BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF SOUTHWESTERN PUBLIC SERVICE COMPANY'S APPLICATION FOR REVISION OF ITS RETAIL RATES UNDER ADVICE NOTICE NO. 255,	)	**CASE NO. 15-00139-UT**
SOUTHWESTERN PUBLIC SERVICE COMPANY,	)	
APPLICANT.	)	

DIRECT TESTIMONY

of

ANN E. BULKLEY

on behalf of

SOUTHWESTERN PUBLIC SERVICE COMPANY

TABLE OF CONTENTS

GLOSSARY OF ACRONYMS AND DEFINED TERMS

Acronym/Defined Term	Meaning
CAPM	Capital Asset Pricing Model
Commission	New Mexico Public Regulation Commission
Concentric	Concentric Energy Advisors, Inc.
Cost of Equity	Return on Equity (ROE)
CPI	Consumer Price Index
DCF	Discounted Cash Flow
EIA	Energy Information Administration
EME	Edison Mission Electric
EPA	United States Environmental Protection Agency
EPS	earnings per share
FERC	Federal Energy Regulatory Commission
Fitch	Fitch Ratings
FOMC	Federal Open Market Committee
GDP	Gross Domestic Product
Moody's	Moody's Investors Service
NMPRC	New Mexico Public Regulation Commission
P/E	price-to-earnings
PNM	Public Service Company of New Mexico

Acronym/Defined Term	**Meaning**
PNM 2007 Gas Rate Case Order	Case No. 06-00210-UT; *In the Matter of the Application of Public Service Company of New Mexico for Revision of its Rates, Rules and Charges Pursuant to Advice Notice Nos. 755 and 756*, Final Order Partially Adopting Recommended Decision (June 29, 2007)
PNM 2008 Electric Rate Case Order	Case No. 07-00077-UT; *In the Matter of the Application of Public Service Company of New Mexico for Revision of its Retail Electric Rates Pursuant to Advice Notice No. 334*, Final Order Partially Adopting Recommended Decision (April 24, 2008)
ROE	Return on Equity
S&P	Standard and Poor's
SPS	Southwestern Public Service Company, a New Mexico corporation
SPS 2008 Rate Case Order	*In the Matter of Southwestern Public Service Company's Application for Revision of its Retail Electric Rates Pursuant to Advice Notice Nos. 208 and 209 and All Associated Approvals,* Case No. 07-00319-UT, Final Order Partially Adopting Recommended Decision (August 27, 2008)
SPS 2012 Rate Case	Case No. 12-00350-UT, *In the Matter of Southwestern Public Service Company's Application for Revision of Its Retail Electric Rates Under Advice Notice No. 245*

Acronym/Defined Term	**Meaning**
SPS 2014 Rate Case Order	Case No. 12-00350-UT, *In the Matter of Southwestern Public Service Company's Application for Revision of Its Retail Electric Rates Under Advice Notice No. 245*, Final Order Partially Adopting Recommended Decision (March 26, 2014).
STB	Surface Transportation Board
Value Line	Value Line Investment Survey
Xcel Energy	Xcel Energy Inc.

LIST OF ATTACHMENTS

Attachment	Description
AEB- 1	Resume and Testimony Listing (*Filename:* AEB-1.doc)
AEB- 2	Constant Growth DCF Results (*Filename:* AEB-2 through AEB-13.xlsx)
AEB- 3	Calculation of Retention Growth Rate (*Filename:* AEB-2 through AEB-13.xlsx)
AEB- 4	NMPRC DCF Calculation (*Filename:* AEB-2 through AEB-13.xlsx)
AEB- 5	Multi-Stage DCF Results (*Filename:* AEB-2 through AEB-13.xlsx)
AEB- 6	Calculation of GDP Growth Rate (*Filename:* AEB-2 through AEB-13.xlsx)
AEB-7	Flotation Cost (*Filename:* AEB-2 through AEB-13.xlsx)
AEB- 8	Value Line and Bloomberg Betas (*Filename:* AEB-2 through AEB-13.xlsx)
AEB- 9	CAPM (*Filename:* AEB-2 through AEB-13.xlsx)
AEB- 10	Risk Premium (*Filename:* AEB-2 through AEB-13.xlsx)
AEB-11	Regulatory Risk Analysis (*Filename:* AEB-2 through AEB-13.xlsx)
AEB-12	Capital Expenditures (*Filename:* AEB-2 through AEB-13.xlsx)

Attachment	**Description**
AEB-13	Capital Structure (*Filename:* AEB-2 through AEB-13.xlsx)

Case No. 15-00139-UT
Direct Testimony
of
Ann E. Bulkley

I. WITNESS IDENTIFICATION AND QUALIFICATIONS

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

A. My name is Ann E. Bulkley. I am employed by Concentric Energy Advisors, Inc. ("Concentric") as a Vice President. My business address is 293 Boston Post Road West, Suite 500, Marlborough, Massachusetts 01752.

Q. On whose behalf are you submitting this Testimony?

A. I am submitting this Testimony on behalf of Southwestern Public Service Company, a New Mexico corporation ("SPS") and wholly-owned electric utility subsidiary of Xcel Energy Inc. ("Xcel Energy"). Xcel Energy is a registered holding company that owns several electric and natural gas utility operating companies and a regulated natural gas pipeline company.[1]

[1] Xcel Energy is the parent company of four wholly-owned electric utility operating companies: Northern States Power Company, a Minnesota corporation; Northern States Power Company, a Wisconsin corporation; Public Service Company of Colorado, a Colorado corporation; and SPS (collectively, "Operating Companies"). Xcel Energy's natural gas pipeline subsidiary is WestGas InterState, Inc. Xcel Energy also has two transmission-only operating companies, Xcel Energy Southwest Transmission Company, LLC and Xcel Energy Transmission Development Company, LLC, both of which are regulated by the Federal Energy Regulatory Commission ("FERC").

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

A. I hold a Bachelor's degree in Economics and Finance from Simmons College and a Master's degree in Economics from Boston University, with approximately 20 years of experience consulting to the energy industry. I have advised numerous energy and utility clients on a wide range of financial and economic issues with primary concentrations in valuation and utility rate matters. Many of these assignments have included the determination of the cost of capital for valuation and ratemaking purposes. My qualifications and testimony listing are presented in more detail in Attachment AEB-1.

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

A. Concentric provides financial and economic advisory services to many and various energy and utility clients across North America. Our regulatory, economic, and market analysis services include utility ratemaking and regulatory advisory services; energy market assessments; market entry and exit analysis; corporate and business unit strategy development; demand forecasting; resource planning; and energy contract negotiations. Our financial advisory activities include buy and sell-side merger, acquisition, and divestiture assignments; due

diligence and valuation assignments; project and corporate finance services; and transaction support services. In addition, we provide litigation support services on a wide range of financial and economic issues on behalf of clients throughout North America.

Q. Have you testified before any regulatory authorities?

A. Yes. A list of proceedings in which I have provided testimony is provided in Attachment AEB-1.

II. PURPOSE AND OVERVIEW OF TESTIMONY

Q. What is the purpose of your Direct Testimony?

A. The purpose of my Direct Testimony is to present evidence and provide a recommendation regarding SPS's Return on Equity ("ROE" or "Cost of Equity") and to assess the reasonableness of its proposed capital structure to be used for ratemaking purposes, as discussed in the Direct Testimony of SPS witness Mary P. Schell. My analyses and recommendations are supported by the data presented in Attachment AEB-2 through Attachment AEB-13, which have been prepared by me or under my direction. In addition, I am sponsoring Schedule G-10, the summary of SPS's support for the claimed rate of return on common stock equity capital.

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

A. In developing my ROE recommendation of 10.25%, I applied the Constant Growth and Multi-Stage forms of the Discounted Cash Flow ("DCF") model, the Capital Asset Pricing Model ("CAPM"), and the Bond Yield Plus Risk Premium approach. In addition to these analyses, my recommendation also takes into consideration the flotation costs associated with issuing common equity, as well

as the following operational and financial risks: (1) risks associated with the regulatory framework in New Mexico relative to those jurisdictions in which the proxy group companies operate; (2) SPS's capital expenditure requirements relative to the proxy group; and (3) uncertainty regarding environmental regulation and the costs associated with compliance. Finally, I considered SPS's proposed capital structure as compared with the capital structures of the proxy companies. While I did not make any specific adjustments to my ROE estimates for business and financial risk, I did take them into consideration in aggregate when determining where SPS's ROE should fall within the range of analytical results.

Q. How is the remainder of your Direct Testimony organized?

A. The remainder of my Direct Testimony is organized in eight sections. Section III provides a summary of my analyses and conclusions. Section IV reviews the regulatory guidelines pertinent to the development of the cost of capital. Section V discusses the current and projected capital market conditions and the effect of those conditions on SPS's Cost of Equity. Section VI explains my selection of a proxy group of electric utilities. Section VII describes my analyses and the analytical basis for the recommendation of the appropriate ROE for SPS. Section

VIII provides a discussion of specific business and financial risks that have a direct bearing on the ROE to be authorized for SPS in this case. Section IX discusses the capital structure of SPS as compared with the proxy group. Section X presents my conclusions and recommendation for the Cost of Equity.

III. SUMMARY OF ANALYSES AND CONCLUSIONS

Q. Please summarize the key factors considered in your analyses and upon which you base your recommended ROE.

A. My analyses and recommendations considered the following:

- The *Hope* and *Bluefield* decisions[2] that established the standards for determining a fair and reasonable allowed return on equity, including consistency of the allowed return with other businesses having similar risk, adequacy of the return to ensure access to capital and support credit quality, and the necessity for the end result to lead to just and reasonable rates.
- The effect of current and projected capital market conditions on investors' return requirements.
- SPS's business risks relative to the proxy group of comparable companies and the implications of those risks in arriving at the appropriate ROE.

Q. Please explain how you considered those factors.

A. I have relied on several analytical approaches to estimate SPS's Cost of Equity based on a proxy group of publicly traded companies. As shown in Chart AEB-1,

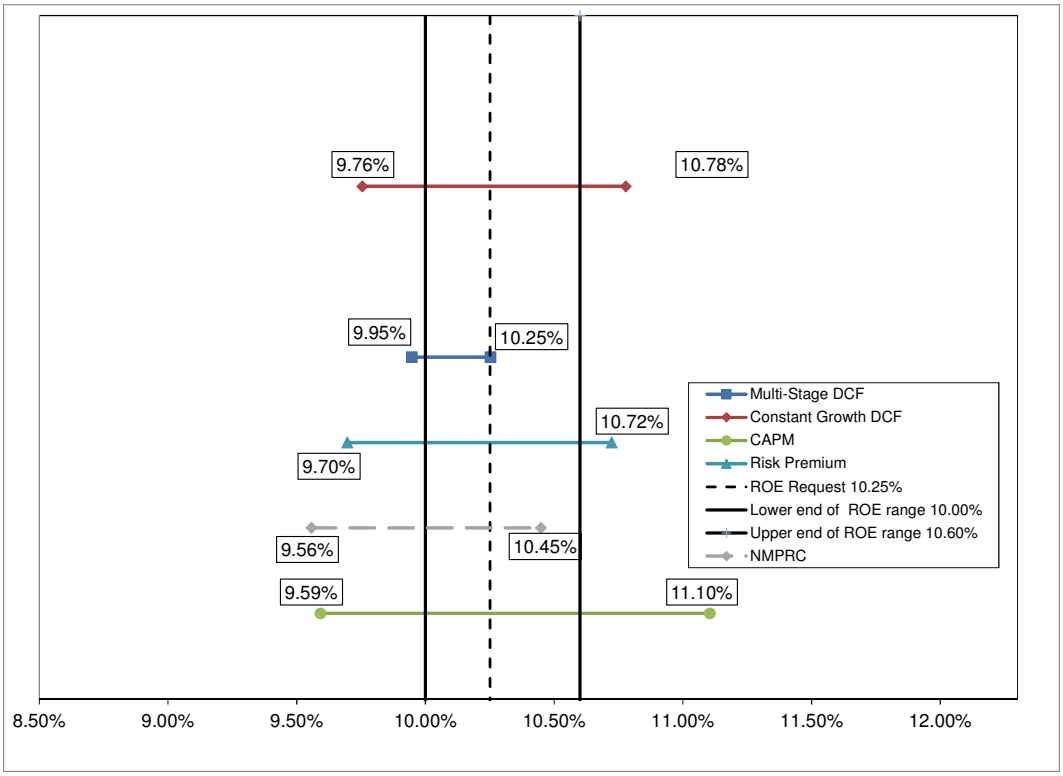
[2] *Bluefield Waterworks & Improvement Co., v. Public Service Commission of West Virginia,* 262 U.S. 679 (1923); *Federal Power Commission v. Hope Natural Gas Co.,* 320 U.S. 591 (1944).

those ROE estimation models produce a wide range of results. My conclusion as to where within that range of results SPS's ROE falls is based on SPS's business and financial risk relative to the proxy group. While my proxy group is generally comparable to SPS, SPS faces higher risk than that group in several important ways. In order for SPS to compete for capital with the proxy companies, those additional risk factors should be acknowledged and reflected in a higher ROE for SPS than the average for the proxy group.

Q. Please summarize the ROE estimation models that you considered to establish the range of ROEs for SPS.

A. I considered the results of two forms of the DCF model: the Constant Growth DCF and the Multi-Stage DCF model. In addition, I considered two risk premium approaches: a forward-looking CAPM analysis and a Bond Yield Plus Risk Premium methodology. The results of my analyses are summarized in Chart AEB-1.

Chart AEB-1: Summary of Cost of Equity Analytical Results[3]



As discussed in more detail in Section V, the DCF model results currently are influenced by capital market conditions that are not projected to be sustained in the long term. Analysts have recently observed that utility stocks are currently

[3] The DCF results shown on Chart 1 are the results of the 360-day average dividend yields, which has been relied on by the New Mexico Public Regulation Commission ("Commission" or "NMPRC") in prior cases. The range provides the results using the mean and high earnings growth rate scenarios. The NMPRC DCF scenarios shown exclude the sustainable growth rate, as discussed in Section VIII of the testimony.

expensive.[4] In addition, leading economists are predicting a significant rise in interest rates, which industry analysts note will most likely be detrimental for electric utility equities. These capital market conditions have an effect on the results of the DCF model at this time. As shown in Attachment AEB-2, the DCF models produce individual company results as low as 4.40%, which is 149 basis points lower than SPS's embedded cost of long-term debt.[5] Furthermore, the mean low Constant Growth DCF results are below an acceptable range of returns for an electric utility and below any authorized ROE for an electric utility company for at least the last 25 years.[6] Therefore, the returns at the low end of the DCF range do not provide a sufficient risk premium to compensate equity investors for the residual risks of ownership, including the risk that they have the lowest claim on the assets and income of the Company. For that reason, I have not considered the low end of the range of DCF results in developing my ROE recommendation.

[4] Value Line Electric Utility (Central) Industry, January 31, 2015.

[5] *See* Schedule G-3, Embedded Cost of Long-Term Borrowed Capital (before annual amortization of losses, base year).

[6] Source: Regulatory Research Associates.

Q. What authorized ROE is SPS requesting in this proceeding?

A. Chart AEB-1 provides the range of results for the proxy group companies, including certain averaging conventions that have typically been considered by the Commission. I also considered the effect of current and projected capital market conditions on the assumptions used in the ROE estimation models, as well as SPS's overall risk profile relative to the proxy group. Considering all of these factors, I conclude that a reasonable range of ROE estimates for SPS is from 10.00% to 10.60%, and within that range, I believe that an ROE of 10.25% is reasonable and appropriate for SPS in this case.

IV. REGULATORY GUIDELINES

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

A. The United States Supreme Court's precedent-setting *Hope* and *Bluefield* cases established the standards for determining the fairness or reasonableness of a utility's allowed ROE. Among the standards established by the Court in those cases are: (1) consistency with other businesses having similar or comparable risks; (2) adequacy of the return to support credit quality and access to capital; and (3) the principle that the specific means of arriving at a fair return are not important, only that the end result leads to just and reasonable rates.[7]

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

A. Yes. The Commission follows the precedents of the *Hope* and *Bluefield* cases and acknowledges that utility investors are entitled to a fair and reasonable return. This position was set forth by the New Mexico Supreme Court as follows:

> From the investor or company point of view, it is important that there be enough revenue not only for operating expenses but also for the capital costs of the business. These include service on the

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

> debt and dividends on the stock. By that standard, the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.[8]

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

A. There is a long history of precedent regarding the allowed ROE, the role of capital structure, and the resulting cost of capital in establishing just and reasonable rates for utility services. Among the themes common to many such decisions is the principle that a utility's cost of capital (including its capital structure and allowed return on common equity) must reflect other enterprises having comparable risks, and acting independently in the financial markets. A return that is adequate to attract capital at reasonable terms enables SPS to provide safe, reliable electric service while maintaining its financial integrity. That return should be commensurate with the returns expected elsewhere in the market for investments

[8] *See State v. Mountain States Tel. & Tel. Co.*, 54 N.M. 315, 336, 224 P.2d 155, 169 (1950); *See also SPS Gas Servs. v. New Mexico Public Util. Comm'n*, 129 N.M. 1, 15, 1 P.3d 383, 397 (2000) (quoting *Hope* and citing to *Mountain States* to support the proposition that utilities must be allowed to recover costs and achieve a fair return); *Mountain States Tel. & Tel. Co. v. New Mexico State Corp. Comm'n*, 102 N.M. 409, 410-11, 696 P.2d 1002, 1003-04 (1985) (relying on the *Bluefield* principle that a utility return "should be reasonably sufficient to assure confidence in the public utility company's financial soundness, adequate to support and maintain its credit, and enable it to raise funds necessary to discharge its public duties").

of equivalent risk. If it is not, debt and equity investors will seek alternative investment opportunities for which the expected return reflects the perceived risks, thereby inhibiting SPS's ability to attract capital at reasonable cost rates.

The Commission's order in this case, therefore, should establish rates that provide SPS with the opportunity to earn an ROE that is: (1) adequate to attract capital at reasonable terms; (2) sufficient to ensure its financial integrity; and (3) commensurate with returns on investments in enterprises having corresponding risks. To the extent SPS is afforded the opportunity to earn its market-based cost of capital, neither customers nor shareholders are disadvantaged.

Q. What are your conclusions regarding regulatory guidelines and financial considerations?

A. The ratemaking process is premised on the principle that, in order for investors and companies to commit the capital needed to provide safe and reliable utility services, the utility must have the opportunity to recover the return of, and the market-required return on, invested capital. Regulatory commissions recognize that because utility operations are capital intensive, regulatory decisions should enable the utility to attract capital at reasonable terms; doing so balances the long-term interests of the utility and its ratepayers. The financial community carefully

monitors the current and expected financial condition of utility companies, as well as the regulatory framework in which they operate. In that respect, the regulatory framework is one of the most important factors considered in both debt and equity investors' assessments of risk. Therefore, it is important for the ROE authorized in this proceeding to take into consideration current and projected capital market conditions, as well as investors' expectations and requirements for both risks and returns.

V. CAPITAL MARKET CONDITIONS

Q. What factors are affecting the Cost of Equity for regulated utilities in the current and projected capital markets?

A. The Cost of Equity for regulated utility companies is being affected by several factors in the current and projected capital markets. These factors include: (1) the market's expectation for substantially higher interest rates; (2) current low yields on utility stocks; (3) current high valuations on utility shares relative to historical levels and relative to the broader market; and (4) increasing credit spreads between yields on Treasury bonds and utility bonds. In this section of my Direct Testimony, I will discuss each of these factors and how they affect the Cost of Equity for regulated utilities.

Q. Please discuss the current interest rate environment.

A. In October 2014, the Federal Open Market Committee ("FOMC") ended its Quantitative Easing program, which provided extraordinary monetary stimulus for the U.S. economy over the last few years through asset purchases of mortgage-backed securities and Treasury bonds. In December 2014, the FOMC's policy statement indicated that future changes in short-term interest rates would depend on maintaining a reasonable balance between the level of unemployment

and inflation. In April 2015, the FOMC noted that the labor market was nearly balanced and that it expects inflation to increase over the medium term.[9]

Q. What evidence is there that long-term interest rates are expected to increase?

A. While the FOMC did not increase interest rates in January, the Chair noted in her recent speech that the Committee is reasonably confident that inflation will increase over the medium term. In addition to the stated expectations of the FOMC, market analysts are expecting increases in interest rates in the short and medium term. The 30-day average yield on the 30-year U.S. Treasury bond as of February 27, 2015 was 2.50%. By contrast, the Blue Chip consensus estimate projects that the average yield on the 30-year U.S. Treasury bond will increase to 4.90% for the period from 2016 through 2020.[10] Thus, the consensus estimate from leading economists is for an increase of 240 basis points in U.S. Treasury bond yields over the next several years.

Q. What is the financial market's expectation regarding the Federal Reserve's plans to start raising short-term interest rates?

A. The March 2015 issue of Blue Chip Financial Forecasts surveyed market participants concerning their views regarding the timing of possible future rate

[9] Federal Open Market Committee Press Release, April 29, 2015.
[10] Blue Chip Financial Forecasts, Vol. 33, No. 12, December 1, 2014, at 14.

increases by the Federal Reserve. Blue Chip reports that 100% of the 48 market participants surveyed expect that the Federal Reserve will start raising the target for short-term interest rates at some point during 2015, with the most likely date being at either the June 2015 or September 2015 FOMC meeting.[11]

Q. What are your conclusions regarding the effect of higher interest rates on the Cost of Equity for electric utilities such as SPS?

A. The potential for rising interest rates indicates that the calculated Cost of Equity for the proxy companies using any Cost of Equity estimation technique relying on discounted cash flows is likely to lag investors' required return during the period that SPS's rates will be in effect. Since many income-oriented investors hold utility stocks for their dividend yields, during periods in which interest rates are expected to increase, the dividend yields of utility stocks become less attractive for income-oriented investors relative to bond yields, placing pressure on utility share prices relative to the broader market, as measured by the Standard and Poor's ("S&P") 500 Index. Consequently, a consensus expectation of rising interest rates supports selection of a return for SPS based not only on the DCF models, but also on a forward-looking CAPM analysis.

[11] Blue Chip Financial Forecasts, Volume 34, No. 3, March 1, 2015, at 14.

Q. How has the period of abnormally low interest rates affected the valuation and dividend yields of utility shares?

A. The Federal Reserve's Quantitative Easing program resulted in higher asset prices for many common stocks, including shares of public utility companies, as investors sought higher returns and more attractive yields than were being offered by bonds. Consequently, the current share price of many utility stocks has increased to levels above Value Line Investment Survey's ("Value Line") target price for the 2018-2020 time period, while the dividend yield of those same utility stocks has declined to unusually low levels. As shown in Chart AEB-2, the average price-to-earnings ("P/E") ratio for the S&P Utilities Index in recent months has been well above the long-term average, indicating that investors have been willing to pay more for a dollar of earnings than they were in the past. Higher current P/E ratios also suggest that future returns for this sector will be muted because current share prices already reflect investors' expectations for future earnings growth.

Chart AEB-2: S&P Utilities Index P/E Ratio

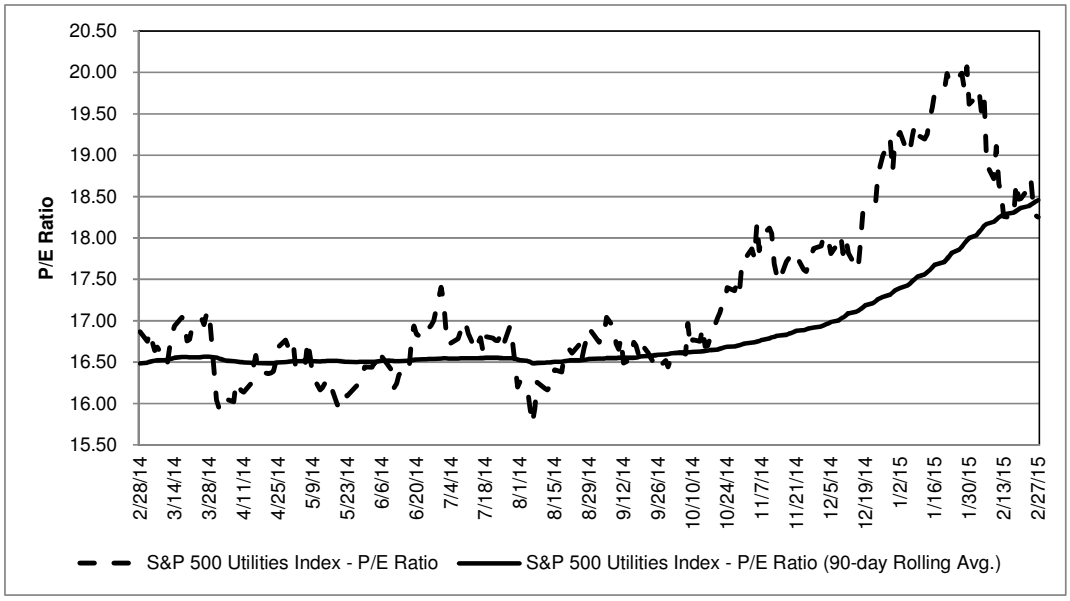
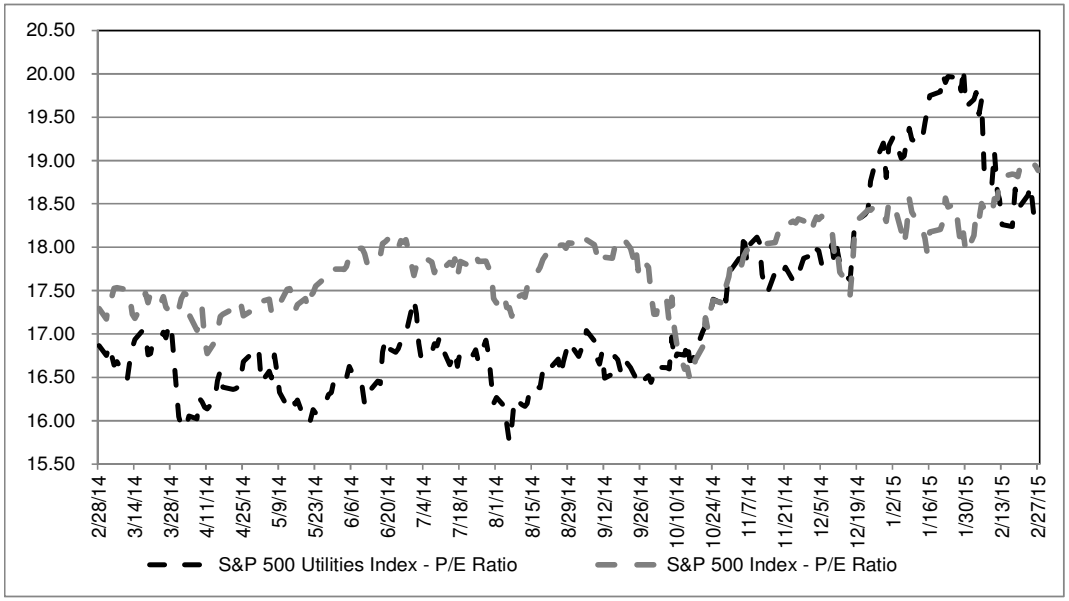
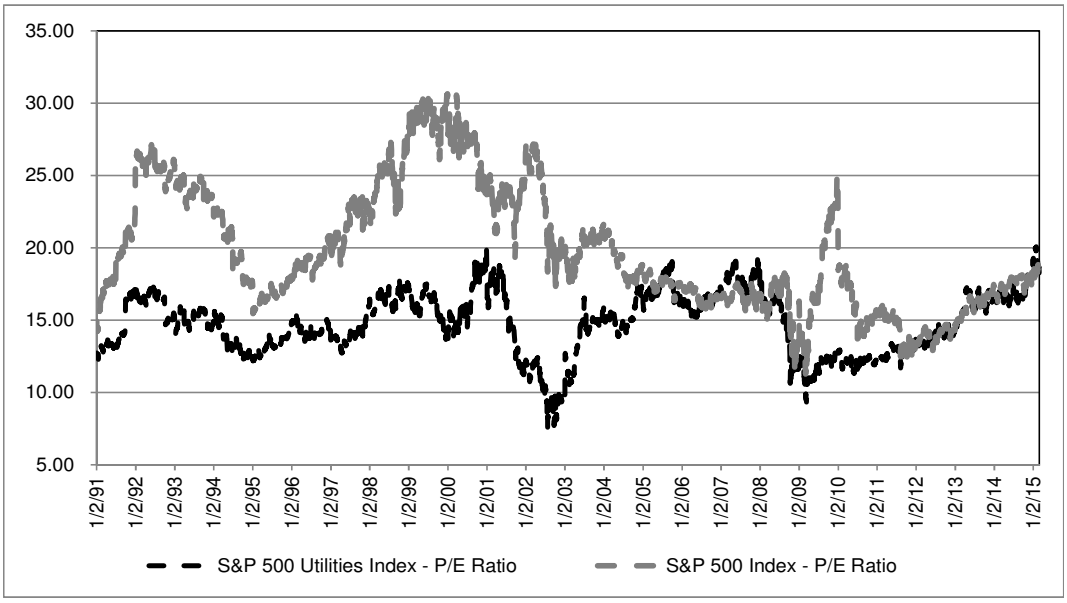


Chart AEB-3: S&P Utilities Index vs. S&P 500 Index P/E Ratio



Similarly, as shown in Chart AEB-3, above, the average P/E ratio for the S&P Utilities Index has recently been higher than or on par with the P/E ratio for the S&P 500. As shown in Chart AEB-4, the opposite was generally true prior to the financial market dislocation. This is further evidence that utility share valuations are high relative to the broader market. It is reasonable to expect those valuations for utility stocks will decline as economic growth accelerates and investors rotate out of the utility sector into more economically-sensitive and growth-oriented sectors.

Chart AEB-4: S&P Utilities Index and S&P 500 Index P/E Ratio - 1991-2015



Finally, as discussed in more detail in Section VII, analysts project the valuations of the proxy group stocks will decline in the near term as evidenced by Value Line's projected P/E ratios for that group.

Q. Have you conducted any additional analysis of investor risk sentiment?

A. Yes, I have. Incremental credit spreads are a widely-recognized measure of investor risk sentiment. Wider credit spreads indicate that investors are requiring a higher premium (*i.e.*, a higher interest rate) to compensate them for the higher risk associated with longer-term or lower-rated debt instruments. My analysis compared the average credit spreads between various government and corporate bonds as of February 27, 2015 to the average spreads as of March 26, 2014, which was the date of the Commission's decision in SPS's 2012 rate case. As shown in Table AEB-1, the average credit spreads as of February 2015 are generally similar to or higher than those in March 2014.

Table AEB-1: Credit Spreads

Bond Yields	2/27/2015	3/26/2014 (SPS-NM 2012 Rate Decision)	Great Recession (12/3/2007 - 6/30/2009)
Moody's Baa-Rated Utility Bond - Moody's A Rated Utility Bond	0.70%	0.46%	0.80%
Moody's Baa-Rated Utility Bond – 30-year U.S. Treasury	1.78%	1.38%	3.03%
Moody's A-rated Utility Bond – 30-year U.S. Treasury	1.08%	0.91%	2.23%

In particular, the spread between the Moody's Baa-rated utility bond index and the Moody's A-rated utility bond index has increased from 46 basis points to 70 basis points, which is approaching the 80 basis point spread that prevailed during the Great Recession of 2007-2009. Similarly, the spread between the Moody's Baa-rated utility bond index and the 30-year Treasury yield has increased from 138 basis points to 178 basis points, and the spread between the Moody's A-rated utility bond index and the 30-year Treasury yield has increased from 91 basis points to 108 basis points. These wider credit spreads are an indication of higher risk sentiment among utility bond investors, despite lower yields on U.S. Treasury bonds. It is reasonable to reflect higher investor risk sentiment through a higher Cost of Equity.

Q. What conclusions do you draw from your analysis of capital market conditions?

A. My primary conclusion is that it is important to consider the effect of capital market conditions on the inputs and assumptions used in the ROE estimation models and to consider whether those market conditions are sustainable over the period that the recommended ROE would be in effect. Because the utility sector is currently trading at a P/E multiple that is considerably higher than the historical range and, in recent periods, higher than the broader market index, it is important to consider whether or not those multiples and relationships will remain constant over time, as is assumed in the DCF model. Furthermore, since interest rates are projected to increase, it is important to reflect that expectation in the specification of the CAPM and other risk premium models.

VI. PROXY GROUP SELECTION

Q. Why have you used a group of proxy companies to estimate the Cost of Equity for SPS?

A. In this proceeding, I am estimating the Cost of Equity for SPS, which is a rate-regulated subsidiary of Xcel Energy. Since the ROE is a market-based concept, and given the fact that SPS's operations do not make up the entirety of a publicly traded entity, it is necessary to establish a group of companies that is both publicly traded and comparable to SPS in certain fundamental business and financial respects to serve as its "proxy" for purposes of the ROE estimation process.

Even if SPS's regulated electric operations made up the entirety of a publicly traded entity, it is possible that transitory events could bias its market value in one way or another over a given period of time. A significant benefit of using a proxy group is that it mitigates the effects of anomalous events that may be associated with any one company. The proxy companies used in my analyses all possess a set of operating and financial risk characteristics that are substantially comparable to SPS, and therefore provide a reasonable basis for deriving the appropriate ROE for SPS.

Q. Please provide a brief profile of SPS.

A. SPS is a wholly-owned subsidiary of Xcel Energy that provides electric generation, transmission, and distribution services to approximately 386,000 retail customers in the eastern and southeastern areas of New Mexico and the Panhandle and South Plains areas of Texas. SPS derived approximately 28.00% of its retail electric operating revenues from its New Mexico retail operations during 2014,[12] and SPS generally accounts for between 5.00 and 15.00% of Xcel Energy's consolidated net income.[13] SPS's current credit ratings on senior unsecured debt are as follows: (1) Standard and Poor's A- (Outlook: Stable); (2) Moody's Baa1 (Outlook: Stable); and (3) Fitch BBB+ (Outlook: Stable).[14]

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

A. I began with the group of 46 domestic U.S. utilities that Value Line classifies as Electric Utilities, and I simultaneously applied the following screening criteria to exclude companies that:

- do not pay consistent quarterly cash dividends because such companies cannot be analyzed using the Constant Growth DCF model;

[12] Southwestern Public Service SEC Form 10-K, December 31, 2014, at 5.
[13] *Ibid.*
[14] Source: SNL Financial.

- do not have positive long-term earnings growth forecasts from at least two utility industry equity analysts;
- do not have investment grade long-term issuer ratings from both S&P and Moody's;
- do not own regulated generation assets;
- derive less than 60% of their total operating income from regulated operations;
- derive less than 90% of their total regulated operating income from regulated electric operations; and
- were party to a merger or transformative transaction during the analytical periods considered.

Q. Did you include Xcel Energy in your analysis?

A. No. In order to avoid the circular logic that otherwise would occur, it is my practice to exclude the subject company, or its parent holding company, from the proxy group.

Q. Did you consider other factors in addition to the screening criteria discussed above?

A. Yes. I also considered whether each company that passed the screening criteria was, in fact, generally comparable to SPS in terms of business and financial risk. On that basis, I excluded one additional company: Edison International.

On November 1, 2012, Edison International announced that Edison Mission Electric ("EME"), its competitive power generation segment, would not be able to repay $500 million in bonds that were to mature in June 2013. In December 2012, EME filed for bankruptcy protection under Chapter 11 of the U.S. bankruptcy code. In March 2014, the court approved the plan of reorganization for EME; however, payments to creditors will continue through 2016.[15] Due to the ongoing bankruptcy proceeding of EME, it is not reasonable to include Edison International in the proxy group at this time.

Q. What is the composition of your proxy group?

A. The criteria discussed above resulted in a proxy group consisting of the companies shown in Table AEB-2 (on next page):

[15] United States Bankruptcy Court, Northern District of Illinois, Eastern Division, Case No. 12-49219 (JPC), decision entered February 19, 2014, at 2. *See also* Edison International 2014 SEC Form 10-K, p. 9.

Table AEB-2: Proxy Group

Company	Ticker
ALLETE, Inc.	ALE
American Electric Power Company, Inc.	AEP
Duke Energy Corporation	DUK
Empire District Electric Company	EDE
Eversource Energy	ES
Great Plains Energy Inc.	GXP
IDACORP, Inc.	IDA
Otter Tail Corporation	OTTR
Pinnacle West Capital Corporation	PNW
PNM Resources, Inc.	PNM
Portland General Electric Company	POR
Southern Company	SO
Westar Energy, Inc.	WR

VII. COST OF EQUITY ESTIMATION

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

A. The overall rate of return for a regulated utility is based on its weighted average cost of capital, in which the cost rates of the individual sources of capital are weighted by their respective book values. While the costs of debt and preferred stock can be directly observed, the Cost of Equity is market-based and, therefore, must be estimated based on observable market data.

Q. How is the required ROE determined?

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

Q. What methods did you use to determine SPS's Cost of Equity?

A. I considered the results of two forms of the DCF model and the CAPM analysis, corroborated by the Bond Yield Plus Risk Premium methodology. I believe that a reasonable ROE estimate considers alternative methodologies, observable market data, and the reasonableness of their individual and collective results.

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

A. It is important to use more than one approach because the Cost of Equity is not directly observable, and therefore must be estimated based on both quantitative and qualitative information. When faced with the task of estimating the Cost of Equity, analysts and investors are inclined to gather and evaluate as much relevant data as can be reasonably analyzed. A number of models have been developed to estimate the Cost of Equity. Analysts and academics understand that ROE models are tools to be used in the ROE estimation process and that strict adherence to any single approach, or the results of any single approach, can lead to flawed or irrelevant conclusions. Consistent with the *Hope* finding, it is the analytical result, not the methodology, which is controlling in arriving at ROE determinations.

A. Constant Growth DCF Model

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

A. Yes. DCF models are widely used in regulatory proceedings and have sound theoretical bases, although neither the DCF model nor any other model can be applied without considerable judgment in the selection of data and the interpretation of results. As discussed later in this section, the currently high P/E ratios for utility companies, and the expectation that the P/E ratios of the proxy companies will decline in the near term makes the use of the DCF approach, as the sole indicator of the Cost of Equity, concerning at this time.

Q. Please describe the DCF approach.

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

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

[1]

Where P_0 represents the current stock price, $D_1 \ldots D_\infty$ are all expected future dividends, and k is the discount rate, or required ROE. Equation [1] is a standard

present value calculation that can be simplified and rearranged into the following form:

$$k = \frac{D_0(1+g)}{P_0} + g \quad k = \frac{D_0(1+g)}{P_0} + g \qquad [2]$$

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

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

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

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

A. The dividend yield in my Constant Growth DCF model is based on the proxy companies' current annual dividend and average closing stock prices over the 30-, 90-, 180- and 360-trading days ended February 27, 2015.[16]

Q. Why did you use four averaging periods for stock prices?

A. I believe it is important to use an average of trading days to calculate the price term in the DCF model to ensure that the calculated ROE is not skewed by anomalous events that may affect stock prices on any given trading day. In that regard, the averaging period should be reasonably representative of expected capital market conditions over the long term. In my view, the use of the 30-, 90-, and 180-day averaging periods reasonably balances those considerations. I also recognize that the Commission has relied on the use of a 360-day averaging

[16] It is my normal practice to rely on the current annual dividend and average closing stock prices over 30, 90-, and 180- trading days. In this testimony, I am including the 360-day average, because it is my understanding that the Commission has historically relied on this longer averaging period.

period.[17] Therefore, I also present the results of the DCF model using that averaging period for the calculation of the dividend yield.

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

A. Yes. The Commission has typically used a full-year growth rate to calculate the expected dividend yield. Therefore, the DCF results presented in the tables in my testimony and in Attachments AEB-2 through AEB-5 reflect that convention.[18]

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

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

[17] *In the Matter of Southwestern Public Service Company's Application for Revision of its Retail Electric Rates Pursuant to Advice Notice Nos. 208 and 209 and All Associated Approvals,* Case No. 07-00319-UT, at 13, Final Order Partially Adopting Recommended Decision, (August 27, 2008) ("SPS 2008 Rate Case Order").

[18] Because utility companies tend to increase their quarterly dividends at different times throughout the year, it is reasonable to assume that dividend increases will be evenly distributed over calendar quarters. Therefore, it is my normal practice to apply one-half of the growth rate to calculate the expected dividend yield to reflect the timing of dividend payments. However in this case, I have adopted the Commission's preference. *See* SPS 2008 Rate Case Order ¶ 35; *In the Matter of the Application of Public Service Company of New Mexico for Revision of its Retail Electric Rates Pursuant to Advice Notice No. 334*, Case No. 07-00077-UT, Final Order Partially Adopting Recommended Decision at 10 (April 24, 2008) ("PNM 2008 Electric Rate Case Order"); *In the Matter of the Application of Public Service Company of New Mexico for Revision of its Rates, Rules and Charges Pursuant to Advice Notice Nos. 755 and 756*, Case No. 06-00210-UT, Final Order Partially Adopting Recommended Decision at 9 (June 29, 2007) ("PNM 2007 Gas Rate Case Order").

single measure, one must assume a constant payout ratio, and that earnings per share, dividends per share, and book value per share all grow at the same constant rate. Over the long run, however, dividend growth can only be sustained by earnings growth. In addition, earnings growth rates tend to be least influenced by capital allocation decisions that companies may make in response to near-term changes in the business environment. Since such decisions may directly affect near-term dividend payout ratios, estimates of earnings growth are more indicative of long-term investor expectations than are dividend or book value growth estimates. It, therefore, is important to incorporate a variety of sources of long-term earnings growth rates into the Constant Growth DCF model.

Q. Has the Commission typically relied on earnings per share ("EPS") growth estimates in arriving at the growth rate component of the DCF model?

A. Yes. In several recent cases, the Commission has relied on consensus EPS growth rate forecasts, such as Zacks, and EPS growth rates published by Value Line in the Constant Growth DCF calculation.[19]

[19] *See* Case No. 12-00350-UT, *In the Matter of Southwestern Public Service Company's Application for Revision of its Retail Electric Rates Under Advice Notice No. 245*, Final Order Partially Adopting Recommended Decision at 4 (March 26, 2014) ("SPS 2014 Rate Case Order"); PNM 2008 Electric Rate Case Order at 11; SPS 2008 Rate Case Order at 14; PNM 2007 Gas Rate Case Order at 14.

Q. Has the Commission relied on other measures of growth in establishing the appropriate ROE?

A. Yes. In previous cases, the Commission has also considered the use of a "retention growth" estimate in determining a public utility's required return on equity.[20] However, in the SPS 2014 Rate Case Order, the Commission relied on the average of the SPS witness's growth rates, excluding the retention growth rate.[21] In that case, the SPS witness excluded the retention growth rate because it produced ROE results that were significantly below the returns that have been authorized in any jurisdiction in more than twenty years.

Q. Have you considered the retention growth rate in your DCF analyses?

A. Yes. While I believe that earnings are the fundamental driver of a company's ability to pay dividends, and therefore are the appropriate measure of a company's long-term growth, I have also considered the retention growth rate, recognizing the Commission's past practice. I present the results of the Constant Growth DCF model based on two growth rate assumptions: (1) analysts' earnings growth projections (Attachment AEB-2), and (2) the retention growth rate

[20] *See* PNM 2008 Electric Rate Case Order at 11; SPS 2008 Rate Case Order at 14; PNM 2007 Gas Rate Case Order at 14.

[21] See SPS 2014 Rate Case Order at 4.

(Attachment AEB-3). In addition, in Attachment AEB-4, I provide Constant Growth DCF results based on the various combinations of growth rates that have been considered by the Commission in prior proceedings.[22]

Q. Please describe the estimate of the retention growth rate that you relied on in your analyses.

A. Consistent with the calculation relied on by the Commission in prior cases,[23] I relied on the simplest form of the sustainable growth rate. In that form, the model represents long-term growth as the product of the retention ratio (*i.e.*, the percentage of earnings not paid out as dividends, referred to below as "b") and the expected return on book equity (referred to below as "r"). Thus, the simple *"b x r"* form of the model assumes that internally-generated funds form a reasonable basis for estimating future growth.[24]

[22] *See* SPS 2012 Rate Case Recommended Decision of the Hearing Examiner at 76; SPS 2008 Rate Case Order at 71.

[23] *See* Case No. 12-00350-UT, *In the Matter of Southwestern Public Service Company's Application for Revision of its Retail Electric Rates Under Advice Notice No. 245* ("SPS 2012 Rate Case") Recommended Decision of the Hearing Examiner at 76; SPS 2008 Rate Case Order at 14; PNM 2008 Electric Rate Case Order at 14; PNM 2007 Gas Rate Case Order at 11.

[24] The *"b x r"* form of the model is somewhat limiting however, in that it does not provide for growth from external equity.

Q. What sources of long-term growth rates did you use in your Constant Growth DCF model?

A. My Constant Growth DCF model incorporates four sources of long-term growth rates: (1) consensus long-term earnings growth estimates from Zacks Investment Research; (2) consensus long-term earnings growth estimates from Thomson First Call (provided by Yahoo! Finance); (3) long-term earnings growth estimates from Value Line; and (4) the *"b x r"* growth rate.

Q. Have you performed the DCF analysis using the averaging scenarios that have been relied upon by the Commission?

A. Yes. In prior cases, the Commission has considered the DCF results based on the average of earnings and sustainable growth rate scenarios. As shown in Attachment AEB-4, I also considered the scenarios that average the DCF results of projected earnings growth rates and the *"b x r"* growth rate that the Commission has relied on in prior cases.[25]

[25] *See* SPS 2012 Rate Case Recommended Decision at 105 that was accepted by the Commission in the SPS 2014 Rate Case Order at 4. S*ee also* SPS 2008 Rate Case Order at 14.

Q. How did you calculate the expected dividend yield in each of the scenarios in Attachments AEB-2 and AEB-4?

A. I adjusted the dividend yield to reflect the full growth rate that was being used in the scenario.[26] For example, the DCF result that averages Value Line earnings growth estimates and the *"b x r"* growth rate uses that average growth rate in the calculation of the expected dividend yield. This ensures that the growth rate used in the dividend yield calculation and the growth rate used as the *"g"* term of the DCF model are internally consistent.

B. Multi-Stage DCF Model

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

A. In order to address some of the limiting assumptions underlying the Constant Growth form of the DCF model, I also considered the results of a Multi-Stage DCF model. As with the Constant Growth form of the DCF model, the Multi-Stage form defines the Cost of Equity as the discount rate that sets the current price equal to the discounted value of future cash flows.

[26] The use of the full growth rate in the calculation of the dividend yield is based on the Commission's preferences stated in several cases including SPS 2012 Rate Case Order, SPS 2008 Rate Case Order ¶ 35; PNM 2008 Electric Rate Case Order at 10; PNM 2007 Gas Rate Case Order at 9.

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

A. The Multi-Stage DCF model, which is an extension of the Constant Growth form, enables the analyst to specify different growth rates over multiple stages. Further, the three-stage model allows for a gradual transition from the first stage growth rate to the long-term growth rate, thereby avoiding the often unrealistic assumption that growth will change abruptly between the first and final stages.

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

A. The Multi-Stage DCF model sets the subject company's current stock price equal to the present value of future cash flows received over three "stages". In all three stages, cash flows are equal to the annual dividend payments that stockholders receive. Stage one is a short-term growth period that consists of the first five years; stage two is a transition period from the short-term growth rate to the long-term growth rate which occurs over five years (*i.e.*, years six through 10); and stage three is a long-term growth period that begins in year 11 and continues in perpetuity (*i.e.*, year 200). The ROE is then calculated as the rate of return that results from the initial stock investment and the dividend payments over the analytical period.

Q. Please summarize the EPS growth rates used in your Multi-Stage DCF model.

A. As shown on Attachment AEB-5, I began with the current annualized dividend as of February 27, 2015 for each proxy group company. In the first stage of the model, the current annualized dividend is escalated based on the average of the three- to five-year earnings growth estimates reported by Thomson First Call, Zacks, and Value Line. For the third stage of the model, I relied on long-term projected growth in Gross Domestic Product ("GDP"). The second stage growth rate is a transition from the first stage growth rate to the long-term growth rate on a geometric average basis.

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

A. The long-term growth rate of 5.51% is based on the real GDP growth rate of 3.26% from 1929 through 2014,[27] and a projected inflation rate of 2.19%. The rate of inflation of 2.19% is based on three measures: (1) the average long-term projected growth rate in the Consumer Price Index ("CPI") of 2.30%;[28] (2) the compound annual growth rate of the CPI for all urban consumers for 2025-2040

[27] U.S. Department of Commerce, Bureau of Economic Analysis, National Income and Product Accounts Tables, Table 1.1.1, February 27, 2015.

[28] Blue Chip Financial Forecasts, Vol. 33, No. 12, December 1, 2014, at 14.

of 2.26% as projected by the Energy Information Administration ("EIA"); and (3) the compound annual growth rate of the GDP chain-type price index for 2025-2040 of 2.00%, also reported by the EIA.[29]

Q. Has the Commission previously relied on a similar GDP growth rate in the Multi-Stage DCF model?

A. Yes, in SPS's last litigated rate decision, the Commission relied on the 5.51% GDP growth rate developed by SPS's witness in that case.[30]

C. Flotation Costs

Q. What are flotation costs?

A. Flotation costs are the costs associated with the sale of new issues of common stock. These costs include out-of-pocket expenditures for preparation, filing, underwriting, and other issuance costs.

Q. Why is it important to consider flotation costs in the allowed ROE?

A. In order to attract and retain new investors, a regulated utility must have the opportunity to earn an ROE that is both competitive and compensatory. To the extent that a company is denied the opportunity to recover prudently incurred

[29] U.S. Energy Information Administration, Annual Energy Outlook 2014, Table 20, Macroeconomic Indicators. *See* Attachment AEB-6.

[30] *See* Case No. 12-00350-UT, 2012 SPS Rate Order at 4.

flotation costs, actual returns will fall short of expected (or required) returns, thereby diminishing its ability to attract adequate capital on reasonable terms.

Q. Are flotation costs part of the utility's invested costs or part of the utility's expenses?

A. Flotation costs are part of the invested costs of the utility, which are properly reflected on the balance sheet under "paid in capital." They are not current expenses, and therefore are not reflected on the income statement. Rather, like investments in rate base or the issuance costs of long-term debt, flotation costs are incurred over time. As a result, the great majority of a utility's flotation cost is incurred prior to the test year, but remains part of the cost structure that exists during the test year and beyond, and as such, should be recognized for ratemaking purposes. Therefore, this cost is appropriate regardless of whether an issuance occurs during, or is planned for, the test year because failure to allow recovery of flotation costs may deny SPS the opportunity to earn its required rate of return in the future.

Q. Is the need to consider flotation costs eliminated because SPS is a wholly-owned subsidiary of Xcel Energy?

A. No. Although SPS is a wholly-owned subsidiary of Xcel Energy, it is appropriate to consider flotation costs for two reasons. First, a substantial portion of SPS's paid-in equity is the result of prior public issuances of common stock made by SPS before it was combined in mergers that formed New Century Energies, Inc., and later Xcel Energy, at a time when SPS was itself a publicly traded entity. Second, wholly-owned subsidiaries receive equity capital from their parent and provide returns on the capital that roll up to the parent, which is designated to attract and raise capital based upon the returns of those subsidiaries. To deny recovery of issuance costs associated with the capital that is invested in the subsidiaries ultimately penalizes the investors that fund the utility operations and inhibits the utility's ability to obtain new equity capital at a reasonable cost. This is particularly important for SPS because it is planning significant capital expenditures in the near term, and continued access to capital to fund such required expenditures will be critical.

Q. Has Xcel Energy recently issued common equity?

A. Yes. Xcel Energy closed on an equity issuance of approximately $175 million (5,694,000 shares of common stock) in June 2014. It is also reasonable to expect that the Company may need to access the equity market in the next several years in order to finance its capital investment plan.[31]

Q. Is the need to consider flotation costs recognized by the academic and financial communities?

A. Yes. The need to reimburse investors for equity issuance costs is recognized by the academic and financial communities in the same spirit that investors are reimbursed for the costs of issuing debt. This treatment is consistent with the philosophy of a fair rate of return. According to Dr. Shannon Pratt:

> Flotation costs occur when new issues of stock or debt are sold to the public. The firm usually incurs several kinds of flotation or transaction costs, which reduce the actual proceeds received by the firm. Some of these are direct out-of-pocket outlays, such as fees paid to underwriters, legal expenses, and prospectus preparation costs. Because of this reduction in proceeds, the firm's required returns on these proceeds equate to a higher return to compensate for the additional costs. Flotation costs can be accounted for either by amortizing the cost, thus reducing the cash flow to discount, or by incorporating the cost into the cost of capital. Because flotation

[31] Xcel Energy 2014 SEC Form 10-K at 75.

costs are not typically applied to operating cash flow, one must incorporate them into the cost of capital.[32]

Q. How did you calculate the flotation costs for SPS?

A. My flotation cost calculation was based on the costs of issuing equity that were incurred by Xcel Energy and the proxy group companies in their two most recent common equity issuances. Based on the issuance costs provided in Attachment AEB-7, flotation costs for SPS are approximately 0.12% (*i.e.*, 12 basis points).

D. Discounted Cash Flow Results

Q. Please summarize the results of your DCF analyses.

A. As shown in Table AEB-3, the Constant Growth DCF analysis, using the 360-day average dividend yield and analysts earnings growth rates produces a range of results from 8.88% to 10.78%, including flotation costs of 12 basis points. The Multi-Stage DCF analysis produces a range of results from 9.71% to 10.25%, also including flotation costs. The growth rate averaging scenarios that have been relied on by the Commission in prior cases result in a range of returns of 9.06% to 10.45%, using the 360-day average dividend yield. In contrast to these ranges, the Constant Growth DCF using the sustainable growth rate and a 360-day average dividend yield produces returns of 7.99%.

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

Table AEB-3: Summary of DCF Results (Including Flotation Costs)

	Mean Low	Mean	Mean High
Constant Growth DCF – Projected EPS Growth[33]			
30-Day Average	8.39%	9.26%	10.28%
90-Day Average	8.48%	9.35%	10.37%
180-Day Average	8.69%	9.56%	10.59%
360-Day Average	8.88%	9.76%	10.78%
Constant Growth DCF- "b x r" growth rate[34]			
30-Day Average		7.50%	
90-Day Average		7.59%	
180-Day Average		7.80%	
360-Day Average		7.99%	

New Mexico PRC Constant Growth DCF Averaging Scenarios Excluding "b x r" Growth Rate[35]				
Growth estimates relied on:	**30-day**	**90-day**	**180-day**	**360-day**
Value Line	9.95%	10.05%	10.26%	10.45%
First Call	8.67%	8.76%	8.97%	9.16%
Zacks	8.55%	8.63%	8.84%	9.06%
Value Line, Zacks & First Call	9.05%	9.15%	9.36%	9.56%

Multi-Stage DCF[36]			
	Low	**Mean**	**High**
30-Day Average	9.20%	9.42%	9.70%
90-Day Average	9.30%	9.52%	9.81%
180-Day Average	9.52%	9.75%	10.05%
360-Day Average	9.71%	9.95%	10.25%

[33] *See* Attachment AEB- 2.
[34] *See* Attachment AEB- 4.
[35] *See* Attachment AEB- 4.
[36] *See* Attachment AEB -5.

Q. How did you calculate the range of results for the Constant Growth and Multi-Stage DCF Models?

A. I calculated the low result for both DCF models using the minimum growth rate (*i.e.*, the lowest of the Thomson First Call, Zacks, and Value Line earnings growth rates, as well as the retention growth rate) for each of the proxy group companies. Thus, the low result reflects the minimum DCF result for the proxy group. I used a similar approach to calculate the high results, using the highest growth rate for each proxy group company. The mean results were calculated using the average growth rates from all sources.

Q. How do you explain the low results from the DCF models?

A. In its commentary on the electric utility industry, Value Line reports many companies are currently trading at share prices near or exceeding their three to five year price targets. Furthermore, Value Line recently cautioned investors about electric utility stock prices:

> [M]any share prices are near the upper end of their 2017-2019 Target Price Range. A few stocks, including *Empire District Electric*, are trading *above* this range. Lately, the group's average dividend yield has been 3.5%.

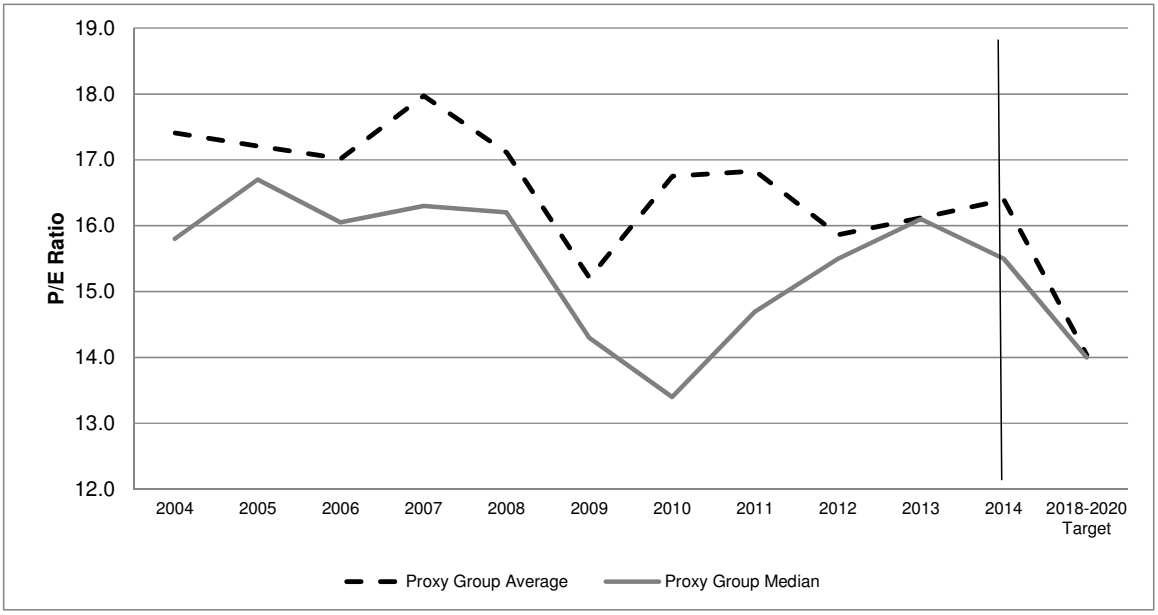
***

> All of this means that electric utility equities are expensively priced. Investors should note that our long-term interest rate projection is for a yield of 4.3% on the 10-year Treasury note. That is about two percentage points higher than the yield today. Such a significant rise in interest rates would most likely not be good for electric utility equities.[37]

The high valuations noted by Value Line help explain why the results of the DCF models are currently so low. As shown in Chart AEB-5, the average P/E ratio for the proxy companies was higher at the end of 2014 than the average projected P/E ratio for the group for the period from 2018-2020. The expectation for lower P/E ratios for the proxy companies suggests that the current results from the DCF model should be considered with caution.

[37] Value Line Electric Utility (Central) Industry, January 31, 2015.

Chart AEB-5: Average Historical P/E Ratios for Proxy Companies



Q. Do the assumptions used in the Multi-Stage DCF model address the risk you discuss in Section V about utility valuations?

A. No, they do not. While the Multi-Stage DCF model provides for changes in growth over time, it does not address the very high valuations for utility stocks and the effects of those valuations on the dividend yield in the DCF model.

Q. What are your conclusions about the results of the DCF models?

A. There are two primary points to consider. First, as discussed previously, one primary assumption of the DCF models is for a constant P/E ratio. That assumption is heavily influenced by the market price of utility stocks. To the

extent that these stock prices are inflated, as is suggested by the high P/E ratios and analysts' expectation that those P/E ratios are not sustainable in the short term, it is important to consider the results of the DCF models with caution. Second, as shown in Attachment AEB-3, the "*b x r*" growth rate estimate is 3.82%, which is 171 basis points lower than the average analyst earnings growth rate of 5.53%, 169 basis points below the growth rate approved by the Commission in the 2012 SPS Rate Case,[38] and only 163 basis points above the projected rate of inflation. As shown in Table AEB-3, the results of the DCF model using the *"b x r"* growth rate range from 7.50% to 7.99%, which is below an acceptable range of returns for a vertically-integrated electric utility and below any authorized ROE for an electric utility since at least 1987.[39] Therefore, I believe it is inappropriate to rely on the retention growth rate estimate at this time, consistent with the Commission's decision in SPS's 2012 rate case. Furthermore, while I have considered the range of results established using the DCF methodologies, my recommendation also gives weight to the results of other ROE estimation models.

[38] SPS 2012 Rate Case Order at 4.
[39] Source: SNL Financial Regulatory Research Associates rate case history.

Q. Are you aware of any other jurisdictions that considered the effectiveness of the traditional ROE estimation models based on changing market conditions?

A. Yes, I am. The Surface Transportation Board ("STB"), which regulates the U.S. railroad industry, began evaluating the effectiveness of the Constant Growth DCF model in September 2006. The STB instituted a broad rulemaking to obtain public comment on the most appropriate methodology to use for estimating the ROE for railroads. In January 2008, the STB replaced the Constant Growth DCF model with the CAPM, with the expectation that the CAPM would produce more accurate estimates of the industry's cost of capital. In January 2009, as a result of its exploration of the various forms of ROE estimation models and the review of public comments on the merits and shortcomings of each of the models, the STB issued a decision modifying its sole reliance on the CAPM method to include an equal weighting of the CAPM and the Multi-Stage DCF results. In reaching this decision, the STB concluded that:

> Indeed, if our exploration of this issue has revealed nothing else, it has shown that there is no single simple or correct way to estimate the cost of equity for the railroad industry, and countless reasonable options are available. Both the CAPM and the multi-stage DCF models we propose to use have strengths and weaknesses, and both take different paths to estimate the same

> illusory figure. By using an average of the results produced by both models, we harness the strengths of both models while minimizing their respective weaknesses.[40]

This decision supports my view that it is appropriate to consider the results of various financial models to estimate the Cost of Equity within the context of capital market conditions, and that the appropriate method(s) can evolve over time as market conditions change.

Q. Is it relevant that the STB does not regulate the energy industry?

A. No. The STB decision is an opinion on the appropriate methodologies to consider in estimating the ROE, and therefore it is relevant regardless of the industry. That decision describes the rigorous analysis and the methodologies that a regulatory body used to review financial models and to select the most appropriate models in the context of capital market conditions in order to estimate the Cost of Equity.

In summary, as the STB decision points out, the models used to estimate the ROE are used by the investment community for all types of investments, and therefore it is not important that the STB does not regulate energy companies.

[40] Surface Transportation Board, Use of a Multi-Stage Discounted Cash Flow Model in Determining the Railroad Industry's Cost of Capital, Decision STB Ex Parte No. 664 (Sub-No. 1), released January 28, 2009, at 15.

Rather, what is important is that the methodologies used reflect what investors consider in establishing their return requirements.

E. CAPM Analysis

Q. Please briefly describe the Capital Asset Pricing Model.

A. The CAPM is a risk premium approach that estimates the Cost of Equity for a given security as a function of a risk-free return plus a risk premium to compensate investors for the non-diversifiable or "systematic" risk of that security. This second component is the product of the market risk premium and the Beta coefficient, which measures the relative riskiness of the security being evaluated.

The CAPM is defined by four components, each of which must theoretically be a forward-looking estimate:

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

Where:

K_e = the required market ROE;

β = Beta coefficient of an individual security;

r_f = the risk-free rate of return; and

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

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

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

The variance of the market return (*i.e.*, $Variance\ (r_m)$) is a measure of the uncertainty of the general market, and the covariance between the return on a specific security and the general market (*i.e.*, $Covariance\ (r_e, r_m)$) reflects the extent to which the return on that security will respond to a given change in the general market return. Thus, Beta represents the risk of the security relative to the general market.

Q. What risk-free rate did you use in your CAPM analysis?

A. I relied on three sources for my estimate of the risk-free rate: (1) the current 30-day average yield on 30-year U.S. Treasury bonds (*i.e.*, 2.50%);[41] (2) the projected 30-year U.S. Treasury bond yield for 2015 through 2016 of 3.20%;[42] and (3) the projected 30-year U.S. Treasury bond yield for 2016 through 2020 of 4.90%.[43]

Q. What Beta coefficients did you use in your CAPM analysis?

A. As shown on Attachment AEB-8, I used the average Beta coefficients for the proxy group companies as reported by Bloomberg and Value Line. Bloomberg calculates Beta coefficients based on two years of weekly returns relative to the S&P 500 Index. Value Line's calculation is based on five years of weekly returns relative to the New York Stock Exchange Composite Index.

Q. How did you estimate the Market Risk Premium in the CAPM?

A. I estimated the Market Risk Premium based on the expected return on the S&P 500 Index less the 30-year Treasury bond yield. The expected return on the S&P 500 Index is calculated using the Constant Growth DCF model discussed earlier

[41] Bloomberg Professional, as of February 27, 2015.
[42] Blue Chip Financial Forecasts, Vol. 34, No. 2, February 1, 2015, at 2.
[43] Blue Chip Financial Forecasts, Vol. 33, No. 12, December 1, 2014, at 14.

in my Direct Testimony for the companies in the S&P 500 Index for which dividend yields and long-term earnings projections are available. Based on an estimated market capitalization-weighted dividend yield of 2.00% and a weighted long-term growth rate of 11.06%, the estimated required market return for the S&P 500 Index is 13.17%. The implied Market Risk Premium over the current 30-day average of the 30-year U.S. Treasury bond yield, and the short- and near-term projected yields on the 30-year U.S. Treasury bond, range from 8.27% to 10.67%.

Q. What are the results of your CAPM analyses?

A. As shown in Table AEB-4 (*see* also Attachment AEB-9), my CAPM analysess produces a range of returns from 9.59% to 11.10%. The mean return using the Bloomberg average Beta coefficient and three measure of the risk-free rate is 9.94%. Using the Value Line average Beta coefficient and three measures of the risk-free rate, the mean result is 10.76%.

Table AEB-4: Forward-Looking CAPM Results

	Current Risk-Free Rate (2.50%)	2015-2016 Projected Risk-Free Rate (3.20%)	2016-2020 Projected Risk-Free Rate (4.90%)	Mean Result
Bloomberg Beta	9.59%	9.83%	10.40%	9.94%
Value Line Beta	10.50%	10.68%	11.10%	10.76%

F. Bond Yield Plus Risk Premium Analysis

Q. Please describe the Bond Yield Plus Risk Premium approach you employed.

A. In general terms, this approach is based on the fundamental principle that equity investors bear the residual risk associated with ownership and therefore require a premium over the return they would have earned as a bondholder. That is, since returns to equity holders are more risky than returns to bondholders, equity investors must be compensated to bear that risk. Risk premium approaches, therefore, estimate the Cost of Equity as the sum of the equity risk premium and the yield on a particular class of bonds. In my analysis, I used actual authorized returns for electric utility companies as the historical measure of the Cost of Equity to determine the risk premium.

Q. Are there other considerations that should be addressed in conducting this analysis?

A. Yes. It is important to recognize both academic literature and market evidence indicating that the equity risk premium (as used in this approach) is inversely related to the level of interest rates. That is, as interest rates increase (decrease), the equity risk premium decreases (increases). Consequently, it is important to develop an analysis that: (1) reflects the inverse relationship between interest rates and the equity risk premium; and (2) is based on more recent and expected market conditions. Such an analysis can be developed based on a regression of the risk premium as a function of U.S. Treasury bond yields. If we let authorized ROEs for electric utility companies serve as the measure of required equity returns and define the yield on the long-term U.S. Treasury bond as the relevant measure of interest rates, the risk premium simply would be the difference between those two points.[44]

[44] *See e.g.*, S. Keith Berry, *Interest Rate Risk and Utility Risk Premia during 1982-93*, Managerial and Decision Economics, Vol. 19, No. 2 (March, 1998), in which the author used a methodology similar to the regression approach described below, including using allowed ROEs as the relevant data source, and came to similar conclusions regarding the inverse relationship between risk premia and interest rates. *See also* Robert S. Harris, *Using Analysts' Growth Forecasts to Estimate Shareholders Required Rates of Return*, Financial Management, Spring 1986, at 66.

Q. What did your Bond Yield Plus Risk Premium analysis reveal?

A. As shown on Chart AEB-6, from 1992 through February 2015, there was a strong negative relationship between risk premia and interest rates. To estimate that relationship, I conducted a regression analysis using the following equation:

$$RP = a + b(T) \qquad [5]$$

Where:

RP = Risk Premium (difference between allowed ROEs and the yield on 30-year U.S. Treasury bonds)

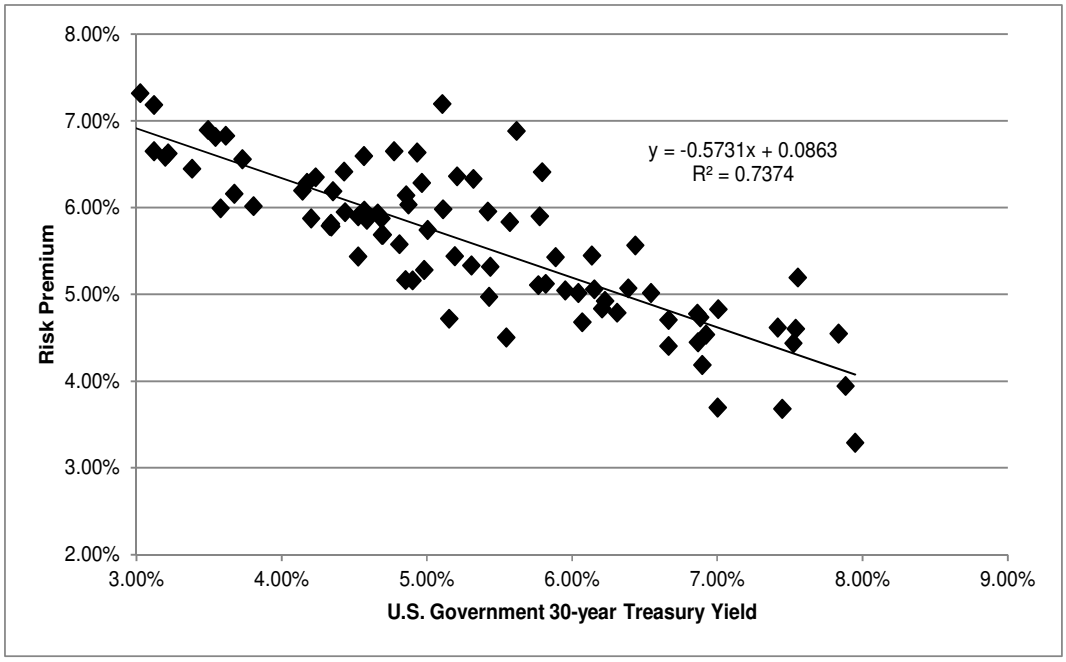
a = intercept term

b = slope term

T = 30-year U.S. Treasury bond yield

Data regarding allowed ROEs were derived from 633 rate cases from 1992 through February 2015 as reported by Regulatory Research Associates. This equation's coefficients were statistically significant at the 99.0% level.

Chart AEB-6: Risk Premium Results



As shown on Attachment AEB-10, based on the current 30-day average of the 30-year U.S. Treasury bond yield (*i.e.*, 2.50%), the risk premium would be 7.20%, resulting in an estimated ROE of 9.70%. Based on the near-term (2015-2016) projections of the 30-year U.S. Treasury bond yield (*i.e.*, 3.20%), the risk premium would be 6.80%, resulting in an estimated ROE of 10.00%. Based on longer-term (2016-2020) projections of the 30-year U.S. Treasury bond yield (*i.e.*, 4.90%), the risk premium would be 5.82%, resulting in an estimated ROE of 10.72%.

VIII. BUSINESS RISKS

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

A. No. These results provide only a range of the appropriate estimate of SPS's Cost of Equity. In my view, there are several additional factors that must be taken into consideration when determining where SPS's Cost of Equity falls within the range of results. These risk factors, which are discussed below, should be considered with respect to their overall effect on SPS's risk profile relative to the proxy group.

Q. Are you aware that the Commission has previously rejected any adjustment to the return on equity for business risk when the proxy companies have the same bond rating as the subject company?

A. Yes, I am aware of the Commission's determination on this issue in the 2012 SPS Rate Case Order. However, these risk factors have been identified by Moody's as key factors in their credit opinions. Therefore, it is appropriate to consider whether these factors place SPS at a relatively higher risk than the proxy companies.

A. Regulatory Framework

Q. Please explain how the regulatory framework affects investors' risk assessments.

A. The ratemaking process is premised on the principle that, in order for investors and companies to commit the capital needed to provide safe and reliable utility services, the subject utility must have the opportunity to recover the return of, and the market-required return on, invested capital. Regulatory commissions recognize that because utility operations are capital intensive, regulatory decisions should enable the utility to attract capital at reasonable terms; doing so balances the long-term interests of investors and customers. In that respect, the regulatory framework is one of the most important factors considered in both debt and equity investors' risk assessments.

Because investors have many investment alternatives, even within a given market sector, SPS's authorized return must be adequate on a relative basis to ensure its ability to attract capital under a variety of economic and financial market conditions. From the perspective of debt investors, the authorized return should enable SPS to generate the cash flow needed to meet its near-term financial obligations, make the capital investments needed to maintain and expand

its system, and maintain sufficient levels of liquidity to fund unexpected events. This financial liquidity must be derived not only from internally-generated funds, but also by efficient access to capital markets.

From the perspective of equity investors, the authorized return must be adequate to provide a risk-comparable return on the equity portion of SPS's capital investments. Because equity investors are the residual claimants on SPS's cash flows (which is to say that the equity return is subordinate to interest payments), they are particularly concerned with the regulatory framework and its effect on future earnings and cash flows.

Q. Do credit rating agencies consider the regulatory framework in establishing a utility company's credit rating?

A. Yes, both S&P and Moody's consider the overall regulatory framework in establishing credit ratings. In particular, Moody's has published a report quantifying the importance of this metric. Moody's establishes credit ratings based on four key factors: (1) regulatory risk; (2) the ability to recover costs and earn returns; (3) diversification; and (4) financial strength, liquidity, and key financial metrics. Of these criteria, regulatory risk and the ability to recover costs and earn returns are each given a broad rating factor of 25%. Therefore, Moody's

assigns the regulatory framework a 50% weighting in the overall assessment of business and financial risk for regulated utilities.[45]

S&P has also identified the regulatory framework as an important factor, stating: "we believe the fundamental regulatory environment in the jurisdictions in which a utility operates often influences credit quality the most."[46]

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

A. The regulatory environment can significantly affect both the access to, and cost of capital in several ways. First, the proportion and cost of debt capital available to utility companies are influenced by the rating agencies' assessment of the regulatory environment. As noted by Moody's, "For rate regulated utilities, which typically operate as a monopoly, the regulatory environment and how the utility adapts to that environment are the most important credit considerations"[47] Moody's further highlighted the relevance of a stable and predictable regulatory environment to a utility's credit quality, noting: "Broadly speaking, the

[45] Moody's Investors Service, *Rating Methodology: Regulated Electric and Gas Utilities*, December 23, 2013, at 6.

[46] Standard & Poor's, *Assessing U.S. Utility Regulatory Environments*, March 11, 2010, at 2.

[47] Moody's Investors Service, Rating Methodology: Regulated Electric and Gas Utilities, December 23, 2013, at 9.

Regulatory Framework is the foundation for how all the decisions that affect utilities are made (including the setting of rates), as well as the predictability and consistency of decision-making provided by that foundation."[48]

Q. Have rating agencies provided recent credit opinions on SPS?

A. Yes. In October 2014, Moody's issued SPS a rating of Baa1 with a stable outlook. That rating report identifies three primary factors that Moody's considered in the development of its opinion: (1) regulatory lag, (2) record-high capital expenditures, and (3) the expectation that credit metrics will improve.

Moody's continues to note the issue of regulatory lag as a risk factor for SPS:

> The rate treatment in Texas and New Mexico has resulted in regulatory lag, as indicated by SPS's cash flow metrics being lowest among the Xcel utilities. SPS primarily relies on base rate cases to recover its expenses and investments. The company does have fuel and purchased power adjustment clauses in Texas and New Mexico, as is standard among US utilities, and demand side management incentive mechanisms in New Mexico, but it lacks the riders and other adjustment mechanisms that make its sister utilities' cost recoveries more predictable and timely.[49]

[48] *Ibid*.

[49] Moody's Investor Service, Credit Opinion: Southwestern Public Service Company, October 8, 2014, p. 2.

Moody's also notes that the stable outlook reflects the assumption that SPS will receive balanced rate treatment in all regulatory jurisdictions and that adverse regulatory rulings could contribute to a rating downgrade.[50]

Q. Have you conducted any analysis of the regulatory environment in New Mexico relative to the jurisdictions in which the companies in your proxy group operate?

A. Yes. S&P classifies each regulatory jurisdiction into five categories ranging from "Strong" to "Weak" based on the level of credit supportiveness. Within each category, regulatory jurisdictions are ranked according to their credit supportiveness from most credit supportive to least credit supportive. For my analysis of the credit supportiveness of the regulatory jurisdictions in which the proxy companies operate, I assigned a numerical ranking to each jurisdiction ranked by S&P, from most credit supportive ("1") to least credit supportive ("53"). As shown in Attachment AEB-11, the proxy group average ranking was 24.48, which would be classified as Strong/Adequate and rank slightly above average for credit supportiveness, while the New Mexico jurisdictional ranking is 49, which is below average in credit supportiveness.

[50] *Ibid* at 3.

Q. What are your conclusions regarding the perceived risks related to the New Mexico regulatory framework?

A. Both Moody's and S&P have identified the supportiveness of the regulatory framework as an important consideration in developing their overall credit ratings for regulated utilities such as SPS. The S&P rankings demonstrate that investors would perceive the regulatory frameworks for the proxy group companies as more credit supportive than the New Mexico regulatory framework. In addition, Moody's has noted concerns with the regulatory lag that exists in the New Mexico regulatory framework. While the Commission does allow for the use of a forecasted test period, Moody's also noted that SPS does not have many of the standard riders that could make cost recovery more timely and predictable.[51] Therefore, the average ROE result for the proxy group does not represent the return on equity that an investor would require in New Mexico because the risks of timely and full cost recovery are greater for SPS than for the proxy group. For that reason, I conclude that the authorized ROE for SPS should be higher than the proxy group mean.

[51] Moody's Investor Services, Credit Opinion: Southwestern Public Service Company, October 8, 2014, at 2.

B. Risks Associated with SPS's Capital Expenditure Requirements

Q. Please summarize SPS's capital expenditure requirements.

A. Moody's also identified SPS's "record-high" capital expenditures as a risk factor.[52] Current projections include approximately $3.175 billion in capital investments for the period from 2015 through 2019, including significant investment in electric transmission and distribution operations.[53]

Q. How is SPS's risk profile affected by its substantial capital expenditure requirements?

A. As with any utility faced with substantial capital expenditure requirements, SPS's risk profile is adversely affected in two significant and related ways: (1) the heightened level of investment increases the risk of under recovery, or delayed recovery, of the invested capital; and (2) an inadequate return would put downward pressure on key credit metrics.

[52] *Ibid.*

[53] Xcel Energy 2014 SEC Form 10-K at 75.

Q. Do credit rating agencies recognize the risks associated with increased capital expenditures?

A. Yes. As discussed above, Moody's has specifically identified SPS's extensive capital investment plan as a key factor to be considered in its ratings. From a credit perspective, the additional pressure on cash flows associated with high levels of capital expenditures exerts corresponding pressure on credit metrics and, therefore, credit ratings. To that point, a July 2014 report from S&P explains:

> [T]here is little doubt that the U.S. electric industry needs to make record capital expenditures to comply with the proposed carbon pollution rules over the next several years, while maintaining safety standards and grid stability. We believe the higher capital spending and subsequent rise in debt levels could strain these companies' financial measures, resulting in an almost consistent negative discretionary cash flow throughout this higher construction period. To meet the higher capital spending requirements, companies will require ongoing and steady access to the capital markets, necessitating that the industry maintains its high credit quality. We expect that utilities will continue to effectively manage their regulatory risk by using various creative means to recover their costs and to finance their necessary higher spending.[54]

[54] Standard and Poor's, Ratings Direct, "U.S. Regulated Electric Utilities' Annual Capital Spending is Poised to Eclipse $100 Billion.

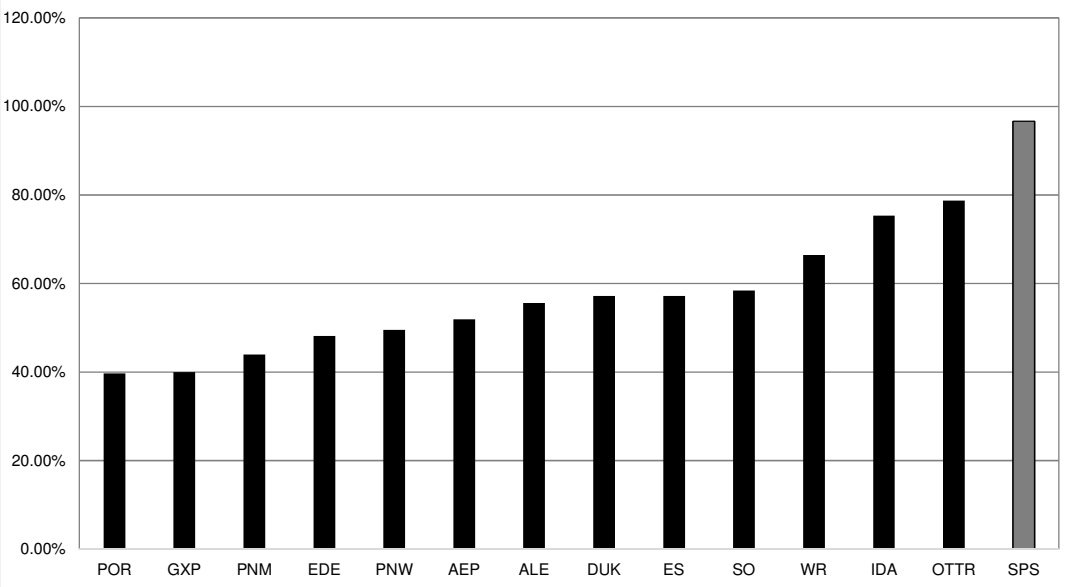
To the extent that SPS's rates do not permit it to recover its full cost of doing business, SPS will face increased recovery risk and thus increased pressure on its credit metrics.

Q. Have you conducted any analysis of SPS's projected capital expenditures relative to the proxy companies?

A. Yes. I compared the ratio of projected capital expenditures from 2015 through 2019 to net utility plant as of December 31, 2013, for SPS and each of the proxy group companies. As shown on Attachment AEB-12, the proxy group median capital expenditures to net utility plant is approximately 56%, whereas SPS's percentage of projected capital expenditures to net utility plant is approximately 97%, or approximately 1.74 times the median ratio of the proxy group companies. Chart AEB-7 demonstrates that SPS's projected capital spending for the period from 2015-2019 as a percentage of net utility plant is higher than the majority of the proxy group companies.

Chart AEB-7: Comparison of Capital Expenditures

2015 -2019



Q. What are your conclusions regarding the effect of SPS's capital spending requirements on its risk profile?

A. It is clear that on a relative basis, SPS's capital expenditure requirements are significant and could materially dilute SPS's current earnings and cash flows. It also is clear that the financial community recognizes the additional risks associated with substantial capital expenditures and that those risks are reflected in market valuation multiples. In my view, those factors support an ROE above the proxy group mean.

C. Risks Associated with Environmental Regulation

Q. Please describe the risks associated with the ownership of coal-fired generation.

A. More stringent environmental regulation of coal-fired generating units results in a need for utilities to increase investment in environmental upgrades to those generating facilities. Fitch Ratings ("Fitch") has stated that the increasing operating and capital costs that utilities may face as a result of environmental investments would be viewed as credit negative. In addition, Fitch notes that the increasing number of coal plant retirements will increase "a measure of risk for investors".[55] These factors result in increased risk associated with environmental regulation.

Q. What investment is SPS making to comply with environmental regulations?

A. In order to comply with the Environmental Protection Agency's final rule on Electric Generating Unit Mercury and Air Toxics Standards Rules, SPS will need to invest in pollution control equipment that will limit the emission of acid gases, mercury, and other pollutants.

[55] Source: SNL Financial, *Fitch: Coal retirements a credit risk, but one that can be managed*, March 2, 2012.

Q. Have credit rating agencies commented on the risks to credit quality for SPS associated with capital expenditures to comply with environmental requirements?

A. Yes. In a recent credit opinion, Moody's specifically recognizes the expected costs related to environmental regulations for SPS. In discussing SPS's "record-high" capital expenditures, Moody's mentions the investments that have been and may be required for SPS to meet environmental requirements.

> SPS's reliance on coal exposes SPS to air emission standards that mandate costly environmental controls. In 2013 power supplied from owned and purchased resources came 49% from coal, 39% from gas, and 12% from renewables. To comply with the Clear Air Interstate Rule, SPS installed low-NOX combustion control unit at its Tolk 2 plant in 2014. It may also need to retrofit Harrington Units 1 and 2 to comply with regional haze rules restricting NOx, SO2 and particulate matter.[56]

Q. What is your conclusion with respect to the effect of the risk associated with environmental regulation on SPS's Cost of Equity?

A. A significant percentage of SPS's generation portfolio could require additional investment in pollution control equipment to comply with proposed and future environmental regulations. It is clear that the financial community recognizes the additional risks to credit quality associated with the capital investment required to

[56] Moody's Investor Service, Credit Opinion: Southwestern Public Service, October 8, 2014, p. 2.

meet environmental regulations. In my view, those factors support an ROE above the proxy group mean.

IX. CAPITAL STRUCTURE

Q. What is SPS's proposed capital structure?

A. SPS's proposal is to establish a capital structure comprised of 53.97% common equity and 46.03% long-term debt.[57]

Q. Have you analyzed the capital structures of the proxy group companies?

A. Yes. My analysis of the proxy group's capital structures is provided in Attachment AEB-13. I calculated the mean and median proportions of common equity and long-term debt over the most recent eight quarters[58] for each of the proxy group companies at the operating company level. As shown in this attachment, the mean equity ratio for the proxy group is 53.72%. The equity ratios for the proxy group range from a low of 48.04% to a high of 63.05%. SPS's proposed equity ratio of 53.97% is well within the range established by the proxy group capital structures.

[57] Schedule G-1.

[58] The source data for this analysis is the operating company data provided in the FERC Form 1 reports. Due to the timing of those filings, my average capital structure analysis uses the quarterly capital structures reported for the proxy group companies for the period from the third quarter of 2012 through the end of the third quarter of 2014.

Q. What is your conclusion with regard to SPS's proposed capital structure?

A. The proposed equity ratio for SPS is similar to the mean and median equity ratios as the operating utilities held within the proxy group. As such, my conclusion is that SPS's proposed capital structure is reasonable.

X. CONCLUSIONS AND RECOMMENDATIONS

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

A. Based on the various quantitative analyses summarized in Table AEB-5 and the qualitative analyses presented in my Direct Testimony, I believe that a reasonable range of results for SPS is from 10.00% to 10.60%. In light of the regulatory, business and financial risks of SPS compared to the proxy group, it is my view that an ROE of 10.25% is reasonable and appropriate. An ROE of 10.25% reasonably balances the interests of customers and shareholders by enabling SPS to maintain its financial integrity and therefore its ability to attract capital at reasonable rates under a variety of economic and financial market conditions.

Table AEB-5: Summary of Analytical Results (Including Flotation Costs)

	Mean Low	Mean	Mean High
Constant Growth DCF – Projected EPS Growth			
30-Day Average	8.39%	9.26%	10.28%
90-Day Average	8.48%	9.35%	10.37%
180-Day Average	8.69%	9.56%	10.59%
360-Day Average	8.88%	9.76%	10.78%
New Mexico PRC Averaging Scenarios			
Growth estimates relied on:	**30-day**	**180-day**	**360-day**
Value Line	9.95%	10.26%	10.45%
First Call	8.67%	8.97%	9.16%
Zacks	8.55%	8.84%	9.06%
Value Line, Zacks & First Call	9.05%	9.36%	9.56%
Multi-Stage DCF			
	Mean Low	**Mean**	**Mean High**
30-Day Average	9.20%	9.42%	9.70%
90-Day Average	9.30%	9.52%	9.81%
180-Day Average	9.52%	9.75%	10.05%
360-Day Average	9.71%	9.95%	10.25%
CAPM			
	Current Risk-Free Rate (2.50%)	**2015-2016 Projected Risk-Free Rate (3.20%)**	**2016-2020 Projected Risk-Free Rate (4.90%)**
Bloomberg Beta	9.59%	9.83%	10.40%
Value Line Beta	10.50%	10.68%	11.10%

Table AEB-5 (con't): Summary of Analytical Results (Including Flotation Costs)

Bond Yield Plus Risk Premium			
	Current Risk-Free Rate (2.50%)	**2015-2016 Projected Risk-Free Rate (3.20%)**	**2016-2020 Projected Risk-Free Rate (4.90%)**
Risk Premium	9.70%	10.00%	10.72%

Q. What is your conclusion with respect to SPS's proposed capital structure?

A. My conclusion is that SPS's proposed capital structure consisting of 53.97% common equity and 46.03% long-term debt is reasonable compared to the mean and range established by the capital structures for the proxy group companies.

Q. Were Attachments AEB-1 through AEB-13 prepared by you or under your direct supervision and control?

A. Yes.

Q. Do you incorporate the Rate Filing Package schedules you sponsor or co-sponsor into your testimony?

A. Yes.

Q. Does this conclude your pre-filed Direct Testimony?

A. Yes.

VERIFICATION

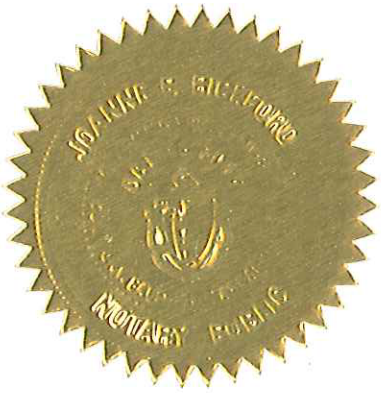
STATE OF MASSACHUSETTS)
) ss.
COUNTY OF MIDDLESEX)

ANN E. BULKLEY, first being sworn on her oath, states:

I am the witness identified in the preceding direct testimony. I have read the testimony and the accompanying attachments and am familiar with their contents. Based upon my personal knowledge, the facts stated in the testimony are true. In addition, in my judgment and based upon my professional experience, the opinions and conclusions stated in the testimony are true, valid, and accurate.

Ann E Bulkley
ANN E. BULKLEY

SUBSCRIBED AND SWORN TO before me this 20th day of May, 2015.



Joanne P. Bickford
Notary Public, State of Massachusetts
My Commission Expires: 10/15/15

JOANNE P. BICKFORD
NOTARY PUBLIC
COMMONWEALTH OF MASSACHUSETTS
MY COMMISSION EXPIRES
OCTOBER 15, 2015

Ann E. Bulkley
Vice President

Ms. Bulkley has nearly two decades of management and economic consulting experience in the energy industry. Ms. Bulkley has extensive state and federal regulatory experience on both electric and natural gas issues including rate of return, cost of equity and capital structure issues. Ms. Bulkley has advised clients seeking to acquire utility assets, providing valuation services including an understanding of regulation, market expected returns, and the assessment of utility risk factors. Ms. Bulkley has assisted clients with valuations of public utility and industrial properties for ratemaking, purchase and sale considerations, ad valorem tax assessments, and accounting and financial purposes. In addition, Ms. Bulkley has experience in the areas of contract and business unit valuation, strategic alliances, market restructuring and regulatory and litigation support.

REPRESENTATIVE PROJECT EXPERIENCE

Regulatory Analysis and Ratemaking

Ms. Bulkley has provided a range of advisory services relating to regulatory policy analysis and many aspects of utility ratemaking. Specific services have included: cost of capital and return on equity testimony, cost of service and rate design analysis and testimony, development of ratemaking strategies; development of merchant function exit strategies; analysis and program development to address residual energy supply and/or provider of last resort obligations; stranded costs assessment and recovery; performance-based ratemaking analysis and design; and many aspects of traditional utility ratemaking (e.g., rate design, rate base valuation).

Cost of Capital

Ms. Bulkley has provided expert testimony on the cost of capital testimony before several state regulatory commissions. In addition, Ms. Bulkley has prepared and provided supporting analysis for at least forty Federal and State regulatory proceedings over the past seven years. Ms. Bulkley's expert testimony experience includes:

- Northern States Power Company: Before the North Dakota Public Service Commission, provided expert testimony on the cost of capital for the company's North Dakota electric utility operations.
- WE Energies: Before the Michigan Public Service Commission, provided expert testimony in support of the company's cost of capital for its electric utility operations.
- Atmos Energy: Provided expert testimony in support of the company's return on equity and capital structure before the Public Utilities Commission for the State of Colorado.
- UNS Electric: Provided expert testimony in support of the company's return on equity and capital structure before the Arizona Corporation Commission.
- Portland Natural Gas Transmission: Provided testimony strategy as well as analytical support for cost of capital testimony before the Federal Energy Regulatory Commission.
- In addition to the specific cases listed above, Ms. Bulkley has provided testimony strategy as well as analytical support on cost of capital in several cases in the following states: Arizona, Colorado, Connecticut, Massachusetts, Minnesota, New Mexico, New York, North Carolina, South Carolina, South Dakota, Virginia, and Utah.

Valuation

Ms. Bulkley has provided valuation services to utility clients, unregulated generators and private equity clients for a variety of purposes including ratemaking, fair value, ad valorem tax, litigation and damages, and acquisition. Ms. Bulkley's appraisal practices are consistent with the national standards established by the Uniform Standards of Professional Appraisal practice. In addition, Ms. Bulkley has relied on other simulation based valuation methodologies.

Representative projects/clients have included:

- Northern Indiana Fuel and Light: Provided expert testimony regarding the fair value of the company's natural gas distribution system assets. Valuation relied on cost approach.
- Kokomo Gas: Provided expert testimony regarding the fair value of the company's natural gas distribution system assets. Valuation relied on cost approach.
- Prepared fair value rate base analyses for Northern Indiana Public Service Company for several electric rate proceedings. Valuation approaches used in this project included income, cost and comparable sales approaches.
- Confidential Utility Client: Prepared valuation of fossil and nuclear generation assets for financing purposes for regulated utility client.
- Prepared a valuation of a portfolio of generation assets for a large energy utility to be used for strategic planning purposes. Valuation approach included an income approach, a real options analysis and a risk analysis.
- Assisted clients in the restructuring of NUG contracts through the valuation of the underlying assets. Performed analysis to determine the option value of a plant in a competitively priced electricity market following the settlement of the NUG contract. .
- Prepared market valuations of several purchase power contracts for large electric utilities in the sale of purchase power contracts. Assignment included an assessment of the regional power market, analysis of the underlying purchase power contracts, a traditional discounted cash flow valuation approach, as well as a risk analysis. Analyzed bids from potential acquirers using income and risk analysis approached. Prepared an assessment of the credit issues and value at risk for the selling utility.
- Prepared appraisal of a portfolio of generating facilities for a large electric utility to be used for financing purposes.
- Prepared an appraisal of a fleet of fossil generating assets for a large electric utility to establish the value of assets transferred from utility property.
- Conducted due diligence on an electric transmission and distribution system as part of a buy-side due diligence team.
- Provided analytical support for and prepared appraisal reports of generation assets to be used in ad valorem tax disputes.
- Provided analytical support and prepared testimony regarding the valuation of electric distribution system assets in five communities in a condemnation proceeding.
- Valued purchase power agreements in the transfer of assets to a deregulated electric market.

Ratemaking

Ms. Bulkley has assisted several clients with analysis to support investor-owned and municipal utility clients in the preparation of rate cases. Sample engagements include:

- Assisted several investor-owned and municipal clients on cost allocation and rate design issues including the development of expert testimony supporting recommended rate alternatives.

- Worked with Canadian regulatory staff to establish filing requirements for a rate review of a newly regulated electric utility. Analyzed and evaluated rate application. Attended hearings and conducted investigation of rate application for regulatory staff. Prepared, supported and defended recommendations for revenue requirements and rates for the company. Developed rates for gas utility for transportation program and ancillary services.

Strategic and Financial Advisory Services

Ms. Bulkley has assisted several clients across North America with analytically based strategic planning, due diligence and financial advisory services.

Representative projects include:

- Preparation of feasibility studies for bond issuances for municipal and district steam clients.
- Assisted in the development of a generation strategy for an electric utility. Analyzed various NERC regions to identify potential market entry points. Evaluated potential competitors and alliance partners. Assisted in the development of gas and electric price forecasts. Developed a framework for the implementation of a risk management program.
- Assisted clients in identifying potential joint venture opportunities and alliance partners. Contacted interviewed, and evaluated potential alliance candidates based on company-established criteria for several LDCs and marketing companies. Worked with several LDCs and unregulated marketing companies to establish alliances to enter into the retail energy market. Prepared testimony in support of several merger cases and participated in the regulatory process to obtain approval for these mergers.
- Assisted clients in several buy-side due diligence efforts, providing regulatory insight and developing valuation recommendations for acquisitions of both electric and gas properties.

PROFESSIONAL HISTORY

Concentric Energy Advisors, Inc. (2002 – Present)
Vice President
Assistant Vice President
Project Manager

Navigant Consulting, Inc. (1995 – 2002)
Project Manager

Cahners Publishing Company (1995)
Economist

EDUCATION

M.A., Economics, Boston University, 1995
B.A., Economics and Finance, Simmons College, 1991
Certified General Appraiser licensed in the Commonwealth of Massachusetts and the State of Michigan

SPONSOR	DATE	CASE/APPLICANT	DOCKET /CASE NO.	SUBJECT
Arizona Corporation Commission				
UNS Electric	12/12	UNS Electric	D-E-04204A-12-0504	Return on Equity
UNS Electric	05/15	UNS Electric	D-E-	Return on Equity
Arkansas Corporation Commission				
Arkansas Oklahoma Gas Corporation	10/13	Arkansas Oklahoma Gas Corporation	Docket No. 13-078-U	Return on Equity
Colorado Public Utilities Commission				
Atmos Energy Corporation	05/13	Atmos Energy Corporation	Docket No. 13AL-0496G	Return on Equity
Atmos Energy Corporation	04/14	Atmos Energy Corporation	Docket No. 14AL-0300G	Return on Equity
Atmos Energy Corporation	05/15	Atmos Energy Corporation	Docket No. 15AL-____G	Return on Equity
Indiana Utility Regulatory Commission				
Kokomo Gas And Fuel Company	09/10	Kokomo Gas And Fuel Company	Docket No. 43942	Fair Value
Northern Indiana Fuel And Light Company, Inc.	09/10	Northern Indiana Fuel And Light Company, Inc.	Docket No. 43943	Fair Value
Massachusetts Department of Public Utilities				
Unitil Corporation	01/04	Fitchburg Gas and Electric	DTE 03-52	Integrated Resource Plan; Gas Demand Forecast
Michigan Public Service Commission				
Wisconsin Electric Power Company	12/11	Wisconsin Electric Power Company	Case No. U-16830	Return on Equity
Michigan Tax Tribunal				
Covert Township	7/14	New Covert Generating Co., LLC.	Docket No. 399578	Valuation of Electric Generation Assets
New York State Public Service Commission				
New York State Gas & Electric/ Rochester Gas & Electric	5/15	New York State Gas & Electric/ Rochester Gas & Electric	C-15-E-___	Return on Equity
North Dakota Public Service Commission				
Northern States Power Company	12/10	Northern States Power Company	C-PU-10-657	Return on Equity

SPONSOR	DATE	CASE/APPLICANT	DOCKET /CASE NO.	SUBJECT
Northern States Power Company	12/12	Northern States Power Company	C-PU-12-813	Return on Equity
Oklahoma Corporation Commission				
Arkansas Oklahoma Gas Corporation	01/13	Arkansas Oklahoma Gas Corporation	Cause No. PUD 201200236	Return on Equity
Public Utility Commission of Texas				
Southwestern Public Service Company	01/14	Southwestern Public Service Company	Docket No. 42004	Return on Equity
South Dakota Public Utilities Commission				
Northern States Power Company	06/14	Northern States Power Company	Docket No. EL14-058	Return on Equity

Southwestern Public Service Company

Constant Growth DCF Results

30-DAY CONSTANT GROWTH DCF

Company	Ticker	[1] Annualized Dividend	[2] Stock Price	[3] Dividend Yield	[4] Expected Dividend Yield	[5] Value Line Earnings Growth	[6] Yahoo! Finance Earnings Growth	[7] Zacks Earnings Growth	[8] Average Earnings Growth	[9] Low ROE	[10] Mean ROE	[11] High ROE
ALLETE, Inc.	ALE	$2.02	$56.26	3.59%	3.81%	6.00%	6.00%	N/A	6.00%	9.81%	9.81%	9.81%
American Electric Power Company, Inc.	AEP	$2.12	$60.95	3.48%	3.64%	4.50%	5.05%	4.80%	4.78%	8.13%	8.43%	8.70%
Duke Energy Corporation	DUK	$3.18	$84.07	3.78%	3.96%	5.00%	4.41%	4.70%	4.70%	8.36%	8.66%	8.97%
Empire District Electric Company	EDE	$1.04	$28.31	3.67%	3.80%	4.00%	3.00%	3.00%	3.33%	6.78%	7.13%	7.82%
Eversource Energy	ES	$1.67	$54.19	3.08%	3.29%	8.00%	6.25%	6.40%	6.88%	9.52%	10.18%	11.33%
Great Plains Energy Inc.	GXP	$0.98	$28.41	3.45%	3.63%	6.00%	4.60%	4.80%	5.13%	8.21%	8.76%	9.66%
IDACORP, Inc.	IDA	$1.88	$65.84	2.86%	2.94%	1.50%	3.00%	4.00%	2.83%	4.40%	5.77%	6.97%
Otter Tail Corporation	OTTR	$1.23	$31.79	3.87%	4.29%	15.50%	6.00%	N/A	10.75%	10.10%	15.04%	19.97%
Pinnacle West Capital Corporation	PNW	$2.38	$68.58	3.47%	3.61%	4.00%	4.20%	4.00%	4.07%	7.61%	7.68%	7.82%
PNM Resources, Inc.	PNM	$0.80	$29.59	2.70%	2.97%	11.00%	9.86%	8.90%	9.92%	11.84%	12.89%	14.00%
Portland General Electric Company	POR	$1.12	$38.62	2.90%	3.06%	5.00%	5.26%	5.90%	5.39%	8.04%	8.44%	8.97%
Southern Company	SO	$2.10	$49.06	4.28%	4.44%	4.00%	3.40%	3.60%	3.67%	7.83%	8.10%	8.45%
Westar Energy, Inc.	WR	$1.40	$41.50	3.37%	3.52%	6.00%	3.37%	3.80%	4.39%	6.86%	7.91%	9.58%
MEAN				**3.42%**	**3.61%**	**6.19%**	**4.95%**	**4.90%**	**5.53%**	**8.27%**	**9.14%**	**10.16%**
Flotation Cost										**0.12%**	**0.12%**	**0.12%**
Flotation Cost Adjusted DCF Result										**8.39%**	**9.26%**	**10.28%**

Notes:
[1] Source: Bloomberg Professional
[2] Source: Bloomberg Professional, equals 30-day average as of February 27, 2015
[3] Equals [1] / [2]
[4] Equals [3] x (1 + [8])
[5] Source: Value Line
[6] Source: Yahoo! Finance
[7] Source: Zacks
[8] Equals Average ([5], [6], [7])
[9] Equals [3] x (1 + Minimum ([5], [6], [7]) + Minimum ([5], [6], [7])
[10] Equals [4] + [8]
[11] Equals [3] x (1 + Maximum ([5], [6], [7]) + Maximum ([5], [6], [7])

Southwestern Public Service Company

Constant Growth DCF Results

90-DAY CONSTANT GROWTH DCF

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
Company	Ticker	Annualized Dividend	Stock Price	Dividend Yield	Expected Dividend Yield	Value Line Earnings Growth	Yahoo! Finance Earnings Growth	Zacks Earnings Growth	Average Earnings Growth	Low ROE	Mean ROE	High ROE
ALLETE, Inc.	ALE	$2.02	$53.86	3.75%	3.98%	6.00%	6.00%	N/A	6.00%	9.98%	9.98%	9.98%
American Electric Power Company, Inc.	AEP	$2.12	$59.41	3.57%	3.74%	4.50%	5.05%	4.80%	4.78%	8.23%	8.52%	8.80%
Duke Energy Corporation	DUK	$3.18	$82.74	3.84%	4.02%	5.00%	4.41%	4.70%	4.70%	8.42%	8.73%	9.04%
Empire District Electric Company	EDE	$1.04	$28.44	3.66%	3.78%	4.00%	3.00%	3.00%	3.33%	6.77%	7.11%	7.80%
Eversource Energy	ES	$1.67	$52.20	3.20%	3.42%	8.00%	6.25%	6.40%	6.88%	9.65%	10.30%	11.46%
Great Plains Energy Inc.	GXP	$0.98	$27.53	3.56%	3.74%	6.00%	4.60%	4.80%	5.13%	8.32%	8.88%	9.77%
IDACORP, Inc.	IDA	$1.88	$64.19	2.93%	3.01%	1.50%	3.00%	4.00%	2.83%	4.47%	5.85%	7.05%
Otter Tail Corporation	OTTR	$1.23	$30.69	4.01%	4.44%	15.50%	6.00%	N/A	10.75%	10.25%	15.19%	20.13%
Pinnacle West Capital Corporation	PNW	$2.38	$65.83	3.62%	3.76%	4.00%	4.20%	4.00%	4.07%	7.76%	7.83%	7.97%
PNM Resources, Inc.	PNM	$0.80	$29.24	2.74%	3.01%	11.00%	9.86%	8.90%	9.92%	11.88%	12.93%	14.04%
Portland General Electric Company	POR	$1.12	$37.65	2.98%	3.14%	5.00%	5.26%	5.90%	5.39%	8.12%	8.52%	9.05%
Southern Company	SO	$2.10	$48.38	4.34%	4.50%	4.00%	3.40%	3.60%	3.67%	7.89%	8.17%	8.51%
Westar Energy, Inc.	WR	$1.40	$40.06	3.49%	3.65%	6.00%	3.37%	3.80%	4.39%	6.98%	8.04%	9.70%
MEAN				**3.51%**	**3.71%**	**6.19%**	**4.95%**	**4.90%**	**5.53%**	**8.36%**	**9.23%**	**10.25%**
Flotation Cost										**0.12%**	**0.12%**	**0.12%**
Flotation Cost Adjusted DCF Result										**8.48%**	**9.35%**	**10.37%**

Notes:

[1] Source: Bloomberg Professional
[2] Source: Bloomberg Professional, equals 90-day average as of February 27, 2015
[3] Equals [1] / [2]
[4] Equals [3] x (1 + [8])
[5] Source: Value Line
[6] Source: Yahoo! Finance
[7] Source: Zacks
[8] Equals Average ([5], [6], [7])
[9] Equals [3] x (1 + Minimum ([5], [6], [7]) + Minimum ([5], [6], [7])
[10] Equals [4] + [8]
[11] Equals [3] x (1 + Maximum ([5], [6], [7]) + Maximum ([5], [6], [7])

Southwestern Public Service Company

Constant Growth DCF Results

180-DAY CONSTANT GROWTH DCF

Company	Ticker	[1] Annualized Dividend	[2] Stock Price	[3] Dividend Yield	[4] Expected Dividend Yield	[5] Value Line Earnings Growth	[6] Yahoo! Finance Earnings Growth	[7] Zacks Earnings Growth	[8] Average Earnings Growth	[9] Low ROE	[10] Mean ROE	[11] High ROE
ALLETE, Inc.	ALE	$2.02	$50.95	3.96%	4.20%	6.00%	6.00%	N/A	6.00%	10.20%	10.20%	10.20%
American Electric Power Company, Inc.	AEP	$2.12	$56.29	3.77%	3.95%	4.50%	5.05%	4.80%	4.78%	8.44%	8.73%	9.01%
Duke Energy Corporation	DUK	$3.18	$78.08	4.07%	4.26%	5.00%	4.41%	4.70%	4.70%	8.66%	8.97%	9.28%
Empire District Electric Company	EDE	$1.04	$26.74	3.89%	4.02%	4.00%	3.00%	3.00%	3.33%	7.01%	7.35%	8.04%
Eversource Energy	ES	$1.67	$48.78	3.42%	3.66%	8.00%	6.25%	6.40%	6.88%	9.89%	10.54%	11.70%
Great Plains Energy Inc.	GXP	$0.98	$26.45	3.71%	3.90%	6.00%	4.60%	4.80%	5.13%	8.48%	9.03%	9.93%
IDACORP, Inc.	IDA	$1.88	$59.74	3.15%	3.24%	1.50%	3.00%	4.00%	2.83%	4.69%	6.07%	7.27%
Otter Tail Corporation	OTTR	$1.23	$29.53	4.17%	4.61%	15.50%	6.00%	N/A	10.75%	10.42%	15.36%	20.31%
Pinnacle West Capital Corporation	PNW	$2.38	$60.83	3.91%	4.07%	4.00%	4.20%	4.00%	4.07%	8.07%	8.14%	8.28%
PNM Resources, Inc.	PNM	$0.80	$28.01	2.86%	3.14%	11.00%	9.86%	8.90%	9.92%	12.01%	13.06%	14.17%
Portland General Electric Company	POR	$1.12	$35.46	3.16%	3.33%	5.00%	5.26%	5.90%	5.39%	8.32%	8.72%	9.25%
Southern Company	SO	$2.10	$46.28	4.54%	4.70%	4.00%	3.40%	3.60%	3.67%	8.09%	8.37%	8.72%
Westar Energy, Inc.	WR	$1.40	$38.09	3.68%	3.84%	6.00%	3.37%	3.80%	4.39%	7.17%	8.23%	9.90%
MEAN				**3.71%**	**3.92%**	**6.19%**	**4.95%**	**4.90%**	**5.53%**	**8.57%**	**9.44%**	**10.47%**
Flotation Cost										**0.12%**	**0.12%**	**0.12%**
Flotation Cost Adjusted DCF Result										**8.69%**	**9.56%**	**10.59%**

Notes:

[1] Source: Bloomberg Professional
[2] Source: Bloomberg Professional, equals 180-day average as of February 27, 2015
[3] Equals [1] / [2]
[4] Equals [3] x (1 + [8])
[5] Source: Value Line
[6] Source: Yahoo! Finance
[7] Source: Zacks
[8] Equals Average ([5], [6], [7])
[9] Equals [3] x (1 + Minimum ([5], [6], [7]) + Minimum ([5], [6], [7])
[10] Equals [4] + [8]
[11] Equals [3] x (1 + Maximum ([5], [6], [7]) + Maximum ([5], [6], [7])

Southwestern Public Service Company

Constant Growth DCF Results

360-DAY CONSTANT GROWTH DCF

Company	Ticker	[1] Annualized Dividend	[2] Stock Price	[3] Dividend Yield	[4] Expected Dividend Yield	[5] Value Line Earnings Growth	[6] Yahoo! Finance Earnings Growth	[7] Zacks Earnings Growth	[8] Average Earnings Growth	[9] Low ROE	[10] Mean ROE	[11] High ROE
ALLETE, Inc.	ALE	$2.02	$50.44	4.00%	4.24%	6.00%	6.00%	N/A	6.00%	10.24%	10.24%	10.24%
American Electric Power Company, Inc.	AEP	$2.12	$52.46	4.04%	4.23%	4.50%	5.05%	4.80%	4.78%	8.72%	9.02%	9.29%
Duke Energy Corporation	DUK	$3.18	$74.20	4.29%	4.49%	5.00%	4.41%	4.70%	4.70%	8.88%	9.19%	9.50%
Empire District Electric Company	EDE	$1.04	$24.95	4.17%	4.31%	4.00%	3.00%	3.00%	3.33%	7.29%	7.64%	8.34%
Eversource Energy	ES	$1.67	$46.18	3.62%	3.87%	8.00%	6.25%	6.40%	6.88%	10.09%	10.75%	11.91%
Great Plains Energy Inc.	GXP	$0.98	$25.66	3.82%	4.02%	6.00%	4.60%	4.80%	5.13%	8.59%	9.15%	10.05%
IDACORP, Inc.	IDA	$1.88	$56.34	3.34%	3.43%	1.50%	3.00%	4.00%	2.83%	4.89%	6.26%	7.47%
Otter Tail Corporation	OTTR	$1.23	$29.36	4.19%	4.64%	15.50%	6.00%	N/A	10.75%	10.44%	15.39%	20.34%
Pinnacle West Capital Corporation	PNW	$2.38	$57.66	4.13%	4.30%	4.00%	4.20%	4.00%	4.07%	8.29%	8.36%	8.50%
PNM Resources, Inc.	PNM	$0.80	$26.61	3.01%	3.30%	11.00%	9.86%	8.90%	9.92%	12.17%	13.22%	14.34%
Portland General Electric Company	POR	$1.12	$33.12	3.38%	3.56%	5.00%	5.26%	5.90%	5.39%	8.55%	8.95%	9.48%
Southern Company	SO	$2.10	$44.29	4.74%	4.92%	4.00%	3.40%	3.60%	3.67%	8.30%	8.58%	8.93%
Westar Energy, Inc.	WR	$1.40	$35.72	3.92%	4.09%	6.00%	3.37%	3.80%	4.39%	7.42%	8.48%	10.15%
MEAN				**3.90%**	**4.11%**	**6.19%**	**4.95%**	**4.90%**	**5.53%**	**8.76%**	**9.63%**	**10.66%**
Flotation Cost										**0.12%**	**0.12%**	**0.12%**
Flotation Cost Adjusted DCF Result										**8.88%**	**9.76%**	**10.78%**

Notes:
[1] Source: Bloomberg Professional
[2] Source: Bloomberg Professional, equals 360-day average as of February 27, 2015
[3] Equals [1] / [2]
[4] Equals [3] x (1 + [8])
[5] Source: Value Line
[6] Source: Yahoo! Finance
[7] Source: Zacks
[8] Equals Average ([5], [6], [7])
[9] Equals [3] x (1 + Minimum ([5], [6], [7]) + Minimum ([5], [6], [7])
[10] Equals [4] + [8]
[11] Equals [3] x (1 + Maximum ([5], [6], [7]) + Maximum ([5], [6], [7])

Southwestern Public Service Company

Calculation of Retention Growth Rate

Value Line Electric Utility Universe
Calculation of the Projected Earnings Retention Growth Rate

		[1]	[2]	[3]	[4]	[5]
		EPS	DPS	ROE	Retention Rate	Retention Growth
ALLETE, Inc.	ALE	$ 3.75	$ 2.30	9.00%	38.67%	3.48%
American Electric Power Company, Inc.	AEP	$ 4.00	$ 2.50	10.00%	37.50%	3.75%
Duke Energy Corporation	DUK	$ 5.50	$ 3.55	8.00%	35.45%	2.84%
Empire District Electric Company	EDE	$ 1.75	$ 1.15	9.00%	34.29%	3.09%
Eversource Energy	ES	$ 3.75	$ 2.10	9.50%	44.00%	4.18%
Great Plains Energy Inc.	GXP	$ 2.00	$ 1.20	7.50%	40.00%	3.00%
IDACORP, Inc.	IDA	$ 3.75	$ 2.20	8.50%	41.33%	3.51%
Otter Tail Corporation	OTTR	$ 2.30	$ 1.30	12.50%	43.48%	5.43%
Pinnacle West Capital Corporation	PNW	$ 4.25	$ 2.80	9.50%	34.12%	3.24%
PNM Resources, Inc.	PNM	$ 2.35	$ 1.15	9.50%	51.06%	4.85%
Portland General Electric Company	POR	$ 2.50	$ 1.40	9.00%	44.00%	3.96%
Southern Company	SO	$ 3.50	$ 2.43	13.50%	30.57%	4.13%
Westar Energy, Inc.	WR	$ 2.90	$ 1.60	9.50%	44.83%	4.26%
					Mean	3.82%

Sources: Value Line; dated Dec. 19, 2014, Jan. 30, 2015, and Feb. 20, 2015.

Southwestern Public Service Company

NMPRC DCF Calculation

NMPRC AVERAGING CONVENTION - 30 DAY CONSTANT GROWTH DCF

Company		[1] Annualized Dividend	[2] Stock Price	[3] Dividend Yield	[4] Value Line EPS Growth	[5] First Call EPS Growth	[6] Zacks EPS Growth	[7] Sustainable Growth Estimate	[8] Average Growth Rate	[9] Expected Dividend Yield (Zacks)	[10] Expected Dividend Yield (Value Line)	[11] Expected Dividend Yield (First Call)	[12] Expected Dividend Yield (Sustainable Growth)	[13] Expected Dividend Yield (Average Growth Rate)
ALLETE, Inc.	ALE	$2.02	$56.26	3.59%	6.00%	6.00%	N/A	3.48%	5.16%	N/A	3.81%	3.81%	3.72%	3.78%
American Electric Power Company, Inc.	AEP	$2.12	$60.95	3.48%	4.50%	5.05%	4.80%	3.75%	4.53%	3.65%	3.63%	3.65%	3.61%	3.64%
Duke Energy Corporation	DUK	$3.18	$84.07	3.78%	5.00%	4.41%	4.70%	2.84%	4.24%	3.96%	3.97%	3.95%	3.89%	3.94%
Empire District Electric Company	EDE	$1.04	$28.31	3.67%	4.00%	3.00%	3.00%	3.09%	3.27%	3.78%	3.82%	3.78%	3.79%	3.79%
Eversource Energy	ES	$1.67	$54.19	3.08%	8.00%	6.25%	6.40%	4.18%	6.21%	3.28%	3.33%	3.27%	3.21%	3.27%
Great Plains Energy Inc.	GXP	$0.98	$28.41	3.45%	6.00%	4.60%	4.80%	3.00%	4.60%	3.61%	3.66%	3.61%	3.55%	3.61%
IDACORP, Inc.	IDA	$1.88	$65.84	2.86%	1.50%	3.00%	4.00%	3.51%	3.00%	2.97%	2.90%	2.94%	2.96%	2.94%
Otter Tail Corporation	OTTR	$1.23	$31.79	3.87%	15.50%	6.00%	N/A	5.43%	8.98%	N/A	4.47%	4.10%	4.08%	4.22%
Pinnacle West Capital Corporation	PNW	$2.38	$68.58	3.47%	4.00%	4.20%	4.00%	3.24%	3.86%	3.61%	3.61%	3.62%	3.58%	3.60%
PNM Resources, Inc.	PNM	$0.80	$29.59	2.70%	11.00%	9.86%	8.90%	4.85%	8.65%	2.94%	3.00%	2.97%	2.83%	2.94%
Portland General Electric Company	POR	$1.12	$38.62	2.90%	5.00%	5.26%	5.90%	3.96%	5.03%	3.07%	3.04%	3.05%	3.01%	3.05%
Southern Company	SO	$2.10	$49.06	4.28%	4.00%	3.40%	3.60%	4.13%	3.78%	4.43%	4.45%	4.43%	4.46%	4.44%
Westar Energy, Inc.	WR	$1.40	$41.50	3.37%	6.00%	3.37%	3.80%	4.26%	4.36%	3.50%	3.58%	3.49%	3.52%	3.52%
		PROXY GROUP MEAN		3.42%	6.19%	4.95%	4.90%	3.82%	5.05%	3.53%	3.64%	3.59%	3.55%	3.60%

NMPRC ROE SCENARIOS	ROE Result	Flotation Cost Adjusted ROE
ROE Using Value Line Growth Estimate	9.83%	9.95%
ROE Using Yahoo! Finance Growth Estimate	8.54%	8.67%
ROE Using Zacks Growth Estimate	8.43%	8.55%
ROE Using Sustainable Growth	7.38%	7.50%
ROE using Average of Zacks, Value Line and First Call	8.93%	9.05%
ROE using Average of Value Line and the Average Growth Rate	9.24%	9.36%
ROE using Average of Yahoo! Finance and the Average Growth Rate	8.59%	8.72%
ROE using Average of Zacks and the Average Growth Rate	8.54%	8.66%
ROE using Average of Sustainable Growth and the Average Growth Rate	8.01%	8.13%
ROE Using Average of Value Line and Sustainable Growth	8.60%	8.72%
ROE Using Average of Zacks and Sustainable Growth	7.90%	8.02%

Notes

[1] Source: Bloomberg Professional
[2] Source: Bloomberg Professional, equals 30-day average as of February 27, 2015
[3] Equals Col. [1]/Col. [2]
[4] Source: Value Line
[5] Source: Yahoo! Finance
[6] Source: Zacks
[7] Source: SPS Attachment AEB-3, Col. 5
[8] Equals Avg (Col. [4], [5], [6], [7])
[9] Equals (Col. [3] * (1+ Col. [6]))
[10] Equals (Col. [3] * (1+ Col. [4]))
[11] Equals (Col. [3] * (1+ Col. [5]))
[12] Equals (Col. [3] * (1+ Col. [7]))
[13] Equals (Col. [3] * (1+ Col. [8]))

Southwestern Public Service Company

NMPRC DCF Calculation

NMPRC AVERAGING CONVENTION - 90 DAY CONSTANT GROWTH DCF

Company		[1] Annualized Dividend	[2] Stock Price	[3] Dividend Yield	[4] Value Line EPS Growth	[5] First Call EPS Growth	[6] Zacks EPS Growth	[7] Sustainable Growth Estimate	[8] Average Growth Rate	[9] Expected Dividend Yield (Zacks)	[10] Expected Dividend Yield (Value Line)	[11] Expected Dividend Yield (First Call)	[12] Expected Dividend Yield (Sustainable Growth)	[13] Expected Dividend Yield (Average Growth Rate)
ALLETE, Inc.	ALE	$2.02	$53.86	3.75%	6.00%	6.00%	N/A	3.48%	5.16%	N/A	3.98%	3.98%	3.88%	3.94%
American Electric Power Company, Inc.	AEP	$2.12	$59.41	3.57%	4.50%	5.05%	4.80%	3.75%	4.53%	3.74%	3.73%	3.75%	3.70%	3.73%
Duke Energy Corporation	DUK	$3.18	$82.74	3.84%	5.00%	4.41%	4.70%	2.84%	4.24%	4.02%	4.04%	4.01%	3.95%	4.01%
Empire District Electric Company	EDE	$1.04	$28.44	3.66%	4.00%	3.00%	3.00%	3.09%	3.27%	3.77%	3.80%	3.77%	3.77%	3.78%
Eversource Energy	ES	$1.67	$52.20	3.20%	8.00%	6.25%	6.40%	4.18%	6.21%	3.40%	3.46%	3.40%	3.33%	3.40%
Great Plains Energy Inc.	GXP	$0.98	$27.53	3.56%	6.00%	4.60%	4.80%	3.00%	4.60%	3.73%	3.77%	3.72%	3.67%	3.72%
IDACORP, Inc.	IDA	$1.88	$64.19	2.93%	1.50%	3.00%	4.00%	3.51%	3.00%	3.05%	2.97%	3.02%	3.03%	3.02%
Otter Tail Corporation	OTTR	$1.23	$30.69	4.01%	15.50%	6.00%	N/A	5.43%	8.98%	N/A	4.63%	4.25%	4.23%	4.37%
Pinnacle West Capital Corporation	PNW	$2.38	$65.83	3.62%	4.00%	4.20%	4.00%	3.24%	3.86%	3.76%	3.76%	3.77%	3.73%	3.76%
PNM Resources, Inc.	PNM	$0.80	$29.24	2.74%	11.00%	9.86%	8.90%	4.85%	8.65%	2.98%	3.04%	3.01%	2.87%	2.97%
Portland General Electric Company	POR	$1.12	$37.65	2.98%	5.00%	5.26%	5.90%	3.96%	5.03%	3.15%	3.12%	3.13%	3.09%	3.12%
Southern Company	SO	$2.10	$48.38	4.34%	4.00%	3.40%	3.60%	4.13%	3.78%	4.50%	4.51%	4.49%	4.52%	4.50%
Westar Energy, Inc.	WR	$1.40	$40.06	3.49%	6.00%	3.37%	3.80%	4.26%	4.36%	3.63%	3.70%	3.61%	3.64%	3.65%
		PROXY GROUP MEAN		3.51%	6.19%	4.95%	4.90%	3.82%	5.05%	3.61%	3.73%	3.68%	3.65%	3.69%

NMPRC ROE SCENARIOS	ROE Result	Flotation Cost Adjusted ROE
ROE Using Value Line Growth Estimate	9.92%	10.05%
ROE Using Yahoo! Finance Growth Estimate	8.64%	8.76%
ROE Using Zacks Growth Estimate	8.51%	8.63%
ROE Using Sustainable Growth	7.47%	7.59%
ROE using Average of Zacks, Value Line and First Call	9.02%	9.15%
ROE using Average of Value Line and the Average Growth Rate	9.33%	9.45%
ROE using Average of Yahoo! Finance and the Average Growth Rate	8.69%	8.81%
ROE using Average of Zacks and the Average Growth Rate	8.63%	8.75%
ROE using Average of Sustainable Growth and the Average Growth Rate	8.11%	8.23%
ROE Using Average of Value Line and Sustainable Growth	8.70%	8.82%
ROE Using Average of Zacks and Sustainable Growth	7.99%	8.11%

Notes

[1] Source: Bloomberg Professional
[2] Source: Bloomberg Professional, equals 90-day average as of February 27, 2015
[3] Equals Col. [1]/Col. [2]
[4] Source: Value Line
[5] Source: Yahoo! Finance
[6] Source: Zacks
[7] Source: SPS Attachment AEB-3, Col. 5
[8] Equals Avg (Col. [4], [5], [6], [7])
[9] Equals (Col. [3] * (1+ Col. [6]))
[10] Equals (Col. [3] * (1+ Col. [4]))
[11] Equals (Col. [3] * (1+ Col. [5]))
[12] Equals (Col. [3] * (1+ Col. [7]))
[13] Equals (Col. [3] * (1+ Col. [8]))

Southwestern Public Service Company

NMPRC DCF Calculation

NMPRC AVERAGING CONVENTION - 180 DAY CONSTANT GROWTH DCF

Company		[1] Annualized Dividend	[2] Stock Price	[3] Dividend Yield	[4] Value Line EPS Growth	[5] First Call EPS Growth	[6] Zacks EPS Growth	[7] Sustainable Growth Estimate	[8] Average Growth Rate	[9] Expected Dividend Yield (Zacks)	[10] Expected Dividend Yield (Value Line)	[11] Expected Dividend Yield (First Call)	[12] Expected Dividend Yield (Sustainable Growth)	[13] Expected Dividend Yield (Average Growth Rate)
ALLETE, Inc.	ALE	$2.02	$50.95	3.96%	6.00%	6.00%	N/A	3.48%	5.16%	N/A	4.20%	4.20%	4.10%	4.17%
American Electric Power Company, Inc.	AEP	$2.12	$56.29	3.77%	4.50%	5.05%	4.80%	3.75%	4.53%	3.95%	3.94%	3.96%	3.91%	3.94%
Duke Energy Corporation	DUK	$3.18	$78.08	4.07%	5.00%	4.41%	4.70%	2.84%	4.24%	4.26%	4.28%	4.25%	4.19%	4.25%
Empire District Electric Company	EDE	$1.04	$26.74	3.89%	4.00%	3.00%	3.00%	3.09%	3.27%	4.01%	4.04%	4.01%	4.01%	4.02%
Eversource Energy	ES	$1.67	$48.78	3.42%	8.00%	6.25%	6.40%	4.18%	6.21%	3.64%	3.70%	3.64%	3.57%	3.64%
Great Plains Energy Inc.	GXP	$0.98	$26.45	3.71%	6.00%	4.60%	4.80%	3.00%	4.60%	3.88%	3.93%	3.88%	3.82%	3.88%
IDACORP, Inc.	IDA	$1.88	$59.74	3.15%	1.50%	3.00%	4.00%	3.51%	3.00%	3.27%	3.19%	3.24%	3.26%	3.24%
Otter Tail Corporation	OTTR	$1.23	$29.53	4.17%	15.50%	6.00%	N/A	5.43%	8.98%	N/A	4.81%	4.42%	4.39%	4.54%
Pinnacle West Capital Corporation	PNW	$2.38	$60.83	3.91%	4.00%	4.20%	4.00%	3.24%	3.86%	4.07%	4.07%	4.08%	4.04%	4.06%
PNM Resources, Inc.	PNM	$0.80	$28.01	2.86%	11.00%	9.86%	8.90%	4.85%	8.65%	3.11%	3.17%	3.14%	2.99%	3.10%
Portland General Electric Company	POR	$1.12	$35.46	3.16%	5.00%	5.26%	5.90%	3.96%	5.03%	3.35%	3.32%	3.32%	3.28%	3.32%
Southern Company	SO	$2.10	$46.28	4.54%	4.00%	3.40%	3.60%	4.13%	3.78%	4.70%	4.72%	4.69%	4.73%	4.71%
Westar Energy, Inc.	WR	$1.40	$38.09	3.68%	6.00%	3.37%	3.80%	4.26%	4.36%	3.81%	3.90%	3.80%	3.83%	3.84%
		PROXY GROUP MEAN		3.71%	6.19%	4.95%	4.90%	3.82%	5.05%	3.82%	3.94%	3.89%	3.85%	3.90%

NMPRC ROE SCENARIOS	ROE Result	Flotation Cost Adjusted ROE
ROE Using Value Line Growth Estimate	10.14%	10.26%
ROE Using Yahoo! Finance Growth Estimate	8.85%	8.97%
ROE Using Zacks Growth Estimate	8.72%	8.84%
ROE Using Sustainable Growth	7.68%	7.80%
ROE using Average of Zacks, Value Line and First Call	9.24%	9.36%
ROE using Average of Value Line and the Average Growth Rate	9.54%	9.66%
ROE using Average of Yahoo! Finance and the Average Growth Rate	8.90%	9.02%
ROE using Average of Zacks and the Average Growth Rate	8.84%	8.96%
ROE using Average of Sustainable Growth and the Average Growth Rate	8.31%	8.44%
ROE Using Average of Value Line and Sustainable Growth	8.91%	9.03%
ROE Using Average of Zacks and Sustainable Growth	8.20%	8.32%

Notes

[1] Source: Bloomberg Professional
[2] Source: Bloomberg Professional, equals 180-day average as of February 27, 2015
[3] Equals Col. [1]/Col. [2]
[4] Source: Value Line
[5] Source: Yahoo! Finance
[6] Source: Zacks
[7] Source: SPS Attachment AEB-3, Col. 5
[8] Equals Avg (Col. [4], [5], [6], [7])
[9] Equals (Col. [3] * (1+ Col. [6]))
[10] Equals (Col. [3] * (1+ Col. [4]))
[11] Equals (Col. [3] * (1+ Col. [5]))
[12] Equals (Col. [3] * (1+ Col. [7]))
[13] Equals (Col. [3] * (1+ Col. [8]))

Southwestern Public Service Company

NMPRC DCF Calculation

NMPRC AVERAGING CONVENTION - 360 DAY CONSTANT GROWTH DCF

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]
Company		Annualized Dividend	Stock Price	Dividend Yield	Value Line EPS Growth	First Call EPS Growth	Zacks EPS Growth	Sustainable Growth Estimate	Average Growth Rate	Expected Dividend Yield (Zacks)	Expected Dividend Yield (Value Line)	Expected Dividend Yield (First Call)	Expected Dividend Yield (Sustainable Growth)	Expected Dividend Yield (Average Growth Rate)
ALLETE, Inc.	ALE	$2.02	$50.44	4.00%	6.00%	6.00%	N/A	3.48%	5.16%	N/A	4.24%	4.24%	4.14%	4.21%
American Electric Power Company, Inc.	AEP	$2.12	$52.46	4.04%	4.50%	5.05%	4.80%	3.75%	4.53%	4.23%	4.22%	4.24%	4.19%	4.22%
Duke Energy Corporation	DUK	$3.18	$74.20	4.29%	5.00%	4.41%	4.70%	2.84%	4.24%	4.49%	4.50%	4.47%	4.41%	4.47%
Empire District Electric Company	EDE	$1.04	$24.95	4.17%	4.00%	3.00%	3.00%	3.09%	3.27%	4.29%	4.34%	4.29%	4.30%	4.31%
Eversource Energy	ES	$1.67	$46.18	3.62%	8.00%	6.25%	6.40%	4.18%	6.21%	3.85%	3.91%	3.84%	3.77%	3.84%
Great Plains Energy Inc.	GXP	$0.98	$25.66	3.82%	6.00%	4.60%	4.80%	3.00%	4.60%	4.00%	4.05%	3.99%	3.93%	3.99%
IDACORP, Inc.	IDA	$1.88	$56.34	3.34%	1.50%	3.00%	4.00%	3.51%	3.00%	3.47%	3.39%	3.44%	3.45%	3.44%
Otter Tail Corporation	OTTR	$1.23	$29.36	4.19%	15.50%	6.00%	N/A	5.43%	8.98%	N/A	4.84%	4.44%	4.42%	4.57%
Pinnacle West Capital Corporation	PNW	$2.38	$57.66	4.13%	4.00%	4.20%	4.00%	3.24%	3.86%	4.29%	4.29%	4.30%	4.26%	4.29%
PNM Resources, Inc.	PNM	$0.80	$26.61	3.01%	11.00%	9.86%	8.90%	4.85%	8.65%	3.27%	3.34%	3.30%	3.15%	3.27%
Portland General Electric Company	POR	$1.12	$33.12	3.38%	5.00%	5.26%	5.90%	3.96%	5.03%	3.58%	3.55%	3.56%	3.52%	3.55%
Southern Company	SO	$2.10	$44.29	4.74%	4.00%	3.40%	3.60%	4.13%	3.78%	4.91%	4.93%	4.90%	4.94%	4.92%
Westar Energy, Inc.	WR	$1.40	$35.72	3.92%	6.00%	3.37%	3.80%	4.26%	4.36%	4.07%	4.15%	4.05%	4.09%	4.09%
	PROXY GROUP MEAN			3.90%	6.19%	4.95%	4.90%	3.82%	5.05%	4.04%	4.13%	4.08%	4.04%	4.09%

NMPRC ROE SCENARIOS	ROE Result	Flotation Cost Adjusted ROE
ROE Using Value Line Growth Estimate	10.33%	10.45%
ROE Using Yahoo! Finance Growth Estimate	9.04%	9.16%
ROE Using Zacks Growth Estimate	8.94%	9.06%
ROE Using Sustainable Growth	7.87%	7.99%
ROE using Average of Zacks, Value Line and First Call	9.44%	9.56%
ROE using Average of Value Line and the Average Growth Rate	9.73%	9.85%
ROE using Average of Yahoo! Finance and the Average Growth Rate	9.09%	9.21%
ROE using Average of Zacks and the Average Growth Rate	9.04%	9.16%
ROE using Average of Sustainable Growth and the Average Growth Rate	8.50%	8.63%
ROE Using Average of Value Line and Sustainable Growth	9.10%	9.22%
ROE Using Average of Zacks and Sustainable Growth	8.41%	8.53%

Notes

[1] Source: Bloomberg Professional
[2] Source: Bloomberg Professional, equals 360-day average as of February 27, 2015
[3] Equals Col. [1]/Col. [2]
[4] Source: Value Line
[5] Source: Yahoo! Finance
[6] Source: Zacks
[7] Source: SPS Attachment AEB-3, Col. 5
[8] Equals Avg (Col. [4], [5], [6], [7])
[9] Equals (Col. [3] * (1+ Col. [6]))
[10] Equals (Col. [3] * (1+ Col. [4]))
[11] Equals (Col. [3] * (1+ Col. [5]))
[12] Equals (Col. [3] * (1+ Col. [7]))
[13] Equals (Col. [3] * (1+ Col. [8]))

Southwestern Public Service Company

Multi-Stage DCF Results

30-DAY MULTI-STAGE DCF -- AVERAGE FIRST STAGE GROWTH RATE

Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
					Second Stage Growth						
Company	Ticker	Stock Price	Annualized Dividend	First Stage Growth	Year 6	Year 7	Year 8	Year 9	Year 10	Third Stage Growth	ROE
ALLETE, Inc.	ALE	$56.26	$2.02	6.00%	5.92%	5.84%	5.76%	5.68%	5.60%	5.51%	9.59%
American Electric Power Company, Inc.	AEP	$60.95	$2.12	4.78%	4.91%	5.03%	5.15%	5.27%	5.39%	5.51%	9.16%
Duke Energy Corporation	DUK	$84.07	$3.18	4.70%	4.84%	4.97%	5.11%	5.24%	5.38%	5.51%	9.47%
Empire District Electric Company	EDE	$28.31	$1.04	3.33%	3.70%	4.06%	4.42%	4.79%	5.15%	5.51%	9.02%
Eversource Energy	ES	$54.19	$1.67	6.88%	6.66%	6.43%	6.20%	5.97%	5.74%	5.51%	9.21%
Great Plains Energy Inc.	GXP	$28.41	$0.98	5.13%	5.20%	5.26%	5.32%	5.39%	5.45%	5.51%	9.21%
IDACORP, Inc.	IDA	$65.84	$1.88	2.83%	3.28%	3.73%	4.17%	4.62%	5.07%	5.51%	8.11%
Otter Tail Corporation	OTTR	$31.79	$1.23	10.75%	9.88%	9.00%	8.13%	7.26%	6.39%	5.51%	11.37%
Pinnacle West Capital Corporation	PNW	$68.58	$2.38	4.07%	4.31%	4.55%	4.79%	5.03%	5.27%	5.51%	8.99%
PNM Resources, Inc.	PNM	$29.59	$0.80	9.92%	9.19%	8.45%	7.72%	6.98%	6.25%	5.51%	9.43%
Portland General Electric Company	POR	$38.62	$1.12	5.39%	5.41%	5.43%	5.45%	5.47%	5.49%	5.51%	8.66%
Southern Company	SO	$49.06	$2.10	3.67%	3.97%	4.28%	4.59%	4.90%	5.21%	5.51%	9.72%
Westar Energy, Inc.	WR	$41.50	$1.40	4.39%	4.58%	4.76%	4.95%	5.14%	5.33%	5.51%	8.96%
MEAN											**9.30%**
Flotation Cost											**0.12%**
Flotation Cost Adjusted DCF Result											**9.42%**

Notes:
[1] Source: Bloomberg Professional, equals 30-trading day average as of February 27, 2015
[2] Source: Bloomberg Professional
[3] Source: SPS Attachment AEB-2
[4] Equals [3] + ([9] − [3]) / 6
[5] Equals [4] + ([9] − [3]) / 6
[6] Equals [5] + ([9] − [3]) / 6
[7] Equals [6] + ([9] − [3]) / 6
[8] Equals [7] + ([9] − [3]) / 6
[9] Source: SPS Attachment AEB-6
[10] Equals internal rate of return of cash flows for Year 0 through Year 200

Southwestern Public Service Company

Multi-Stage DCF Results

90-DAY MULTI-STAGE DCF -- AVERAGE FIRST STAGE GROWTH RATE

Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
					Second Stage Growth						
Company	Ticker	Stock Price	Annualized Dividend	First Stage Growth	Year 6	Year 7	Year 8	Year 9	Year 10	Third Stage Growth	ROE
ALLETE, Inc.	ALE	$53.86	$2.02	6.00%	5.92%	5.84%	5.76%	5.68%	5.60%	5.51%	9.78%
American Electric Power Company, Inc.	AEP	$59.41	$2.12	4.78%	4.91%	5.03%	5.15%	5.27%	5.39%	5.51%	9.26%
Duke Energy Corporation	DUK	$82.74	$3.18	4.70%	4.84%	4.97%	5.11%	5.24%	5.38%	5.51%	9.54%
Empire District Electric Company	EDE	$28.44	$1.04	3.33%	3.70%	4.06%	4.42%	4.79%	5.15%	5.51%	9.00%
Eversource Energy	ES	$52.20	$1.67	6.88%	6.66%	6.43%	6.20%	5.97%	5.74%	5.51%	9.35%
Great Plains Energy Inc.	GXP	$27.53	$0.98	5.13%	5.20%	5.26%	5.32%	5.39%	5.45%	5.51%	9.34%
IDACORP, Inc.	IDA	$64.19	$1.88	2.83%	3.28%	3.73%	4.17%	4.62%	5.07%	5.51%	8.18%
Otter Tail Corporation	OTTR	$30.69	$1.23	10.75%	9.88%	9.00%	8.13%	7.26%	6.39%	5.51%	11.58%
Pinnacle West Capital Corporation	PNW	$65.83	$2.38	4.07%	4.31%	4.55%	4.79%	5.03%	5.27%	5.51%	9.14%
PNM Resources, Inc.	PNM	$29.24	$0.80	9.92%	9.19%	8.45%	7.72%	6.98%	6.25%	5.51%	9.48%
Portland General Electric Company	POR	$37.65	$1.12	5.39%	5.41%	5.43%	5.45%	5.47%	5.49%	5.51%	8.75%
Southern Company	SO	$48.38	$2.10	3.67%	3.97%	4.28%	4.59%	4.90%	5.21%	5.51%	9.78%
Westar Energy, Inc.	WR	$40.06	$1.40	4.39%	4.58%	4.76%	4.95%	5.14%	5.33%	5.51%	9.09%
MEAN											**9.40%**
Flotation Cost											**0.12%**
Flotation Cost Adjusted DCF Result											**9.52%**

Notes:
[1] Source: Bloomberg Professional, equals 90-trading day average as of February 27, 2015
[2] Source: Bloomberg Professional
[3] Source: SPS Attachment AEB-2
[4] Equals [3] + ([9] − [3]) / 6
[5] Equals [4] + ([9] − [3]) / 6
[6] Equals [5] + ([9] − [3]) / 6
[7] Equals [6] + ([9] − [3]) / 6
[8] Equals [7] + ([9] − [3]) / 6
[9] Source: SPS Attachment AEB-6
[10] Equals internal rate of return of cash flows for Year 0 through Year 200

Southwestern Public Service Company

Multi-Stage DCF Results

180-DAY MULTI-STAGE DCF -- AVERAGE FIRST STAGE GROWTH RATE

Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
					Second Stage Growth						
Company	Ticker	Stock Price	Annualized Dividend	First Stage Growth	Year 6	Year 7	Year 8	Year 9	Year 10	Third Stage Growth	ROE
ALLETE, Inc.	ALE	$50.95	$2.02	6.00%	5.92%	5.84%	5.76%	5.68%	5.60%	5.51%	10.02%
American Electric Power Company, Inc.	AEP	$56.29	$2.12	4.78%	4.91%	5.03%	5.15%	5.27%	5.39%	5.51%	9.47%
Duke Energy Corporation	DUK	$78.08	$3.18	4.70%	4.84%	4.97%	5.11%	5.24%	5.38%	5.51%	9.78%
Empire District Electric Company	EDE	$26.74	$1.04	3.33%	3.70%	4.06%	4.42%	4.79%	5.15%	5.51%	9.23%
Eversource Energy	ES	$48.78	$1.67	6.88%	6.66%	6.43%	6.20%	5.97%	5.74%	5.51%	9.62%
Great Plains Energy Inc.	GXP	$26.45	$0.98	5.13%	5.20%	5.26%	5.32%	5.39%	5.45%	5.51%	9.50%
IDACORP, Inc.	IDA	$59.74	$1.88	2.83%	3.28%	3.73%	4.17%	4.62%	5.07%	5.51%	8.40%
Otter Tail Corporation	OTTR	$29.53	$1.23	10.75%	9.88%	9.00%	8.13%	7.26%	6.39%	5.51%	11.81%
Pinnacle West Capital Corporation	PNW	$60.83	$2.38	4.07%	4.31%	4.55%	4.79%	5.03%	5.27%	5.51%	9.44%
PNM Resources, Inc.	PNM	$28.01	$0.80	9.92%	9.19%	8.45%	7.72%	6.98%	6.25%	5.51%	9.65%
Portland General Electric Company	POR	$35.46	$1.12	5.39%	5.41%	5.43%	5.45%	5.47%	5.49%	5.51%	8.95%
Southern Company	SO	$46.28	$2.10	3.67%	3.97%	4.28%	4.59%	4.90%	5.21%	5.51%	9.98%
Westar Energy, Inc.	WR	$38.09	$1.40	4.39%	4.58%	4.76%	4.95%	5.14%	5.33%	5.51%	9.28%
MEAN											**9.63%**
Flotation Cost											**0.12%**
Flotation Cost Adjusted DCF Result											**9.75%**

Notes:
[1] Source: Bloomberg Professional, equals 180-trading day average as of February 27, 2015.
[2] Source: Bloomberg Professional
[3] Source: SPS Attachment AEB-2
[4] Equals [3] + ([9] − [3]) / 6
[5] Equals [4] + ([9] − [3]) / 6
[6] Equals [5] + ([9] − [3]) / 6
[7] Equals [6] + ([9] − [3]) / 6
[8] Equals [7] + ([9] − [3]) / 6
[9] Source: SPS Attachment AEB-6
[10] Equals internal rate of return of cash flows for Year 0 through Year 200

Southwestern Public Service Company

Multi-Stage DCF Results

360-DAY MULTI-STAGE DCF -- AVERAGE FIRST STAGE GROWTH RATE

Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
					Second Stage Growth						
Company	Ticker	Stock Price	Annualized Dividend	First Stage Growth	Year 6	Year 7	Year 8	Year 9	Year 10	Third Stage Growth	ROE
ALLETE, Inc.	ALE	$50.44	$2.02	6.00%	5.92%	5.84%	5.76%	5.68%	5.60%	5.51%	10.07%
American Electric Power Company, Inc.	AEP	$52.46	$2.12	4.78%	4.91%	5.03%	5.15%	5.27%	5.39%	5.51%	9.77%
Duke Energy Corporation	DUK	$74.20	$3.18	4.70%	4.84%	4.97%	5.11%	5.24%	5.38%	5.51%	10.01%
Empire District Electric Company	EDE	$24.95	$1.04	3.33%	3.70%	4.06%	4.42%	4.79%	5.15%	5.51%	9.51%
Eversource Energy	ES	$46.18	$1.67	6.88%	6.66%	6.43%	6.20%	5.97%	5.74%	5.51%	9.86%
Great Plains Energy Inc.	GXP	$25.66	$0.98	5.13%	5.20%	5.26%	5.32%	5.39%	5.45%	5.51%	9.62%
IDACORP, Inc.	IDA	$56.34	$1.88	2.83%	3.28%	3.73%	4.17%	4.62%	5.07%	5.51%	8.58%
Otter Tail Corporation	OTTR	$29.36	$1.23	10.75%	9.88%	9.00%	8.13%	7.26%	6.39%	5.51%	11.85%
Pinnacle West Capital Corporation	PNW	$57.66	$2.38	4.07%	4.31%	4.55%	4.79%	5.03%	5.27%	5.51%	9.67%
PNM Resources, Inc.	PNM	$26.61	$0.80	9.92%	9.19%	8.45%	7.72%	6.98%	6.25%	5.51%	9.86%
Portland General Electric Company	POR	$33.12	$1.12	5.39%	5.41%	5.43%	5.45%	5.47%	5.49%	5.51%	9.20%
Southern Company	SO	$44.29	$2.10	3.67%	3.97%	4.28%	4.59%	4.90%	5.21%	5.51%	10.19%
Westar Energy, Inc.	WR	$35.72	$1.40	4.39%	4.58%	4.76%	4.95%	5.14%	5.33%	5.51%	9.54%
MEAN											**9.83%**
Flotation Cost											**0.12%**
Flotation Cost Adjusted DCF Result											**9.95%**

Notes:
[1] Source: Bloomberg Professional, equals 360-trading day average as of February 27, 2015.
[2] Source: Bloomberg Professional
[3] Source: SPS Attachment AEB-2
[4] Equals [3] + ([9] − [3]) / 6
[5] Equals [4] + ([9] − [3]) / 6
[6] Equals [5] + ([9] − [3]) / 6
[7] Equals [6] + ([9] − [3]) / 6
[8] Equals [7] + ([9] − [3]) / 6
[9] Source: SPS Attachment AEB-6
[10] Equals internal rate of return of cash flows for Year 0 through Year 200

Southwestern Public Service Company

Multi-Stage DCF Results

30-DAY MULTI-STAGE DCF -- MINIMUM FIRST STAGE GROWTH RATE

Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
					Second Stage Growth						
Company	Ticker	Stock Price	Annualized Dividend	First Stage Growth	Year 6	Year 7	Year 8	Year 9	Year 10	Third Stage Growth	ROE
ALLETE, Inc.	ALE	$56.26	$2.02	6.00%	5.92%	5.84%	5.76%	5.68%	5.60%	5.51%	9.59%
American Electric Power Company, Inc.	AEP	$60.95	$2.12	4.50%	4.67%	4.84%	5.01%	5.18%	5.35%	5.51%	9.09%
Duke Energy Corporation	DUK	$84.07	$3.18	4.41%	4.59%	4.78%	4.96%	5.15%	5.33%	5.51%	9.40%
Empire District Electric Company	EDE	$28.31	$1.04	3.00%	3.42%	3.84%	4.26%	4.68%	5.10%	5.51%	8.94%
Eversource Energy	ES	$54.19	$1.67	6.25%	6.13%	6.00%	5.88%	5.76%	5.64%	5.51%	9.06%
Great Plains Energy Inc.	GXP	$28.41	$0.98	4.60%	4.75%	4.90%	5.06%	5.21%	5.36%	5.51%	9.09%
IDACORP, Inc.	IDA	$65.84	$1.88	1.50%	2.17%	2.84%	3.51%	4.18%	4.85%	5.51%	7.87%
Otter Tail Corporation	OTTR	$31.79	$1.23	6.00%	5.92%	5.84%	5.76%	5.68%	5.60%	5.51%	9.91%
Pinnacle West Capital Corporation	PNW	$68.58	$2.38	4.00%	4.25%	4.50%	4.76%	5.01%	5.26%	5.51%	8.97%
PNM Resources, Inc.	PNM	$29.59	$0.80	8.90%	8.34%	7.77%	7.21%	6.64%	6.08%	5.51%	9.19%
Portland General Electric Company	POR	$38.62	$1.12	5.00%	5.09%	5.17%	5.26%	5.34%	5.43%	5.51%	8.58%
Southern Company	SO	$49.06	$2.10	3.40%	3.75%	4.10%	4.46%	4.81%	5.16%	5.51%	9.64%
Westar Energy, Inc.	WR	$41.50	$1.40	3.37%	3.73%	4.08%	4.44%	4.80%	5.16%	5.51%	8.73%
MEAN											**9.08%**
Flotation Cost											**0.12%**
Flotation Cost Adjusted DCF Result											**9.20%**

Notes:
[1] Source: Bloomberg Professional, equals 30-trading day average as of February 27, 2015
[2] Source: Bloomberg Professional
[3] Source: SPS Attachment AEB-2
[4] Equals [3] + ([9] − [3]) / 6
[5] Equals [4] + ([9] − [3]) / 6
[6] Equals [5] + ([9] − [3]) / 6
[7] Equals [6] + ([9] − [3]) / 6
[8] Equals [7] + ([9] − [3]) / 6
[9] Source: SPS Attachment AEB-6
[10] Equals internal rate of return of cash flows for Year 0 through Year 200

Southwestern Public Service Company

Multi-Stage DCF Results

90-DAY MULTI-STAGE DCF -- MINIMUM FIRST STAGE GROWTH RATE

Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
					Second Stage Growth						
Company	Ticker	Stock Price	Annualized Dividend	First Stage Growth	Year 6	Year 7	Year 8	Year 9	Year 10	Third Stage Growth	ROE
ALLETE, Inc.	ALE	$53.86	$2.02	6.00%	5.92%	5.84%	5.76%	5.68%	5.60%	5.51%	9.78%
American Electric Power Company, Inc.	AEP	$59.41	$2.12	4.50%	4.67%	4.84%	5.01%	5.18%	5.35%	5.51%	9.19%
Duke Energy Corporation	DUK	$82.74	$3.18	4.41%	4.59%	4.78%	4.96%	5.15%	5.33%	5.51%	9.46%
Empire District Electric Company	EDE	$28.44	$1.04	3.00%	3.42%	3.84%	4.26%	4.68%	5.10%	5.51%	8.93%
Eversource Energy	ES	$52.20	$1.67	6.25%	6.13%	6.00%	5.88%	5.76%	5.64%	5.51%	9.20%
Great Plains Energy Inc.	GXP	$27.53	$0.98	4.60%	4.75%	4.90%	5.06%	5.21%	5.36%	5.51%	9.21%
IDACORP, Inc.	IDA	$64.19	$1.88	1.50%	2.17%	2.84%	3.51%	4.18%	4.85%	5.51%	7.94%
Otter Tail Corporation	OTTR	$30.69	$1.23	6.00%	5.92%	5.84%	5.76%	5.68%	5.60%	5.51%	10.07%
Pinnacle West Capital Corporation	PNW	$65.83	$2.38	4.00%	4.25%	4.50%	4.76%	5.01%	5.26%	5.51%	9.12%
PNM Resources, Inc.	PNM	$29.24	$0.80	8.90%	8.34%	7.77%	7.21%	6.64%	6.08%	5.51%	9.23%
Portland General Electric Company	POR	$37.65	$1.12	5.00%	5.09%	5.17%	5.26%	5.34%	5.43%	5.51%	8.66%
Southern Company	SO	$48.38	$2.10	3.40%	3.75%	4.10%	4.46%	4.81%	5.16%	5.51%	9.70%
Westar Energy, Inc.	WR	$40.06	$1.40	3.37%	3.73%	4.08%	4.44%	4.80%	5.16%	5.51%	8.85%
MEAN											**9.18%**
Flotation Cost											**0.12%**
Flotation Cost Adjusted DCF Result											**9.30%**

Notes:
[1] Source: Bloomberg Professional, equals 90-trading day average as of February 27, 2015
[2] Source: Bloomberg Professional
[3] Source: SPS Attachment AEB-2
[4] Equals [3] + ([9] − [3]) / 6
[5] Equals [4] + ([9] − [3]) / 6
[6] Equals [5] + ([9] − [3]) / 6
[7] Equals [6] + ([9] − [3]) / 6
[8] Equals [7] + ([9] − [3]) / 6
[9] Source: SPS Attachment AEB-6
[10] Equals internal rate of return of cash flows for Year 0 through Year 200

Southwestern Public Service Company

Multi-Stage DCF Results

180-DAY MULTI-STAGE DCF -- MINIMUM FIRST STAGE GROWTH RATE

Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
					Second Stage Growth						
Company	Ticker	Stock Price	Annualized Dividend	First Stage Growth	Year 6	Year 7	Year 8	Year 9	Year 10	Third Stage Growth	ROE
ALLETE, Inc.	ALE	$50.95	$2.02	6.00%	5.92%	5.84%	5.76%	5.68%	5.60%	5.51%	10.02%
American Electric Power Company, Inc.	AEP	$56.29	$2.12	4.50%	4.67%	4.84%	5.01%	5.18%	5.35%	5.51%	9.40%
Duke Energy Corporation	DUK	$78.08	$3.18	4.41%	4.59%	4.78%	4.96%	5.15%	5.33%	5.51%	9.70%
Empire District Electric Company	EDE	$26.74	$1.04	3.00%	3.42%	3.84%	4.26%	4.68%	5.10%	5.51%	9.15%
Eversource Energy	ES	$48.78	$1.67	6.25%	6.13%	6.00%	5.88%	5.76%	5.64%	5.51%	9.46%
Great Plains Energy Inc.	GXP	$26.45	$0.98	4.60%	4.75%	4.90%	5.06%	5.21%	5.36%	5.51%	9.36%
IDACORP, Inc.	IDA	$59.74	$1.88	1.50%	2.17%	2.84%	3.51%	4.18%	4.85%	5.51%	8.14%
Otter Tail Corporation	OTTR	$29.53	$1.23	6.00%	5.92%	5.84%	5.76%	5.68%	5.60%	5.51%	10.26%
Pinnacle West Capital Corporation	PNW	$60.83	$2.38	4.00%	4.25%	4.50%	4.76%	5.01%	5.26%	5.51%	9.43%
PNM Resources, Inc.	PNM	$28.01	$0.80	8.90%	8.34%	7.77%	7.21%	6.64%	6.08%	5.51%	9.40%
Portland General Electric Company	POR	$35.46	$1.12	5.00%	5.09%	5.17%	5.26%	5.34%	5.43%	5.51%	8.86%
Southern Company	SO	$46.28	$2.10	3.40%	3.75%	4.10%	4.46%	4.81%	5.16%	5.51%	9.90%
Westar Energy, Inc.	WR	$38.09	$1.40	3.37%	3.73%	4.08%	4.44%	4.80%	5.16%	5.51%	9.03%
MEAN											**9.39%**
Flotation Cost											**0.12%**
Flotation Cost Adjusted DCF Result											**9.52%**

Notes:
[1] Source: Bloomberg Professional, equals 180-trading day average as of February 27, 2015.
[2] Source: Bloomberg Professional
[3] Source: SPS Attachment AEB-2
[4] Equals [3] + ([9] − [3]) / 6
[5] Equals [4] + ([9] − [3]) / 6
[6] Equals [5] + ([9] − [3]) / 6
[7] Equals [6] + ([9] − [3]) / 6
[8] Equals [7] + ([9] − [3]) / 6
[9] Source: SPS Attachment AEB-6
[10] Equals internal rate of return of cash flows for Year 0 through Year 200

Southwestern Public Service Company

Multi-Stage DCF Results

360-DAY MULTI-STAGE DCF -- MINIMUM FIRST STAGE GROWTH RATE

Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
					Second Stage Growth						
Company	Ticker	Stock Price	Annualized Dividend	First Stage Growth	Year 6	Year 7	Year 8	Year 9	Year 10	Third Stage Growth	ROE
ALLETE, Inc.	ALE	$50.44	$2.02	6.00%	5.92%	5.84%	5.76%	5.68%	5.60%	5.51%	10.07%
American Electric Power Company, Inc.	AEP	$52.46	$2.12	4.50%	4.67%	4.84%	5.01%	5.18%	5.35%	5.51%	9.69%
Duke Energy Corporation	DUK	$74.20	$3.18	4.41%	4.59%	4.78%	4.96%	5.15%	5.33%	5.51%	9.93%
Empire District Electric Company	EDE	$24.95	$1.04	3.00%	3.42%	3.84%	4.26%	4.68%	5.10%	5.51%	9.43%
Eversource Energy	ES	$46.18	$1.67	6.25%	6.13%	6.00%	5.88%	5.76%	5.64%	5.51%	9.69%
Great Plains Energy Inc.	GXP	$25.66	$0.98	4.60%	4.75%	4.90%	5.06%	5.21%	5.36%	5.51%	9.48%
IDACORP, Inc.	IDA	$56.34	$1.88	1.50%	2.17%	2.84%	3.51%	4.18%	4.85%	5.51%	8.31%
Otter Tail Corporation	OTTR	$29.36	$1.23	6.00%	5.92%	5.84%	5.76%	5.68%	5.60%	5.51%	10.28%
Pinnacle West Capital Corporation	PNW	$57.66	$2.38	4.00%	4.25%	4.50%	4.76%	5.01%	5.26%	5.51%	9.65%
PNM Resources, Inc.	PNM	$26.61	$0.80	8.90%	8.34%	7.77%	7.21%	6.64%	6.08%	5.51%	9.60%
Portland General Electric Company	POR	$33.12	$1.12	5.00%	5.09%	5.17%	5.26%	5.34%	5.43%	5.51%	9.11%
Southern Company	SO	$44.29	$2.10	3.40%	3.75%	4.10%	4.46%	4.81%	5.16%	5.51%	10.11%
Westar Energy, Inc.	WR	$35.72	$1.40	3.37%	3.73%	4.08%	4.44%	4.80%	5.16%	5.51%	9.27%
MEAN											**9.59%**
Flotation Cost											**0.12%**
Flotation Cost Adjusted DCF Result											**9.71%**

Notes:
[1] Source: Bloomberg Professional, equals 360-trading day average as of February 27, 2015.
[2] Source: Bloomberg Professional
[3] Source: SPS Attachment AEB-2
[4] Equals [3] + ([9] − [3]) / 6
[5] Equals [4] + ([9] − [3]) / 6
[6] Equals [5] + ([9] − [3]) / 6
[7] Equals [6] + ([9] − [3]) / 6
[8] Equals [7] + ([9] − [3]) / 6
[9] Source: SPS Attachment AEB-6
[10] Equals internal rate of return of cash flows for Year 0 through Year 200

Southwestern Public Service Company

Multi-Stage DCF Results

30-DAY MULTI-STAGE DCF -- MAXIMUM FIRST STAGE GROWTH RATE

Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
					Second Stage Growth						
Company	Ticker	Stock Price	Annualized Dividend	First Stage Growth	Year 6	Year 7	Year 8	Year 9	Year 10	Third Stage Growth	ROE
ALLETE, Inc.	ALE	$56.26	$2.02	6.00%	5.92%	5.84%	5.76%	5.68%	5.60%	5.51%	9.59%
American Electric Power Company, Inc.	AEP	$60.95	$2.12	5.05%	5.13%	5.20%	5.28%	5.36%	5.44%	5.51%	9.23%
Duke Energy Corporation	DUK	$84.07	$3.18	5.00%	5.09%	5.17%	5.26%	5.34%	5.43%	5.51%	9.55%
Empire District Electric Company	EDE	$28.31	$1.04	4.00%	4.25%	4.50%	4.76%	5.01%	5.26%	5.51%	9.18%
Eversource Energy	ES	$54.19	$1.67	8.00%	7.59%	7.17%	6.76%	6.34%	5.93%	5.51%	9.48%
Great Plains Energy Inc.	GXP	$28.41	$0.98	6.00%	5.92%	5.84%	5.76%	5.68%	5.60%	5.51%	9.43%
IDACORP, Inc.	IDA	$65.84	$1.88	4.00%	4.25%	4.50%	4.76%	5.01%	5.26%	5.51%	8.33%
Otter Tail Corporation	OTTR	$31.79	$1.23	15.50%	13.84%	12.17%	10.51%	8.84%	7.18%	5.51%	13.12%
Pinnacle West Capital Corporation	PNW	$68.58	$2.38	4.20%	4.42%	4.64%	4.86%	5.08%	5.30%	5.51%	9.02%
PNM Resources, Inc.	PNM	$29.59	$0.80	11.00%	10.09%	9.17%	8.26%	7.34%	6.43%	5.51%	9.70%
Portland General Electric Company	POR	$38.62	$1.12	5.90%	5.84%	5.77%	5.71%	5.64%	5.58%	5.51%	8.77%
Southern Company	SO	$49.06	$2.10	4.00%	4.25%	4.50%	4.76%	5.01%	5.26%	5.51%	9.81%
Westar Energy, Inc.	WR	$41.50	$1.40	6.00%	5.92%	5.84%	5.76%	5.68%	5.60%	5.51%	9.34%
MEAN											**9.58%**
Flotation Cost											**0.12%**
Flotation Cost Adjusted DCF Result											**9.70%**

Notes:
[1] Source: Bloomberg Professional, equals 30-trading day average as of February 27, 2015
[2] Source: Bloomberg Professional
[3] Source: SPS Attachment AEB-2
[4] Equals [3] + ([9] − [3]) / 6
[5] Equals [4] + ([9] − [3]) / 6
[6] Equals [5] + ([9] − [3]) / 6
[7] Equals [6] + ([9] − [3]) / 6
[8] Equals [7] + ([9] − [3]) / 6
[9] Source: SPS Attachment AEB-6
[10] Equals internal rate of return of cash flows for Year 0 through Year 200

Southwestern Public Service Company

Multi-Stage DCF Results

90-DAY MULTI-STAGE DCF -- MAXIMUM FIRST STAGE GROWTH RATE

Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
					Second Stage Growth						
Company	Ticker	Stock Price	Annualized Dividend	First Stage Growth	Year 6	Year 7	Year 8	Year 9	Year 10	Third Stage Growth	ROE
ALLETE, Inc.	ALE	$53.86	$2.02	6.00%	5.92%	5.84%	5.76%	5.68%	5.60%	5.51%	9.78%
American Electric Power Company, Inc.	AEP	$59.41	$2.12	5.05%	5.13%	5.20%	5.28%	5.36%	5.44%	5.51%	9.32%
Duke Energy Corporation	DUK	$82.74	$3.18	5.00%	5.09%	5.17%	5.26%	5.34%	5.43%	5.51%	9.61%
Empire District Electric Company	EDE	$28.44	$1.04	4.00%	4.25%	4.50%	4.76%	5.01%	5.26%	5.51%	9.16%
Eversource Energy	ES	$52.20	$1.67	8.00%	7.59%	7.17%	6.76%	6.34%	5.93%	5.51%	9.63%
Great Plains Energy Inc.	GXP	$27.53	$0.98	6.00%	5.92%	5.84%	5.76%	5.68%	5.60%	5.51%	9.56%
IDACORP, Inc.	IDA	$64.19	$1.88	4.00%	4.25%	4.50%	4.76%	5.01%	5.26%	5.51%	8.41%
Otter Tail Corporation	OTTR	$30.69	$1.23	15.50%	13.84%	12.17%	10.51%	8.84%	7.18%	5.51%	13.37%
Pinnacle West Capital Corporation	PNW	$65.83	$2.38	4.20%	4.42%	4.64%	4.86%	5.08%	5.30%	5.51%	9.17%
PNM Resources, Inc.	PNM	$29.24	$0.80	11.00%	10.09%	9.17%	8.26%	7.34%	6.43%	5.51%	9.74%
Portland General Electric Company	POR	$37.65	$1.12	5.90%	5.84%	5.77%	5.71%	5.64%	5.58%	5.51%	8.86%
Southern Company	SO	$48.38	$2.10	4.00%	4.25%	4.50%	4.76%	5.01%	5.26%	5.51%	9.87%
Westar Energy, Inc.	WR	$40.06	$1.40	6.00%	5.92%	5.84%	5.76%	5.68%	5.60%	5.51%	9.48%
MEAN											**9.69%**
Flotation Cost											**0.12%**
Flotation Cost Adjusted DCF Result											**9.81%**

Notes:
[1] Source: Bloomberg Professional, equals 90-trading day average as of February 27, 2015
[2] Source: Bloomberg Professional
[3] Source: SPS Attachment AEB-2
[4] Equals [3] + ([9] − [3]) / 6
[5] Equals [4] + ([9] − [3]) / 6
[6] Equals [5] + ([9] − [3]) / 6
[7] Equals [6] + ([9] − [3]) / 6
[8] Equals [7] + ([9] − [3]) / 6
[9] Source: SPS Attachment AEB-6
[10] Equals internal rate of return of cash flows for Year 0 through Year 200

Southwestern Public Service Company

Multi-Stage DCF Results

180-DAY MULTI-STAGE DCF -- MAXIMUM FIRST STAGE GROWTH RATE

Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
					Second Stage Growth						
Company	Ticker	Stock Price	Annualized Dividend	First Stage Growth	Year 6	Year 7	Year 8	Year 9	Year 10	Third Stage Growth	ROE
ALLETE, Inc.	ALE	$50.95	$2.02	6.00%	5.92%	5.84%	5.76%	5.68%	5.60%	5.51%	10.02%
American Electric Power Company, Inc.	AEP	$56.29	$2.12	5.05%	5.13%	5.20%	5.28%	5.36%	5.44%	5.51%	9.54%
Duke Energy Corporation	DUK	$78.08	$3.18	5.00%	5.09%	5.17%	5.26%	5.34%	5.43%	5.51%	9.87%
Empire District Electric Company	EDE	$26.74	$1.04	4.00%	4.25%	4.50%	4.76%	5.01%	5.26%	5.51%	9.40%
Eversource Energy	ES	$48.78	$1.67	8.00%	7.59%	7.17%	6.76%	6.34%	5.93%	5.51%	9.92%
Great Plains Energy Inc.	GXP	$26.45	$0.98	6.00%	5.92%	5.84%	5.76%	5.68%	5.60%	5.51%	9.72%
IDACORP, Inc.	IDA	$59.74	$1.88	4.00%	4.25%	4.50%	4.76%	5.01%	5.26%	5.51%	8.64%
Otter Tail Corporation	OTTR	$29.53	$1.23	15.50%	13.84%	12.17%	10.51%	8.84%	7.18%	5.51%	13.66%
Pinnacle West Capital Corporation	PNW	$60.83	$2.38	4.20%	4.42%	4.64%	4.86%	5.08%	5.30%	5.51%	9.48%
PNM Resources, Inc.	PNM	$28.01	$0.80	11.00%	10.09%	9.17%	8.26%	7.34%	6.43%	5.51%	9.93%
Portland General Electric Company	POR	$35.46	$1.12	5.90%	5.84%	5.77%	5.71%	5.64%	5.58%	5.51%	9.07%
Southern Company	SO	$46.28	$2.10	4.00%	4.25%	4.50%	4.76%	5.01%	5.26%	5.51%	10.08%
Westar Energy, Inc.	WR	$38.09	$1.40	6.00%	5.92%	5.84%	5.76%	5.68%	5.60%	5.51%	9.69%
MEAN											**9.92%**
Flotation Cost											**0.12%**
Flotation Cost Adjusted DCF Result											**10.05%**

Notes:
[1] Source: Bloomberg Professional, equals 180-trading day average as of February 27, 2015.
[2] Source: Bloomberg Professional
[3] Source: SPS Attachment AEB-2
[4] Equals [3] + ([9] − [3]) / 6
[5] Equals [4] + ([9] − [3]) / 6
[6] Equals [5] + ([9] − [3]) / 6
[7] Equals [6] + ([9] − [3]) / 6
[8] Equals [7] + ([9] − [3]) / 6
[9] Source: SPS Attachment AEB-6
[10] Equals internal rate of return of cash flows for Year 0 through Year 200

Southwestern Public Service Company

Multi-Stage DCF Results

360-DAY MULTI-STAGE DCF -- MAXIMUM FIRST STAGE GROWTH RATE

Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
					Second Stage Growth						
Company	Ticker	Stock Price	Annualized Dividend	First Stage Growth	Year 6	Year 7	Year 8	Year 9	Year 10	Third Stage Growth	ROE
ALLETE, Inc.	ALE	$50.44	$2.02	6.00%	5.92%	5.84%	5.76%	5.68%	5.60%	5.51%	10.07%
American Electric Power Company, Inc.	AEP	$52.46	$2.12	5.05%	5.13%	5.20%	5.28%	5.36%	5.44%	5.51%	9.84%
Duke Energy Corporation	DUK	$74.20	$3.18	5.00%	5.09%	5.17%	5.26%	5.34%	5.43%	5.51%	10.10%
Empire District Electric Company	EDE	$24.95	$1.04	4.00%	4.25%	4.50%	4.76%	5.01%	5.26%	5.51%	9.69%
Eversource Energy	ES	$46.18	$1.67	8.00%	7.59%	7.17%	6.76%	6.34%	5.93%	5.51%	10.17%
Great Plains Energy Inc.	GXP	$25.66	$0.98	6.00%	5.92%	5.84%	5.76%	5.68%	5.60%	5.51%	9.86%
IDACORP, Inc.	IDA	$56.34	$1.88	4.00%	4.25%	4.50%	4.76%	5.01%	5.26%	5.51%	8.83%
Otter Tail Corporation	OTTR	$29.36	$1.23	15.50%	13.84%	12.17%	10.51%	8.84%	7.18%	5.51%	13.70%
Pinnacle West Capital Corporation	PNW	$57.66	$2.38	4.20%	4.42%	4.64%	4.86%	5.08%	5.30%	5.51%	9.70%
PNM Resources, Inc.	PNM	$26.61	$0.80	11.00%	10.09%	9.17%	8.26%	7.34%	6.43%	5.51%	10.16%
Portland General Electric Company	POR	$33.12	$1.12	5.90%	5.84%	5.77%	5.71%	5.64%	5.58%	5.51%	9.32%
Southern Company	SO	$44.29	$2.10	4.00%	4.25%	4.50%	4.76%	5.01%	5.26%	5.51%	10.29%
Westar Energy, Inc.	WR	$35.72	$1.40	6.00%	5.92%	5.84%	5.76%	5.68%	5.60%	5.51%	9.97%
MEAN											**10.13%**
Flotation Cost											**0.12%**
Flotation Cost Adjusted DCF Result											**10.25%**

Notes:
[1] Source: Bloomberg Professional, equals 360-trading day average as of February 27, 2015.
[2] Source: Bloomberg Professional
[3] Source: SPS Attachment AEB-2
[4] Equals [3] + ([9] − [3]) / 6
[5] Equals [4] + ([9] − [3]) / 6
[6] Equals [5] + ([9] − [3]) / 6
[7] Equals [6] + ([9] − [3]) / 6
[8] Equals [7] + ([9] − [3]) / 6
[9] Source: SPS Attachment AEB-6
[10] Equals internal rate of return of cash flows for Year 0 through Year 200

Southwestern Public Service Company

Calculation of GDP Growth Rate

CALCULATION OF LONG-TERM GDP GROWTH RATE

Step 1	
Real GDP ($ Billions) [1]	
1929	$ 1,056.6
2014	$ 16,085.3
Compound Annual Growth Rate	**3.26%**
Step 2	
Consumer Price Index (YoY % Change) [2]	
2021-2025	2.30%
Average	2.30%
Consumer Price Index (All-Urban) [3]	
2025	2.90
2040	4.05
Compound Annual Growth Rate	2.26%
GDP Chain-type Price Index (2005=1.000) [3]	
2025	1.42
2040	1.91
Compound Annual Growth Rate	2.00%
Average Inflation Forecast	**2.19%**
Long-Term GDP Growth Rate	**5.51%**

Notes:
[1] Bureau of Economic Analysis, February 27, 2015
[2] Blue Chip Financial Forecasts, Vol. 33, No.12, December 1, 2014, at 14
[3] Energy Information Administration, Annual Energy Outlook 2014, Table 20

Southwestern Public Service Company

Flotation Cost

FLOTATION COST ADJUSTMENT

Two most recent common stock issuances per company, if available

Company	Date [i]	Shares Issued (000)	Offering Price	Under-writing Discount [ii]	Offering Expense ($000)	Net Proceeds Per Share	Total Flotation Costs ($000)	Gross Equity Issue Before Costs ($000)	Net Proceeds ($000)	Flotation Cost Percentage
ALLETE, Inc.	5/24/2001	6,600	$ 23.68	$ 0.9472	$350	$22.68	$6,601.5	$156,288.0	$149,686.5	4.224%
ALLETE, Inc.	2/26/2014	3,220	$ 49.75	$ 1.7413	$450	$47.87	$6,057.0	$160,195.0	$154,138.0	3.781%
American Electric Power Company, Inc.	2/27/2003	56,000	$ 20.95	$ 0.6285	$550	$20.31	$35,746.0	$1,173,200.0	$1,137,454.0	3.047%
American Electric Power Company, Inc.	4/1/2009	69,000	$ 24.50	$ 0.7350	$400	$23.76	$51,115.0	$1,690,500.0	$1,639,385.0	3.024%
Empire District Electric Company	6/15/2006	3,795	$ 20.25	$ 0.8600	$250	$19.32	$3,513.7	$76,848.8	$73,335.1	4.572%
Empire District Electric Company	12/6/2007	3,000	$ 23.00	$ 0.9775	$250	$21.94	$3,182.5	$69,000.0	$65,817.5	4.612%
Eversource Energy	12/6/2005	23,000	$ 19.09	$ 0.6204	$340	$18.45	$14,609.2	$439,070.0	$424,460.8	3.327%
Eversource Energy	3/16/2009	18,975	$ 20.20	$ 0.6565	$335	$19.53	$12,792.1	$383,295.0	$370,502.9	3.337%
Great Plains Energy Inc.	5/18/2006	7,002	$ 27.50	$ 0.8938	$500	$26.53	$6,758.8	$192,567.4	$185,808.6	3.510%
Great Plains Energy Inc.	5/12/2009	11,500	$ 14.00	$ 0.4900	$500	$13.47	$6,135.0	$161,000.0	$154,865.0	3.811%
IDACORP, Inc.	12/9/2004	4,025	$ 30.00	$ 1.2000	$300	$28.73	$5,130.0	$120,750.0	$115,620.0	4.248%
Otter Tail Corporation	12/7/2004	3,075	$ 25.45	$ 0.9500	$300	$24.40	$3,221.3	$78,258.8	$75,037.5	4.116%
Otter Tail Corporation	9/18/2008	5,175	$ 30.00	$ 1.0875	$400	$28.84	$6,027.8	$155,250.0	$149,222.2	3.883%
Pinnacle West Capital Corporation	4/27/2005	6,095	$ 42.00	$ 1.3650	$250	$40.59	$8,569.7	$255,990.0	$247,420.3	3.348%
Pinnacle West Capital Corporation	4/8/2010	6,900	$ 38.00	$ 1.3300	$190	$36.64	$9,367.0	$262,200.0	$252,833.0	3.572%
PNM Resources, Inc.	3/23/2005	3,910	$ 26.76	$ 0.8697	$200	$25.84	$3,600.5	$104,631.6	$101,031.1	3.441%
PNM Resources, Inc.	12/6/2006	5,750	$ 30.79	$ 1.0780	$250	$29.67	$6,448.5	$177,042.5	$170,594.0	3.642%
Portland General Electric Company	3/5/2009	12,478	$ 14.10	$ 0.4935	$375	$13.58	$6,532.6	$175,932.8	$169,400.1	3.713%
Portland General Electric Company	6/11/2013	12,765	$ 29.50	$ 0.9588	$600	$28.49	$12,839.1	$376,567.5	$363,728.4	3.410%
Southern Company	12/6/2000	28,000	$ 28.50	$ 0.9200	$490	$27.56	$26,250.0	$798,000.0	$771,750.0	3.289%
Westar Energy, Inc.	11/4/2010	8,625	$ 25.54	$ 0.8939	$250	$24.62	$7,959.9	$220,282.5	$212,322.6	3.613%
Westar Energy, Inc.	9/24/2013	8,916	$ 31.15	$ 1.0902	$250	$30.03	$9,970.2	$277,733.4	$267,763.2	3.590%
Xcel Energy Inc.	March 2013	7,757	$ 29.06	$ 0.2906	$403	$28.71	$2,657.6	$225,408.2	$222,750.6	1.179%
Xcel Energy Inc.	June 2014	5,694	$ 30.66	$ 0.3066	$169	$30.33	$1,915.2	$174,593.5	$172,678.3	1.097%
							$257,000.2	$7,904,604.8	$7,647,604.6	3.251%

Notes:
[i] Offering Completion Date
[ii] Underwriting discount was calculated as the market price minus the offering price when not explicitly given in the prospectus.

The flotation cost adjustment is derived by dividing the dividend yield by 1 − F (where F = flotation costs expressed in percentage terms), or by 0.9675, and adding that result to the constant growth rate to determine the cost of equity. Using the formulas shown previously in my testimony, the Constant Growth DCF calculation is modified as follows to accommodate an adjustment for flotation costs:

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

Southwestern Public Service Company

Flotation Cost

Company	Ticker	[1] Annualized Dividend	[2] Stock Price	[3] Dividend Yield	[4] Expected Dividend Yield	[5] Expected Dividend Yield Adjusted for Flotation Costs	[6] Value Line Earnings Growth	[7] Yahoo! Finance Earnings Growth	[8] Zacks Earnings Growth	[9] Average Earnings Growth	[10] ROE	[11] ROE Adjusted for Flotation Costs
ALLETE, Inc.	ALE	$2.02	$56.26	3.59%	3.81%	3.93%	6.00%	6.00%	N/A	6.00%	9.81%	9.93%
American Electric Power Company, Inc.	AEP	$2.12	$60.95	3.48%	3.64%	3.77%	4.50%	5.05%	4.80%	4.78%	8.43%	8.55%
Duke Energy Corporation	DUK	$3.18	$84.07	3.78%	3.96%	4.09%	5.00%	4.41%	4.70%	4.70%	8.66%	8.80%
Empire District Electric Company	EDE	$1.04	$28.31	3.67%	3.80%	3.92%	4.00%	3.00%	3.00%	3.33%	7.13%	7.26%
Eversource Energy	ES	$1.67	$54.19	3.08%	3.29%	3.40%	8.00%	6.25%	6.40%	6.88%	10.18%	10.29%
Great Plains Energy Inc.	GXP	$0.98	$28.41	3.45%	3.63%	3.75%	6.00%	4.60%	4.80%	5.13%	8.76%	8.88%
IDACORP, Inc.	IDA	$1.88	$65.84	2.86%	2.94%	3.03%	1.50%	3.00%	4.00%	2.83%	5.77%	5.87%
Otter Tail Corporation	OTTR	$1.23	$31.79	3.87%	4.29%	4.43%	15.50%	6.00%	N/A	10.75%	15.04%	15.18%
Pinnacle West Capital Corporation	PNW	$2.38	$68.58	3.47%	3.61%	3.73%	4.00%	4.20%	4.00%	4.07%	7.68%	7.80%
PNM Resources, Inc.	PNM	$0.80	$29.59	2.70%	2.97%	3.07%	11.00%	9.86%	8.90%	9.92%	12.89%	12.99%
Portland General Electric Company	POR	$1.12	$38.62	2.90%	3.06%	3.16%	5.00%	5.26%	5.90%	5.39%	8.44%	8.55%
Southern Company	SO	$2.10	$49.06	4.28%	4.44%	4.59%	4.00%	3.40%	3.60%	3.67%	8.10%	8.25%
Westar Energy, Inc.	WR	$1.40	$41.50	3.37%	3.52%	3.64%	6.00%	3.37%	3.80%	4.39%	7.91%	8.03%
Mean											9.14%	9.26%
Flotation Cost Adjustment												0.12% [12]

Notes:
[1] Source: Bloomberg Professional
[2] Source: Bloomberg Professional, equals 30-day average as of February 27, 2015.
[3] Equals [1] / [2]
[4] Equals [3] x (1 + [9])
[5] Equals [4] / (1 − Flotation Cost)
[6] Source: Value Line
[7] Source: Yahoo! Finance
[8] Source: Zacks
[9] Equals Average ([6], [7], [8])
[10] Equals [4] + [9]
[11] Equals [5] + [9]
[12] Equals Average ([11]) − Average ([10])

Southwestern Public Service Company

Value Line and Bloomberg Betas

BETA
AS OF FEBRUARY 27, 2015

		[1]	[2]
		Bloomberg	**Value Line**
ALLETE, Inc.	ALE	0.70	0.80
American Electric Power Company, Inc.	AEP	0.66	0.70
Duke Energy Corporation	DUK	0.46	0.60
Empire District Electric Company	EDE	0.55	0.70
Eversource Energy	ES	0.63	0.75
Great Plains Energy Inc.	GXP	0.72	0.85
IDACORP, Inc.	IDA	0.78	0.80
Otter Tail Corporation	OTTR	0.92	0.90
Pinnacle West Capital Corporation	PNW	0.73	0.70
PNM Resources, Inc.	PNM	0.73	0.85
Portland General Electric Company	POR	0.68	0.80
Southern Company	SO	0.48	0.55
Westar Energy, Inc.	WR	0.60	0.75
Mean		0.665	0.750

Notes:
[1] Source: Bloomberg Professional
[2] Source: Value Line; dated Dec. 19, 2014, Jan. 31, 2015, and Feb. 20, 2015.

Southwestern Public Service Company

CAPM

CAPITAL ASSET PRICING MODEL

	[4]	[5]	[6]	[7]
	Risk-Free Rate	Average Beta	Market Risk Premium	ROE
Proxy Group Average Bloomberg Beta				
[1] Current 30-day average of 30-year U.S. Treasury bond yield	2.50%	0.665	10.67%	9.59%
[2] Near-term projected 30-year U.S. Treasury bond yield (Q1 2015 - Q2 2016)	3.20%	0.665	9.97%	9.83%
[3] Projected 30-year U.S. Treasury bond yield (2016 - 2020)	4.90%	0.665	8.27%	10.40%
			Mean:	9.94%
Proxy Group Average Value Line Beta				
[1] Current 30-day average of 30-year U.S. Treasury bond yield	2.50%	0.750	10.67%	10.50%
[2] Near-term projected 30-year U.S. Treasury bond yield (Q1 2015 - Q2 2016)	3.20%	0.750	9.97%	10.68%
[3] Projected 30-year U.S. Treasury bond yield (2016 - 2020)	4.90%	0.750	8.27%	11.10%
			Mean:	10.76%

[1] Source: Bloomberg Professional
[2] Source: Blue Chip Financial Forecasts, Vol. 34, No. 2, February 1, 2015, at 2
[3] Source: Blue Chip Financial Forecasts, Vol. 33, No. 12, December 1, 2014, at 14
[4] See Notes [1], [2], and [3]
[5] Source: Exhibit AEB-8
[6] Source: Exhibit AEB-9, at 2
[7] Equals [4] + ([5] x [6])

Southwestern Public Service Company

CAPM

MARKET RISK PREMIUM DERIVED FROM ANALYSTS LONG-TERM GROWTH ESTIMATES

[8] Estimated Weighted Average Dividend Yield	2.00%		
[9] Estimated Weighted Average Long-Term Growth Rate	11.06%		
[10] S&P 500 Estimated Required Market Return	13.17%		
[11] Risk-Free Rate	2.50%	3.20%	4.90%
[12] Implied Market Risk Premium	10.67%	9.97%	8.27%

STANDARD AND POOR'S 500 INDEX

		[13]	[14]	[15]	[16]	[17]
Name	Ticker	Weight in Index	Estimated Dividend Yield	Cap-Weighted Dividend Yield	Long-Term Growth Est.	Cap-Weighted Long-Term Growth Est.
Alcoa Inc	AA	0.09%	0.81%	0.00%	16.40%	0.02%
LyondellBasell Industries NV	LYB	0.21%	3.26%	0.01%	6.50%	0.01%
American Express Co	AXP	0.43%	1.27%	0.01%	9.27%	0.04%
Verizon Communications Inc	VZ	1.07%	4.45%	0.05%	6.61%	0.07%
Avago Technologies Ltd	AVGO	0.17%	1.10%	0.00%	20.69%	0.04%
Boeing Co/The	BA	0.55%	2.41%	0.01%	10.73%	0.06%
Caterpillar Inc	CAT	0.26%	3.38%	0.01%	8.04%	0.02%
JPMorgan Chase & Co	JPM	1.19%	2.61%	0.03%	6.70%	0.08%
Chevron Corp	CVX	1.04%	4.01%	0.04%	4.29%	0.04%
Coca-Cola Co/The	KO	0.98%	3.05%	0.03%	5.33%	0.05%
AbbVie Inc	ABBV	0.50%	3.37%	0.02%	9.05%	0.05%
Walt Disney Co/The	DIS	0.92%	1.10%	0.01%	12.18%	0.11%
EI du Pont de Nemours & Co	DD	0.37%	2.41%	0.01%	6.83%	0.03%
Exxon Mobil Corp	XOM	1.93%	3.12%	0.06%	11.83%	0.23%
Phillips 66	PSX	0.22%	2.55%	0.01%	8.37%	0.02%
General Electric Co	GE	1.36%	3.54%	0.05%	8.26%	0.11%
Hewlett-Packard Co	HPQ	0.33%	1.84%	0.01%	3.67%	0.01%
Home Depot Inc/The	HD	0.79%	2.06%	0.02%	14.57%	0.11%
International Business Machines Corp	IBM	0.83%	2.72%	0.02%	7.38%	0.06%
Johnson & Johnson	JNJ	1.48%	2.73%	0.04%	6.45%	0.10%
McDonald's Corp	MCD	0.49%	3.44%	0.02%	8.22%	0.04%
Merck & Co Inc	MRK	0.86%	3.07%	0.03%	7.22%	0.06%
3M Co	MMM	0.56%	2.43%	0.01%	9.60%	0.05%
Bank of America Corp	BAC	0.87%	1.27%	0.01%	8.00%	0.07%
Pfizer Inc	PFE	1.09%	3.26%	0.04%	5.06%	0.06%
Procter & Gamble Co/The	PG	1.20%	3.02%	0.04%	8.00%	0.10%
AT&T Inc	T	0.93%	5.44%	0.05%	5.37%	0.05%
Travelers Cos Inc/The	TRV	0.18%	2.05%	0.00%	7.92%	0.01%
United Technologies Corp	UTX	0.58%	2.10%	0.01%	9.10%	0.05%
Analog Devices Inc	ADI	0.09%	2.73%	0.00%	10.82%	0.01%
Wal-Mart Stores Inc	WMT	1.41%	2.34%	0.03%	7.17%	0.10%
Cisco Systems Inc	CSCO	0.78%	2.85%	0.02%	7.80%	0.06%
Intel Corp	INTC	0.82%	2.89%	0.02%	9.56%	0.08%
General Motors Co	GM	0.31%	3.86%	0.01%	10.57%	0.03%
Microsoft Corp	MSFT	1.87%	2.83%	0.05%	8.04%	0.15%
Dollar General Corp	DG	0.11%	n/a	n/a	13.14%	0.02%
Kinder Morgan Inc/DE	KMI	0.45%	4.39%	0.02%	19.40%	0.09%
Citigroup Inc	C	0.83%	0.08%	0.00%	11.41%	0.09%
Nielsen NV	NLSN	0.09%	2.21%	0.00%	14.00%	0.01%
American International Group Inc	AIG	0.39%	0.90%	0.00%	8.38%	0.03%
Honeywell International Inc	HON	0.42%	2.01%	0.01%	10.01%	0.04%
Altria Group Inc	MO	0.58%	3.70%	0.02%	7.49%	0.04%
HCA Holdings Inc	HCA	0.16%	n/a	n/a	12.04%	0.02%
Under Armour Inc	UA	0.07%	n/a	n/a	23.10%	0.02%
International Paper Co	IP	0.12%	2.84%	0.00%	8.80%	0.01%
Abbott Laboratories	ABT	0.37%	2.03%	0.01%	10.84%	0.04%
Aflac Inc	AFL	0.14%	2.51%	0.00%	8.09%	0.01%
Air Products & Chemicals Inc	APD	0.17%	1.97%	0.00%	10.80%	0.02%
Airgas Inc	ARG	0.05%	1.88%	0.00%	11.90%	0.01%
Allergan Inc/United States	AGN	0.37%	0.09%	0.00%	17.33%	0.06%
Royal Caribbean Cruises Ltd	RCL	0.09%	1.57%	0.00%	19.20%	0.02%
American Electric Power Co Inc	AEP	0.15%	3.68%	0.01%	5.17%	0.01%
Hess Corp	HES	0.11%	1.33%	0.00%	3.73%	0.00%
Anadarko Petroleum Corp	APC	0.22%	1.28%	0.00%	3.16%	0.01%
Aon PLC	AON	0.15%	1.00%	0.00%	11.66%	0.02%
Apache Corp	APA	0.13%	1.52%	0.00%	1.73%	0.00%
Archer-Daniels-Midland Co	ADM	0.16%	2.34%	0.00%	5.65%	0.01%
AGL Resources Inc	GAS	0.03%	4.15%	0.00%	5.83%	0.00%
Automatic Data Processing Inc	ADP	0.22%	2.21%	0.00%	10.29%	0.02%
AutoZone Inc	AZO	0.11%	n/a	n/a	13.44%	0.01%
Avery Dennison Corp	AVY	0.03%	2.61%	0.00%	6.95%	0.00%
Avon Products Inc	AVP	0.02%	2.82%	0.00%	8.72%	0.00%
Baker Hughes Inc	BHI	0.14%	1.09%	0.00%	17.70%	0.03%
Ball Corp	BLL	0.05%	0.73%	0.00%	10.10%	0.01%
Bank of New York Mellon Corp/The	BK	0.23%	1.74%	0.00%	12.22%	0.03%
CR Bard Inc	BCR	0.07%	0.52%	0.00%	10.00%	0.01%
Baxter International Inc	BAX	0.20%	3.01%	0.01%	6.43%	0.01%
Becton Dickinson and Co	BDX	0.15%	1.64%	0.00%	9.21%	0.01%
Berkshire Hathaway Inc	BRK/B	0.93%	n/a	n/a	5.85%	0.05%
Best Buy Co Inc	BBY	0.07%	1.99%	0.00%	12.62%	0.01%
H&R Block Inc	HRB	0.05%	2.34%	0.00%	11.00%	0.01%
Boston Scientific Corp	BSX	0.12%	n/a	n/a	8.47%	0.01%
Bristol-Myers Squibb Co	BMY	0.53%	2.43%	0.01%	15.92%	0.08%
Brown-Forman Corp	BF/B	0.06%	1.37%	0.00%	7.11%	0.00%
Cabot Oil & Gas Corp	COG	0.06%	0.28%	0.00%	29.44%	0.02%
Campbell Soup Co	CPB	0.08%	2.68%	0.00%	2.89%	0.00%

Southwestern Public Service Company

CAPM

STANDARD AND POOR'S 500 INDEX

Name	Ticker	[13] Weight in Index	[14] Estimated Dividend Yield	[15] Cap-Weighted Dividend Yield	[16] Long-Term Growth Est.	[17] Cap-Weighted Long-Term Growth Est.
Kansas City Southern	KSU	0.07%	1.14%	0.00%	15.63%	0.01%
Carnival Corp	CCL	0.14%	2.27%	0.00%	17.11%	0.02%
CenturyLink Inc	CTL	0.11%	5.71%	0.01%	0.86%	0.00%
Chubb Corp/The	CB	0.12%	2.27%	0.00%	9.20%	0.01%
Cigna Corp	CI	0.16%	0.03%	0.00%	11.65%	0.02%
Frontier Communications Corp	FTR	0.04%	5.26%	0.00%	36.10%	0.02%
Clorox Co/The	CLX	0.07%	2.72%	0.00%	6.82%	0.01%
CMS Energy Corp	CMS	0.05%	3.30%	0.00%	5.87%	0.00%
Coca-Cola Enterprises Inc	CCE	0.06%	2.42%	0.00%	6.49%	0.00%
Colgate-Palmolive Co	CL	0.33%	2.15%	0.01%	9.68%	0.03%
Comerica Inc	CMA	0.04%	1.75%	0.00%	10.65%	0.00%
CA Inc	CA	0.07%	3.08%	0.00%	4.27%	0.00%
Computer Sciences Corp	CSC	0.05%	1.30%	0.00%	9.10%	0.00%
ConAgra Foods Inc	CAG	0.08%	2.86%	0.00%	9.37%	0.01%
Consolidated Edison Inc	ED	0.10%	4.12%	0.00%	3.14%	0.00%
Corning Inc	GLW	0.16%	1.97%	0.00%	5.43%	0.01%
CSX Corp	CSX	0.18%	1.87%	0.00%	12.22%	0.02%
Cummins Inc	CMI	0.13%	2.19%	0.00%	14.47%	0.02%
Danaher Corp	DHR	0.32%	0.62%	0.00%	11.25%	0.04%
Target Corp	TGT	0.25%	2.71%	0.01%	8.69%	0.02%
Deere & Co	DE	0.16%	2.65%	0.00%	6.38%	0.01%
Dominion Resources Inc/VA	D	0.22%	3.59%	0.01%	6.68%	0.01%
Dover Corp	DOV	0.06%	2.22%	0.00%	9.23%	0.01%
Dow Chemical Co/The	DOW	0.30%	3.41%	0.01%	8.60%	0.03%
Duke Energy Corp	DUK	0.29%	4.05%	0.01%	4.98%	0.01%
Eaton Corp PLC	ETN	0.17%	3.10%	0.01%	8.40%	0.01%
Ecolab Inc	ECL	0.18%	1.14%	0.00%	13.02%	0.02%
PerkinElmer Inc	PKI	0.03%	0.60%	0.00%	8.79%	0.00%
EMC Corp/MA	EMC	0.30%	1.59%	0.00%	10.65%	0.03%
Emerson Electric Co	EMR	0.21%	3.25%	0.01%	6.71%	0.01%
EOG Resources Inc	EOG	0.26%	0.75%	0.00%	9.68%	0.02%
Entergy Corp	ETR	0.07%	4.18%	0.00%	3.53%	0.00%
Equifax Inc	EFX	0.06%	1.24%	0.00%	13.80%	0.01%
EQT Corp	EQT	0.06%	0.15%	0.00%	30.00%	0.02%
XL Group PLC	XL	0.05%	1.77%	0.00%	5.87%	0.00%
Family Dollar Stores Inc	FDO	0.05%	1.57%	0.00%	6.63%	0.00%
FedEx Corp	FDX	0.26%	0.45%	0.00%	15.46%	0.04%
Macy's Inc	M	0.11%	1.96%	0.00%	8.27%	0.01%
FMC Corp	FMC	0.04%	0.95%	0.00%	10.00%	0.00%
Ford Motor Co	F	0.33%	3.67%	0.01%	15.39%	0.05%
NextEra Energy Inc	NEE	0.24%	2.98%	0.01%	6.28%	0.01%
Franklin Resources Inc	BEN	0.17%	1.11%	0.00%	10.44%	0.02%
Freeport-McMoRan Inc	FCX	0.12%	5.78%	0.01%	4.13%	0.00%
Gannett Co Inc	GCI	0.04%	2.26%	0.00%	4.67%	0.00%
Gap Inc/The	GPS	0.09%	2.21%	0.00%	11.18%	0.01%
General Dynamics Corp	GD	0.24%	1.79%	0.00%	8.22%	0.02%
General Mills Inc	GIS	0.17%	3.05%	0.01%	7.55%	0.01%
Genuine Parts Co	GPC	0.08%	2.56%	0.00%	6.87%	0.01%
WW Grainger Inc	GWW	0.08%	1.82%	0.00%	11.90%	0.01%
Halliburton Co	HAL	0.19%	1.68%	0.00%	17.10%	0.03%
Harley-Davidson Inc	HOG	0.07%	1.95%	0.00%	11.23%	0.01%
Harman International Industries Inc	HAR	0.05%	0.96%	0.00%	16.70%	0.01%
Joy Global Inc	JOY	0.02%	1.81%	0.00%	17.55%	0.00%
Harris Corp	HRS	0.04%	2.42%	0.00%	n/a	n/a
HCP Inc	HCP	0.10%	5.34%	0.01%	2.90%	0.00%
Helmerich & Payne Inc	HP	0.04%	4.10%	0.00%	n/a	n/a
Hershey Co/The	HSY	0.09%	2.06%	0.00%	9.50%	0.01%
Hormel Foods Corp	HRL	0.08%	1.71%	0.00%	5.90%	0.00%
Starwood Hotels & Resorts Worldwide Inc	HOT	0.07%	1.87%	0.00%	9.34%	0.01%
Mondelez International Inc	MDLZ	0.32%	1.62%	0.01%	8.57%	0.03%
CenterPoint Energy Inc	CNP	0.05%	4.76%	0.00%	5.20%	0.00%
Humana Inc	HUM	0.13%	0.68%	0.00%	10.33%	0.01%
Illinois Tool Works Inc	ITW	0.20%	1.96%	0.00%	9.20%	0.02%
Ingersoll-Rand PLC	IR	0.09%	1.73%	0.00%	9.96%	0.01%
Interpublic Group of Cos Inc/The	IPG	0.05%	2.15%	0.00%	11.13%	0.01%
International Flavors & Fragrances Inc	IFF	0.05%	1.54%	0.00%	10.30%	0.01%
Jacobs Engineering Group Inc	JEC	0.03%	n/a	n/a	8.45%	0.00%
Johnson Controls Inc	JCI	0.17%	2.05%	0.00%	10.94%	0.02%
Kellogg Co	K	0.12%	3.04%	0.00%	5.22%	0.01%
Perrigo Co PLC	PRGO	0.11%	0.32%	0.00%	13.24%	0.01%
Kimberly-Clark Corp	KMB	0.21%	3.21%	0.01%	6.97%	0.01%
Kimco Realty Corp	KIM	0.06%	3.65%	0.00%	4.14%	0.00%
Kohl's Corp	KSS	0.08%	2.44%	0.00%	6.73%	0.01%
Oracle Corp	ORCL	1.00%	1.10%	0.01%	9.24%	0.09%
Kroger Co/The	KR	0.18%	1.04%	0.00%	10.90%	0.02%
Legg Mason Inc	LM	0.03%	1.12%	0.00%	17.55%	0.01%
Leggett & Platt Inc	LEG	0.03%	2.75%	0.00%	n/a	n/a
Lennar Corp	LEN	0.05%	0.32%	0.00%	9.19%	0.00%
Leucadia National Corp	LUK	0.05%	1.05%	0.00%	n/a	n/a
Eli Lilly & Co	LLY	0.41%	2.85%	0.01%	12.94%	0.05%
L Brands Inc	LB	0.14%	2.18%	0.00%	12.94%	0.02%
Lincoln National Corp	LNC	0.08%	1.39%	0.00%	9.25%	0.01%
Loews Corp	L	0.08%	0.61%	0.00%	n/a	n/a
Lowe's Cos Inc	LOW	0.37%	1.24%	0.00%	16.68%	0.06%
Host Hotels & Resorts Inc	HST	0.08%	3.81%	0.00%	8.80%	0.01%
Marsh & McLennan Cos Inc	MMC	0.16%	1.97%	0.00%	12.85%	0.02%
Masco Corp	MAS	0.05%	1.37%	0.00%	11.38%	0.01%
Mattel Inc	MAT	0.05%	5.78%	0.00%	9.30%	0.00%
McGraw Hill Financial Inc	MHFI	0.15%	1.28%	0.00%	12.50%	0.02%
Medtronic PLC	MDT	0.58%	1.57%	0.01%	6.63%	0.04%

Southwestern Public Service Company

CAPM

STANDARD AND POOR'S 500 INDEX

Name	Ticker	[13] Weight in Index	[14] Estimated Dividend Yield	[15] Cap-Weighted Dividend Yield	[16] Long-Term Growth Est.	[17] Cap-Weighted Long-Term Growth Est.
CVS Health Corp	CVS	0.61%	1.35%	0.01%	14.25%	0.09%
Micron Technology Inc	MU	0.17%	n/a	n/a	11.00%	0.02%
Motorola Solutions Inc	MSI	0.08%	2.00%	0.00%	10.08%	0.01%
Murphy Oil Corp	MUR	0.05%	2.75%	0.00%	5.55%	0.00%
Mylan NV	MYL	0.11%	n/a	n/a	12.55%	0.01%
Laboratory Corp of America Holdings	LH	0.06%	n/a	n/a	10.73%	0.01%
Tenet Healthcare Corp	THC	0.02%	n/a	n/a	13.77%	0.00%
Newell Rubbermaid Inc	NWL	0.06%	1.93%	0.00%	9.43%	0.01%
Newmont Mining Corp	NEM	0.07%	0.38%	0.00%	0.63%	0.00%
Twenty-First Century Fox Inc	FOXA	0.24%	0.86%	0.00%	13.82%	0.03%
NIKE Inc	NKE	0.35%	1.15%	0.00%	13.08%	0.05%
NiSource Inc	NI	0.07%	2.42%	0.00%	6.00%	0.00%
Noble Energy Inc	NBL	0.10%	1.52%	0.00%	10.88%	0.01%
Norfolk Southern Corp	NSC	0.17%	2.16%	0.00%	12.64%	0.02%
Eversource Energy	ES	0.09%	3.23%	0.00%	6.70%	0.01%
Northrop Grumman Corp	NOC	0.17%	1.69%	0.00%	6.92%	0.01%
Wells Fargo & Co	WFC	1.47%	2.56%	0.04%	10.44%	0.15%
Nucor Corp	NUE	0.08%	3.17%	0.00%	11.45%	0.01%
PVH Corp	PVH	0.05%	0.14%	0.00%	12.40%	0.01%
Occidental Petroleum Corp	OXY	0.31%	3.70%	0.01%	8.00%	0.02%
Omnicom Group Inc	OMC	0.10%	2.51%	0.00%	6.20%	0.01%
ONEOK Inc	OKE	0.05%	5.47%	0.00%	11.37%	0.01%
Owens-Illinois Inc	OI	0.02%	n/a	n/a	5.24%	0.00%
PG&E Corp	PCG	0.13%	3.39%	0.00%	6.57%	0.01%
Parker-Hannifin Corp	PH	0.09%	2.05%	0.00%	8.92%	0.01%
PPL Corp	PPL	0.12%	4.37%	0.01%	3.24%	0.00%
PepsiCo Inc	PEP	0.76%	2.65%	0.02%	7.09%	0.05%
Exelon Corp	EXC	0.15%	3.66%	0.01%	6.82%	0.01%
ConocoPhillips	COP	0.42%	4.48%	0.02%	6.18%	0.03%
PulteGroup Inc	PHM	0.04%	1.42%	0.00%	11.19%	0.00%
Pinnacle West Capital Corp	PNW	0.04%	3.71%	0.00%	4.94%	0.00%
Pitney Bowes Inc	PBI	0.02%	3.24%	0.00%	n/a	n/a
Plum Creek Timber Co Inc	PCL	0.04%	4.05%	0.00%	0.00%	0.00%
PNC Financial Services Group Inc/The	PNC	0.25%	2.09%	0.01%	6.08%	0.02%
PPG Industries Inc	PPG	0.17%	1.14%	0.00%	7.97%	0.01%
Praxair Inc	PX	0.19%	2.24%	0.00%	10.25%	0.02%
Precision Castparts Corp	PCP	0.16%	0.06%	0.00%	10.78%	0.02%
Progressive Corp/The	PGR	0.08%	2.57%	0.00%	8.93%	0.01%
Public Service Enterprise Group Inc	PEG	0.11%	3.71%	0.00%	5.17%	0.01%
Raytheon Co	RTN	0.17%	2.22%	0.00%	6.64%	0.01%
Robert Half International Inc	RHI	0.04%	1.29%	0.00%	15.64%	0.01%
Ryder System Inc	R	0.03%	1.57%	0.00%	13.05%	0.00%
SCANA Corp	SCG	0.04%	3.83%	0.00%	5.50%	0.00%
Edison International	EIX	0.11%	2.60%	0.00%	4.70%	0.01%
Schlumberger Ltd	SLB	0.56%	2.38%	0.01%	13.11%	0.07%
Charles Schwab Corp/The	SCHW	0.20%	0.82%	0.00%	19.84%	0.04%
Sherwin-Williams Co/The	SHW	0.14%	0.94%	0.00%	14.00%	0.02%
JM Smucker Co/The	SJM	0.06%	2.22%	0.00%	5.46%	0.00%
Snap-on Inc	SNA	0.04%	1.44%	0.00%	5.80%	0.00%
AMETEK Inc	AME	0.07%	0.68%	0.00%	11.14%	0.01%
Southern Co/The	SO	0.21%	4.59%	0.01%	4.04%	0.01%
BB&T Corp	BBT	0.14%	2.52%	0.00%	12.57%	0.02%
Southwest Airlines Co	LUV	0.15%	0.56%	0.00%	14.55%	0.02%
Southwestern Energy Co	SWN	0.05%	n/a	n/a	13.02%	0.01%
Stanley Black & Decker Inc	SWK	0.08%	2.12%	0.00%	10.10%	0.01%
Public Storage	PSA	0.18%	2.84%	0.01%	5.43%	0.01%
SunTrust Banks Inc	STI	0.11%	1.95%	0.00%	20.65%	0.02%
Sysco Corp	SYY	0.12%	3.08%	0.00%	10.04%	0.01%
TECO Energy Inc	TE	0.02%	4.58%	0.00%	5.77%	0.00%
Tesoro Corp	TSO	0.06%	1.85%	0.00%	28.60%	0.02%
Texas Instruments Inc	TXN	0.32%	2.31%	0.01%	8.52%	0.03%
Textron Inc	TXT	0.06%	0.18%	0.00%	9.26%	0.01%
Thermo Fisher Scientific Inc	TMO	0.27%	0.46%	0.00%	16.03%	0.04%
Tiffany & Co	TIF	0.06%	1.72%	0.00%	11.88%	0.01%
TJX Cos Inc/The	TJX	0.25%	1.22%	0.00%	12.58%	0.03%
Torchmark Corp	TMK	0.04%	0.95%	0.00%	8.05%	0.00%
Total System Services Inc	TSS	0.04%	1.05%	0.00%	11.25%	0.00%
Tyco International Plc	TYC	0.09%	1.71%	0.00%	11.47%	0.01%
Union Pacific Corp	UNP	0.55%	1.83%	0.01%	13.04%	0.07%
UnitedHealth Group Inc	UNH	0.56%	1.32%	0.01%	10.99%	0.06%
Unum Group	UNM	0.04%	1.97%	0.00%	9.00%	0.00%
Marathon Oil Corp	MRO	0.10%	3.02%	0.00%	9.63%	0.01%
Varian Medical Systems Inc	VAR	0.05%	n/a	n/a	10.90%	0.01%
Ventas Inc	VTR	0.13%	3.11%	0.00%	3.94%	0.01%
VF Corp	VFC	0.17%	1.67%	0.00%	12.83%	0.02%
Vornado Realty Trust	VNO	0.11%	2.29%	0.00%	9.53%	0.01%
ADT Corp/The	ADT	0.03%	2.14%	0.00%	7.05%	0.00%
Vulcan Materials Co	VMC	0.06%	0.48%	0.00%	18.02%	0.01%
Weyerhaeuser Co	WY	0.10%	3.30%	0.00%	4.63%	0.00%
Whirlpool Corp	WHR	0.09%	1.42%	0.00%	23.49%	0.02%
Williams Cos Inc/The	WMB	0.19%	4.73%	0.01%	13.37%	0.03%
Integrys Energy Group Inc	TEG	0.03%	3.64%	0.00%	5.00%	0.00%
Wisconsin Energy Corp	WEC	0.06%	3.32%	0.00%	5.10%	0.00%
Xerox Corp	XRX	0.08%	2.05%	0.00%	10.20%	0.01%
Adobe Systems Inc	ADBE	0.21%	n/a	n/a	15.50%	0.03%
AES Corp/VA	AES	0.05%	3.08%	0.00%	6.25%	0.00%
Amgen Inc	AMGN	0.62%	2.00%	0.01%	10.48%	0.07%
Apple Inc	AAPL	3.89%	1.46%	0.06%	14.45%	0.56%
Autodesk Inc	ADSK	0.08%	n/a	n/a	17.00%	0.01%
Cintas Corp	CTAS	0.05%	1.02%	0.00%	11.26%	0.01%

Southwestern Public Service Company

CAPM

STANDARD AND POOR'S 500 INDEX

Name	Ticker	[13] Weight in Index	[14] Estimated Dividend Yield	[15] Cap-Weighted Dividend Yield	[16] Long-Term Growth Est.	[17] Cap-Weighted Long-Term Growth Est.
Comcast Corp	CMCSA	0.66%	1.68%	0.01%	12.86%	0.08%
Molson Coors Brewing Co	TAP	0.06%	2.16%	0.00%	2.91%	0.00%
KLA-Tencor Corp	KLAC	0.05%	3.08%	0.00%	3.62%	0.00%
Marriott International Inc/MD	MAR	0.12%	0.96%	0.00%	10.63%	0.01%
McCormick & Co Inc/MD	MKC	0.05%	2.12%	0.00%	7.23%	0.00%
Nordstrom Inc	JWN	0.08%	1.84%	0.00%	10.15%	0.01%
PACCAR Inc	PCAR	0.12%	1.37%	0.00%	9.58%	0.01%
Costco Wholesale Corp	COST	0.34%	0.97%	0.00%	10.39%	0.03%
Sigma-Aldrich Corp	SIAL	0.09%	0.67%	0.00%	5.14%	0.00%
St Jude Medical Inc	STJ	0.10%	1.74%	0.00%	10.20%	0.01%
Stryker Corp	SYK	0.19%	1.46%	0.00%	11.73%	0.02%
Tyson Foods Inc	TSN	0.07%	0.97%	0.00%	15.65%	0.01%
Altera Corp	ALTR	0.06%	1.95%	0.00%	11.47%	0.01%
Applied Materials Inc	AMAT	0.16%	1.60%	0.00%	12.93%	0.02%
Time Warner Inc	TWX	0.35%	1.71%	0.01%	11.06%	0.04%
Bed Bath & Beyond Inc	BBBY	0.07%	n/a	n/a	7.97%	0.01%
Cardinal Health Inc	CAH	0.15%	1.56%	0.00%	11.45%	0.02%
Celgene Corp	CELG	0.51%	n/a	n/a	26.12%	0.13%
Cerner Corp	CERN	0.13%	n/a	n/a	17.97%	0.02%
Cincinnati Financial Corp	CINF	0.05%	3.49%	0.00%	n/a	n/a
Cablevision Systems Corp	CVC	0.02%	3.19%	0.00%	-0.24%	0.00%
DR Horton Inc	DHI	0.05%	0.92%	0.00%	11.57%	0.01%
Flowserve Corp	FLS	0.04%	1.16%	0.00%	9.02%	0.00%
Electronic Arts Inc	EA	0.09%	n/a	n/a	16.00%	0.01%
Express Scripts Holding Co	ESRX	0.32%	n/a	n/a	12.91%	0.04%
Expeditors International of Washington Inc	EXPD	0.05%	1.33%	0.00%	8.92%	0.00%
Fastenal Co	FAST	0.06%	2.70%	0.00%	16.25%	0.01%
M&T Bank Corp	MTB	0.08%	2.31%	0.00%	9.81%	0.01%
Fiserv Inc	FISV	0.10%	n/a	n/a	12.76%	0.01%
Fifth Third Bancorp	FITB	0.08%	2.69%	0.00%	10.45%	0.01%
Gilead Sciences Inc	GILD	0.80%	1.66%	0.01%	19.34%	0.16%
Hasbro Inc	HAS	0.04%	2.95%	0.00%	10.00%	0.00%
Huntington Bancshares Inc/OH	HBAN	0.05%	2.19%	0.00%	7.76%	0.00%
Health Care REIT Inc	HCN	0.14%	4.28%	0.01%	6.05%	0.01%
Biogen Idec Inc	BIIB	0.50%	n/a	n/a	17.84%	0.09%
Linear Technology Corp	LLTC	0.06%	2.49%	0.00%	9.35%	0.01%
Range Resources Corp	RRC	0.04%	0.32%	0.00%	22.76%	0.01%
Nabors Industries Ltd	NBR	0.02%	1.87%	0.00%	7.94%	0.00%
Noble Corp plc	NE	0.02%	9.01%	0.00%	-12.37%	0.00%
Northern Trust Corp	NTRS	0.08%	1.89%	0.00%	12.52%	0.01%
Paychex Inc	PAYX	0.09%	3.05%	0.00%	9.58%	0.01%
People's United Financial Inc	PBCT	0.02%	4.36%	0.00%	13.19%	0.00%
Patterson Cos Inc	PDCO	0.03%	1.60%	0.00%	8.80%	0.00%
Pall Corp	PLL	0.06%	1.21%	0.00%	11.19%	0.01%
QUALCOMM Inc	QCOM	0.62%	2.32%	0.01%	10.94%	0.07%
Roper Industries Inc	ROP	0.09%	0.60%	0.00%	11.83%	0.01%
Ross Stores Inc	ROST	0.11%	0.89%	0.00%	13.36%	0.02%
AutoNation Inc	AN	0.04%	n/a	n/a	12.48%	0.00%
Starbucks Corp	SBUX	0.36%	1.37%	0.00%	17.63%	0.06%
KeyCorp	KEY	0.06%	1.87%	0.00%	7.33%	0.00%
Staples Inc	SPLS	0.06%	2.86%	0.00%	1.08%	0.00%
State Street Corp	STT	0.16%	1.61%	0.00%	13.30%	0.02%
US Bancorp/MN	USB	0.41%	2.20%	0.01%	8.33%	0.03%
Symantec Corp	SYMC	0.09%	2.38%	0.00%	7.82%	0.01%
T Rowe Price Group Inc	TROW	0.11%	2.52%	0.00%	12.23%	0.01%
Kraft Foods Group Inc	KRFT	0.20%	3.43%	0.01%	7.34%	0.01%
Waste Management Inc	WM	0.13%	2.83%	0.00%	8.20%	0.01%
CBS Corp	CBS	0.14%	1.02%	0.00%	15.13%	0.02%
Actavis plc	ACT	0.42%	n/a	n/a	19.89%	0.08%
Whole Foods Market Inc	WFM	0.11%	0.92%	0.00%	13.35%	0.01%
Constellation Brands Inc	STZ	0.10%	n/a	n/a	5.12%	0.01%
Xilinx Inc	XLNX	0.06%	2.74%	0.00%	9.20%	0.01%
DENTSPLY International Inc	XRAY	0.04%	0.55%	0.00%	9.88%	0.00%
Zions Bancorporation	ZION	0.03%	0.60%	0.00%	8.83%	0.00%
Denbury Resources Inc	DNR	0.02%	2.98%	0.00%	3.90%	0.00%
Invesco Ltd	IVZ	0.09%	2.48%	0.00%	12.04%	0.01%
Intuit Inc	INTU	0.14%	1.02%	0.00%	15.12%	0.02%
Morgan Stanley	MS	0.36%	1.12%	0.00%	15.74%	0.06%
Microchip Technology Inc	MCHP	0.05%	2.79%	0.00%	10.90%	0.01%
ACE Ltd	ACE	0.19%	2.28%	0.00%	8.40%	0.02%
Chesapeake Energy Corp	CHK	0.06%	2.10%	0.00%	1.72%	0.00%
O'Reilly Automotive Inc	ORLY	0.11%	n/a	n/a	16.33%	0.02%
Allstate Corp/The	ALL	0.15%	1.70%	0.00%	8.73%	0.01%
FLIR Systems Inc	FLIR	0.02%	1.36%	0.00%	14.33%	0.00%
Equity Residential	EQR	0.15%	2.60%	0.00%	7.84%	0.01%
BorgWarner Inc	BWA	0.07%	0.85%	0.00%	12.79%	0.01%
Newfield Exploration Co	NFX	0.03%	n/a	n/a	13.50%	0.00%
Urban Outfitters Inc	URBN	0.03%	n/a	n/a	15.91%	0.00%
Simon Property Group Inc	SPG	0.31%	2.94%	0.01%	7.44%	0.02%
Eastman Chemical Co	EMN	0.06%	2.15%	0.00%	7.14%	0.00%
AvalonBay Communities Inc	AVB	0.12%	2.97%	0.00%	7.61%	0.01%
Prudential Financial Inc	PRU	0.19%	2.87%	0.01%	11.00%	0.02%
United Parcel Service Inc	UPS	0.37%	2.87%	0.01%	11.79%	0.04%
Apartment Investment & Management Co	AIV	0.03%	2.97%	0.00%	7.81%	0.00%
Walgreens Boots Alliance Inc	WBA	0.47%	1.62%	0.01%	14.79%	0.07%
McKesson Corp	MCK	0.28%	0.42%	0.00%	15.76%	0.04%
Lockheed Martin Corp	LMT	0.33%	3.00%	0.01%	8.73%	0.03%
AmerisourceBergen Corp	ABC	0.12%	1.13%	0.00%	10.21%	0.01%
Cameron International Corp	CAM	0.05%	n/a	n/a	8.77%	0.00%
Capital One Financial Corp	COF	0.23%	1.52%	0.00%	5.58%	0.01%

Southwestern Public Service Company

CAPM

STANDARD AND POOR'S 500 INDEX

Name	Ticker	[13] Weight in Index	[14] Estimated Dividend Yield	[15] Cap-Weighted Dividend Yield	[16] Long-Term Growth Est.	[17] Cap-Weighted Long-Term Growth Est.
Waters Corp	WAT	0.05%	n/a	n/a	9.66%	0.01%
Dollar Tree Inc	DLTR	0.09%	n/a	n/a	15.12%	0.01%
Darden Restaurants Inc	DRI	0.04%	3.44%	0.00%	12.66%	0.01%
SanDisk Corp	SNDK	0.09%	1.50%	0.00%	14.13%	0.01%
Diamond Offshore Drilling Inc	DO	0.02%	1.64%	0.00%	-12.45%	0.00%
NetApp Inc	NTAP	0.06%	1.71%	0.00%	11.64%	0.01%
Citrix Systems Inc	CTXS	0.05%	n/a	n/a	13.80%	0.01%
Goodyear Tire & Rubber Co/The	GT	0.04%	0.90%	0.00%	8.94%	0.00%
DaVita HealthCare Partners Inc	DVA	0.08%	n/a	n/a	9.93%	0.01%
Hartford Financial Services Group Inc/The	HIG	0.09%	1.76%	0.00%	9.50%	0.01%
Iron Mountain Inc	IRM	0.04%	5.17%	0.00%	12.33%	0.00%
Estee Lauder Cos Inc/The	EL	0.10%	1.16%	0.00%	10.28%	0.01%
Lorillard Inc	LO	0.13%	3.86%	0.00%	8.29%	0.01%
Yahoo! Inc	YHOO	0.22%	n/a	n/a	10.75%	0.02%
Principal Financial Group Inc	PFG	0.08%	2.81%	0.00%	13.50%	0.01%
Allegheny Technologies Inc	ATI	0.02%	2.14%	0.00%	16.10%	0.00%
Stericycle Inc	SRCL	0.06%	n/a	n/a	14.80%	0.01%
Universal Health Services Inc	UHS	0.05%	0.35%	0.00%	9.04%	0.00%
E*TRADE Financial Corp	ETFC	0.04%	n/a	n/a	29.65%	0.01%
National Oilwell Varco Inc	NOV	0.12%	3.39%	0.00%	2.38%	0.00%
Quest Diagnostics Inc	DGX	0.05%	2.17%	0.00%	10.33%	0.01%
Rockwell Automation Inc	ROK	0.08%	2.22%	0.00%	8.91%	0.01%
American Tower Corp	AMT	0.20%	1.53%	0.00%	21.13%	0.04%
Regeneron Pharmaceuticals Inc	REGN	0.22%	n/a	n/a	18.08%	0.04%
Amazon.com Inc	AMZN	0.92%	n/a	n/a	35.94%	0.33%
Ralph Lauren Corp	RL	0.04%	1.46%	0.00%	11.74%	0.01%
Boston Properties Inc	BXP	0.11%	1.89%	0.00%	7.22%	0.01%
Amphenol Corp	APH	0.09%	0.89%	0.00%	10.04%	0.01%
Pioneer Natural Resources Co	PXD	0.12%	0.05%	0.00%	18.00%	0.02%
Valero Energy Corp	VLO	0.17%	2.59%	0.00%	4.57%	0.01%
L-3 Communications Holdings Inc	LLL	0.06%	2.01%	0.00%	7.61%	0.00%
Western Union Co/The	WU	0.05%	3.18%	0.00%	8.97%	0.00%
CH Robinson Worldwide Inc	CHRW	0.06%	2.05%	0.00%	11.48%	0.01%
Accenture PLC	ACN	0.29%	2.27%	0.01%	10.50%	0.03%
Yum! Brands Inc	YUM	0.18%	2.02%	0.00%	11.18%	0.02%
Prologis Inc	PLD	0.11%	3.37%	0.00%	7.26%	0.01%
FirstEnergy Corp	FE	0.08%	4.12%	0.00%	-4.41%	0.00%
VeriSign Inc	VRSN	0.04%	n/a	n/a	10.57%	0.00%
Quanta Services Inc	PWR	0.03%	n/a	n/a	10.58%	0.00%
Ameren Corp	AEE	0.05%	3.87%	0.00%	7.20%	0.00%
Broadcom Corp	BRCM	0.13%	1.24%	0.00%	11.98%	0.02%
NVIDIA Corp	NVDA	0.06%	1.54%	0.00%	10.72%	0.01%
Sealed Air Corp	SEE	0.05%	1.10%	0.00%	9.53%	0.00%
Cognizant Technology Solutions Corp	CTSH	0.20%	n/a	n/a	16.65%	0.03%
Intuitive Surgical Inc	ISRG	0.10%	n/a	n/a	7.44%	0.01%
CONSOL Energy Inc	CNX	0.04%	0.78%	0.00%	8.05%	0.00%
Aetna Inc	AET	0.18%	1.00%	0.00%	11.91%	0.02%
Affiliated Managers Group Inc	AMG	0.06%	n/a	n/a	15.00%	0.01%
Republic Services Inc	RSG	0.08%	2.74%	0.00%	5.15%	0.00%
eBay Inc	EBAY	0.36%	n/a	n/a	13.48%	0.05%
Goldman Sachs Group Inc/The	GS	0.43%	1.26%	0.01%	18.03%	0.08%
Sempra Energy	SRE	0.14%	2.59%	0.00%	7.68%	0.01%
Moody's Corp	MCO	0.10%	1.40%	0.00%	13.50%	0.01%
Priceline Group Inc/The	PCLN	0.33%	n/a	n/a	19.82%	0.07%
F5 Networks Inc	FFIV	0.04%	n/a	n/a	15.47%	0.01%
Akamai Technologies Inc	AKAM	0.06%	n/a	n/a	15.83%	0.01%
QEP Resources Inc	QEP	0.02%	0.37%	0.00%	15.00%	0.00%
Reynolds American Inc	RAI	0.21%	3.54%	0.01%	9.05%	0.02%
Devon Energy Corp	DVN	0.13%	1.56%	0.00%	5.51%	0.01%
Google Inc	GOOGL	0.84%	n/a	n/a	16.59%	0.14%
Red Hat Inc	RHT	0.07%	n/a	n/a	16.77%	0.01%
Hudson City Bancorp Inc	HCBK	0.03%	1.64%	0.00%	-3.00%	0.00%
Netflix Inc	NFLX	0.15%	n/a	n/a	36.87%	0.06%
Allegion PLC	ALLE	0.03%	0.69%	0.00%	n/a	n/a
Agilent Technologies Inc	A	0.07%	0.95%	0.00%	5.10%	0.00%
Anthem Inc	ANTM	0.20%	1.71%	0.00%	10.20%	0.02%
CME Group Inc/IL	CME	0.17%	2.08%	0.00%	12.43%	0.02%
Juniper Networks Inc	JNPR	0.05%	1.67%	0.00%	11.14%	0.01%
BlackRock Inc	BLK	0.32%	2.35%	0.01%	12.14%	0.04%
DTE Energy Co	DTE	0.08%	3.36%	0.00%	5.38%	0.00%
NASDAQ OMX Group Inc/The	NDAQ	0.04%	1.20%	0.00%	9.42%	0.00%
Philip Morris International Inc	PM	0.67%	4.82%	0.03%	3.42%	0.02%
Time Warner Cable Inc	TWC	0.23%	1.95%	0.00%	10.04%	0.02%
salesforce.com inc	CRM	0.23%	n/a	n/a	23.40%	0.05%
Windstream Holdings Inc	WIN	0.02%	12.67%	0.00%	-1.00%	0.00%
MetLife Inc	MET	0.30%	2.75%	0.01%	7.15%	0.02%
Monsanto Co	MON	0.30%	1.63%	0.00%	8.15%	0.02%
Coach Inc	COH	0.06%	3.10%	0.00%	11.21%	0.01%
Fluor Corp	FLR	0.04%	1.45%	0.00%	7.54%	0.00%
Dun & Bradstreet Corp/The	DNB	0.02%	1.40%	0.00%	10.70%	0.00%
Edwards Lifesciences Corp	EW	0.07%	n/a	n/a	13.30%	0.01%
Ameriprise Financial Inc	AMP	0.13%	1.74%	0.00%	13.00%	0.02%
Xcel Energy Inc	XEL	0.09%	3.63%	0.00%	5.00%	0.00%
Rockwell Collins Inc	COL	0.06%	1.35%	0.00%	10.38%	0.01%
FMC Technologies Inc	FTI	0.05%	n/a	n/a	14.00%	0.01%
Zimmer Holdings Inc	ZMH	0.11%	0.73%	0.00%	9.40%	0.01%
CBRE Group Inc	CBG	0.06%	n/a	n/a	11.80%	0.01%
MasterCard Inc	MA	0.52%	0.71%	0.00%	17.07%	0.09%
GameStop Corp	GME	0.02%	3.57%	0.00%	15.30%	0.00%
CarMax Inc	KMX	0.07%	n/a	n/a	15.02%	0.01%

Southwestern Public Service Company

CAPM

STANDARD AND POOR'S 500 INDEX

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Intercontinental Exchange Inc	ICE	0.14%	1.10%	0.00%	15.19%	0.02%
Fidelity National Information Services Inc	FIS	0.10%	1.54%	0.00%	13.30%	0.01%
Chipotle Mexican Grill Inc	CMG	0.11%	n/a	n/a	20.93%	0.02%
MeadWestvaco Corp	MWV	0.05%	1.88%	0.00%	11.23%	0.01%
Pepco Holdings Inc	POM	0.04%	3.98%	0.00%	n/a	n/a
Wynn Resorts Ltd	WYNN	0.08%	4.21%	0.00%	10.67%	0.01%
DIRECTV	DTV	0.23%	n/a	n/a	6.00%	0.01%
Hospira Inc	HSP	0.08%	n/a	n/a	16.70%	0.01%
Assurant Inc	AIZ	0.02%	1.76%	0.00%	7.66%	0.00%
NRG Energy Inc	NRG	0.04%	2.42%	0.00%	n/a	n/a
Genworth Financial Inc	GNW	0.02%	n/a	n/a	5.00%	0.00%
Regions Financial Corp	RF	0.07%	2.08%	0.00%	5.66%	0.00%
Teradata Corp	TDC	0.03%	n/a	n/a	10.07%	0.00%
Mosaic Co/The	MOS	0.10%	1.88%	0.00%	8.90%	0.01%
Expedia Inc	EXPE	0.05%	0.78%	0.00%	14.95%	0.01%
Discovery Communications Inc	DISCA	0.02%	n/a	n/a	18.08%	0.00%
CF Industries Holdings Inc	CF	0.08%	1.96%	0.00%	13.44%	0.01%
Viacom Inc	VIAB	0.13%	1.89%	0.00%	10.77%	0.01%
Google Inc	GOOG	0.99%	n/a	n/a	16.59%	0.16%
Wyndham Worldwide Corp	WYN	0.06%	1.84%	0.00%	10.00%	0.01%
Spectra Energy Corp	SE	0.12%	4.17%	0.01%	7.53%	0.01%
First Solar Inc	FSLR	0.03%	n/a	n/a	-3.81%	0.00%
Ensco PLC	ESV	0.03%	2.45%	0.00%	-3.43%	0.00%
Mead Johnson Nutrition Co	MJN	0.11%	1.58%	0.00%	10.10%	0.01%
TE Connectivity Ltd	TEL	0.15%	1.61%	0.00%	11.35%	0.02%
Discover Financial Services	DFS	0.14%	1.57%	0.00%	10.90%	0.02%
TripAdvisor Inc	TRIP	0.06%	n/a	n/a	22.03%	0.01%
Dr Pepper Snapple Group Inc	DPS	0.08%	2.44%	0.00%	5.45%	0.00%
Scripps Networks Interactive Inc	SNI	0.04%	1.27%	0.00%	9.80%	0.00%
Visa Inc	V	0.69%	0.71%	0.00%	17.74%	0.12%
CareFusion Corp	CFN	0.06%	n/a	n/a	12.00%	0.01%
Xylem Inc/NY	XYL	0.03%	1.58%	0.00%	11.45%	0.00%
Marathon Petroleum Corp	MPC	0.15%	1.90%	0.00%	9.70%	0.01%
Tractor Supply Co	TSCO	0.06%	0.73%	0.00%	15.68%	0.01%
Level 3 Communications Inc	LVLT	0.10%	n/a	n/a	8.00%	0.01%
Transocean Ltd	RIG	0.03%	3.72%	0.00%	-13.00%	0.00%
Essex Property Trust Inc	ESS	0.07%	2.59%	0.00%	6.96%	0.01%
General Growth Properties Inc	GGP	0.13%	2.34%	0.00%	8.02%	0.01%
Seagate Technology PLC	STX	0.10%	3.53%	0.00%	8.13%	0.01%
Western Digital Corp	WDC	0.13%	1.87%	0.00%	5.35%	0.01%
Fossil Group Inc	FOSL	0.02%	n/a	n/a	12.40%	0.00%
Lam Research Corp	LRCX	0.07%	0.87%	0.00%	7.32%	0.01%
Mohawk Industries Inc	MHK	0.07%	n/a	n/a	10.95%	0.01%
Pentair PLC	PNR	0.06%	1.93%	0.00%	16.93%	0.01%
Monster Beverage Corp	MNST	0.12%	n/a	n/a	19.32%	0.02%
Vertex Pharmaceuticals Inc	VRTX	0.15%	n/a	n/a	23.98%	0.04%
Facebook Inc	FB	0.92%	n/a	n/a	30.80%	0.28%
United Rentals Inc	URI	0.05%	n/a	n/a	23.06%	0.01%
Navient Corp	NAVI	0.04%	2.99%	0.00%	n/a	n/a
Delta Air Lines Inc	DAL	0.19%	0.81%	0.00%	25.43%	0.05%
Mallinckrodt PLC	MNK	0.07%	n/a	n/a	15.73%	0.01%
PetSmart Inc	PETM	0.04%	0.94%	0.00%	13.91%	0.01%
Keurig Green Mountain Inc	GMCR	0.11%	0.90%	0.00%	15.00%	0.02%
Macerich Co/The	MAC	0.07%	3.11%	0.00%	5.92%	0.00%
Martin Marietta Materials Inc	MLM	0.05%	1.12%	0.00%	19.18%	0.01%
Alexion Pharmaceuticals Inc	ALXN	0.19%	n/a	n/a	25.60%	0.05%
Endo International PLC	ENDP	0.07%	n/a	n/a	8.78%	0.01%
News Corp	NWSA	0.03%	n/a	n/a	10.90%	0.00%
Crown Castle International Corp	CCI	0.15%	3.80%	0.01%	26.20%	0.04%
Delphi Automotive PLC	DLPH	0.12%	1.27%	0.00%	14.88%	0.02%
Michael Kors Holdings Ltd	KORS	0.07%	n/a	n/a	28.67%	0.02%
Alliance Data Systems Corp	ADS	0.09%	n/a	n/a	14.02%	0.01%
Garmin Ltd	GRMN	0.05%	4.11%	0.00%	8.03%	0.00%
Cimarex Energy Co	XEC	0.05%	0.58%	0.00%	-10.90%	-0.01%
Zoetis Inc	ZTS	0.12%	0.72%	0.00%	11.70%	0.01%
Discovery Communications Inc	DISCK	0.05%	n/a	n/a	18.08%	0.01%

Notes:
[8] Equals sum of Col. [15]
[9] Equals sum of Col. [17]
[10] Equals ([8] x (1 + (0.5 x [9]))) + [9]
[11] Source: Exhibit AEB-9, at 1
[12] Equals [10] − [11]
[13] Equals weight in S&P 500 based on market capitalization
[14] Source: Bloomberg Professional
[15] Equals [13] x [14]
[16] Source: Bloomberg Professional
[17] Equals [13] x [16]

Southwestern Public Service Company

Risk Premium

BOND YIELD PLUS RISK PREMIUM

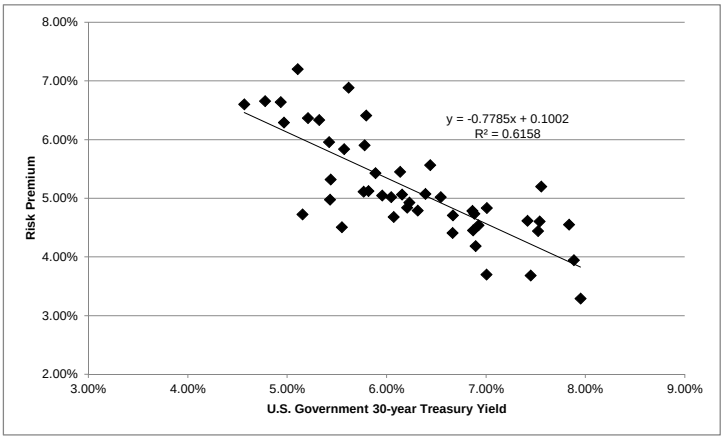
	[1]	[2]	[3]
	Average Authorized Electric ROE	30-year U.S. Treasury Bond	Risk Premium
1992.1	12.38%	7.84%	4.55%
1992.2	11.83%	7.88%	3.94%
1992.3	12.03%	7.42%	4.62%
1992.4	12.14%	7.54%	4.60%
1993.1	11.84%	7.01%	4.83%
1993.2	11.64%	6.86%	4.78%
1993.3	11.15%	6.23%	4.92%
1993.4	11.04%	6.21%	4.84%
1994.1	11.07%	6.66%	4.40%
1994.2	11.13%	7.45%	3.68%
1994.3	12.75%	7.55%	5.20%
1994.4	11.24%	7.95%	3.29%
1995.1	11.96%	7.52%	4.44%
1995.2	11.32%	6.87%	4.45%
1995.3	11.37%	6.66%	4.71%
1995.4	11.58%	6.14%	5.45%
1996.1	11.46%	6.39%	5.07%
1996.2	11.46%	6.92%	4.54%
1996.3	10.70%	7.00%	3.70%
1996.4	11.56%	6.54%	5.02%
1997.1	11.08%	6.90%	4.18%
1997.2	11.62%	6.88%	4.73%
1997.3	12.00%	6.44%	5.56%
1997.4	11.06%	6.04%	5.02%
1998.1	11.31%	5.89%	5.43%
1998.2	12.20%	5.79%	6.41%
1998.3	11.65%	5.32%	6.33%
1998.4	12.30%	5.11%	7.20%
1999.1	10.40%	5.43%	4.97%
1999.2	10.94%	5.82%	5.12%
1999.3	10.75%	6.07%	4.68%
1999.4	11.10%	6.31%	4.79%
2000.1	11.21%	6.15%	5.06%
2000.2	11.00%	5.95%	5.05%
2000.3	11.68%	5.78%	5.90%
2000.4	12.50%	5.62%	6.88%
2001.1	11.38%	5.42%	5.96%
2001.2	10.88%	5.77%	5.11%
2001.3	10.76%	5.44%	5.32%
2001.4	11.57%	5.21%	6.36%
2002.1	10.05%	5.55%	4.50%
2002.2	11.41%	5.57%	5.83%
2002.3	11.25%	4.96%	6.29%
2002.4	11.57%	4.93%	6.63%
2003.1	11.43%	4.78%	6.65%
2003.2	11.16%	4.57%	6.60%
2003.3	9.88%	5.15%	4.72%

BOND YIELD PLUS RISK PREMIUM

	[1]	[2]	[3]
	Average Authorized Electric ROE	30-year U.S. Treasury Bond	Risk Premium
2003.4	11.09%	5.11%	5.98%
2004.1	11.00%	4.86%	6.14%
2004.2	10.64%	5.31%	5.33%
2004.3	10.75%	5.01%	5.74%
2004.4	10.91%	4.87%	6.04%
2005.1	10.56%	4.69%	5.87%
2005.2	10.13%	4.34%	5.78%
2005.3	10.85%	4.43%	6.41%
2005.4	10.59%	4.66%	5.93%
2006.1	10.38%	4.69%	5.69%
2006.2	10.63%	5.19%	5.44%
2006.3	10.06%	4.90%	5.16%
2006.4	10.39%	4.70%	5.69%
2007.1	10.39%	4.81%	5.58%
2007.2	10.27%	4.98%	5.28%
2007.3	10.02%	4.85%	5.16%
2007.4	10.43%	4.53%	5.90%
2008.1	10.15%	4.34%	5.81%
2008.2	10.54%	4.57%	5.97%
2008.3	10.38%	4.44%	5.95%
2008.4	10.39%	3.49%	6.89%
2009.1	10.45%	3.62%	6.83%
2009.2	10.58%	4.23%	6.35%
2009.3	10.46%	4.18%	6.28%
2009.4	10.54%	4.35%	6.19%
2010.1	10.45%	4.59%	5.86%
2010.2	10.08%	4.20%	5.87%
2010.3	10.29%	3.73%	6.56%
2010.4	10.34%	4.14%	6.20%
2011.1	9.96%	4.53%	5.44%
2011.2	10.12%	4.33%	5.79%
2011.3	10.36%	3.54%	6.82%
2011.4	10.34%	3.03%	7.32%
2012.1	10.30%	3.12%	7.18%
2012.2	9.92%	2.84%	7.08%
2012.3	9.78%	2.68%	7.10%
2012.4	10.07%	2.87%	7.20%
2013.1	9.77%	3.12%	6.65%
2013.2	9.84%	3.22%	6.62%
2013.3	9.83%	3.67%	6.16%
2013.4	9.82%	3.81%	6.02%
2014.1	9.57%	3.58%	5.99%
2014.2	9.83%	3.38%	6.45%
2014.3	9.79%	3.20%	6.59%
2014.4	9.78%	2.90%	6.88%
2015.1	9.67%	2.41%	7.26%
AVERAGE	11.40%	6.24%	5.15%
MEDIAN	11.38%	6.15%	5.02%

Southwestern Public Service Company

Risk Premium



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.85873
R Square	0.73741
Adjusted R Square	0.73453
Standard Error	0.00470
Observations	93

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.00565	0.00565	255.54873	0.00000
Residual	91	0.00201	0.00002		
Total	92	0.00766			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.0863	0.00192	44.98	0.00000	0.08250	0.09012	0.08250	0.09012
30-year U.S. Treasury Bond	-0.5731	0.03585	-15.99	0.00000	-0.64428	-0.50186	-0.64428	-0.50186

	[7] U.S. Govt. 30-year Treasury	[8] Risk Premium	[9] ROE
Current 30-Day Average [4]	2.50%	7.20%	9.70%
Blue Chip Consensus Forecast (Q1 2015-Q2 2016) [5]	3.20%	6.80%	10.00%
Blue Chip Consensus Forecast (2016-2020) [6]	4.90%	5.82%	10.72%
MEAN			10.14%

Notes:
[1] Source: Regulatory Research Associates
[2] Source: Bloomberg Professional, quarterly bond yields are the average of the last trading day of each month in the quarter
[3] Equals Column [1] − Column [2]
[4] Source: Bloomberg Professional
[5] Source: Blue Chip Financial Forecasts, Vol. 34, No. 2, February 1, 2015, at 2
[6] Source: Blue Chip Financial Forecasts, Vol. 33, No. 12, December 1, 2014, at 14
[7] See notes [4], [5] & [6]
[8] Equals 0.086308 + (-0.573069 x Column [7])
[9] Equals Column [7] + Column [8]

Southwestern Public Service Company

Regulatory Risk Analysis

COMPARISON OF SPS NEW MEXICO AND PROXY GROUP COMPANIES
S&P JURISDICTIONAL RANKINGS

		[1]	[2]
		S&P	
		Rank	Numeric Rank
ALLETE, Inc.	Minnesota	Strong/Adequate (14)	14
	Wisconsin	Strong (2)	2
American Electric Power Company, Inc.	Arkansas	Strong/Adequate (28)	28
	Indiana	Strong/Adequate (27)	27
	Kentucky	Strong (9)	9
	Louisiana	Strong/Adequate (13)	13
	Michigan	Strong (4)	4
	Ohio	Strong/Adequate (36)	36
	Oklahoma	Strong/Adequate (15)	15
	Tennessee	Strong/Adequate (22)	22
	Texas (PUC)	Strong/Adequate (44)	44
	Virginia	Strong/Adequate (19)	19
	West Virginia	Strong/Adequate (39)	39
Duke Energy Corporation	Florida	Strong (3)	3
	Indiana	Strong/Adequate (27)	27
	Kentucky	Strong (9)	9
	North Carolina	Strong (8)	8
	Ohio	Strong/Adequate (36)	36
	South Carolina	Strong (7)	7
Empire District Electric Company	Arkansas	Strong/Adequate (28)	28
	Kansas	Strong/Adequate (21)	21
	Oklahoma	Strong/Adequate (15)	15
	Missouri	Strong/Adequate (43)	43
Eversource Energy	Connecticut	Strong/Adequate (45)	45
	Massachusetts	Strong/Adequate (37)	37
	New Hampshire	Strong/Adequate (50)	50
Great Plains Energy Inc.	Kansas	Strong/Adequate (21)	21
	Missouri	Strong/Adequate (43)	43
IDACORP, Inc.	Idaho	Strong/Adequate (32)	32
	Oregon	Strong/Adequate (20)	20
Otter Tail Corporation	Minnesota	Strong/Adequate (14)	14
	North Dakota	Strong/Adequate (31)	31
	South Dakota	Strong/Adequate (29)	29
Pinnacle West Capital Corporation	Arizona	Strong/Adequate (30)	30
PNM Resources, Inc.	New Mexico	Strong/Adequate (49)	49
	Texas (PUC)	Strong/Adequate (44)	44
Portland General Electric Company	Oregon	Strong/Adequate (20)	20
Southern Company	Alabama	Strong (5)	5
	Florida	Strong (3)	3
	Georgia	Strong/Adequate (12)	12
	Mississippi	Adequate (53)	53
Westar Energy, Inc.	Kansas	Strong/Adequate (21)	21
Proxy Group Average		Strong/Adequate (24) / Strong/Adequate (25)	24.48
SPS-NM	New Mexico	Strong/Adequate (49)	49

Notes

[1] Source: Utility Regulatory Assessments for U.S. Investor-Owned Utilities, Standard and Poor's Ratings Services, January 7, 2014

Southwestern Public Service Company

Capital Expenditures

2015-2019 CAPITAL EXPENDITURES AS A PERCENT OF 2013 NET PLANT
($ Millions)

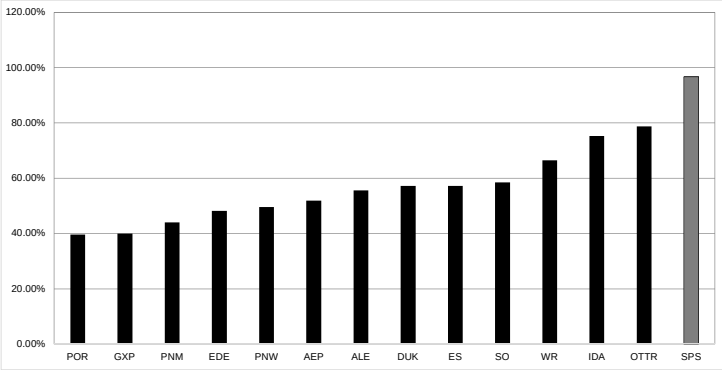
		[1]	[2]	[3]	[4]	[5]	[6]	[7]
		2013	**2015**	**2016**	**2017**	**2018**	**2019**	
Allete, Inc.	ALE							
Capital Spending per Share			6.65	6.08	5.50	5.50	5.50	
Common Shares Outstanding			48.00	48.75	49.50	49.50	49.50	
Capital Expenditures			319.20	296.16	272.25	272.25	272.25	
Net Plant		2,576.50						
2015-19 Capital Spending / 2013 Net Plant								55.58%
American Electric Power Company, Inc.	AEP							
Capital Spending per Share			9.35	8.80	8.25	8.25	8.25	
Common Shares Outstanding			492.00	495.00	498.00	498.00	498.00	
Capital Expenditures			4,600.20	4,356.00	4,108.50	4,108.50	4,108.50	
Net Plant		40,997.00						
2015-19 Capital Spending / 2013 Net Plant								51.91%
Duke Energy Corporation	DUK							
Capital Spending per Share			10.50	11.55	11.40	11.25	11.25	
Common Shares Outstanding			708.00	709.00	710.50	712.00	712.00	
Capital Expenditures			7,434.00	8,188.95	8,099.70	8,010.00	8,010.00	
Net Plant		69,490.00						
2015-19 Capital Spending / 2013 Net Plant								57.19%
Empire District Electric Company	EDE							
Capital Spending per Share			4.05	3.78	3.50	3.50	3.50	
Common Shares Outstanding			44.00	45.50	47.00	47.00	47.00	
Capital Expenditures			178.20	171.76	164.50	164.50	164.50	
Net Plant		1,751.90						
2015-19 Capital Spending / 2013 Net Plant								48.15%
Eversource Energy	ES							
Capital Spending per Share			5.80	6.65	6.45	6.25	6.25	
Common Shares Outstanding			318.00	319.00	320.50	322.00	322.00	
Capital Expenditures			1,844.40	2,121.35	2,067.23	2,012.50	2,012.50	
Net Plant		17,576.00						
2015-19 Capital Spending / 2013 Net Plant								57.23%
Great Plains Energy Inc.	GXP							
Capital Spending per Share			4.50	4.13	3.75	3.75	3.75	
Common Shares Outstanding			155.00	155.75	156.50	156.50	156.50	
Capital Expenditures			697.50	642.47	586.88	586.88	586.88	
Net Plant		7,746.40						
2015-19 Capital Spending / 2013 Net Plant								40.03%
IDACORP, Inc.	IDA							
Capital Spending per Share			6.45	9.70	12.95	12.95	12.95	
Common Shares Outstanding			50.20	50.20	50.20	50.20	50.20	
Capital Expenditures			323.79	486.94	650.09	650.09	650.09	
Net Plant		3,665.00						
2015-19 Capital Spending / 2013 Net Plant								75.33%
Otter Tail Corporation	OTTR							
Capital Spending per Share			4.45	4.60	4.75	4.75	4.75	
Common Shares Outstanding			38.00	39.00	40.00	40.00	40.00	
Capital Expenditures			169.10	179.40	190.00	190.00	190.00	
Net Plant		1,167.00						
2015-19 Capital Spending / 2013 Net Plant								78.71%
Pinnacle West Capital Corporation	PNW							
Capital Spending per Share			9.55	9.40	9.25	9.25	9.25	
Common Shares Outstanding			111.25	114.38	117.50	117.50	117.50	
Capital Expenditures			1,062.44	1,075.13	1,086.88	1,086.88	1,086.88	
Net Plant		10,889.00						
2015-19 Capital Spending / 2013 Net Plant								49.57%
PNM Resources, Inc.	PNM							
Capital Spending per Share			4.75	4.45	4.15	4.15	4.15	
Common Shares Outstanding			80.00	80.00	80.00	80.00	80.00	
Capital Expenditures			380.00	356.00	332.00	332.00	332.00	
Net Plant		3,933.90						
2015-19 Capital Spending / 2013 Net Plant								44.03%
Portland General Electric Company	POR							
Capital Spending per Share			6.85	5.05	3.25	3.25	3.25	
Common Shares Outstanding			89.00	89.38	89.75	89.75	89.75	
Capital Expenditures			609.65	451.34	291.69	291.69	291.69	
Net Plant		4,880.00						
2015-19 Capital Spending / 2013 Net Plant								39.67%
Southern Company	SO							
Capital Spending per Share			7.45	6.00	6.25	6.50	6.50	
Common Shares Outstanding			911.00	913.00	916.00	919.00	919.00	
Capital Expenditures			6,786.95	5,478.00	5,725.00	5,973.50	5,973.50	
Net Plant		51,208.00						
2015-19 Capital Spending / 2013 Net Plant								58.46%
Westar Energy, Inc.	WR							
Capital Spending per Share			7.00	7.58	8.15	8.15	8.15	
Common Shares Outstanding			130.0	132.5	135.0	135.0	135.0	
Capital Expenditures			910.0	1,003.7	1,100.3	1,100.3	1,100.3	
Net Plant		7,848.50						
2015-19 Capital Spending / 2013 Net Plant								66.44%
SPS [8]								
Capital Expenditures			570.00	710.00	735.00	595.00	565.00	
Net Plant		3,284.00						
2015-19 Capital Spending / 2013 Net Plant								96.68%

Notes:
[1] Source: Value Line; dated December 19, 2014, January 30, 2015, Febuary 20, 2015
[2] Source: Value Line; dated December 19, 2014, January 30, 2015, Febuary 20, 2015
[3] Source: Value Line; dated December 19, 2014, January 30, 2015, Febuary 20, 2015
[4] Source: Value Line; dated December 19, 2014, January 30, 2015, Febuary 20, 2015
[5] Source: Value Line; dated December 19, 2014, January 30, 2015, Febuary 20, 2015
[6] Source: Value Line; dated December 19, 2014, January 30, 2015, Febuary 20, 2015
[7] Equals Sum ([2], [3], [4], [5], [6]) / [1]
[8] Source: Southwestern Public Service Company

Southwestern Public Service Company

Capital Expenditures

2015-2019 CAPITAL EXPENDITURES AS A PERCENT OF 2013 NET PLANT
($ Millions)



		2015-19 Capital Spending / 2013 Net
Portland General Electric Company	POR	39.67%
Great Plains Energy Inc.	GXP	40.03%
PNM Resources, Inc.	PNM	44.03%
Empire District Electric Company	EDE	48.15%
Pinnacle West Capital Corporation	PNW	49.57%
American Electric Power Company, Inc.	AEP	51.91%
Allete, Inc.	ALE	55.58%
Duke Energy Corporation	DUK	57.19%
Eversource Energy	ES	57.23%
Southern Company	SO	58.46%
Westar Energy, Inc.	WR	66.44%
IDACORP, Inc.	IDA	75.33%
Otter Tail Corporation	OTTR	78.71%
SPS	SPS	96.68%
Proxy Group Median		55.58%

CAPITAL STRUCTURE ANALYSIS

COMMON EQUITY RATIO

Company	Ticker	2014Q3	2014Q2	2014Q1	2013Q4	2013Q3	2013Q2	2013Q1	2012Q4	Average
ALLETE, Inc.	ALE	56.18%	55.83%	56.79%	56.37%	58.08%	57.90%	58.79%	57.98%	57.24%
American Electric Power Company, Inc.	AEP	52.27%	52.31%	52.34%	52.36%	53.51%	53.61%	53.71%	53.15%	52.91%
Duke Energy Corporation	DUK	56.60%	56.03%	55.25%	56.09%	55.83%	56.41%	55.95%	55.43%	55.95%
Empire District Electric Company	EDE	53.31%	52.82%	52.73%	52.30%	52.37%	51.52%	53.36%	53.15%	52.70%
Eversource Energy	ES	53.44%	52.05%	51.25%	52.89%	54.51%	53.07%	52.87%	53.48%	52.94%
Great Plains Energy Inc.	GXP	53.42%	52.67%	52.56%	52.49%	52.51%	52.94%	53.35%	55.12%	53.13%
IDACORP, Inc.	IDA	52.92%	52.03%	51.72%	51.61%	50.51%	49.74%	51.66%	51.39%	51.45%
Otter Tail Corporation	OTTR	49.32%	47.60%	47.20%	53.72%	52.37%	52.35%	52.69%	51.98%	50.90%
Pinnacle West Capital Corporation	PNW	58.43%	57.32%	55.67%	57.39%	57.62%	55.94%	55.84%	56.46%	56.83%
PNM Resources, Inc.	PNM	52.96%	52.74%	53.49%	54.17%	54.36%	54.24%	55.55%	55.30%	54.10%
Portland General Electric Company	POR	44.86%	46.64%	49.21%	48.70%	50.43%	50.37%	51.78%	51.37%	49.17%
Southern Company	SO	47.81%	48.61%	48.44%	50.12%	48.24%	46.25%	46.59%	48.25%	48.04%
Westar Energy, Inc.	WR	65.95%	66.62%	63.45%	63.22%	61.28%	61.87%	60.32%	61.71%	63.05%
MEAN		53.65%	53.33%	53.08%	53.96%	53.97%	53.56%	54.03%	54.21%	53.72%
MEDIAN		53.31%	52.67%	52.56%	52.89%	53.51%	53.07%	53.36%	53.48%	52.94%
LOW		44.86%	46.64%	47.20%	48.70%	48.24%	46.25%	46.59%	48.25%	48.04%
HIGH		65.95%	66.62%	63.45%	63.22%	61.28%	61.87%	60.32%	61.71%	63.05%

COMMON EQUITY RATIO - ELECTRIC UTILITY OPERATING COMPANIES

Company	Ticker	2014Q3	2014Q2	2014Q1	2013Q4	2013Q3	2013Q2	2013Q1	2012Q4	Average
ALLETE (Minnesota Power)	ALE	53.98%	53.01%	55.16%	55.93%	54.90%	54.13%	56.09%	55.30%	54.81%
Superior Water, Light and Power Company	ALE	58.39%	58.65%	58.42%	56.81%	61.25%	61.67%	61.48%	60.66%	59.67%
AEP Texas Central Company	AEP	43.93%	43.18%	47.56%	46.75%	46.62%	47.89%	51.26%	50.56%	47.22%
AEP Texas North Company	AEP	47.06%	46.79%	46.82%	46.68%	46.03%	50.34%	49.89%	47.59%	47.65%
Appalachian Power Company	AEP	46.29%	46.00%	44.13%	43.52%	47.39%	45.29%	45.37%	45.19%	45.40%
Indiana Michigan Power Company	AEP	51.45%	51.39%	51.63%	50.80%	48.27%	47.77%	46.88%	49.59%	49.72%
Kentucky Power Company	AEP	46.25%	48.23%	50.30%	52.83%	46.02%	47.18%	47.17%	46.62%	48.08%
Kingsport Power Company	AEP	60.55%	60.91%	58.88%	60.85%	60.73%	60.33%	60.84%	59.96%	60.38%
Ohio Power Company	AEP	46.03%	44.79%	42.54%	39.71%	57.01%	56.06%	56.09%	53.77%	49.50%
Public Service Company of Oklahoma	AEP	49.43%	48.30%	47.51%	48.51%	50.46%	49.49%	49.09%	49.10%	48.99%
Southwestern Electric Power Company	AEP	50.60%	51.26%	51.18%	51.21%	50.22%	50.52%	50.54%	50.80%	50.79%
Wheeling Power Company	AEP	81.14%	82.27%	82.89%	82.79%	82.32%	81.26%	79.99%	78.28%	81.37%
Duke Energy Carolinas, LLC	DUK	56.60%	55.90%	55.56%	55.18%	53.80%	53.57%	53.74%	53.13%	54.69%
Duke Energy Florida, Inc.	DUK	50.98%	49.96%	49.22%	50.47%	50.61%	49.57%	51.06%	48.33%	50.02%
Duke Energy Indiana, Inc.	DUK	49.88%	50.69%	51.57%	50.85%	50.31%	51.11%	50.57%	49.97%	50.62%
Duke Energy Kentucky, Inc.	DUK	54.78%	54.36%	54.16%	53.23%	52.56%	54.56%	54.13%	52.90%	53.83%
Duke Energy Ohio, Inc.	DUK	76.40%	74.55%	70.11%	74.27%	74.25%	79.06%	75.95%	76.02%	75.08%
Duke Energy Progress, Inc.	DUK	50.99%	50.75%	50.85%	52.54%	53.43%	50.62%	50.25%	52.25%	51.46%
Empire District Electric Company	EDE	53.31%	52.82%	52.73%	52.30%	52.37%	51.52%	53.36%	53.15%	52.70%
Connecticut Light and Power Company	ES	52.72%	50.52%	52.33%	52.01%	51.43%	49.95%	49.67%	53.33%	51.50%
NSTAR Electric Company	ES	57.17%	55.95%	51.45%	57.35%	56.78%	55.65%	58.53%	58.01%	56.36%
Public Service Company of New Hampshire	ES	53.92%	52.44%	52.27%	51.90%	55.78%	55.52%	52.41%	52.12%	53.29%
Western Massachusetts Electric Company	ES	49.97%	49.29%	48.96%	50.31%	54.03%	51.15%	50.85%	50.45%	50.63%
Kansas City Power & Light Company	GXP	49.54%	48.67%	48.46%	48.46%	48.57%	47.70%	48.68%	52.37%	49.06%
KCP&L Greater Missouri Operations Company	GXP	57.30%	56.68%	56.66%	56.52%	56.46%	58.18%	58.02%	57.87%	57.21%
Idaho Power Co.	IDA	52.92%	52.03%	51.72%	51.61%	50.51%	49.74%	51.66%	51.39%	51.45%
Otter Tail Power Company	OTTR	49.32%	47.60%	47.20%	53.72%	52.37%	52.35%	52.69%	51.98%	50.90%
Arizona Public Service Company	PNW	58.43%	57.32%	55.67%	57.39%	57.62%	55.94%	55.84%	56.46%	56.83%
Public Service Company of New Mexico	PNM	47.43%	47.14%	46.70%	48.39%	49.79%	50.07%	51.10%	50.78%	48.93%
Texas-New Mexico Power Company	PNM	58.49%	58.35%	60.27%	59.95%	58.92%	58.41%	60.00%	59.82%	59.27%
Portland General Electric Company	POR	44.86%	46.64%	49.21%	48.70%	50.43%	50.37%	51.78%	51.37%	49.17%
Alabama Power Company	SO	46.48%	47.34%	47.15%	46.87%	47.52%	46.91%	46.67%	46.59%	46.94%
Georgia Power Company	SO	51.08%	50.42%	50.10%	52.73%	50.99%	49.21%	48.98%	49.06%	50.32%
Gulf Power Company	SO	47.60%	50.95%	51.11%	49.97%	49.75%	47.68%	49.33%	48.62%	49.37%
Mississippi Power Company	SO	46.07%	45.72%	45.39%	50.90%	44.71%	41.20%	41.36%	48.71%	45.51%
Kansas Gas and Electric Company	WR	72.65%	77.67%	69.73%	69.54%	65.91%	65.08%	62.22%	62.02%	68.10%
Westar Energy (KPL)	WR	59.26%	55.58%	57.17%	56.90%	56.66%	58.66%	58.41%	61.40%	58.00%

Source: SNL Financial

CAPITAL STRUCTURE ANALYSIS

LONG-TERM DEBT RATIO

Company	Ticker	2014Q3	2014Q2	2014Q1	2013Q4	2013Q3	2013Q2	2013Q1	2012Q4	Average
ALLETE, Inc.	ALE	43.82%	44.17%	43.21%	43.63%	41.92%	42.10%	41.21%	42.02%	42.76%
American Electric Power Company, Inc.	AEP	47.73%	47.69%	47.66%	47.64%	46.49%	46.39%	46.29%	46.85%	47.09%
Duke Energy Corporation	DUK	43.40%	43.97%	44.75%	43.91%	44.17%	43.59%	44.05%	44.57%	44.05%
Empire District Electric Company	EDE	46.69%	47.18%	47.27%	47.70%	47.63%	48.48%	46.64%	46.85%	47.30%
Eversource Energy	ES	46.56%	47.95%	48.75%	47.11%	45.49%	46.93%	47.13%	46.52%	47.06%
Great Plains Energy Inc.	GXP	46.58%	47.33%	47.44%	47.51%	47.49%	47.06%	46.65%	44.88%	46.87%
IDACORP, Inc.	IDA	47.08%	47.97%	48.28%	48.39%	49.49%	50.26%	48.34%	48.61%	48.55%
Otter Tail Corporation	OTTR	50.68%	52.40%	52.80%	46.28%	47.63%	47.65%	47.31%	48.02%	49.10%
Pinnacle West Capital Corporation	PNW	41.57%	42.68%	44.33%	42.61%	42.38%	44.06%	44.16%	43.54%	43.17%
PNM Resources, Inc.	PNM	47.04%	47.26%	46.51%	45.83%	45.64%	45.76%	44.45%	44.70%	45.90%
Portland General Electric Company	POR	55.14%	53.36%	50.79%	51.30%	49.57%	49.63%	48.22%	48.63%	50.83%
Southern Company	SO	52.19%	51.39%	51.56%	49.88%	51.76%	53.75%	53.41%	51.75%	51.96%
Westar Energy, Inc.	WR	34.05%	33.38%	36.55%	36.78%	38.72%	38.13%	39.68%	38.29%	36.95%
MEAN		46.35%	46.67%	46.92%	46.04%	46.03%	46.44%	45.97%	45.79%	46.28%
MEDIAN		46.69%	47.33%	47.44%	47.11%	46.49%	46.93%	46.64%	46.52%	47.06%
LOW		34.05%	33.38%	36.55%	36.78%	38.72%	38.13%	39.68%	38.29%	36.95%
HIGH		55.14%	53.36%	52.80%	51.30%	51.76%	53.75%	53.41%	51.75%	51.96%

LONG-TERM DEBT RATIO - ELECTRIC UTILITY OPERATING COMPANIES

Company	Ticker	2014Q3	2014Q2	2014Q1	2013Q4	2013Q3	2013Q2	2013Q1	2012Q4	Average
ALLETE (Minnesota Power)	ALE	46.02%	46.99%	44.84%	44.07%	45.10%	45.87%	43.91%	44.70%	45.19%
Superior Water, Light and Power Company	ALE	41.61%	41.35%	41.58%	43.19%	38.75%	38.33%	38.52%	39.34%	40.33%
AEP Texas Central Company	AEP	56.07%	56.82%	52.44%	53.25%	53.38%	52.11%	48.74%	49.44%	52.78%
AEP Texas North Company	AEP	52.94%	53.21%	53.18%	53.32%	53.97%	49.66%	50.11%	52.41%	52.35%
Appalachian Power Company	AEP	53.71%	54.00%	55.87%	56.48%	52.61%	54.71%	54.63%	54.81%	54.60%
Indiana Michigan Power Company	AEP	48.55%	48.61%	48.37%	49.20%	51.73%	52.23%	53.12%	50.41%	50.28%
Kentucky Power Company	AEP	53.75%	51.77%	49.70%	47.17%	53.98%	52.82%	52.83%	53.38%	51.92%
Kingsport Power Company	AEP	39.45%	39.09%	41.12%	39.15%	39.27%	39.67%	39.16%	40.04%	39.62%
Ohio Power Company	AEP	53.97%	55.21%	57.46%	60.29%	42.99%	43.94%	43.91%	46.23%	50.50%
Public Service Company of Oklahoma	AEP	50.57%	51.70%	52.49%	51.49%	49.54%	50.51%	50.91%	50.90%	51.01%
Southwestern Electric Power Company	AEP	49.40%	48.74%	48.82%	48.79%	49.78%	49.48%	49.46%	49.20%	49.21%
Wheeling Power Company	AEP	18.86%	17.73%	17.11%	17.21%	17.68%	18.74%	20.01%	21.72%	18.63%
Duke Energy Carolinas, LLC	DUK	43.40%	44.10%	44.44%	44.82%	46.20%	46.43%	46.26%	46.87%	45.31%
Duke Energy Florida, Inc.	DUK	49.02%	50.04%	50.78%	49.53%	49.39%	50.43%	48.94%	51.67%	49.98%
Duke Energy Indiana, Inc.	DUK	50.12%	49.31%	48.43%	49.15%	49.69%	48.89%	49.43%	50.03%	49.38%
Duke Energy Kentucky, Inc.	DUK	45.22%	45.64%	45.84%	46.77%	47.44%	45.44%	45.87%	47.10%	46.17%
Duke Energy Ohio, Inc.	DUK	23.60%	25.45%	29.89%	25.73%	25.75%	20.94%	24.05%	23.98%	24.92%
Duke Energy Progress, Inc.	DUK	49.01%	49.25%	49.15%	47.46%	46.57%	49.38%	49.75%	47.75%	48.54%
Empire District Electric Company	EDE	46.69%	47.18%	47.27%	47.70%	47.63%	48.48%	46.64%	46.85%	47.30%
Connecticut Light and Power Company	ES	47.28%	49.48%	47.67%	47.99%	48.57%	50.05%	50.33%	46.67%	48.50%
NSTAR Electric Company	ES	42.83%	44.05%	48.55%	42.65%	43.22%	44.35%	41.47%	41.99%	43.64%
Public Service Company of New Hampshire	ES	46.08%	47.56%	47.73%	48.10%	44.22%	44.48%	47.59%	47.88%	46.71%
Western Massachusetts Electric Company	ES	50.03%	50.71%	51.04%	49.69%	45.97%	48.85%	49.15%	49.55%	49.37%
Kansas City Power & Light Company	GXP	50.46%	51.33%	51.54%	51.54%	51.43%	52.30%	51.32%	47.63%	50.94%
KCP&L Greater Missouri Operations Company	GXP	42.70%	43.32%	43.34%	43.48%	43.54%	41.82%	41.98%	42.13%	42.79%
Idaho Power Co.	IDA	47.08%	47.97%	48.28%	48.39%	49.49%	50.26%	48.34%	48.61%	48.55%
Otter Tail Power Company	OTTR	50.68%	52.40%	52.80%	46.28%	47.63%	47.65%	47.31%	48.02%	49.10%
Arizona Public Service Company	PNW	41.57%	42.68%	44.33%	42.61%	42.38%	44.06%	44.16%	43.54%	43.17%
Public Service Company of New Mexico	PNM	52.57%	52.86%	53.30%	51.61%	50.21%	49.93%	48.90%	49.22%	51.07%
Texas-New Mexico Power Company	PNM	41.51%	41.65%	39.73%	40.05%	41.08%	41.59%	40.00%	40.18%	40.73%
Portland General Electric Company	POR	55.14%	53.36%	50.79%	51.30%	49.57%	49.63%	48.22%	48.63%	50.83%
Alabama Power Company	SO	53.52%	52.66%	52.85%	53.13%	52.48%	53.09%	53.33%	53.41%	53.06%
Georgia Power Company	SO	48.92%	49.58%	49.90%	47.27%	49.01%	50.79%	51.02%	50.94%	49.68%
Gulf Power Company	SO	52.40%	49.05%	48.89%	50.03%	50.25%	52.32%	50.67%	51.38%	50.63%
Mississippi Power Company	SO	53.93%	54.28%	54.61%	49.10%	55.29%	58.80%	58.64%	51.29%	54.49%
Kansas Gas and Electric Company	WR	27.35%	22.33%	30.27%	30.46%	34.09%	34.92%	37.78%	37.98%	31.90%
Westar Energy (KPL)	WR	40.74%	44.42%	42.83%	43.10%	43.34%	41.34%	41.59%	38.60%	42.00%

Source: SNL Financial