2.09	\$2.20	\$2.32	\$2.44	\$2.57	\$2.70	\$78.54
Ameren Corporation	AEE	\$1.70	\$1.75	\$1.80	\$1.88	\$1.91	\$2.03	\$2.18	\$2.29	\$2.43	\$2.58	\$2.75	\$2.89	\$3.05	\$3.21	\$3.38	\$3.55	\$103.33
American Electric Power Company, Inc	AEP	\$2.40	\$2.62	\$2.84	\$2.77	\$2.89	\$3.04	\$3.18	\$3.34	\$3.51	\$3.69	\$3.90	\$4.10	\$4.32	\$4.55	\$4.79	\$5.04	\$148.53
Avista Corporation	AVA	\$1.35	\$1.39	\$1.43	\$1.48	\$1.52	\$1.61	\$1.71	\$1.82	\$1.93	\$2.05	\$2.18	\$2.30	\$2.42	\$2.55	\$2.68	\$2.82	\$82.05
CMS Energy Corporation	CMS	\$1.29	\$1.34	\$1.42	\$1.50	\$1.59	\$1.70	\$1.82	\$1.94	\$2.07	\$2.20	\$2.34	\$2.47	\$2.60	\$2.73	\$2.88	\$3.03	\$58.10
DTE Energy Company	DTE	\$2.83	\$2.99	\$3.17	\$3.35	\$3.54	\$3.73	\$3.94	\$4.16	\$4.40	\$4.65	\$4.95	\$5.21	\$5.48	\$5.77	\$6.08	\$6.40	\$185.99
IDACORP, Inc	IDA	\$2.11	\$2.25	\$2.39	\$2.54	\$2.69	\$2.84	\$3.00	\$3.18	\$3.38	\$3.61	\$3.87	\$4.07	\$4.29	\$4.51	\$4.75	\$5.00	\$145.48
NorthWestern Corporation	NWE	\$1.98	\$2.03	\$2.08	\$2.13	\$2.18	\$2.24	\$2.32	\$2.42	\$2.50	\$2.59	\$2.68	\$2.77	\$2.86	\$2.95	\$3.04	\$3.11	\$125.60
OGE Energy Corp.	OGE	\$1.12	\$1.19	\$1.27	\$1.35	\$1.43	\$1.45	\$1.48	\$1.51	\$1.55	\$1.59	\$1.65	\$1.74	\$1.83	\$1.92	\$2.02	\$2.12	\$61.99
Oter Tail Corporation	OTTR	\$1.32	\$1.33	\$1.33	\$1.32	\$1.32	\$1.41	\$1.50	\$1.60	\$1.71	\$1.82	\$1.93	\$2.04	\$2.14	\$2.26	\$2.38	\$2.50</	

Multi-Stage DCF Notes

- [1] Source: Bloomberg; based on 30-, 50-, and 180-day historical average as of May 31, 2016
- [2] Source: Zacks
- [3] Source: Yahoo! Finance
- [4] Source: Value Line
- [5] Equals indicated value (average, minimum, maximum) of Columns [2], [3], [4]
- [6] Source: Federal Reserve, Bureau of Economic Analysis
- [7] Source: Value Line
- [8] Source: Value Line
- [9] Source: Bloomberg Professional
- [10] Equals Column [1] + Column [62]
- [11] Equals result of Excel Solver function, goal: Column [10] equals \$0.00
- [12] Equals Column [61] / Column [30]
- [13] Equals Column [12] / (Column [6] x 100)
- [14] Source: Value Line
- [15] Equals Column [14] x (1 + Column [5])
- [16] Equals Column [15] x (1 + Column [5])
- [17] Equals Column [16] x (1 + Column [5])
- [18] Equals Column [17] x (1 + Column [5])
- [19] Equals Column [18] x (1 + Column [5])
- [20] Equals (1 + (Column [6] + ((Column [7] - Column [6]) / (2026 - 2021 + 1)) x (2021 - 2020)))) x Column [19]
- [21] Equals (1 + (Column [6] + ((Column [7] - Column [6]) / (2026 - 2021 + 1)) x (2022 - 2020)))) x Column [20]
- [22] Equals (1 + (Column [6] + ((Column [7] - Column [6]) / (2026 - 2021 + 1)) x (2023 - 2020)))) x Column [21]
- [23] Equals (1 + (Column [6] + ((Column [7] - Column [6]) / (2026 - 2021 + 1)) x (2024 - 2020)))) x Column [22]
- [24] Equals (1 + (Column [6] + ((Column [7] - Column [6]) / (2026 - 2021 + 1)) x (2025 - 2020)))) x Column [23]
- [25] Equals Column [24] x (1 + Column [6])
- [26] Equals Column [25] x (1 + Column [6])
- [27] Equals Column [26] x (1 + Column [6])
- [28] Equals Column [27] x (1 + Column [6])
- [29] Equals Column [28] x (1 + Column [6])
- [30] Equals Column [29] x (1 + Column [6])
- [31] Equals Column [7]
- [32] Equals Column [31] + ((Column [35] - Column [31]) / 4)
- [33] Equals Column [32] + ((Column [35] - Column [31]) / 4)
- [34] Equals Column [33] + ((Column [35] - Column [31]) / 4)
- [35] Equals Column [6]
- [36] Equals Column [35] + ((Column [41] - Column [35]) / 6)
- [37] Equals Column [36] + ((Column [41] - Column [35]) / 6)
- [38] Equals Column [37] + ((Column [41] - Column [35]) / 6)
- [39] Equals Column [38] + ((Column [41] - Column [35]) / 6)
- [40] Equals Column [39] + ((Column [41] - Column [35]) / 6)
- [41] Equals Column [9]
- [42] Equals Column [9]
- [43] Equals Column [9]
- [44] Equals Column [9]
- [45] Equals Column [9]
- [46] Equals Column [9]
- [47] Equals Column [15] x Column [31]
- [48] Equals Column [16] x Column [32]
- [49] Equals Column [17] x Column [33]
- [50] Equals Column [18] x Column [34]
- [51] Equals Column [19] x Column [35]
- [52] Equals Column [20] x Column [36]
- [53] Equals Column [21] x Column [37]
- [54] Equals Column [22] x Column [38]
- [55] Equals Column [23] x Column [39]
- [56] Equals Column [24] x Column [40]
- [57] Equals Column [25] x Column [41]
- [58] Equals Column [26] x Column [42]
- [59] Equals Column [27] x Column [43]
- [60] Equals Column [28] x Column [44]
- [61] Equals Column [29] x Column [45]
- [62] Equals Column [30] x Column [46]
- [63] Equals Column [12] x Column [30]
- [64] Equals negative net present value; discount rate equals Column [11]; cash flows equal Column [65] through Column [81]
- [65] Equals \$0.00
- [66] Equals Column [47] x (12/31/2016 - 5/31/2016) / 365
- [67] Equals Column [47] + (0.5 x Column [5])
- [68] Equals Column [49]
- [69] Equals Column [50]
- [70] Equals Column [51]
- [71] Equals Column [52]
- [72] Equals Column [53]
- [73] Equals Column [54]
- [74] Equals Column [55]
- [75] Equals Column [56]
- [76] Equals Column [57]
- [77] Equals Column [58]
- [78] Equals Column [59]
- [79] Equals Column [60]
- [80] Equals Column [61]
- [81] Equals Column [62] + [63]

Ex-Ante Market Risk Premium
Market DCF Method Based - Bloomberg

[1]	[2]	[3]
	Current 30- Year	
S&P 500 Est. Required Market Return	Treasury (30-day average)	Implied Market Risk Premium
13.14%	2.65%	10.50%

Company	Ticker	[4] Market Capitalization	[5] Weight in Index	[6] Estimated Dividend Yield	[7] Long-Term Growth Est.	[8] DCF Result	[9] Weighted DCF Result
AGILENT TECHNOLOGIES INC	A	15,041.37	0.08%	0.97%	10.13%	11.15%	0.0087%
ALCOA INC	AA	12,191.04	0.06%	1.31%	5.00%	6.34%	0.0040%
AMERICAN AIRLINES GROUP INC	AAL	18,449.46	0.10%	1.36%	-15.44%	-14.19%	-0.0136%
ADVANCE AUTO PARTS INC	AAP	11,312.89	0.06%	0.17%	11.01%	11.18%	0.0066%
APPLE INC	AAPL	546,975.66	2.84%	2.19%	11.56%	13.88%	0.3948%
ABBVIE INC	ABBV	101,780.38	0.53%	3.62%	12.01%	15.85%	0.0838%
AMERISOURCEBERGEN CORP	ABC	16,184.79	0.08%	1.80%	12.50%	14.41%	0.0121%
ABBOTT LABORATORIES	ABT	58,222.50	0.30%	2.64%	11.73%	14.53%	0.0439%
ACCENTURE PLC-CL A	ACN	77,763.18	0.40%	1.93%	9.72%	11.75%	0.0475%
ADOBE SYSTEMS INC	ADBE	49,755.84	0.26%	0.00%	20.29%	20.29%	0.0524%
ANALOG DEVICES INC	ADI	17,979.96	0.09%	2.83%	8.92%	11.88%	0.0111%
ARCHER-DANIELS-MIDLAND CO	ADM	25,130.89	0.13%	2.81%	6.29%	9.19%	0.0120%
AUTOMATIC DATA PROCESSING	ADP	40,014.18	0.21%	2.36%	10.29%	12.76%	0.0265%
ALLIANCE DATA SYSTEMS CORP	ADS	13,095.83	0.07%	0.00%	14.20%	14.20%	0.0097%
AUTODESK INC	ADSK	13,086.79	0.07%	0.00%	20.96%	20.96%	0.0143%
AMEREN CORPORATION	AEE	12,022.55	0.06%	3.51%	5.28%	8.88%	0.0055%
AMERICAN ELECTRIC POWER	AEP	31,802.72	0.17%	3.49%	5.05%	8.62%	0.0143%
AES CORP	AES	7,308.32	0.04%	3.98%	4.92%	8.99%	0.0034%
AETNA INC	AET	39,698.44	0.21%	0.89%	11.11%	12.05%	0.0248%
AFLAC INC	AFL	28,755.54	0.15%	2.40%	4.64%	7.10%	0.0106%
ALLERGAN PLC	AGN	93,252.54	0.48%	0.00%	13.50%	13.50%	0.0654%
AMERICAN INTERNATIONAL GROUP	AIG	64,769.59	0.34%	2.20%	9.50%	11.81%	0.0397%
APARTMENT INVT & MGMT CO -A	AIV	6,679.21	0.03%	3.10%	11.77%	15.05%	0.0052%
ASSURANT INC	AIZ	5,412.67	0.03%	2.25%	12.36%	14.75%	0.0041%
ARTHUR J GALLAGHER & CO	AJG	8,560.64	0.04%	3.15%	9.16%	12.45%	0.0055%
AKAMAI TECHNOLOGIES INC	AKAM	9,583.80	0.05%	0.00%	17.33%	17.33%	0.0088%
ALASKA AIR GROUP INC	ALK	8,183.97	0.04%	1.60%	5.49%	7.14%	0.0030%
ALLSTATE CORP	ALL	25,273.53	0.13%	1.96%	8.25%	10.29%	0.0135%
ALLEGION PLC	ALLE	6,475.43	0.03%	0.72%	13.57%	14.34%	0.0048%
ALEXION PHARMACEUTICALS INC	ALXN	33,804.64	0.18%	0.00%	26.10%	26.10%	0.0458%
APPLIED MATERIALS INC	AMAT	26,596.89	0.14%	1.66%	15.43%	17.22%	0.0238%
AMETEK INC	AME	11,161.67	0.06%	0.83%	10.30%	11.18%	0.0065%
AFFILIATED MANAGERS GROUP	AMG	9,337.38	0.05%	0.00%	13.91%	13.91%	0.0067%
AMGEN INC	AMGN	118,654.74	0.62%	2.52%	7.97%	10.59%	0.0653%
AMERIPRISE FINANCIAL INC	AMP	16,858.25	0.09%	2.85%	11.00%	14.00%	0.0123%
AMERICAN TOWER CORP	AMT	44,916.81	0.23%	2.05%	20.41%	22.68%	0.0529%
AMAZON.COM INC	AMZN	341,032.53	1.77%	0.00%	50.75%	50.75%	0.8992%
AUTONATION INC	AN	5,200.55	0.03%	0.00%	8.64%	8.64%	0.0023%
ANTHEM INC	ANTM	34,751.87	0.18%	1.97%	8.91%	10.96%	0.0198%
AON PLC	AON	28,948.00	0.15%	1.19%	11.23%	12.48%	0.0188%
APACHE CORP	APA	21,629.41	0.11%	1.76%	7.00%	8.82%	0.0099%
ANADARKO PETROLEUM CORP	APC	26,470.72	0.14%	0.39%	0.46%	0.84%	0.0012%
AIR PRODUCTS & CHEMICALS INC	APD	30,821.82	0.16%	2.33%	8.17%	10.60%	0.0170%
AMPHENOL CORP-CL A	APH	18,081.48	0.09%	0.98%	9.26%	10.29%	0.0097%
ACTIVISION BLIZZARD INC	ATVI	28,982.82	0.15%	0.66%	12.00%	12.70%	0.0191%
AVALONBAY COMMUNITIES INC	AVB	24,672.79	0.13%	2.99%	7.42%	10.53%	0.0135%
BROADCOM LTD	AVGO	60,269.55	0.31%	1.20%	15.14%	16.43%	0.0515%
AVERY DENNISON CORP	AVY	6,632.91	0.03%	2.20%	8.20%	10.49%	0.0036%
AMERICAN WATER WORKS CO INC	AWK	13,168.64	0.07%	1.99%	7.34%	9.41%	0.0064%
AMERICAN EXPRESS CO	AXP	62,539.94	0.32%	1.85%	8.20%	10.12%	0.0329%
ACUITY BRANDS INC	AYI	11,352.59	0.06%	0.20%	19.60%	19.82%	0.0117%
AUTOZONE INC	AZO	22,758.45	0.12%	0.00%	11.93%	11.93%	0.0141%
BOEING CO/THE	BA	80,358.96	0.42%	3.46%	12.08%	15.75%	0.0658%
BANK OF AMERICA CORP	BAC	151,921.63	0.79%	1.81%	7.90%	9.78%	0.0772%
BAXTER INTERNATIONAL INC	BAX	23,835.66	0.12%	1.11%	10.50%	11.67%	0.0145%
BED BATH & BEYOND INC	BBBY	6,907.91	0.04%	1.04%	6.76%	7.83%	0.0028%
BB&T CORP	BBT	29,534.20	0.15%	3.10%	5.60%	8.78%	0.0135%
BEST BUY CO INC	BBY	10,426.60	0.05%	3.97%	10.18%	14.35%	0.0078%
CR BARD INC	BCR	16,059.73	0.08%	0.45%	10.75%	11.22%	0.0094%
BECTON DICKINSON AND CO	BDX	35,321.02	0.18%	1.59%	11.51%	13.19%	0.0242%
FRANKLIN RESOURCES INC	BEN	21,847.19	0.11%	1.93%	6.19%	8.18%	0.0093%

BROWN-FORMAN CORP-CLASS B	BF/B	20,207.95	0.10%	1.35%	6.92%	8.31%	0.0087%
BAKER HUGHES INC	BHI	20,310.44	0.11%	1.47%	14.00%	15.57%	0.0164%
BIOGEN INC	BIIB	63,465.79	0.33%	0.00%	8.27%	8.27%	0.0273%
BANK OF NEW YORK MELLON CORP	BK	45,302.10	0.24%	1.75%	9.57%	11.40%	0.0268%
BLACKROCK INC	BLK	60,018.36	0.31%	2.52%	13.54%	16.22%	0.0506%
BALL CORP	BLL	10,251.93	0.05%	0.71%	4.40%	5.13%	0.0027%
BRISTOL-MYERS SQUIBB CO	BMJ	119,689.33	0.62%	2.13%	20.56%	22.91%	0.1425%
BERKSHIRE HATHAWAY INC-CL B	BRK/B	347,227.31	1.80%	0.00%	7.10%	7.10%	0.1281%
BOSTON SCIENTIFIC CORP	BSX	30,814.45	0.16%	0.00%	11.26%	11.26%	0.0180%
BORGWARNER INC	BWA	7,405.58	0.04%	1.54%	12.79%	14.42%	0.0055%
BAXALTA INC	BXLT	30,916.51	N/A	0.64%	NA	N/A	N/A
BOSTON PROPERTIES INC	BXP	19,298.19	0.10%	2.29%	6.55%	8.92%	0.0089%
CITIGROUP INC	C	136,679.65	0.71%	0.83%	9.91%	10.78%	0.0766%
CA INC	CA	13,470.10	0.07%	3.20%	5.50%	8.78%	0.0061%
CONAGRA FOODS INC	CAG	19,944.16	0.10%	2.18%	7.75%	10.02%	0.0104%
CARDINAL HEALTH INC	CAH	25,723.12	0.13%	1.76%	12.00%	13.86%	0.0185%
CATERPILLAR INC	CAT	42,337.98	0.22%	4.29%	7.23%	11.67%	0.0257%
CHUBB LTD	CB	58,807.62	0.31%	2.17%	9.50%	11.77%	0.0360%
CBRE GROUP INC - A	CBG	10,012.76	0.05%	0.00%	12.50%	12.50%	0.0065%
CBS CORP-CLASS B NON VOTING	CBS	25,141.75	0.13%	1.18%	17.77%	19.06%	0.0249%
CROWN CASTLE INTL CORP	CCI	30,653.80	0.16%	3.95%	15.50%	19.76%	0.0315%
CARNIVAL CORP	CCL	36,239.23	0.19%	2.58%	17.01%	19.80%	0.0373%
CELGENE CORP	CELG	81,735.95	0.42%	0.00%	22.37%	22.37%	0.0950%
CERNER CORP	CERN	18,800.73	0.10%	0.00%	16.30%	16.30%	0.0159%
CF INDUSTRIES HOLDINGS INC	CF	6,447.37	0.03%	4.35%	17.15%	21.87%	0.0073%
CITIZENS FINANCIAL GROUP	CFG	12,457.48	0.06%	1.99%	9.00%	11.08%	0.0072%
CHURCH & DWIGHT CO INC	CHD	12,637.95	0.07%	1.44%	9.29%	10.80%	0.0071%
CHESAPEAKE ENERGY CORP	CHK	2,936.96	0.02%	0.00%	-3.63%	-3.63%	-0.0006%
C.H. ROBINSON WORLDWIDE INC	CHRW	10,704.64	0.06%	2.32%	10.28%	12.72%	0.0071%
CIGNA CORP	CI	32,861.89	0.17%	0.03%	8.62%	8.66%	0.0148%
CINCINNATI FINANCIAL CORP	CINF	11,365.54	N/A	0.00%	NA	N/A	N/A
COLGATE-PALMOLIVE CO	CL	62,877.38	0.33%	2.23%	9.08%	11.42%	0.0373%
CLOROX COMPANY	CLX	16,625.42	0.09%	2.42%	6.58%	9.06%	0.0078%
COMERICA INC	CMA	8,248.81	0.04%	1.84%	6.55%	8.45%	0.0036%
COMCAST CORP-CLASS A	CMCSA	153,641.48	0.80%	1.75%	11.35%	13.20%	0.1054%
CME GROUP INC	CME	33,149.76	0.17%	5.37%	13.12%	18.84%	0.0325%
CHIPOTLE MEXICAN GRILL INC	CMG	12,905.86	0.07%	0.00%	16.88%	16.88%	0.0113%
CUMMINS INC	CMI	19,501.06	0.10%	3.46%	4.26%	7.80%	0.0079%
CMS ENERGY CORP	CMS	11,708.00	0.06%	2.97%	6.00%	9.05%	0.0055%
CENTENE CORP	CNC	10,628.99	0.06%	0.00%	17.17%	17.17%	0.0095%
CENTERPOINT ENERGY INC	CNP	9,701.86	0.05%	4.58%	4.00%	8.68%	0.0044%
CAPITAL ONE FINANCIAL CORP	COF	37,505.16	0.19%	2.32%	6.74%	9.14%	0.0178%
CABOT OIL & GAS CORP	COG	11,146.06	0.06%	0.34%	40.79%	41.19%	0.0239%
COACH INC	COH	10,959.93	0.06%	3.42%	10.96%	14.58%	0.0083%
ROCKWELL COLLINS INC	COL	11,509.17	0.06%	1.53%	8.32%	9.92%	0.0059%
CONOCOPHILLIPS	COP	54,228.98	0.28%	2.29%	6.67%	9.03%	0.0254%
COSTCO WHOLESALE CORP	COST	65,315.25	0.34%	1.14%	10.79%	11.99%	0.0407%
CAMPBELL SOUP CO	CPB	18,725.03	0.10%	2.23%	7.32%	9.62%	0.0094%
COLUMBIA PIPELINE GROUP	CPGX	10,226.25	N/A	2.20%	NA	N/A	N/A
SALESFORCE.COM INC	CRM	56,713.53	0.29%	0.00%	25.39%	25.39%	0.0748%
CISCO SYSTEMS INC	CSCO	146,113.13	0.76%	3.24%	8.77%	12.14%	0.0922%
CSRA INC	CSRA	4,044.96	0.02%	1.61%	10.00%	11.70%	0.0025%
CSX CORP	CSX	25,263.57	0.13%	2.81%	5.87%	8.76%	0.0115%
CINTAS CORP	CTAS	10,143.90	0.05%	1.12%	11.95%	13.13%	0.0069%
CENTURYLINK INC	CTL	14,808.93	0.08%	7.96%	-1.19%	6.73%	0.0052%
COGNIZANT TECH SOLUTIONS-A	CTSH	37,224.62	0.19%	0.00%	13.78%	13.78%	0.0267%
CITRIX SYSTEMS INC	CTXS	13,171.26	0.07%	0.00%	16.70%	16.70%	0.0114%
CABLEVISION SYSTEMS-NY GRP-A	CVC	9,583.01	0.05%	0.00%	9.25%	9.25%	0.0046%
CVS HEALTH CORP	CVS	103,589.43	0.54%	1.71%	14.04%	15.87%	0.0854%
CHEVRON CORP	CVX	190,354.94	0.99%	4.26%	7.38%	11.79%	0.1166%
CONCHO RESOURCES INC	CXO	15,962.36	0.08%	0.00%	25.00%	25.00%	0.0207%
DOMINION RESOURCES INC/VA	D	44,521.77	0.23%	3.86%	6.60%	10.59%	0.0245%
DELTA AIR LINES INC	DAL	33,533.40	0.17%	1.35%	18.50%	19.97%	0.0348%
DU PONT (E.I.) DE NEMOURS	DD	57,136.42	0.30%	2.42%	8.25%	10.77%	0.0320%
DEERE & CO	DE	25,860.36	0.13%	2.93%	7.44%	10.48%	0.0141%
DISCOVER FINANCIAL SERVICES	DFS	23,418.52	0.12%	2.11%	9.90%	12.11%	0.0147%
DOLLAR GENERAL CORP	DG	25,511.67	0.13%	0.91%	13.85%	14.82%	0.0196%
QUEST DIAGNOSTICS INC	DGX	10,916.25	0.06%	2.06%	8.91%	11.05%	0.0063%
DR HORTON INC	DHI	11,335.48	0.06%	1.05%	15.28%	16.41%	0.0097%
DANAHER CORP	DHR	67,740.08	0.35%	0.63%	11.98%	12.65%	0.0445%
WALT DISNEY CO/THE	DIS	160,978.57	0.84%	1.47%	10.08%	11.62%	0.0972%
DISCOVERY COMMUNICATIONS-A	DISCA	16,825.71	0.09%	0.00%	13.45%	13.45%	0.0118%
DELPHI AUTOMOTIVE PLC	DLPH	18,551.52	0.10%	1.71%	10.08%	11.88%	0.0115%
DIGITAL REALTY TRUST INC	DLR	15,207.71	0.08%	3.69%	6.88%	10.69%	0.0085%
DOLLAR TREE INC	DLTR	21,328.09	0.11%	0.00%	17.67%	17.67%	0.0196%
DUN & BRADSTREET CORP	DNB	4,601.19	0.02%	1.52%	11.75%	13.36%	0.0032%
DIAMOND OFFSHORE DRILLING	DO	3,541.72	N/A	0.00%	NA	N/A	N/A
DOVER CORP	DOV	10,356.18	0.05%	2.58%	10.48%	13.19%	0.0071%
DOW CHEMICAL CO/THE	DOW	57,868.44	0.30%	3.62%	6.00%	9.73%	0.0291%

DR PEPPER SNAPPLE GROUP INC	DPS	16,983.22	0.09%	2.30%	13.24%	15.70%	0.0138%
DARDEN RESTAURANTS INC	DRI	8,595.80	0.04%	3.01%	14.06%	17.28%	0.0077%
DTE ENERGY COMPANY	DTE	16,271.20	0.08%	3.30%	5.54%	8.94%	0.0076%
DUKE ENERGY CORP	DUK	53,884.27	0.28%	4.34%	4.71%	9.15%	0.0256%
DAVITA HEALTHCARE PARTNERS I	DVA	15,966.58	0.08%	0.00%	11.36%	11.36%	0.0094%
DEVON ENERGY CORP	DVN	18,911.16	0.10%	1.16%	8.23%	9.44%	0.0093%
ELECTRONIC ARTS INC	EA	23,148.54	0.12%	0.00%	11.27%	11.27%	0.0136%
EBAY INC	EBAY	28,102.20	0.15%	0.00%	8.89%	8.89%	0.0130%
ECOLAB INC	ECL	34,387.10	0.18%	1.22%	12.36%	13.66%	0.0244%
CONSOLIDATED EDISON INC	ED	22,282.79	0.12%	3.66%	3.14%	6.86%	0.0079%
EQUIFAX INC	EFX	14,963.62	0.08%	1.05%	12.23%	13.35%	0.0104%
EDISON INTERNATIONAL	EIX	23,337.86	0.12%	2.69%	4.76%	7.51%	0.0091%
ESTEE LAUDER COMPANIES-CL A	EL	33,888.65	0.18%	1.24%	11.86%	13.17%	0.0232%
EMC CORP/MA	EMC	54,591.85	0.28%	1.73%	10.78%	12.60%	0.0357%
EASTMAN CHEMICAL CO	EMN	10,845.30	0.06%	2.50%	5.50%	8.07%	0.0045%
EMERSON ELECTRIC CO	EMR	33,467.12	0.17%	3.65%	7.33%	11.11%	0.0193%
ENDO INTERNATIONAL PLC	ENDP	3,520.28	0.02%	0.00%	4.70%	4.70%	0.0009%
EOG RESOURCES INC	EOG	44,770.50	0.23%	0.79%	-16.56%	-15.83%	-0.0368%
EQUINIX INC	EQIX	25,133.33	0.13%	1.94%	22.05%	24.20%	0.0316%
EQUITY RESIDENTIAL	EQR	25,296.40	0.13%	18.81%	6.43%	25.85%	0.0340%
EQT CORP	EQT	12,652.99	0.07%	0.16%	25.00%	25.18%	0.0166%
EVERSOURCE ENERGY	ES	17,522.52	0.09%	3.23%	7.13%	10.47%	0.0095%
EXPRESS SCRIPTS HOLDING CO	ESRX	47,788.09	0.25%	0.00%	13.80%	13.80%	0.0343%
ESSEX PROPERTY TRUST INC	ESS	14,867.68	0.08%	2.80%	6.83%	9.72%	0.0075%
E*TRADE FINANCIAL CORP	ETFC	7,773.74	0.04%	0.03%	18.07%	18.10%	0.0073%
EATON CORP PLC	ETN	28,226.54	0.15%	3.73%	8.42%	12.31%	0.0180%
ENERGY CORP	ETR	13,570.01	0.07%	4.52%	0.75%	5.29%	0.0037%
EDWARDS LIFSCIENCES CORP	EW	20,858.63	0.11%	0.00%	17.60%	17.60%	0.0191%
EXELON CORP	EXC	31,586.48	0.16%	3.69%	4.57%	8.35%	0.0137%
EXPEDITORS INTL WASH INC	EXPD	8,838.97	0.05%	1.57%	8.53%	10.17%	0.0047%
EXPEDIA INC	EXPE	16,586.28	0.09%	0.77%	22.29%	23.14%	0.0199%
EXTRA SPACE STORAGE INC	EXR	11,640.56	0.06%	2.87%	7.03%	10.00%	0.0060%
FORD MOTOR CO	F	53,593.55	0.28%	5.05%	6.67%	11.89%	0.0331%
FASTENAL CO	FAST	13,297.30	0.07%	2.61%	12.68%	15.45%	0.0107%
FACEBOOK INC-A	FB	340,177.47	1.77%	0.00%	31.34%	31.34%	0.5539%
FREEPORT-MCMORAN INC	FCX	13,873.73	0.07%	0.00%	-146.00%	-146.00%	-0.1052%
FEDEX CORP	FDX	44,281.87	0.23%	0.61%	13.06%	13.70%	0.0315%
FIRSTENERGY CORP	FE	13,934.81	0.07%	4.39%	0.09%	4.48%	0.0032%
F5 NETWORKS INC	FFIV	7,381.34	0.04%	0.00%	13.18%	13.18%	0.0051%
FIDELITY NATIONAL INFO SERV	FIS	24,245.73	0.13%	1.42%	12.00%	13.51%	0.0170%
FISERV INC	FISV	23,418.01	0.12%	0.00%	12.74%	12.74%	0.0155%
FIFTH THIRD BANCORP	FITB	14,486.84	0.08%	2.90%	3.83%	6.79%	0.0051%
FOOT LOCKER INC	FL	7,610.40	0.04%	1.97%	10.44%	12.51%	0.0049%
FLIR SYSTEMS INC	FLIR	4,287.23	0.02%	1.48%	15.00%	16.59%	0.0037%
FLUOR CORP	FLR	7,348.57	0.04%	1.59%	1.36%	2.96%	0.0011%
FLOWSERVE CORP	FLS	6,274.56	0.03%	1.58%	11.67%	13.34%	0.0043%
FMC CORP	FMC	6,351.86	0.03%	1.42%	9.53%	11.02%	0.0036%
TWENTY-FIRST CENTURY FOX - B	FOX	54,993.32	0.29%	1.09%	13.84%	15.01%	0.0429%
FEDERAL REALTY INVS TRUST	FRT	10,861.80	0.06%	2.52%	6.26%	8.85%	0.0050%
FIRST SOLAR INC	FSLR	5,076.47	0.03%	0.00%	5.50%	5.50%	0.0015%
FMC TECHNOLOGIES INC	FTI	6,163.66	0.03%	0.00%	-8.10%	-8.10%	-0.0026%
FRONTIER COMMUNICATIONS CORP	FTR	6,064.80	0.03%	8.12%	11.55%	20.14%	0.0063%
AGL RESOURCES INC	GAS	7,940.75	0.04%	3.22%	6.00%	9.32%	0.0038%
GENERAL DYNAMICS CORP	GD	43,362.14	0.23%	2.06%	7.65%	9.79%	0.0221%
GENERAL ELECTRIC CO	GE	277,984.71	1.44%	3.08%	9.98%	13.21%	0.1909%
GENERAL GROWTH PROPERTIES	GGP	23,731.49	0.12%	2.88%	6.92%	9.89%	0.0122%
GILEAD SCIENCES INC	GILD	115,948.38	0.60%	2.11%	1.46%	3.59%	0.0216%
GENERAL MILLS INC	GIS	37,316.53	0.19%	2.81%	10.16%	13.11%	0.0254%
CORNING INC	GLW	22,464.03	0.12%	2.60%	12.34%	15.10%	0.0176%
GENERAL MOTORS CO	GM	48,165.74	0.25%	4.84%	9.58%	14.65%	0.0367%
ALPHABET INC-CL C	GOOG	509,292.95	2.65%	0.00%	15.66%	15.66%	0.4144%
GENUINE PARTS CO	GPC	14,501.47	0.08%	2.72%	6.33%	9.13%	0.0069%
GLOBAL PAYMENTS INC	GPN	11,964.31	0.06%	0.07%	13.44%	13.51%	0.0084%
GAP INC/THE	GPS	7,157.74	0.04%	5.07%	8.05%	13.32%	0.0050%
GARMIN LTD	GRMN	8,038.57	0.04%	4.82%	7.43%	12.43%	0.0052%
GOLDMAN SACHS GROUP INC	GS	69,246.38	0.38%	1.70%	15.15%	16.98%	0.0611%
GOODYEAR TIRE & RUBBER CO	GT	7,438.46	0.04%	1.01%	7.00%	8.05%	0.0031%
WW GRAINGER INC	GWW	14,002.92	0.07%	2.14%	9.36%	11.60%	0.0084%
HALLIBURTON CO	HAL	36,243.80	0.19%	1.71%	13.15%	14.97%	0.0282%
HARMAN INTERNATIONAL	HAR	5,520.20	0.03%	1.81%	17.50%	19.47%	0.0056%
HASBRO INC	HAS	10,885.24	0.06%	2.34%	10.40%	12.86%	0.0073%
HUNTINGTON BANCSHARES INC	HBAN	8,348.16	0.04%	2.78%	5.88%	8.74%	0.0038%
HANESBRANDS INC	HBI	10,219.40	0.05%	1.62%	16.58%	18.33%	0.0097%
HCA HOLDINGS INC	HCA	30,510.03	0.16%	0.00%	10.75%	10.75%	0.0170%
WELLTOWER INC	HCN	24,600.53	0.13%	4.96%	4.67%	9.75%	0.0125%
HCP INC	HCP	15,353.17	0.08%	6.94%	1.22%	8.20%	0.0065%
HOME DEPOT INC	HD	164,358.25	0.85%	1.94%	13.47%	15.54%	0.1327%
HESS CORP	HES	18,980.99	0.10%	1.64%	-20.09%	-18.62%	-0.0184%
HARTFORD FINANCIAL SVCS GRP	HIG	17,769.20	0.09%	1.95%	9.33%	11.37%	0.0105%

HARLEY-DAVIDSON INC	HOG	8,400.77	0.04%	2.99%	11.08%	14.23%	0.0062%
HOLOGIC INC	HOLX	9,594.53	0.05%	0.00%	8.94%	8.94%	0.0045%
HONEYWELL INTERNATIONAL INC	HON	86,751.60	0.45%	2.16%	9.32%	11.58%	0.0522%
STARWOOD HOTELS & RESORTS	HOT	12,449.15	0.06%	2.04%	7.26%	9.37%	0.0061%
HELMERICH & PAYNE	HP	6,606.60	0.03%	4.51%	-1.40%	3.08%	0.0011%
HEWLETT PACKARD ENTERPRIS	HPE	31,704.94	0.16%	1.19%	6.42%	7.65%	0.0126%
HP INC	HPQ	23,102.68	0.12%	3.84%	3.76%	7.68%	0.0092%
H&R BLOCK INC	HRB	4,793.31	0.02%	3.81%	11.00%	15.02%	0.0037%
HORMEL FOODS CORP	HRL	18,234.46	0.09%	1.88%	5.90%	7.84%	0.0074%
HARRIS CORP	HRS	9,824.66	N/A	2.51%	NA	N/A	N/A
HENRY SCHEIN INC	HSIC	14,257.39	0.07%	0.00%	11.53%	11.53%	0.0085%
HOST HOTELS & RESORTS INC	HST	11,508.66	0.06%	5.40%	5.00%	10.54%	0.0063%
HERSHEY CO/THE	HSY	19,811.67	0.10%	2.54%	9.18%	11.83%	0.0122%
HUMANA INC	HUM	25,710.31	0.13%	0.69%	13.14%	13.88%	0.0185%
INTL BUSINESS MACHINES CORP	IBM	147,584.54	0.77%	3.48%	3.54%	7.09%	0.0543%
INTERCONTINENTAL EXCHANGE IN	ICE	32,275.65	0.17%	1.25%	13.67%	15.01%	0.0252%
INTL FLAVORS & FRAGRANCES	IFF	10,283.09	0.05%	1.76%	10.50%	12.36%	0.0066%
ILLUMINA INC	ILMN	21,318.98	0.11%	0.00%	14.48%	14.48%	0.0160%
INTEL CORP	INTC	149,167.98	0.78%	3.28%	8.52%	11.94%	0.0925%
INTUIT INC	INTU	27,291.23	0.14%	1.13%	17.11%	18.33%	0.0260%
INTERNATIONAL PAPER CO	IP	17,335.11	0.09%	4.22%	7.50%	11.88%	0.0107%
INTERPUBLIC GROUP OF COS INC	IPG	9,617.48	0.05%	2.45%	8.00%	10.55%	0.0053%
INGERSOLL-RAND PLC	IR	17,201.15	0.09%	1.92%	9.63%	11.64%	0.0104%
IRON MOUNTAIN INC	IRM	7,787.12	0.04%	5.17%	9.40%	14.81%	0.0060%
INTUITIVE SURGICAL INC	ISRG	24,157.29	0.13%	0.00%	13.07%	13.07%	0.0164%
ILLINOIS TOOL WORKS	ITW	38,104.04	0.20%	2.15%	7.85%	10.08%	0.0200%
INVESCO LTD	IVZ	13,102.16	0.07%	3.59%	11.28%	15.07%	0.0103%
HUNT (JB) TRANSPRT SVCS INC	JBHT	9,318.77	0.05%	1.06%	13.74%	14.87%	0.0072%
JOHNSON CONTROLS INC	JCI	28,625.54	0.15%	2.59%	9.20%	11.91%	0.0177%
JACOBS ENGINEERING GROUP INC	JEC	6,180.39	0.03%	0.00%	6.55%	6.55%	0.0021%
JOHNSON & JOHNSON	JNJ	309,970.10	1.61%	2.80%	6.04%	8.92%	0.1436%
JUNIPER NETWORKS INC	JNPR	8,988.15	0.05%	1.81%	9.63%	11.53%	0.0054%
JPMORGAN CHASE & CO	JPM	238,670.13	1.24%	2.83%	4.21%	7.10%	0.0860%
NORDSTROM INC	JWN	6,567.51	0.03%	4.05%	7.68%	11.89%	0.0041%
KELLOGG CO	K	26,033.08	0.14%	2.77%	5.82%	8.67%	0.0117%
KEYCORP	KEY	10,799.22	0.06%	2.63%	6.33%	9.04%	0.0051%
KRAFT HEINZ CO/THE	KHC	101,155.32	0.53%	2.87%	21.69%	24.87%	0.1307%
KIMCO REALTY CORP	KIM	11,825.71	0.06%	3.66%	5.67%	9.44%	0.0058%
KLA-TENCOR CORP	KLAC	11,355.81	0.08%	2.88%	5.55%	8.51%	0.0050%
KIMBERLY-CLARK CORP	KMB	45,750.64	0.24%	2.89%	7.64%	10.64%	0.0253%
KINDER MORGAN INC	KMI	40,346.53	0.21%	2.77%	14.65%	17.62%	0.0369%
CARMAX INC	KMX	10,382.09	0.05%	0.00%	13.55%	13.55%	0.0073%
COCA-COLA CO/THE	KO	192,948.46	1.00%	3.12%	5.72%	8.93%	0.0895%
MICHAEL KORS HOLDINGS LTD	KORS	7,665.29	0.04%	0.00%	4.52%	4.52%	0.0018%
KROGER CO	KR	34,107.41	0.18%	1.22%	9.90%	11.19%	0.0198%
KOHL'S CORP	KSS	6,673.49	0.03%	5.61%	3.75%	9.47%	0.0033%
KANSAS CITY SOUTHERN	KSU	10,053.65	0.05%	1.45%	7.78%	9.28%	0.0048%
LOEWS CORP	L	13,723.38	N/A	0.62%	NA	N/A	N/A
L BRANDS INC	LB	19,674.12	0.10%	6.45%	10.94%	17.74%	0.0181%
LEGGETT & PLATT INC	LEG	6,751.22	0.04%	2.60%	10.00%	12.73%	0.0045%
LENNAR CORP-A	LEN	9,503.49	0.05%	0.35%	8.75%	9.12%	0.0045%
LABORATORY CRP OF AMER HLDGS	LH	13,102.08	0.07%	0.00%	11.29%	11.29%	0.0077%
LKQ CORP	LKQ	10,141.88	0.05%	0.00%	15.47%	15.47%	0.0082%
L-3 COMMUNICATIONS HOLDINGS	LLL	10,558.68	0.05%	2.07%	9.94%	12.12%	0.0066%
LINEAR TECHNOLOGY CORP	LLTC	11,314.13	0.06%	2.62%	6.91%	9.92%	0.0057%
ELI LILLY & CO	LLY	82,820.89	0.43%	2.73%	11.52%	14.40%	0.0620%
LEGG MASON INC	LM	3,636.38	0.02%	2.64%	18.36%	21.25%	0.0040%
LOCKHEED MARTIN CORP	LMT	71,920.94	0.37%	2.86%	7.61%	10.57%	0.0395%
LINCOLN NATIONAL CORP	LNC	10,958.48	0.08%	2.22%	11.80%	14.15%	0.0081%
LOWE'S COS INC	LOW	71,911.76	0.37%	1.53%	16.56%	18.22%	0.0681%
LAM RESEARCH CORP	LRCX	13,216.28	0.07%	1.44%	9.72%	11.22%	0.0077%
LEUCADIA NATIONAL CORP	LUK	6,558.18	0.03%	1.38%	18.00%	19.51%	0.0068%
SOUTHWEST AIRLINES CO	LUV	27,131.42	0.14%	0.85%	9.08%	9.97%	0.0141%
LEVEL 3 COMMUNICATIONS INC	LVLT	19,310.48	0.10%	0.00%	-0.69%	-0.69%	-0.0007%
LYONDELLBASELL INDU-CL A	LYB	34,718.52	0.18%	4.19%	5.67%	9.97%	0.0180%
MACY'S INC	M	10,241.96	0.05%	4.55%	9.67%	14.44%	0.0077%
MASTERCARD INC-CLASS A	MA	105,365.08	0.55%	0.83%	15.00%	15.89%	0.0870%
MACERICH CO/THE	MAC	11,332.96	0.06%	5.85%	7.12%	13.18%	0.0078%
MARRIOTT INTERNATIONAL -CL A	MAR	16,789.46	0.09%	1.62%	11.96%	13.67%	0.0119%
MASCO CORP	MAS	10,860.83	0.06%	1.17%	14.48%	15.73%	0.0089%
MATTEL INC	MAT	10,853.41	0.06%	4.77%	10.15%	15.16%	0.0085%
MCDONALD'S CORP	MCD	107,151.29	0.56%	3.00%	10.31%	13.47%	0.0750%
MICROCHIP TECHNOLOGY INC	MCHP	11,101.65	0.06%	2.71%	9.64%	12.48%	0.0072%
MCKESSON CORP	MCK	41,210.26	0.21%	0.63%	12.70%	13.37%	0.0286%
MOODY'S CORP	MCO	19,165.75	0.10%	1.46%	11.00%	12.55%	0.0125%
MONDELEZ INTERNATIONAL INC-A	MDLZ	69,051.18	0.36%	1.54%	12.99%	14.63%	0.0525%
MEDTRONIC PLC	MDT	112,755.96	0.59%	2.13%	8.49%	10.71%	0.0628%
METLIFE INC	MET	50,044.27	0.26%	3.55%	7.10%	10.77%	0.0280%
MOHAWK INDUSTRIES INC	MHK	14,573.02	0.08%	0.00%	11.10%	11.10%	0.0084%

MEAD JOHNSON NUTRITION CO	MJN	15,358.71	0.08%	2.15%	9.84%	12.09%	0.0096%
MCCORMICK & CO-NON VTG SHRS	MKC	12,331.70	0.06%	1.76%	9.10%	10.94%	0.0070%
MARTIN MARIETTA MATERIALS	MLM	12,009.18	0.06%	0.86%	22.16%	23.11%	0.0144%
MARSH & MCLENNAN COS	MMC	34,437.87	0.18%	1.99%	11.62%	13.72%	0.0246%
3M CO	MMM	102,088.53	0.53%	2.64%	9.10%	11.86%	0.0629%
MALLINCKRODT PLC	MNK	6,926.86	0.04%	0.00%	9.15%	9.15%	0.0033%
MONSTER BEVERAGE CORP	MNST	30,456.40	0.16%	0.00%	18.96%	18.96%	0.0300%
ALTRIA GROUP INC	MO	124,506.88	0.65%	3.74%	7.65%	11.53%	0.0746%
MONSANTO CO	MON	49,131.96	0.26%	1.93%	7.85%	9.86%	0.0252%
MOSAIC CO/THE	MOS	8,825.87	0.05%	4.36%	0.85%	5.23%	0.0024%
MARATHON PETROLEUM CORP	MPC	18,454.15	0.10%	3.81%	8.35%	12.32%	0.0118%
MERCK & CO. INC.	MRK	155,729.11	0.81%	3.27%	5.70%	9.06%	0.0733%
MARATHON OIL CORP	MRO	11,078.76	0.06%	1.53%	-2.44%	-0.93%	-0.0005%
MORGAN STANLEY	MS	53,016.36	0.28%	2.47%	6.43%	8.98%	0.0247%
MICROSOFT CORP	MSFT	416,604.74	2.16%	2.66%	8.46%	11.23%	0.2432%
MOTOROLA SOLUTIONS INC	MSI	12,094.84	0.06%	2.37%	5.28%	7.70%	0.0048%
M & T BANK CORP	MTB	19,000.38	0.10%	2.37%	5.45%	7.88%	0.0078%
MICRON TECHNOLOGY INC	MU	13,191.19	0.07%	0.00%	6.10%	6.10%	0.0042%
MURPHY OIL CORP	MUR	5,322.55	N/A	4.50%	NA	N/A	N/A
MYLAN NV	MYL	22,032.66	0.11%	0.00%	9.42%	9.42%	0.0108%
NAVIENT CORP	NAVI	4,531.34	N/A	4.72%	NA	N/A	N/A
NOBLE ENERGY INC	NBL	15,357.92	0.08%	1.12%	10.00%	11.17%	0.0089%
NASDAQ INC	NDAQ	10,859.61	0.06%	1.79%	7.92%	9.78%	0.0055%
NEXTERA ENERGY INC	NEE	55,428.89	0.29%	2.90%	6.42%	9.42%	0.0271%
NEWMONT MINING CORP	NEM	17,194.51	0.09%	0.32%	6.13%	6.47%	0.0058%
NETFLIX INC	NFLX	43,930.61	0.23%	0.00%	35.50%	35.50%	0.0810%
NEWFIELD EXPLORATION CO	NFX	8,092.25	0.04%	0.00%	16.49%	16.49%	0.0069%
NISOURCE INC	NI	7,672.05	N/A	2.67%	NA	N/A	N/A
NIKE INC -CL B	NKE	93,030.34	0.48%	1.11%	13.91%	15.10%	0.0730%
NIELSEN HOLDINGS PLC	NLSN	19,263.38	0.10%	2.27%	12.33%	14.75%	0.0148%
NORTHROP GRUMMAN CORP	NOC	38,376.65	0.20%	1.61%	7.54%	9.21%	0.0184%
NATIONAL OILWELL VARCO INC	NOV	12,424.16	0.06%	1.85%	-9.35%	-7.59%	-0.0049%
NRG ENERGY INC	NRG	5,158.19	0.03%	1.20%	-27.35%	-26.32%	-0.0071%
NORFOLK SOUTHERN CORP	NSC	24,859.72	0.13%	2.86%	11.77%	14.80%	0.0191%
NETAPP INC	NTAP	7,380.29	0.04%	2.95%	8.97%	12.05%	0.0046%
NORTHERN TRUST CORP	NTRS	16,906.93	0.09%	2.01%	11.45%	13.57%	0.0119%
NUCOR CORP	NUE	15,422.72	0.08%	3.09%	8.20%	11.42%	0.0092%
NVIDIA CORP	NVDA	24,948.48	0.13%	0.99%	9.67%	10.70%	0.0139%
NEWELL BRANDS INC	NWL	22,793.52	0.12%	1.58%	13.77%	15.46%	0.0183%
NEWS CORP - CLASS A	NWSA	7,012.47	0.04%	1.67%	8.89%	10.64%	0.0039%
REALTY INCOME CORP	O	15,481.05	0.08%	3.99%	3.67%	7.73%	0.0062%
OWENS-ILLINOIS INC	OI	3,060.27	0.02%	0.00%	7.00%	7.00%	0.0011%
ONEOK INC	OKE	9,087.02	0.05%	5.69%	7.30%	13.20%	0.0062%
OMNICOM GROUP	OMC	19,811.70	0.10%	2.58%	6.45%	9.11%	0.0094%
ORACLE CORP	ORCL	166,824.57	0.87%	1.49%	7.69%	9.24%	0.0801%
O'REILLY AUTOMOTIVE INC	ORLY	25,505.82	0.13%	0.00%	15.54%	15.54%	0.0206%
OCCIDENTAL PETROLEUM CORP	OXY	57,616.66	0.30%	4.00%	8.00%	12.16%	0.0364%
PAYCHEX INC	PAYX	19,525.76	0.10%	3.10%	9.78%	13.02%	0.0132%
PEOPLE'S UNITED FINANCIAL	PBCT	4,936.47	N/A	4.27%	NA	N/A	N/A
PITNEY BOWES INC	PBI	3,514.00	0.02%	4.03%	14.00%	18.31%	0.0033%
PACCAR INC	PCAR	19,538.30	0.10%	3.42%	7.83%	11.39%	0.0116%
P G & E CORP	PCG	29,802.22	0.15%	3.22%	3.00%	6.27%	0.0097%
PRICELINE GROUP INC/THE	PCLN	62,760.56	0.33%	0.00%	18.10%	18.10%	0.0590%
PATTERSON COS INC	PDCO	4,836.53	0.03%	2.06%	7.67%	9.80%	0.0025%
PUBLIC SERVICE ENTERPRISE GP	PEG	22,640.34	0.12%	3.67%	3.43%	7.16%	0.0084%
PEPSICO INC	PEP	146,131.67	0.76%	2.93%	6.42%	9.44%	0.0717%
PFIZER INC	PFE	210,450.27	1.09%	3.45%	6.20%	9.75%	0.1067%
PRINCIPAL FINANCIAL GROUP	PFGB	12,915.84	0.07%	3.54%	8.14%	11.82%	0.0079%
PROCTER & GAMBLE CO/THE	PG	215,716.48	1.12%	3.31%	6.25%	9.66%	0.1083%
PROGRESSIVE CORP	PGR	19,413.78	0.10%	1.87%	8.84%	10.79%	0.0109%
PARKER HANNIFIN CORP	PH	15,466.82	0.08%	2.19%	8.21%	10.50%	0.0084%
PULTEGROUP INC	PHM	6,491.56	0.03%	1.92%	14.04%	16.09%	0.0054%
PERKINELMER INC	PKI	5,969.42	0.03%	0.51%	19.78%	20.35%	0.0063%
PROLOGIS INC	PLD	24,957.09	0.13%	3.52%	5.18%	8.79%	0.0114%
PHILIP MORRIS INTERNATIONAL	PM	153,078.76	0.80%	4.21%	9.19%	13.59%	0.1081%
PNC FINANCIAL SERVICES GROUP	PNC	44,809.31	0.23%	2.36%	6.05%	8.48%	0.0198%
PENTAIR PLC	PNR	10,886.35	0.06%	2.24%	9.25%	11.59%	0.0066%
PINNACLE WEST CAPITAL	PNW	8,178.79	0.04%	3.45%	4.65%	8.18%	0.0035%
PPG INDUSTRIES INC	PPG	28,649.71	0.15%	1.46%	8.50%	10.02%	0.0149%
PPL CORP	PPL	26,089.47	0.14%	3.95%	4.78%	8.82%	0.0120%
FERRIGO CO PLC	PRGO	13,726.46	0.07%	0.61%	9.76%	10.39%	0.0074%
PRUDENTIAL FINANCIAL INC	PRU	35,028.50	0.18%	3.59%	9.55%	13.31%	0.0242%
PUBLIC STORAGE	PSA	43,988.75	0.23%	2.80%	5.48%	8.36%	0.0191%
PHILLIPS 66	PSX	42,235.73	0.22%	2.95%	6.80%	9.86%	0.0216%
PVH CORP	PVH	7,601.58	0.04%	0.16%	6.66%	6.82%	0.0027%
QUANTA SERVICES INC	PWR	3,629.39	0.02%	0.00%	8.00%	8.00%	0.0015%
PRAXAIR INC	PX	31,339.20	0.16%	2.75%	7.11%	9.95%	0.0162%
PIONEER NATURAL RESOURCES CO	PXD	26,221.40	0.14%	0.06%	20.00%	20.00%	0.0273%
PAYPAL HOLDINGS INC	PYPL	45,802.49	0.24%	0.00%	16.08%	16.08%	0.0383%

QUALCOMM INC	QCOM	80,672.82	0.42%	3.57%	10.40%	14.16%	0.0593%
QORVO INC	QRVO	6,988.23	0.04%	0.00%	15.50%	15.50%	0.0056%
RYDER SYSTEM INC	R	3,738.83	0.02%	2.42%	9.92%	12.46%	0.0024%
REYNOLDS AMERICAN INC	RAI	70,938.86	0.37%	3.40%	9.49%	13.04%	0.0481%
ROYAL CARIBBEAN CRUISES LTD	RCL	16,657.53	0.09%	1.98%	24.87%	27.09%	0.0234%
REGENERON PHARMACEUTICALS	REGN	41,919.00	0.22%	0.00%	23.29%	23.29%	0.0507%
REGIONS FINANCIAL CORP	RF	12,451.79	0.06%	2.67%	4.91%	7.64%	0.0049%
ROBERT HALF INTL INC	RHI	5,461.54	0.03%	2.10%	11.63%	13.85%	0.0039%
RED HAT INC	RHT	14,054.04	0.07%	0.00%	17.70%	17.70%	0.0129%
TRANSOCEAN LTD	RIG	3,575.32	0.02%	0.00%	-6.20%	-6.20%	-0.0012%
RALPH LAUREN CORP	RL	7,820.15	0.04%	2.24%	7.62%	9.94%	0.0040%
ROCKWELL AUTOMATION INC	ROK	15,117.08	0.08%	2.64%	6.93%	9.65%	0.0076%
ROPER TECHNOLOGIES INC	ROP	17,313.44	0.09%	0.68%	11.43%	12.15%	0.0109%
ROSS STORES INC	ROST	21,456.35	0.11%	1.01%	12.46%	13.53%	0.0151%
RANGE RESOURCES CORP	RRC	7,229.46	0.04%	0.25%	-25.54%	-25.54%	-0.0095%
REPUBLIC SERVICES INC	RSG	16,603.40	0.09%	2.54%	7.87%	10.50%	0.0091%
RAYTHEON COMPANY	RTN	38,509.40	0.20%	2.23%	7.94%	10.25%	0.0205%
STARBUCKS CORP	SBUX	80,408.36	0.42%	1.48%	18.62%	20.25%	0.0846%
SCANA CORP	SCG	9,991.32	0.05%	3.29%	5.80%	9.18%	0.0048%
SCHWAB (CHARLES) CORP	SCHW	40,417.31	0.21%	0.84%	19.00%	19.92%	0.0418%
SPECTRA ENERGY CORP	SE	22,330.98	0.12%	5.11%	10.20%	15.57%	0.0181%
SEALED AIR CORP	SEE	9,155.32	0.05%	1.26%	4.27%	5.55%	0.0026%
SHERWIN-WILLIAMS CO/THE	SHW	26,924.40	0.14%	1.15%	17.70%	18.96%	0.0265%
SIGNET JEWELERS LTD	SIG	7,762.62	0.04%	1.05%	14.40%	15.52%	0.0063%
JM SMUCKER CO/THE	SJM	15,457.23	0.08%	2.06%	14.50%	16.71%	0.0134%
SCHLUMBERGER LTD	SLB	106,150.64	0.55%	2.60%	7.23%	9.92%	0.0547%
SL GREEN REALTY CORP	SLG	10,565.50	0.05%	2.93%	4.85%	7.85%	0.0043%
SNAP-ON INC	SNA	9,409.24	0.05%	1.98%	4.80%	6.83%	0.0033%
SCRIPPS NETWORKS INTER-CL A	SNI	8,296.99	0.04%	1.57%	11.73%	13.39%	0.0058%
SOUTHERN CO/THE	SO	46,402.03	0.24%	4.51%	3.90%	8.50%	0.0205%
SIMON PROPERTY GROUP INC	SPG	61,153.14	0.32%	3.31%	7.92%	11.36%	0.0361%
S&P GLOBAL INC	SPGI	29,584.93	0.15%	1.30%	10.00%	11.36%	0.0175%
STAPLES INC	SPLS	5,687.33	0.03%	5.45%	1.84%	7.34%	0.0022%
STERICYCLE INC	SRCL	8,320.59	0.04%	0.00%	14.45%	14.45%	0.0062%
SEMPRA ENERGY	SRE	26,726.09	0.14%	2.82%	8.33%	11.27%	0.0156%
SUNTRUST BANKS INC	STI	21,959.41	0.11%	2.32%	6.88%	9.28%	0.0106%
ST JUDE MEDICAL INC	STJ	22,275.98	0.12%	1.59%	10.63%	12.30%	0.0142%
STATE STREET CORP	STT	24,968.00	0.13%	2.27%	8.63%	11.00%	0.0143%
SEAGATE TECHNOLOGY	STX	6,733.79	0.03%	10.61%	5.05%	15.93%	0.0056%
CONSTELLATION BRANDS INC-A	STZ	30,630.39	0.16%	1.02%	12.96%	14.04%	0.0224%
STANLEY BLACK & DECKER INC	SWK	16,990.20	0.09%	2.00%	10.50%	12.61%	0.0111%
SKYWORKS SOLUTIONS INC	SWKS	12,700.30	0.07%	1.58%	16.67%	18.38%	0.0121%
SOUTHWESTERN ENERGY CO	SWN	5,367.75	0.03%	0.00%	-15.98%	-15.98%	-0.0045%
SYNCHRONY FINANCIAL	SYF	26,018.32	0.14%	0.87%	7.16%	8.07%	0.0109%
STRYKER CORP	SYK	41,571.74	0.22%	1.38%	12.49%	13.96%	0.0301%
SYMANTEC CORP	SYMC	10,629.39	0.06%	1.75%	8.69%	10.51%	0.0058%
SYSCO CORP	SYYY	27,110.75	0.14%	2.55%	10.00%	12.68%	0.0179%
AT&T INC	T	241,007.40	1.25%	4.91%	4.25%	9.27%	0.1161%
MOLSON COORS BREWING CO -B	TAP	21,291.09	0.11%	1.68%	19.77%	21.62%	0.0239%
TERADATA CORP	TDC	3,684.20	0.02%	0.00%	9.60%	9.60%	0.0018%
TECO ENERGY INC	TE	6,487.05	0.03%	3.38%	5.00%	8.46%	0.0029%
TE CONNECTIVITY LTD	TEL	21,456.97	0.11%	2.27%	12.20%	14.61%	0.0163%
TEGNA INC	TGNA	4,995.82	0.03%	2.44%	8.03%	10.57%	0.0027%
TARGET CORP	TGT	40,530.30	0.21%	3.35%	10.35%	13.88%	0.0292%
TIFFANY & CO	TIF	7,808.05	0.04%	2.66%	8.32%	11.09%	0.0045%
TJX COMPANIES INC	TJX	50,321.68	0.26%	1.35%	11.56%	12.99%	0.0340%
TORCHMARK CORP	TMK	7,435.70	0.04%	0.92%	7.98%	8.93%	0.0035%
THERMO FISHER SCIENTIFIC INC	TMO	59,723.35	0.31%	0.40%	11.83%	12.25%	0.0380%
TRIPADVISOR INC	TRIP	9,870.14	0.05%	0.00%	16.31%	16.31%	0.0084%
T ROWE PRICE GROUP INC	TROW	19,126.53	0.10%	2.81%	10.91%	13.87%	0.0138%
TRAVELERS COS INC/THE	TRV	33,373.92	0.17%	2.30%	7.13%	9.51%	0.0165%
TRACTOR SUPPLY COMPANY	TSCO	12,822.33	0.07%	0.89%	15.76%	16.72%	0.0111%
TYSON FOODS INC-CL A	TSN	25,668.11	0.13%	0.96%	12.03%	13.04%	0.0174%
TESORO CORP	TSO	9,367.71	0.05%	2.64%	-0.50%	2.13%	0.0010%
TOTAL SYSTEM SERVICES INC	TSS	9,859.97	0.05%	0.74%	11.00%	11.79%	0.0080%
TIME WARNER INC	TWX	59,498.59	0.31%	2.13%	14.38%	16.66%	0.0515%
TEXAS INSTRUMENTS INC	TXN	60,856.15	0.32%	2.54%	10.00%	12.66%	0.0400%
TEXTRON INC	TXT	10,231.74	0.05%	0.22%	7.31%	7.54%	0.0040%
TYCO INTERNATIONAL PLC	TYC	18,134.72	0.09%	2.04%	13.00%	15.17%	0.0143%
UNDER ARMOUR INC-CLASS A	UA	15,770.68	0.08%	0.00%	22.89%	22.89%	0.0188%
UNITED CONTINENTAL HOLDINGS	UAL	15,136.70	0.08%	0.00%	-11.42%	-11.42%	-0.0090%
UDR INC	UDR	9,624.96	0.05%	3.26%	6.73%	10.10%	0.0050%
UNIVERSAL HEALTH SERVICES-B	UHS	13,087.66	0.07%	0.30%	8.88%	9.19%	0.0063%
ULTA SALON COSMETICS & FRAGR	ULTA	14,594.11	0.08%	0.00%	21.00%	21.00%	0.0159%
UNITEDHEALTH GROUP INC	UNH	127,093.99	0.66%	1.51%	13.02%	14.62%	0.0966%
UNUM GROUP	UNM	8,778.05	0.05%	2.12%	7.60%	9.80%	0.0045%
UNION PACIFIC CORP	UNP	70,806.68	0.37%	2.68%	12.38%	15.23%	0.0560%
UNITED PARCEL SERVICE-CL B	UPS	90,894.36	0.47%	3.03%	9.61%	12.79%	0.0605%
URBAN OUTFITTERS INC	URBN	3,349.46	0.02%	0.00%	14.84%	14.84%	0.0026%

UNITED RENTALS INC	URI	6,165.96	0.03%	0.00%	14.13%	14.13%	0.0045%
US BANCORP	USB	73,924.58	0.38%	2.51%	5.86%	8.44%	0.0324%
UNITED TECHNOLOGIES CORP	UTX	84,171.95	0.44%	2.58%	9.56%	12.26%	0.0536%
VISA INC-CLASS A SHARES	V	188,264.55	0.98%	0.72%	16.64%	17.42%	0.1704%
VARIAN MEDICAL SYSTEMS INC	VAR	7,882.81	0.04%	0.00%	12.05%	12.05%	0.0049%
VF CORP	VFC	25,988.58	0.14%	2.43%	10.77%	13.33%	0.0180%
VIACOM INC-CLASS B	VIAB	17,761.76	0.09%	3.65%	6.49%	10.26%	0.0095%
VALERO ENERGY CORP	VLO	25,698.20	0.13%	4.42%	4.21%	8.72%	0.0116%
VULCAN MATERIALS CO	VMC	15,549.72	0.08%	0.69%	23.08%	23.85%	0.0193%
VORNADO REALTY TRUST	VNO	18,031.41	0.09%	2.72%	5.45%	8.24%	0.0077%
VERISK ANALYTICS INC	VRSK	13,350.73	0.07%	0.00%	12.00%	12.00%	0.0083%
VERISIGN INC	VRSN	9,270.32	0.05%	0.00%	9.85%	9.85%	0.0047%
VERTEX PHARMACEUTICALS INC	VRTX	23,040.64	0.12%	0.00%	50.53%	50.53%	0.0605%
VENTAS INC	VTR	22,428.30	0.12%	4.44%	5.12%	9.67%	0.0113%
VERIZON COMMUNICATIONS INC	VZ	207,483.06	1.08%	4.49%	3.95%	8.53%	0.0919%
WATERS CORP	WAT	11,133.50	0.06%	0.00%	8.59%	8.59%	0.0050%
WALGREENS BOOTS ALLIANCE INC	WBA	83,611.02	0.43%	1.88%	13.20%	15.21%	0.0661%
WESTERN DIGITAL CORP	WDC	13,098.09	0.07%	4.08%	1.94%	6.06%	0.0041%
WEC ENERGY GROUP INC	WEC	18,983.02	0.10%	3.29%	6.00%	9.39%	0.0093%
WELLS FARGO & CO	WFC	257,507.86	1.34%	3.06%	9.88%	13.09%	0.1752%
WHOLE FOODS MARKET INC	WFM	10,385.23	0.05%	1.67%	7.97%	9.71%	0.0052%
WHIRLPOOL CORP	WHR	13,265.33	0.07%	2.16%	17.04%	19.38%	0.0134%
WILLIS TOWERS WATSON PLC	WLTW	17,723.19	0.09%	1.50%	21.47%	23.13%	0.0213%
WASTE MANAGEMENT INC	WM	27,077.75	0.14%	2.69%	8.33%	11.13%	0.0157%
WILLIAMS COS INC	WMB	18,632.62	0.09%	11.55%	-2.07%	9.37%	0.0081%
WAL-MART STORES INC	WMT	222,162.30	1.15%	2.82%	2.91%	5.77%	0.0666%
WESTROCK CO	WRK	10,005.87	0.05%	3.79%	2.85%	6.69%	0.0035%
WESTERN UNION CO	WU	9,552.61	0.05%	3.26%	6.83%	10.20%	0.0051%
WEYERHAEUSER CO	WY	23,532.82	0.12%	4.02%	12.27%	16.54%	0.0202%
WYNDHAM WORLDWIDE CORP	WYN	7,544.42	0.04%	2.97%	7.65%	10.73%	0.0042%
WYNN RESORTS LTD	WYNN	9,790.25	0.05%	2.12%	10.00%	12.23%	0.0062%
CIMAREX ENERGY CO	XEC	11,025.09	0.06%	0.33%	-4.37%	-4.05%	-0.0023%
XCEL ENERGY INC	XEL	21,014.01	0.11%	3.29%	4.83%	8.19%	0.0089%
XL GROUP PLC	XL	9,733.71	0.05%	2.40%	9.00%	11.51%	0.0058%
XILINX INC	XLNX	12,110.04	0.06%	2.75%	8.23%	11.10%	0.0070%
EXXON MOBIL CORP	XOM	369,131.34	1.92%	3.35%	11.52%	15.07%	0.2890%
DENTSPLY SIRONA INC	XRAY	14,559.80	0.08%	0.47%	9.42%	9.91%	0.0075%
XEROX CORP	XRX	10,099.63	0.05%	3.14%	11.60%	14.92%	0.0078%
XYLEM INC	XYL	7,989.56	0.04%	1.39%	15.00%	16.49%	0.0068%
YAHOO! INC	YHOO	36,039.93	0.19%	0.00%	6.54%	6.54%	0.0122%
YUM! BRANDS INC	YUM	33,446.81	0.17%	2.31%	11.60%	14.04%	0.0244%
ZIMMER BIOMET HOLDINGS INC	ZBH	24,329.06	0.13%	0.78%	10.49%	11.31%	0.0143%
ZIONS BANCORPORATION	ZION	5,733.55	0.03%	1.09%	9.00%	10.14%	0.0030%
ZOETIS INC	ZTS	23,529.92	0.12%	0.80%	15.40%	16.26%	0.0199%
		19,245,929.81					13.14%

[1] Equals sum of Col. [9]

[2] Source: Bloomberg Professional

[3] Equals [1] - [2]

[4] Source: Bloomberg Professional

[5] Equals weight in S&P 500 based on market capitalization

[6] Source: Bloomberg Professional

[7] Source: Bloomberg Professional

[8] Equals (([6] x (1 + (0.5 x [7]))) + [7])

[9] Equals Col. [5] x Col. [8]

Ex-Ante Market Risk Premium
Market DCF Method Based - Bloomberg

		[1]	[2]	[3]				
		S&P 500 Est. Required Market Return	Current 30- Year Treasury (30-day average)	Implied Market Risk Premium				
		13.75%	2.65%	11.10%				
		[4]	[5]	[6]	[7]	[8]	[9]	
Company	Ticker	Market Capitalization	Weight in Index	Estimated Dividend Yield	Long-Term Growth Est.	DCF Result	Weighted DCF Result	
AGILENT TECHNOLOGIES INC	A	14,927.28	0.08%	1.01%	4.50%	5.53%	0.0046%	
ALCOA INC	AA	12,459.62	0.07%	1.26%	11.50%	12.83%	0.0089%	
AMERICAN AIRLINES GROUP INC	AAL	19,681.84	N/A	1.27%	N/A	N/A	N/A	
ADVANCE AUTO PARTS INC	AAP	11,485.37	0.06%	0.15%	11.50%	11.66%	0.0075%	
APPLE INC	AAPL	550,090.80	3.07%	2.27%	11.50%	13.90%	0.4268%	
ABBVIE INC	ABBV	99,652.38	0.56%	3.68%	13.00%	16.92%	0.0941%	
AMERISOURCEBERGEN CORP	ABC	16,506.63	0.09%	1.85%	11.00%	12.95%	0.0119%	
ABBOTT LABORATORIES	ABT	57,271.94	0.32%	2.67%	7.50%	10.27%	0.0328%	
ACCENTURE PLC-CL A	ACN	76,573.14	0.43%	1.98%	6.50%	8.54%	0.0365%	
ADOBE SYSTEMS INC	ADBE	49,753.86	0.28%	0.00%	35.50%	35.50%	0.0986%	
ANALOG DEVICES INC	ADI	17,915.43	0.10%	2.86%	11.00%	14.04%	0.0140%	
ARCHER-DANIELS-MIDLAND CO	ADM	25,626.65	0.14%	2.79%	6.00%	8.87%	0.0127%	
AUTOMATIC DATA PROCESSING	ADP	39,999.97	0.22%	2.59%	9.50%	12.21%	0.0273%	
ALLIANCE DATA SYSTEMS CORP	ADS	12,908.97	0.07%	0.00%	10.50%	10.50%	0.0076%	
AUTODESK INC	ADSK	13,039.88	N/A	0.00%	N/A	N/A	N/A	
AMEREN CORPORATION	AEE	11,605.18	0.06%	3.62%	5.00%	8.71%	0.0056%	
AMERICAN ELECTRIC POWER	AEP	31,589.38	0.18%	3.58%	4.50%	8.16%	0.0144%	
AES CORP	AES	7,261.55	0.04%	4.04%	3.50%	7.61%	0.0031%	
AETNA INC	AET	39,517.97	0.22%	0.88%	10.00%	10.92%	0.0241%	
AFLAC INC	AFL	29,358.61	0.16%	2.43%	4.50%	6.98%	0.0114%	
ALLERGAN PLC	AGN	91,549.84	0.51%	0.00%	15.00%	15.00%	0.0767%	
AMERICAN INTERNATIONAL GROUP	AIG	68,948.70	0.38%	2.22%	5.00%	7.28%	0.0280%	
APARTMENT INVT & MGMT CO -A	AIV	-	N/A	3.10%	N/A	N/A	N/A	
ASSURANT INC	AIZ	5,702.61	0.03%	2.31%	7.00%	9.39%	0.0030%	
ARTHUR J GALLAGHER & CO	AJG	8,267.32	0.05%	3.17%	15.00%	18.41%	0.0085%	
AKAMAI TECHNOLOGIES INC	AKAM	9,565.90	0.05%	0.00%	13.00%	13.00%	0.0069%	
ALASKA AIR GROUP INC	ALK	8,279.07	0.05%	1.66%	13.50%	15.27%	0.0071%	
ALLSTATE CORP	ALL	25,721.31	0.14%	1.96%	6.50%	8.52%	0.0122%	
ALLEGION PLC	ALLE	6,501.47	0.04%	0.71%	10.50%	11.25%	0.0041%	
ALEXION PHARMACEUTICALS INC	ALXN	33,434.12	0.19%	0.00%	27.50%	27.50%	0.0513%	
APPLIED MATERIALS INC	AMAT	25,845.39	0.14%	1.69%	15.00%	16.82%	0.0243%	
AMETEK INC	AME	11,257.62	0.08%	0.75%	8.00%	6.77%	0.0043%	
AFFILIATED MANAGERS GROUP	AMG	9,162.14	0.05%	0.00%	8.50%	8.50%	0.0043%	
AMGEN INC	AMGN	117,284.70	0.65%	2.64%	8.50%	11.25%	0.0737%	
AMERIPRISE FINANCIAL INC	AMP	17,132.38	0.10%	3.00%	11.00%	14.17%	0.0135%	
AMERICAN TOWER CORP	AMT	44,594.23	0.25%	2.13%	12.50%	14.76%	0.0367%	
AMAZON.COM INC	AMZN	336,722.60	1.88%	0.00%	90.00%	90.00%	1.6915%	
AUTONATION INC	AN	5,469.29	0.03%	0.00%	9.00%	9.00%	0.0027%	
ANTHEM INC	ANTM	33,859.05	0.19%	2.01%	7.00%	9.08%	0.0172%	
AON PLC	AON	28,863.20	0.16%	1.23%	12.00%	13.30%	0.0214%	
APACHE CORP	APA	21,937.31	0.12%	1.72%	5.00%	6.76%	0.0083%	
ANADARKO PETROLEUM CORP	APC	26,573.92	N/A	0.38%	N/A	N/A	N/A	
AIR PRODUCTS & CHEMICALS INC	APD	30,914.71	0.17%	2.40%	12.00%	14.54%	0.0251%	
AMPHENOL CORP-CL A	APH	17,860.92	0.10%	0.97%	8.00%	9.01%	0.0090%	
ACTIVISION BLIZZARD INC	ATVI	28,711.68	0.16%	0.72%	8.00%	8.75%	0.0140%	
AVALONBAY COMMUNITIES INC	AVB	-	N/A	3.06%	N/A	N/A	N/A	
BROADCOM LTD	AVGO	42,556.54	0.24%	1.28%	23.00%	24.43%	0.0580%	
AVERY DENNISON CORP	AVY	6,775.26	0.04%	2.25%	9.50%	11.86%	0.0045%	
AMERICAN WATER WORKS CO INC	AWK	13,189.30	0.07%	2.03%	8.00%	10.11%	0.0074%	
AMERICAN EXPRESS CO	AXP	63,207.87	0.35%	1.96%	3.00%	4.99%	0.0176%	
ACUITY BRANDS INC	AYI	11,172.91	0.06%	0.20%	19.50%	19.72%	0.0123%	
AUTOZONE INC	AZO	23,098.91	0.13%	0.00%	11.50%	11.50%	0.0148%	
BOEING CO/THE	BA	86,201.15	0.48%	3.47%	10.00%	13.64%	0.0656%	
BANK OF AMERICA CORP	BAC	153,281.40	0.86%	1.63%	22.00%	23.81%	0.2037%	
BAXTER INTERNATIONAL INC	BAX	23,784.66	0.13%	1.20%	-4.50%	-3.33%	-0.0044%	
BED BATH & BEYOND INC	BBBY	7,194.56	0.04%	1.14%	3.00%	4.16%	0.0017%	
BB&T CORP	BBT	28,193.57	0.16%	3.32%	7.50%	10.94%	0.0172%	
BEST BUY CO INC	BBY	10,344.74	0.06%	3.51%	8.00%	11.65%	0.0067%	
CR BARD INC	BCR	16,182.39	0.09%	0.46%	9.00%	9.48%	0.0086%	
BECTON DICKINSON AND CO	BDX	35,413.68	0.20%	1.65%	9.50%	11.23%	0.0222%	
FRANKLIN RESOURCES INC	BEN	21,704.54	0.12%	2.11%	4.50%	6.66%	0.0081%	

BROWN-FORMAN CORP-CLASS B	BF/B	19,485.69	0.11%	1.43%	8.00%	9.49%	0.0103%
BAKER HUGHES INC	BHI	19,914.09	0.11%	1.49%	30.00%	31.71%	0.0353%
BIOGEN INC	BIIB	61,645.20	0.34%	0.00%	10.50%	10.50%	0.0361%
BANK OF NEW YORK MELLON CORP	BK	45,616.96	0.25%	1.62%	11.00%	12.71%	0.0324%
BLACKROCK INC	BLK	59,352.68	0.33%	2.52%	8.00%	10.62%	0.0352%
BALL CORP	BLL	10,219.20	0.06%	0.72%	11.00%	11.76%	0.0067%
BRISTOL-MYERS SQUIBB CO	BMJ	117,482.50	0.66%	2.15%	17.50%	19.84%	0.1301%
BERKSHIRE HATHAWAY INC-CL B	BRK/B	178.53	N/A	0.00%	N/A	N/A	N/A
BOSTON SCIENTIFIC CORP	BSX	30,380.38	0.17%	0.00%	18.00%	18.00%	0.0305%
BORGWARNER INC	BWA	7,314.49	0.04%	1.56%	8.00%	9.62%	0.0039%
BAXALTA INC	BXLT	N/A	N/A	0.00%	N/A	N/A	N/A
BOSTON PROPERTIES INC	BXP	-	N/A	2.08%	N/A	N/A	N/A
CITIGROUP INC	C	137,361.20	0.77%	0.43%	12.00%	12.46%	0.0955%
CA INC	CA	13,206.39	0.07%	3.19%	4.50%	7.76%	0.0057%
CONAGRA FOODS INC	CAG	19,835.06	0.11%	2.20%	6.00%	8.27%	0.0092%
CARDINAL HEALTH INC	CAH	25,196.54	0.14%	2.41%	14.00%	16.58%	0.0233%
CATERPILLAR INC	CAT	41,973.77	0.23%	4.27%	5.00%	9.38%	0.0220%
CHUBB LTD	CB	40,951.71	0.23%	2.18%	7.50%	9.76%	0.0223%
CBRE GROUP INC - A	CBG	9,823.02	0.05%	0.00%	10.00%	10.00%	0.0055%
CBS CORP-CLASS B NON VOTING	CBS	25,164.05	0.14%	1.10%	13.00%	14.17%	0.0199%
CROWN CASTLE INTL CORP	CCI	30,309.74	0.17%	4.10%	21.00%	25.53%	0.0432%
CARNIVAL CORP	CCL	35,930.45	0.20%	2.94%	15.50%	18.67%	0.0374%
CELGENE CORP	CELG	83,206.55	0.46%	0.00%	24.00%	24.00%	0.1115%
CERNER CORP	CERN	18,690.89	0.10%	0.00%	14.50%	14.50%	0.0151%
CF INDUSTRIES HOLDINGS INC	CF	6,750.03	0.04%	4.66%	8.00%	12.85%	0.0046%
CITIZENS FINANCIAL GROUP	CFG	12,320.32	N/A	2.06%	N/A	N/A	N/A
CHURCH & DWIGHT CO INC	CHD	12,760.18	0.07%	1.45%	7.50%	9.00%	0.0064%
CHESAPEAKE ENERGY CORP	CHK	2,806.00	N/A	0.00%	N/A	N/A	N/A
C.H. ROBINSON WORLDWIDE INC	CHRW	10,754.82	0.06%	2.29%	7.50%	9.88%	0.0059%
CIGNA CORP	CI	33,060.82	0.18%	0.03%	12.50%	12.53%	0.0231%
CINCINNATI FINANCIAL CORP	CINF	11,243.23	0.06%	2.80%	7.50%	10.41%	0.0065%
COLGATE-PALMOLIVE CO	CL	62,929.18	0.35%	2.24%	13.50%	15.89%	0.0558%
CLOROX COMPANY	CLX	16,749.13	0.09%	2.47%	8.00%	10.57%	0.0099%
COMERICA INC	CMA	8,191.51	0.05%	1.89%	6.00%	7.95%	0.0036%
COMCAST CORP-CLASS A	CMCSA	152,137.00	0.85%	1.77%	10.00%	11.86%	0.1007%
CME GROUP INC	CME	32,841.64	0.18%	2.46%	9.50%	12.08%	0.0221%
CHIPOTLE MEXICAN GRILL INC	CMG	13,824.89	0.08%	0.00%	13.50%	13.50%	0.0104%
CUMMINS INC	CMI	19,885.20	0.11%	3.44%	5.00%	8.53%	0.0095%
CMS ENERGY CORP	CMS	11,482.86	0.06%	3.04%	6.00%	9.13%	0.0059%
CENTENE CORP	CNC	7,340.86	0.04%	0.00%	27.00%	27.00%	0.0111%
CENTERPOINT ENERGY INC	CNP	9,610.50	N/A	4.65%	N/A	N/A	N/A
CAPITAL ONE FINANCIAL CORP	COF	38,257.98	0.21%	2.21%	3.50%	5.75%	0.0123%
CABOT OIL & GAS CORP	COG	9,797.62	0.05%	0.34%	39.00%	39.41%	0.0216%
COACH INC	COH	10,929.81	0.06%	3.43%	4.50%	8.01%	0.0049%
ROCKWELL COLLINS INC	COL	11,582.13	0.06%	1.55%	8.00%	9.61%	0.0062%
CONOCOPHILLIPS	COP	55,286.11	0.31%	2.24%	6.50%	8.81%	0.0272%
COSTCO WHOLESALE CORP	COST	65,761.02	0.37%	1.20%	9.00%	10.25%	0.0376%
CAMPBELL SOUP CO	CPB	18,929.34	0.11%	2.04%	5.50%	7.60%	0.0080%
COLUMBIA PIPELINE GROUP	CPGX	10,227.93	N/A	2.11%	N/A	N/A	N/A
SALESFORCE.COM INC	CRM	56,469.63	N/A	0.00%	N/A	N/A	N/A
CISCO SYSTEMS INC	CSCO	145,482.60	0.81%	3.60%	6.00%	9.71%	0.0788%
CSRA INC	CSRA	3,930.55	N/A	1.66%	N/A	N/A	N/A
CSX CORP	CSX	24,642.25	0.14%	2.79%	7.00%	9.89%	0.0136%
CINTAS CORP	CTAS	10,058.66	0.06%	1.12%	11.00%	12.18%	0.0068%
CENTURYLINK INC	CTL	14,481.39	0.08%	8.11%	13.50%	22.16%	0.0179%
COGNIZANT TECH SOLUTIONS-A	CTSH	37,918.34	0.21%	0.00%	12.50%	12.50%	0.0265%
CITRIX SYSTEMS INC	CTXS	13,052.91	0.07%	0.00%	11.00%	11.00%	0.0080%
CABLEVISION SYSTEMS-NY GRP-A	CVC	9,579.67	0.05%	0.00%	6.00%	6.00%	0.0032%
CVS HEALTH CORP	CVS	107,614.50	0.60%	1.75%	12.00%	13.86%	0.0832%
CHEVRON CORP	CVX	191,105.60	1.07%	4.22%	4.50%	8.81%	0.0940%
CONCHO RESOURCES INC	CXO	15,808.37	0.09%	0.00%	16.50%	16.50%	0.0146%
DOMINION RESOURCES INC/A	D	42,677.20	0.24%	4.07%	8.00%	12.23%	0.0291%
DELTA AIR LINES INC	DAL	33,300.80	0.19%	1.87%	14.50%	16.51%	0.0307%
DU PONT (E.I.) DE NEMOURS	DD	58,345.40	0.33%	2.39%	7.00%	9.47%	0.0309%
DEERE & CO	DE	25,225.57	0.14%	2.99%	-1.50%	1.47%	0.0021%
DISCOVER FINANCIAL SERVICES	DFS	23,694.14	0.13%	1.99%	5.00%	7.04%	0.0093%
DOLLAR GENERAL CORP	DG	24,975.30	0.14%	1.19%	13.50%	14.77%	0.0206%
QUEST DIAGNOSTICS INC	DGX	11,045.32	0.06%	2.07%	9.00%	11.16%	0.0069%
DR HORTON INC	DHI	11,340.66	0.06%	1.05%	13.50%	14.62%	0.0093%
DANAHER CORP	DHR	68,130.55	0.38%	0.65%	13.00%	13.69%	0.0521%
WALT DISNEY CO/THE	DIS	169,677.00	0.95%	1.42%	10.00%	11.49%	0.1088%
DISCOVERY COMMUNICATIONS-A	DISCA	14,509.52	0.08%	0.00%	17.00%	17.00%	0.0138%
DELPHI AUTOMOTIVE PLC	DLPH	18,692.80	0.10%	1.85%	14.50%	16.48%	0.0172%
DIGITAL REALTY TRUST INC	DLR	-	N/A	3.81%	N/A	N/A	N/A
DOLLAR TREE INC	DLTR	20,764.12	0.12%	0.00%	21.00%	21.00%	0.0243%
DUN & BRADSTREET CORP	DNB	4,513.94	0.03%	1.54%	5.00%	6.58%	0.0017%
DIAMOND OFFSHORE DRILLING	DO	3,470.12	0.02%	0.00%	11.50%	11.50%	0.0022%
DOVER CORP	DOV	10,337.22	0.06%	2.52%	2.00%	4.55%	0.0026%
DOW CHEMICAL CO/THE	DOW	58,069.76	0.32%	3.69%	9.50%	13.37%	0.0433%

DR PEPPER SNAPPLE GROUP INC	DPS	17,315.18	0.10%	2.32%	8.00%	10.41%	0.0101%
DARDEN RESTAURANTS INC	DRI	8,526.13	0.05%	2.97%	13.50%	16.67%	0.0079%
DTE ENERGY COMPANY	DTE	16,102.05	0.09%	3.39%	4.50%	7.97%	0.0072%
DUKE ENERGY CORP	DUK	53,636.48	0.30%	4.35%	4.50%	8.95%	0.0268%
DAVITA HEALTHCARE PARTNERS I	DVA	16,140.57	0.09%	0.00%	10.50%	10.50%	0.0095%
DEVON ENERGY CORP	DVN	15,006.20	0.08%	0.67%	1.00%	1.67%	0.0014%
ELECTRONIC ARTS INC	EA	23,284.10	0.13%	0.00%	17.00%	17.00%	0.0221%
EBAY INC	EBAY	28,558.08	0.16%	0.00%	3.50%	3.50%	0.0056%
ECOLAB INC	ECL	34,987.20	0.20%	1.18%	8.50%	9.73%	0.0190%
CONSOLIDATED EDISON INC	ED	21,309.89	0.12%	3.74%	1.50%	5.27%	0.0063%
EQUIFAX INC	EFX	14,845.81	0.08%	1.06%	9.50%	10.61%	0.0088%
EDISON INTERNATIONAL	EIX	23,080.45	0.13%	2.81%	3.50%	6.36%	0.0082%
ESTEE LAUDER COMPANIES-CL A	EL	33,757.09	0.19%	1.31%	8.00%	9.36%	0.0176%
EMC CORP/MA	EMC	54,093.12	0.30%	1.65%	3.50%	5.18%	0.0156%
EASTMAN CHEMICAL CO	EMN	10,885.63	0.06%	2.50%	9.50%	12.12%	0.0074%
EMERSON ELECTRIC CO	EMR	33,462.43	0.19%	3.65%	2.00%	5.69%	0.0106%
ENDO INTERNATIONAL PLC	ENDP	3,380.73	0.02%	0.00%	39.00%	39.00%	0.0074%
EOG RESOURCES INC	EOG	45,253.32	0.25%	0.94%	4.50%	5.46%	0.0138%
EQUINIX INC	EQIX	22,547.89	0.13%	1.93%	24.50%	26.67%	0.0336%
EQUITY RESIDENTIAL	EQR	-	N/A	2.98%	N/A	N/A	N/A
EQT CORP	EQT	11,154.75	0.06%	0.16%	12.00%	12.17%	0.0076%
EVERSOURCE ENERGY	ES	17,382.07	0.10%	3.36%	6.00%	9.46%	0.0092%
EXPRESS SCRIPTS HOLDING CO	ESRX	50,571.20	0.28%	0.00%	15.50%	15.50%	0.0438%
ESSEX PROPERTY TRUST INC	ESS	-	N/A	2.88%	N/A	N/A	N/A
E*TRADE FINANCIAL CORP	ETFC	7,973.84	0.04%	0.00%	17.50%	17.50%	0.0078%
EATON CORP PLC	ETN	28,471.45	0.16%	3.71%	4.50%	8.29%	0.0132%
ENTERGY CORP	ETR	13,482.64	0.08%	4.55%	2.50%	7.11%	0.0053%
EDWARDS LIFESCIENCES CORP	EW	21,417.22	0.12%	0.00%	17.00%	17.00%	0.0203%
EXELON CORP	EXC	31,433.80	0.18%	3.72%	7.00%	10.85%	0.0190%
EXPEDITORS INTL WASH INC	EXPD	8,904.90	0.05%	1.64%	11.00%	12.73%	0.0063%
EXPEDIA INC	EXPE	16,801.96	0.09%	0.86%	23.00%	23.96%	0.0225%
EXTRA SPACE STORAGE INC	EXR	-	N/A	2.89%	N/A	N/A	N/A
FORD MOTOR CO	F	53,301.60	0.30%	4.46%	7.00%	11.62%	0.0346%
FASTENAL CO	FAST	13,343.94	0.07%	2.60%	7.00%	9.69%	0.0072%
FACEBOOK INC-A	FB	339,892.20	1.90%	0.00%	34.00%	34.00%	0.6450%
FREEMPORT-MCMORAN INC	FCX	14,129.64	0.08%	0.00%	36.50%	36.50%	0.0288%
FEDEX CORP	FDX	51,961.20	0.29%	0.61%	12.50%	13.15%	0.0381%
FIRSTENERGY CORP	FE	13,702.17	0.08%	4.45%	9.00%	13.65%	0.0104%
F5 NETWORKS INC	FFIV	7,301.60	0.04%	0.00%	9.00%	9.00%	0.0037%
FIDELITY NATIONAL INFO SERV	FIS	24,022.73	0.13%	1.41%	13.50%	15.01%	0.0201%
FISERV INC	FISV	23,489.78	0.13%	0.00%	9.50%	9.50%	0.0125%
FIFTH THIRD BANCORP	FITB	14,602.49	0.08%	3.01%	3.50%	6.56%	0.0053%
FOOT LOCKER INC	FL	7,494.01	0.04%	2.01%	9.00%	11.10%	0.0046%
FLIR SYSTEMS INC	FLIR	4,208.40	0.02%	1.60%	8.00%	9.66%	0.0023%
FLUOR CORP	FLR	7,312.35	0.04%	1.60%	1.50%	3.11%	0.0013%
FLOWSERVE CORP	FLS	6,250.54	0.03%	1.57%	2.50%	4.09%	0.0014%
FMC CORP	FMC	6,395.39	0.04%	1.42%	4.50%	5.95%	0.0021%
TWENTY-FIRST CENTURY FOX - B	FOX	N/A	N/A	0.00%	N/A	N/A	N/A
FEDERAL REALTY INVS TRUST	FRT	-	N/A	2.59%	N/A	N/A	N/A
FIRST SOLAR INC	FSLR	5,060.87	0.03%	0.00%	8.50%	8.50%	0.0024%
FMC TECHNOLOGIES INC	FTI	6,064.77	0.03%	0.00%	-1.00%	-1.00%	-0.0003%
FRONTIER COMMUNICATIONS CORP	FTR	6,027.91	0.03%	8.14%	16.00%	24.79%	0.0083%
AGL RESOURCES INC	GAS	7,895.53	0.04%	3.23%	5.00%	8.31%	0.0037%
GENERAL DYNAMICS CORP	GD	44,443.12	0.25%	2.13%	7.00%	9.20%	0.0228%
GENERAL ELECTRIC CO	GE	303,479.30	1.69%	3.07%	9.50%	12.72%	0.2154%
GENERAL GROWTH PROPERTIES	GGP	-	N/A	2.91%	N/A	N/A	N/A
GILEAD SCIENCES INC	GILD	121,282.40	0.68%	2.20%	10.00%	12.31%	0.0833%
GENERAL MILLS INC	GIS	37,319.63	0.21%	2.93%	5.00%	8.00%	0.0167%
CORNING INC	GLW	22,746.90	0.13%	2.68%	6.50%	9.27%	0.0118%
GENERAL MOTORS CO	GM	50,064.00	0.28%	4.86%	11.00%	16.13%	0.0451%
ALPHABET INC-CL C	GOOG	497,722.40	2.78%	0.00%	15.00%	15.00%	0.4167%
GENUINE PARTS CO	GPC	14,455.80	0.08%	2.73%	6.50%	9.32%	0.0075%
GLOBAL PAYMENTS INC	GPN	9,871.51	0.06%	0.05%	14.00%	14.05%	0.0077%
GAP INC/THE	GPS	7,169.82	0.04%	5.15%	1.50%	6.69%	0.0027%
GARMIN LTD	GRMN	7,842.05	N/A	4.92%	N/A	N/A	N/A
GOLDMAN SACHS GROUP INC	GS	66,789.61	0.37%	1.63%	7.00%	8.69%	0.0324%
GOODYEAR TIRE & RUBBER CO	GT	7,308.28	0.04%	1.10%	8.50%	9.65%	0.0039%
WW GRAINGER INC	GWW	14,112.84	0.08%	2.15%	6.00%	8.21%	0.0065%
HALLIBURTON CO	HAL	36,499.84	0.20%	1.69%	8.00%	9.76%	0.0199%
HARMAN INTERNATIONAL	HAR	5,427.80	0.03%	1.82%	17.00%	18.97%	0.0057%
HASBRO INC	HAS	10,832.04	0.06%	2.35%	11.00%	13.48%	0.0081%
HUNTINGTON BANCSHARES INC	HBAN	6,314.95	0.05%	2.87%	7.50%	10.46%	0.0049%
HANESBRANDS INC	HBI	10,676.43	0.06%	1.61%	11.50%	13.20%	0.0079%
HCA HOLDINGS INC	HCA	30,782.65	0.17%	0.00%	11.50%	11.50%	0.0198%
WELLTOWER INC	HCN	-	N/A	5.06%	N/A	N/A	N/A
HCP INC	HCP	-	0.00%	7.04%	74.00%	83.64%	0.0000%
HOME DEPOT INC	HD	166,892.20	0.93%	2.06%	13.00%	15.19%	0.1415%
HESS CORP	HES	17,288.56	0.10%	1.66%	-1.00%	0.65%	0.0006%
HARTFORD FINANCIAL SVCS GRP	HIG	18,094.00	0.10%	1.87%	11.50%	13.48%	0.0136%

HARLEY-DAVIDSON INC	HOG	8,225.11	0.05%	3.08%	9.00%	12.22%	0.0056%
HOLOGIC INC	HOLX	9,469.88	0.05%	0.00%	21.00%	21.00%	0.0111%
HONEYWELL INTERNATIONAL INC	HON	87,971.98	0.49%	2.08%	8.50%	10.67%	0.0524%
STARWOOD HOTELS & RESORTS	HOT	12,329.17	0.07%	2.05%	5.50%	7.61%	0.0052%
HELMERICH & PAYNE	HP	6,549.32	0.04%	4.54%	-6.00%	-1.60%	-0.0006%
HEWLETT PACKARD ENTERPRIS	HPE	30,136.87	N/A	1.27%	N/A	N/A	N/A
HP INC	HPQ	22,650.48	N/A	3.83%	N/A	N/A	N/A
H&R BLOCK INC	HRB	4,647.43	0.03%	3.88%	8.00%	12.01%	0.0031%
HORMEL FOODS CORP	HRL	18,474.87	0.10%	1.78%	14.00%	15.90%	0.0164%
HARRIS CORP	HRS	9,928.60	0.06%	2.58%	8.00%	10.68%	0.0059%
HENRY SCHEIN INC	HSIC	14,173.40	0.08%	0.00%	9.00%	9.00%	0.0071%
HOST HOTELS & RESORTS INC	HST	-	N/A	5.26%	N/A	N/A	N/A
HERSHEY CO/THE	HSY	19,976.00	0.11%	2.53%	6.00%	8.61%	0.0096%
HUMANA INC	HUM	25,841.80	0.14%	0.67%	10.50%	11.21%	0.0162%
INTL BUSINESS MACHINES CORP	IBM	147,215.70	0.82%	3.67%	0.50%	4.18%	0.0343%
INTERCONTINENTAL EXCHANGE IN	ICE	31,892.00	0.18%	1.27%	14.00%	15.36%	0.0273%
INTL FLAVORS & FRAGRANCES	IFF	10,317.24	0.06%	1.74%	4.50%	6.28%	0.0036%
ILLUMINA INC	ILMN	20,979.10	0.12%	0.00%	22.50%	22.50%	0.0263%
INTEL CORP	INTC	148,790.30	0.83%	3.30%	8.50%	11.94%	0.0992%
INTUIT INC	INTU	27,826.33	0.16%	1.12%	13.00%	14.19%	0.0220%
INTERNATIONAL PAPER CO	IP	17,243.27	0.10%	4.21%	15.00%	19.53%	0.0188%
INTERPUBLIC GROUP OF COS INC	IPG	9,471.17	0.05%	2.68%	13.00%	15.85%	0.0084%
INGERSOLL-RAND PLC	IR	17,315.78	0.10%	1.93%	8.50%	10.51%	0.0102%
IRON MOUNTAIN INC	IRM	7,781.54	0.04%	5.27%	13.00%	18.61%	0.0081%
INTUITIVE SURGICAL INC	ISRG	23,831.28	0.13%	0.00%	11.50%	11.50%	0.0153%
ILLINOIS TOOL WORKS	ITW	38,284.11	0.21%	2.09%	9.50%	11.69%	0.0250%
INVESCO LTD	IVZ	12,984.25	0.07%	3.60%	7.00%	10.73%	0.0078%
HUNT (JB) TRANSPRT SVCS INC	JBHT	9,269.67	0.05%	1.08%	11.00%	12.14%	0.0063%
JOHNSON CONTROLS INC	JCI	28,560.70	0.16%	2.63%	9.50%	12.25%	0.0195%
JACOBS ENGINEERING GROUP INC	JEC	6,109.74	0.03%	0.00%	4.00%	4.00%	0.0014%
JOHNSON & JOHNSON	JNJ	311,039.50	1.74%	2.88%	8.50%	11.50%	0.1997%
JUNIPER NETWORKS INC	JNPR	8,828.16	0.05%	1.87%	11.00%	12.97%	0.0064%
JPMORGAN CHASE & CO	JPM	239,383.90	1.34%	2.95%	6.50%	9.55%	0.1275%
NORDSTROM INC	JWN	6,534.01	0.04%	3.98%	4.00%	8.06%	0.0029%
KELLOGG CO	K	26,367.31	0.15%	2.71%	5.00%	7.78%	0.0114%
KEYCORP	KEY	10,655.83	0.06%	2.67%	7.50%	10.27%	0.0061%
KRAFT HEINZ CO/THE	KHC	101,743.50	N/A	2.80%	N/A	N/A	N/A
KIMCO REALTY CORP	KIM	-	N/A	3.78%	N/A	N/A	N/A
KLA-TENCOR CORP	KLAC	11,198.52	0.06%	2.89%	12.50%	15.57%	0.0097%
KIMBERLY-CLARK CORP	KMB	46,166.33	0.26%	2.88%	10.00%	13.02%	0.0336%
KINDER MORGAN INC	KMI	39,947.69	0.22%	2.79%	13.00%	15.97%	0.0358%
CARMAX INC	KMX	10,547.89	0.06%	0.00%	12.50%	12.50%	0.0074%
COCA-COLA CO/THE	KO	193,239.60	1.08%	3.13%	4.00%	7.19%	0.0776%
MICHAEL KORS HOLDINGS LTD	KORS	7,502.76	0.04%	0.00%	9.00%	9.00%	0.0038%
KROGER CO	KR	34,415.53	0.19%	1.32%	10.50%	11.89%	0.0228%
KOHL'S CORP	KSS	6,616.02	0.04%	5.74%	8.00%	13.97%	0.0052%
KANSAS CITY SOUTHERN	KSU	10,132.43	0.06%	1.41%	9.00%	10.47%	0.0059%
LOEWS CORP	L	14,667.54	0.08%	0.62%	12.50%	13.16%	0.0108%
L BRANDS INC	LB	19,270.50	0.11%	3.61%	8.00%	11.75%	0.0126%
LEGGETT & PLATT INC	LEG	6,697.28	0.04%	2.75%	11.00%	13.90%	0.0052%
LENNAR CORP-A	LEN	9,760.67	0.05%	0.35%	13.00%	13.37%	0.0073%
LABORATORY CRP OF AMER HLDGS	LH	12,896.50	0.07%	0.00%	8.50%	8.50%	0.0061%
LKQ CORP	LKQ	10,001.18	0.06%	0.00%	13.50%	13.50%	0.0075%
L-3 COMMUNICATIONS HOLDINGS	LLL	10,656.82	0.06%	2.03%	6.50%	8.60%	0.0051%
LINEAR TECHNOLOGY CORP	LLTC	11,258.28	0.06%	2.72%	5.50%	8.29%	0.0052%
ELI LILLY & CO	LLY	83,469.77	0.47%	2.70%	9.50%	12.33%	0.0574%
LEGG MASON INC	LM	3,634.88	0.02%	2.61%	10.50%	13.25%	0.0027%
LOCKHEED MARTIN CORP	LMT	73,537.58	0.41%	2.80%	8.00%	10.91%	0.0448%
LINCOLN NATIONAL CORP	LNC	11,038.41	0.06%	2.30%	7.00%	9.38%	0.0058%
LOWE'S COS INC	LOW	73,506.73	0.41%	1.55%	15.50%	17.17%	0.0704%
LAM RESEARCH CORP	LRCX	12,908.03	0.07%	1.48%	16.00%	17.60%	0.0127%
LEUCADIA NATIONAL CORP	LUK	-	N/A	0.00%	N/A	N/A	N/A
SOUTHWEST AIRLINES CO	LUV	27,063.29	0.15%	0.96%	17.50%	18.54%	0.0280%
LEVEL 3 COMMUNICATIONS INC	LVL	19,033.94	0.11%	0.00%	38.00%	38.00%	0.0404%
LYONDELLBASELL INDU-CL A	LYB	35,815.00	0.20%	4.18%	6.50%	10.82%	0.0216%
MACY'S INC	M	9,794.78	0.05%	4.78%	3.00%	7.85%	0.0043%
MASTERCARD INC-CLASS A	MA	107,560.10	0.60%	0.79%	11.00%	11.83%	0.0710%
MACERICH CO/THE	MAC	-	N/A	3.67%	N/A	N/A	N/A
MARRIOTT INTERNATIONAL -CL A	MAR	16,803.03	0.09%	1.83%	12.50%	14.44%	0.0135%
MASCO CORP	MAS	10,698.29	0.06%	1.17%	13.50%	14.75%	0.0088%
MATTEL INC	MAT	10,744.71	0.06%	4.81%	6.50%	11.47%	0.0069%
MCDONALD'S CORP	MCD	112,252.80	0.63%	2.91%	6.00%	9.00%	0.0564%
MICROCHIP TECHNOLOGY INC	MCHP	10,309.26	0.06%	2.84%	8.00%	10.95%	0.0063%
MCKESSON CORP	MCK	41,047.37	0.23%	0.62%	12.00%	12.86%	0.0290%
MOODY'S CORP	MCO	19,129.17	0.11%	1.52%	7.50%	9.08%	0.0097%
MONDELEZ INTERNATIONAL INC-A	MDLZ	70,074.46	0.39%	1.67%	11.50%	13.27%	0.0519%
MEDTRONIC PLC	MDT	113,736.70	0.63%	1.95%	7.00%	9.02%	0.0573%
METLIFE INC	MET	49,499.11	0.28%	3.55%	6.50%	10.17%	0.0281%
MOHAWK INDUSTRIES INC	MHK	14,490.08	0.08%	0.00%	10.50%	10.50%	0.0085%

MEAD JOHNSON NUTRITION CO	MJN	15,445.93	0.09%	1.99%	6.50%	8.55%	0.0074%
MCCORMICK & CO-NON VTG SHRS	MKC	12,378.02	0.07%	1.76%	7.50%	9.33%	0.0064%
MARTIN MARIETTA MATERIALS	MLM	12,360.63	0.07%	0.84%	20.50%	21.43%	0.0148%
MARSH & MCLENNAN COS	MMC	34,220.86	0.19%	2.07%	9.00%	11.16%	0.0213%
3M CO	MMM	102,921.90	0.57%	2.63%	8.50%	11.24%	0.0646%
MALLINCKRODT PLC	MNK	6,719.58	N/A	0.00%	N/A	N/A	N/A
MONSTER BEVERAGE CORP	MNST	30,437.03	0.17%	0.00%	13.50%	13.50%	0.0229%
ALTRIA GROUP INC	MO	125,443.80	0.70%	3.56%	9.50%	13.23%	0.0926%
MONSANTO CO	MON	47,875.11	0.27%	1.97%	6.00%	8.03%	0.0215%
MOSAIC CO/THE	MOS	9,211.22	0.05%	4.59%	5.00%	9.70%	0.0050%
MARATHON PETROLEUM CORP	MPC	18,346.05	0.10%	3.76%	6.50%	10.38%	0.0106%
MERCK & CO. INC.	MRK	156,827.80	0.88%	3.26%	6.00%	9.36%	0.0819%
MARATHON OIL CORP	MRO	8,916.09	0.05%	1.52%	9.00%	10.59%	0.0053%
MORGAN STANLEY	MS	53,703.93	0.30%	2.19%	14.50%	16.85%	0.0505%
MICROSOFT CORP	MSFT	408,374.30	2.28%	2.78%	7.00%	9.88%	0.2251%
MOTOROLA SOLUTIONS INC	MSI	12,096.42	0.07%	2.36%	8.00%	10.45%	0.0071%
M & T BANK CORP	MTB	15,793.35	0.09%	2.36%	5.00%	7.42%	0.0065%
MICRON TECHNOLOGY INC	MU	13,025.50	0.07%	0.00%	1.00%	1.00%	0.0007%
MURPHY OIL CORP	MUR	6,054.51	N/A	4.51%	N/A	N/A	N/A
MYLAN NV	MYL	21,027.85	0.12%	0.00%	20.50%	20.50%	0.0241%
NAVIENT CORP	NAVI	4,836.81	N/A	4.79%	N/A	N/A	N/A
NOBLE ENERGY INC	NBL	15,389.10	N/A	1.12%	N/A	N/A	N/A
NASDAQ INC	NDAQ	10,684.35	0.06%	1.97%	10.00%	12.07%	0.0072%
NEXTERA ENERGY INC	NEE	55,237.02	0.31%	3.00%	6.00%	9.09%	0.0280%
NEWMONT MINING CORP	NEM	17,187.14	0.10%	0.31%	-1.00%	-0.69%	-0.0007%
NETFLIX INC	NFLX	43,996.51	0.25%	0.00%	35.00%	35.00%	0.0860%
NEWFIELD EXPLORATION CO	NFX	6,670.39	0.04%	0.00%	11.50%	11.50%	0.0043%
NISOURCE INC	NI	7,671.41	0.04%	2.75%	1.50%	4.27%	0.0018%
NIKE INC -CL B	NKE	94,090.39	0.53%	1.15%	15.00%	16.24%	0.0853%
NIELSEN HOLDINGS PLC	NLSN	19,334.36	0.11%	2.32%	9.00%	11.42%	0.0123%
NORTHROP GRUMMAN CORP	NOC	38,789.78	0.22%	1.68%	7.50%	9.24%	0.0200%
NATIONAL OILWELL VARCO INC	NOV	12,242.39	0.07%	0.61%	-9.00%	-8.42%	-0.0058%
NRG ENERGY INC	NRG	4,917.07	0.03%	0.77%	19.50%	20.35%	0.0056%
NORFOLK SOUTHERN CORP	NSC	24,964.15	0.14%	2.82%	6.50%	9.41%	0.0131%
NETAPP INC	NTAP	7,245.90	0.04%	2.89%	1.50%	4.41%	0.0018%
NORTHERN TRUST CORP	NTRS	16,915.02	0.09%	1.95%	8.50%	10.53%	0.0099%
NUCOR CORP	NUE	15,424.34	0.09%	3.09%	19.00%	22.38%	0.0193%
NVIDIA CORP	NVDA	24,377.10	0.14%	1.01%	10.00%	11.06%	0.0150%
NEWELL BRANDS INC	NWL	12,750.78	0.07%	1.59%	17.00%	18.73%	0.0133%
NEWS CORP - CLASS A	NWSA	6,877.82	0.04%	1.69%	27.50%	29.42%	0.0113%
REALTY INCOME CORP	O	-	N/A	3.99%	N/A	N/A	N/A
OWENS-ILLINOIS INC	OI	2,974.58	0.02%	0.00%	6.50%	6.50%	0.0011%
ONEOK INC	OKE	8,928.25	0.05%	5.90%	12.50%	18.77%	0.0094%
OMNICOM GROUP	OMC	19,700.94	0.11%	2.75%	9.00%	11.87%	0.0131%
ORACLE CORP	ORCL	165,787.10	0.93%	1.50%	4.50%	6.03%	0.0558%
O'REILLY AUTOMOTIVE INC	ORLY	25,814.30	0.14%	0.00%	11.00%	11.00%	0.0158%
OCCIDENTAL PETROLEUM CORP	OXY	58,123.53	0.32%	4.02%	4.00%	8.10%	0.0263%
PAYCHEX INC	PAYX	19,435.73	0.11%	3.34%	9.00%	12.49%	0.0136%
PEOPLE'S UNITED FINANCIAL	PBCT	4,856.17	0.03%	4.34%	10.50%	15.07%	0.0041%
PITNEY BOWES INC	PBI	3,591.72	0.02%	4.08%	5.00%	9.18%	0.0018%
PACCAR INC	PCAR	19,436.69	0.11%	3.97%	7.00%	11.11%	0.0121%
P G & E CORP	PCG	29,221.36	0.16%	3.30%	12.00%	15.50%	0.0253%
PRICELINE GROUP INC/THE	PCLN	62,957.35	0.35%	0.00%	15.50%	15.50%	0.0545%
PATTERSON COS INC	PDCO	4,775.10	0.03%	2.05%	9.50%	11.65%	0.0031%
PUBLIC SERVICE ENTERPRISE GP	PEG	22,363.78	0.12%	3.75%	3.00%	6.81%	0.0085%
PEPSICO INC	PEP	147,347.40	0.82%	2.95%	7.00%	10.05%	0.0827%
PFIZER INC	PFE	212,605.30	1.19%	3.49%	12.00%	15.70%	0.1863%
PRINCIPAL FINANCIAL GROUP	PFG	13,123.92	0.07%	3.54%	5.00%	8.63%	0.0063%
PROCTER & GAMBLE CO/THE	PG	216,195.60	1.21%	3.30%	6.50%	9.91%	0.1196%
PROGRESSIVE CORP	PGR	19,404.70	0.11%	2.68%	10.00%	12.81%	0.0139%
PARKER HANNIFIN CORP	PH	15,305.15	0.09%	2.22%	5.50%	7.78%	0.0066%
PULTEGROUP INC	PHM	6,584.93	0.04%	1.91%	10.50%	12.51%	0.0046%
PERKINELMER INC	PKI	6,158.51	0.03%	0.51%	6.50%	7.03%	0.0024%
PROLOGIS INC	PLD	-	N/A	3.57%	N/A	N/A	N/A
PHILIP MORRIS INTERNATIONAL	PM	153,400.50	0.86%	4.12%	5.00%	9.22%	0.0790%
PNC FINANCIAL SERVICES GROUP	PNC	48,503.58	0.27%	2.28%	4.00%	6.33%	0.0171%
PENTAIR PLC	PNR	10,981.62	0.06%	2.17%	12.50%	14.81%	0.0091%
PINNACLE WEST CAPITAL	PNW	8,087.11	0.05%	3.51%	4.00%	7.58%	0.0034%
PPG INDUSTRIES INC	PPG	29,405.55	0.16%	1.49%	9.50%	11.06%	0.0182%
PPL CORP	PPL	25,977.19	0.14%	4.02%	4.00%	8.10%	0.0117%
PERRIGO CO PLC	PRGO	14,083.68	0.08%	0.60%	15.00%	15.65%	0.0123%
PRUDENTIAL FINANCIAL INC	PRU	35,084.02	0.20%	3.57%	2.00%	5.61%	0.0110%
PUBLIC STORAGE	PSA	-	N/A	2.83%	N/A	N/A	N/A
PHILLIPS 66	PSX	42,373.97	0.24%	3.21%	2.50%	5.75%	0.0136%
PVH CORP	PVH	7,637.78	0.04%	0.16%	5.50%	5.66%	0.0024%
QUANTA SERVICES INC	PWR	3,766.09	0.02%	0.00%	6.50%	6.50%	0.0014%
PRAXAIR INC	PX	31,499.07	0.18%	2.80%	6.50%	9.39%	0.0165%
PIONEER NATURAL RESOURCES CO	PXD	24,244.37	0.14%	0.05%	18.50%	18.55%	0.0251%
PAYPAL HOLDINGS INC	PYPL	46,597.68	N/A	0.00%	N/A	N/A	N/A

QUALCOMM INC	QCOM	81,770.58	0.46%	3.80%	4.50%	8.39%	0.0383%
QORVO INC	QRVO	6,925.19	N/A	0.00%	N/A	N/A	N/A
RYDER SYSTEM INC	R	3,701.58	0.02%	2.37%	9.00%	11.48%	0.0024%
REYNOLDS AMERICAN INC	RAI	71,952.27	0.40%	3.33%	10.00%	13.50%	0.0542%
ROYAL CARIBBEAN CRUISES LTD	RCL	16,449.75	0.09%	1.99%	16.50%	18.65%	0.0171%
REGENERON PHARMACEUTICALS	REGN	41,183.57	0.23%	0.00%	27.00%	27.00%	0.0621%
REGIONS FINANCIAL CORP	RF	12,623.03	0.07%	2.78%	7.50%	10.38%	0.0073%
ROBERT HALF INTL INC	RHI	5,321.00	0.03%	2.19%	11.00%	13.31%	0.0040%
RED HAT INC	RHT	13,809.92	0.08%	0.00%	16.50%	16.50%	0.0127%
TRANSOCEAN LTD	RIG	3,607.59	0.02%	0.00%	-19.00%	-19.00%	-0.0038%
RALPH LAUREN CORP	RL	7,883.40	0.04%	2.24%	4.50%	6.79%	0.0030%
ROCKWELL AUTOMATION INC	ROK	15,210.93	0.08%	2.48%	3.00%	5.52%	0.0047%
ROPER TECHNOLOGIES INC	ROP	17,320.39	0.10%	0.70%	7.00%	7.72%	0.0075%
ROSS STORES INC	ROST	21,821.67	0.12%	1.04%	9.00%	10.09%	0.0123%
RANGE RESOURCES CORP	RRC	7,045.24	0.04%	0.19%	12.00%	12.20%	0.0048%
REPUBLIC SERVICES INC	RSG	16,661.38	0.09%	2.61%	8.50%	11.22%	0.0104%
RAYTHEON COMPANY	RTN	38,878.71	0.22%	2.25%	9.00%	11.35%	0.0246%
STARBUCKS CORP	SBUX	80,972.20	0.45%	1.61%	16.50%	18.24%	0.0825%
SCANA CORP	SCG	9,918.69	0.06%	3.36%	4.50%	7.94%	0.0044%
SCHWAB (CHARLES) CORP	SCHW	39,689.07	0.22%	0.93%	12.00%	12.99%	0.0288%
SPECTRA ENERGY CORP	SE	21,123.08	0.12%	5.15%	11.50%	16.95%	0.0200%
SEALED AIR CORP	SEE	9,122.45	0.05%	1.38%	16.00%	17.49%	0.0089%
SHERWIN-WILLIAMS CO/THE	SHW	26,605.88	0.15%	1.19%	12.00%	13.26%	0.0197%
SIGNET JEWELERS LTD	SIG	7,701.80	0.04%	1.07%	15.00%	16.15%	0.0069%
JM SMUCKER CO/THE	SJM	15,495.62	0.09%	2.14%	7.00%	9.21%	0.0080%
SCHLUMBERGER LTD	SLB	97,845.95	0.55%	2.57%	10.00%	12.70%	0.0694%
SL GREEN REALTY CORP	SLG	-	N/A	2.87%	N/A	N/A	N/A
SNAP-ON INC	SNA	9,447.25	0.05%	1.50%	10.00%	11.58%	0.0061%
SCRIPPS NETWORKS INTER-CL A	SNI	8,064.94	0.05%	1.60%	9.00%	10.67%	0.0048%
SOUTHERN CO/THE	SO	44,874.91	0.25%	4.59%	2.50%	7.15%	0.0179%
SIMON PROPERTY GROUP INC	SPG	-	N/A	3.25%	N/A	N/A	N/A
S&P GLOBAL INC	SPGI	29,275.43	0.16%	1.30%	11.00%	12.37%	0.0202%
STAPLES INC	SPLS	5,551.61	0.03%	5.59%	-2.00%	3.53%	0.0011%
STERICYCLE INC	SRCL	8,344.44	0.05%	0.00%	9.00%	9.00%	0.0042%
SEMPRA ENERGY	SRE	26,014.18	0.15%	2.94%	10.00%	13.09%	0.0190%
SUNTRUST BANKS INC	STI	22,047.58	0.12%	2.35%	7.00%	9.43%	0.0116%
ST JUDE MEDICAL INC	STJ	22,063.75	0.12%	1.64%	5.50%	7.19%	0.0088%
STATE STREET CORP	STT	25,126.06	0.14%	2.29%	5.50%	7.85%	0.0110%
SEAGATE TECHNOLOGY	STX	6,431.81	0.04%	11.69%	0.50%	12.22%	0.0044%
CONSTELLATION BRANDS INC-A	STZ	31,467.59	0.18%	1.03%	16.50%	17.61%	0.0309%
STANLEY BLACK & DECKER INC	SWK	17,011.87	0.09%	1.94%	8.50%	10.52%	0.0100%
SKYWORKS SOLUTIONS INC	SWKS	12,585.53	0.07%	1.57%	18.00%	19.71%	0.0138%
SOUTHWESTERN ENERGY CO	SWN	5,121.90	0.03%	0.00%	-5.00%	-5.00%	-0.0014%
SYNCHRONY FINANCIAL	SYF	25,756.95	N/A	0.00%	N/A	N/A	N/A
STRYKER CORP	SYK	41,619.34	0.23%	1.36%	18.50%	19.99%	0.0464%
SYMANTEC CORP	SYMC	11,293.83	0.06%	1.75%	-1.00%	0.74%	0.0005%
SYSCO CORP	SYO	27,592.25	0.15%	2.58%	10.50%	13.22%	0.0204%
AT&T INC	T	238,669.50	1.33%	4.97%	6.50%	11.63%	0.1550%
MOLSON COORS BREWING CO -B	TAP	18,331.92	0.10%	1.65%	8.00%	9.72%	0.0099%
TERADATA CORP	TDC	3,621.70	0.02%	0.00%	3.50%	3.50%	0.0007%
TECO ENERGY INC	TE	6,475.46	0.04%	3.38%	7.50%	11.01%	0.0040%
TE CONNECTIVITY LTD	TEL	21,149.76	0.12%	2.50%	8.50%	11.11%	0.0131%
TEGNA INC	TGNA	4,951.06	0.03%	2.49%	1.00%	3.50%	0.0010%
TARGET CORP	TGT	40,903.88	0.23%	3.43%	11.00%	14.62%	0.0334%
TIFFANY & CO	TIF	7,881.30	0.04%	2.69%	7.50%	10.29%	0.0045%
TJX COMPANIES INC	TJX	50,372.61	0.28%	1.37%	10.00%	11.44%	0.0322%
TORCHMARK CORP	TMK	7,392.37	0.04%	0.93%	7.00%	7.96%	0.0033%
THERMO FISHER SCIENTIFIC INC	TMO	60,343.62	0.34%	0.40%	9.00%	9.42%	0.0317%
TRIPADVISOR INC	TRIP	9,673.19	0.05%	0.00%	16.50%	16.50%	0.0089%
T ROWE PRICE GROUP INC	TROW	19,200.95	0.11%	2.86%	7.50%	10.47%	0.0112%
TRAVELERS COS INC/THE	TRV	33,614.24	0.19%	2.36%	3.50%	5.90%	0.0111%
TRACTOR SUPPLY COMPANY	TSCO	12,762.33	0.07%	1.00%	14.00%	15.07%	0.0107%
TYSON FOODS INC-CL A	TSN	24,101.80	0.13%	0.98%	12.50%	13.54%	0.0182%
TESORO CORP	TSO	9,233.85	0.05%	2.59%	5.50%	8.16%	0.0042%
TOTAL SYSTEM SERVICES INC	TSS	9,787.42	0.05%	0.75%	12.00%	12.80%	0.0070%
TIME WARNER INC	TWX	58,885.66	0.33%	2.17%	11.50%	13.79%	0.0453%
TEXAS INSTRUMENTS INC	TXN	61,454.75	0.34%	2.50%	7.50%	10.09%	0.0346%
TEXTRON INC	TXT	10,489.22	0.06%	0.21%	15.50%	15.73%	0.0092%
TYCO INTERNATIONAL PLC	TYC	18,112.85	0.10%	1.92%	9.50%	11.51%	0.0116%
UNDER ARMOUR INC-CLASS A	UA	16,319.57	0.09%	0.00%	24.50%	24.50%	0.0223%
UNITED CONTINENTAL HOLDINGS	UAL	16,225.10	0.09%	0.00%	7.00%	7.00%	0.0063%
UDR INC	UDR	-	N/A	3.29%	N/A	N/A	N/A
UNIVERSAL HEALTH SERVICES-B	UHS	13,215.90	0.07%	0.30%	12.00%	12.32%	0.0091%
ULTA SALON COSMETICS & FRAGR	ULTA	13,577.86	0.08%	0.00%	18.00%	18.00%	0.0136%
UNITEDHEALTH GROUP INC	UNH	126,730.00	0.71%	1.50%	12.50%	14.09%	0.0997%
UNUM GROUP	UNM	8,759.74	0.05%	2.04%	11.00%	13.15%	0.0064%
UNION PACIFIC CORP	UNP	69,924.03	0.39%	2.67%	7.00%	9.76%	0.0381%
UNITED PARCEL SERVICE-CL B	UPS	90,770.70	0.51%	3.08%	9.50%	12.73%	0.0645%
URBAN OUTFITTERS INC	URBN	3,358.90	0.02%	0.00%	13.50%	13.50%	0.0025%

UNITED RENTALS INC	URI	6,330.80	0.04%	0.00%	13.00%	13.00%	0.0046%
US BANCORP	USB	74,467.26	0.42%	2.46%	4.00%	6.51%	0.0271%
UNITED TECHNOLOGIES CORP	UTX	84,178.13	0.47%	2.63%	6.50%	9.22%	0.0433%
VISA INC-CLASS A SHARES	V	173,010.00	0.97%	0.76%	12.00%	12.81%	0.1237%
VARIAN MEDICAL SYSTEMS INC	VAR	7,862.32	0.04%	0.00%	7.50%	7.50%	0.0033%
VF CORP	VFC	26,479.93	0.15%	2.38%	11.00%	13.51%	0.0200%
VIACOM INC-CLASS B	VIAB	16,850.39	0.09%	3.76%	5.00%	8.85%	0.0083%
VALERO ENERGY CORP	VLO	25,586.68	0.14%	4.44%	5.50%	10.06%	0.0144%
VULCAN MATERIALS CO	VMC	15,882.09	0.09%	0.67%	33.50%	34.28%	0.0304%
VORNADO REALTY TRUST	VNO	17,858.60	0.10%	2.66%	22.50%	25.46%	0.0254%
VERISK ANALYTICS INC	VRSK	13,381.11	0.07%	0.00%	11.00%	11.00%	0.0082%
VERISIGN INC	VRSN	9,329.70	0.05%	0.00%	11.50%	11.50%	0.0080%
VERTEX PHARMACEUTICALS INC	VRTX	21,968.03	N/A	0.00%	N/A	N/A	N/A
VENTAS INC	VTR	-	N/A	4.46%	N/A	N/A	N/A
VERIZON COMMUNICATIONS INC	VZ	204,101.10	1.14%	4.51%	5.00%	9.62%	0.1096%
WATERS CORP	WAT	11,138.04	0.06%	0.00%	9.00%	9.00%	0.0056%
WALGREENS BOOTS ALLIANCE INC	WBA	82,896.30	0.46%	1.88%	13.50%	15.51%	0.0718%
WESTERN DIGITAL CORP	WDC	10,340.54	0.06%	4.51%	-0.50%	4.00%	0.0023%
WEC ENERGY GROUP INC	WEC	18,836.80	0.11%	3.37%	6.00%	9.47%	0.0100%
WELLS FARGO & CO	WFC	258,233.40	1.44%	3.01%	5.00%	8.09%	0.1165%
WHOLE FOODS MARKET INC	WFM	10,559.25	0.06%	1.72%	8.00%	9.79%	0.0058%
WHIRLPOOL CORP	WHR	13,435.50	0.07%	2.32%	11.50%	13.95%	0.0105%
WILLIS TOWERS WATSON PLC	WLTW	N/A	N/A	0.00%	N/A	N/A	N/A
WASTE MANAGEMENT INC	WM	27,326.99	0.15%	2.72%	7.50%	10.32%	0.0157%
WILLIAMS COS INC	WMB	15,586.69	0.09%	12.69%	16.50%	30.24%	0.0263%
WAL-MART STORES INC	WMT	224,027.70	1.25%	2.82%	2.00%	4.85%	0.0606%
WESTROCK CO	WRK	9,924.37	N/A	3.82%	N/A	N/A	N/A
WESTERN UNION CO	WU	9,681.25	0.05%	3.32%	8.00%	11.45%	0.0062%
WEYERHAEUSER CO	WY	15,952.59	0.09%	3.97%	12.00%	16.21%	0.0144%
WYNDHAM WORLDWIDE CORP	WYN	7,581.62	0.04%	3.00%	5.50%	8.58%	0.0036%
WYNN RESORTS LTD	WYNN	9,610.74	0.05%	2.11%	6.50%	8.68%	0.0047%
CIMAREX ENERGY CO	XEC	11,240.08	0.06%	0.27%	11.00%	11.28%	0.0071%
XCEL ENERGY INC	XEL	20,753.11	0.12%	3.38%	5.50%	8.97%	0.0104%
XL GROUP PLC	XL	8,732.36	0.05%	2.34%	8.50%	10.94%	0.0053%
XILINX INC	XLNX	12,038.49	0.07%	2.80%	7.00%	9.90%	0.0067%
EXXON MOBIL CORP	XOM	373,208.80	2.08%	3.34%	5.00%	8.42%	0.1755%
DENTSPLY SIRONA INC	XRAY	8,646.97	0.05%	0.50%	8.00%	8.52%	0.0041%
XEROX CORP	XRX	9,733.36	0.05%	3.23%	5.50%	8.82%	0.0048%
XYLEM INC	XYL	7,981.62	0.04%	1.39%	9.50%	10.96%	0.0049%
YAHOO! INC	YHOO	34,769.59	N/A	0.00%	N/A	N/A	N/A
YUMI BRANDS INC	YUM	33,557.15	0.19%	2.38%	10.00%	12.50%	0.0234%
ZIMMER BIOMET HOLDINGS INC	ZBH	24,828.72	0.14%	0.80%	13.00%	13.85%	0.0192%
ZIONS BANCORPORATION	ZION	5,690.97	0.03%	1.15%	11.00%	12.21%	0.0039%
ZOETIS INC	ZTS	23,541.94	0.13%	0.80%	0.11	11.84%	0.0156%
		17,915,583					13.75%

[1] Equals sum of Col. [9]

[2] Source: Bloomberg Professional

[3] Equals [1] - [2]

[4] Source: Value Line

[5] Equals weight in S&P 500 based on market capitalization

[6] Source: Value Line

[7] Source: Value Line

[8] Equals (([6] x (1 + (0.5 x [7]))) + [7])

[9] Equals Col. [5] x Col. [8]

Bloomberg and Value Line Beta Coefficients

		[1]	[2]
Company	Ticker	Bloomberg	Value Line
ALLETE, Inc.	ALE	0.626	0.800
Alliant Energy Corporation	LNT	0.617	0.800
Ameren Corporation	AEE	0.625	0.750
American Electric Power Company, Inc.	AEP	0.565	0.700
Avista Corporation	AVA	0.591	0.750
CMS Energy Corporation	CMS	0.549	0.750
DTE Energy Company	DTE	0.608	0.750
IDACORP, Inc.	IDA	0.685	0.800
NorthWestern Corporation	NWE	0.619	0.700
OGE Energy Corp.	OGE	0.713	0.950
Otter Tail Corporation	OTTR	0.713	0.850
Pinnacle West Capital Corporation	PNW	0.611	0.750
PNM Resources, Inc.	PNM	0.641	0.800
Portland General Electric Company	POR	0.609	0.800
SCANA Corporation	SCG	0.597	0.700
Xcel Energy Inc.	XEL	0.488	0.650
Mean		0.616	0.769

Notes:

[1] Source: Bloomberg Professional

[2] Source: Value Line

Capital Asset Pricing Model Results
Bloomberg and Value Line Derived Market Risk Premium

	[1]	[2]	[3]	[4]	[5]	[6]
	Ex-Ante Market Risk Premium				CAPM Result	
	Risk-Free Rate	Average Beta Coefficient	Bloomberg Market DCF Derived	Value Line Market DCF Derived	Bloomberg Market DCF Derived	Value Line Market DCF Derived
PROXY GROUP BLOOMBERG BETA COEFFICIENT						
Current 30-Year Treasury (30-day average) [7]	2.65%	0.616	10.50%	11.10%	9.11%	9.49%
Near-Term Projected 30-Year Treasury [8]	3.08%	0.616	10.50%	11.10%	9.55%	9.92%
Mean					9.33%	9.71%

	[1]	[2]	[3]	[4]	[5]	[6]
	Ex-Ante Market Risk Premium				CAPM Result	
	Risk-Free Rate	Average Beta Coefficient	Bloomberg Market DCF Derived	Value Line Market DCF Derived	Bloomberg Market DCF Derived	Value Line Market DCF Derived
PROXY GROUP VALUE LINE AVERAGE BETA COEFFICIENT						
Current 30-Year Treasury (30-day average) [7]	2.65%	0.769	10.50%	11.10%	10.72%	11.18%
Near-Term Projected 30-Year Treasury [8]	3.08%	0.769	10.50%	11.10%	11.15%	11.62%
Mean					10.94%	11.40%

Notes:

[2] Source: Exhibit RBH-4

[3] Source: Exhibit RBH-3

[4] Source: Exhibit RBH-3

[5] Equals Col. [1] + (Col. [2] x Col. [3])

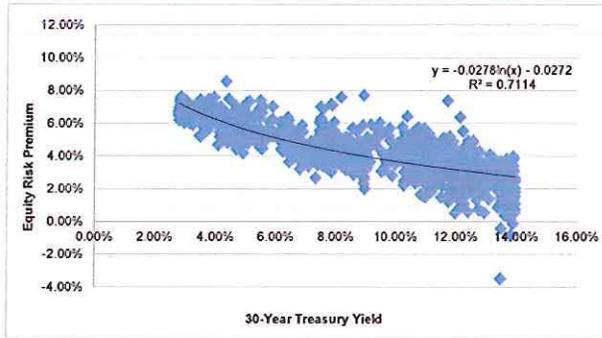
[6] Equals Col. [1] + (Col. [2] x Col. [4])

[7] Source: Bloomberg Professional

[8] Source: Blue Chip Financial Forecasts, Vol. 35, No. 6, June 1, 2016, at 2.

Bond Yield Plus Risk Premium

[1]	[2]	[3]	[4]	[5]
Constant	Slope	30-Year Treasury Yield	Risk Premium	Return on Equity
-2.72%	-2.78%			
	Current 30-Year Treasury	2.65%	7.39%	10.04%
	Near-Term Projected 30-Year Treasury	3.08%	6.97%	10.05%
	Long-Term Projected 30-Year Treasury	4.45%	5.94%	10.39%



Notes:

[1] Constant of regression equation

[2] Slope of regression equation

[3] Source: Current = Bloomberg Professional,

Near Term Projection = Blue Chip Financial Forecasts, Vol. 35, No. 6, June 1, 2016, at 2.

Long Term Projection = Blue Chip Financial Forecasts, Vol. 35, No. 6, June 1, 2016, at 14.

[4] Equals [1] + ln([3]) x [2]

[5] Equals [3] + [4]

[6] Source: SNL Financial

[7] Source: SNL Financial

[8] Source: Bloomberg Professional, equals 200-trading day average (i.e. lag period)

[9] Equals [7] - [8]

Bond Yield Plus Risk Premium			
[6]	[7]	[8]	[9]
Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
1/1/1980	14.50%	9.36%	5.14%
1/7/1980	14.39%	9.39%	5.00%
1/9/1980	15.00%	9.40%	5.60%
1/14/1980	15.17%	9.42%	5.75%
1/17/1980	13.93%	9.44%	4.49%
1/23/1980	15.50%	9.47%	6.03%
1/30/1980	13.86%	9.52%	4.34%
1/31/1980	12.61%	9.53%	3.08%
2/6/1980	13.71%	9.58%	4.13%
2/13/1980	12.80%	9.64%	3.16%
2/14/1980	13.00%	9.65%	3.35%
2/19/1980	13.50%	9.68%	3.82%
2/27/1980	13.75%	9.78%	3.97%
2/29/1980	13.75%	9.81%	3.94%
2/29/1980	14.00%	9.81%	4.19%
2/29/1980	14.77%	9.81%	4.96%
3/7/1980	12.70%	9.90%	2.80%
3/14/1980	13.50%	9.97%	3.53%
3/26/1980	14.16%	10.11%	4.05%
3/27/1980	14.24%	10.12%	4.12%
3/28/1980	14.50%	10.14%	4.36%
4/11/1980	12.75%	10.28%	2.47%
4/14/1980	13.85%	10.29%	3.56%
4/16/1980	15.50%	10.32%	5.18%
4/22/1980	13.90%	10.36%	3.54%
4/22/1980	13.25%	10.36%	2.89%
4/24/1980	16.80%	10.38%	6.42%
4/29/1980	15.50%	10.41%	5.09%
5/6/1980	13.70%	10.45%	3.25%
5/7/1980	15.00%	10.46%	4.54%
5/8/1980	13.75%	10.47%	3.28%
5/9/1980	14.35%	10.47%	3.88%
5/13/1980	13.60%	10.49%	3.11%
5/15/1980	13.25%	10.50%	2.75%
5/19/1980	13.75%	10.52%	3.23%
5/27/1980	14.60%	10.55%	4.05%
5/27/1980	13.62%	10.55%	3.07%
5/29/1980	16.00%	10.56%	5.44%
5/30/1980	13.80%	10.57%	3.23%
6/2/1980	15.63%	10.58%	5.05%
6/9/1980	15.90%	10.61%	5.29%
6/10/1980	13.78%	10.61%	3.17%
6/12/1980	14.25%	10.62%	3.63%
6/19/1980	13.40%	10.63%	2.77%
6/30/1980	13.00%	10.65%	2.35%
6/30/1980	13.40%	10.65%	2.75%
7/9/1980	14.75%	10.68%	4.07%
7/10/1980	15.00%	10.69%	4.31%
7/15/1980	15.80%	10.70%	5.10%
7/18/1980	13.80%	10.72%	3.08%
7/22/1980	14.10%	10.73%	3.37%
7/24/1980	15.00%	10.73%	4.27%
7/25/1980	13.48%	10.74%	2.74%
7/31/1980	14.58%	10.76%	3.82%
8/8/1980	14.00%	10.78%	3.22%
8/8/1980	13.50%	10.78%	2.72%
8/8/1980	15.45%	10.78%	4.67%
8/11/1980	14.85%	10.78%	4.07%
8/14/1980	14.00%	10.79%	3.21%
8/14/1980	16.25%	10.79%	5.46%
8/25/1980	13.75%	10.82%	2.93%
8/27/1980	13.80%	10.83%	2.97%
8/29/1980	12.50%	10.84%	1.66%
9/15/1980	15.80%	10.88%	4.92%
9/15/1980	13.93%	10.88%	3.05%
9/15/1980	13.50%	10.88%	2.62%
9/24/1980	12.50%	10.93%	1.57%
9/24/1980	15.00%	10.93%	4.07%
9/26/1980	13.75%	10.95%	2.80%
9/30/1980	14.20%	10.96%	3.24%
9/30/1980	14.10%	10.96%	3.14%
10/1/1980	13.90%	10.97%	2.93%
10/3/1980	15.50%	10.99%	4.51%
10/7/1980	12.50%	11.00%	1.50%
10/9/1980	14.50%	11.01%	3.49%
10/9/1980	14.50%	11.01%	3.49%
10/9/1980	13.25%	11.01%	2.24%
10/16/1980	16.10%	11.03%	5.07%
10/17/1980	14.50%	11.03%	3.47%
10/31/1980	14.25%	11.11%	3.14%
10/31/1980	13.75%	11.11%	2.64%
11/4/1980	15.00%	11.12%	3.88%
11/5/1980	14.00%	11.13%	2.87%

Bond Yield Plus Risk Premium			
[6]	[7]	[8]	[9]
Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
11/5/1980	13.75%	11.13%	2.62%
11/8/1980	13.75%	11.15%	2.60%
11/10/1980	14.85%	11.15%	3.70%
11/17/1980	14.00%	11.18%	2.82%
11/18/1980	14.00%	11.19%	2.81%
11/19/1980	13.00%	11.19%	1.81%
11/24/1980	14.00%	11.20%	2.80%
11/26/1980	14.00%	11.21%	2.79%
12/8/1980	15.10%	11.22%	3.88%
12/8/1980	14.15%	11.22%	2.93%
12/8/1980	15.35%	11.22%	4.13%
12/12/1980	15.45%	11.22%	4.23%
12/17/1980	13.25%	11.23%	2.02%
12/18/1980	15.80%	11.23%	4.57%
12/19/1980	14.50%	11.23%	3.27%
12/19/1980	14.64%	11.23%	3.41%
12/22/1980	13.45%	11.22%	2.23%
12/22/1980	15.00%	11.22%	3.78%
12/30/1980	14.50%	11.21%	3.29%
12/30/1980	14.95%	11.21%	3.74%
12/31/1980	13.39%	11.21%	2.18%
1/2/1981	15.25%	11.21%	4.04%
1/7/1981	14.30%	11.21%	3.09%
1/19/1981	15.25%	11.19%	4.06%
1/23/1981	14.40%	11.20%	3.20%
1/23/1981	13.10%	11.20%	1.90%
1/26/1981	15.25%	11.20%	4.05%
1/27/1981	15.00%	11.20%	3.80%
1/31/1981	13.47%	11.21%	2.26%
2/3/1981	15.25%	11.23%	4.02%
2/5/1981	15.75%	11.25%	4.50%
2/11/1981	15.60%	11.28%	4.32%
2/20/1981	15.25%	11.34%	3.91%
3/11/1981	15.40%	11.50%	3.90%
3/12/1981	14.51%	11.51%	3.00%
3/12/1981	16.00%	11.51%	4.49%
3/13/1981	13.02%	11.52%	1.50%
3/18/1981	16.19%	11.55%	4.64%
3/19/1981	13.75%	11.56%	2.19%
3/23/1981	14.30%	11.58%	2.72%
3/25/1981	15.30%	11.61%	3.69%
4/1/1981	14.53%	11.69%	2.84%
4/3/1981	19.10%	11.72%	7.38%
4/9/1981	15.00%	11.79%	3.21%
4/9/1981	15.30%	11.79%	3.51%
4/9/1981	17.00%	11.79%	5.21%
4/9/1981	16.50%	11.79%	4.71%
4/10/1981	13.75%	11.81%	1.94%
4/13/1981	13.57%	11.83%	1.74%
4/15/1981	15.30%	11.86%	3.44%
4/16/1981	13.50%	11.88%	1.62%
4/17/1981	14.10%	11.88%	2.22%
4/21/1981	16.80%	11.91%	4.89%
4/21/1981	14.00%	11.91%	2.09%
4/24/1981	16.00%	11.96%	4.04%
4/27/1981	13.61%	11.98%	1.63%
4/27/1981	12.50%	11.98%	0.52%
4/29/1981	13.65%	12.01%	1.64%
4/30/1981	13.50%	12.02%	1.48%
5/4/1981	16.22%	12.06%	4.16%
5/5/1981	14.40%	12.08%	2.32%
5/7/1981	16.25%	12.12%	4.13%
5/7/1981	16.27%	12.12%	4.15%
5/8/1981	13.00%	12.14%	0.86%
5/8/1981	16.00%	12.14%	3.86%
5/12/1981	13.50%	12.17%	1.33%
5/15/1981	15.75%	12.23%	3.52%
5/18/1981	14.88%	12.24%	2.64%
5/20/1981	16.00%	12.27%	3.73%
5/21/1981	14.00%	12.28%	1.72%
5/26/1981	14.90%	12.31%	2.59%
5/27/1981	15.00%	12.32%	2.68%
5/29/1981	15.50%	12.34%	3.16%
6/1/1981	16.50%	12.35%	4.15%
6/3/1981	14.67%	12.38%	2.29%
6/5/1981	13.00%	12.40%	0.60%
6/10/1981	16.75%	12.42%	4.33%
6/17/1981	14.40%	12.46%	1.94%
6/18/1981	16.33%	12.47%	3.86%
6/25/1981	14.75%	12.52%	2.23%
6/26/1981	16.00%	12.53%	3.47%
6/30/1981	15.25%	12.55%	2.70%
7/1/1981	15.50%	12.56%	2.94%

Bond Yield Plus Risk Premium

[6]	[7]	[8]	[9]
Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
7/1/1981	17.50%	12.56%	4.94%
7/10/1981	16.00%	12.62%	3.38%
7/14/1981	16.90%	12.64%	4.26%
7/15/1981	16.00%	12.65%	3.35%
7/17/1981	15.00%	12.67%	2.33%
7/20/1981	15.00%	12.68%	2.32%
7/21/1981	14.00%	12.69%	1.31%
7/28/1981	13.48%	12.75%	0.73%
7/31/1981	13.50%	12.79%	0.71%
7/31/1981	16.00%	12.79%	3.21%
7/31/1981	15.00%	12.79%	2.21%
8/5/1981	15.71%	12.83%	2.88%
8/10/1981	14.50%	12.87%	1.63%
8/11/1981	15.00%	12.88%	2.12%
8/20/1981	16.50%	12.95%	3.55%
8/20/1981	13.50%	12.95%	0.55%
8/24/1981	15.00%	12.97%	2.03%
8/28/1981	15.00%	13.01%	1.99%
9/3/1981	14.50%	13.06%	1.44%
9/10/1981	14.50%	13.11%	1.39%
9/11/1981	16.00%	13.12%	2.88%
9/16/1981	16.00%	13.15%	2.85%
9/17/1981	16.50%	13.16%	3.34%
9/23/1981	15.85%	13.20%	2.65%
9/28/1981	15.50%	13.23%	2.27%
10/9/1981	15.75%	13.34%	2.41%
10/15/1981	16.25%	13.37%	2.88%
10/16/1981	16.50%	13.39%	3.11%
10/16/1981	15.50%	13.39%	2.11%
10/19/1981	14.25%	13.40%	0.85%
10/20/1981	15.25%	13.41%	1.84%
10/20/1981	17.00%	13.41%	3.59%
10/23/1981	16.00%	13.46%	2.54%
10/27/1981	10.00%	13.49%	-3.49%
10/29/1981	16.50%	13.52%	2.98%
10/29/1981	14.75%	13.52%	1.23%
11/3/1981	15.17%	13.54%	1.63%
11/5/1981	16.60%	13.56%	3.04%
11/6/1981	15.17%	13.57%	1.60%
11/24/1981	15.50%	13.61%	1.89%
11/25/1981	16.10%	13.61%	2.49%
11/25/1981	16.10%	13.61%	2.49%
11/25/1981	15.25%	13.61%	1.64%
11/25/1981	15.35%	13.61%	1.74%
12/1/1981	16.50%	13.61%	2.89%
12/1/1981	15.70%	13.61%	2.09%
12/1/1981	16.49%	13.61%	2.88%
12/1/1981	16.00%	13.61%	2.39%
12/4/1981	16.00%	13.61%	2.39%
12/11/1981	16.25%	13.63%	2.62%
12/14/1981	14.00%	13.63%	0.37%
12/15/1981	15.81%	13.63%	2.18%
12/15/1981	16.00%	13.63%	2.37%
12/16/1981	15.25%	13.63%	1.62%
12/17/1981	16.50%	13.64%	2.86%
12/18/1981	15.45%	13.64%	1.81%
12/30/1981	16.00%	13.67%	2.33%
12/30/1981	16.25%	13.67%	2.58%
12/30/1981	14.25%	13.67%	0.58%
12/31/1981	16.15%	13.68%	2.47%
1/4/1982	15.50%	13.68%	1.82%
1/11/1982	14.50%	13.73%	0.77%
1/11/1982	17.00%	13.73%	3.27%
1/13/1982	14.75%	13.74%	1.01%
1/14/1982	15.75%	13.75%	2.00%
1/15/1982	15.00%	13.76%	1.24%
1/15/1982	16.50%	13.76%	2.74%
1/22/1982	16.25%	13.80%	2.45%
1/27/1982	16.84%	13.81%	3.03%
1/28/1982	13.00%	13.82%	-0.82%
1/29/1982	15.50%	13.82%	1.68%
2/1/1982	15.85%	13.83%	2.02%
2/3/1982	16.44%	13.84%	2.60%
2/8/1982	15.50%	13.86%	1.64%
2/11/1982	16.00%	13.86%	2.12%
2/11/1982	16.20%	13.88%	2.32%
2/17/1982	15.00%	13.89%	1.11%
2/19/1982	15.17%	13.89%	1.28%
2/26/1982	15.25%	13.89%	1.36%
3/1/1982	15.03%	13.89%	1.14%
3/1/1982	16.00%	13.89%	2.11%
3/3/1982	15.00%	13.88%	1.12%
3/8/1982	17.10%	13.88%	3.22%

Bond Yield Plus Risk Premium			
[6]	[7]	[8]	[9]
Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
3/12/1982	16.25%	13.88%	2.37%
3/17/1982	17.30%	13.88%	3.42%
3/22/1982	15.10%	13.89%	1.21%
3/27/1982	15.40%	13.90%	1.50%
3/30/1982	15.50%	13.91%	1.59%
3/31/1982	17.00%	13.91%	3.09%
4/1/1982	16.50%	13.92%	2.58%
4/1/1982	14.70%	13.92%	0.78%
4/2/1982	15.50%	13.92%	1.58%
4/5/1982	15.50%	13.93%	1.57%
4/8/1982	16.40%	13.94%	2.46%
4/13/1982	14.50%	13.94%	0.56%
4/23/1982	15.75%	13.94%	1.81%
4/27/1982	15.00%	13.94%	1.06%
4/28/1982	15.75%	13.94%	1.81%
4/30/1982	15.50%	13.94%	1.56%
4/30/1982	14.70%	13.94%	0.76%
5/3/1982	16.60%	13.94%	2.66%
5/4/1982	16.00%	13.94%	2.06%
5/14/1982	15.50%	13.92%	1.58%
5/18/1982	15.42%	13.92%	1.50%
5/19/1982	14.69%	13.92%	0.77%
5/20/1982	15.10%	13.91%	1.19%
5/20/1982	15.50%	13.91%	1.59%
5/20/1982	16.30%	13.91%	2.39%
5/20/1982	15.00%	13.91%	1.09%
5/21/1982	17.75%	13.91%	3.84%
5/27/1982	15.00%	13.89%	1.11%
5/28/1982	15.50%	13.89%	1.61%
5/28/1982	17.00%	13.89%	3.11%
6/1/1982	13.75%	13.89%	-0.14%
6/1/1982	16.60%	13.89%	2.71%
6/9/1982	17.88%	13.88%	3.98%
6/14/1982	15.75%	13.88%	1.87%
6/15/1982	14.85%	13.87%	0.98%
6/18/1982	15.50%	13.86%	1.64%
6/21/1982	14.90%	13.86%	1.04%
6/23/1982	16.00%	13.86%	2.14%
6/23/1982	16.17%	13.86%	2.31%
6/24/1982	14.85%	13.86%	0.99%
6/25/1982	14.70%	13.85%	0.85%
7/1/1982	16.00%	13.84%	2.16%
7/2/1982	15.62%	13.83%	1.79%
7/2/1982	17.00%	13.83%	3.17%
7/13/1982	14.00%	13.82%	0.18%
7/13/1982	16.80%	13.82%	2.98%
7/14/1982	15.76%	13.81%	1.95%
7/14/1982	16.02%	13.81%	2.21%
7/19/1982	16.50%	13.79%	2.71%
7/22/1982	17.00%	13.76%	3.24%
7/22/1982	14.50%	13.76%	0.74%
7/27/1982	16.75%	13.74%	3.01%
7/29/1982	16.50%	13.73%	2.77%
8/11/1982	17.50%	13.68%	3.82%
8/18/1982	17.07%	13.62%	3.45%
8/20/1982	15.73%	13.60%	2.13%
8/25/1982	16.00%	13.57%	2.43%
8/26/1982	15.50%	13.56%	1.94%
8/30/1982	15.00%	13.55%	1.45%
9/3/1982	16.20%	13.53%	2.67%
9/8/1982	15.00%	13.52%	1.48%
9/15/1982	13.08%	13.51%	-0.43%
9/15/1982	16.25%	13.51%	2.74%
9/16/1982	16.00%	13.50%	2.50%
9/17/1982	15.25%	13.50%	1.75%
9/23/1982	17.17%	13.47%	3.70%
9/24/1982	14.50%	13.47%	1.03%
9/27/1982	15.25%	13.46%	1.79%
10/1/1982	15.50%	13.42%	2.08%
10/15/1982	15.90%	13.32%	2.58%
10/22/1982	15.75%	13.24%	2.51%
10/22/1982	17.15%	13.24%	3.91%
10/29/1982	15.54%	13.16%	2.38%
11/1/1982	15.50%	13.14%	2.36%
11/3/1982	17.20%	13.12%	4.08%
11/4/1982	16.25%	13.10%	3.15%
11/5/1982	16.20%	13.09%	3.11%
11/9/1982	16.00%	13.05%	2.95%
11/23/1982	15.85%	12.88%	2.97%
11/23/1982	15.50%	12.88%	2.62%
11/30/1982	16.50%	12.80%	3.70%
12/1/1982	17.04%	12.78%	4.26%
12/6/1982	15.00%	12.72%	2.28%

Bond Yield Plus Risk Premium			
[6]	[7]	[8]	[9]
Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
12/6/1982	16.35%	12.72%	3.63%
12/10/1982	15.50%	12.66%	2.84%
12/13/1982	16.00%	12.64%	3.36%
12/14/1982	16.40%	12.62%	3.78%
12/14/1982	15.30%	12.62%	2.68%
12/20/1982	16.00%	12.57%	3.43%
12/21/1982	15.85%	12.55%	3.30%
12/21/1982	14.75%	12.55%	2.20%
12/22/1982	16.75%	12.54%	4.21%
12/22/1982	16.58%	12.54%	4.04%
12/22/1982	16.25%	12.54%	3.71%
12/29/1982	14.90%	12.48%	2.42%
12/29/1982	16.25%	12.48%	3.77%
12/30/1982	16.35%	12.46%	3.89%
12/30/1982	16.00%	12.46%	3.54%
12/30/1982	16.77%	12.46%	4.31%
1/5/1983	17.33%	12.40%	4.93%
1/11/1983	15.90%	12.34%	3.56%
1/12/1983	15.50%	12.32%	3.18%
1/12/1983	14.63%	12.32%	2.31%
1/20/1983	17.75%	12.23%	5.52%
1/21/1983	15.00%	12.21%	2.79%
1/24/1983	14.50%	12.20%	2.30%
1/24/1983	15.50%	12.20%	3.30%
1/25/1983	15.85%	12.19%	3.66%
1/27/1983	16.14%	12.16%	3.98%
2/1/1983	18.50%	12.13%	6.37%
2/4/1983	14.00%	12.09%	1.91%
2/10/1983	15.00%	12.05%	2.95%
2/21/1983	15.50%	11.98%	3.52%
2/22/1983	15.50%	11.96%	3.54%
2/23/1983	15.10%	11.95%	3.15%
2/23/1983	16.00%	11.95%	4.05%
3/2/1983	15.25%	11.89%	3.36%
3/9/1983	15.20%	11.82%	3.38%
3/15/1983	13.00%	11.76%	1.24%
3/18/1983	15.25%	11.72%	3.53%
3/23/1983	15.40%	11.68%	3.72%
3/24/1983	15.00%	11.66%	3.34%
3/29/1983	15.50%	11.62%	3.88%
3/30/1983	16.71%	11.60%	5.11%
3/31/1983	15.00%	11.58%	3.42%
4/4/1983	15.20%	11.57%	3.63%
4/8/1983	15.50%	11.49%	4.01%
4/11/1983	14.81%	11.48%	3.33%
4/19/1983	14.50%	11.36%	3.14%
4/20/1983	16.00%	11.35%	4.65%
4/29/1983	16.00%	11.23%	4.77%
5/1/1983	14.50%	11.23%	3.27%
5/9/1983	15.50%	11.14%	4.36%
5/11/1983	16.46%	11.11%	5.35%
5/12/1983	14.14%	11.10%	3.04%
5/18/1983	15.00%	11.04%	3.96%
5/23/1983	14.90%	11.00%	3.90%
5/23/1983	15.50%	11.00%	4.50%
5/25/1983	15.50%	10.97%	4.53%
5/27/1983	15.00%	10.95%	4.05%
5/31/1983	15.50%	10.94%	4.56%
5/31/1983	14.00%	10.94%	3.06%
6/2/1983	14.50%	10.92%	3.58%
6/17/1983	15.03%	10.83%	4.20%
7/1/1983	14.80%	10.77%	4.03%
7/1/1983	14.90%	10.77%	4.13%
7/6/1983	16.25%	10.75%	5.50%
7/13/1983	13.20%	10.75%	2.45%
7/19/1983	15.10%	10.74%	4.36%
7/19/1983	15.00%	10.74%	4.26%
7/25/1983	16.25%	10.73%	5.52%
7/28/1983	15.90%	10.74%	5.16%
8/3/1983	16.50%	10.75%	5.75%
8/3/1983	16.34%	10.75%	5.59%
8/19/1983	15.00%	10.80%	4.20%
8/22/1983	16.40%	10.80%	5.60%
8/22/1983	15.50%	10.80%	4.70%
8/31/1983	14.75%	10.85%	3.90%
9/7/1983	15.00%	10.87%	4.13%
9/14/1983	15.78%	10.89%	4.89%
9/16/1983	15.00%	10.90%	4.10%
9/19/1983	14.50%	10.91%	3.59%
9/20/1983	16.50%	10.91%	5.59%
9/28/1983	14.50%	10.94%	3.56%
9/29/1983	15.50%	10.95%	4.55%
9/30/1983	16.15%	10.95%	5.20%

Bond Yield Plus Risk Premium			
[6]	[7]	[8]	[9]
Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
9/30/1983	15.25%	10.95%	4.30%
10/4/1983	14.80%	10.96%	3.84%
10/7/1983	16.00%	10.97%	5.03%
10/13/1983	15.52%	10.99%	4.53%
10/17/1983	15.50%	11.00%	4.50%
10/18/1983	14.50%	11.00%	3.50%
10/19/1983	16.50%	11.01%	5.49%
10/19/1983	16.25%	11.01%	5.24%
10/26/1983	15.00%	11.04%	3.96%
10/27/1983	15.20%	11.04%	4.16%
11/1/1983	16.00%	11.06%	4.94%
11/9/1983	14.90%	11.09%	3.81%
11/10/1983	14.35%	11.10%	3.25%
11/23/1983	16.00%	11.13%	4.87%
11/23/1983	16.15%	11.13%	5.02%
11/30/1983	15.00%	11.14%	3.86%
12/5/1983	15.25%	11.15%	4.10%
12/6/1983	15.07%	11.16%	3.91%
12/8/1983	15.90%	11.16%	4.74%
12/9/1983	14.75%	11.17%	3.58%
12/12/1983	14.50%	11.18%	3.32%
12/15/1983	15.56%	11.20%	4.36%
12/19/1983	14.80%	11.21%	3.59%
12/20/1983	16.00%	11.22%	4.78%
12/20/1983	14.69%	11.22%	3.47%
12/20/1983	16.25%	11.22%	5.03%
12/22/1983	15.75%	11.23%	4.52%
12/22/1983	14.75%	11.23%	3.52%
1/3/1984	14.75%	11.27%	3.48%
1/10/1984	15.90%	11.30%	4.60%
1/12/1984	15.60%	11.31%	4.29%
1/18/1984	13.75%	11.33%	2.42%
1/19/1984	15.90%	11.33%	4.57%
1/30/1984	16.10%	11.37%	4.73%
1/31/1984	15.25%	11.38%	3.87%
2/1/1984	14.80%	11.39%	3.41%
2/6/1984	14.75%	11.41%	3.34%
2/6/1984	13.75%	11.41%	2.34%
2/9/1984	15.25%	11.43%	3.82%
2/15/1984	15.70%	11.45%	4.25%
2/20/1984	15.00%	11.46%	3.54%
2/20/1984	15.00%	11.46%	3.54%
2/22/1984	14.75%	11.48%	3.27%
2/28/1984	14.50%	11.52%	2.98%
3/2/1984	14.25%	11.54%	2.71%
3/20/1984	16.00%	11.65%	4.35%
3/23/1984	15.50%	11.67%	3.83%
3/26/1984	14.71%	11.68%	3.03%
4/2/1984	15.50%	11.72%	3.78%
4/6/1984	14.74%	11.76%	2.98%
4/11/1984	15.72%	11.78%	3.94%
4/17/1984	15.00%	11.81%	3.19%
4/18/1984	16.20%	11.82%	4.38%
4/25/1984	14.64%	11.85%	2.79%
4/30/1984	14.40%	11.88%	2.52%
5/16/1984	14.69%	11.99%	2.70%
5/16/1984	15.00%	11.99%	3.01%
5/22/1984	14.40%	12.02%	2.38%
5/29/1984	15.10%	12.06%	3.04%
6/13/1984	15.25%	12.16%	3.09%
6/15/1984	15.60%	12.17%	3.43%
6/22/1984	16.25%	12.21%	4.04%
6/29/1984	15.25%	12.26%	2.99%
7/2/1984	13.35%	12.27%	1.08%
7/10/1984	16.00%	12.31%	3.69%
7/12/1984	16.50%	12.33%	4.17%
7/13/1984	16.25%	12.34%	3.91%
7/17/1984	14.14%	12.35%	1.79%
7/18/1984	15.50%	12.36%	3.14%
7/18/1984	15.30%	12.36%	2.94%
7/19/1984	14.30%	12.37%	1.93%
7/24/1984	16.79%	12.40%	4.39%
7/31/1984	16.00%	12.43%	3.57%
8/3/1984	14.25%	12.45%	1.80%
8/17/1984	14.30%	12.49%	1.81%
8/20/1984	15.00%	12.49%	2.51%
8/27/1984	16.30%	12.51%	3.79%
8/31/1984	15.55%	12.53%	3.02%
9/6/1984	16.00%	12.54%	3.46%
9/10/1984	14.75%	12.55%	2.20%
9/13/1984	15.00%	12.55%	2.45%
9/17/1984	17.38%	12.56%	4.82%
9/26/1984	14.50%	12.57%	1.93%

Bond Yield Plus Risk Premium			
[6]	[7]	[8]	[9]
Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
9/28/1984	16.25%	12.57%	3.68%
9/28/1984	15.00%	12.57%	2.43%
10/9/1984	14.75%	12.58%	2.17%
10/12/1984	15.60%	12.59%	3.01%
10/22/1984	15.00%	12.59%	2.41%
10/26/1984	16.40%	12.59%	3.81%
10/31/1984	16.25%	12.59%	3.66%
11/7/1984	15.60%	12.58%	3.02%
11/9/1984	16.00%	12.58%	3.42%
11/14/1984	15.75%	12.59%	3.16%
11/20/1984	15.25%	12.58%	2.67%
11/20/1984	15.92%	12.58%	3.34%
11/23/1984	15.00%	12.58%	2.42%
11/28/1984	16.15%	12.57%	3.58%
12/3/1984	15.80%	12.57%	3.23%
12/4/1984	16.50%	12.56%	3.94%
12/18/1984	16.40%	12.54%	3.86%
12/19/1984	14.75%	12.53%	2.22%
12/19/1984	15.00%	12.53%	2.47%
12/20/1984	16.00%	12.53%	3.47%
12/28/1984	16.00%	12.50%	3.50%
1/3/1985	14.75%	12.49%	2.26%
1/10/1985	15.75%	12.47%	3.28%
1/11/1985	16.30%	12.46%	3.84%
1/23/1985	15.80%	12.43%	3.37%
1/24/1985	15.82%	12.43%	3.39%
1/25/1985	16.75%	12.42%	4.33%
1/30/1985	14.90%	12.40%	2.50%
1/31/1985	14.75%	12.39%	2.36%
2/6/1985	14.47%	12.35%	2.12%
3/1/1985	13.84%	12.30%	1.54%
3/8/1985	16.85%	12.28%	4.57%
3/14/1985	15.50%	12.25%	3.25%
3/15/1985	15.62%	12.25%	3.37%
3/29/1985	15.62%	12.16%	3.46%
4/3/1985	14.60%	12.13%	2.47%
4/9/1985	15.50%	12.10%	3.40%
4/16/1985	15.70%	12.05%	3.65%
4/22/1985	14.00%	12.01%	1.99%
4/26/1985	15.50%	11.97%	3.53%
4/29/1985	15.00%	11.96%	3.04%
5/2/1985	14.68%	11.93%	2.75%
5/8/1985	15.62%	11.88%	3.74%
5/10/1985	16.50%	11.86%	4.64%
5/29/1985	14.61%	11.73%	2.88%
5/31/1985	16.00%	11.71%	4.29%
6/14/1985	15.50%	11.60%	3.90%
7/9/1985	15.00%	11.44%	3.56%
7/16/1985	14.50%	11.39%	3.11%
7/26/1985	14.50%	11.32%	3.18%
8/2/1985	14.80%	11.29%	3.51%
8/7/1985	15.00%	11.26%	3.74%
8/28/1985	14.25%	11.15%	3.10%
8/28/1985	15.50%	11.15%	4.35%
8/29/1985	14.50%	11.14%	3.36%
9/9/1985	14.90%	11.11%	3.78%
9/9/1985	14.60%	11.11%	3.49%
9/17/1985	14.90%	11.08%	3.82%
9/23/1985	15.00%	11.06%	3.94%
9/27/1985	15.80%	11.04%	4.76%
9/27/1985	15.50%	11.04%	4.46%
10/2/1985	14.75%	11.03%	3.72%
10/2/1985	14.00%	11.03%	2.97%
10/3/1985	15.25%	11.03%	4.22%
10/24/1985	15.40%	10.96%	4.44%
10/24/1985	15.85%	10.96%	4.89%
10/24/1985	15.82%	10.96%	4.86%
10/28/1985	16.00%	10.95%	5.05%
10/29/1985	16.65%	10.94%	5.71%
10/31/1985	15.06%	10.93%	4.13%
11/4/1985	14.50%	10.91%	3.59%
11/7/1985	15.50%	10.89%	4.61%
11/8/1985	14.30%	10.89%	3.41%
12/12/1985	14.75%	10.73%	4.02%
12/18/1985	15.00%	10.69%	4.31%
12/20/1985	15.00%	10.66%	4.34%
12/20/1985	14.50%	10.66%	3.84%
12/20/1985	14.50%	10.66%	3.84%
1/24/1986	15.40%	10.40%	5.00%
1/31/1986	15.00%	10.35%	4.65%
2/5/1986	15.00%	10.32%	4.68%
2/5/1986	15.75%	10.32%	5.43%
2/10/1986	13.30%	10.29%	3.01%

Bond Yield Plus Risk Premium			
[6]	[7]	[8]	[9]
Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
2/11/1986	12.50%	10.27%	2.23%
2/14/1986	14.40%	10.24%	4.16%
2/18/1986	16.00%	10.22%	5.78%
2/24/1986	14.50%	10.17%	4.33%
2/26/1986	14.00%	10.15%	3.85%
3/5/1986	14.90%	10.07%	4.83%
3/11/1986	14.50%	10.01%	4.49%
3/12/1986	13.50%	10.00%	3.50%
3/27/1986	14.10%	9.85%	4.25%
3/31/1986	13.50%	9.84%	3.66%
4/1/1986	14.00%	9.82%	4.18%
4/2/1986	15.50%	9.81%	5.69%
4/4/1986	15.00%	9.78%	5.22%
4/14/1986	13.40%	9.68%	3.72%
4/23/1986	15.00%	9.57%	5.43%
5/16/1986	14.50%	9.31%	5.19%
5/16/1986	14.50%	9.31%	5.19%
5/29/1986	13.90%	9.19%	4.71%
5/30/1986	15.10%	9.17%	5.93%
6/2/1986	12.81%	9.16%	3.65%
6/11/1986	14.00%	9.06%	4.94%
6/24/1986	16.63%	8.93%	7.70%
6/26/1986	12.00%	8.90%	3.10%
6/26/1986	14.75%	8.90%	5.85%
6/30/1986	13.00%	8.86%	4.14%
7/10/1986	14.34%	8.74%	5.60%
7/11/1986	12.75%	8.72%	4.03%
7/14/1986	12.60%	8.71%	3.89%
7/17/1986	12.40%	8.65%	3.75%
7/25/1986	14.25%	8.56%	5.69%
8/6/1986	13.50%	8.43%	5.07%
8/14/1986	13.50%	8.34%	5.16%
9/16/1986	12.75%	8.06%	4.69%
9/19/1986	13.25%	8.02%	5.23%
10/1/1986	14.00%	7.94%	6.06%
10/3/1986	13.40%	7.92%	5.48%
10/31/1986	13.50%	7.77%	5.73%
11/5/1986	13.00%	7.74%	5.26%
12/3/1986	12.90%	7.58%	5.32%
12/4/1986	14.44%	7.57%	6.87%
12/16/1986	13.60%	7.52%	6.08%
12/22/1986	13.80%	7.50%	6.30%
12/30/1986	13.00%	7.49%	5.51%
1/2/1987	13.00%	7.48%	5.52%
1/12/1987	12.40%	7.46%	4.94%
1/27/1987	12.71%	7.46%	5.25%
3/2/1987	12.47%	7.47%	5.00%
3/3/1987	13.60%	7.47%	6.13%
3/4/1987	12.38%	7.47%	4.91%
3/10/1987	13.50%	7.47%	6.03%
3/13/1987	13.00%	7.47%	5.53%
3/31/1987	13.00%	7.46%	5.54%
4/6/1987	13.00%	7.47%	5.53%
4/14/1987	12.50%	7.49%	5.01%
4/16/1987	14.50%	7.50%	7.00%
4/27/1987	12.00%	7.54%	4.46%
5/5/1987	12.85%	7.58%	5.27%
5/12/1987	12.65%	7.62%	5.03%
5/28/1987	13.50%	7.70%	5.80%
6/15/1987	13.20%	7.76%	5.42%
6/29/1987	15.00%	7.84%	7.16%
6/30/1987	12.50%	7.84%	4.66%
7/8/1987	12.00%	7.86%	4.14%
7/10/1987	12.90%	7.87%	5.03%
7/15/1987	13.50%	7.88%	5.62%
7/16/1987	15.00%	7.88%	7.12%
7/16/1987	13.50%	7.88%	5.62%
7/27/1987	13.00%	7.92%	5.08%
7/27/1987	13.40%	7.92%	5.48%
7/27/1987	13.50%	7.92%	5.58%
7/31/1987	12.98%	7.95%	5.03%
8/26/1987	12.63%	8.06%	4.57%
8/26/1987	12.75%	8.06%	4.69%
8/27/1987	13.25%	8.07%	5.18%
9/9/1987	13.00%	8.14%	4.86%
9/30/1987	13.00%	8.31%	4.69%
9/30/1987	12.75%	8.31%	4.44%
10/2/1987	11.50%	8.33%	3.17%
10/15/1987	13.00%	8.44%	4.56%
11/2/1987	13.00%	8.55%	4.45%
11/19/1987	13.00%	8.64%	4.36%
11/30/1987	12.00%	8.69%	3.31%
12/3/1987	14.20%	8.71%	5.49%

Bond Yield Plus Risk Premium			
[6]	[7]	[8]	[9]
Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
12/15/1987	13.25%	8.78%	4.47%
12/16/1987	13.72%	8.79%	4.93%
12/16/1987	13.50%	8.79%	4.71%
12/17/1987	11.75%	8.80%	2.95%
12/18/1987	13.50%	8.80%	4.70%
12/21/1987	12.01%	8.81%	3.20%
12/22/1987	12.75%	8.82%	3.93%
12/22/1987	12.00%	8.82%	3.18%
12/22/1987	12.00%	8.82%	3.18%
12/22/1987	13.00%	8.82%	4.18%
1/20/1988	13.80%	8.94%	4.86%
1/26/1988	13.90%	8.96%	4.94%
1/29/1988	13.20%	8.96%	4.24%
2/4/1988	12.60%	8.96%	3.64%
3/1/1988	11.56%	8.94%	2.62%
3/23/1988	12.87%	8.92%	3.95%
3/24/1988	11.24%	8.92%	2.32%
3/30/1988	12.72%	8.92%	3.80%
4/1/1988	12.50%	8.92%	3.58%
4/7/1988	13.25%	8.93%	4.32%
4/25/1988	10.96%	8.96%	2.00%
5/3/1988	12.91%	8.98%	3.93%
5/11/1988	13.50%	8.99%	4.51%
5/16/1988	13.00%	8.99%	4.01%
6/30/1988	12.75%	8.99%	3.76%
7/1/1988	12.75%	8.99%	3.76%
7/20/1988	13.40%	8.96%	4.44%
8/5/1988	12.75%	8.91%	3.84%
8/23/1988	11.70%	8.93%	2.77%
8/29/1988	12.75%	8.94%	3.81%
8/30/1988	13.50%	8.94%	4.56%
9/8/1988	12.60%	8.95%	3.65%
10/13/1988	13.10%	8.93%	4.17%
12/19/1988	13.00%	9.02%	3.98%
12/20/1988	13.00%	9.02%	3.98%
12/20/1988	12.25%	9.02%	3.23%
12/21/1988	12.90%	9.02%	3.88%
12/27/1988	13.00%	9.03%	3.97%
12/28/1988	13.10%	9.03%	4.07%
12/30/1988	13.40%	9.04%	4.36%
1/27/1989	13.00%	9.06%	3.94%
1/31/1989	13.00%	9.06%	3.94%
2/17/1989	13.00%	9.05%	3.95%
2/20/1989	12.40%	9.05%	3.35%
3/1/1989	12.76%	9.05%	3.71%
3/8/1989	13.00%	9.05%	3.95%
3/30/1989	14.00%	9.05%	4.95%
4/5/1989	14.20%	9.05%	5.15%
4/18/1989	13.00%	9.05%	3.95%
5/5/1989	12.40%	9.05%	3.35%
6/2/1989	13.20%	9.00%	4.20%
6/8/1989	13.50%	8.98%	4.52%
6/27/1989	13.25%	8.91%	4.34%
6/30/1989	13.00%	8.90%	4.10%
8/14/1989	12.50%	8.77%	3.73%
9/28/1989	12.25%	8.63%	3.62%
10/24/1989	12.50%	8.54%	3.96%
11/9/1989	13.00%	8.48%	4.52%
12/15/1989	13.00%	8.33%	4.67%
12/20/1989	12.90%	8.31%	4.59%
12/21/1989	12.90%	8.31%	4.59%
12/27/1989	13.00%	8.29%	4.71%
12/27/1989	12.50%	8.29%	4.21%
1/10/1990	12.80%	8.24%	4.56%
1/11/1990	12.90%	8.23%	4.67%
1/17/1990	12.80%	8.22%	4.58%
1/26/1990	12.00%	8.19%	3.81%
2/9/1990	12.10%	8.17%	3.93%
2/24/1990	12.86%	8.15%	4.71%
3/30/1990	12.90%	8.16%	4.74%
4/4/1990	15.76%	8.17%	7.59%
4/12/1990	12.52%	8.18%	4.34%
4/19/1990	12.75%	8.20%	4.55%
5/21/1990	12.10%	8.28%	3.82%
5/29/1990	12.40%	8.30%	4.10%
5/31/1990	12.00%	8.30%	3.70%
6/4/1990	12.90%	8.30%	4.60%
6/6/1990	12.25%	8.31%	3.94%
6/15/1990	13.20%	8.32%	4.88%
6/20/1990	12.92%	8.32%	4.60%
6/27/1990	12.90%	8.33%	4.57%
6/29/1990	12.50%	8.34%	4.16%
7/6/1990	12.35%	8.34%	4.01%

Bond Yield Plus Risk Premium			
[6]	[7]	[8]	[9]
Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
7/6/1990	12.10%	8.34%	3.76%
8/10/1990	12.55%	8.41%	4.14%
8/16/1990	13.21%	8.43%	4.78%
8/22/1990	13.10%	8.45%	4.65%
8/24/1990	13.00%	8.46%	4.54%
9/26/1990	11.45%	8.59%	2.86%
10/2/1990	13.00%	8.61%	4.39%
10/5/1990	12.84%	8.63%	4.21%
10/19/1990	13.00%	8.67%	4.33%
10/25/1990	12.30%	8.68%	3.62%
11/21/1990	12.70%	8.69%	4.01%
12/13/1990	12.30%	8.67%	3.63%
12/17/1990	12.87%	8.67%	4.20%
12/18/1990	13.10%	8.67%	4.43%
12/19/1990	12.00%	8.66%	3.34%
12/20/1990	12.75%	8.66%	4.09%
12/21/1990	12.50%	8.66%	3.84%
12/27/1990	12.79%	8.66%	4.13%
1/2/1991	13.10%	8.66%	4.44%
1/4/1991	12.50%	8.65%	3.85%
1/15/1991	12.75%	8.65%	4.10%
1/25/1991	11.70%	8.63%	3.07%
2/4/1991	12.50%	8.60%	3.90%
2/7/1991	12.50%	8.59%	3.91%
2/12/1991	13.00%	8.57%	4.43%
2/14/1991	12.72%	8.56%	4.16%
2/22/1991	12.80%	8.55%	4.25%
3/6/1991	13.10%	8.53%	4.57%
3/8/1991	13.00%	8.52%	4.48%
3/8/1991	12.30%	8.52%	3.78%
4/22/1991	13.00%	8.49%	4.51%
5/7/1991	13.50%	8.47%	5.03%
5/13/1991	13.25%	8.47%	4.78%
5/30/1991	12.75%	8.43%	4.32%
6/12/1991	12.00%	8.41%	3.59%
6/25/1991	11.70%	8.38%	3.32%
6/28/1991	12.50%	8.38%	4.12%
7/1/1991	12.00%	8.37%	3.63%
7/3/1991	12.50%	8.36%	4.14%
7/19/1991	12.10%	8.34%	3.76%
8/1/1991	12.90%	8.32%	4.58%
8/16/1991	13.20%	8.29%	4.91%
9/27/1991	12.50%	8.23%	4.27%
9/30/1991	12.25%	8.23%	4.02%
10/17/1991	13.00%	8.20%	4.80%
10/23/1991	12.50%	8.20%	4.30%
10/23/1991	12.55%	8.20%	4.35%
10/31/1991	11.80%	8.19%	3.61%
11/1/1991	12.00%	8.19%	3.81%
11/5/1991	12.25%	8.19%	4.06%
11/12/1991	12.50%	8.18%	4.32%
11/12/1991	13.25%	8.18%	5.07%
11/25/1991	12.40%	8.18%	4.22%
11/26/1991	12.50%	8.18%	4.32%
11/26/1991	11.60%	8.18%	3.42%
11/27/1991	12.10%	8.18%	3.92%
12/18/1991	12.25%	8.15%	4.10%
12/19/1991	12.60%	8.15%	4.45%
12/19/1991	12.80%	8.15%	4.65%
12/20/1991	12.65%	8.14%	4.51%
1/9/1992	12.80%	8.09%	4.71%
1/16/1992	12.75%	8.07%	4.68%
1/21/1992	12.00%	8.06%	3.94%
1/22/1992	13.00%	8.06%	4.94%
1/27/1992	12.65%	8.05%	4.60%
1/31/1992	12.00%	8.04%	3.96%
2/11/1992	12.40%	8.03%	4.37%
2/25/1992	12.50%	8.01%	4.49%
3/16/1992	11.43%	7.98%	3.45%
3/18/1992	12.28%	7.98%	4.30%
4/2/1992	12.10%	7.95%	4.15%
4/9/1992	11.45%	7.93%	3.52%
4/10/1992	11.50%	7.93%	3.57%
4/14/1992	11.50%	7.92%	3.58%
5/5/1992	11.50%	7.89%	3.61%
5/12/1992	12.46%	7.88%	4.58%
5/12/1992	11.87%	7.88%	3.99%
6/1/1992	12.30%	7.86%	4.44%
6/12/1992	10.90%	7.85%	3.05%
6/26/1992	12.35%	7.85%	4.50%
6/29/1992	11.00%	7.85%	3.15%
6/30/1992	13.00%	7.85%	5.15%
7/13/1992	13.50%	7.84%	5.66%

Bond Yield Plus Risk Premium			
[6]	[7]	[8]	[9]
Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
7/13/1992	11.90%	7.84%	4.06%
7/22/1992	11.20%	7.83%	3.37%
8/3/1992	12.00%	7.81%	4.19%
8/6/1992	12.50%	7.80%	4.70%
9/22/1992	12.00%	7.71%	4.29%
9/28/1992	11.40%	7.71%	3.69%
9/30/1992	11.75%	7.71%	4.04%
10/2/1992	13.00%	7.70%	5.30%
10/12/1992	12.20%	7.70%	4.50%
10/16/1992	13.16%	7.71%	5.45%
10/30/1992	11.75%	7.71%	4.04%
11/3/1992	12.00%	7.71%	4.29%
12/3/1992	11.85%	7.68%	4.17%
12/15/1992	11.00%	7.66%	3.34%
12/16/1992	11.90%	7.66%	4.24%
12/16/1992	12.40%	7.66%	4.74%
12/17/1992	12.00%	7.66%	4.34%
12/22/1992	12.40%	7.65%	4.75%
12/22/1992	12.30%	7.65%	4.65%
12/29/1992	12.25%	7.63%	4.62%
12/30/1992	12.00%	7.63%	4.37%
12/31/1992	11.90%	7.62%	4.28%
1/12/1993	12.00%	7.61%	4.39%
1/21/1993	11.25%	7.59%	3.66%
2/2/1993	11.40%	7.56%	3.84%
2/15/1993	12.30%	7.52%	4.78%
2/24/1993	11.90%	7.49%	4.41%
2/26/1993	11.80%	7.48%	4.32%
2/26/1993	12.20%	7.48%	4.72%
4/23/1993	11.75%	7.29%	4.46%
5/11/1993	11.75%	7.24%	4.51%
5/14/1993	11.50%	7.24%	4.26%
5/25/1993	11.50%	7.22%	4.28%
5/28/1993	11.00%	7.22%	3.78%
6/3/1993	12.00%	7.21%	4.79%
6/16/1993	11.50%	7.19%	4.31%
6/18/1993	12.10%	7.18%	4.92%
8/25/1993	11.67%	7.17%	4.50%
7/21/1993	11.38%	7.10%	4.28%
7/23/1993	10.46%	7.09%	3.37%
8/24/1993	11.50%	6.95%	4.55%
9/21/1993	10.50%	6.80%	3.70%
9/29/1993	11.47%	6.76%	4.71%
9/30/1993	11.60%	6.76%	4.84%
11/2/1993	10.80%	6.60%	4.20%
11/12/1993	12.00%	6.56%	5.44%
11/26/1993	11.00%	6.52%	4.48%
12/14/1993	10.55%	6.48%	4.07%
12/16/1993	10.60%	6.48%	4.12%
12/21/1993	11.30%	6.47%	4.83%
1/4/1994	10.07%	6.44%	3.63%
1/13/1994	11.00%	6.42%	4.58%
1/21/1994	11.00%	6.40%	4.60%
1/28/1994	11.35%	6.39%	4.96%
2/3/1994	11.40%	6.38%	5.02%
2/17/1994	10.60%	6.36%	4.24%
2/25/1994	11.25%	6.35%	4.90%
2/25/1994	12.00%	6.35%	5.65%
3/1/1994	11.00%	6.35%	4.65%
3/4/1994	11.00%	6.34%	4.66%
4/25/1994	11.00%	6.40%	4.60%
5/10/1994	11.75%	6.44%	5.31%
5/13/1994	10.50%	6.46%	4.04%
6/3/1994	11.00%	6.54%	4.46%
6/27/1994	11.40%	6.65%	4.75%
8/5/1994	12.75%	6.88%	5.87%
10/31/1994	10.00%	7.33%	2.67%
11/9/1994	10.85%	7.40%	3.45%
11/9/1994	10.85%	7.40%	3.45%
11/18/1994	11.20%	7.46%	3.74%
11/22/1994	11.60%	7.47%	4.13%
11/28/1994	11.06%	7.50%	3.56%
12/8/1994	11.70%	7.55%	4.15%
12/8/1994	11.50%	7.55%	3.95%
12/14/1994	10.95%	7.57%	3.38%
12/15/1994	11.50%	7.57%	3.93%
12/19/1994	11.50%	7.58%	3.92%
12/28/1994	12.15%	7.61%	4.54%
1/9/1995	12.28%	7.64%	4.64%
1/31/1995	11.00%	7.69%	3.31%
2/10/1995	12.60%	7.70%	4.90%
2/17/1995	11.90%	7.70%	4.20%
3/9/1995	11.50%	7.72%	3.78%

Bond Yield Plus Risk Premium			
[6]	[7]	[8]	[9]
Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
3/20/1995	12.00%	7.72%	4.28%
3/23/1995	12.81%	7.72%	5.09%
3/29/1995	11.60%	7.72%	3.88%
4/6/1995	11.10%	7.72%	3.38%
4/7/1995	11.00%	7.71%	3.29%
4/19/1995	11.00%	7.70%	3.30%
5/12/1995	11.63%	7.68%	3.95%
5/25/1995	11.20%	7.65%	3.55%
6/9/1995	11.25%	7.60%	3.65%
6/21/1995	12.25%	7.56%	4.69%
6/30/1995	11.10%	7.51%	3.59%
9/11/1995	11.30%	7.20%	4.10%
9/27/1995	11.50%	7.12%	4.38%
9/27/1995	11.75%	7.12%	4.63%
9/27/1995	11.30%	7.12%	4.18%
9/29/1995	11.00%	7.11%	3.89%
11/9/1995	12.36%	6.89%	5.47%
11/9/1995	11.38%	6.89%	4.49%
11/17/1995	11.00%	6.85%	4.15%
12/4/1995	11.35%	6.78%	4.57%
12/11/1995	11.40%	6.74%	4.66%
12/20/1995	11.60%	6.69%	4.91%
12/27/1995	12.00%	6.66%	5.34%
2/5/1996	12.25%	6.48%	5.77%
3/29/1996	10.67%	6.42%	4.25%
4/8/1996	11.00%	6.42%	4.58%
4/11/1996	12.59%	6.43%	6.16%
4/11/1996	12.59%	6.43%	6.16%
4/24/1996	11.25%	6.43%	4.82%
4/30/1996	11.00%	6.43%	4.57%
5/13/1996	11.00%	6.44%	4.56%
5/23/1996	11.25%	6.43%	4.82%
6/25/1996	11.25%	6.48%	4.77%
6/27/1996	11.20%	6.48%	4.72%
8/12/1996	10.40%	6.57%	3.83%
9/27/1996	11.00%	6.71%	4.29%
10/16/1996	12.25%	6.76%	5.49%
11/5/1996	11.00%	6.81%	4.19%
11/26/1996	11.30%	6.83%	4.47%
12/18/1996	11.75%	6.84%	4.91%
12/31/1996	11.50%	6.83%	4.67%
1/3/1997	10.70%	6.83%	3.87%
2/13/1997	11.80%	6.82%	4.98%
2/20/1997	11.80%	6.82%	4.98%
3/31/1997	10.02%	6.80%	3.22%
4/2/1997	11.65%	6.80%	4.85%
4/28/1997	11.50%	6.81%	4.69%
4/29/1997	11.70%	6.81%	4.89%
7/17/1997	12.00%	6.77%	5.23%
12/12/1997	11.00%	6.60%	4.40%
12/23/1997	11.12%	6.57%	4.55%
2/2/1998	12.75%	6.39%	6.36%
3/2/1998	11.25%	6.28%	4.97%
3/6/1998	10.75%	6.27%	4.48%
3/20/1998	10.50%	6.22%	4.28%
4/30/1998	12.20%	6.12%	6.08%
7/10/1998	11.40%	5.94%	5.46%
9/15/1998	11.90%	5.78%	6.12%
11/30/1998	12.60%	5.58%	7.02%
12/10/1998	12.20%	5.54%	6.66%
12/17/1998	12.10%	5.52%	6.58%
2/5/1999	10.30%	5.38%	4.92%
3/4/1999	10.50%	5.34%	5.16%
4/6/1999	10.94%	5.32%	5.62%
7/29/1999	10.75%	5.52%	5.23%
9/23/1999	10.75%	5.70%	5.05%
11/17/1999	11.10%	5.90%	5.20%
1/7/2000	11.50%	6.05%	5.45%
1/7/2000	11.50%	6.05%	5.45%
2/17/2000	10.60%	6.17%	4.43%
3/28/2000	11.25%	6.20%	5.05%
5/24/2000	11.00%	6.18%	4.82%
7/18/2000	12.20%	6.16%	6.04%
9/29/2000	11.16%	6.03%	5.13%
11/28/2000	12.90%	5.89%	7.01%
11/30/2000	12.10%	5.88%	6.22%
1/23/2001	11.25%	5.79%	5.46%
2/8/2001	11.50%	5.77%	5.73%
5/8/2001	10.75%	5.62%	5.13%
6/26/2001	11.00%	5.62%	5.38%
7/25/2001	11.02%	5.60%	5.42%
7/25/2001	11.02%	5.60%	5.42%
7/31/2001	11.00%	5.59%	5.41%

Bond Yield Plus Risk Premium			
[6]	[7]	[8]	[9]
Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
8/31/2001	10.50%	5.56%	4.94%
9/7/2001	10.75%	5.55%	5.20%
9/10/2001	11.00%	5.55%	5.45%
9/20/2001	10.00%	5.55%	4.45%
10/24/2001	10.30%	5.54%	4.76%
11/28/2001	10.60%	5.49%	5.11%
12/3/2001	12.88%	5.49%	7.39%
12/20/2001	12.50%	5.50%	7.00%
1/22/2002	10.00%	5.50%	4.50%
3/27/2002	10.10%	5.45%	4.65%
4/22/2002	11.80%	5.45%	6.35%
5/28/2002	10.17%	5.46%	4.71%
6/10/2002	12.00%	5.47%	6.53%
6/18/2002	11.16%	5.48%	5.68%
6/20/2002	11.00%	5.48%	5.52%
6/20/2002	12.30%	5.48%	6.82%
7/15/2002	11.00%	5.48%	5.52%
9/12/2002	12.30%	5.45%	6.85%
9/26/2002	10.45%	5.41%	5.04%
12/4/2002	11.55%	5.29%	6.26%
12/13/2002	11.75%	5.27%	6.48%
12/20/2002	11.40%	5.25%	6.15%
1/8/2003	11.10%	5.19%	5.91%
1/31/2003	12.45%	5.13%	7.32%
2/28/2003	12.30%	5.04%	7.26%
3/6/2003	10.75%	5.02%	5.73%
3/7/2003	9.96%	5.02%	4.94%
3/20/2003	12.00%	4.98%	7.02%
4/3/2003	12.00%	4.95%	7.05%
4/15/2003	11.15%	4.93%	6.22%
6/25/2003	10.75%	4.79%	5.96%
6/26/2003	10.75%	4.79%	5.96%
7/9/2003	9.75%	4.79%	4.96%
7/16/2003	9.75%	4.79%	4.96%
7/25/2003	9.50%	4.79%	4.71%
8/26/2003	10.50%	4.83%	5.67%
12/17/2003	9.85%	4.94%	4.91%
12/17/2003	10.70%	4.94%	5.76%
12/18/2003	11.50%	4.94%	6.56%
12/19/2003	12.00%	4.94%	7.06%
12/19/2003	12.00%	4.94%	7.06%
12/23/2003	10.50%	4.94%	5.56%
1/13/2004	12.00%	4.95%	7.05%
3/2/2004	10.75%	4.99%	5.76%
3/26/2004	10.25%	5.02%	5.23%
4/5/2004	11.25%	5.03%	6.22%
5/18/2004	10.50%	5.07%	5.43%
5/25/2004	10.25%	5.07%	5.18%
5/27/2004	10.25%	5.08%	5.17%
6/2/2004	11.22%	5.08%	6.14%
6/30/2004	10.50%	5.10%	5.40%
6/30/2004	10.50%	5.10%	5.40%
7/16/2004	11.60%	5.11%	6.49%
8/25/2004	10.25%	5.10%	5.15%
9/9/2004	10.40%	5.10%	5.30%
1/9/2004	10.50%	5.07%	5.43%
11/23/2004	11.00%	5.06%	5.94%
12/14/2004	10.97%	5.07%	5.90%
12/21/2004	11.25%	5.07%	6.18%
12/21/2004	11.50%	5.07%	6.43%
12/22/2004	10.70%	5.07%	5.63%
12/22/2004	11.50%	5.07%	6.43%
12/29/2004	9.85%	5.08%	4.77%
1/6/2005	10.70%	5.08%	5.62%
2/18/2005	10.30%	4.98%	5.32%
2/25/2005	10.50%	4.96%	5.54%
3/10/2005	11.00%	4.93%	6.07%
3/24/2005	10.30%	4.89%	5.41%
4/4/2005	10.00%	4.87%	5.13%
4/7/2005	10.25%	4.87%	5.38%
5/18/2005	10.25%	4.78%	5.47%
5/25/2005	10.75%	4.76%	5.99%
5/26/2005	9.75%	4.76%	4.99%
6/1/2005	9.75%	4.75%	5.00%
7/19/2005	11.50%	4.64%	6.86%
8/5/2005	11.75%	4.62%	7.13%
8/15/2005	10.13%	4.61%	5.52%
9/28/2005	10.00%	4.54%	5.46%
10/4/2005	10.75%	4.53%	6.22%
12/12/2005	11.00%	4.55%	6.45%
12/13/2005	10.75%	4.55%	6.20%
12/21/2005	10.29%	4.54%	5.75%
12/21/2005	10.40%	4.54%	5.86%

Bond Yield Plus Risk Premium			
[6]	[7]	[8]	[9]
Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
12/22/2005	11.15%	4.54%	6.61%
12/22/2005	11.00%	4.54%	6.46%
12/28/2005	10.00%	4.54%	5.46%
12/28/2005	10.00%	4.54%	5.46%
1/5/2006	11.00%	4.53%	6.47%
1/27/2006	9.75%	4.52%	5.23%
3/3/2006	10.39%	4.53%	5.86%
4/17/2006	10.20%	4.62%	5.58%
4/26/2006	10.60%	4.64%	5.96%
5/17/2006	11.60%	4.69%	6.91%
6/6/2006	10.00%	4.75%	5.25%
6/27/2006	10.75%	4.80%	5.95%
7/6/2006	10.20%	4.83%	5.37%
7/24/2006	9.60%	4.86%	4.74%
7/26/2006	10.50%	4.86%	5.64%
7/28/2006	10.05%	4.87%	5.18%
8/23/2006	9.55%	4.89%	4.66%
9/1/2006	10.54%	4.90%	5.64%
9/14/2006	10.00%	4.91%	5.09%
10/6/2006	9.67%	4.92%	4.75%
11/21/2006	10.08%	4.95%	5.13%
11/21/2006	10.08%	4.95%	5.13%
11/21/2006	10.12%	4.95%	5.17%
12/1/2006	10.50%	4.96%	5.54%
12/1/2006	10.25%	4.96%	5.29%
12/7/2006	10.75%	4.96%	5.79%
12/21/2006	10.90%	4.95%	5.95%
12/21/2006	11.25%	4.95%	6.30%
12/22/2006	10.25%	4.95%	5.30%
1/5/2007	10.00%	4.95%	5.05%
1/11/2007	10.10%	4.95%	5.15%
1/11/2007	10.10%	4.95%	5.15%
1/11/2007	10.90%	4.95%	5.95%
1/12/2007	10.10%	4.95%	5.15%
1/13/2007	10.40%	4.95%	5.45%
1/19/2007	10.80%	4.94%	5.86%
3/21/2007	11.35%	4.86%	6.49%
3/22/2007	9.75%	4.86%	4.89%
5/15/2007	10.00%	4.81%	5.19%
5/17/2007	10.25%	4.80%	5.45%
5/17/2007	10.25%	4.80%	5.45%
5/22/2007	10.20%	4.80%	5.40%
5/22/2007	10.50%	4.80%	5.70%
5/23/2007	10.70%	4.80%	5.90%
5/25/2007	9.67%	4.80%	4.87%
6/15/2007	9.90%	4.82%	5.08%
6/21/2007	10.20%	4.83%	5.37%
6/22/2007	10.50%	4.83%	5.67%
6/28/2007	10.75%	4.84%	5.91%
7/12/2007	9.67%	4.86%	4.81%
7/19/2007	10.00%	4.87%	5.13%
7/19/2007	10.00%	4.87%	5.13%
8/15/2007	10.40%	4.88%	5.52%
10/9/2007	10.00%	4.91%	5.09%
10/17/2007	9.10%	4.91%	4.19%
10/31/2007	9.96%	4.90%	5.06%
11/29/2007	10.90%	4.87%	6.03%
12/6/2007	10.75%	4.86%	5.89%
12/13/2007	9.96%	4.86%	5.10%
12/14/2007	10.70%	4.86%	5.84%
12/14/2007	10.80%	4.86%	5.94%
12/19/2007	10.20%	4.86%	5.34%
12/20/2007	10.20%	4.86%	5.34%
12/20/2007	11.00%	4.86%	6.14%
12/28/2007	10.25%	4.85%	5.40%
12/31/2007	11.25%	4.85%	6.40%
1/8/2008	10.75%	4.83%	5.92%
1/17/2008	10.75%	4.81%	5.94%
1/28/2008	9.40%	4.80%	4.60%
1/30/2008	10.00%	4.79%	5.21%
1/31/2008	10.71%	4.79%	5.92%
2/29/2008	10.25%	4.75%	5.50%
3/12/2008	10.25%	4.73%	5.52%
3/25/2008	9.10%	4.68%	4.42%
4/22/2008	10.25%	4.60%	5.65%
4/24/2008	10.10%	4.60%	5.50%
5/1/2008	10.70%	4.58%	6.12%
5/19/2008	11.00%	4.56%	6.44%
5/27/2008	10.00%	4.55%	5.45%
6/10/2008	10.70%	4.54%	6.16%
6/27/2008	11.04%	4.54%	6.50%
6/27/2008	10.50%	4.54%	5.96%
7/10/2008	10.43%	4.52%	5.91%

Bond Yield Plus Risk Premium			
[6]	[7]	[8]	[9]
Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
7/16/2008	9.40%	4.51%	4.89%
7/30/2008	10.80%	4.51%	6.29%
7/31/2008	10.70%	4.51%	6.19%
8/11/2008	10.25%	4.50%	5.75%
8/26/2008	10.18%	4.50%	5.68%
9/10/2008	10.30%	4.50%	5.80%
9/24/2008	10.65%	4.48%	6.17%
9/24/2008	10.65%	4.48%	6.17%
9/24/2008	10.65%	4.48%	6.17%
9/30/2008	10.20%	4.47%	5.73%
10/8/2008	10.15%	4.46%	5.69%
11/13/2008	10.55%	4.45%	6.10%
11/17/2008	10.20%	4.44%	5.76%
12/1/2008	10.25%	4.39%	5.86%
12/23/2008	11.00%	4.27%	6.73%
12/29/2008	10.00%	4.24%	5.76%
12/29/2008	10.20%	4.24%	5.96%
12/31/2008	10.75%	4.22%	6.53%
1/14/2009	10.50%	4.15%	6.35%
1/21/2009	10.50%	4.11%	6.39%
1/21/2009	10.50%	4.11%	6.39%
1/21/2009	10.50%	4.11%	6.39%
1/27/2009	10.76%	4.09%	6.67%
1/30/2009	10.50%	4.07%	6.43%
2/4/2009	8.75%	4.06%	4.69%
3/4/2009	10.50%	3.96%	6.54%
3/12/2009	11.50%	3.93%	7.57%
4/2/2009	11.10%	3.85%	7.25%
4/21/2009	10.61%	3.80%	6.81%
4/24/2009	10.00%	3.78%	6.22%
4/30/2009	11.25%	3.77%	7.48%
5/4/2009	10.74%	3.77%	6.97%
5/20/2009	10.25%	3.74%	6.51%
5/28/2009	10.50%	3.74%	6.76%
6/22/2009	10.00%	3.76%	6.24%
6/24/2009	10.80%	3.76%	7.04%
7/8/2009	10.63%	3.76%	6.87%
7/17/2009	10.50%	3.77%	6.73%
8/31/2009	10.25%	3.82%	6.43%
10/14/2009	10.70%	4.02%	6.68%
10/23/2009	10.88%	4.06%	6.82%
11/2/2009	10.70%	4.10%	6.60%
11/3/2009	10.70%	4.10%	6.60%
11/24/2009	10.25%	4.16%	6.09%
11/25/2009	10.75%	4.16%	6.59%
11/30/2009	10.35%	4.17%	6.18%
12/3/2009	10.50%	4.18%	6.32%
12/7/2009	10.70%	4.19%	6.51%
12/16/2009	11.00%	4.22%	6.78%
12/16/2009	10.90%	4.22%	6.68%
12/18/2009	10.40%	4.22%	6.18%
12/18/2009	10.40%	4.22%	6.18%
12/22/2009	10.20%	4.23%	5.97%
12/22/2009	10.40%	4.23%	6.17%
12/22/2009	10.40%	4.23%	6.17%
12/30/2009	10.00%	4.26%	5.74%
1/4/2010	10.80%	4.28%	6.52%
1/11/2010	11.00%	4.31%	6.69%
1/26/2010	10.13%	4.35%	5.78%
1/27/2010	10.40%	4.36%	6.04%
1/27/2010	10.40%	4.36%	6.04%
1/27/2010	10.70%	4.36%	6.34%
2/9/2010	9.80%	4.38%	5.42%
2/18/2010	10.60%	4.40%	6.20%
2/24/2010	10.18%	4.41%	5.77%
3/2/2010	9.63%	4.41%	5.22%
3/4/2010	10.50%	4.41%	6.09%
3/5/2010	10.50%	4.41%	6.09%
3/11/2010	11.90%	4.42%	7.48%
3/17/2010	10.00%	4.41%	5.59%
3/25/2010	10.15%	4.42%	5.73%
4/2/2010	10.10%	4.43%	5.67%
4/27/2010	10.00%	4.46%	5.54%
4/29/2010	9.90%	4.46%	5.44%
4/29/2010	10.06%	4.46%	5.60%
4/29/2010	10.26%	4.46%	5.80%
5/12/2010	10.30%	4.45%	5.85%
5/12/2010	10.30%	4.45%	5.85%
5/28/2010	10.20%	4.44%	5.76%
5/28/2010	10.10%	4.44%	5.66%
6/7/2010	10.30%	4.44%	5.86%
6/16/2010	10.00%	4.44%	5.56%
6/28/2010	10.50%	4.43%	6.07%

Bond Yield Plus Risk Premium			
[6]	[7]	[8]	[9]
Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
6/28/2010	9.67%	4.43%	5.24%
6/30/2010	9.40%	4.43%	4.97%
7/1/2010	10.25%	4.43%	5.82%
7/15/2010	10.70%	4.43%	6.27%
7/15/2010	10.53%	4.43%	6.10%
7/30/2010	10.70%	4.41%	6.29%
8/4/2010	10.50%	4.41%	6.09%
8/6/2010	9.83%	4.41%	5.42%
8/25/2010	9.90%	4.37%	5.53%
9/3/2010	10.60%	4.35%	6.25%
9/14/2010	10.70%	4.33%	6.37%
9/16/2010	10.00%	4.32%	5.68%
9/16/2010	10.00%	4.32%	5.68%
9/30/2010	9.75%	4.28%	5.47%
10/14/2010	10.35%	4.24%	6.11%
10/28/2010	10.70%	4.21%	6.49%
11/2/2010	10.38%	4.20%	6.18%
11/4/2010	10.70%	4.19%	6.51%
11/19/2010	10.20%	4.17%	6.03%
11/22/2010	10.00%	4.17%	5.83%
12/1/2010	10.13%	4.16%	5.97%
12/6/2010	9.86%	4.15%	5.71%
12/9/2010	10.25%	4.15%	6.10%
12/13/2010	10.70%	4.15%	6.55%
12/14/2010	10.13%	4.15%	5.98%
12/15/2010	10.44%	4.15%	6.29%
12/17/2010	10.00%	4.14%	5.86%
12/20/2010	10.60%	4.14%	6.46%
12/21/2010	10.30%	4.14%	6.16%
12/27/2010	9.90%	4.14%	5.76%
12/29/2010	11.15%	4.14%	7.01%
1/5/2011	10.15%	4.13%	6.02%
1/12/2011	10.30%	4.12%	6.18%
1/13/2011	10.30%	4.12%	6.18%
1/18/2011	10.00%	4.12%	5.88%
1/20/2011	9.30%	4.12%	5.18%
1/20/2011	10.13%	4.12%	6.01%
1/31/2011	9.60%	4.11%	5.49%
2/3/2011	10.00%	4.11%	5.89%
2/25/2011	10.00%	4.14%	5.86%
3/25/2011	9.80%	4.18%	5.62%
3/30/2011	10.00%	4.18%	5.82%
4/12/2011	10.00%	4.21%	5.79%
4/25/2011	10.74%	4.23%	6.51%
4/28/2011	9.67%	4.24%	5.43%
4/27/2011	10.40%	4.24%	6.16%
5/4/2011	10.00%	4.25%	5.75%
5/4/2011	10.00%	4.25%	5.75%
5/24/2011	10.50%	4.27%	6.23%
6/8/2011	10.75%	4.30%	6.45%
6/16/2011	9.20%	4.32%	4.88%
6/17/2011	9.95%	4.32%	5.63%
7/13/2011	10.20%	4.37%	5.83%
8/1/2011	9.20%	4.39%	4.81%
8/8/2011	10.00%	4.38%	5.62%
8/11/2011	10.00%	4.38%	5.62%
8/12/2011	10.35%	4.38%	5.97%
8/19/2011	10.25%	4.36%	5.89%
9/2/2011	12.88%	4.32%	8.56%
9/22/2011	10.00%	4.24%	5.76%
10/12/2011	10.30%	4.14%	6.16%
10/20/2011	10.50%	4.10%	6.40%
11/30/2011	10.90%	3.87%	7.03%
11/30/2011	10.90%	3.87%	7.03%
12/14/2011	10.00%	3.79%	6.21%
12/14/2011	10.30%	3.79%	6.51%
12/20/2011	10.20%	3.76%	6.44%
12/21/2011	10.20%	3.75%	6.45%
12/22/2011	9.90%	3.75%	6.15%
12/22/2011	10.40%	3.75%	6.65%
12/23/2011	10.19%	3.74%	6.45%
1/25/2012	10.50%	3.57%	6.93%
1/27/2012	10.50%	3.55%	6.95%
2/15/2012	10.20%	3.47%	6.73%
2/23/2012	9.90%	3.43%	6.47%
2/27/2012	10.25%	3.42%	6.83%
2/29/2012	10.40%	3.41%	6.99%
3/29/2012	10.37%	3.31%	7.06%
4/4/2012	10.00%	3.29%	6.71%
4/26/2012	10.00%	3.20%	6.80%
5/2/2012	10.00%	3.18%	6.82%
5/7/2012	9.80%	3.16%	6.64%
5/15/2012	10.00%	3.14%	6.86%

[6] Date of Electric Rate Case	Bond Yield Plus Risk Premium			[9] Risk Premium
	[7] Return on Equity	[8] 30-Year Treasury Yield	[9] Risk Premium	
5/29/2012	10.05%	3.11%	6.94%	
6/7/2012	10.30%	3.07%	7.23%	
6/14/2012	9.40%	3.06%	6.34%	
6/15/2012	10.40%	3.06%	7.34%	
6/18/2012	9.60%	3.05%	6.55%	
6/19/2012	9.25%	3.05%	6.20%	
6/26/2012	10.10%	3.04%	7.06%	
6/29/2012	10.00%	3.04%	6.96%	
7/9/2012	10.20%	3.03%	7.17%	
7/16/2012	9.80%	3.02%	6.78%	
7/20/2012	9.81%	3.01%	6.80%	
7/20/2012	9.31%	3.01%	6.30%	
9/13/2012	9.80%	2.94%	6.86%	
9/19/2012	10.05%	2.94%	7.11%	
9/19/2012	9.80%	2.94%	6.86%	
9/26/2012	9.50%	2.94%	6.56%	
10/12/2012	9.60%	2.93%	6.67%	
10/23/2012	9.75%	2.93%	6.82%	
10/24/2012	10.30%	2.93%	7.37%	
11/9/2012	10.30%	2.92%	7.38%	
11/28/2012	10.40%	2.90%	7.50%	
11/29/2012	9.88%	2.89%	6.99%	
11/29/2012	9.75%	2.89%	6.86%	
12/5/2012	9.71%	2.89%	6.82%	
12/5/2012	10.40%	2.89%	7.51%	
12/12/2012	9.80%	2.88%	6.92%	
12/13/2012	10.50%	2.88%	7.62%	
12/13/2012	9.50%	2.88%	6.62%	
12/14/2012	10.40%	2.88%	7.52%	
12/19/2012	9.71%	2.87%	6.84%	
12/19/2012	10.25%	2.87%	7.38%	
12/20/2012	10.40%	2.87%	7.53%	
12/20/2012	10.30%	2.87%	7.43%	
12/20/2012	10.45%	2.87%	7.58%	
12/20/2012	10.25%	2.87%	7.38%	
12/20/2012	10.25%	2.87%	7.38%	
12/20/2012	9.80%	2.87%	6.93%	
12/20/2012	9.50%	2.87%	6.63%	
12/21/2012	10.20%	2.87%	7.33%	
12/26/2012	9.80%	2.86%	6.94%	
1/9/2013	9.70%	2.84%	6.86%	
1/9/2013	9.70%	2.84%	6.86%	
1/9/2013	9.70%	2.84%	6.86%	
1/16/2013	9.60%	2.84%	6.76%	
1/16/2013	9.60%	2.84%	6.76%	
2/13/2013	10.20%	2.84%	7.36%	
2/22/2013	9.75%	2.85%	6.90%	
2/27/2013	10.00%	2.86%	7.14%	
3/14/2013	9.30%	2.88%	6.42%	
3/27/2013	9.80%	2.90%	6.90%	
5/1/2013	9.84%	2.94%	6.90%	
5/15/2013	10.30%	2.96%	7.34%	
5/30/2013	10.20%	2.98%	7.22%	
5/31/2013	9.00%	2.98%	6.02%	
6/11/2013	10.00%	3.00%	7.00%	
6/21/2013	9.75%	3.02%	6.73%	
6/25/2013	9.80%	3.03%	6.77%	
7/12/2013	9.36%	3.08%	6.28%	
8/8/2013	9.83%	3.14%	6.69%	
8/14/2013	9.15%	3.16%	5.99%	
9/11/2013	10.25%	3.27%	6.98%	
9/11/2013	10.20%	3.27%	6.93%	
9/24/2013	10.20%	3.31%	6.89%	
10/3/2013	9.65%	3.33%	6.32%	
11/6/2013	10.20%	3.41%	6.79%	
11/21/2013	10.00%	3.44%	6.56%	
11/26/2013	10.00%	3.45%	6.55%	
12/3/2013	10.25%	3.47%	6.78%	
12/4/2013	9.50%	3.47%	6.03%	
12/5/2013	10.20%	3.48%	6.72%	
12/9/2013	8.72%	3.49%	5.23%	
12/9/2013	9.75%	3.49%	6.26%	
12/13/2013	9.75%	3.50%	6.25%	
12/16/2013	9.95%	3.50%	6.45%	
12/16/2013	9.95%	3.50%	6.45%	
12/16/2013	10.12%	3.50%	6.62%	
12/17/2013	9.50%	3.51%	5.99%	
12/17/2013	10.95%	3.51%	7.44%	
12/18/2013	8.72%	3.51%	5.21%	
12/18/2013	9.80%	3.51%	6.29%	
12/19/2013	10.15%	3.51%	6.64%	
12/30/2013	9.50%	3.54%	5.96%	
2/20/2014	9.20%	3.69%	5.51%	

[6]	Bond Yield Plus Risk Premium		[9]
	[7]	[8]	
		30-Year	
Date of Electric Rate Case	Return on Equity	Treasury Yield	Risk Premium
2/26/2014	9.75%	3.70%	6.05%
3/17/2014	9.55%	3.72%	5.83%
3/26/2014	9.40%	3.73%	5.67%
3/26/2014	9.96%	3.73%	6.23%
4/2/2014	9.70%	3.73%	5.97%
5/16/2014	9.80%	3.70%	6.10%
5/30/2014	9.70%	3.68%	6.02%
6/6/2014	10.40%	3.67%	6.73%
6/30/2014	9.55%	3.64%	5.91%
7/2/2014	9.62%	3.64%	5.98%
7/10/2014	9.95%	3.63%	6.32%
7/23/2014	9.75%	3.61%	6.14%
7/29/2014	9.45%	3.60%	5.85%
7/31/2014	9.90%	3.60%	6.30%
8/20/2014	9.75%	3.56%	6.19%
8/25/2014	9.60%	3.56%	6.04%
8/29/2014	9.80%	3.54%	6.26%
9/11/2014	9.60%	3.51%	6.09%
9/15/2014	10.25%	3.51%	6.74%
10/9/2014	9.80%	3.44%	6.36%
11/6/2014	9.56%	3.37%	6.19%
11/6/2014	10.20%	3.37%	6.83%
11/14/2014	10.20%	3.35%	6.85%
11/26/2014	9.70%	3.32%	6.38%
11/26/2014	10.20%	3.32%	6.88%
12/4/2014	9.68%	3.30%	6.38%
12/10/2014	9.25%	3.29%	5.96%
12/10/2014	9.25%	3.29%	5.96%
12/11/2014	10.07%	3.28%	6.79%
12/12/2014	10.20%	3.28%	6.92%
12/17/2014	9.17%	3.27%	5.90%
12/18/2014	9.83%	3.26%	6.57%
1/23/2015	9.50%	3.14%	6.36%
2/24/2015	9.83%	3.04%	6.79%
3/18/2015	9.75%	2.98%	6.77%
3/25/2015	9.50%	2.95%	6.55%
3/26/2015	9.72%	2.95%	6.77%
4/23/2015	10.20%	2.87%	7.33%
4/29/2015	9.53%	2.86%	6.67%
5/1/2015	9.60%	2.85%	6.75%
5/26/2015	9.75%	2.83%	6.92%
6/17/2015	9.00%	2.82%	6.18%
6/17/2015	9.00%	2.82%	6.18%
9/2/2015	9.50%	2.79%	6.71%
9/10/2015	9.30%	2.79%	6.51%
10/15/2015	9.00%	2.81%	6.19%
11/19/2015	10.30%	2.88%	7.42%
11/19/2015	10.00%	2.88%	7.12%
12/3/2015	10.00%	2.90%	7.10%
12/9/2015	9.14%	2.90%	6.24%
12/9/2015	9.14%	2.90%	6.24%
12/11/2015	10.30%	2.90%	7.40%
12/15/2015	9.60%	2.91%	6.69%
12/17/2015	9.70%	2.91%	6.79%
12/18/2015	9.50%	2.91%	6.59%
12/30/2015	9.50%	2.93%	6.57%
1/6/2016	9.50%	2.94%	6.56%
2/23/2016	9.75%	2.94%	6.81%
3/16/2016	9.85%	2.91%	6.94%
4/29/2016	9.80%	2.83%	6.97%

of Cases: 1,471
Average: 4.50%

Alternative Bond Yield Plus Risk Premium Analyses

	[1]	[2]	[3]	[4]
	30-Year Treasury Yield	Moody's Utility A Yield	Moody's Utility A Credit Spread	VIX
30-Day Average	2.65%	3.96%	1.31%	14.61
Near-Term Projected	3.08%	3.96%	0.87%	14.61
Long-Term Projected	4.45%	3.96%	-0.49%	14.61

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.829177862
R Square	0.687535927
Adjusted R Square	0.686019112
Standard Error	0.005383557
Observations	622

ANOVA

	df	SS	MS	F	Significance F
Regression	3	0.039411448	0.013137149	453.2757954	1.2887E-155
Residual	618	0.017911299	2.89827E-05		
Total	621	0.057322747			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-0.028567933	0.002391017	-11.94802488	9.4919E-30	-0.033263436	-0.02387243	-0.03307964	-0.02368905
LN(30-Year Treasury)	-0.026087687	0.000787407	-33.13113486	3.7853E-139	-0.027634004	-0.02454137	-0.02758891	-0.02449001
Moody's Utility A Credit Spread	0.082109982	0.04092542	2.006332052	0.045256051	0.001740232	0.162479731	0.002876106	0.163683447
VIX	0.000254307	3.52127E-05	7.222017146	1.51195E-12	0.000185156	0.000323458	0.000182353	0.000320318

	Risk Premium	Return on Equity
Regression Result - Credit Spread, VIX	7.10%	9.74%
Regression Result - Credit Spread, VIX	6.66%	9.75%
Regression Result - Credit Spread, VIX	5.59%	10.04%

Notes:

- [1] Source: Bloomberg Professional
- [2] Source: Bloomberg Professional
- [3] Source: Bloomberg Professional
- [4] Source: Bloomberg Professional
- [5] Source: SNL Financial
- [6] Source: SNL Financial
- [7] Source: Bloomberg Professional, equals 200-trading day average (i.e. lag period) as of May 31, 2016
- [8] Source: Bloomberg Professional, equals 200-trading day average (i.e. lag period) as of May 31, 2016
- [9] Equals LN[8]
- [10] Equals [8] - [7]
- [11] Source: Bloomberg Professional, equals 200-trading day average (i.e. lag period) as of May 31, 2016
- [12] Equals [6] - [7]

[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Date of Electric Rate Case	Return on Equity (%)	30 Year Treasury (%)	Moody's Utility A Yield	LN(30-Year Treasury)	Moody's Utility A Credit Spread	VIX	Risk Premium
1/1/1980	14.50%	9.36%		-2.37			5.14%
1/7/1980	14.39%	9.39%		-2.37			5.00%
1/8/1980	15.00%	9.40%		-2.36			5.60%
1/14/1980	15.17%	9.42%		-2.36			5.75%
1/17/1980	13.93%	9.44%		-2.36			4.49%
1/23/1980	15.50%	9.47%		-2.36			6.03%
1/30/1980	13.86%	9.52%		-2.35			4.34%
1/31/1980	12.61%	9.53%		-2.35			3.08%
2/6/1980	13.71%	9.58%		-2.35			4.13%
2/13/1980	12.80%	9.64%		-2.34			3.16%
2/14/1980	13.00%	9.65%		-2.34			3.35%
2/19/1980	13.50%	9.68%		-2.34			3.82%
2/27/1980	13.75%	9.78%		-2.32			3.97%
2/29/1980	13.75%	9.81%		-2.32			3.94%
2/29/1980	14.00%	9.81%		-2.32			4.19%
2/29/1980	14.77%	9.81%		-2.32			4.96%
3/7/1980	12.70%	9.80%		-2.31			2.80%
3/14/1980	13.50%	9.97%		-2.31			3.53%
3/26/1980	14.16%	10.11%		-2.29			4.05%
3/27/1980	14.24%	10.12%		-2.29			4.12%
3/28/1980	14.50%	10.14%		-2.29			4.36%
4/11/1980	12.75%	10.28%		-2.27			2.47%
4/14/1980	13.85%	10.29%		-2.27			3.56%
4/16/1980	15.50%	10.32%		-2.27			5.18%
4/22/1980	13.90%	10.36%		-2.27			3.54%
4/22/1980	13.25%	10.36%		-2.27			2.89%
4/24/1980	16.80%	10.38%		-2.27			6.42%
4/29/1980	15.50%	10.41%		-2.26			5.09%
5/6/1980	13.70%	10.45%		-2.26			3.25%
5/7/1980	15.00%	10.46%		-2.26			4.54%
5/8/1980	13.75%	10.47%		-2.26			3.28%
5/8/1980	14.35%	10.47%		-2.26			3.88%
5/13/1980	13.60%	10.49%		-2.25			3.11%
5/15/1980	13.25%	10.50%		-2.25			2.75%
5/19/1980	13.75%	10.52%		-2.25			3.23%
5/27/1980	14.60%	10.55%		-2.25			4.05%
5/27/1980	13.62%	10.55%		-2.25			3.07%
5/29/1980	16.00%	10.56%		-2.25			5.44%
5/30/1980	13.80%	10.57%		-2.25			3.23%
6/2/1980	15.63%	10.58%		-2.25			5.05%
6/8/1980	15.90%	10.61%		-2.24			5.29%
6/10/1980	13.78%	10.61%		-2.24			3.17%
6/12/1980	14.25%	10.62%		-2.24			3.63%
6/19/1980	13.40%	10.63%		-2.24			2.77%
6/30/1980	13.00%	10.65%		-2.24			2.35%
6/30/1980	13.40%	10.65%		-2.24			2.75%
7/9/1980	14.75%	10.68%		-2.24			4.07%
7/10/1980	15.00%	10.69%		-2.24			4.31%
7/15/1980	15.80%	10.70%		-2.23			5.10%
7/18/1980	13.80%	10.72%		-2.23			3.08%
7/22/1980	14.10%	10.73%		-2.23			3.37%
7/24/1980	15.00%	10.73%		-2.23			4.27%
7/25/1980	13.48%	10.74%		-2.23			2.74%
7/31/1980	14.58%	10.76%		-2.23			3.82%
8/8/1980	14.00%	10.78%		-2.23			3.22%
8/8/1980	13.50%	10.78%		-2.23			2.72%
8/8/1980	15.45%	10.78%		-2.23			4.67%
8/11/1980	14.85%	10.78%		-2.23			4.07%
8/14/1980	14.00%	10.79%		-2.23			3.21%
8/14/1980	16.25%	10.79%		-2.23			5.46%
8/25/1980	13.75%	10.82%		-2.22			2.93%
8/27/1980	13.80%	10.83%		-2.22			2.97%
8/29/1980	12.50%	10.84%		-2.22			1.66%
9/15/1980	15.80%	10.88%		-2.22			4.92%
9/15/1980	13.93%	10.88%		-2.22			3.05%
9/15/1980	13.50%	10.88%		-2.22			2.62%
9/24/1980	12.50%	10.93%		-2.21			1.57%
9/24/1980	15.00%	10.93%		-2.21			4.07%
9/26/1980	13.75%	10.95%		-2.21			2.80%
9/30/1980	14.20%	10.96%		-2.21			3.24%
9/30/1980	14.10%	10.96%		-2.21			3.14%
10/1/1980	13.90%	10.97%		-2.21			2.93%
10/3/1980	15.50%	10.99%		-2.21			4.51%
10/7/1980	12.50%	11.00%		-2.21			1.50%
10/9/1980	14.50%	11.01%		-2.21			3.49%
10/9/1980	14.50%	11.01%		-2.21			3.49%
10/9/1980	13.25%	11.01%		-2.21			2.24%
10/16/1980	16.10%	11.03%		-2.20			5.07%
10/17/1980	14.50%	11.03%		-2.20			3.47%
10/31/1980	14.25%	11.11%		-2.20			3.14%
10/31/1980	13.75%	11.11%		-2.20			2.64%
11/4/1980	15.00%	11.12%		-2.20			3.88%
11/5/1980	14.00%	11.13%		-2.20			2.87%
11/5/1980	13.75%	11.13%		-2.20			2.62%

[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Date of Electric Rate Case	Return on Equity (%)	30 Year Treasury (%)	Moody's Utility A Yield	LN(30-Year Treasury)	Moody's Utility A Credit Spread	VIX	Risk Premium
11/8/1980	13.75%	11.15%		-2.19			2.60%
11/10/1980	14.85%	11.15%		-2.19			3.70%
11/17/1980	14.00%	11.18%		-2.19			2.82%
11/18/1980	14.00%	11.19%		-2.19			2.81%
11/19/1980	13.00%	11.19%		-2.19			1.81%
11/24/1980	14.00%	11.20%		-2.19			2.80%
11/26/1980	14.00%	11.21%		-2.19			2.79%
12/8/1980	15.10%	11.22%		-2.19			3.88%
12/8/1980	14.15%	11.22%		-2.19			2.93%
12/9/1980	15.35%	11.22%		-2.19			4.13%
12/12/1980	15.45%	11.22%		-2.19			4.23%
12/17/1980	13.25%	11.23%		-2.19			2.02%
12/18/1980	15.80%	11.23%		-2.19			4.57%
12/19/1980	14.50%	11.23%		-2.19			3.27%
12/19/1980	14.64%	11.23%		-2.19			3.41%
12/22/1980	13.45%	11.22%		-2.19			2.23%
12/22/1980	15.00%	11.22%		-2.19			3.78%
12/30/1980	14.50%	11.21%		-2.19			3.29%
12/30/1980	14.95%	11.21%		-2.19			3.74%
12/31/1980	13.39%	11.21%		-2.19			2.18%
1/2/1981	15.25%	11.21%		-2.19			4.04%
1/7/1981	14.30%	11.21%		-2.19			3.09%
1/19/1981	15.25%	11.19%		-2.19			4.06%
1/23/1981	14.40%	11.20%		-2.19			3.20%
1/23/1981	13.10%	11.20%		-2.19			1.90%
1/26/1981	15.25%	11.20%		-2.19			4.05%
1/27/1981	15.00%	11.20%		-2.19			3.80%
1/31/1981	13.47%	11.21%		-2.19			2.26%
2/3/1981	15.25%	11.23%		-2.19			4.02%
2/5/1981	15.75%	11.25%		-2.19			4.50%
2/11/1981	15.60%	11.28%		-2.18			4.32%
2/20/1981	15.25%	11.34%		-2.18			3.91%
3/11/1981	15.40%	11.50%		-2.16			3.90%
3/12/1981	14.51%	11.51%		-2.16			3.00%
3/12/1981	16.00%	11.51%		-2.16			4.49%
3/13/1981	13.02%	11.52%		-2.16			1.50%
3/18/1981	16.19%	11.55%		-2.16			4.64%
3/19/1981	13.75%	11.56%		-2.16			2.19%
3/23/1981	14.30%	11.58%		-2.16			2.72%
3/25/1981	15.30%	11.61%		-2.15			3.69%
4/1/1981	14.53%	11.69%		-2.15			2.84%
4/3/1981	19.10%	11.72%		-2.14			7.38%
4/9/1981	15.00%	11.79%		-2.14			3.21%
4/9/1981	15.30%	11.79%		-2.14			3.51%
4/9/1981	17.00%	11.79%		-2.14			5.21%
4/9/1981	16.50%	11.79%		-2.14			4.71%
4/10/1981	13.75%	11.81%		-2.14			1.94%
4/13/1981	13.57%	11.83%		-2.13			1.74%
4/15/1981	15.30%	11.86%		-2.13			3.44%
4/16/1981	13.50%	11.88%		-2.13			1.62%
4/17/1981	14.10%	11.88%		-2.13			2.22%
4/21/1981	16.80%	11.91%		-2.13			4.89%
4/21/1981	14.00%	11.91%		-2.13			2.09%
4/24/1981	16.00%	11.96%		-2.12			4.04%
4/27/1981	13.61%	11.98%		-2.12			1.63%
4/27/1981	12.50%	11.98%		-2.12			0.52%
4/29/1981	13.65%	12.01%		-2.12			1.64%
4/30/1981	13.50%	12.02%		-2.12			1.48%
5/4/1981	16.22%	12.06%		-2.12			4.16%
5/5/1981	14.40%	12.08%		-2.11			2.32%
5/7/1981	16.25%	12.12%		-2.11			4.13%
5/7/1981	16.27%	12.12%		-2.11			4.15%
5/8/1981	13.00%	12.14%		-2.11			0.86%
5/8/1981	16.00%	12.14%		-2.11			3.86%
5/12/1981	13.50%	12.17%		-2.11			1.33%
5/15/1981	15.75%	12.23%		-2.10			3.52%
5/18/1981	14.88%	12.24%		-2.10			2.64%
5/20/1981	16.00%	12.27%		-2.10			3.73%
5/21/1981	14.00%	12.28%		-2.10			1.72%
5/26/1981	14.90%	12.31%		-2.09			2.59%
5/27/1981	15.00%	12.32%		-2.09			2.68%
5/29/1981	15.50%	12.34%		-2.09			3.16%
6/1/1981	16.50%	12.35%		-2.09			4.15%
6/3/1981	14.67%	12.38%		-2.09			2.29%
6/5/1981	13.00%	12.40%		-2.09			0.60%
6/10/1981	16.75%	12.42%		-2.09			4.33%
6/17/1981	14.40%	12.46%		-2.08			1.94%
6/18/1981	16.33%	12.47%		-2.08			3.86%
6/25/1981	14.75%	12.52%		-2.08			2.23%
6/26/1981	16.00%	12.53%		-2.08			3.47%
6/30/1981	15.25%	12.55%		-2.08			2.70%
7/1/1981	15.50%	12.56%		-2.07			2.94%
7/1/1981	17.50%	12.56%		-2.07			4.94%
7/10/1981	16.00%	12.62%		-2.07			3.38%

[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Date of Electric Rate Case	Return on Equity (%)	30 Year Treasury (%)	Moody's Utility A Yield	LN(30-Year Treasury)	Moody's Utility A Credit Spread	VIX	Risk Premium
7/14/1981	16.90%	12.64%		-2.07			4.26%
7/15/1981	16.00%	12.65%		-2.07			3.35%
7/17/1981	15.00%	12.67%		-2.07			2.33%
7/20/1981	15.00%	12.68%		-2.07			2.32%
7/21/1981	14.00%	12.69%		-2.06			1.31%
7/28/1981	13.48%	12.75%		-2.06			0.73%
7/31/1981	13.50%	12.79%		-2.06			0.71%
7/31/1981	16.00%	12.79%		-2.06			3.21%
7/31/1981	15.00%	12.79%		-2.06			2.21%
8/5/1981	15.71%	12.83%		-2.05			2.88%
8/10/1981	14.50%	12.87%		-2.05			1.63%
8/11/1981	15.00%	12.88%		-2.05			2.12%
8/20/1981	16.50%	12.95%		-2.04			3.55%
8/20/1981	13.50%	12.95%		-2.04			0.55%
8/24/1981	15.00%	12.97%		-2.04			2.03%
8/28/1981	15.00%	13.01%		-2.04			1.99%
9/3/1981	14.50%	13.06%		-2.04			1.44%
9/10/1981	14.50%	13.11%		-2.03			1.39%
9/11/1981	16.00%	13.12%		-2.03			2.88%
9/16/1981	16.00%	13.15%		-2.03			2.85%
9/17/1981	16.50%	13.16%		-2.03			3.34%
9/23/1981	15.85%	13.20%		-2.03			2.65%
9/28/1981	15.50%	13.23%		-2.02			2.27%
10/9/1981	15.75%	13.34%		-2.01			2.41%
10/15/1981	16.25%	13.37%		-2.01			2.88%
10/16/1981	16.50%	13.39%		-2.01			3.11%
10/16/1981	15.50%	13.39%		-2.01			2.11%
10/19/1981	14.25%	13.40%		-2.01			0.85%
10/20/1981	15.25%	13.41%		-2.01			1.84%
10/20/1981	17.00%	13.41%		-2.01			3.59%
10/23/1981	16.00%	13.46%		-2.01			2.54%
10/27/1981	10.00%	13.49%		-2.00			-3.49%
10/29/1981	16.50%	13.52%		-2.00			2.98%
10/29/1981	14.75%	13.52%		-2.00			1.23%
11/3/1981	15.17%	13.54%		-2.00			1.63%
11/5/1981	16.60%	13.56%		-2.00			3.04%
11/6/1981	15.17%	13.57%		-2.00			1.60%
11/24/1981	15.50%	13.61%		-1.99			1.89%
11/25/1981	16.10%	13.61%		-1.99			2.49%
11/25/1981	16.10%	13.61%		-1.99			2.49%
11/25/1981	15.25%	13.61%		-1.99			1.64%
11/25/1981	15.35%	13.61%		-1.99			1.74%
12/1/1981	16.50%	13.61%		-1.99			2.89%
12/1/1981	15.70%	13.61%		-1.99			2.09%
12/1/1981	16.49%	13.61%		-1.99			2.88%
12/1/1981	16.00%	13.61%		-1.99			2.39%
12/4/1981	16.00%	13.61%		-1.99			2.39%
12/11/1981	16.25%	13.63%		-1.99			2.62%
12/14/1981	14.00%	13.63%		-1.99			0.37%
12/15/1981	15.81%	13.63%		-1.99			2.18%
12/15/1981	16.00%	13.63%		-1.99			2.37%
12/16/1981	15.25%	13.63%		-1.99			1.62%
12/17/1981	16.50%	13.64%		-1.99			2.86%
12/18/1981	15.45%	13.64%		-1.99			1.81%
12/30/1981	16.00%	13.67%		-1.99			2.33%
12/30/1981	16.25%	13.67%		-1.99			2.58%
12/30/1981	14.25%	13.67%		-1.99			0.58%
12/31/1981	16.15%	13.68%		-1.99			2.47%
1/4/1982	15.50%	13.68%		-1.99			1.82%
1/11/1982	14.50%	13.73%		-1.99			0.77%
1/11/1982	17.00%	13.73%		-1.99			3.27%
1/13/1982	14.75%	13.74%		-1.98			1.01%
1/14/1982	15.75%	13.75%		-1.98			2.00%
1/15/1982	15.00%	13.76%		-1.98			1.24%
1/15/1982	16.50%	13.76%		-1.98			2.74%
1/22/1982	16.25%	13.80%		-1.98			2.45%
1/27/1982	16.84%	13.81%		-1.98			3.03%
1/28/1982	13.00%	13.82%		-1.98			-0.82%
1/29/1982	15.50%	13.82%		-1.98			1.68%
2/1/1982	15.85%	13.83%		-1.98			2.02%
2/3/1982	16.44%	13.84%		-1.98			2.60%
2/8/1982	15.50%	13.86%		-1.98			1.64%
2/11/1982	16.00%	13.88%		-1.97			2.12%
2/11/1982	16.20%	13.88%		-1.97			2.32%
2/17/1982	15.00%	13.89%		-1.97			1.11%
2/19/1982	15.17%	13.89%		-1.97			1.28%
2/26/1982	15.25%	13.89%		-1.97			1.36%
3/1/1982	15.03%	13.89%		-1.97			1.14%
3/1/1982	16.00%	13.89%		-1.97			2.11%
3/3/1982	15.00%	13.88%		-1.97			1.12%
3/8/1982	17.10%	13.88%		-1.97			3.22%
3/12/1982	16.25%	13.88%		-1.97			2.37%
3/17/1982	17.30%	13.88%		-1.97			3.42%
3/22/1982	15.10%	13.89%		-1.97			1.21%

[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Date of Electric Rate Case	Return on Equity (%)	30 Year Treasury (%)	Moody's Utility A Yield	LN(30-Year Treasury)	Moody's Utility A Credit Spread	VIX	Risk Premium
3/27/1982	15.40%	13.90%		-1.97			1.50%
3/30/1982	15.50%	13.91%		-1.97			1.59%
3/31/1982	17.00%	13.91%		-1.97			3.09%
4/1/1982	16.50%	13.92%		-1.97			2.58%
4/1/1982	14.70%	13.92%		-1.97			0.78%
4/2/1982	15.50%	13.92%		-1.97			1.58%
4/5/1982	15.50%	13.93%		-1.97			1.57%
4/8/1982	16.40%	13.94%		-1.97			2.46%
4/13/1982	14.50%	13.94%		-1.97			0.56%
4/23/1982	15.75%	13.94%		-1.97			1.81%
4/27/1982	15.00%	13.94%		-1.97			1.06%
4/28/1982	15.75%	13.94%		-1.97			1.81%
4/30/1982	15.50%	13.94%		-1.97			1.56%
4/30/1982	14.70%	13.94%		-1.97			0.76%
5/3/1982	16.60%	13.94%		-1.97			2.66%
5/4/1982	16.00%	13.94%		-1.97			2.06%
5/14/1982	15.50%	13.92%		-1.97			1.58%
5/18/1982	15.42%	13.92%		-1.97			1.50%
5/19/1982	14.69%	13.92%		-1.97			0.77%
5/20/1982	15.10%	13.91%		-1.97			1.19%
5/20/1982	15.50%	13.91%		-1.97			1.59%
5/20/1982	16.30%	13.91%		-1.97			2.39%
5/20/1982	15.00%	13.91%		-1.97			1.09%
5/21/1982	17.75%	13.91%		-1.97			3.84%
5/27/1982	15.00%	13.89%		-1.97			1.11%
5/28/1982	15.50%	13.89%		-1.97			1.61%
5/28/1982	17.00%	13.89%		-1.97			3.11%
6/1/1982	13.75%	13.89%		-1.97			-0.14%
6/1/1982	16.60%	13.89%		-1.97			2.71%
6/9/1982	17.86%	13.88%		-1.97			3.98%
6/14/1982	15.75%	13.88%		-1.97			1.87%
6/15/1982	14.85%	13.87%		-1.98			0.98%
6/18/1982	15.50%	13.86%		-1.98			1.64%
6/21/1982	14.90%	13.86%		-1.98			1.04%
6/23/1982	16.00%	13.86%		-1.98			2.14%
6/23/1982	16.17%	13.86%		-1.98			2.31%
6/24/1982	14.85%	13.86%		-1.98			0.99%
6/25/1982	14.70%	13.85%		-1.98			0.85%
7/1/1982	16.00%	13.84%		-1.98			2.16%
7/2/1982	15.62%	13.83%		-1.98			1.79%
7/2/1982	17.00%	13.83%		-1.98			3.17%
7/13/1982	14.00%	13.82%		-1.98			0.18%
7/13/1982	16.80%	13.82%		-1.98			2.98%
7/14/1982	15.76%	13.81%		-1.98			1.95%
7/14/1982	16.02%	13.81%		-1.98			2.21%
7/19/1982	16.50%	13.79%		-1.98			2.71%
7/22/1982	17.00%	13.76%		-1.98			3.24%
7/22/1982	14.50%	13.76%		-1.98			0.74%
7/27/1982	16.75%	13.74%		-1.98			3.01%
7/29/1982	16.50%	13.73%		-1.99			2.77%
8/11/1982	17.50%	13.68%		-1.99			3.82%
8/18/1982	17.07%	13.62%		-1.99			3.45%
8/20/1982	15.73%	13.60%		-2.00			2.13%
8/25/1982	16.00%	13.57%		-2.00			2.43%
8/26/1982	15.50%	13.56%		-2.00			1.94%
8/30/1982	15.00%	13.55%		-2.00			1.45%
9/3/1982	16.20%	13.53%		-2.00			2.67%
9/8/1982	15.00%	13.52%		-2.00			1.48%
9/15/1982	13.08%	13.51%		-2.00			-0.43%
9/15/1982	16.25%	13.51%		-2.00			2.74%
9/16/1982	16.00%	13.50%		-2.00			2.50%
9/17/1982	15.25%	13.50%		-2.00			1.75%
9/23/1982	17.17%	13.47%		-2.00			3.70%
9/24/1982	14.50%	13.47%		-2.01			1.03%
9/27/1982	15.25%	13.46%		-2.01			1.79%
10/1/1982	15.50%	13.42%		-2.01			2.08%
10/15/1982	15.90%	13.32%		-2.02			2.58%
10/22/1982	15.75%	13.24%		-2.02			2.51%
10/22/1982	17.15%	13.24%		-2.02			3.91%
10/29/1982	15.54%	13.16%		-2.03			2.38%
11/1/1982	15.50%	13.14%		-2.03			2.36%
11/3/1982	17.20%	13.12%		-2.03			4.08%
11/4/1982	16.25%	13.10%		-2.03			3.15%
11/5/1982	16.20%	13.09%		-2.03			3.11%
11/9/1982	16.00%	13.05%		-2.04			2.95%
11/23/1982	15.85%	12.88%		-2.05			2.97%
11/23/1982	15.50%	12.88%		-2.05			2.62%
11/30/1982	16.50%	12.80%		-2.06			3.70%
12/1/1982	17.04%	12.78%		-2.06			4.26%
12/6/1982	15.00%	12.72%		-2.06			2.28%
12/6/1982	16.35%	12.72%		-2.06			3.63%
12/10/1982	15.50%	12.66%		-2.07			2.84%
12/13/1982	16.00%	12.64%		-2.07			3.36%
12/14/1982	16.40%	12.62%		-2.07			3.78%

[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Date of Electric Rate Case	Return on Equity (%)	30 Year Treasury (%)	Moody's Utility A Yield	LN(30-Year Treasury)	Moody's Utility A Credit Spread	VIX	Risk Premium
12/14/1982	15.30%	12.62%		-2.07			2.68%
12/20/1982	16.00%	12.57%		-2.07			3.43%
12/21/1982	15.85%	12.55%		-2.08			3.30%
12/21/1982	14.75%	12.55%		-2.08			2.20%
12/22/1982	16.75%	12.54%		-2.08			4.21%
12/22/1982	16.58%	12.54%		-2.08			4.04%
12/22/1982	16.25%	12.54%		-2.08			3.71%
12/29/1982	14.90%	12.48%		-2.08			2.42%
12/29/1982	16.25%	12.48%		-2.08			3.77%
12/30/1982	16.35%	12.46%		-2.08			3.89%
12/30/1982	16.00%	12.46%		-2.08			3.54%
12/30/1982	16.77%	12.46%		-2.08			4.31%
1/5/1983	17.33%	12.40%		-2.09			4.93%
1/11/1983	15.90%	12.34%		-2.09			3.56%
1/12/1983	15.50%	12.32%		-2.09			3.18%
1/12/1983	14.63%	12.32%		-2.09			2.31%
1/20/1983	17.75%	12.23%		-2.10			5.52%
1/21/1983	15.00%	12.21%		-2.10			2.79%
1/24/1983	14.50%	12.20%		-2.10			2.30%
1/24/1983	15.50%	12.20%		-2.10			3.30%
1/25/1983	15.85%	12.19%		-2.10			3.66%
1/27/1983	16.14%	12.16%		-2.11			3.98%
2/1/1983	18.50%	12.13%		-2.11			6.37%
2/4/1983	14.00%	12.09%		-2.11			1.91%
2/10/1983	15.00%	12.05%		-2.12			2.95%
2/21/1983	15.50%	11.98%		-2.12			3.52%
2/22/1983	15.50%	11.96%		-2.12			3.54%
2/23/1983	15.10%	11.95%		-2.12			3.15%
2/23/1983	16.00%	11.95%		-2.12			4.05%
3/2/1983	15.25%	11.89%		-2.13			3.36%
3/9/1983	15.20%	11.82%		-2.14			3.38%
3/15/1983	13.00%	11.76%		-2.14			1.24%
3/18/1983	15.25%	11.72%		-2.14			3.53%
3/23/1983	15.40%	11.68%		-2.15			3.72%
3/24/1983	15.00%	11.66%		-2.15			3.34%
3/29/1983	15.50%	11.62%		-2.15			3.88%
3/30/1983	16.71%	11.60%		-2.15			5.11%
3/31/1983	15.00%	11.58%		-2.16			3.42%
4/4/1983	15.20%	11.57%		-2.16			3.63%
4/8/1983	15.50%	11.49%		-2.16			4.01%
4/11/1983	14.81%	11.48%		-2.16			3.33%
4/19/1983	14.50%	11.36%		-2.17			3.14%
4/20/1983	16.00%	11.35%		-2.18			4.65%
4/29/1983	16.00%	11.23%		-2.19			4.77%
5/1/1983	14.50%	11.23%		-2.19			3.27%
5/9/1983	15.50%	11.14%		-2.19			4.36%
5/11/1983	16.46%	11.11%		-2.20			5.35%
5/12/1983	14.14%	11.10%		-2.20			3.04%
5/18/1983	15.00%	11.04%		-2.20			3.96%
5/23/1983	14.90%	11.00%		-2.21			3.90%
5/23/1983	15.50%	11.00%		-2.21			4.50%
5/25/1983	15.50%	10.97%		-2.21			4.53%
5/27/1983	15.00%	10.95%		-2.21			4.05%
5/31/1983	15.50%	10.94%		-2.21			4.56%
5/31/1983	14.00%	10.94%		-2.21			3.06%
6/2/1983	14.50%	10.92%		-2.21			3.58%
6/17/1983	15.03%	10.83%		-2.22			4.20%
7/1/1983	14.80%	10.77%		-2.23			4.03%
7/1/1983	14.90%	10.77%		-2.23			4.13%
7/8/1983	16.25%	10.75%		-2.23			5.50%
7/13/1983	13.20%	10.75%		-2.23			2.45%
7/19/1983	15.10%	10.74%		-2.23			4.36%
7/19/1983	15.00%	10.74%		-2.23			4.26%
7/25/1983	16.25%	10.73%		-2.23			5.52%
7/28/1983	15.90%	10.74%		-2.23			5.16%
8/3/1983	16.50%	10.75%		-2.23			5.75%
8/3/1983	16.34%	10.75%		-2.23			5.59%
8/19/1983	15.00%	10.80%		-2.23			4.20%
8/22/1983	16.40%	10.80%		-2.23			5.60%
8/22/1983	15.50%	10.80%		-2.23			4.70%
8/31/1983	14.75%	10.85%		-2.22			3.90%
9/7/1983	15.00%	10.87%		-2.22			4.13%
9/14/1983	15.78%	10.89%		-2.22			4.89%
9/16/1983	15.00%	10.90%		-2.22			4.10%
9/19/1983	14.50%	10.91%		-2.22			3.59%
9/20/1983	16.50%	10.91%		-2.22			5.59%
9/28/1983	14.50%	10.94%		-2.21			3.56%
9/29/1983	15.50%	10.95%		-2.21			4.55%
9/30/1983	16.15%	10.95%		-2.21			5.20%
9/30/1983	15.25%	10.95%		-2.21			4.30%
10/4/1983	14.80%	10.96%		-2.21			3.84%
10/7/1983	16.00%	10.97%		-2.21			5.03%
10/13/1983	15.52%	10.99%		-2.21			4.53%
10/17/1983	15.50%	11.00%		-2.21			4.50%

[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Date of Electric Rate Case	Return on Equity (%)	30 Year Treasury (%)	Moody's Utility A Yield	LN(30-Year Treasury)	Moody's Utility A Credit Spread	VIX	Risk Premium
10/18/1983	14.50%	11.00%		-2.21			3.50%
10/19/1983	16.50%	11.01%		-2.21			5.49%
10/19/1983	16.25%	11.01%		-2.21			5.24%
10/26/1983	15.00%	11.04%		-2.20			3.96%
10/27/1983	15.20%	11.04%		-2.20			4.16%
11/1/1983	16.00%	11.06%		-2.20			4.94%
11/9/1983	14.90%	11.09%		-2.20			3.81%
11/10/1983	14.35%	11.10%		-2.20			3.25%
11/23/1983	16.00%	11.13%		-2.20			4.87%
11/23/1983	16.15%	11.13%		-2.20			5.02%
11/30/1983	15.00%	11.14%		-2.19			3.86%
12/5/1983	15.25%	11.15%		-2.19			4.10%
12/6/1983	15.07%	11.16%		-2.19			3.91%
12/6/1983	15.90%	11.16%		-2.19			4.74%
12/9/1983	14.75%	11.17%		-2.19			3.58%
12/12/1983	14.50%	11.18%		-2.19			3.32%
12/15/1983	15.56%	11.20%		-2.19			4.36%
12/19/1983	14.80%	11.21%		-2.19			3.59%
12/20/1983	16.00%	11.22%		-2.19			4.78%
12/20/1983	14.69%	11.22%		-2.19			3.47%
12/20/1983	16.25%	11.22%		-2.19			5.03%
12/22/1983	15.75%	11.23%		-2.19			4.52%
12/22/1983	14.75%	11.23%		-2.19			3.52%
1/3/1984	14.75%	11.27%		-2.18			3.48%
1/10/1984	15.90%	11.30%		-2.18			4.60%
1/12/1984	15.60%	11.31%		-2.18			4.29%
1/18/1984	13.75%	11.33%		-2.18			2.42%
1/19/1984	15.90%	11.33%		-2.18			4.57%
1/30/1984	16.10%	11.37%		-2.17			4.73%
1/31/1984	15.25%	11.38%		-2.17			3.87%
2/1/1984	14.80%	11.39%		-2.17			3.41%
2/6/1984	14.75%	11.41%		-2.17			3.34%
2/6/1984	13.75%	11.41%		-2.17			2.34%
2/9/1984	15.25%	11.43%		-2.17			3.82%
2/15/1984	15.70%	11.45%		-2.17			4.25%
2/20/1984	15.00%	11.46%		-2.17			3.54%
2/20/1984	15.00%	11.46%		-2.17			3.54%
2/22/1984	14.75%	11.48%		-2.16			3.27%
2/28/1984	14.50%	11.52%		-2.16			2.98%
3/2/1984	14.25%	11.54%		-2.16			2.71%
3/20/1984	16.00%	11.65%		-2.15			4.35%
3/23/1984	15.50%	11.67%		-2.15			3.83%
3/26/1984	14.71%	11.68%		-2.15			3.03%
4/2/1984	15.50%	11.72%		-2.14			3.78%
4/6/1984	14.74%	11.76%		-2.14			2.98%
4/11/1984	15.72%	11.78%		-2.14			3.94%
4/17/1984	15.00%	11.81%		-2.14			3.19%
4/18/1984	16.20%	11.82%		-2.14			4.38%
4/25/1984	14.64%	11.85%		-2.13			2.79%
4/30/1984	14.40%	11.88%		-2.13			2.52%
5/16/1984	14.69%	11.99%		-2.12			2.70%
5/16/1984	15.00%	11.99%		-2.12			3.01%
5/22/1984	14.40%	12.02%		-2.12			2.38%
5/29/1984	15.10%	12.06%		-2.12			3.04%
6/13/1984	15.25%	12.16%		-2.11			3.09%
6/15/1984	15.60%	12.17%		-2.11			3.43%
6/22/1984	16.25%	12.21%		-2.10			4.04%
6/29/1984	15.25%	12.26%		-2.10			2.99%
7/2/1984	13.35%	12.27%		-2.10			1.08%
7/10/1984	16.00%	12.31%		-2.09			3.69%
7/12/1984	16.50%	12.33%		-2.09			4.17%
7/13/1984	16.25%	12.34%		-2.09			3.91%
7/17/1984	14.14%	12.35%		-2.09			1.79%
7/18/1984	15.50%	12.36%		-2.09			3.14%
7/18/1984	15.30%	12.36%		-2.09			2.94%
7/19/1984	14.30%	12.37%		-2.09			1.93%
7/24/1984	16.79%	12.40%		-2.09			4.39%
7/31/1984	16.00%	12.43%		-2.08			3.57%
8/3/1984	14.25%	12.45%		-2.08			1.80%
8/17/1984	14.30%	12.49%		-2.08			1.81%
8/20/1984	15.00%	12.49%		-2.08			2.51%
8/27/1984	16.30%	12.51%		-2.08			3.79%
8/31/1984	15.55%	12.53%		-2.08			3.02%
9/6/1984	16.00%	12.54%		-2.08			3.46%
9/10/1984	14.75%	12.55%		-2.08			2.20%
9/13/1984	15.00%	12.55%		-2.08			2.45%
9/17/1984	17.38%	12.56%		-2.07			4.82%
9/26/1984	14.50%	12.57%		-2.07			1.93%
9/28/1984	16.25%	12.57%		-2.07			3.68%
9/28/1984	15.00%	12.57%		-2.07			2.43%
10/9/1984	14.75%	12.58%		-2.07			2.17%
10/12/1984	15.60%	12.59%		-2.07			3.01%
10/22/1984	15.00%	12.59%		-2.07			2.41%
10/26/1984	16.40%	12.59%		-2.07			3.81%

[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Date of Electric Rate Case	Return on Equity (%)	30 Year Treasury (%)	Moody's Utility A Yield	LN(30-Year Treasury)	Moody's Utility A Credit Spread	VIX	Risk Premium
10/31/1984	16.25%	12.59%		-2.07			3.66%
11/7/1984	15.60%	12.58%		-2.07			3.02%
11/9/1984	16.00%	12.58%		-2.07			3.42%
11/14/1984	15.75%	12.59%		-2.07			3.16%
11/20/1984	15.25%	12.58%		-2.07			2.67%
11/20/1984	15.92%	12.58%		-2.07			3.34%
11/23/1984	15.00%	12.58%		-2.07			2.42%
11/28/1984	16.15%	12.57%		-2.07			3.58%
12/3/1984	15.80%	12.57%		-2.07			3.23%
12/4/1984	16.50%	12.56%		-2.07			3.94%
12/18/1984	16.40%	12.54%		-2.08			3.86%
12/19/1984	14.75%	12.53%		-2.08			2.22%
12/19/1984	15.00%	12.53%		-2.08			2.47%
12/20/1984	16.00%	12.53%		-2.08			3.47%
12/28/1984	16.00%	12.50%		-2.08			3.50%
1/3/1985	14.75%	12.49%		-2.08			2.26%
1/10/1985	15.75%	12.47%		-2.08			3.28%
1/11/1985	16.30%	12.46%		-2.08			3.84%
1/23/1985	15.80%	12.43%		-2.08			3.37%
1/24/1985	15.82%	12.43%		-2.09			3.39%
1/25/1985	16.75%	12.42%		-2.09			4.33%
1/30/1985	14.90%	12.40%		-2.09			2.50%
1/31/1985	14.75%	12.39%		-2.09			2.36%
2/8/1985	14.47%	12.35%		-2.09			2.12%
3/1/1985	13.84%	12.30%		-2.10			1.54%
3/8/1985	16.85%	12.28%		-2.10			4.57%
3/14/1985	15.50%	12.25%		-2.10			3.25%
3/15/1985	15.62%	12.25%		-2.10			3.37%
3/29/1985	15.62%	12.16%		-2.11			3.46%
4/3/1985	14.60%	12.13%		-2.11			2.47%
4/9/1985	15.50%	12.10%		-2.11			3.40%
4/16/1985	15.70%	12.05%		-2.12			3.65%
4/22/1985	14.00%	12.01%		-2.12			1.99%
4/26/1985	15.50%	11.97%		-2.12			3.53%
4/29/1985	15.00%	11.96%		-2.12			3.04%
5/2/1985	14.68%	11.93%		-2.13			2.75%
5/8/1985	15.62%	11.88%		-2.13			3.74%
5/10/1985	16.50%	11.86%		-2.13			4.64%
5/29/1985	14.61%	11.73%		-2.14			2.88%
5/31/1985	16.00%	11.71%		-2.15			4.29%
6/14/1985	15.50%	11.60%		-2.15			3.90%
7/9/1985	15.00%	11.44%		-2.17			3.56%
7/16/1985	14.50%	11.39%		-2.17			3.11%
7/26/1985	14.50%	11.32%		-2.18			3.18%
8/2/1985	14.80%	11.29%		-2.18			3.51%
8/7/1985	15.00%	11.26%		-2.18			3.74%
8/28/1985	14.25%	11.15%		-2.19			3.10%
8/28/1985	15.50%	11.15%		-2.19			4.35%
8/29/1985	14.50%	11.14%		-2.19			3.36%
9/9/1985	14.90%	11.11%		-2.20			3.79%
9/9/1985	14.60%	11.11%		-2.20			3.49%
9/17/1985	14.90%	11.08%		-2.20			3.82%
9/23/1985	15.00%	11.06%		-2.20			3.94%
9/27/1985	15.80%	11.04%		-2.20			4.76%
9/27/1985	15.50%	11.04%		-2.20			4.46%
10/2/1985	14.75%	11.03%		-2.20			3.72%
10/2/1985	14.00%	11.03%		-2.20			2.97%
10/3/1985	15.25%	11.03%		-2.20			4.22%
10/24/1985	15.40%	10.96%		-2.21			4.44%
10/24/1985	15.85%	10.96%		-2.21			4.89%
10/24/1985	15.82%	10.96%		-2.21			4.86%
10/28/1985	16.00%	10.95%		-2.21			5.05%
10/29/1985	16.65%	10.94%		-2.21			5.71%
10/31/1985	15.06%	10.93%		-2.21			4.13%
11/4/1985	14.50%	10.91%		-2.22			3.59%
11/7/1985	15.50%	10.89%		-2.22			4.61%
11/8/1985	14.30%	10.89%		-2.22			3.41%
12/12/1985	14.75%	10.73%		-2.23			4.02%
12/18/1985	15.00%	10.69%		-2.24			4.31%
12/20/1985	15.00%	10.66%		-2.24			4.34%
12/20/1985	14.50%	10.66%		-2.24			3.84%
12/20/1985	14.50%	10.66%		-2.24			3.84%
1/24/1986	15.40%	10.40%		-2.26			5.00%
1/31/1986	15.00%	10.35%		-2.27			4.65%
2/5/1986	15.00%	10.32%		-2.27			4.68%
2/5/1986	15.75%	10.32%		-2.27			5.43%
2/10/1986	13.30%	10.29%		-2.27			3.01%
2/11/1986	12.50%	10.27%		-2.28			2.23%
2/14/1986	14.40%	10.24%		-2.28			4.16%
2/18/1986	16.00%	10.22%		-2.28			5.78%
2/24/1986	14.50%	10.17%		-2.29			4.33%
2/26/1986	14.00%	10.15%		-2.29			3.85%
3/5/1986	14.90%	10.07%		-2.30			4.83%
3/11/1986	14.50%	10.01%		-2.30			4.49%

[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Date of Electric Rate Case	Return on Equity (%)	30 Year Treasury (%)	Moody's Utility A Yield	LN(30-Year Treasury)	Moody's Utility A Credit Spread	VIX	Risk Premium
3/12/1986	13.50%	10.00%		-2.30			3.50%
3/27/1986	14.10%	9.85%		-2.32			4.25%
3/31/1986	13.50%	9.84%		-2.32			3.66%
4/1/1986	14.00%	9.82%		-2.32			4.18%
4/2/1986	15.50%	9.81%		-2.32			5.69%
4/4/1986	15.00%	9.78%		-2.32			5.22%
4/14/1986	13.40%	9.68%		-2.33			3.72%
4/23/1986	15.00%	9.57%		-2.35			5.43%
5/16/1986	14.50%	9.31%		-2.37			5.19%
5/16/1986	14.50%	9.31%		-2.37			5.19%
5/29/1986	13.90%	9.19%		-2.39			4.71%
5/30/1986	15.10%	9.17%		-2.39			5.93%
6/2/1986	12.81%	9.16%		-2.39			3.65%
6/11/1986	14.00%	9.06%		-2.40			4.94%
6/24/1986	16.63%	8.93%		-2.42			7.70%
6/26/1986	12.00%	8.90%		-2.42			3.10%
6/26/1986	14.75%	8.90%		-2.42			5.85%
6/30/1986	13.00%	8.86%		-2.42			4.14%
7/10/1986	14.34%	8.74%		-2.44			5.60%
7/11/1986	12.75%	8.72%		-2.44			4.03%
7/14/1986	12.60%	8.71%		-2.44			3.89%
7/17/1986	12.40%	8.65%		-2.45			3.75%
7/25/1986	14.25%	8.56%		-2.46			5.69%
8/6/1986	13.50%	8.43%		-2.47			5.07%
8/14/1986	13.50%	8.34%		-2.48			5.16%
9/16/1986	12.75%	8.06%		-2.52			4.69%
9/19/1986	13.25%	8.02%		-2.52			5.23%
10/1/1986	14.00%	7.94%		-2.53			6.06%
10/3/1986	13.40%	7.92%		-2.54			5.48%
10/31/1986	13.50%	7.77%		-2.56			5.73%
11/5/1986	13.00%	7.74%		-2.56			5.26%
12/3/1986	12.90%	7.58%		-2.58			5.32%
12/4/1986	14.44%	7.57%		-2.58			6.87%
12/16/1986	13.60%	7.52%		-2.59			6.08%
12/22/1986	13.80%	7.50%		-2.59			6.30%
12/30/1986	13.00%	7.49%		-2.59			5.51%
1/2/1987	13.00%	7.48%		-2.59			5.52%
1/12/1987	12.40%	7.46%		-2.60			4.94%
1/27/1987	12.71%	7.46%		-2.60			5.25%
3/2/1987	12.47%	7.47%		-2.59			5.00%
3/3/1987	13.60%	7.47%		-2.59			6.13%
3/4/1987	12.38%	7.47%		-2.59			4.91%
3/10/1987	13.50%	7.47%		-2.59			6.03%
3/13/1987	13.00%	7.47%		-2.59			5.53%
3/31/1987	13.00%	7.46%		-2.60			5.54%
4/6/1987	13.00%	7.47%		-2.59			5.53%
4/14/1987	12.50%	7.49%		-2.59			5.01%
4/16/1987	14.50%	7.50%		-2.59			7.00%
4/27/1987	12.00%	7.54%		-2.58			4.46%
5/5/1987	12.85%	7.58%		-2.58			5.27%
5/12/1987	12.65%	7.62%		-2.57			5.03%
5/28/1987	13.50%	7.70%		-2.56			5.80%
6/15/1987	13.20%	7.78%		-2.55			5.42%
6/29/1987	15.00%	7.84%		-2.55			7.16%
6/30/1987	12.50%	7.84%		-2.55			4.66%
7/8/1987	12.00%	7.86%		-2.54			4.14%
7/10/1987	12.90%	7.87%		-2.54			5.03%
7/15/1987	13.50%	7.88%		-2.54			5.62%
7/16/1987	15.00%	7.88%		-2.54			7.12%
7/16/1987	13.50%	7.88%		-2.54			5.62%
7/27/1987	13.00%	7.92%		-2.54			5.08%
7/27/1987	13.40%	7.92%		-2.54			5.48%
7/27/1987	13.50%	7.92%		-2.54			5.58%
7/31/1987	12.98%	7.95%		-2.53			5.03%
8/26/1987	12.63%	8.06%		-2.52			4.57%
8/26/1987	12.75%	8.06%		-2.52			4.69%
8/27/1987	13.25%	8.07%		-2.52			5.18%
9/9/1987	13.00%	8.14%		-2.51			4.86%
9/30/1987	13.00%	8.31%		-2.49			4.69%
9/30/1987	12.75%	8.31%		-2.49			4.44%
10/2/1987	11.50%	8.33%		-2.48			3.17%
10/15/1987	13.00%	8.44%		-2.47			4.56%
11/2/1987	13.00%	8.55%		-2.46			4.45%
11/19/1987	13.00%	8.64%		-2.45			4.36%
11/30/1987	12.00%	8.69%		-2.44			3.31%
12/3/1987	14.20%	8.71%		-2.44			5.49%
12/15/1987	13.25%	8.78%		-2.43			4.47%
12/16/1987	13.72%	8.79%		-2.43			4.93%
12/16/1987	13.50%	8.79%		-2.43			4.71%
12/17/1987	11.75%	8.80%		-2.43			2.95%
12/18/1987	13.50%	8.80%		-2.43			4.70%
12/21/1987	12.01%	8.81%		-2.43			3.20%
12/22/1987	12.75%	8.82%		-2.43			3.93%
12/22/1987	12.00%	8.82%		-2.43			3.18%

[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Date of Electric Rate Case	Return on Equity (%)	30 Year Treasury (%)	Moody's Utility A Yield	LN(30-Year Treasury)	Moody's Utility A Credit Spread	VIX	Risk Premium
12/22/1987	12.00%	8.82%		-2.43			3.18%
12/22/1987	13.00%	8.82%		-2.43			4.18%
1/20/1988	13.80%	8.94%		-2.41			4.86%
1/26/1988	13.90%	8.96%		-2.41			4.94%
1/29/1988	13.20%	8.96%		-2.41			4.24%
2/4/1988	12.60%	8.96%		-2.41			3.64%
3/1/1988	11.56%	8.94%		-2.41			2.62%
3/23/1988	12.87%	8.92%		-2.42			3.95%
3/24/1988	11.24%	8.92%		-2.42			2.32%
3/30/1988	12.72%	8.92%		-2.42			3.80%
4/1/1988	12.50%	8.92%		-2.42			3.58%
4/7/1988	13.25%	8.93%		-2.42			4.32%
4/25/1988	10.96%	8.96%		-2.41			2.00%
5/3/1988	12.91%	8.98%		-2.41			3.93%
5/11/1988	13.50%	8.99%		-2.41			4.51%
5/16/1988	13.00%	8.99%		-2.41			4.01%
6/30/1988	12.75%	8.99%		-2.41			3.76%
7/1/1988	12.75%	8.99%		-2.41			3.76%
7/20/1988	13.40%	8.96%		-2.41			4.44%
8/5/1988	12.75%	8.91%		-2.42			3.84%
8/23/1988	11.70%	8.93%		-2.42			2.77%
8/29/1988	12.75%	8.94%		-2.41			3.81%
8/30/1988	13.50%	8.94%		-2.41			4.56%
9/8/1988	12.60%	8.95%		-2.41			3.65%
10/13/1988	13.10%	8.93%		-2.42			4.17%
12/19/1988	13.00%	9.02%		-2.41			3.98%
12/20/1988	13.00%	9.02%		-2.41			3.98%
12/20/1988	12.25%	9.02%		-2.41			3.23%
12/21/1988	12.90%	9.02%		-2.41			3.88%
12/27/1988	13.00%	9.03%		-2.40			3.97%
12/28/1988	13.10%	9.03%		-2.40			4.07%
12/30/1988	13.40%	9.04%		-2.40			4.36%
1/27/1989	13.00%	9.06%		-2.40			3.94%
1/31/1989	13.00%	9.06%		-2.40			3.94%
2/17/1989	13.00%	9.05%		-2.40			3.95%
2/20/1989	12.40%	9.05%		-2.40			3.35%
3/1/1989	12.76%	9.05%		-2.40			3.71%
3/8/1989	13.00%	9.05%		-2.40			3.95%
3/30/1989	14.00%	9.05%		-2.40			4.95%
4/5/1989	14.20%	9.05%		-2.40			5.15%
4/18/1989	13.00%	9.05%		-2.40			3.95%
5/5/1989	12.40%	9.05%		-2.40			3.35%
6/2/1989	13.20%	9.00%		-2.41			4.20%
6/8/1989	13.50%	8.98%		-2.41			4.52%
6/27/1989	13.25%	8.91%		-2.42			4.34%
6/30/1989	13.00%	8.90%		-2.42			4.10%
8/14/1989	12.50%	8.77%		-2.43			3.73%
9/28/1989	12.25%	8.63%		-2.45			3.62%
10/24/1989	12.50%	8.54%		-2.46			3.96%
11/9/1989	13.00%	8.48%		-2.47			4.52%
12/15/1989	13.00%	8.33%		-2.48			4.67%
12/20/1989	12.90%	8.31%		-2.49			4.59%
12/21/1989	12.90%	8.31%		-2.49			4.59%
12/27/1989	13.00%	8.29%		-2.49			4.71%
12/27/1989	12.50%	8.29%		-2.49			4.21%
1/10/1990	12.80%	8.24%		-2.50		19.95	4.56%
1/11/1990	12.90%	8.23%		-2.50		19.96	4.67%
1/17/1990	12.80%	8.22%		-2.50		21.59	4.58%
1/26/1990	12.00%	8.19%		-2.50		22.87	3.81%
2/9/1990	12.10%	8.17%		-2.50		23.58	3.93%
2/24/1990	12.86%	8.15%		-2.51		23.35	4.71%
3/30/1990	12.90%	8.16%		-2.51		22.17	4.74%
4/4/1990	15.76%	8.17%		-2.51		22.16	7.59%
4/12/1990	12.52%	8.18%		-2.50		22.04	4.34%
4/19/1990	12.75%	8.20%		-2.50		22.01	4.55%
5/21/1990	12.10%	8.28%		-2.49		21.42	3.82%
5/29/1990	12.40%	8.30%		-2.49		21.25	4.10%
5/31/1990	12.00%	8.30%		-2.49		21.17	3.70%
6/4/1990	12.90%	8.30%		-2.49		21.11	4.60%
6/6/1990	12.25%	8.31%		-2.49		21.06	3.94%
6/15/1990	13.20%	8.32%		-2.49		20.80	4.88%
6/20/1990	12.92%	8.32%		-2.49		20.68	4.60%
6/27/1990	12.90%	8.33%		-2.48		20.52	4.57%
6/29/1990	12.50%	8.34%		-2.48		20.45	4.16%
7/6/1990	12.35%	8.34%		-2.48		20.33	4.01%
7/6/1990	12.10%	8.34%		-2.48		20.33	3.76%
8/10/1990	12.55%	8.41%		-2.48		20.52	4.14%
8/16/1990	13.21%	8.43%		-2.47		20.64	4.78%
8/22/1990	13.10%	8.45%		-2.47		20.82	4.65%
8/24/1990	13.00%	8.46%		-2.47		21.00	4.54%
9/26/1990	11.45%	8.59%		-2.45		21.96	2.86%
10/2/1990	13.00%	8.61%		-2.45		22.09	4.39%
10/5/1990	12.84%	8.63%		-2.45		22.18	4.21%
10/19/1990	13.00%	8.67%		-2.45		22.69	4.33%

[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Date of Electric Rate Case	Return on Equity (%)	30 Year Treasury (%)	Moody's Utility A Yield	LN(30-Year Treasury)	Moody's Utility A Credit Spread	VIX	Risk Premium
10/25/1990	12.30%	8.68%		-2.44		22.80	3.62%
11/21/1990	12.70%	8.69%		-2.44		22.98	4.01%
12/13/1990	12.30%	8.67%		-2.44		22.97	3.63%
12/17/1990	12.87%	8.67%		-2.45		23.00	4.20%
12/18/1990	13.10%	8.67%		-2.45		23.02	4.43%
12/19/1990	12.00%	8.66%		-2.45		23.04	3.34%
12/20/1990	12.75%	8.66%		-2.45		23.05	4.09%
12/21/1990	12.50%	8.66%		-2.45		23.07	3.84%
12/27/1990	12.79%	8.66%		-2.45		23.13	4.13%
1/2/1991	13.10%	8.66%		-2.45		23.25	4.44%
1/4/1991	12.50%	8.65%		-2.45		23.31	3.85%
1/15/1991	12.75%	8.65%		-2.45		23.75	4.10%
1/25/1991	11.70%	8.63%		-2.45		23.94	3.07%
2/4/1991	12.50%	8.60%		-2.45		23.92	3.90%
2/7/1991	12.50%	8.59%		-2.45		23.95	3.91%
2/12/1991	13.00%	8.57%		-2.46		23.99	4.43%
2/14/1991	12.72%	8.56%		-2.46		24.02	4.16%
2/22/1991	12.80%	8.55%		-2.46		24.08	4.25%
3/6/1991	13.10%	8.53%		-2.46		24.18	4.57%
3/8/1991	13.00%	8.52%		-2.46		24.21	4.48%
3/8/1991	12.30%	8.52%		-2.46		24.21	3.78%
4/22/1991	13.00%	8.49%		-2.47		24.23	4.51%
5/7/1991	13.50%	8.47%		-2.47		24.22	5.03%
5/13/1991	13.25%	8.47%		-2.47		24.15	4.78%
5/30/1991	12.75%	8.43%		-2.47		23.59	4.32%
6/12/1991	12.00%	8.41%		-2.48		23.03	3.59%
6/25/1991	11.70%	8.38%		-2.48		22.47	3.32%
6/28/1991	12.50%	8.38%		-2.48		22.31	4.12%
7/1/1991	12.00%	8.37%		-2.48		22.25	3.63%
7/3/1991	12.50%	8.36%		-2.48		22.15	4.14%
7/19/1991	12.10%	8.34%		-2.48		21.55	3.76%
8/1/1991	12.90%	8.32%		-2.49		20.89	4.58%
8/16/1991	13.20%	8.29%		-2.49		20.12	4.91%
9/27/1991	12.50%	8.23%		-2.50		19.02	4.27%
9/30/1991	12.25%	8.23%		-2.50		18.99	4.02%
10/17/1991	13.00%	8.20%		-2.50		18.47	4.80%
10/23/1991	12.50%	8.20%		-2.50		18.20	4.30%
10/23/1991	12.55%	8.20%		-2.50		18.20	4.35%
10/31/1991	11.80%	8.19%		-2.50		17.68	3.61%
11/1/1991	12.00%	8.19%		-2.50		17.63	3.81%
11/5/1991	12.25%	8.19%		-2.50		17.55	4.06%
11/12/1991	12.50%	8.18%		-2.50		17.35	4.32%
11/12/1991	13.25%	8.18%		-2.50		17.35	5.07%
11/25/1991	12.40%	8.18%		-2.50		17.21	4.22%
11/26/1991	12.50%	8.18%		-2.50		17.20	4.32%
11/26/1991	11.60%	8.18%		-2.50		17.20	3.42%
11/27/1991	12.10%	8.18%		-2.50		17.19	3.92%
12/18/1991	12.25%	8.15%		-2.51		17.07	4.10%
12/19/1991	12.60%	8.15%		-2.51		17.06	4.45%
12/19/1991	12.80%	8.15%		-2.51		17.06	4.65%
12/20/1991	12.65%	8.14%		-2.51		17.04	4.51%
1/9/1992	12.80%	8.09%		-2.51		17.13	4.71%
1/16/1992	12.75%	8.07%		-2.52		17.14	4.68%
1/21/1992	12.00%	8.06%		-2.52		17.12	3.94%
1/22/1992	13.00%	8.06%		-2.52		17.10	4.94%
1/27/1992	12.65%	8.05%		-2.52		17.09	4.60%
1/31/1992	12.00%	8.04%		-2.52		17.12	3.96%
2/11/1992	12.40%	8.03%		-2.52		17.16	4.37%
2/25/1992	12.50%	8.01%		-2.52		17.14	4.49%
3/16/1992	11.43%	7.98%		-2.53		17.25	3.45%
3/18/1992	12.28%	7.98%		-2.53		17.26	4.30%
4/2/1992	12.10%	7.95%		-2.53		17.24	4.15%
4/9/1992	11.45%	7.93%		-2.53		17.24	3.52%
4/10/1992	11.50%	7.93%		-2.53		17.23	3.57%
4/14/1992	11.50%	7.92%		-2.54		17.21	3.58%
5/5/1992	11.50%	7.89%		-2.54		17.08	3.61%
5/12/1992	12.46%	7.88%		-2.54		17.09	4.58%
5/12/1992	11.87%	7.88%		-2.54		17.09	3.99%
6/1/1992	12.30%	7.86%		-2.54		17.02	4.44%
6/12/1992	10.90%	7.85%		-2.54		16.97	3.05%
6/26/1992	12.35%	7.85%		-2.54		16.91	4.50%
6/29/1992	11.00%	7.85%		-2.55		16.88	3.15%
6/30/1992	13.00%	7.85%		-2.55		16.86	5.15%
7/13/1992	13.50%	7.84%		-2.55		16.78	5.66%
7/13/1992	11.90%	7.84%		-2.55		16.78	4.06%
7/22/1992	11.20%	7.83%		-2.55		16.65	3.37%
8/3/1992	12.00%	7.81%		-2.55		16.52	4.19%
8/6/1992	12.50%	7.80%		-2.55		16.48	4.70%
9/22/1992	12.00%	7.71%		-2.56		15.88	4.29%
9/28/1992	11.40%	7.71%		-2.56		15.78	3.69%
9/30/1992	11.75%	7.71%		-2.56		15.75	4.04%
10/2/1992	13.00%	7.70%		-2.56		15.74	5.30%
10/12/1992	12.20%	7.70%		-2.56		15.85	4.50%
10/16/1992	13.16%	7.71%		-2.56		15.82	5.45%

[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Date of Electric Rate Case	Return on Equity (%)	30 Year Treasury (%)	Moody's Utility A Yield	LN(30-Year Treasury)	Moody's Utility A Credit Spread	VIX	Risk Premium
10/30/1992	11.75%	7.71%		-2.56		15.75	4.04%
11/3/1992	12.00%	7.71%		-2.56		15.74	4.29%
12/3/1992	11.85%	7.68%		-2.57		15.36	4.17%
12/15/1992	11.00%	7.66%		-2.57		15.17	3.34%
12/16/1992	11.90%	7.66%		-2.57		15.14	4.24%
12/16/1992	12.40%	7.66%		-2.57		15.14	4.74%
12/17/1992	12.00%	7.66%		-2.57		15.10	4.34%
12/22/1992	12.40%	7.65%		-2.57		14.99	4.75%
12/22/1992	12.30%	7.65%		-2.57		14.99	4.65%
12/29/1992	12.25%	7.63%	7.68%	-2.57	0.05%	14.86	4.62%
12/30/1992	12.00%	7.63%	7.68%	-2.57	0.05%	14.84	4.37%
12/31/1992	11.90%	7.62%	7.67%	-2.57	0.04%	14.82	4.28%
1/12/1993	12.00%	7.61%	7.62%	-2.58	0.02%	14.72	4.39%
1/21/1993	11.25%	7.59%	7.59%	-2.58	0.00%	14.52	3.66%
2/2/1993	11.40%	7.56%	7.55%	-2.58	0.00%	14.35	3.84%
2/15/1993	12.30%	7.52%	7.52%	-2.59	0.01%	14.22	4.78%
2/24/1993	11.90%	7.49%	7.50%	-2.59	0.01%	14.18	4.41%
2/26/1993	11.80%	7.48%	7.49%	-2.59	0.01%	14.16	4.32%
2/26/1993	12.20%	7.48%	7.49%	-2.59	0.01%	14.16	4.72%
4/23/1993	11.75%	7.29%	7.39%	-2.62	0.10%	13.85	4.46%
5/11/1993	11.75%	7.24%	7.37%	-2.62	0.13%	13.86	4.51%
5/14/1993	11.50%	7.24%	7.37%	-2.63	0.13%	13.87	4.26%
5/25/1993	11.50%	7.22%	7.36%	-2.63	0.14%	13.87	4.28%
5/28/1993	11.00%	7.22%	7.36%	-2.63	0.15%	13.84	3.78%
6/3/1993	12.00%	7.21%	7.36%	-2.63	0.15%	13.83	4.79%
6/16/1993	11.50%	7.19%	7.37%	-2.63	0.18%	13.77	4.31%
6/18/1993	12.10%	7.18%	7.37%	-2.63	0.19%	13.77	4.92%
6/25/1993	11.67%	7.17%	7.39%	-2.64	0.22%	13.74	4.50%
7/21/1993	11.38%	7.10%	7.45%	-2.65	0.35%	13.42	4.28%
7/23/1993	10.46%	7.09%	7.45%	-2.65	0.36%	13.34	3.37%
8/24/1993	11.50%	6.95%	7.55%	-2.67	0.60%	12.79	4.55%
9/21/1993	10.50%	6.80%	7.68%	-2.69	0.87%	12.72	3.70%
9/29/1993	11.47%	6.76%	7.72%	-2.69	0.96%	12.73	4.71%
9/30/1993	11.60%	6.76%	7.73%	-2.69	0.97%	12.74	4.84%
11/2/1993	10.80%	6.60%	7.89%	-2.72	1.29%	12.67	4.20%
11/12/1993	12.00%	6.56%	7.93%	-2.72	1.36%	12.76	5.44%
11/26/1993	11.00%	6.52%	7.98%	-2.73	1.46%	12.85	4.48%
12/14/1993	10.55%	6.48%	8.06%	-2.74	1.58%	12.75	4.07%
12/16/1993	10.60%	6.48%	8.08%	-2.74	1.60%	12.72	4.12%
12/21/1993	11.30%	6.47%	8.10%	-2.74	1.63%	12.66	4.83%
1/4/1994	10.07%	6.44%	8.17%	-2.74	1.72%	12.49	3.63%
1/13/1994	11.00%	6.42%	8.22%	-2.75	1.80%	12.45	4.58%
1/21/1994	11.00%	6.40%	8.27%	-2.75	1.87%	12.39	4.60%
1/28/1994	11.35%	6.39%	8.31%	-2.75	1.92%	12.37	4.96%
2/3/1994	11.40%	6.38%	8.35%	-2.75	1.97%	12.34	5.02%
2/17/1994	10.60%	6.36%	8.42%	-2.76	2.06%	12.38	4.24%
2/25/1994	11.25%	6.35%	8.45%	-2.76	2.10%	12.39	4.90%
2/25/1994	12.00%	6.35%	8.45%	-2.76	2.10%	12.39	5.65%
3/1/1994	11.00%	6.35%	8.46%	-2.76	2.12%	12.40	4.65%
3/4/1994	11.00%	6.34%	8.48%	-2.76	2.13%	12.43	4.66%
4/25/1994	11.00%	6.40%	8.59%	-2.75	2.19%	13.03	4.60%
5/10/1994	11.75%	6.44%	8.61%	-2.74	2.16%	13.20	5.31%
5/13/1994	10.50%	6.46%	8.61%	-2.74	2.14%	13.25	4.04%
6/3/1994	11.00%	6.54%	8.61%	-2.73	2.07%	13.32	4.46%
6/27/1994	11.40%	6.65%	8.61%	-2.71	1.96%	13.42	4.75%
8/5/1994	12.75%	6.88%	8.56%	-2.68	1.68%	13.42	5.87%
10/31/1994	10.00%	7.33%	8.28%	-2.61	0.95%	13.77	2.67%
11/9/1994	10.85%	7.40%	8.24%	-2.60	0.85%	13.94	3.45%
11/9/1994	10.85%	7.40%	8.24%	-2.60	0.85%	13.94	3.45%
11/18/1994	11.20%	7.46%	8.20%	-2.60	0.75%	14.12	3.74%
11/22/1994	11.60%	7.47%	8.19%	-2.59	0.72%	14.14	4.13%
11/28/1994	11.06%	7.50%	8.17%	-2.59	0.67%	14.20	3.56%
12/8/1994	11.70%	7.55%	8.12%	-2.58	0.57%	14.29	4.15%
12/8/1994	11.50%	7.55%	8.12%	-2.58	0.57%	14.29	3.95%
12/14/1994	10.95%	7.57%	8.10%	-2.58	0.53%	14.28	3.38%
12/15/1994	11.50%	7.57%	8.09%	-2.58	0.52%	14.26	3.93%
12/19/1994	11.50%	7.58%	8.08%	-2.58	0.50%	14.24	3.92%
12/28/1994	12.15%	7.61%	8.04%	-2.58	0.43%	14.14	4.54%
1/9/1995	12.28%	7.64%	8.00%	-2.57	0.35%	14.14	4.64%
1/31/1995	11.00%	7.69%	7.89%	-2.57	0.20%	13.71	3.31%
2/10/1995	12.60%	7.70%	7.85%	-2.56	0.15%	13.56	4.90%
2/17/1995	11.90%	7.70%	7.82%	-2.56	0.12%	13.49	4.20%
3/9/1995	11.50%	7.72%	7.74%	-2.56	0.02%	13.37	3.78%
3/20/1995	12.00%	7.72%	7.70%	-2.56	-0.02%	13.35	4.28%
3/23/1995	12.81%	7.72%	7.68%	-2.56	-0.04%	13.32	5.09%
3/29/1995	11.60%	7.72%	7.66%	-2.56	-0.06%	13.31	3.88%
4/6/1995	11.10%	7.72%	7.63%	-2.56	-0.09%	13.30	3.38%
4/7/1995	11.00%	7.71%	7.62%	-2.56	-0.09%	13.28	3.29%
4/19/1995	11.00%	7.70%	7.59%	-2.56	-0.12%	13.20	3.30%
5/12/1995	11.63%	7.68%	7.52%	-2.57	-0.15%	13.21	3.95%
5/25/1995	11.20%	7.65%	7.51%	-2.57	-0.13%	13.22	3.55%
6/9/1995	11.25%	7.60%	7.52%	-2.58	-0.08%	13.26	3.65%
6/21/1995	12.25%	7.56%	7.53%	-2.58	-0.03%	13.24	4.69%
6/30/1995	11.10%	7.51%	7.54%	-2.59	0.03%	13.20	3.59%

[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Date of Electric Rate Case	Return on Equity (%)	30 Year Treasury (%)	Moody's Utility A Yield	LN(30-Year Treasury)	Moody's Utility A Credit Spread	VIX	Risk Premium
9/11/1995	11.30%	7.20%	7.60%	-2.63	0.40%	12.48	4.10%
9/27/1995	11.50%	7.12%	7.63%	-2.64	0.51%	12.24	4.38%
9/27/1995	11.75%	7.12%	7.63%	-2.64	0.51%	12.24	4.63%
9/27/1995	11.30%	7.12%	7.63%	-2.64	0.51%	12.24	4.18%
9/29/1995	11.00%	7.11%	7.63%	-2.64	0.52%	12.24	3.89%
11/9/1995	12.36%	6.89%	7.69%	-2.67	0.80%	12.47	5.47%
11/9/1995	11.38%	6.89%	7.69%	-2.67	0.80%	12.47	4.49%
11/17/1995	11.00%	6.85%	7.71%	-2.68	0.86%	12.51	4.15%
12/4/1995	11.35%	6.78%	7.74%	-2.69	0.96%	12.52	4.57%
12/11/1995	11.40%	6.74%	7.76%	-2.70	1.02%	12.52	4.66%
12/20/1995	11.60%	6.69%	7.78%	-2.70	1.08%	12.50	4.91%
12/27/1995	12.00%	6.66%	7.79%	-2.71	1.13%	12.48	5.34%
2/5/1996	12.25%	6.48%	7.84%	-2.74	1.36%	12.63	5.77%
3/29/1996	10.67%	6.42%	7.85%	-2.75	1.43%	13.49	4.25%
4/8/1996	11.00%	6.42%	7.85%	-2.75	1.43%	13.63	4.58%
4/11/1996	12.59%	6.43%	7.84%	-2.74	1.42%	13.74	6.16%
4/11/1996	12.59%	6.43%	7.84%	-2.74	1.42%	13.74	6.16%
4/24/1996	11.25%	6.43%	7.84%	-2.74	1.40%	13.93	4.82%
4/30/1996	11.00%	6.43%	7.83%	-2.74	1.40%	13.99	4.57%
5/13/1996	11.00%	6.44%	7.81%	-2.74	1.38%	14.15	4.56%
5/23/1996	11.25%	6.43%	7.81%	-2.74	1.38%	14.24	4.82%
6/25/1996	11.25%	6.48%	7.80%	-2.74	1.33%	14.73	4.77%
6/27/1996	11.20%	6.48%	7.80%	-2.74	1.32%	14.77	4.72%
8/12/1996	10.40%	6.57%	7.80%	-2.72	1.22%	15.35	3.83%
9/27/1996	11.00%	6.71%	7.74%	-2.70	1.03%	15.98	4.29%
10/16/1996	12.25%	6.76%	7.72%	-2.69	0.96%	16.22	5.49%
11/5/1996	11.00%	6.81%	7.71%	-2.69	0.89%	16.44	4.19%
11/26/1996	11.30%	6.83%	7.71%	-2.68	0.88%	16.58	4.47%
12/18/1996	11.75%	6.84%	7.70%	-2.68	0.86%	16.80	4.91%
12/31/1996	11.50%	6.83%	7.69%	-2.68	0.86%	16.84	4.67%
1/3/1997	10.70%	6.83%	7.69%	-2.68	0.85%	16.85	3.87%
2/13/1997	11.80%	6.82%	7.62%	-2.68	0.80%	17.23	4.98%
2/20/1997	11.80%	6.82%	7.61%	-2.69	0.80%	17.29	4.98%
3/31/1997	10.02%	6.80%	7.52%	-2.69	0.72%	17.83	3.22%
4/2/1997	11.65%	6.80%	7.51%	-2.69	0.71%	17.86	4.85%
4/28/1997	11.50%	6.81%	7.43%	-2.69	0.62%	18.20	4.69%
4/29/1997	11.70%	6.81%	7.42%	-2.69	0.61%	18.20	4.89%
7/17/1997	12.00%	6.77%	7.26%	-2.69	0.48%	19.04	5.23%
12/12/1997	11.00%	6.80%	7.07%	-2.72	0.47%	22.58	4.40%
12/23/1997	11.12%	6.57%	7.06%	-2.72	0.50%	22.85	4.55%
2/2/1998	12.75%	6.39%	7.06%	-2.75	0.67%	23.45	6.36%
3/2/1998	11.25%	6.28%	7.04%	-2.77	0.76%	23.41	4.97%
3/6/1998	10.75%	6.27%	7.04%	-2.77	0.77%	23.39	4.48%
3/20/1998	10.50%	6.22%	7.03%	-2.78	0.81%	23.36	4.28%
4/30/1998	12.20%	6.12%	7.01%	-2.79	0.88%	23.68	6.08%
7/10/1998	11.40%	5.94%	7.04%	-2.82	1.11%	23.14	5.46%
9/15/1998	11.90%	5.78%	7.18%	-2.85	1.40%	23.80	6.12%
11/30/1998	12.60%	5.58%	7.40%	-2.89	1.82%	26.06	7.02%
12/10/1998	12.20%	5.54%	7.44%	-2.89	1.90%	26.34	6.66%
12/17/1998	12.10%	5.52%	7.46%	-2.90	1.95%	26.58	6.58%
2/5/1999	10.30%	5.38%	7.63%	-2.92	2.25%	27.54	4.92%
3/4/1999	10.50%	5.34%	7.71%	-2.93	2.38%	28.19	5.16%
4/6/1999	10.94%	5.32%	7.83%	-2.93	2.51%	28.47	5.62%
7/29/1999	10.75%	5.52%	8.15%	-2.90	2.63%	25.77	5.23%
9/23/1999	10.75%	5.70%	8.26%	-2.86	2.55%	24.95	5.05%
11/17/1999	11.10%	5.90%	8.29%	-2.83	2.39%	24.31	5.20%
1/7/2000	11.50%	6.05%	8.30%	-2.81	2.26%	23.49	5.45%
1/7/2000	11.50%	6.05%	8.30%	-2.81	2.26%	23.49	5.45%
2/17/2000	10.60%	6.17%	8.28%	-2.78	2.10%	23.35	4.43%
3/28/2000	11.25%	6.20%	8.21%	-2.78	2.01%	22.96	5.05%
5/24/2000	11.00%	6.18%	8.06%	-2.78	1.88%	23.84	4.82%
7/18/2000	12.20%	6.16%	7.97%	-2.79	1.81%	23.36	6.04%
9/29/2000	11.16%	6.03%	7.89%	-2.81	1.86%	22.44	5.13%
11/28/2000	12.90%	5.89%	7.79%	-2.83	1.91%	22.97	7.01%
11/30/2000	12.10%	5.88%	7.79%	-2.83	1.91%	23.03	6.22%
1/23/2001	11.25%	5.79%	7.75%	-2.85	1.96%	23.49	5.46%
2/8/2001	11.50%	5.77%	7.75%	-2.85	1.98%	23.15	5.73%
5/8/2001	10.75%	5.62%	7.71%	-2.88	2.09%	24.39	5.13%
6/26/2001	11.00%	5.62%	7.67%	-2.88	2.05%	24.93	5.38%
7/25/2001	11.02%	5.60%	7.64%	-2.88	2.05%	25.07	5.42%
7/25/2001	11.02%	5.60%	7.64%	-2.88	2.05%	25.07	5.42%
7/31/2001	11.00%	5.59%	7.64%	-2.88	2.04%	24.96	5.41%
8/31/2001	10.50%	5.56%	7.62%	-2.89	2.06%	24.49	4.94%
9/7/2001	10.75%	5.55%	7.62%	-2.89	2.06%	24.53	5.20%
9/10/2001	11.00%	5.55%	7.62%	-2.89	2.06%	24.55	5.45%
9/20/2001	10.00%	5.55%	7.60%	-2.89	2.06%	24.84	4.45%
10/24/2001	10.30%	5.54%	7.54%	-2.89	2.00%	25.69	4.76%
11/28/2001	10.60%	5.49%	7.51%	-2.90	2.02%	26.17	5.11%
12/3/2001	12.88%	5.49%	7.50%	-2.90	2.01%	26.22	7.39%
12/20/2001	12.50%	5.50%	7.44%	-2.90	1.95%	26.14	7.00%
1/22/2002	10.00%	5.50%	7.40%	-2.90	1.91%	25.49	4.50%
3/27/2002	10.10%	5.45%	7.28%	-2.91	1.83%	24.65	4.65%
4/22/2002	11.80%	5.45%	7.23%	-2.91	1.78%	24.49	6.35%
5/28/2002	10.17%	5.46%	7.15%	-2.91	1.68%	24.29	4.71%

[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Date of Electric Rate Case	Return on Equity (%)	30 Year Treasury (%)	Moody's Utility A Yield	LN(30-Year Treasury)	Moody's Utility A Credit Spread	VIX	Risk Premium
6/10/2002	12.00%	5.47%	7.12%	-2.91	1.64%	24.33	6.53%
6/18/2002	11.16%	5.48%	7.09%	-2.90	1.62%	24.42	5.68%
6/20/2002	11.00%	5.48%	7.09%	-2.90	1.61%	24.46	5.52%
6/20/2002	12.30%	5.48%	7.09%	-2.90	1.61%	24.46	6.82%
7/15/2002	11.00%	5.48%	7.03%	-2.90	1.55%	24.08	5.52%
9/12/2002	12.30%	5.45%	6.83%	-2.91	1.38%	25.15	6.85%
9/26/2002	10.45%	5.41%	6.80%	-2.92	1.39%	25.82	5.04%
12/4/2002	11.55%	5.29%	6.70%	-2.94	1.41%	28.03	6.26%
12/13/2002	11.75%	5.27%	6.67%	-2.94	1.41%	28.29	6.48%
12/20/2002	11.40%	5.25%	6.65%	-2.95	1.41%	28.48	6.15%
1/8/2003	11.10%	5.19%	6.62%	-2.96	1.44%	28.93	5.91%
1/31/2003	12.45%	5.13%	6.57%	-2.97	1.45%	29.66	7.32%
2/28/2003	12.30%	5.04%	6.51%	-2.99	1.47%	30.74	7.26%
3/6/2003	10.75%	5.02%	6.50%	-2.99	1.48%	30.99	5.73%
3/7/2003	9.96%	5.02%	6.50%	-2.99	1.48%	31.04	4.94%
3/20/2003	12.00%	4.98%	6.47%	-3.00	1.49%	31.54	7.02%
4/3/2003	12.00%	4.95%	6.44%	-3.00	1.48%	31.74	7.05%
4/15/2003	11.15%	4.93%	6.42%	-3.01	1.48%	31.70	6.22%
6/25/2003	10.75%	4.79%	6.35%	-3.04	1.56%	28.27	5.96%
6/26/2003	10.75%	4.79%	6.35%	-3.04	1.56%	28.19	5.96%
7/9/2003	9.75%	4.79%	6.36%	-3.04	1.57%	27.44	4.96%
7/16/2003	9.75%	4.79%	6.36%	-3.04	1.56%	26.97	4.96%
7/25/2003	9.50%	4.79%	6.36%	-3.04	1.56%	26.27	4.71%
8/26/2003	10.50%	4.83%	6.33%	-3.03	1.50%	24.78	5.67%
12/17/2003	9.85%	4.94%	6.22%	-3.01	1.29%	20.47	4.91%
12/17/2003	10.70%	4.94%	6.22%	-3.01	1.29%	20.47	5.76%
12/18/2003	11.50%	4.94%	6.22%	-3.01	1.29%	20.40	6.56%
12/19/2003	12.00%	4.94%	6.22%	-3.01	1.28%	20.31	7.06%
12/19/2003	12.00%	4.94%	6.22%	-3.01	1.28%	20.31	7.06%
12/23/2003	10.50%	4.94%	6.22%	-3.01	1.28%	20.15	5.56%
1/13/2004	12.00%	4.95%	6.20%	-3.01	1.25%	19.31	7.05%
3/2/2004	10.75%	4.99%	6.17%	-3.00	1.18%	18.17	5.76%
3/26/2004	10.25%	5.02%	6.17%	-2.99	1.15%	17.96	5.23%
4/5/2004	11.25%	5.03%	6.16%	-2.99	1.12%	17.85	6.22%
5/18/2004	10.50%	5.07%	6.04%	-2.98	0.97%	17.43	5.43%
5/25/2004	10.25%	5.07%	6.02%	-2.98	0.94%	17.36	5.18%
5/27/2004	10.25%	5.08%	6.01%	-2.98	0.93%	17.33	5.17%
6/2/2004	11.22%	5.08%	6.00%	-2.98	0.92%	17.30	6.14%
6/30/2004	10.50%	5.10%	5.93%	-2.98	0.83%	16.96	5.40%
6/30/2004	10.50%	5.10%	5.93%	-2.98	0.83%	16.96	5.40%
7/16/2004	11.60%	5.11%	5.89%	-2.97	0.78%	16.69	6.49%
8/25/2004	10.25%	5.10%	5.79%	-2.98	0.69%	16.53	5.15%
9/9/2004	10.40%	5.10%	5.76%	-2.98	0.66%	16.35	5.30%
11/9/2004	10.50%	5.07%	5.66%	-2.98	0.60%	15.94	5.43%
11/23/2004	11.00%	5.06%	5.64%	-2.98	0.57%	15.75	5.94%
12/14/2004	10.97%	5.07%	5.61%	-2.98	0.54%	15.59	5.90%
12/21/2004	11.25%	5.07%	5.60%	-2.98	0.53%	15.51	6.18%
12/21/2004	11.50%	5.07%	5.60%	-2.98	0.53%	15.51	6.43%
12/22/2004	10.70%	5.07%	5.60%	-2.98	0.53%	15.47	5.63%
12/22/2004	11.50%	5.07%	5.60%	-2.98	0.53%	15.47	6.43%
12/29/2004	9.85%	5.08%	5.60%	-2.98	0.52%	15.30	4.77%
1/6/2005	10.70%	5.08%	5.60%	-2.98	0.52%	15.12	5.62%
2/18/2005	10.30%	4.98%	5.63%	-3.00	0.65%	14.59	5.32%
2/25/2005	10.50%	4.96%	5.63%	-3.00	0.67%	14.46	5.54%
3/10/2005	11.00%	4.93%	5.63%	-3.01	0.71%	14.18	6.07%
3/24/2005	10.30%	4.89%	5.62%	-3.02	0.73%	14.05	5.41%
4/4/2005	10.00%	4.87%	5.62%	-3.02	0.75%	14.02	5.13%
4/7/2005	10.25%	4.87%	5.62%	-3.02	0.75%	14.00	5.38%
5/18/2005	10.25%	4.78%	5.65%	-3.04	0.87%	13.89	5.47%
5/25/2005	10.75%	4.76%	5.66%	-3.04	0.90%	13.75	5.99%
5/26/2005	9.75%	4.76%	5.67%	-3.04	0.91%	13.71	4.99%
6/1/2005	9.75%	4.75%	5.67%	-3.05	0.93%	13.64	5.00%
7/19/2005	11.50%	4.64%	5.80%	-3.07	1.16%	13.17	6.86%
8/5/2005	11.75%	4.62%	5.86%	-3.07	1.24%	12.94	7.13%
8/15/2005	10.13%	4.61%	5.88%	-3.08	1.27%	12.84	5.52%
9/28/2005	10.00%	4.54%	6.03%	-3.09	1.49%	12.77	5.46%
10/4/2005	10.75%	4.53%	6.04%	-3.09	1.51%	12.78	6.22%
12/12/2005	11.00%	4.55%	6.12%	-3.09	1.57%	12.97	6.45%
12/13/2005	10.75%	4.55%	6.12%	-3.09	1.57%	12.96	6.20%
12/21/2005	10.29%	4.54%	6.12%	-3.09	1.58%	12.91	5.75%
12/21/2005	10.40%	4.54%	6.12%	-3.09	1.58%	12.91	5.86%
12/22/2005	11.15%	4.54%	6.12%	-3.09	1.58%	12.90	6.61%
12/22/2005	11.00%	4.54%	6.12%	-3.09	1.58%	12.90	6.46%
12/28/2005	10.00%	4.54%	6.12%	-3.09	1.59%	12.87	5.46%
12/28/2005	10.00%	4.54%	6.12%	-3.09	1.59%	12.87	5.46%
1/5/2006	11.00%	4.53%	6.13%	-3.09	1.61%	12.82	6.47%
1/27/2006	9.75%	4.52%	6.15%	-3.10	1.63%	12.72	5.23%
3/3/2006	10.39%	4.53%	6.14%	-3.09	1.61%	12.39	5.86%
4/17/2006	10.20%	4.62%	6.12%	-3.08	1.50%	12.34	5.58%
4/26/2006	10.60%	4.64%	6.11%	-3.07	1.47%	12.34	5.96%
5/17/2006	11.60%	4.69%	6.06%	-3.06	1.37%	12.47	6.91%
6/6/2006	10.00%	4.75%	6.03%	-3.05	1.28%	12.72	5.25%
6/27/2006	10.75%	4.80%	6.00%	-3.04	1.20%	13.07	5.95%
7/6/2006	10.20%	4.83%	5.98%	-3.03	1.15%	13.12	5.37%

[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Date of Electric Rate Case	Return on Equity (%)	30 Year Treasury (%)	Moody's Utility A Yield	LN(30-Year Treasury)	Moody's Utility A Credit Spread	VIX	Risk Premium
7/24/2006	9.60%	4.86%	5.95%	-3.02	1.10%	13.29	4.74%
7/26/2006	10.50%	4.86%	5.95%	-3.02	1.09%	13.29	5.64%
7/28/2006	10.05%	4.87%	5.94%	-3.02	1.08%	13.27	5.18%
8/23/2006	9.55%	4.89%	5.93%	-3.02	1.04%	13.20	4.66%
9/1/2006	10.54%	4.90%	5.94%	-3.02	1.04%	13.19	5.64%
9/14/2006	10.00%	4.91%	5.95%	-3.01	1.04%	13.25	5.09%
10/6/2006	9.67%	4.92%	5.98%	-3.01	1.06%	13.30	4.75%
11/21/2006	10.08%	4.95%	6.02%	-3.01	1.07%	13.12	5.13%
11/21/2006	10.08%	4.95%	6.02%	-3.01	1.07%	13.12	5.13%
11/21/2006	10.12%	4.95%	6.02%	-3.01	1.07%	13.12	5.17%
12/1/2006	10.50%	4.96%	6.04%	-3.00	1.08%	13.07	5.54%
12/1/2006	10.25%	4.96%	6.04%	-3.00	1.08%	13.07	5.29%
12/7/2006	10.75%	4.96%	6.05%	-3.00	1.09%	13.06	5.79%
12/21/2006	10.90%	4.95%	6.07%	-3.00	1.11%	12.98	5.95%
12/21/2006	11.25%	4.95%	6.07%	-3.00	1.11%	12.98	6.30%
12/22/2006	10.25%	4.95%	6.07%	-3.00	1.12%	12.98	5.30%
1/5/2007	10.00%	4.95%	6.08%	-3.01	1.13%	12.98	5.05%
1/11/2007	10.10%	4.95%	6.08%	-3.01	1.13%	12.98	5.15%
1/11/2007	10.10%	4.95%	6.08%	-3.01	1.13%	12.98	5.15%
1/11/2007	10.90%	4.95%	6.08%	-3.01	1.13%	12.98	5.95%
1/12/2007	10.10%	4.95%	6.08%	-3.01	1.14%	12.98	5.15%
1/13/2007	10.40%	4.95%	6.08%	-3.01	1.14%	12.98	5.45%
1/19/2007	10.80%	4.94%	6.08%	-3.01	1.14%	12.96	5.86%
3/21/2007	11.35%	4.86%	6.12%	-3.02	1.25%	12.81	6.49%
3/22/2007	9.75%	4.86%	6.12%	-3.02	1.26%	12.78	4.89%
5/15/2007	10.00%	4.81%	6.15%	-3.04	1.35%	12.22	5.19%
5/17/2007	10.25%	4.80%	6.16%	-3.04	1.35%	12.21	5.45%
5/17/2007	10.25%	4.80%	6.16%	-3.04	1.35%	12.21	5.45%
5/22/2007	10.20%	4.80%	6.16%	-3.04	1.36%	12.19	5.40%
5/22/2007	10.50%	4.80%	6.16%	-3.04	1.36%	12.19	5.70%
5/23/2007	10.70%	4.80%	6.16%	-3.04	1.36%	12.18	5.90%
5/25/2007	9.67%	4.80%	6.16%	-3.04	1.36%	12.16	4.87%
6/15/2007	9.90%	4.82%	6.16%	-3.03	1.34%	12.27	5.08%
6/21/2007	10.20%	4.83%	6.16%	-3.03	1.33%	12.30	5.37%
6/22/2007	10.50%	4.83%	6.16%	-3.03	1.33%	12.31	5.67%
6/28/2007	10.75%	4.84%	6.16%	-3.03	1.32%	12.38	5.91%
7/12/2007	9.67%	4.86%	6.16%	-3.02	1.30%	12.56	4.81%
7/19/2007	10.00%	4.87%	6.16%	-3.02	1.29%	12.65	5.13%
7/19/2007	10.00%	4.87%	6.16%	-3.02	1.29%	12.65	5.13%
8/15/2007	10.40%	4.88%	6.17%	-3.02	1.29%	13.76	5.52%
10/9/2007	10.00%	4.91%	6.20%	-3.01	1.29%	15.94	5.09%
10/17/2007	9.10%	4.91%	6.21%	-3.01	1.29%	16.15	4.19%
10/31/2007	9.96%	4.90%	6.23%	-3.02	1.32%	16.62	5.06%
11/29/2007	10.90%	4.87%	6.25%	-3.02	1.39%	18.14	6.03%
12/6/2007	10.75%	4.86%	6.27%	-3.02	1.41%	18.45	5.89%
12/13/2007	9.96%	4.86%	6.29%	-3.02	1.43%	18.60	5.10%
12/14/2007	10.70%	4.86%	6.29%	-3.02	1.43%	18.62	5.84%
12/14/2007	10.80%	4.86%	6.29%	-3.02	1.43%	18.62	5.94%
12/19/2007	10.20%	4.86%	6.30%	-3.02	1.44%	18.74	5.34%
12/20/2007	10.20%	4.86%	6.30%	-3.03	1.45%	18.77	5.34%
12/20/2007	11.00%	4.86%	6.30%	-3.03	1.45%	18.77	6.14%
12/28/2007	10.25%	4.85%	6.33%	-3.03	1.48%	18.84	5.40%
12/31/2007	11.25%	4.85%	6.34%	-3.03	1.49%	18.88	6.40%
1/8/2008	10.75%	4.83%	6.38%	-3.03	1.55%	19.16	5.92%
1/17/2008	10.75%	4.81%	6.45%	-3.03	1.64%	19.51	5.94%
1/28/2008	9.40%	4.80%	6.50%	-3.04	1.71%	19.99	4.60%
1/30/2008	10.00%	4.79%	6.52%	-3.04	1.73%	20.14	5.21%
1/31/2008	10.71%	4.79%	6.53%	-3.04	1.74%	20.21	5.92%
2/29/2008	10.25%	4.75%	6.62%	-3.05	1.87%	21.45	5.50%
3/12/2008	10.25%	4.73%	6.62%	-3.05	1.89%	21.99	5.52%
3/25/2008	9.10%	4.68%	6.63%	-3.06	1.94%	22.55	4.42%
4/22/2008	10.25%	4.60%	6.64%	-3.08	2.04%	23.32	5.65%
4/24/2008	10.10%	4.60%	6.64%	-3.08	2.04%	23.35	5.50%
5/1/2008	10.70%	4.58%	6.63%	-3.08	2.05%	23.46	6.12%
5/19/2008	11.00%	4.56%	6.64%	-3.09	2.08%	23.32	6.44%
5/27/2008	10.00%	4.55%	6.64%	-3.09	2.09%	23.18	5.45%
6/10/2008	10.70%	4.54%	6.65%	-3.09	2.11%	22.89	6.16%
6/27/2008	11.04%	4.54%	6.65%	-3.09	2.11%	22.73	6.50%
6/27/2008	10.50%	4.54%	6.65%	-3.09	2.11%	22.73	5.96%
7/10/2008	10.43%	4.52%	6.66%	-3.10	2.14%	22.88	5.91%
7/16/2008	9.40%	4.51%	6.66%	-3.10	2.15%	23.08	4.89%
7/30/2008	10.80%	4.51%	6.66%	-3.10	2.15%	23.33	6.29%
7/31/2008	10.70%	4.51%	6.66%	-3.10	2.16%	23.34	6.19%
8/11/2008	10.25%	4.50%	6.67%	-3.10	2.16%	23.37	5.75%
8/26/2008	10.18%	4.50%	6.67%	-3.10	2.17%	23.23	5.68%
9/10/2008	10.30%	4.50%	6.66%	-3.10	2.16%	23.01	5.80%
9/24/2008	10.65%	4.48%	6.63%	-3.11	2.15%	23.46	6.17%
9/24/2008	10.65%	4.48%	6.63%	-3.11	2.15%	23.46	6.17%
9/24/2008	10.65%	4.48%	6.63%	-3.11	2.15%	23.46	6.17%
9/30/2008	10.20%	4.47%	6.61%	-3.11	2.14%	23.77	5.73%
10/8/2008	10.15%	4.46%	6.59%	-3.11	2.12%	24.61	5.69%
11/13/2008	10.55%	4.45%	6.34%	-3.11	1.89%	29.58	6.10%
11/17/2008	10.20%	4.44%	6.32%	-3.11	1.87%	29.98	5.76%
12/1/2008	10.25%	4.39%	6.24%	-3.12	1.84%	31.79	5.86%

[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Date of Electric Rate Case	Return on Equity (%)	30 Year Treasury (%)	Moody's Utility A Yield	LN(30-Year Treasury)	Moody's Utility A Credit Spread	VIX	Risk Premium
12/23/2008	11.00%	4.27%	6.14%	-3.15	1.87%	34.13	6.73%
12/29/2008	10.00%	4.24%	6.13%	-3.16	1.89%	34.34	5.76%
12/29/2008	10.20%	4.24%	6.13%	-3.16	1.89%	34.34	5.96%
12/31/2008	10.75%	4.22%	6.13%	-3.17	1.90%	34.47	6.53%
1/14/2009	10.50%	4.15%	6.09%	-3.18	1.94%	35.25	6.35%
1/21/2009	10.50%	4.11%	6.08%	-3.19	1.97%	35.81	6.39%
1/21/2009	10.50%	4.11%	6.08%	-3.19	1.97%	35.81	6.39%
1/21/2009	10.50%	4.11%	6.08%	-3.19	1.97%	35.81	6.39%
1/27/2009	10.76%	4.09%	6.06%	-3.20	1.98%	36.26	6.67%
1/30/2009	10.50%	4.07%	6.05%	-3.20	1.98%	36.58	6.43%
2/4/2009	8.75%	4.06%	6.04%	-3.20	1.98%	36.94	4.69%
3/4/2009	10.50%	3.86%	5.98%	-3.23	2.02%	39.59	6.54%
3/12/2009	11.50%	3.93%	5.97%	-3.24	2.04%	40.42	7.57%
4/2/2009	11.10%	3.85%	5.92%	-3.26	2.07%	42.04	7.25%
4/21/2009	10.61%	3.80%	5.87%	-3.27	2.08%	42.91	6.81%
4/24/2009	10.00%	3.78%	5.86%	-3.27	2.08%	43.10	6.22%
4/30/2009	11.25%	3.77%	5.85%	-3.28	2.08%	43.29	7.48%
5/4/2009	10.74%	3.77%	5.85%	-3.28	2.08%	43.40	6.97%
5/20/2009	10.25%	3.74%	5.81%	-3.29	2.07%	43.96	6.51%
5/28/2009	10.50%	3.74%	5.79%	-3.29	2.05%	44.24	6.76%
6/22/2009	10.00%	3.76%	5.76%	-3.28	1.99%	45.01	6.24%
6/24/2009	10.80%	3.76%	5.76%	-3.28	1.99%	45.06	7.04%
7/8/2009	10.63%	3.76%	5.75%	-3.28	1.98%	44.95	6.87%
7/17/2009	10.50%	3.77%	5.74%	-3.28	1.96%	44.55	6.73%
8/31/2009	10.25%	3.82%	5.69%	-3.27	1.87%	38.96	6.43%
10/14/2009	10.70%	4.02%	5.66%	-3.21	1.64%	33.90	6.68%
10/23/2009	10.88%	4.06%	5.64%	-3.20	1.58%	33.22	6.82%
11/2/2009	10.70%	4.10%	5.63%	-3.20	1.53%	32.57	6.60%
11/3/2009	10.70%	4.10%	5.62%	-3.19	1.52%	32.48	6.60%
11/24/2009	10.25%	4.16%	5.57%	-3.18	1.41%	30.89	6.09%
11/25/2009	10.75%	4.16%	5.57%	-3.18	1.41%	30.79	6.59%
11/30/2009	10.35%	4.17%	5.56%	-3.18	1.39%	30.58	6.18%
12/3/2009	10.50%	4.18%	5.55%	-3.18	1.37%	30.18	6.32%
12/7/2009	10.70%	4.19%	5.55%	-3.17	1.36%	29.90	6.51%
12/16/2009	11.00%	4.22%	5.52%	-3.17	1.30%	28.98	6.78%
12/16/2009	10.90%	4.22%	5.52%	-3.17	1.30%	28.98	6.68%
12/18/2009	10.40%	4.22%	5.51%	-3.16	1.29%	28.70	6.18%
12/18/2009	10.40%	4.22%	5.51%	-3.16	1.29%	28.70	6.18%
12/22/2009	10.20%	4.23%	5.50%	-3.16	1.27%	28.46	5.97%
12/22/2009	10.40%	4.23%	5.50%	-3.16	1.27%	28.46	6.17%
12/22/2009	10.40%	4.23%	5.50%	-3.16	1.27%	28.46	6.17%
12/30/2009	10.00%	4.26%	5.48%	-3.16	1.22%	27.91	5.74%
1/4/2010	10.80%	4.28%	5.47%	-3.15	1.19%	27.67	6.52%
1/11/2010	11.00%	4.31%	5.46%	-3.15	1.15%	27.09	6.69%
1/26/2010	10.13%	4.35%	5.43%	-3.13	1.08%	26.08	5.78%
1/27/2010	10.40%	4.36%	5.43%	-3.13	1.07%	26.01	6.04%
1/27/2010	10.40%	4.36%	5.43%	-3.13	1.07%	26.01	6.04%
1/27/2010	10.70%	4.36%	5.43%	-3.13	1.07%	26.01	6.34%
2/9/2010	9.80%	4.38%	5.41%	-3.13	1.03%	25.43	5.42%
2/18/2010	10.60%	4.40%	5.40%	-3.12	1.00%	25.05	6.20%
2/24/2010	10.18%	4.41%	5.39%	-3.12	0.98%	24.80	5.77%
3/2/2010	9.63%	4.41%	5.38%	-3.12	0.97%	24.54	5.22%
3/4/2010	10.50%	4.41%	5.38%	-3.12	0.97%	24.43	6.09%
3/5/2010	10.50%	4.41%	5.38%	-3.12	0.97%	24.37	6.09%
3/11/2010	11.90%	4.42%	5.38%	-3.12	0.96%	24.10	7.48%
3/17/2010	10.00%	4.41%	5.37%	-3.12	0.96%	23.85	5.59%
3/25/2010	10.15%	4.42%	5.36%	-3.12	0.95%	23.47	5.73%
4/2/2010	10.10%	4.43%	5.35%	-3.12	0.92%	23.15	5.67%
4/27/2010	10.00%	4.46%	5.34%	-3.11	0.88%	22.16	5.54%
4/29/2010	9.90%	4.46%	5.34%	-3.11	0.88%	22.11	5.44%
4/29/2010	10.06%	4.46%	5.34%	-3.11	0.88%	22.11	5.60%
4/29/2010	10.26%	4.46%	5.34%	-3.11	0.88%	22.11	5.80%
5/12/2010	10.30%	4.45%	5.34%	-3.11	0.89%	22.26	5.85%
5/12/2010	10.30%	4.45%	5.34%	-3.11	0.89%	22.26	5.85%
5/28/2010	10.20%	4.44%	5.35%	-3.11	0.90%	22.81	5.76%
5/28/2010	10.10%	4.44%	5.35%	-3.11	0.90%	22.81	5.66%
6/7/2010	10.30%	4.44%	5.35%	-3.11	0.90%	23.00	5.86%
6/16/2010	10.00%	4.44%	5.35%	-3.11	0.91%	23.16	5.56%
6/28/2010	10.50%	4.43%	5.35%	-3.12	0.92%	23.19	6.07%
6/28/2010	9.67%	4.43%	5.35%	-3.12	0.92%	23.19	5.24%
6/30/2010	9.40%	4.43%	5.36%	-3.12	0.93%	23.30	4.97%
7/1/2010	10.25%	4.43%	5.36%	-3.12	0.93%	23.34	5.82%
7/15/2010	10.70%	4.43%	5.37%	-3.12	0.94%	23.43	6.27%
7/15/2010	10.63%	4.43%	5.37%	-3.12	0.94%	23.43	6.10%
7/30/2010	10.70%	4.41%	5.37%	-3.12	0.96%	23.39	6.29%
8/4/2010	10.50%	4.41%	5.38%	-3.12	0.96%	23.40	6.09%
8/6/2010	9.83%	4.41%	5.38%	-3.12	0.97%	23.41	5.42%
8/25/2010	9.90%	4.37%	5.39%	-3.13	1.02%	23.38	5.53%
9/3/2010	10.60%	4.35%	5.41%	-3.14	1.06%	23.44	6.25%
9/14/2010	10.70%	4.33%	5.41%	-3.14	1.08%	23.46	6.37%
9/16/2010	10.00%	4.32%	5.42%	-3.14	1.09%	23.44	5.68%
9/16/2010	10.00%	4.32%	5.42%	-3.14	1.09%	23.44	5.68%
9/30/2010	9.75%	4.28%	5.43%	-3.15	1.15%	23.47	5.47%
10/14/2010	10.35%	4.24%	5.44%	-3.16	1.20%	23.50	6.11%

[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Date of Electric Rate Case	Return on Equity (%)	30 Year Treasury (%)	Moody's Utility A Yield	LN(30-Year Treasury)	Moody's Utility A Credit Spread	VIX	Risk Premium
10/28/2010	10.70%	4.21%	5.42%	-3.17	1.21%	23.55	6.49%
11/2/2010	10.38%	4.20%	5.41%	-3.17	1.21%	23.60	6.18%
11/4/2010	10.70%	4.19%	5.41%	-3.17	1.21%	23.54	6.51%
11/18/2010	10.20%	4.17%	5.36%	-3.18	1.19%	23.28	6.03%
11/22/2010	10.00%	4.17%	5.36%	-3.18	1.19%	23.24	5.83%
12/1/2010	10.13%	4.16%	5.33%	-3.18	1.18%	23.21	5.97%
12/6/2010	9.86%	4.15%	5.32%	-3.18	1.17%	23.18	5.71%
12/9/2010	10.25%	4.15%	5.30%	-3.18	1.15%	23.14	6.10%
12/13/2010	10.70%	4.15%	5.29%	-3.18	1.14%	23.13	6.55%
12/14/2010	10.13%	4.15%	5.28%	-3.18	1.14%	23.12	5.98%
12/15/2010	10.44%	4.15%	5.28%	-3.18	1.13%	23.12	6.29%
12/17/2010	10.00%	4.14%	5.26%	-3.18	1.12%	23.11	5.86%
12/20/2010	10.60%	4.14%	5.26%	-3.18	1.11%	23.10	6.46%
12/21/2010	10.30%	4.14%	5.25%	-3.18	1.11%	23.09	6.16%
12/27/2010	9.90%	4.14%	5.24%	-3.18	1.10%	23.07	5.76%
12/29/2010	11.15%	4.14%	5.23%	-3.19	1.09%	23.07	7.01%
1/5/2011	10.15%	4.13%	5.20%	-3.19	1.07%	23.08	6.02%
1/12/2011	10.30%	4.12%	5.18%	-3.19	1.06%	23.07	6.18%
1/13/2011	10.30%	4.12%	5.17%	-3.19	1.05%	23.06	6.18%
1/18/2011	10.00%	4.12%	5.16%	-3.19	1.04%	23.05	5.88%
1/20/2011	9.30%	4.12%	5.15%	-3.19	1.03%	23.06	5.18%
1/20/2011	10.13%	4.12%	5.15%	-3.19	1.03%	23.06	6.01%
1/31/2011	9.60%	4.11%	5.10%	-3.19	0.99%	23.12	5.49%
2/3/2011	10.00%	4.11%	5.08%	-3.19	0.97%	23.13	5.89%
2/25/2011	10.00%	4.14%	4.98%	-3.18	0.83%	22.58	5.86%
3/25/2011	9.80%	4.18%	4.85%	-3.18	0.68%	21.29	5.62%
3/30/2011	10.00%	4.18%	4.83%	-3.17	0.65%	21.16	5.82%
4/12/2011	10.00%	4.21%	4.78%	-3.17	0.57%	20.69	5.79%
4/25/2011	10.74%	4.23%	4.73%	-3.16	0.50%	20.17	6.51%
4/26/2011	9.67%	4.24%	4.72%	-3.16	0.49%	20.13	5.43%
4/27/2011	10.40%	4.24%	4.72%	-3.16	0.48%	20.08	6.16%
5/4/2011	10.00%	4.25%	4.69%	-3.16	0.45%	19.84	5.75%
5/4/2011	10.00%	4.25%	4.69%	-3.16	0.45%	19.84	5.75%
5/24/2011	10.50%	4.27%	4.62%	-3.15	0.35%	19.44	6.23%
6/8/2011	10.75%	4.30%	4.59%	-3.15	0.28%	19.02	6.45%
6/16/2011	9.20%	4.32%	4.57%	-3.14	0.25%	18.83	4.88%
6/17/2011	9.95%	4.32%	4.56%	-3.14	0.24%	18.83	5.63%
7/13/2011	10.20%	4.37%	4.48%	-3.13	0.12%	18.48	5.83%
8/1/2011	9.20%	4.39%	4.42%	-3.13	0.03%	18.46	4.81%
8/6/2011	10.00%	4.38%	4.40%	-3.13	0.02%	18.77	5.62%
8/11/2011	10.00%	4.38%	4.40%	-3.13	0.02%	19.05	5.62%
8/12/2011	10.35%	4.38%	4.39%	-3.13	0.02%	19.13	5.97%
8/19/2011	10.25%	4.36%	4.38%	-3.13	0.02%	19.53	5.89%
9/2/2011	12.88%	4.32%	4.35%	-3.14	0.03%	20.31	8.56%
9/22/2011	10.00%	4.24%	4.32%	-3.16	0.08%	21.34	5.76%
10/12/2011	10.30%	4.14%	4.29%	-3.19	0.15%	22.82	6.16%
10/20/2011	10.50%	4.10%	4.27%	-3.19	0.17%	23.27	6.40%
11/30/2011	10.90%	3.87%	4.22%	-3.25	0.35%	25.28	7.03%
11/30/2011	10.90%	3.87%	4.22%	-3.25	0.35%	25.28	7.03%
12/14/2011	10.00%	3.79%	4.21%	-3.27	0.41%	25.67	6.21%
12/14/2011	10.30%	3.79%	4.21%	-3.27	0.41%	25.67	6.51%
12/20/2011	10.20%	3.76%	4.20%	-3.28	0.44%	25.76	6.44%
12/21/2011	10.20%	3.75%	4.20%	-3.28	0.44%	25.76	6.45%
12/22/2011	9.90%	3.75%	4.20%	-3.28	0.45%	25.77	6.15%
12/22/2011	10.40%	3.75%	4.20%	-3.28	0.45%	25.77	6.65%
12/23/2011	10.19%	3.74%	4.20%	-3.29	0.46%	25.76	6.45%
1/25/2012	10.50%	3.57%	4.15%	-3.33	0.59%	25.89	6.93%
1/27/2012	10.50%	3.55%	4.14%	-3.34	0.59%	25.91	6.95%
2/15/2012	10.20%	3.47%	4.11%	-3.36	0.64%	26.12	6.73%
2/23/2012	9.90%	3.43%	4.10%	-3.37	0.66%	26.14	6.47%
2/27/2012	10.25%	3.42%	4.10%	-3.37	0.67%	26.15	6.83%
2/29/2012	10.40%	3.41%	4.09%	-3.38	0.68%	26.16	6.99%
3/29/2012	10.37%	3.31%	4.05%	-3.41	0.74%	25.99	7.06%
4/4/2012	10.00%	3.29%	4.05%	-3.41	0.75%	25.89	6.71%
4/26/2012	10.00%	3.20%	4.03%	-3.44	0.83%	25.91	6.80%
5/2/2012	10.00%	3.18%	4.03%	-3.45	0.85%	25.85	6.82%
5/7/2012	9.80%	3.16%	4.02%	-3.45	0.86%	25.85	6.64%
5/15/2012	10.00%	3.14%	4.02%	-3.46	0.88%	25.79	6.86%
5/29/2012	10.05%	3.11%	4.02%	-3.47	0.92%	25.23	6.94%
6/7/2012	10.30%	3.07%	4.03%	-3.48	0.95%	24.77	7.23%
6/14/2012	9.40%	3.06%	4.03%	-3.49	0.97%	24.45	6.34%
6/15/2012	10.40%	3.06%	4.03%	-3.49	0.97%	24.40	7.34%
6/18/2012	9.60%	3.05%	4.03%	-3.49	0.97%	24.33	6.55%
6/19/2012	9.25%	3.05%	4.03%	-3.49	0.98%	24.25	6.20%
6/26/2012	10.10%	3.04%	4.03%	-3.49	0.99%	23.82	7.06%
6/29/2012	10.00%	3.04%	4.02%	-3.49	0.99%	23.58	6.96%
7/9/2012	10.20%	3.03%	4.02%	-3.50	0.99%	23.14	7.17%
7/16/2012	9.80%	3.02%	4.02%	-3.50	1.00%	22.59	6.78%
7/20/2012	9.81%	3.01%	4.02%	-3.50	1.02%	22.07	6.80%
7/20/2012	9.31%	3.01%	4.02%	-3.50	1.02%	22.07	6.30%
9/13/2012	9.80%	2.94%	4.11%	-3.53	1.17%	19.11	6.86%
9/19/2012	10.05%	2.94%	4.13%	-3.53	1.19%	18.84	7.11%
9/19/2012	9.80%	2.94%	4.13%	-3.53	1.19%	18.84	6.86%
9/26/2012	9.50%	2.94%	4.14%	-3.53	1.20%	18.51	6.56%

[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Date of Electric Rate Case	Return on Equity (%)	30 Year Treasury (%)	Moody's Utility A Yield	LN(30-Year Treasury)	Moody's Utility A Credit Spread	VIX	Risk Premium
10/12/2012	9.60%	2.93%	4.18%	-3.53	1.25%	18.04	6.67%
10/23/2012	9.75%	2.93%	4.21%	-3.53	1.27%	17.84	6.82%
10/24/2012	10.30%	2.93%	4.21%	-3.53	1.28%	17.83	7.37%
11/9/2012	10.30%	2.92%	4.26%	-3.53	1.34%	17.75	7.38%
11/28/2012	10.40%	2.90%	4.32%	-3.54	1.42%	17.60	7.50%
11/29/2012	9.88%	2.89%	4.32%	-3.54	1.43%	17.58	6.99%
11/29/2012	9.75%	2.89%	4.32%	-3.54	1.43%	17.58	6.86%
12/5/2012	9.71%	2.89%	4.34%	-3.54	1.45%	17.53	6.82%
12/5/2012	10.40%	2.89%	4.34%	-3.54	1.45%	17.53	7.51%
12/12/2012	9.80%	2.88%	4.36%	-3.55	1.48%	17.48	6.92%
12/13/2012	10.50%	2.88%	4.36%	-3.55	1.48%	17.47	7.62%
12/13/2012	9.50%	2.88%	4.36%	-3.55	1.48%	17.47	6.62%
12/14/2012	10.40%	2.88%	4.37%	-3.55	1.49%	17.47	7.52%
12/19/2012	9.71%	2.87%	4.38%	-3.55	1.51%	17.44	6.84%
12/19/2012	10.25%	2.87%	4.38%	-3.55	1.51%	17.44	7.38%
12/20/2012	10.40%	2.87%	4.38%	-3.55	1.51%	17.43	7.53%
12/20/2012	10.30%	2.87%	4.38%	-3.55	1.51%	17.43	7.43%
12/20/2012	10.45%	2.87%	4.38%	-3.55	1.51%	17.43	7.58%
12/20/2012	10.25%	2.87%	4.38%	-3.55	1.51%	17.43	7.38%
12/20/2012	10.25%	2.87%	4.38%	-3.55	1.51%	17.43	7.38%
12/20/2012	9.80%	2.87%	4.38%	-3.55	1.51%	17.43	6.93%
12/20/2012	9.50%	2.87%	4.38%	-3.55	1.51%	17.43	6.63%
12/21/2012	10.20%	2.87%	4.38%	-3.55	1.52%	17.43	7.33%
12/26/2012	9.80%	2.86%	4.39%	-3.55	1.53%	17.46	6.94%
1/9/2013	9.70%	2.84%	4.42%	-3.56	1.57%	17.50	6.86%
1/9/2013	9.70%	2.84%	4.42%	-3.56	1.57%	17.50	6.86%
1/9/2013	9.70%	2.84%	4.42%	-3.56	1.57%	17.50	6.86%
1/16/2013	9.60%	2.84%	4.43%	-3.56	1.59%	17.45	6.76%
1/16/2013	9.60%	2.84%	4.43%	-3.56	1.59%	17.45	6.76%
2/13/2013	10.20%	2.84%	4.49%	-3.56	1.64%	17.01	7.36%
2/22/2013	9.75%	2.85%	4.51%	-3.56	1.65%	16.89	6.90%
2/27/2013	10.00%	2.86%	4.52%	-3.56	1.66%	16.85	7.14%
3/14/2013	9.30%	2.88%	4.55%	-3.55	1.67%	16.34	6.42%
3/27/2013	9.80%	2.90%	4.57%	-3.54	1.67%	15.88	6.90%
5/1/2013	9.84%	2.94%	4.64%	-3.53	1.70%	15.25	6.90%
5/15/2013	10.30%	2.96%	4.66%	-3.52	1.70%	15.02	7.34%
5/30/2013	10.20%	2.98%	4.68%	-3.51	1.69%	14.88	7.22%
5/31/2013	9.00%	2.98%	4.68%	-3.51	1.69%	14.89	6.02%
6/11/2013	10.00%	3.00%	4.68%	-3.51	1.68%	14.96	7.00%
6/21/2013	9.75%	3.02%	4.68%	-3.50	1.66%	14.99	6.73%
6/25/2013	9.80%	3.03%	4.68%	-3.50	1.65%	15.02	6.77%
7/12/2013	9.36%	3.08%	4.65%	-3.48	1.58%	15.07	6.28%
8/8/2013	9.83%	3.14%	4.62%	-3.46	1.47%	14.82	6.69%
8/14/2013	9.15%	3.16%	4.61%	-3.45	1.45%	14.72	5.99%
9/11/2013	10.25%	3.27%	4.56%	-3.42	1.30%	14.57	6.98%
9/11/2013	10.20%	3.27%	4.56%	-3.42	1.30%	14.57	6.93%
9/24/2013	10.20%	3.31%	4.54%	-3.41	1.23%	14.47	6.89%
10/3/2013	9.65%	3.33%	4.52%	-3.40	1.18%	14.45	6.32%
11/6/2013	10.20%	3.41%	4.46%	-3.38	1.05%	14.40	6.79%
11/21/2013	10.00%	3.44%	4.42%	-3.37	0.98%	14.36	6.56%
11/26/2013	10.00%	3.45%	4.42%	-3.37	0.96%	14.36	6.55%
12/3/2013	10.25%	3.47%	4.41%	-3.36	0.94%	14.38	6.78%
12/4/2013	9.50%	3.47%	4.40%	-3.36	0.93%	14.38	6.03%
12/5/2013	10.20%	3.48%	4.40%	-3.36	0.92%	14.38	6.72%
12/9/2013	8.72%	3.49%	4.40%	-3.36	0.91%	14.34	5.23%
12/9/2013	9.75%	3.49%	4.40%	-3.36	0.91%	14.34	6.26%
12/13/2013	9.75%	3.50%	4.38%	-3.35	0.88%	14.34	6.25%
12/16/2013	9.95%	3.50%	4.38%	-3.35	0.88%	14.35	6.45%
12/16/2013	9.95%	3.50%	4.38%	-3.35	0.88%	14.35	6.45%
12/16/2013	10.12%	3.50%	4.38%	-3.35	0.88%	14.35	6.62%
12/17/2013	9.50%	3.51%	4.38%	-3.35	0.87%	14.37	5.99%
12/17/2013	10.95%	3.51%	4.38%	-3.35	0.87%	14.37	7.44%
12/18/2013	8.72%	3.51%	4.37%	-3.35	0.86%	14.37	5.21%
12/18/2013	9.80%	3.51%	4.37%	-3.35	0.86%	14.37	6.29%
12/19/2013	10.15%	3.51%	4.37%	-3.35	0.86%	14.38	6.64%
12/30/2013	9.50%	3.54%	4.35%	-3.34	0.81%	14.41	5.96%
2/20/2014	9.20%	3.69%	4.25%	-3.30	0.57%	14.62	5.61%
2/26/2014	9.75%	3.70%	4.24%	-3.30	0.55%	14.65	6.05%
3/17/2014	9.55%	3.72%	4.20%	-3.29	0.48%	14.72	5.83%
3/26/2014	9.40%	3.73%	4.17%	-3.29	0.45%	14.66	5.67%
3/26/2014	9.96%	3.73%	4.17%	-3.29	0.45%	14.66	6.23%
4/2/2014	9.70%	3.73%	4.15%	-3.29	0.42%	14.58	5.97%
5/16/2014	9.80%	3.70%	4.04%	-3.30	0.34%	14.38	6.10%
5/30/2014	9.70%	3.68%	4.02%	-3.30	0.34%	14.35	6.02%
6/6/2014	10.40%	3.67%	4.00%	-3.30	0.33%	14.26	6.73%
6/30/2014	9.55%	3.64%	3.96%	-3.31	0.32%	13.95	5.91%
7/2/2014	9.62%	3.64%	3.95%	-3.31	0.31%	13.91	5.98%
7/10/2014	9.95%	3.63%	3.94%	-3.32	0.31%	13.86	6.32%
7/23/2014	9.75%	3.61%	3.93%	-3.32	0.32%	13.68	6.14%
7/29/2014	9.45%	3.60%	3.93%	-3.32	0.32%	13.57	5.85%
7/31/2014	9.90%	3.60%	3.93%	-3.32	0.33%	13.55	6.30%
8/20/2014	9.75%	3.56%	3.93%	-3.33	0.37%	13.61	6.19%
8/25/2014	9.60%	3.56%	3.94%	-3.34	0.36%	13.59	6.04%
8/29/2014	9.80%	3.54%	3.94%	-3.34	0.40%	13.57	6.26%

[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Date of Electric Rate Case	Return on Equity (%)	30 Year Treasury (%)	Moody's Utility A Yield	LN(30-Year Treasury)	Moody's Utility A Credit Spread	VIX	Risk Premium
9/11/2014	9.60%	3.51%	3.95%	-3.35	0.44%	13.57	6.09%
9/15/2014	10.25%	3.51%	3.96%	-3.35	0.45%	13.57	6.74%
10/9/2014	9.80%	3.44%	3.97%	-3.37	0.53%	13.62	6.36%
11/6/2014	9.56%	3.37%	3.99%	-3.39	0.62%	14.09	6.19%
11/6/2014	10.20%	3.37%	3.99%	-3.39	0.62%	14.09	6.83%
11/14/2014	10.20%	3.35%	4.00%	-3.40	0.65%	13.94	6.85%
11/26/2014	9.70%	3.32%	4.01%	-3.40	0.69%	13.82	6.38%
11/26/2014	10.20%	3.32%	4.01%	-3.40	0.69%	13.82	6.88%
12/4/2014	9.68%	3.30%	4.02%	-3.41	0.72%	13.78	6.38%
12/10/2014	9.25%	3.29%	4.03%	-3.41	0.74%	13.80	5.96%
12/10/2014	9.25%	3.29%	4.03%	-3.41	0.74%	13.80	5.96%
12/11/2014	10.07%	3.28%	4.03%	-3.42	0.75%	13.83	6.79%
12/12/2014	10.20%	3.28%	4.03%	-3.42	0.75%	13.86	6.92%
12/17/2014	9.17%	3.27%	4.04%	-3.42	0.77%	13.96	5.90%
12/18/2014	9.83%	3.26%	4.04%	-3.42	0.78%	13.98	6.57%
1/23/2015	9.50%	3.14%	4.11%	-3.46	0.97%	14.37	6.36%
2/24/2015	9.83%	3.04%	4.19%	-3.49	1.15%	14.67	6.79%
3/18/2015	9.75%	2.98%	4.23%	-3.51	1.26%	14.90	6.77%
3/25/2015	9.50%	2.95%	4.25%	-3.52	1.30%	14.96	6.55%
3/26/2015	9.72%	2.95%	4.26%	-3.52	1.31%	14.98	6.77%
4/23/2015	10.20%	2.87%	4.31%	-3.55	1.45%	15.21	7.33%
4/29/2015	9.53%	2.86%	4.33%	-3.56	1.47%	15.22	6.67%
5/1/2015	9.60%	2.85%	4.33%	-3.56	1.48%	15.23	6.75%
5/26/2015	9.75%	2.83%	4.35%	-3.57	1.52%	15.16	6.92%
6/17/2015	9.00%	2.82%	4.35%	-3.57	1.53%	15.30	6.18%
6/17/2015	9.00%	2.82%	4.35%	-3.57	1.53%	15.30	6.18%
9/2/2015	9.50%	2.79%	4.35%	-3.58	1.56%	15.68	6.71%
9/10/2015	9.30%	2.79%	4.35%	-3.58	1.56%	15.99	6.61%
10/15/2015	9.00%	2.81%	4.35%	-3.57	1.54%	16.66	6.19%
11/19/2015	10.30%	2.88%	4.35%	-3.55	1.47%	16.28	7.42%
11/19/2015	10.00%	2.88%	4.35%	-3.55	1.47%	16.28	7.12%
12/3/2015	10.00%	2.90%	4.35%	-3.54	1.45%	16.28	7.10%
12/9/2015	9.14%	2.90%	4.34%	-3.54	1.44%	16.33	6.24%
12/9/2015	9.14%	2.90%	4.34%	-3.54	1.44%	16.33	6.24%
12/11/2015	10.30%	2.90%	4.34%	-3.54	1.44%	16.42	7.40%
12/15/2015	9.60%	2.91%	4.34%	-3.54	1.44%	16.50	6.69%
12/17/2015	9.70%	2.91%	4.34%	-3.54	1.43%	16.54	6.79%
12/18/2015	9.50%	2.91%	4.34%	-3.54	1.43%	16.57	6.59%
12/30/2015	9.50%	2.93%	4.33%	-3.53	1.41%	16.60	6.57%
1/6/2016	9.50%	2.94%	4.30%	-3.53	1.36%	16.72	6.56%
2/23/2016	9.75%	2.94%	4.23%	-3.53	1.29%	18.32	6.81%
3/16/2016	9.85%	2.91%	4.23%	-3.54	1.32%	18.69	6.94%
4/29/2016	9.80%	2.83%	4.23%	-3.56	1.40%	18.60	6.97%

Average: 4.50%
of Rate Case 1,471

Summary of Adjustment Clauses & Alternative Regulation/Incentive Plans

Company	Parent	State	Adjustment Clauses						
			Fuel/ Purchased Power	Decoupling (F/P) [1]	New Capital Investment (2)	Energy Efficiency (3)	Renewables & RPS [4]	Environmental [5]	Other [6]
ALLETE (Minnesota Power)	ALE	Minnesota	✓			✓		✓	✓
Interstate Power and Light Company	LNT	Iowa	✓				✓	✓	✓
Wisconsin Power and Light Company	LNT	Wisconsin	✓						✓
Ameren Illinois Company	AEE	Illinois				✓	✓	✓	✓
Union Electric Company	AEE	Missouri	✓	P		✓		✓	✓
Southwestern Electric Power Company	AEP	Arkansas	✓	P	✓				✓
Indiana Michigan Power Company	AEP	Indiana	✓	P		✓		✓	✓
Kentucky Power Company	AEP	Kentucky	✓	P	✓			✓	✓
Southwestern Electric Power Company	AEP	Louisiana	✓	P		✓		✓	✓
Indiana Michigan Power Company	AEP	Michigan	✓			✓	✓		✓
Ohio Power Company	AEP	Ohio		P	✓		✓		✓
Public Service Company of Oklahoma	AEP	Oklahoma	✓	P	✓	✓			✓
Kingsport Power Company	AEP	Tennessee	✓						
AEP Texas Central Company	AEP	Texas			✓	✓			✓
AEP Texas North Company	AEP	Texas			✓	✓			✓
Southwestern Electric Power Company	AEP	Texas	✓		✓	✓			✓
Appalachian Power Company	AEP	Virginia	✓		✓	✓	✓	✓	✓
Appalachian Power Company	AEP	West Virginia	✓						✓
Wheeling Power Company	AEP	West Virginia	✓						✓
Alaska Electric Light and Power Company	AVA	Alaska	✓						
Avista Corporation	AVA	Idaho	✓			✓			
Avista Corporation	AVA	Washington	✓	F					
Consumers Energy Company	CMS	Michigan	✓			✓			✓
DTE Electric Company	DTE	Michigan	✓			✓	✓		
Idaho Power Co.	IDA	Idaho	✓	P		✓			
Idaho Power Co.	IDA	Oregon	✓				✓		
NorthWestern Energy	NWE	Montana	✓	P		✓			✓
NorthWestern Energy	NWE	South Dakota	✓			✓			
Oklahoma Gas and Electric Company	OGE	Arkansas	✓	P	✓		✓		✓
Oklahoma Gas and Electric Company	OGE	Oklahoma	✓	P	✓			✓	✓
Otter Tail Power Company	OTTR	Minnesota	✓			✓	✓	✓	✓
Otter Tail Power Company	OTTR	North Dakota	✓		✓		✓	✓	✓
Arizona Public Service Company	PNW	Arizona	✓	P	✓	✓	✓	✓	✓
Public Service Company of New Mexico	PNM	New Mexico	✓			✓		✓	✓
Texas-New Mexico Power Company	PNM	Texas			✓	✓			✓
Portland General Electric Company	POR	Oregon	✓	P			✓		
South Carolina Electric & Gas Co.	SCG	South Carolina	✓		✓			✓	
Public Service Company of Colorado	XEL	Colorado	✓		✓	✓	✓		✓
Northern States Power Company - MN	XEL	Minnesota	✓			✓		✓	✓
Southwestern Public Service Company	XEL	New Mexico	✓			✓	✓		✓
Northern States Power Company - MN	XEL	North Dakota	✓		✓		✓		✓
Northern States Power Company - MN	XEL	South Dakota	✓	P	✓	✓		✓	✓
Southwestern Public Service Company	XEL	Texas	✓		✓	✓			✓
Northern States Power Company - WI	XEL	Wisconsin	✓						✓

Notes:

A mechanism may cover one or more cost categories; therefore, designations may not indicate separate mechanisms for each category.

[1] Full or partial decoupling (such as Straight-Fixed Variable rate design, weather normalization clauses, and recovery of lost revenues as a result of Energy Efficiency programs).

[2] Includes recovery of costs related to targeted new generation projects, infrastructure replacement, system integrity/hardening, Smart Grid, AMI metering, and other capital expenditures.

[3] Utility-sponsored conservation, energy efficiency, load control, or other demand side management programs.

Summary of Adjustment Clauses & Alternative Regulation/Incentive Plans

Company	Parent	State	Alternative Regulation / Incentive Plans					
			Formula-Based Rates	Price Freeze/Cap	Earnings Sharing	Formula-Based ROE	Service Quality/Performance	Merger Savings
ALLETE (Minnesota Power)	ALE	Minnesota						
Interstate Power and Light Company	LNT	Iowa		✓				
Wisconsin Power and Light Company	LNT	Wisconsin		✓	✓			
Ameren Illinois Company	AEE	Illinois	✓		✓	✓	✓	
Union Electric Company	AEE	Missouri						
Southwestern Electric Power Company	AEP	Arkansas						
Indiana Michigan Power Company	AEP	Indiana						
Kentucky Power Company	AEP	Kentucky						
Southwestern Electric Power Company	AEP	Louisiana	✓	✓	✓			
Indiana Michigan Power Company	AEP	Michigan						
Ohio Power Company	AEP	Ohio		✓	✓			
Public Service Company of Oklahoma	AEP	Oklahoma						
Kingsport Power Company	AEP	Tennessee						
AEP Texas Central Company	AEP	Texas						
AEP Texas North Company	AEP	Texas						
Southwestern Electric Power Company	AEP	Texas						
Appalachian Power Company	AEP	Virginia			✓	✓	✓	
Appalachian Power Company	AEP	West Virginia						
Wheating Power Company	AEP	West Virginia						
Alaska Electric Light and Power Company	AVA	Alaska						
Avista Corporation	AVA	Idaho		✓				
Avista Corporation	AVA	Washington		✓				
Consumers Energy Company	CMS	Michigan						
DTE Electric Company	DTE	Michigan						
Idaho Power Co.	IDA	Idaho			✓			
Idaho Power Co.	IDA	Oregon						
NorthWestern Energy	NWE	Montana						
NorthWestern Energy	NWE	South Dakota						
Oklahoma Gas and Electric Company	OGE	Arkansas						
Oklahoma Gas and Electric Company	OGE	Oklahoma						
Otter Tail Power Company	OTTR	Minnesota						
Otter Tail Power Company	OTTR	North Dakota						
Arizona Public Service Company	PNW	Arizona		✓				
Public Service Company of New Mexico	PNM	New Mexico						
Texas-New Mexico Power Company	PNM	Texas						
Portland General Electric Company	POR	Oregon						
South Carolina Electric & Gas Co.	SCG	South Carolina		✓				
Public Service Company of Colorado	XEL	Colorado		✓	✓			
Northern States Power Company - MN	XEL	Minnesota						
Southwestern Public Service Company	XEL	New Mexico		✓				
Northern States Power Company - MN	XEL	North Dakota						
Northern States Power Company - MN	XEL	South Dakota		✓				
Southwestern Public Service Company	XEL	Texas		✓				
Northern States Power Company - WI	XEL	Wisconsin						

Notes:

- [4] Recovers costs associated with renewable energy projects, Distributed Energy Resources, REC purchases, net metering, RPS expense, and renewable PPAs.
 - [5] EPA upgrade costs, emissions control & allowance purchase costs, nuclear decommissioning, and other costs to comply with state and federal environmental mandates.
 - [6] Pension expenses, bad debt costs, storm costs, vegetation management, RTO/Transmission Expense, capacity costs, transmission costs, government & franchise fees and taxes, economic development and low income programs
- Sources: *Alternative Regulation/Incentive Plans: A State-by-State Overview*, November 19, 2013; Regulatory Research Associates, *Adjustment Clauses: A State-by-State Overview*, October 2, 2015.

Change in Net Plant and Asset Turnover
Proxy Group - Annual Average

Year	Average Revenue/Net Plant	Average Change in Net Plant	Cumulative Change in Net Plant
2003	66.92%	11.43%	11.43%
2004	68.76%	8.31%	20.68%
2005	76.37%	3.09%	24.41%
2006	71.46%	6.83%	32.91%
2007	67.40%	7.18%	42.45%
2008	63.88%	10.73%	57.74%
2009	52.28%	7.75%	69.96%
2010	52.40%	6.06%	80.27%
2011	50.64%	5.41%	90.02%
2012	44.81%	5.79%	101.01%
2013	44.07%	4.35%	109.76%
2014	41.89%	10.14%	131.03%
2015	37.59%	7.69%	148.79%
2016	36.16%	5.65%	162.84%
3-5 Year Projection	36.65%	16.26%	205.58%

Change in Net Plant and Asset Turnover
Proxy Group - Individual Company Results

Ticker	Year	Revenue	Net Plant	Revenue/ Net Plant	Change in Net Plant	Change in Revenue/ Net Plant
ALE	2002	NA	NA			
ALE	2003	NA	NA			
ALE	2004	\$ 751.40	\$ 883.10	85.09%		
ALE	2005	737.40	860.40	85.70%	-2.57%	0.73%
ALE	2006	767.10	921.60	83.24%	7.11%	-2.88%
ALE	2007	841.70	1,104.50	76.21%	19.85%	-8.44%
ALE	2008	801.00	1,387.30	57.74%	25.60%	-24.23%
ALE	2009	759.10	1,622.70	46.78%	16.97%	-18.98%
ALE	2010	907.00	1,805.60	50.23%	11.27%	7.38%
ALE	2011	928.20	1,982.70	46.81%	9.81%	-6.80%
ALE	2012	961.20	2,347.60	40.94%	18.40%	-12.54%
ALE	2013	1,018.40	2,576.50	39.53%	9.75%	-3.46%
ALE	2014	1,136.80	3,286.40	34.59%	27.55%	-12.49%
ALE	2015	1,486.40	3,669.10	40.51%	11.64%	17.11%
ALE	2016	1,350.00	3,685.00	36.64%	0.43%	-9.57%
ALE	2019-2021	1,550.00	3,825.00	40.52%	3.80%	10.61%
LNT	2002	\$ 2,608.80	\$ 3,729.20	69.96%		
LNT	2003	3,128.20	4,432.60	70.57%	18.86%	0.88%
LNT	2004	2,958.70	5,284.60	55.99%	19.22%	-20.67%
LNT	2005	3,279.60	4,866.20	67.40%	-7.92%	20.38%
LNT	2006	3,359.40	4,944.90	67.94%	1.62%	0.80%
LNT	2007	3,437.60	4,679.90	73.45%	-5.36%	8.12%
LNT	2008	3,681.70	5,353.50	68.77%	14.39%	-6.38%
LNT	2009	3,432.80	6,203.00	55.34%	15.87%	-19.53%
LNT	2010	3,416.10	6,730.60	50.75%	8.51%	-8.29%
LNT	2011	3,665.30	7,037.10	52.09%	4.55%	2.62%
LNT	2012	3,094.50	7,838.00	39.48%	11.38%	-24.20%
LNT	2013	3,276.80	7,147.30	45.85%	-8.81%	16.12%
LNT	2014	3,350.30	6,442.00	52.01%	-9.87%	13.44%
LNT	2015	3,253.60	7,000.00	46.48%	8.66%	-10.63%
LNT	2016	3,470.00	7,400.00	46.89%	5.71%	0.89%
LNT	2019-2021	4,050.00	8,800.00	46.02%	18.92%	-1.85%
AEE	2002	\$ 3,841.00	\$ 8,914.00	43.09%		
AEE	2003	4,593.00	10,917.00	42.07%	22.47%	-2.36%
AEE	2004	5,160.00	13,297.00	38.81%	21.80%	-7.76%
AEE	2005	6,780.00	13,572.00	49.96%	2.07%	28.73%
AEE	2006	6,880.00	14,286.00	48.16%	5.26%	-3.60%
AEE	2007	7,546.00	15,069.00	50.08%	5.48%	3.98%
AEE	2008	7,839.00	16,567.00	47.32%	9.94%	-5.51%
AEE	2009	7,090.00	17,610.00	40.26%	6.30%	-14.91%
AEE	2010	7,638.00	17,853.00	42.78%	1.38%	6.26%
AEE	2011	7,531.00	18,127.00	41.55%	1.53%	-2.89%
AEE	2012	6,828.00	16,096.00	42.42%	-11.20%	2.11%
AEE	2013	5,838.00	16,205.00	36.03%	0.68%	-15.07%
AEE	2014	6,053.00	17,424.00	34.74%	7.52%	-3.57%
AEE	2015	6,098.00	18,799.00	32.44%	7.89%	-6.63%
AEE	2016	6,200.00	20,000.00	31.00%	6.39%	-4.43%
AEE	2019-2021	7,000.00	24,600.00	28.46%	23.00%	-8.21%
AEP	2002	\$ 14,555.00	\$ 21,684.00	67.12%		
AEP	2003	14,545.00	22,029.00	66.03%	1.59%	-1.63%
AEP	2004	14,057.00	22,801.00	61.65%	3.50%	-6.63%
AEP	2005	12,111.00	24,284.00	49.87%	6.50%	-19.11%
AEP	2006	12,622.00	26,781.00	47.13%	10.28%	-5.50%
AEP	2007	13,380.00	29,870.00	44.79%	11.53%	-4.96%
AEP	2008	14,440.00	32,987.00	43.77%	10.44%	-2.28%
AEP	2009	13,489.00	34,344.00	39.28%	4.11%	-10.28%
AEP	2010	14,427.00	35,674.00	40.44%	3.87%	2.97%
AEP	2011	15,116.00	36,971.00	40.89%	3.64%	1.10%
AEP	2012	14,945.00	38,763.00	38.55%	4.85%	-5.70%
AEP	2013	15,357.00	40,997.00	37.46%	5.76%	-2.84%
AEP	2014	17,020.00	44,117.00	38.58%	7.61%	2.99%
AEP	2015	16,453.00	46,133.00	35.66%	4.57%	-7.56%
AEP	2016	16,900.00	49,025.00	34.47%	6.27%	-3.34%
AEP	2019-2021	19,500.00	58,500.00	33.33%	19.33%	-3.30%
AVA	2002	\$ 980.40	\$ 1,563.70	62.70%		
AVA	2003	1,123.40	1,944.60	57.77%	24.36%	-7.86%
AVA	2004	1,151.60	1,956.10	58.87%	0.59%	1.91%
AVA	2005	1,359.60	2,126.40	63.94%	8.71%	8.61%

Change in Net Plant and Asset Turnover
Proxy Group - Individual Company Results

Ticker	Year	Revenue	Net Plant	Revenue/ Net Plant	Change in Net Plant	Change in Revenue/ Net Plant
AVA	2006	1,506.30	2,215.00	68.00%	4.17%	6.36%
AVA	2007	1,417.80	2,351.30	60.30%	6.15%	-11.33%
AVA	2008	1,676.80	2,492.20	67.28%	5.99%	11.58%
AVA	2009	1,512.60	2,607.00	58.02%	4.61%	-13.76%
AVA	2010	1,558.70	2,714.20	57.43%	4.11%	-1.02%
AVA	2011	1,619.80	2,860.80	56.62%	5.40%	-1.41%
AVA	2012	1,547.00	3,023.70	51.16%	5.69%	-9.64%
AVA	2013	1,618.50	3,202.40	50.54%	5.91%	-1.22%
AVA	2014	1,472.60	3,620.00	40.68%	13.04%	-19.51%
AVA	2015	1,484.80	3,898.60	38.09%	7.70%	-6.38%
AVA	2016	1,500.00	4,125.00	36.36%	5.81%	-4.52%
AVA	2019-2021	1,800.00	5,050.00	35.64%	22.42%	-1.98%
CMS	2002	\$ 8,687.00	\$ 5,234.00	165.97%		
CMS	2003	5,513.00	6,944.00	79.39%	32.67%	-52.17%
CMS	2004	5,472.00	8,636.00	63.36%	24.37%	-20.19%
CMS	2005	6,288.00	7,845.00	80.15%	-9.16%	26.50%
CMS	2006	6,810.00	7,976.00	85.38%	1.67%	6.52%
CMS	2007	6,519.00	8,728.00	74.69%	9.43%	-12.52%
CMS	2008	6,821.00	9,190.00	74.22%	5.29%	-0.63%
CMS	2009	6,205.00	9,682.00	64.09%	5.35%	-13.65%
CMS	2010	6,432.00	10,069.00	63.88%	4.00%	-0.33%
CMS	2011	6,503.00	10,633.00	61.16%	5.60%	-4.26%
CMS	2012	6,312.00	11,551.00	54.64%	8.63%	-10.65%
CMS	2013	6,566.00	12,246.00	53.62%	6.02%	-1.88%
CMS	2014	7,179.00	13,412.00	53.53%	9.52%	-0.17%
CMS	2015	6,456.00	14,705.00	43.90%	9.64%	-17.98%
CMS	2016	6,450.00	15,575.00	41.41%	5.92%	-5.67%
CMS	2019-2021	7,400.00	18,600.00	39.78%	19.42%	-3.93%
DTE	2002	\$ 6,749.00	\$ 9,813.00	68.78%		
DTE	2003	7,041.00	10,324.00	68.20%	5.21%	-0.84%
DTE	2004	7,114.00	10,491.00	67.81%	1.62%	-0.57%
DTE	2005	9,022.00	10,830.00	83.31%	3.23%	22.85%
DTE	2006	9,022.00	11,451.00	78.79%	5.73%	-5.42%
DTE	2007	8,861.00	11,408.00	77.67%	-0.38%	-1.41%
DTE	2008	9,329.00	12,231.00	76.27%	7.21%	-1.80%
DTE	2009	8,014.00	12,431.00	64.47%	1.64%	-15.48%
DTE	2010	8,557.00	12,992.00	65.86%	4.51%	2.17%
DTE	2011	8,897.00	13,746.00	64.72%	5.80%	-1.73%
DTE	2012	8,791.00	14,684.00	59.87%	6.82%	-7.50%
DTE	2013	9,661.00	15,800.00	61.15%	7.60%	2.13%
DTE	2014	12,301.00	16,820.00	73.13%	6.46%	19.61%
DTE	2015	10,337.00	18,600.00	55.58%	10.58%	-24.01%
DTE	2016	10,900.00	20,025.00	54.43%	7.66%	-2.06%
DTE	2019-2021	13,300.00	25,300.00	52.57%	26.34%	-3.42%
IDA	2002	\$ 928.80	\$ 1,906.50	48.72%		
IDA	2003	782.70	2,088.30	37.48%	9.54%	-23.07%
IDA	2004	844.50	2,209.50	38.22%	5.80%	1.98%
IDA	2005	859.50	2,314.30	37.14%	4.74%	-2.83%
IDA	2006	926.30	2,419.10	38.29%	4.53%	3.10%
IDA	2007	879.40	2,616.60	33.61%	8.16%	-12.23%
IDA	2008	960.40	2,758.20	34.82%	5.41%	3.60%
IDA	2009	1,049.80	2,917.00	35.99%	5.76%	3.36%
IDA	2010	1,036.00	3,161.40	32.77%	8.38%	-8.94%
IDA	2011	1,026.80	3,406.60	30.14%	7.76%	-8.02%
IDA	2012	1,080.70	3,536.00	30.56%	3.80%	1.40%
IDA	2013	1,246.20	3,665.00	34.00%	3.65%	11.26%
IDA	2014	1,282.50	3,833.50	33.46%	4.60%	-1.61%
IDA	2015	1,270.30	3,992.40	31.82%	4.15%	-4.89%
IDA	2016	1,280.00	4,155.00	30.81%	4.07%	-3.18%
IDA	2019-2021	1,375.00	4,675.00	29.41%	12.52%	-4.53%
NWE	2002	NA	NA			
NWE	2003	NA	NA			
NWE	2004	\$ 1,039.00	\$ 1,379.10	75.34%		
NWE	2005	1,165.80	1,409.20	82.73%	2.18%	9.81%
NWE	2006	1,132.70	1,491.90	75.92%	5.87%	-8.23%
NWE	2007	1,200.10	1,770.90	67.77%	18.70%	-10.74%
NWE	2008	1,260.80	1,839.70	68.53%	3.89%	1.13%
NWE	2009	1,141.90	1,964.10	58.14%	6.76%	-15.17%

Change in Net Plant and Asset Turnover
Proxy Group - Individual Company Results

Ticker	Year	Revenue	Net Plant	Revenue/ Net Plant	Change in Net Plant	Change in Revenue/ Net Plant
NWE	2010	1,110.70	2,118.00	52.44%	7.84%	-9.80%
NWE	2011	1,117.30	2,213.30	50.48%	4.50%	-3.74%
NWE	2012	1,070.30	2,435.60	43.94%	10.04%	-12.95%
NWE	2013	1,154.50	2,690.10	42.92%	10.45%	-2.34%
NWE	2014	1,204.90	3,758.00	32.06%	39.70%	-25.29%
NWE	2015	1,214.30	4,059.50	29.91%	8.02%	-6.70%
NWE	2016	1,225.00	4,215.00	29.06%	3.83%	-2.84%
NWE	2019-2021	1,485.00	4,650.00	31.94%	10.32%	9.88%
OGE	2002	3,023.90	3,204.30	94.37%		
OGE	2003	3,779.00	3,309.50	114.19%	3.28%	21.00%
OGE	2004	4,926.60	3,581.00	137.58%	8.20%	20.48%
OGE	2005	5,948.20	3,567.40	166.74%	-0.38%	21.20%
OGE	2006	4,005.60	3,867.50	103.57%	8.41%	-37.88%
OGE	2007	3,797.60	4,246.30	89.43%	9.79%	-13.65%
OGE	2008	4,070.70	5,249.80	77.54%	23.63%	-13.30%
OGE	2009	2,869.70	5,911.60	48.54%	12.61%	-37.40%
OGE	2010	3,716.90	6,464.40	57.50%	9.35%	18.45%
OGE	2011	3,915.90	7,474.00	52.39%	15.62%	-8.88%
OGE	2012	3,671.20	8,344.80	43.99%	11.65%	-16.03%
OGE	2013	2,867.70	6,672.80	42.98%	-20.04%	-2.31%
OGE	2014	2,453.10	6,979.90	35.15%	4.60%	-18.22%
OGE	2015	2,196.90	7,322.40	30.00%	4.91%	-14.63%
OGE	2016	2,350.00	7,785.00	30.19%	6.32%	0.61%
OGE	2019-2021	2,850.00	8,400.00	33.93%	7.90%	12.40%
OTTR	2002	\$ 710.10	\$ 587.90	120.79%		
OTTR	2003	753.20	633.30	118.93%	7.72%	-1.53%
OTTR	2004	882.30	682.10	129.35%	7.71%	8.76%
OTTR	2005	1,046.40	697.10	150.11%	2.20%	16.05%
OTTR	2006	1,105.00	718.60	153.77%	3.08%	2.44%
OTTR	2007	1,238.90	854.00	145.07%	18.84%	-5.66%
OTTR	2008	1,311.20	1,037.60	126.37%	21.50%	-12.89%
OTTR	2009	1,039.50	1,098.60	94.62%	5.88%	-25.12%
OTTR	2010	1,119.10	1,108.70	100.94%	0.92%	6.68%
OTTR	2011	1,077.90	1,077.50	100.04%	-2.81%	-0.89%
OTTR	2012	859.20	1,049.50	81.87%	-2.60%	-18.16%
OTTR	2013	893.30	1,167.00	76.55%	11.20%	-6.50%
OTTR	2014	799.30	1,268.50	63.01%	8.70%	-17.68%
OTTR	2015	779.80	1,387.80	56.19%	9.40%	-10.83%
OTTR	2016	810.00	1,500.00	54.00%	8.08%	-3.90%
OTTR	2019-2021	1,150.00	1,900.00	60.53%	26.67%	12.09%
PNW	2002	\$ 2,637.30	\$ 6,479.40	40.70%		
PNW	2003	2,817.90	7,480.10	37.67%	15.44%	-7.45%
PNW	2004	2,899.70	7,535.50	38.48%	0.74%	2.15%
PNW	2005	2,988.00	7,577.10	39.43%	0.55%	2.48%
PNW	2006	3,401.70	7,881.90	43.16%	4.02%	9.44%
PNW	2007	3,523.60	8,436.40	41.77%	7.04%	-3.22%
PNW	2008	3,367.10	8,916.70	37.76%	5.69%	-9.59%
PNW	2009	3,297.10	9,257.80	35.61%	3.83%	-5.69%
PNW	2010	3,263.60	9,578.80	34.07%	3.47%	-4.33%
PNW	2011	3,241.40	9,962.30	32.54%	4.00%	-4.50%
PNW	2012	3,301.80	10,396.00	31.76%	4.35%	-2.39%
PNW	2013	3,454.60	10,889.00	31.73%	4.74%	-0.11%
PNW	2014	3,491.60	11,194.00	31.19%	2.80%	-1.68%
PNW	2015	3,495.40	11,809.00	29.60%	5.49%	-5.10%
PNW	2016	3,650.00	12,475.00	29.26%	5.64%	-1.15%
PNW	2019-2021	4,350.00	14,550.00	29.90%	16.63%	2.18%
PNM	2002	\$ 1,169.00	\$ 1,867.30	62.60%		
PNM	2003	1,455.70	2,194.40	66.34%	17.52%	5.96%
PNM	2004	1,604.80	2,324.60	69.04%	5.93%	4.07%
PNM	2005	2,076.80	2,984.10	69.60%	28.37%	0.81%
PNM	2006	2,471.70	3,761.90	65.70%	26.06%	-5.59%
PNM	2007	1,914.00	2,935.40	65.20%	-21.97%	-0.76%
PNM	2008	1,959.50	3,192.00	61.39%	8.74%	-5.85%
PNM	2009	1,647.70	3,332.40	49.44%	4.40%	-19.45%
PNM	2010	1,673.50	3,444.40	48.59%	3.36%	-1.74%
PNM	2011	1,700.60	3,627.10	46.89%	5.30%	-3.50%
PNM	2012	1,342.40	3,746.50	35.83%	3.29%	-23.58%
PNM	2013	1,387.90	3,933.90	35.28%	5.00%	-1.54%

Change in Net Plant and Asset Turnover
Proxy Group - Individual Company Results

Ticker	Year	Revenue	Net Plant	Revenue/ Net Plant	Change in Net Plant	Change in Revenue/ Net Plant
PNM	2014	1,435.90	4,270.00	33.63%	8.54%	-4.68%
PNM	2015	1,439.10	4,535.40	31.73%	6.22%	-5.64%
PNM	2016	1,500.00	4,655.00	32.22%	2.64%	1.55%
PNM	2019-2021	1,625.00	5,270.00	30.83%	13.21%	-4.31%
POR	2002	NA	NA			
POR	2003	NA	NA			
POR	2004	1,454.00	2,275.00	63.91%		
POR	2005	1,446.00	2,436.00	59.36%	7.08%	-7.12%
POR	2006	1,520.00	2,718.00	55.92%	11.58%	-5.79%
POR	2007	1,743.00	3,066.00	56.85%	12.80%	1.66%
POR	2008	1,745.00	3,301.00	52.86%	7.66%	-7.01%
POR	2009	1,804.00	3,858.00	46.76%	16.87%	-11.54%
POR	2010	1,783.00	4,133.00	43.14%	7.13%	-7.74%
POR	2011	1,813.00	4,285.00	42.31%	3.68%	-1.92%
POR	2012	1,805.00	4,392.00	41.10%	2.50%	-2.87%
POR	2013	1,810.00	4,880.00	37.09%	11.11%	-9.75%
POR	2014	1,900.00	5,679.00	33.46%	16.37%	-9.80%
POR	2015	1,898.00	6,012.00	31.57%	5.86%	-5.64%
POR	2016	1,975.00	6,315.00	31.27%	5.04%	-0.94%
POR	2019-2021	2,250.00	6,100.00	36.89%	-3.40%	17.94%
SCG	2002	\$ 2,954.00	\$ 5,474.00	53.96%		
SCG	2003	3,416.00	6,417.00	53.23%	17.23%	-1.35%
SCG	2004	3,885.00	6,762.00	57.45%	5.38%	7.93%
SCG	2005	4,777.00	6,734.00	70.94%	-0.41%	23.47%
SCG	2006	4,563.00	7,007.00	65.12%	4.05%	-8.20%
SCG	2007	4,621.00	7,538.00	61.30%	7.58%	-5.86%
SCG	2008	5,319.00	8,305.00	64.05%	10.18%	4.47%
SCG	2009	4,237.00	9,009.00	47.03%	8.48%	-26.57%
SCG	2010	4,601.00	9,662.00	47.62%	7.25%	1.25%
SCG	2011	4,409.00	10,047.00	43.88%	3.98%	-7.85%
SCG	2012	4,176.00	10,896.00	38.33%	8.45%	-12.66%
SCG	2013	4,495.00	11,643.00	38.61%	6.86%	0.73%
SCG	2014	4,951.00	12,232.00	40.48%	5.06%	4.84%
SCG	2015	4,380.00	13,425.00	32.63%	9.75%	-19.39%
SCG	2016	4,050.00	14,950.00	27.09%	11.36%	-16.97%
SCG	2019-2021	4,800.00	18,850.00	25.46%	26.09%	-6.00%
XEL	2002	\$ 9,524.40	\$ 18,816.00	50.62%		
XEL	2003	7,937.50	13,667.00	58.08%	-27.37%	14.74%
XEL	2004	8,345.30	14,096.00	59.20%	3.14%	1.94%
XEL	2005	9,625.50	14,696.00	65.50%	4.26%	10.63%
XEL	2006	9,840.30	15,549.00	63.29%	5.80%	-3.38%
XEL	2007	10,034.00	16,676.00	60.17%	7.25%	-4.92%
XEL	2008	11,203.00	17,689.00	63.33%	6.07%	5.26%
XEL	2009	9,644.30	18,508.00	52.11%	4.63%	-17.72%
XEL	2010	10,311.00	20,663.00	49.90%	11.64%	-4.24%
XEL	2011	10,655.00	22,353.00	47.67%	8.18%	-4.48%
XEL	2012	10,128.00	23,809.00	42.54%	6.51%	-10.76%
XEL	2013	10,915.00	26,122.00	41.78%	9.71%	-1.77%
XEL	2014	11,686.00	28,757.00	40.64%	10.09%	-2.75%
XEL	2015	11,024.00	31,206.00	35.33%	8.52%	-13.07%
XEL	2016	11,000.00	32,825.00	33.51%	5.19%	-5.14%
XEL	2019-2021	12,000.00	38,400.00	31.25%	16.98%	-6.75%

Source: Value Line

Change in Net Plant and Asset Turnover
Regression Analysis

SUMMARY OUTPUT

<i>Regression Statistics</i>	
Multiple R	0.401723
R Square	0.161381
Adjusted R Square	0.157766
Standard Error	0.100557
Observations	234

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.451437	0.451437	44.64535115	1.73433E-10
Residual	232	2.345899	0.010112		
Total	233	2.797337			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	0.005286	0.009124	0.579371	0.56290101	-0.012690805	0.023264
X Variable 1	-0.54742	0.081927	-6.68172	1.73433E-10	-0.708833163	-0.386

Kansas City Power & Light Company
 Capitalization
 December 31, 2016 Projected

(\$ in 000's)

CAPITAL COMPONENT	AMOUNT	PERCENT	REQUIRED RETURN	WEIGHTED RETURN
KCP&L Long-Term Debt (Note 1)	\$2,565,176	50.12%	5.51%	2.7633%
KCP&L Common Equity	2,553,004	49.88%	9.90%	4.9382%
Total KCP&L Capital	<u>\$5,118,180</u>	<u>100.00%</u>		<u>7.7015%</u>

Note 1: Includes amounts classified as current liabilities

Kansas City Power & Light Company
Capitalization
December 31, 2015 Actual

(\$ in 000's)

CAPITAL COMPONENT	AMOUNT	PERCENT	REQUIRED RETURN	WEIGHTED RETURN
KCP&L Long-Term Debt (Note 1)	\$2,563,064	51.36%	5.51%	2.8315%
KCP&L Common Equity	2,427,728	48.64%	9.50%	4.6212%
Total KCP&L Capital	<u>\$4,990,792</u>	<u>100.00%</u>		<u>7.4527%</u>

Note 1: Includes amounts classified as current liabilities

KANSAS CITY POWER & LIGHT COMPANY, GREAT PLAINS ENERGY and GMO
Weighted Average Cost of Long-Term Debt Capital
December 31, 2016 (Projected)

Line	Issue	(a) Initial Offering	(b) Date of Offering	(c) Date of Maturity	(d) Price to Public	(e) Original Discount (Premium)	(f) Underwriting & Issuance Expense	(g) Net Proceeds to Company	(h) Cost to Company	(i) Long-term Debt Capital Outstanding	(j) Annual Cost of Long-Term Debt Capital
Pledged General Mortgage Bonds											
1	EIRR 1992 Series	\$31,000,000	9/15/1992	7/1/2017	\$31,000,000		\$334,406	\$30,665,594	1.499%	\$31,000,000	\$464,625
2	MATES Series 1993-A	\$40,000,000	12/7/1993	12/1/2023	\$40,000,000		\$362,326	\$39,637,674	3.051%	\$40,000,000	\$1,220,590
3	MATES Series 1993-B	\$39,480,000	12/7/1993	12/1/2023	\$39,480,000		\$364,531	\$39,115,469	3.053%	\$39,480,000	\$1,205,502
4	EIRR La Cygne 2005 Series - 4.65% Coupon	\$21,940,000	2/23/1994	9/1/2035	\$21,940,000			\$21,940,000	4.650%	\$21,940,000	\$1,020,210
5	Mortgage Bonds Series 2009A - 7.15%	\$400,000,000	3/24/2009	3/24/2019	\$400,000,000	\$432,000	\$4,023,316	\$395,544,684	7.309%	\$400,000,000	\$29,235,757
Unsecured Notes											
6	Senior Notes Due 2017 - 5.85% Coupon (1)	\$250,000,000	5/30/2007	6/15/2017	\$250,000,000	\$420,000	\$1,843,906	\$247,736,094	5.972%	\$250,000,000	\$14,928,940
7	Senior Notes Due 2035 - 6.05% Coupon (2)	\$250,000,000	11/17/2005	11/15/2035	\$250,000,000	\$1,505,000	\$2,443,109	\$248,051,891	6.166%	\$250,000,000	\$15,415,411
8	Senior Notes Due 2018 - 6.375% Coupon (3)	\$350,000,000	3/6/2008	3/1/2018	\$350,000,000		\$2,566,730	\$347,433,270	6.476%	\$350,000,000	\$22,665,182
9	Senior Notes Due 2041 - 5.30% Coupon (4)	\$400,000,000	9/20/2011	10/1/2041	\$400,000,000	\$2,568,000	\$3,876,569	\$393,555,431	5.409%	\$400,000,000	\$21,636,650
10	Senior Notes Due 2023 - 3.15% Coupon (1)	\$300,000,000	3/14/2013	3/15/2023	\$300,000,000	\$282,000	\$2,339,941	\$297,378,059	3.253%	\$300,000,000	\$9,759,257
11	Senior Notes Due 2023 - 3.65% Coupon (1)	\$350,000,000	8/13/2015	8/15/2025	\$350,000,000	\$1,246,000	\$2,925,379	\$345,828,621	3.794%	\$350,000,000	\$13,280,167
Environmental Improvement Revenue Refunding Bonds											
12	2005 Series Due 2035 - 4.65% Coupon	\$50,000,000	9/1/05	9/1/2035	\$50,000,000			\$50,000,000	4.650%	\$50,000,000	\$2,325,000
13	2007 Series A Due 2035	\$73,250,000	9/19/07	9/1/2035	\$73,250,000		\$130,278	\$73,119,722	1.127%	\$73,250,000	\$825,514
14	2007 Series B Due 2035	\$73,250,000	9/19/07	9/1/2035	\$73,250,000		\$130,278	\$73,119,722	1.127%	\$73,250,000	\$825,514
15	2008 Series Due 2038	\$23,400,000	5/28/08	5/1/2038	\$23,400,000		\$213,055	\$23,186,945	3.108%	\$23,400,000	\$727,332
Other Long-Term Debt											
16	Unamortized Discount on Senior Notes									(4,430,364)	
17	Unamortized Debt Expense									(10,773,469)	
18	Loss/(Gain) on Reacquired Debt										\$ 704,148
19	Weighted Cost of Interest Rate Management Products										\$8,535,948
20	Tax-exempt Debt Repurchased (lines 4 and 12)								4.65%	(\$71,940,000)	(\$3,345,210)
21	Total KCP&L Long-Term Debt Capital									\$2,565,176,168	\$141,430,539
22	KCP&L Weighted Avg. Cost of Long-Term Debt Capital							5.513%			

Notes:

- (1) Expenses associated with the Senior Notes are being amortized over a 10 year period.
- (2) Expenses associated with the Senior Notes are being amortized over a 30 year period.
- (3) Expenses associated with the Senior Notes are being amortized over a 10 year period.
- (4) Expenses associated with the Senior Notes are being amortized over a 30 year period.

Cost of Long-Term Debt Comparison

Issue	Initial Offering	Date of Offering	Date of Maturity	Years to Maturity	Bloomberg Fair Value Curve			
					Coupon	BFV Term	A-Rated	BBB-Rated
Pledged General Mortgage Bonds								
EIRR 1992 Series	\$31,000,000	9/15/1992	7/1/2017	25	1.25%	30	8.02%	8.19%
MATES Series 1993-A	\$40,000,000	12/7/1993	12/1/2023	30	2.95%	30	6.81%	7.18%
MATES Series 1993-B	\$39,480,000	12/7/1993	12/1/2023	30	2.95%	30	6.81%	7.18%
EIRR La Cygne 2005 Series - 4.65% Coupon	\$21,940,000	2/23/1994	9/1/2035	42	4.65%	30	7.02%	7.37%
Mortgage Bonds Series 2009A - 7.15%	\$400,000,000	3/24/2009	3/24/2019	10	7.15%	10	5.28%	6.56%
Unsecured Notes								
Senior Notes Due 2017 - 5.85% Coupon	\$250,000,000	5/30/2007	6/15/2017	10	5.85%	10	5.61%	5.77%
Senior Notes Due 2035 - 6.05% Coupon	\$250,000,000	11/17/2005	11/15/2035	30	6.05%	30	5.64%	6.07%
Senior Notes Due 2018 - 6.375% Coupon	\$350,000,000	3/6/2008	3/1/2018	10	6.38%	10	5.26%	5.74%
Senior Notes Due 2041 - 5.30% Coupon	\$400,000,000	9/20/2011	10/1/2041	30	5.30%	30	4.61%	5.23%
Senior Notes Due 2023 - 3.15% Coupon	\$300,000,000	3/14/2013	3/15/2023	10	3.15%	10	2.95%	3.60%
Senior Notes Due 2023 - 3.65% Coupon	\$350,000,000	8/13/2015	8/15/2025	10	3.65%	10	3.45%	3.84%
Environmental Improvement Revenue Refunding Bonds								
2005 Series Due 2035 - 4.65% Coupon	\$50,000,000	9/1/2005	9/1/2035	30	4.65%	30	5.30%	5.77%
2007 Series A Due 2035	\$73,250,000	9/19/2007	9/1/2035	28	1.12%	30	6.18%	6.33%
2007 Series B Due 2035	\$73,250,000	9/19/2007	9/1/2035	28	1.12%	30	6.18%	6.33%
2008 Series Due 2038	\$23,400,000	5/28/2008	5/1/2038	30	2.88%	30	6.13%	6.37%
TOTAL	\$2,652,320,000			Weighted Average	4.99%		4.89%	5.45%

Sources: Schedule RBH-10 and Bloomberg Professional

Proxy Group Capital Structure

Company	Ticker	% Common Equity								
		2016Q1	2015Q4	2015Q3	2015Q2	2015Q1	2014Q4	2014Q3	2014Q2	Average
ALLETE, Inc.	ALE	58.83%	58.04%	58.01%	58.93%	58.70%	56.98%	56.18%	55.83%	57.69%
Alliant Energy Corporation	LNT	51.65%	51.24%	51.27%	51.18%	50.32%	50.11%	54.23%	52.94%	51.62%
Ameren Corporation	AEE	52.82%	52.22%	53.40%	52.44%	52.88%	52.82%	54.54%	53.83%	53.12%
American Electric Power Company, Inc.	AEP	49.13%	48.82%	49.13%	49.63%	52.23%	52.11%	52.27%	52.31%	50.71%
Avista Corporation	AVA	55.13%	54.30%	54.95%	54.98%	54.81%	51.39%	52.62%	51.19%	53.67%
CMS Energy Corporation	CMS	51.42%	50.63%	51.44%	51.15%	51.35%	50.21%	49.99%	53.44%	51.20%
DTE Energy Company	DTE	50.53%	50.39%	50.32%	49.81%	48.42%	50.39%	49.32%	50.30%	49.93%
IDACORP, Inc.	IDA	50.70%	52.34%	52.25%	51.61%	49.38%	52.94%	52.92%	52.03%	51.77%
NorthWestern Corporation	NWE	47.54%	47.31%	46.01%	46.97%	47.54%	47.06%	47.78%	47.45%	47.21%
OGE Energy Corp.	OGE	55.17%	54.30%	54.38%	53.31%	52.98%	53.08%	55.43%	52.94%	53.95%
Otter Tail Corporation	OTTR	53.10%	52.75%	52.51%	52.32%	51.13%	49.80%	49.32%	47.60%	51.07%
Pinnacle West Capital Corporation	PNW	55.54%	55.50%	57.11%	55.72%	55.86%	57.54%	58.43%	57.32%	56.63%
PNM Resources, Inc.	PNM	45.35%	45.32%	44.76%	45.63%	46.11%	45.86%	47.43%	47.14%	45.95%
Portland General Electric Company	POR	50.89%	50.61%	50.31%	49.57%	44.11%	43.31%	44.86%	46.64%	47.54%
SCANA Corporation	SCG	52.77%	52.57%	52.55%	52.08%	53.72%	53.46%	53.47%	52.85%	52.93%
Xcel Energy Inc.	XEL	54.68%	54.43%	53.02%	53.88%	54.97%	54.62%	54.54%	53.41%	54.19%
Mean		52.20%	51.92%	51.96%	51.83%	51.53%	51.36%	52.08%	51.70%	51.82%

Operating Company Capital Structure

Operating Company	Parent	% Common Equity								
		2016Q1	2015Q4	2015Q3	2015Q2	2015Q1	2014Q4	2014Q3	2014Q2	Average
ALLETE (Minnesota Power)	ALE	58.60%	55.86%	55.62%	57.67%	57.56%	55.24%	53.98%	53.01%	55.69%
Superior Water, Light and Power Company	ALE	61.06%	60.23%	60.40%	60.19%	59.83%	58.72%	58.39%	58.65%	59.68%
Interstate Power and Light Company	LNT	51.52%	50.91%	50.90%	51.72%	50.09%	49.90%	54.01%	52.05%	51.39%
Wisconsin Power and Light Company	LNT	51.78%	51.56%	51.63%	50.65%	50.54%	50.32%	54.45%	53.82%	51.84%
Ameren Illinois Company	AEE	53.67%	53.42%	55.55%	54.67%	54.39%	53.90%	56.91%	56.19%	54.84%
Union Electric Company	AEE	51.97%	51.03%	51.25%	50.21%	51.37%	51.74%	52.17%	51.48%	51.40%
AEP Texas Central Company	AEP	44.18%	43.63%	43.32%	47.46%	45.01%	42.39%	43.93%	43.18%	44.14%
AEP Texas North Company	AEP	42.64%	42.36%	45.03%	48.87%	47.15%	46.98%	47.06%	46.79%	45.86%
Appalachian Power Company	AEP	47.20%	46.77%	46.66%	46.50%	46.52%	45.83%	46.29%	46.00%	46.47%
Indiana Michigan Power Company	AEP	48.26%	52.65%	52.41%	52.08%	51.94%	51.36%	51.45%	51.39%	51.44%
Kentucky Power Company	AEP	43.58%	43.26%	43.72%	43.87%	44.19%	44.74%	46.25%	48.23%	44.73%
Kingsport Power Company	AEP	65.21%	59.70%	59.76%	60.44%	60.77%	61.00%	60.55%	60.91%	61.04%
Ohio Power Company	AEP	50.03%	50.09%	50.36%	50.33%	49.30%	48.96%	46.03%	44.79%	48.74%
Public Service Company of Oklahoma	AEP	46.80%	46.45%	46.30%	45.29%	44.66%	49.69%	49.43%	48.30%	47.11%
Southwestern Electric Power Company	AEP	49.51%	49.59%	49.88%	47.62%	46.25%	50.46%	50.60%	51.26%	49.40%
Wheeling Power Company	AEP	53.90%	53.73%	53.89%	53.82%	86.56%	79.75%	81.14%	82.27%	68.13%
Alaska Electric Light and Power Company	AVA	58.86%	58.18%	58.09%	58.07%	57.83%	NA	NA	NA	NA
Avista Corporation	AVA	51.39%	50.41%	51.80%	51.90%	51.78%	51.39%	52.62%	51.19%	51.56%
Consumers Energy Company	CMS	51.42%	50.63%	51.44%	51.15%	51.35%	50.21%	49.99%	53.44%	51.20%
DTE Electric Company	DTE	50.53%	50.39%	50.32%	49.81%	48.42%	50.39%	49.32%	50.30%	49.93%
Idaho Power Co.	IDA	50.70%	52.34%	52.25%	51.61%	49.38%	52.94%	52.92%	52.03%	51.77%
NorthWestern Corporation	NWE	47.54%	47.31%	46.01%	46.97%	47.54%	47.06%	47.78%	47.45%	47.21%
Oklahoma Gas and Electric Company	OGE	55.17%	54.30%	54.38%	53.31%	52.98%	53.08%	55.43%	52.94%	53.95%
Otter Tail Power Company	OTTR	53.10%	52.75%	52.51%	52.32%	51.13%	49.80%	49.32%	47.60%	51.07%
Arizona Public Service Company	PNW	55.54%	55.50%	57.11%	55.72%	55.86%	57.54%	58.43%	57.32%	56.63%
Public Service Company of New Mexico	PNM	45.35%	45.32%	44.76%	45.63%	46.11%	45.86%	47.43%	47.14%	45.95%
Texas-New Mexico Power Company	PNM	NA	NA	NA	NA	NA	NA	NA	NA	NA
Portland General Electric Company	POR	50.89%	50.61%	50.31%	49.57%	44.11%	43.31%	44.86%	46.64%	47.54%
South Carolina Electric & Gas Co.	SCG	52.77%	52.57%	52.55%	52.08%	53.72%	53.46%	53.47%	52.85%	52.93%
Northern States Power Company - MN	XEL	53.68%	53.26%	51.95%	53.34%	53.03%	52.89%	52.84%	52.49%	52.94%
Northern States Power Company - WI	XEL	54.43%	54.27%	52.92%	52.53%	56.36%	55.18%	55.01%	52.92%	54.20%
Public Service Company of Colorado	XEL	56.49%	56.34%	56.00%	55.55%	56.94%	56.79%	56.51%	56.12%	56.34%
Southwestern Public Service Company	XEL	54.13%	53.83%	51.20%	54.08%	53.54%	53.62%	53.81%	52.10%	53.29%
Mean		51.87%	51.54%	51.57%	51.72%	52.38%	52.08%	52.66%	52.29%	51.86%

Source: SNL Financial

Proxy Group Capital Structure

Company	Ticker	% Long-Term Debt								Average
		2016Q1	2015Q4	2015Q3	2015Q2	2015Q1	2014Q4	2014Q3	2014Q2	
ALLETE, Inc.	ALE	41.17%	41.96%	41.99%	41.07%	41.30%	43.02%	43.82%	44.17%	42.31%
Alliant Energy Corporation	LNT	48.35%	48.76%	48.73%	48.82%	49.68%	49.89%	45.77%	47.06%	48.38%
Ameren Corporation	AEE	47.18%	47.78%	46.60%	47.56%	47.12%	47.18%	45.46%	46.17%	46.88%
American Electric Power Company, Inc.	AEP	50.87%	51.18%	50.87%	50.37%	47.77%	47.89%	47.73%	47.69%	49.29%
Avista Corporation	AVA	44.87%	45.70%	45.05%	45.02%	45.19%	48.61%	47.38%	48.81%	46.33%
CMS Energy Corporation	CMS	48.58%	49.37%	48.56%	48.85%	48.65%	49.79%	50.01%	46.56%	48.80%
DTE Energy Company	DTE	49.47%	49.61%	49.68%	50.19%	51.58%	49.61%	50.68%	49.70%	50.07%
IDACORP, Inc.	IDA	49.30%	47.66%	47.75%	48.39%	50.62%	47.06%	47.08%	47.97%	48.23%
NorthWestern Corporation	NWE	52.46%	52.69%	53.99%	53.03%	52.46%	52.94%	52.22%	52.55%	52.79%
OGE Energy Corp.	OGE	44.83%	45.70%	45.62%	46.69%	47.02%	46.92%	44.57%	47.06%	46.05%
Otter Tail Corporation	OTTR	46.90%	47.25%	47.49%	47.68%	48.87%	50.20%	50.68%	52.40%	48.93%
Pinnacle West Capital Corporation	PNW	44.46%	44.50%	42.89%	44.28%	44.14%	42.46%	41.57%	42.68%	43.37%
PNM Resources, Inc.	PNM	54.65%	54.68%	55.24%	54.37%	53.89%	54.14%	52.57%	52.86%	54.05%
Portland General Electric Company	POR	49.11%	49.39%	49.69%	50.43%	55.89%	56.69%	55.14%	53.36%	52.46%
SCANA Corporation	SCG	47.23%	47.43%	47.45%	47.92%	46.28%	46.54%	46.53%	47.15%	47.07%
Xcel Energy Inc.	XEL	45.32%	45.57%	46.98%	46.12%	45.03%	45.38%	45.46%	46.59%	45.81%
Mean		47.80%	48.08%	48.04%	48.17%	48.47%	48.64%	47.92%	48.30%	48.18%

Operating Company Capital Structure

Operating Company	Parent	% Long Term Debt								Average
		2016Q1	2015Q4	2015Q3	2015Q2	2015Q1	2014Q4	2014Q3	2014Q2	
ALLETE (Minnesota Power)	ALE	43.40%	44.14%	44.38%	42.33%	42.44%	44.76%	46.02%	46.99%	44.31%
Superior Water, Light and Power Company	ALE	38.94%	39.77%	39.60%	39.81%	40.17%	41.28%	41.61%	41.35%	40.32%
Interstate Power and Light Company	LNT	48.48%	49.09%	49.10%	48.28%	49.91%	50.10%	45.99%	47.95%	48.61%
Wisconsin Power and Light Company	LNT	48.22%	48.44%	48.37%	49.35%	49.46%	49.68%	45.55%	46.18%	48.16%
Ameren Illinois Company	AEE	46.33%	46.58%	44.45%	45.33%	45.61%	46.10%	43.09%	43.81%	45.16%
Union Electric Company	AEE	48.03%	48.97%	48.75%	49.79%	48.63%	48.26%	47.83%	48.52%	48.60%
AEP Texas Central Company	AEP	55.82%	56.37%	56.68%	52.54%	54.99%	57.61%	56.07%	56.82%	55.86%
AEP Texas North Company	AEP	57.36%	57.64%	54.97%	51.13%	52.85%	53.04%	52.94%	53.21%	54.14%
Appalachian Power Company	AEP	52.80%	53.23%	53.34%	53.50%	53.48%	54.17%	53.71%	54.00%	53.53%
Indiana Michigan Power Company	AEP	51.74%	47.35%	47.59%	47.92%	48.06%	48.64%	48.55%	48.61%	48.56%
Kentucky Power Company	AEP	56.42%	56.74%	56.28%	56.13%	55.81%	55.26%	53.75%	51.77%	55.27%
Kingsport Power Company	AEP	34.79%	40.30%	40.24%	39.56%	39.23%	39.00%	39.45%	39.09%	38.96%
Ohio Power Company	AEP	49.97%	49.91%	49.64%	49.67%	50.70%	51.04%	53.97%	55.21%	51.26%
Public Service Company of Oklahoma	AEP	53.20%	53.55%	53.70%	54.71%	55.34%	50.31%	50.57%	51.70%	52.89%
Southwestern Electric Power Company	AEP	50.49%	50.41%	50.12%	52.38%	53.75%	49.54%	49.40%	48.74%	50.60%
Wheeling Power Company	AEP	46.10%	46.27%	46.11%	46.18%	13.44%	20.25%	18.86%	17.73%	31.87%
Alaska Electric Light and Power Company	AVA	41.14%	41.82%	41.91%	41.93%	42.17%	NA	NA	NA	NA
Avista Corporation	AVA	48.61%	49.59%	48.20%	48.10%	48.22%	48.61%	47.38%	48.81%	48.44%
Consumers Energy Company	CMS	48.58%	49.37%	48.56%	48.85%	48.65%	49.79%	50.01%	46.56%	48.80%
DTE Electric Company	DTE	49.47%	49.61%	49.68%	50.19%	51.58%	49.61%	50.68%	49.70%	50.07%
Idaho Power Co.	IDA	49.30%	47.66%	47.75%	48.39%	50.62%	47.06%	47.08%	47.97%	48.23%
NorthWestern Corporation	NWE	52.46%	52.69%	53.99%	53.03%	52.46%	52.94%	52.22%	52.55%	52.79%
Oklahoma Gas and Electric Company	OGE	44.83%	45.70%	45.62%	46.69%	47.02%	46.92%	44.57%	47.06%	46.05%
Otter Tail Power Company	OTTR	46.90%	47.25%	47.49%	47.68%	48.87%	50.20%	50.68%	52.40%	48.93%
Arizona Public Service Company	PNW	44.46%	44.50%	42.89%	44.28%	44.14%	42.46%	41.57%	42.68%	43.37%
Public Service Company of New Mexico	PNM	54.65%	54.68%	55.24%	54.37%	53.89%	54.14%	52.57%	52.86%	54.05%
Texas-New Mexico Power Company	PNM	NA	NA	NA	NA	NA	NA	NA	NA	NA
Portland General Electric Company	POR	49.11%	49.39%	49.69%	50.43%	55.89%	56.69%	55.14%	53.36%	52.46%
South Carolina Electric & Gas Co.	SCG	47.23%	47.43%	47.45%	47.92%	46.28%	46.54%	46.53%	47.15%	47.07%
Northern States Power Company - MN	XEL	46.32%	46.74%	48.05%	46.66%	46.97%	47.11%	47.16%	47.51%	47.06%
Northern States Power Company - WI	XEL	45.57%	45.73%	47.08%	47.47%	43.64%	44.82%	44.99%	47.08%	45.80%
Public Service Company of Colorado	XEL	43.51%	43.66%	44.00%	44.45%	43.06%	43.21%	43.49%	43.88%	43.66%
Southwestern Public Service Company	XEL	45.87%	46.17%	48.80%	45.92%	46.46%	46.38%	46.19%	47.90%	46.71%
Mean		48.13%	48.46%	48.43%	48.28%	47.62%	47.92%	47.34%	47.71%	48.12%