BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF SOUTHWESTERN PUBLIC SERVICE COMPANY'S APPLICATION FOR: (1) REVISION OF ITS RETAIL RATES UNDER ADVICE NOTICE NO. 292; (2) AUTHORIZATION AND APPROVAL TO ABANDON ITS PLANT X UNIT 3 GENERATING STATION; AND (3) OTHER ASSOCIATED RELIEF,	)	**CASE NO. 20-00238-UT**
SOUTHWESTERN PUBLIC SERVICE COMPANY,	)	
APPLICANT.	)	

DIRECT TESTIMONY

of

DYLAN W. D'ASCENDIS, CRRA, CVA

on behalf of

SOUTHWESTERN PUBLIC SERVICE COMPANY

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GLOSSARY OF ACRONYMS AND DEFINED TERMS

Acronym/Defined Term	Meaning
AGA	American Gas Association
AGIF	American Gas Index Fund
ARCH	autoregressive conditional heteroscedasticity
Beta	Beta coefficient
Blue Chip	Blue Chip Financial Forecasts
Bluefield	*Bluefield Water Works and Improvement Co. v. Public Service Comm'n of West Virginia*, 262 U.S. 679 (1923)
CAPM	Capital Asset Pricing Model
CBOE	Chicago Board Options Exchange
Commission or NMPRC	New Mexico Public Regulation Commission
CoV	Coefficient of Variation
DCF	Discounted Cash Flow
D&P	Duff & Phelps
D&P – 2020	D&P 2020 Valuation Handbook – U.S. Guide to Cost of Capital
DPS	dividends per share
ECAPM	Empirical Capital Asset Pricing Model
EPS	Earnings Per Share
FERC	Federal Energy Regulatory Commission
GARCH	generalized autoregressive conditional heteroscedasticity
Hope	*Federal Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 591 (1944)

Moody's	Moody's Investors Service
NACVA	National Association of Certified Valuation Analysts
NM DCF	a specific form of the Constant Growth DCF approach relied upon by the Commission
Non-Price Regulated Proxy Group	a proxy group of publicly traded, domestic, non-price regulated competitive firms comparable in total risk to the Utility Proxy Group
PRPM	Predictive Risk Premium Model
ROE	return on common equity
RPM	Risk Premium Model
S&P	Standard and Poor's
SBBI	Stocks, Bonds, Bills, and Inflation Yearbook published by Duff & Phelps
SEC	United States Securities and Exchange Commission
SPS	Southwestern Public Service Company, a New Mexico corporation
SURFA	Society of Utility and Regulatory Financial Analysts
Utility Proxy Group	proxy group of publicly traded electric utility companies comparable in risk to SPS
Value Line	Value Line Investment Survey
VIX	Volatility Index
XEL	Stock symbol for Xcel Energy Inc.
Xcel Energy or Parent	Xcel Energy Inc.

Case No. 20-00238-UT
Direct Testimony
of
Dylan W. D'Ascendis

I. INTRODUCTION AND PURPOSE

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

A. My name is Dylan W. D'Ascendis. I am employed by ScottMadden, Inc. as Director. My business address is 3000 Atrium Way, Suite 241, Mount Laurel, New Jersey 08054.

Q. On whose behalf are you submitting this testimony?

A. I am submitting this direct testimony before the New Mexico Public Regulation Commission ("Commission" or "NMPRC") on behalf of Southwestern Public Service Company ("SPS), a New Mexico corporation and wholly-owned electric utility subsidiary of Xcel Energy Inc ("Xcel Energy" or the "Parent").

Q. Please summarize your professional experience and educational background.

A. I have offered expert testimony on behalf of investor-owned utilities before over 20 state regulatory commissions in the United States, the Federal Energy Regulatory Commission ("FERC"), the Alberta Utility Commission, and one American Arbitration Association panel on issues including, but not limited to, common equity cost rate, rate of return, valuation, capital structure, class cost of service, and rate design.

On behalf of the American Gas Association ("AGA"), I calculate the AGA Gas Index, which serves as the benchmark against which the performance of the

American Gas Index Fund ("AGIF") is measured on a monthly basis. The AGA Gas Index and AGIF are a market capitalization weighted index and mutual fund, respectively, comprised of the common stocks of the publicly traded corporate members of the AGA.

I am a member of the Society of Utility and Regulatory Financial Analysts ("SURFA"). In 2011, I was awarded the professional designation "Certified Rate of Return Analyst" by SURFA, which is based on education, experience, and the successful completion of a comprehensive written examination.

I am also a member of the National Association of Certified Valuation Analysts ("NACVA") and was awarded the professional designation "Certified Valuation Analyst" by the NACVA in 2015.

I am a graduate of the University of Pennsylvania, where I received a Bachelor of Arts degree in Economic History. I have also received a Master of Business Administration with high honors and concentrations in Finance and International Business from Rutgers University.

The details of my educational background and expert witness appearances are shown in Appendix A.

Q. What is the purpose of your direct testimony?

A. The purpose of my direct testimony is to present evidence on behalf of SPS and recommend the appropriate return on common equity ("ROE") to be used in setting rates in this proceeding. My testimony first provides a summary of financial theory and regulatory principles pertinent to the development of the recommended cost of capital. I then present evidence and analysis on: (1) the reasonableness of SPS's requested capital structure and long- and short-term debt cost rates, and (2) the appropriate ROE on its New Mexico jurisdictional rate base. My testimony concludes with a discussion of the current capital market environment and how it influences cost of capital issues in this proceeding.

Q. Have you prepared schedules in support of your recommendation?

A. Yes. I have prepared Attachment__(DWD-1), which contains Schedules 1 through 9, and were prepared by me or under my direction.

II. SUMMARY

Q. Please summarize your recommended ROE.

A. My recommended ROE of 10.35% is summarized on page 1 of Attachment___(DWD-1), Schedule 1. In determining my recommendation, I assessed the market-based common equity cost rates of companies of relatively similar, but not necessarily identical, risk to SPS. Using companies of relatively comparable risk as proxies is consistent with the principles of fair rate of return established in the *Hope*[1] and *Bluefield*[2] decisions, which I discuss further in Section III, below. Of course, no proxy group can be identical in risk to any single company. Consequently, there must be an evaluation of relative risk between SPS and the proxy group to determine if it is appropriate to adjust the proxy group's indicated rate of return.

My recommendation results from applying and considering several cost of common equity models, specifically the Constant Growth form of the Discounted Cash Flow model ("DCF"), the Risk Premium Model ("RPM"), and the Capital

[1] *Federal Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 591 (1944) ("*Hope*").

[2] *Bluefield Water Works Improvement Co. v. Public Serv. Comm'n*, 262 U.S. 679 (1922) ("*Bluefield*").

Asset Pricing Model ("CAPM"), to the market data of the Utility Proxy Group whose selection criteria will be discussed below. In addition, I applied these same models to a Non-Price Regulated Proxy Group. The results derived from these analyses are as follows:

Table 1: Summary of Common Equity Cost Rates[3]

Discounted Cash Flow Model	9.06%[4]
Risk Premium Model	10.40%
Capital Asset Pricing Model	12.10%
Market Models Applied to Comparable Risk, Non-Price Regulated Companies	12.48%
Indicated Range of Common Equity Cost Rates Before Adjustments for Company-Specific Risk	9.92% - 10.96%
Size Risk Adjustment	0.15%
Credit Risk Adjustment	0.11%
Flotation Cost Adjustment	0.15%
Indicated Range of Common Equity Cost Rates after Adjustment	10.33% - 11.37%
Recommended Cost of Common Equity	10.35%

[3] *See* Section VI for a detailed discussion regarding the application of my cost of common equity models.

[4] Represents the Commission's preferred DCF approach. My traditional Constant Growth DCF indicated cost of common equity result is 8.70%. The average of these two DCF approaches is 8.88%.

The indicated range of common equity cost rates applicable to the Utility Proxy Group is between 9.92% and 10.96% before any Company-specific adjustments.[5] I then adjusted the indicated common equity cost rate upward by 0.15% to reflect SPS's smaller relative size and by 0.11% to account for a riskier bond rating, as compared to the Utility Proxy Group. I also adjusted the indicated common equity cost rate upward by 0.15% to account for flotation costs.[6] These adjustments resulted in a Company-specific indicated range of common equity cost rates between 10.33% and 11.37%. Given the Utility Proxy Group and Company-specific ranges of common equity cost rates, my recommended ROE for SPS is 10.35%.

Q. Please summarize SPS's proposed capital structure.

A. SPS is proposing projected capital structures which include a 54.72% common equity ratio. That common equity ratio is consistent with SPS's historical equity ratios, the equity ratios maintained by the Utility Proxy Group, and their operating subsidiary companies.

[5] The 9.92% low end of the range is calculated by averaging: (1) the average of the four model results, including the average of the two DCF approaches (10.96%); and (2) the average of my Constant Growth DCF results and the results of the Commission's preferred DCF approach (8.88%). The 10.96% high end of the range is the approximate average of all model results.

[6] *See* Section VIII for a detailed discussion of my cost of common equity adjustments.

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

A. The remainder of my direct testimony is organized as follows:

- Section III – provides a summary of financial theory and regulatory principles pertinent to the development of the Cost of Capital;
- Section IV – explains the reasonableness of the proposed capital structure;
- Section V – explains my selection of the Utility Proxy Group used to develop my Cost of Common Equity analytical results;
- Section VI – describes the analyses on which my Cost of Common Equity recommendation is based;
- Section VII – summarizes my common equity cost rate before adjustments to reflect Company-specific factors;
- Section VIII – explains my adjustments to my common equity cost rate to reflect Company-specific factors;
- Section IX – provides an overview of the current capital market environment; and
- Section X – presents my conclusions.

III. GENERAL PRINCIPLES AND REGULATORY GUIDELINES

Q. What principles have you considered in arriving at your recommendations?

A. In unregulated industries, marketplace competition is the principal determinant of the price of products or services. For regulated public utilities, regulation must act as a substitute for marketplace competition. Assuring that the utility can fulfill its obligations to the public, while providing safe and reliable service at all times, requires a level of earnings sufficient to maintain the integrity of presently invested capital. Sufficient earnings also permit the attraction of needed new capital at a reasonable cost, for which the utility must compete with other firms of comparable risk, consistent with the fair rate of return standards established by the U.S. Supreme Court in the previously cited *Hope* and *Bluefield* cases.

The U.S. Supreme Court affirmed the fair rate of return standards in *Hope*, when it stated:

> The rate-making process under the Act, *i.e.*, the fixing of 'just and reasonable' rates, involves a balancing of the investor and the consumer interests. Thus we stated in the Natural Gas Pipeline Co. case that 'regulation does not insure that the business shall produce net revenues.' 315 U.S. at page 590, 62 S.Ct. at page 745. But such considerations aside, the investor interest has a legitimate concern with the financial integrity of the company whose rates are being regulated. 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 debt and dividends on the stock. Cf. Chicago & Grand Trunk R. Co. v. Wellman, 143 U.S. 339, 345, 346 12 S.Ct. 400,402. 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.[7]

In summary, the U.S. Supreme Court has found a return that is adequate to attract capital at reasonable terms enables the utility to provide service while maintaining its financial integrity. As discussed above, and in keeping with established regulatory standards, that return should be commensurate with the returns expected elsewhere for investments of equivalent risk. The Commission's decision in this proceeding, therefore, should provide SPS with the opportunity to earn a return that is: (1) adequate to attract capital at reasonable cost and terms; (2) sufficient to ensure their financial integrity; and (3) commensurate with returns on investments in enterprises having corresponding risks.

Lastly, the required return for a regulated public utility is established on a stand-alone basis, i.e., for the utility operating company at issue in a rate case. Parent entities, like other investors, have capital constraints and must look at the

[7] *Hope*, 320 U.S. 591 (1944), at 603.

attractiveness of the expected risk-adjusted return of each investment alternative in their capital budgeting process. That is, utility holding companies that own many utility operating companies have choices as to where they will invest their capital within the holding company family. Therefore, the opportunity cost concept applies regardless of the source of the funding, public funding or corporate funding.

When funding is provided by a parent entity, the return still must be sufficient to provide an incentive to allocate equity capital to the subsidiary or business unit rather than other internal or external investment opportunities. That is, the regulated subsidiary must compete for capital with all the parent company's affiliates and with other, similarly situated utility companies. In that regard, investors value corporate entities on a sum-of-the-parts basis and expect each division within the parent company to provide an appropriate risk-adjusted return.

It therefore is important that the authorized ROE reflects the risks and prospects of the utility's operations and supports the utility's financial integrity from a stand-alone perspective as measured by their combined business and financial risks. Consequently, the ROE authorized in this proceeding should be sufficient to support the operational (i.e., business risk) and financing (i.e., financial risk) of SPS's New Mexico utility operations on a stand-alone basis.

Q. Within that broad framework, how is the cost of capital estimated in regulatory proceedings?

A. Regulated utilities primarily use common stock and long-term debt to finance their permanent property, plant, and equipment (i.e., rate base). The fair rate of return for a regulated utility is based on its Weighted Average Cost of Capital, in which, as noted earlier, the costs of the individual sources of capital are weighted by their respective book values.

The cost of capital is the return investors require to make an investment in a firm. Investors will provide funds to a firm only if the return that they *expect* is equal to, or greater than, the return that they *require* to accept the risk of providing funds to the firm.

The cost of capital (that is, the combination of the costs of debt and equity) is based on the economic principle of "opportunity costs." Investing in any asset (whether debt or equity securities) represents a forgone opportunity to invest in alternative assets. For any investment to be sensible, its expected return must be at least equal to the return expected on alternative, comparable risk investment opportunities. Because investments with like risks should offer similar returns, the opportunity cost of an investment should equal the return available on an investment of comparable risk.

Whereas the cost of debt is contractually defined and can be directly observed as the interest rate or yield on debt securities, the cost of common equity must be estimated based on market data and various financial models. Because the cost of common equity is premised on opportunity costs, the models used to determine it are typically applied to a group of "comparable" or "proxy" companies.

In the end, the estimated cost of capital should reflect the return that investors require in light of the subject company's business and financial risks, and the returns available on comparable investments.

Q. Is the authorized return set in regulatory proceedings guaranteed?

A. No, it is not. The *Hope* and *Bluefield* standards, and the regulatory compact upon which the ratemaking process is based, only require that the utility be afforded a reasonable *opportunity* to recover its return of, and return on, its prudently incurred investments. It does not guarantee that return. While a utility may have control over some factors that affect the ability to earn its authorized return (e.g., management performance, operating and maintenance expenses, etc.), there are several factors beyond a utility's control that affect its ability to earn its authorized return. Those may include factors such as weather, the economy, and the prevalence and magnitude of regulatory lag.

A. Business Risk

Q. Please define business risk and explain why it is important for determining a fair rate of return.

A. The investor-required ROE reflects investors' assessment of the total investment risk of the subject firm. Total investment risk is often discussed in the context of business and financial risk.

Business risk reflects the uncertainty associated with owning a company's common stock without the company's use of debt and/or preferred stock financing. One way of considering the distinction between business and financial risk is to view the former as the uncertainty of the expected earned ROE, assuming the firm is financed with no debt.

Examples of business risks faced generally by utilities include, but are not limited to, the regulatory environment, mandatory environmental compliance requirements, customer mix and concentration of customers, service territory economic growth, market demand, risks and uncertainties of supply, operations, capital intensity, size, the degree of operating leverage, emerging technologies including distributed energy resources, the vagaries of weather, and the like, all of which have a direct bearing on earnings.

Although analysts, including rating agencies, may categorize business risks individually, as a practical matter, such risks are interrelated and not wholly distinct from one another. When determining an appropriate ROE, the relevant issue is where investors see the subject company in relation to other similarly situated utility companies (i.e., the Utility Proxy Group). To the extent investors view a company as being exposed to higher risk, the required return will increase, and vice versa.

For regulated utilities, business risks are both long-term and near-term in nature. Whereas near-term business risks are reflected in year-to-year variability in earnings and cash flow brought about by economic or regulatory factors, long-term business risks reflect the prospect of an impaired ability of investors to obtain both a fair rate of return on, and return of, their capital. Moreover, because utilities accept the obligation to provide safe, adequate, and reliable service at all times (in exchange for a reasonable opportunity to earn a fair return on their investment), they generally do not have the option to delay, defer, or reject capital investments. Because those investments are capital-intensive, utilities generally do not have the option to avoid raising external funds. The obligation to serve and the corresponding need to access capital is even more acute during periods of capital market distress.

Because utilities invest in long-lived assets, long-term business risks are of paramount concern to equity investors. That is, the risk of not recovering the return on their investment extends far into the future. The timing and nature of events that may lead to losses, however, also are uncertain and, consequently, those risks and their implications for the required ROE tend to be difficult to quantify. Regulatory commissions (like investors who commit their capital) must review a variety of quantitative and qualitative data and apply their reasoned judgment to determine how long-term risks weigh in their assessment of the market-required ROE.

Q. Does SPS have unique business risks relative to the proxy group?

A. Yes. SPS's degree of customer concentration, which is highly skewed towards commercial and industrial customers, poses an incremental element of business risk because those customer classes generally are the least stable sources of throughput, exposing SPS to increased earnings and cash flow volatility relative to the proxy group.

Approximately 80.00% of SPS's 2019 retail electric sales (megawatt-hours), and 67.00% of its retail electric revenues, were derived from commercial and industrial customers,[8] a large portion from oil and gas companies. Further,

[8] Source: S&P Global Market Intelligence.

approximately 29.50% of SPS's total electric sales and 19.50% of its total electric revenues are attributable to sales for resale in the wholesale electric market.[9] SPS's retail sales volume to commercial and industrial customers as a percentage of total retail volume (80.00%) is the second highest of the proxy companies. In fact, SPS's degree of customer concentration is approximately 15.00 percentage points higher than the proxy group average (65.00%).

Q. Is the investor-required ROE for SPS in this proceeding comparable to the expected ROE of a public pension fund?

A. No, it is not. Expected returns on pension funds are not comparable to SPS's required ROE because expected returns are not equal to required returns. Simply put, expected returns are what investors expect assets to return, and required returns are the returns that investors require to invest their capital in said asset.

While I do not agree that expected returns on pension funds are equivalent to SPS's required ROE, if a comparison were going to be made to a utility's return, the Weighted Average Cost of Capital is more akin to a pension's expected return, because the Weighted Average Cost of Capital incorporates the debt component of capital, and pension funds' investments are allocated not only to equity in public companies, but also to lower-return fixed income (debt).

[9] Source: S&P Global Market Intelligence.

For example, the New Mexico Public Employees' Retirement Association's expected return is 7.25% and the New Mexico Educational Retirement Board's expected return is 7.00%. SPS's proposed authorized Weighted Average Cost of Capital in this case is 7.61%, which is relatively comparable to those expected by pension funds.

B. Financial Risk

Q. Please define financial risk and explain why it is important in determining a fair rate of return.

A. Financial risk is the additional risk created by the introduction of debt and preferred stock into the capital structure. The higher the proportion of debt and preferred stock in the capital structure, the higher the financial risk to common equity owners (i.e., failure to receive dividends due to default or other covenants). Consequently, as the degree of financial leverage increases, the risk of financial distress (i.e., financial risk) also increases. In essence, even if two firms face the same business risks, a company with meaningfully higher levels of debt in its capital structure is likely to have a higher cost of both debt and equity. Therefore, consistent with the basic financial principle of risk and return, common equity investors require higher returns as compensation for bearing higher financial risk.

Q. Can bond and credit ratings be a proxy for a firm's combined business and financial risks to equity owners (i.e., investment risk)?

A. Yes, similar bond ratings/issuer credit ratings reflect, and are representative of, similar combined business and financial risks (i.e., total risk) faced by bond investors.[10] Although specific business or financial risks may differ between companies, the same bond/credit rating indicates that the combined risks are roughly similar from a debtholder perspective. The caveat is that these debtholder risk measures do not translate directly to risks for common equity.

[10] Risk distinctions within S&P's bond rating categories are recognized by a plus or minus, e.g., within the A category, an S&P rating can be an A+, A, or A-. Similarly, risk distinction for Moody's ratings are distinguished by numerical rating gradations, e.g., within the A category, a Moody's rating can be A1, A2 and A3.

IV. CAPITAL STRUCTURE

Q. What is SPS's requested capital structure?

A. SPS's requested capital structure consists of 45.28% long-term debt and 54.72% common equity. SPS's requested capital structure is its actual capital structure at September 30, 2020, as testified to by SPS witness Patricia L. Martin.

Q. Does SPS have a separate capital structure that is recognized by investors?

A. Yes. SPS is a separate corporate entity that has its own capital structure and issues its own debt. SPS's actual capital structure is reflected in registrations of its debt with the United States Securities and Exchange Commission ("SEC").

Q. What are the typical sources of capital commonly considered in establishing a utility's capital structure?

A. Common equity and long-term debt are commonly considered in establishing a utility's capital structure because they are the typical sources of capital financing for a utility's rate base.

Q. Please explain.

A. Long-lived assets are typically financed with long-lived securities, so that the overall term structure of the utility's long-term liabilities (both debt and equity)

closely match the life of the assets being financed. As stated by Brigham and Houston:

> In practice, firms don't finance each specific asset with a type of capital that has a maturity equal to the asset's life. However, academic studies do show that most firms tend to finance short-term assets from short-term sources and long-term assets from long-term sources.[11]

Whereas short-term debt has a maturity of one year or less, long-term debt may have maturities of 30 years or longer. Although there are practical financing constraints, such as the need to "stagger" long-term debt maturities, the general objective is to extend the average life of long-term debt. Still, long-term debt has a finite life, which is likely to be less than the life of the assets included in rate base. Common equity, on the other hand, is outstanding into perpetuity. Thus, common equity more accurately matches the life of the going concern of the utility, which is also assumed to operate in perpetuity. Consequently, it is both typical and important for utilities to have significant proportions of common equity in their capital structures.

[11] Eugene F. Brigham and Joel F. Houston, Fundamentals of Financial Management, Concise 4th Ed., Thomson South-Western, 2004, at 574.

Q. Why is it important that SPS's actual capital structure, consisting of 45.28% long-term debt and 54.72% common equity, be authorized in this proceeding?

A. In order to provide safe, reliable, and affordable service to its customers, SPS must meet the needs and serve the interests of its various stakeholders, including customers, shareholders, and bondholders. The interests of these stakeholder groups are aligned with maintaining a healthy balance sheet, strong credit ratings, and a supportive regulatory environment, so that SPS has access to capital on reasonable terms in order to make necessary investments.

Safe and reliable service cannot be maintained at a reasonable cost if utilities do not have the financial flexibility and strength to access competitive financing markets on reasonable terms. As Ms. Martin explains, an appropriate capital structure is important not only to ensure long-term financial integrity, it also is critical to enabling access to capital during constrained markets, or when near-term liquidity is needed to fund extraordinary requirements. In that important respect, the capital structure, and the financial strength it engenders, must support both normal circumstances and periods of market uncertainty. The authorization of a capital structure that understates SPS's actual common equity will weaken the financial condition of its operations and adversely impact SPS's ability to address

expenses and investments, to the detriment of customers and shareholders. Safe and reliable service for customers cannot be sustained over the long term if the interests of shareholders and bondholders are minimized such that the public interest is not optimized.

Q. How does SPS's actual common equity ratio of 54.72% compare with the common equity ratios maintained by the Utility Proxy Group?

A. SPS's requested ratemaking common equity ratio of 54.72% is reasonable and consistent with the range of common equity ratios maintained by the Utility Proxy Group. As shown on pages 1 and 2 of Attachment__(DWD-1), Schedule 2, common equity ratios of the utilities range from 36.10% to 58.04% for fiscal year 2019.

I also considered *Value Line* projected capital structures for the Utility Proxy Group for 2023-2025. That analysis shows a range of projected common equity ratios between 36.50% and 59.00%.[12]

In addition to comparing SPS's actual common equity ratio with common equity ratios currently and expected to be maintained by the Utility Proxy Group, I also compared SPS's actual common equity ratio with the equity ratios maintained

[12] *See*, pages 3 through 15 of Attachment___(DWD-1), Schedule 3.

by the operating subsidiaries of the Utility Proxy Group companies. As shown on page 3 of Attachment__(DWD-1), Schedule 2, common equity ratios of the operating utility subsidiaries of the Utility Proxy Group range from 47.47% to 59.59% for fiscal year 2019.

Q. Is SPS's actual equity ratio of 54.72% appropriate for ratemaking purposes given the range of the Utility Proxy Group?

A. Yes, it is. SPS's actual equity ratio of 54.72% is appropriate for ratemaking purposes in the current proceeding because it is within the range of the common equity ratios currently maintained and expected to be maintained, by the Utility Proxy Group and their operating subsidiaries.

V. SPS AND THE UTILITY PROXY GROUP

Q. Why is it necessary to develop a proxy group when estimating the ROE for SPS?

A. Because SPS is not publicly traded and does not have publicly-traded equity securities, it is necessary to develop groups of publicly traded, comparable companies to serve as "proxies" for SPS. In addition to the analytical necessity of doing so, the use of proxy companies is consistent with the *Hope,* and *Bluefield* comparable risk standards, as discussed above. I have selected two proxy groups that, in my view, are fundamentally risk-comparable to SPS: a Utility Proxy Group and a Non-Price Regulated Proxy Group, which is comparable in total risk to the Utility Proxy Group.[13]

Even when proxy groups are carefully selected, it is common for analytical results to vary from company to company. Despite the care taken to ensure comparability, because no two companies are identical, market expectations regarding future risks and prospects will vary within the proxy group. It therefore is common for analytical results to reflect a seemingly wide range, even for a group of similarly situated companies. At issue is how to estimate the ROE from within

[13] The development of the Non-Price Regulated Proxy Group is explained in more detail in Section VI.

that range. That determination will be best informed by employing a variety of sound analyses and necessarily must consider the sort of quantitative and qualitative information discussed throughout my direct testimony. Additionally, a relative risk analysis between SPS and the Utility Proxy Group must be made to determine whether or not explicit Company-specific adjustments need to be made to the Utility Proxy Group indicated results.

My analyses are based on the Utility Proxy Group, containing U.S. electric utilities. As discussed earlier, utilities must compete for capital with other companies with commensurate risk (including non-utilities) and, to do so, must be provided the opportunity to earn a fair and reasonable return. Consequently, it is appropriate to consider the Utility Proxy Group's market data in determining SPS's ROE.

Q. Please summarize SPS's operations.

A. SPS is a vertically-integrated electric utility that provides electric generation, transmission, and distribution service to approximately 400,000 retail electric customers in Texas and New Mexico.[14] SPS has long-term issuer ratings of Baa2

[14] *See,* Xcel Energy, Inc., SEC Form 10-K at 8, 7 (Dec. 31, 2019).

from Moody's Investors Service ("Moody's") and A- from Standard & Poor's ("S&P").[15] SPS is not publicly-traded as it is an operating subsidiary of Xcel Energy. Xcel Energy is publicly-traded under ticker symbol "XEL".

Page 4 of Attachment___(DWD-1), Schedule 2 contains comparative capitalization and financial statistics for SPS for the years 2015 to 2019.[16] During the five-year period ending 2019, the historically achieved average earnings rate on book common equity for SPS averaged 8.48%. The average common equity ratio based on total permanent capital (excluding short-term debt) was 53.92%, and the average dividend payout ratio was 79.50%.

Total debt to earnings before interest, taxes, depreciation, and amortization for the years 2015 to 2019 ranges between 3.54 times and 4.17 times, with an average of 3.85 times. Funds from operations to total debt range from 17.33% to 25.33%, with an average of 20.78%.

Q. Please explain how you chose the companies in the Utility Proxy Group.

A. Because the cost of common equity is a comparative exercise, my objective in developing a proxy group was to select companies that are comparable to SPS.

[15] Source: S&P Global Market Intelligence.

[16] Source: SPS FERC Form 1. Reflects entire operations of SPS.

Because SPS is a 100% rate regulated vertically-integrated electric utility, I applied the following criteria to select my Utility Proxy Group:

(i) they were included in the Eastern, Central, or Western Electric Utility Group of Value Line (Standard Edition);

(ii) they have 70% or greater of fiscal year 2019 total operating income derived from, and 70% or greater of fiscal year 2019 total assets attributable to, regulated electric operations;

(iii) they are vertically integrated (i.e., utilities that own and operate regulated generation, transmission, and distribution assets);

(iv) at the time of preparation of this testimony, they had not publicly announced that they were involved in any major merger or acquisition activity (i.e., one publicly-traded utility merging with or acquiring another) or any other major development;

(v) they have not cut or omitted their common dividends during the five years ended 2019 or through the time of preparation of this testimony;

(vi) they have Value Line and Bloomberg Professional Services ("Bloomberg") adjusted betas coefficients ("beta");

(vii) they have positive Value Line five-year dividends per share ("DPS") growth rate projections; and

(viii) they have *Value Line*, Zacks, Bloomberg, or Yahoo! Finance consensus five-year earnings per share ("EPS") growth rate projections.

The following 13 companies met these criteria:

Table 2: Utility Proxy Group Companies

Company Name	Ticker Symbol
ALLETE, Inc.	ALE
Alliant Energy Corporation	LNT
Ameren Corporation	AEE
Edison International	EIX
Entergy Corporation	ETR
Evergy, Inc.	EVRG
IDACORP, Inc.	IDA
NorthWestern Corporation	NWE
OGE Energy Corporation	OGE
Otter Tail Corporation	OTTR
Pinnacle West Capital Corporation	PNW
Portland General Electric Co.	POR
Xcel Energy, Inc.	XEL

Q. Please summarize the Utility Proxy Group's historical capitalization and financial statistics.

A. Page 5 of Attachment___(DWD-1), Schedule 2 contains comparative capitalization and financial statistics for the Utility Proxy Group for the years 2015 to 2019.

During the five-year period ending 2019, the historically achieved average earnings rate on book common equity for the Utility Proxy Group averaged 9.01%, the average common equity ratio based on total permanent capital (excluding short-term debt) was 49.33%, and the average dividend payout ratio was 51.55%.

Total debt to earnings before interest, taxes, depreciation, and amortization for the years 2015 to 2019 ranges between 3.83 and 5.25 times, with an average of 4.45 times. Funds from operations to total debt range from 15.35% to 24.13%, with an average of 20.25%. Given those capitalization and financial statistics, I conclude the Utility Proxy Group is generally comparable to SPS.

VI. COMMON EQUITY COST RATE MODELS

Q. Is it important that cost of common equity models be market-based?

A. Yes. As discussed previously, regulated public utilities, like SPS, must compete for equity in capital markets along with all other companies with commensurate risk, including non-utilities. The cost of common equity is thus determined based on equity market expectations for the returns of those companies. If an individual investor is choosing to invest their capital among companies with comparable risk, they will choose the company providing a higher return over a company providing a lower return.

Q. Are the cost of common equity models you use market-based models?

A. Yes. The DCF model is market-based in that market prices are used in developing the dividend yield component of the model. The RPM and CAPM are also market-based in that the bond/issuer ratings and expected bond yields/risk-free rate used in the application of the RPM and CAPM reflect the market's assessment of bond/credit risk. In addition, the use of beta to determine the equity risk premium also reflects the market's assessment of market/systematic risk, as betas are derived from regression analyses of market prices. Moreover, market prices are used in the development of the monthly returns and equity risk premiums used in the Predictive Risk Premium Model ("PRPM"). Selection criteria for the Non-Price Regulated

Proxy Group are based on regression analyses of market prices and reflect the market's assessment of total risk.

Q. What analytical approaches did you use to determine SPS's ROE?

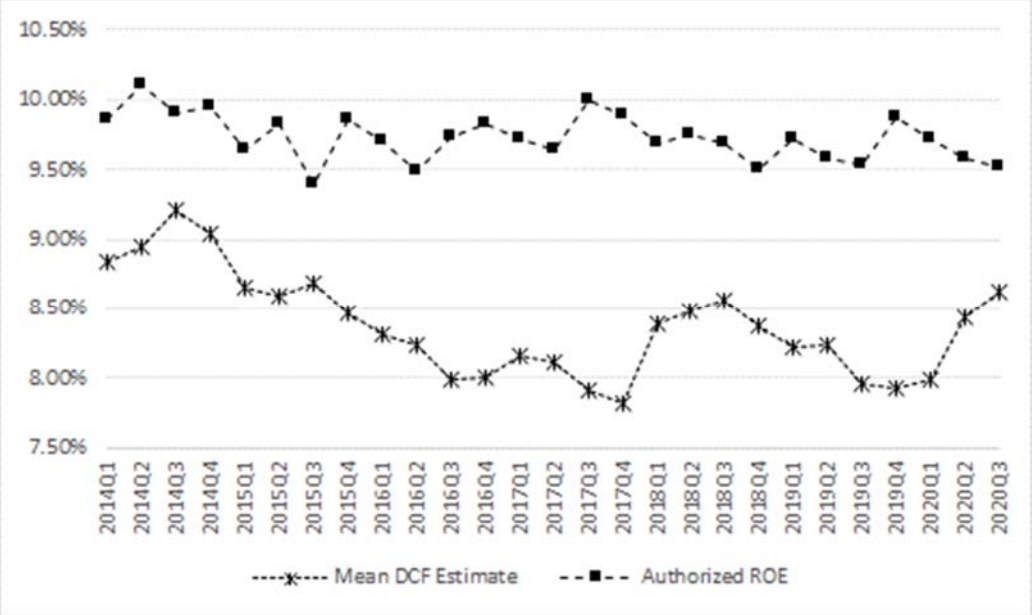
A. As discussed earlier, I have relied on the DCF model, the RPM, and the CAPM, which I apply to the Utility Proxy Group described above. I also applied these same models to a Non-Price Regulated Proxy Group described later in this section.

I rely on these models because reasonable investors use a variety of tools and do not rely exclusively on a single source of information or single model. Moreover, the models on which I rely focus on different aspects of return requirements, and provide different insights to investors' views of risk and return. The DCF model, for example, estimates the investor-required return assuming a constant expected dividend yield and growth rate in perpetuity, while Risk Premium-based methods (i.e., the RPM and CAPM approaches) provide the ability to reflect investors' views of risk, future market returns, and the relationship between interest rates and the cost of common equity. Just as the use of market data for the Utility Proxy Group adds the reliability necessary to inform expert judgment in arriving at a recommended common equity cost rate, the use of multiple generally accepted common equity cost rate models also adds reliability and accuracy when arriving at a recommended common equity cost rate.

Q. Has the Constant Growth DCF model recently produced estimates consistent with authorized returns?

A. Since 2014, the Constant Growth DCF model has produced results (*i.e.,* mean results) below authorized returns (*see* Chart 1, below). That data suggests state regulatory commissions have not necessarily relied exclusively on the DCF model, and that other methods should be given meaningful weight in determining the ROE.

Chart 1: Mean DCF Results vs. Authorized ROE Over Time[17]



[17] DCF results based on quarterly average stock prices, Earnings Per Share growth rates from Value Line, Zacks, First Call, and Bloomberg. Authorized ROEs are quarterly averages for vertically integrated electric utilities. Source: S&P Global Market Intelligence. Please note that 2017 Q3 and 2016 Q2 included only one ROE decision.

Q. Has New Mexico noted the importance of reviewing multiple methods in prior utility proceedings?

A. Yes. Although I am not an attorney, I understand that in prior cases, the Supreme Court of New Mexico (the "Court") found that the Commission is not bound to a single method. As the Court noted in *Hobbs Gas*:

> Neither New Mexico case law nor the Public Utility Act imposes any one particular method of valuation upon the Commission in ascertaining the rate base of a utility. *Mountain States Tel. v. New Mexico State Corp.*, 90 N.M. 325, 563 P.2d 588 (1977). Nor does the spirit of the statute tie the Commission down to the consideration of a single factor in establishing rates.[18]

Citing to its decision in *Mountain States Telephone*, the Court further noted that:

> The Commission was not bound to the use of any single formula or combination of formulae in determining rates. The rate-making function involves the making of pragmatic adjustments. It is the result reached, not the method employed, which is controlling. (Citations omitted.)[19]

In *PNM Gas Services*, the Court likewise found that because of the complexity and number of variables at issue in rate proceedings, the Commission is not bound to a single formula. Again, the Court found that "…the rate-making

[18] *Hobbs Gas Co. v. New Mexico Public Service Commission, 94 N.M. 731* (1980), at 4.

[19] *Hobbs Gas Co. v. New Mexico Public Service Commission, 94 N.M. 731* (1980), at 4.

function involves the making of pragmatic adjustments" and that in the end, "[i]t is the result reached, not the method employed, which is controlling."[20]

Lastly, I understand that in *Zia Natural Gas*, the Court again cited back to *Mountain States*, noting the importance of the "immediate economic situation":

> [t]his Court can see no reason why it should adopt as the law of this state any single formula which has been evolved out of this history of litigation.... [T]he regulatory authorities seek a formula which will adjust rates to the *immediate economic situation*" (emphasis added).[21]

My plain reading of those decisions suggests that although the Commission historically has put emphasis on the Constant Growth DCF approach, it is not bound to do so. Equally important, the Court found that the immediate economic situation may call for "pragmatic adjustments" to the method used to establish the ROE, and that it is the reasonableness of the ROE itself, rather than the methodology used in its determination, that controls.

Q. Would sole reliance on the DCF model likely produce a reasonable ROE for SPS in this case?

A. No. As the New Mexico Supreme Court has consistently recognized, it is the current economic situation, not adherence to a single formula, that is likely to

[20] *In re Petition of PNM Gas Services, 129 N.M. 1* (2000), at 11.

[21] *In re Zia Natural Gas Co., 128 N.M. 728* (2000), at 8.

produce a reasonable return. As discussed above, a reasonable ROE is one that is commensurate with the returns expected elsewhere for investments of equivalent risk. As Chart 1 demonstrates, average authorized returns (which may themselves be below the required return for a particular utility) have consistently been higher than the return produced under a standalone DCF approach. The DCF model's consistent failure to produce returns commensurate with the returns generally established for electric utilities demonstrates that it should not be relied on to the exclusion of other approaches, but instead that a combination of the DCF with tested, market-based models should be used.

A. Discounted Cash Flow Model

Q. Please describe the DCF model generally.

A. The theory underlying the DCF model is that the present value of an expected future stream of net cash flows during the investment holding period can be determined by discounting those cash flows at the cost of capital, or the investors' capitalization rate. DCF theory indicates that an investor buys a stock for an expected total return rate, which is derived from the cash flows received from dividends and market price appreciation. Mathematically, the expected dividend yield on market price plus a growth rate equals the capitalization rate; i.e., the total common equity return rate expected by investors, as shown in Equation [1] below:

$$K_e = (D_0 (1+g))/P + g$$

Where:

K_e = the required Return on Common Equity;
D_0 = the annualized Dividend Per Share;
P = the current stock price; and
G = the growth rate.

Q. Which version of the DCF model did you use?

A. I used the single-stage Constant Growth DCF model.

Q. Please describe the dividend yield you used in applying the Constant Growth DCF model.

A. The unadjusted dividend yields are based on the proxy companies' dividends as of October 30, 2020, divided by the average closing market price for the 60 trading days ended October 30, 2020.[22]

Q. Please explain your adjustment to the dividend yield.

A. Because dividends are paid periodically (e.g., quarterly), as opposed to continuously (daily), an adjustment must be made to the dividend yield. This is often referred to as the discrete, or the Gordon Periodic, version of the DCF model.

DCF theory calls for using the full growth rate, or D_1, in calculating the model's dividend yield component. Since the companies in the Utility Proxy Group

[22] *See,* Column 1, page 1 of Attachment___(DWD-1), Schedule 3.

increase their quarterly dividends at various times during the year, a conservative assumption is to reflect one-half the annual dividend growth rate rather than the full growth rate in the dividend yield component, or $D_{1/2}$. Because the dividend should be representative of the next 12-month period, this adjustment is a conservative approach that does not overstate the dividend yield. Therefore, the actual average dividend yields in Column 1, page 1 of Attachment___(DWD-1), Schedule 3 have been adjusted upward to reflect one-half the average projected growth rate shown in Column 6.

Q. Please explain the basis for the growth rates you apply in your Constant Growth DCF model.

A. Investors with more limited resources than institutional investors are likely to rely on widely available financial information services, such as *Value Line*, Zacks, and Yahoo! Finance. Investors realize that analysts have significant insight into the dynamics of the industries and individual companies they analyze, as well as companies' abilities to effectively manage the effects of changing laws and regulations, and ever-changing economic and market conditions. For these reasons, I used analysts' five-year forecasts of EPS growth in my DCF analysis.

Over the long run, there can be no growth in DPS without growth in EPS. Security analysts' earnings expectations have a more significant influence on

market prices than dividend expectations. Thus, using projected earnings growth rates in a DCF analysis provides a better match between investors' market price appreciation expectations and the growth rate component of the DCF.

Q. Please summarize the Constant Growth DCF model results.

A. As shown on page 1 of Attachment___(DWD-1), Schedule 3, the application of the Constant Growth DCF model to the Utility Proxy Group results in a wide range of indicated ROEs from 6.22% to 10.97%. The mean of those results is 8.83%, the median result is 8.57%, and the average of the two is 8.70%. In arriving at a conclusion of the indicated common equity cost rate for the Utility Proxy Group implied by the Constant Growth DCF model, I relied on an average of the mean and the median results (i.e., 8.70%) of the DCF. By doing so, I have considered the DCF results for each company without giving undue weight to outliers on either the high or the low side.

Q. Did you consider any other Constant Growth DCF model results?

A. Yes, I did. I recognize that in prior orders, including SPS's most recent fully-litigated order in Case No. 17-00255-UT,[23] the Commission has relied exclusively on a specific form of the Constant Growth DCF approach ("NM DCF").

[23] The Commission issued its Final Order on September 5, 2018, and a *New Final Order on Partial Mandate from the New Mexico Supreme Court* on March 6, 2019.

Specifically, that form has recently included a 30-day stock price averaging period and a full dividend yield growth rate adjustment, and determined the ROE at the midpoint of the proxy group mean and mean high DCF results. Consistent with the Commission's prior precedent, I have included a NM DCF analysis incorporating the Commission's preferred inputs, as shown on page 2 of Attachment__(DWD-1), Schedule 3.

Q. Please explain how you determined the mean high DCF results for the Utility Proxy Group.

A. For each proxy company, I calculated the high DCF result by applying the highest of the four growth rates to the expected dividend yield. The mean high DCF result for the Utility Proxy Group is the average of the individual company indicated DCF result.

Q. Please summarize the results of the NM DCF.

A. As shown on page 2 of Attachment___(DWD-1), Schedule 3, for the Utility Proxy Group, the application of the Commission's DCF model to the Utility Proxy Group resulted in indicated ROEs from 6.31% to 13.22%. The average of the mean and result of applying the Commission's DCF model is 8.76%, the average of the mean and median high result is 9.35%. The average of the two is 9.06%.

B. The Risk Premium Model

Q. Please describe the theoretical basis of the RPM.

A. The RPM is based on the fundamental financial principle of risk and return; namely, that investors require greater returns for bearing greater risk. The RPM recognizes that common equity capital has greater investment risk than debt capital, as common equity shareholders are behind debt holders in any claim on a company's assets and earnings. As a result, investors require higher returns from common stocks than from bonds to compensate them for bearing the additional risk.

While it is possible to directly observe bond returns and yields, investors' required common equity returns cannot be directly determined or observed. According to RPM theory, one can estimate a common equity risk premium over bonds (either historically or prospectively), and use that premium to derive a cost rate of common equity. The cost of common equity equals the expected cost rate for long-term debt capital, plus a risk premium over that cost rate, to compensate common shareholders for the added risk of being unsecured and last-in-line for any claim on the corporation's assets and earnings upon liquidation.

Q. Please explain how you derived your indicated cost of common equity based on the RPM.

A. To derive my indicated cost of common equity under the RPM, I used two risk premium methods. The first method was the PRPM and the second method was a risk premium model using a total market approach. The PRPM estimates the risk-return relationship directly, while the total market approach indirectly derives a risk premium by using known metrics as a proxy for risk.

i. <u>Predictive Risk Premium Model</u>

Q. Please explain the PRPM.

A. The PRPM, published in the *Journal of Regulatory Economics,*[24] was developed from the work of Robert F. Engle, who shared the Nobel Prize in Economics in 2003 "for methods of analyzing economic time series with time-varying volatility" ("ARCH").[25] Engle found that volatility changes over time and is related from one period to the next, especially in financial markets. Engle discovered that volatility of prices and returns clusters over time and is therefore highly predictable and can be used to predict future levels of risk and risk premiums. That is, historical

[24] Pauline M. Ahern, Frank J. Hanley and Richard A. Michelfelder, Ph.D. *A New Approach for Estimating the Equity Risk Premium for Public Utilities*, <u>The Journal of Regulatory Economics</u> (December 2011), 40:261-278.

[25] Autoregressive conditional heteroscedasticity; *see also,* <u>www.nobelprize.org</u>.

volatility can be used to predict future volatility, which then can be translated to a predicted equity risk premium.

The PRPM estimates the risk-return relationship directly, as the predicted equity risk premium is generated by predicting volatility or risk. The PRPM is not based on an estimate of investor behavior, but rather on an evaluation of the results of that behavior (i.e., the variance of historical equity risk premiums).

The inputs to the model are the historical returns on the common shares of each Utility Proxy Group company minus the historical monthly yield on long-term U.S. Treasury securities through October 2020. Using a generalized form of ARCH, known as "GARCH", I calculated each Utility Proxy Group company's projected equity risk premium using Eviews© statistical software. When the GARCH model is applied to the historical return data, it produces a predicted GARCH variance series[26] and a GARCH coefficient.[27] Multiplying the predicted monthly variance by the GARCH coefficient and then annualizing it[28] produces the predicted annual equity risk premium. I then added the forecasted 30-year U.S.

[26] Illustrated on Columns 1 and 2, page 2 of Attachment___(DWD-1), Schedule 4.

[27] Illustrated on Column 4, page 2 of Attachment___(DWD-1), Schedule 4.

[28] Annualized Return = (1 + Monthly Return) ^12 - 1.

Treasury bond yield of 2.16%[29] to each company's PRPM-derived equity risk premium to arrive at an indicated cost of common equity. The 30-year U.S. Treasury bond yield is a consensus forecast derived from *Blue Chip*.[30] The mean PRPM indicated common equity cost rate for the Utility Proxy Group is 10.38%, the median is 10.20%, and the average of the two is 10.29%. Consistent with my reliance on the average of the median and mean results of the DCF models, I relied on the average of the mean and median results of the Utility Proxy Group PRPM to calculate a cost of common equity rate of 10.29%.

Q. Please describe your selection of a risk-free rate of return.

A. As shown in Attachment___(DWD-1), Schedules 4 and 5, the risk-free rate adopted for applications of the RPM and CAPM is 2.16%. This risk-free rate is based on the average of the *Blue Chip* consensus forecast of the expected yields on 30-year U.S. Treasury bonds for the six quarters ending with the first calendar quarter of 2022, and long-term projections for the years 2022 to 2026 and 2027 to 2031.

Q. Why do you use the projected 30-year Treasury yield in your analyses?

A. The yield on long-term U.S. Treasury bonds is almost risk-free and its term is consistent with the long-term cost of capital to public utilities measured by the

[29] *See,* Column 6, page 2 of Attachment___(DWD-1), Schedule 4.

[30] *Blue Chip Financial Forecasts ("Blue Chip")*, June 1, 2020 at page 14 and October 30, 2020 at 2.

yields on Moody's A2-rated public utility bonds; the long-term investment horizon inherent in utilities' common stocks; and the long-term life of the jurisdictional rate base to which the allowed fair rate of return (i.e., cost of capital) will be applied. In contrast, short-term U.S. Treasury yields are more volatile and largely a function of Federal Reserve monetary policy.

More specifically, the term of the risk-free rate used for cost of capital purposes should match the life (or duration) of the underlying investment (i.e., perpetuity). As noted by Morningstar:

> The traditional thinking regarding the time horizon of the chosen Treasury security is that it should match the time horizon of whatever is being valued. When valuing a business that is being treated as a going concern, the appropriate Treasury yield should be that of a long-term Treasury bond. Note that the horizon is a function of the investment, not the investor. If an investor plans to hold stock in a company for only five years, the yield on a five-year Treasury note would not be appropriate since the company will continue to exist beyond those five years.[31]

Morin also confirms this when he states:

> [b]ecause common stock is a long-term investment and because the cash flows to investors in the form of dividends last indefinitely, the yield on very long-term government bonds, namely, the yield on 30-year Treasury bonds, is the best measure of the risk-free rate for use in the CAPM (footnote omitted)…

[31] Morningstar, Inc., 2013 Ibbotson Stocks, Bonds, Bills and Inflation Valuation Yearbook, at 44.

> The expected common stock return is based on long-term cash flows, regardless of an individual's holding time period.[32]

Pratt and Grabowski recommend a similar approach to selecting the risk-free rate: "[i]n theory, when determining the risk-free rate and the matching ERP you should be matching the risk-free security and the ERP with the period in which the investment cash flows are expected."[33] Similarly, a 2004 paper titled *Applying The Capital Asset Pricing Model* by Robert Harris reviews current practices for application of the CAPM and, when summarizing best current practices, concludes "[t]he risk-free rate should match the tenor of the cash flows being valued."[34]

As a practical matter, equity securities represent a perpetual claim on cash flows; 30-year Treasury bonds are the longest-maturity securities available to approximate that perpetual claim. The average life of SPS's utility plant is approximately 31 years based on the composite depreciation rate of the components of its utility plant.[35] Thus, the use of a 30-year Treasury bond yield is a more appropriate risk-free rate as it more accurately reflects the life of the assets it finances.

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[32] Roger A. Morin, New Regulatory Finance, Public Utilities Reports, Inc., 2006, at 151. ("Morin").

[33] Shannon Pratt and Roger Grabowski, Cost of Capital: Applications and Examples, 3rd Ed. (Hoboken, NJ: John Wiley & Sons, Inc., 2008), at 92. "ERP" is the Equity Risk Premium.

[34] Paper cited with permission of author.

[35] Average depreciation 3.19%. 1 / 3.19% = 31.37 years.

ii. Total Market Approach Risk Premium Model

Q. Please explain the total market approach RPM.

A. The total market approach RPM adds a prospective public utility bond yield to an average of: 1) an equity risk premium that is derived from a beta-adjusted total market equity risk premium; 2) an equity risk premium based on the S&P Utilities Index; and 3) an equity risk premium based on authorized ROEs for electric utilities.

Q. Please explain how you determined the expected bond yield, applicable to the Utility Proxy Group.

A. The first step in the total market approach RPM analysis is to determine the expected bond yield. Because both ratemaking and the cost of capital, including the common equity cost rate, are prospective in nature, a prospective yield on similarly-rated long-term debt is essential. Because I am unaware of any publication that provides forecasted public utility bond yields, I relied on a consensus forecast of about 50 economists of the expected yield on Aaa-rated corporate bonds for the six calendar quarters ending with the first calendar quarter of 2022, and *Blue Chip's* long-term projections for 2022 to 2026, and 2027 to 2031. As shown on line 1, page 3 of Attachment___(DWD-1), Schedule 4, the average expected yield on Moody's Aaa-rated corporate bonds is 3.01%.

Because that 3.01% estimate represents a corporate bond yield and not a utility specific bond yield, I adjusted the expected Aaa-rated corporate bond yield to an equivalent A2-rated public utility bond yield. That resulted in an upward adjustment of 0.54%, which represents a recent spread between Aaa-rated corporate bonds and A2-rated public utility bonds.[36] Adding that recent 0.54% spread to the expected Aaa-rated corporate bond yield of 3.01% results in an expected A2-rated public utility bond yield of 3.55%.

I then reviewed the average credit rating for the Utility Proxy Group from Moody's to determine if an adjustment to the estimated A2-rated public utility bond was necessary. Since the Utility Proxy Group's average Moody's long-term issuer rating is A3, another adjustment to the expected A2-rated public utility bond is needed to reflect the difference in bond ratings. An upward adjustment of 0.11%, which represents one-third of a recent spread between A2-rated and Baa2-rated public utility bond yields, is necessary to make the A2 prospective bond yield applicable to an A3-rated public utility bond.[37] Adding the 0.11% to the 3.55%

[36] As shown on line 2 and explained in note 2, page 3 of Attachment___(DWD-1), Schedule 4.

[37] As shown on line 4 and explained in note 3, page 3 of Attachment___(DWD-1), Schedule 4. Moody's does not provide public utility bond yields for A3-rated bonds. As such, it was necessary to estimate the difference between A2-rated and A3-rated public utility bonds. Because there are three steps between Baa2 and A2 (Baa2 to Baa1, Baa1 to A3, and A3 to A2), I assumed an adjustment of one-third of the difference between the A2-rated and Baa2-rated public utility bond yield was appropriate.

prospective A2-rated public utility bond yield results in a 3.66% expected bond yield applicable to the Utility Proxy Group.

Table 3: Summary of the Calculation of the Utility Proxy Group Projected Bond Yield[38]

Prospective Yield on Moody's Aaa-Rated Corporate Bonds (*Blue Chip)*	3.01%
Adjustment to Reflect Yield Spread Between Moody's Aaa-Rated Corporate Bonds and Moody's A2-Rated Utility Bonds	0.54%
Adjustment to Reflect the Utility Proxy Group's Average Moody's Bond Rating of A3	0.11%
Prospective Bond Yield Applicable to the Utility Proxy Group	3.66%

To develop the total market approach RPM estimate of the appropriate ROE, this prospective bond yield is then added to the average of the three different equity risk premiums, which I now discuss, in turn.

a. Beta Derived Equity Risk Premium

Q. Please explain how the beta-derived equity risk premium is determined.

A. The components of the beta-derived risk premium model are: 1) an expected market equity risk premium over corporate bonds, and 2) beta. The derivation of the beta-derived equity risk premium that I applied to the Utility Proxy Group is shown on lines 1 through 9, page 8 of Attachment___(DWD-1), Schedule 4. The

[38] As shown on page 3 of Attachment___(DWD-1), Schedule 4.

total beta-derived equity risk premium I applied is based on an average of three historical market data-based equity risk premiums, two *Value Line*-based equity risk premiums, and a Bloomberg-based equity risk premium. Each of these is described below.

Q. How did you derive a market equity risk premium based on long-term historical data?

A. To derive an historical market equity risk premium, I used the most recent holding period returns for the large company common stocks from the Stocks, Bonds, Bills, and Inflation ("SBBI") Yearbook 2020 ("SBBI - 2020")[39] less the average historical yield on Moody's Aaa/Aa2-rated corporate bonds for the period 1928 to 2019. Using holding period returns over a very long time is appropriate because it is consistent with the long-term investment horizon presumed by investing in a going concern, i.e., a company expected to operate in perpetuity.

SBBI's long-term arithmetic mean monthly total return rate on large company common stocks was 11.83% and the long-term arithmetic mean monthly yield on Moody's Aaa/Aa2-rated corporate bonds was 6.05%.[40] As shown on line 1, page 8 of Attachment___(DWD-1), Schedule 4, subtracting the mean

[39] *See,* SBBI-2020 Appendix A Tables: Morningstar Stocks, Bonds, Bills, & Inflation 1926-2019.

[40] As explained in note 1, page 9 of Attachment___(DWD-1), Schedule 4.

monthly bond yield from the total return on large company stocks results in a long-term historical equity risk premium of 5.78%.

I used the arithmetic mean monthly total return rates for the large company stocks and yields (income returns) for the Moody's Aaa/Aa corporate bonds, because they are appropriate for the purpose of estimating the cost of capital as noted in SBBI - 2020.[41] Using the arithmetic mean return rates and yields is appropriate because historical total returns and equity risk premiums provide insight into the variance and standard deviation of returns needed by investors in estimating future risk when making a current investment. If investors relied on the geometric mean of historical equity risk premiums, they would have no insight into the potential variance of future returns, because the geometric mean relates the change over many periods to a constant rate of change, thereby obviating the year-to-year fluctuations, or variance, which is critical to risk analysis.

Q. Please explain the derivation of the regression-based market equity risk premium.

A. To derive the regression-based market equity risk premium of 9.36% shown on line 2, page 8 of Attachment___(DWD-1), Schedule 4, I used the same monthly annualized total returns on large company common stocks relative to the monthly

[41] *See,* SBBI - 2020, at 10-22.

annualized yields on Moody's Aaa/Aa2-rated corporate bonds as mentioned above. I modeled the relationship between interest rates and the market equity risk premium using the observed monthly market equity risk premium as the dependent variable, and the monthly yield on Moody's Aaa/Aa2-rated corporate bonds as the independent variable. I then used a linear Ordinary Least Squares ("OLS") regression, in which the market equity risk premium is expressed as a function of the Moody's Aaa/Aa2-rated corporate bonds yield:

$$RP = \alpha + \beta\ (R_{Aaa/Aa})$$

Q. Please explain the derivation of the PRPM equity risk premium.

A. I used the same PRPM approach described above to the PRPM equity risk premium. The inputs to the model are the historical monthly returns on large company common stocks minus the monthly yields on Moody's Aaa/Aa2-rated corporate bonds during the period from January 1928 through October 2020.[42] Using the previously discussed generalized form of ARCH, known as GARCH, the projected equity risk premium is determined using Eviews© statistical software. The resulting PRPM predicted a market equity risk premium of 9.52%.[43]

[42] Data from January 1926 to December 2019 is from SBBI - 2020. Data from January 2020 to October 2020 is from Bloomberg.

[43] Shown on line 3, page 8 of Attachment___(DWD-1), Schedule 4.

Q. Please explain the derivation of a projected equity risk premium based on *Value Line* data for your RPM analysis.

A. As noted above, because both ratemaking and the cost of capital are prospective, a prospective market equity risk premium is needed. The derivation of the forecasted or prospective market equity risk premium can be found in note 4, page 9 of Attachment___(DWD-1), Schedule 4. Consistent with my calculation of the dividend yield component in my DCF analysis, this prospective market equity risk premium is derived from an average of the three- to five-year median market price appreciation potential by *Value Line* for the 13 weeks ended October 30, 2020, plus an average of the median estimated dividend yield for the common stocks of the 1,700 firms covered in *Value Line* (Standard Edition).[44]

The average median expected price appreciation is 52%, which translates to a 11.04% annual appreciation, and, when added to the average of *Value Line's* median expected dividend yields of 2.26%, equates to a forecasted annual total return rate on the market of 13.30%. The forecasted Moody's Aaa-rated corporate bond yield of 3.01% is deducted from the total market return of 13.30%, resulting in an equity risk premium of 10.29%, as shown on line 4, page 8 of Attachment___(DWD-1), Schedule 4.

[44] As explained in detail in note 1, page 2 of Attachment___(DWD-1), Schedule 4.

Q. Please explain the derivation of an equity risk premium based on the S&P 500 companies.

A. Using data from *Value Line*, I calculated an expected total return on the S&P 500 companies using expected dividend yields and long-term growth estimates as a proxy for capital appreciation. The expected total return for the S&P 500 is 13.96%. Subtracting the prospective yield on Moody's Aaa-rated corporate bonds of 3.01% results in a 10.95% projected equity risk premium.

Q. Please explain the derivation of an equity risk premium based on Bloomberg data.

A. Using data from Bloomberg, I calculated an expected total return on the S&P 500 using expected dividend yields and long-term growth estimates as a proxy for capital appreciation, identical to the method described above. The expected total return for the S&P 500 is 14.02%. Subtracting the prospective yield on Moody's Aaa-rated corporate bonds of 3.01% results in a 11.01% projected equity risk premium.

Q. What is your conclusion of a beta-derived equity risk premium for use in your RPM analysis?

A. I gave equal weight to all six equity risk premiums based on each source – historical, *Value Line*, and Bloomberg – in arriving at a 9.48% equity risk premium.

Table 4: Summary of the Calculation of the Equity Risk Premium Using Total Market Returns[45]

Historical Spread Between Total Returns of Large Stocks and Aaa and Aa2-Rated Corporate Bond Yields (1928 – 2019)	5.78%
Regression Analysis on Historical Data	9.36%
PRPM Analysis on Historical Data	9.52%
Prospective Equity Risk Premium using Total Market Returns from *Value Line* Summary & Index less Projected Aaa Corporate Bond Yields	10.29%
Prospective Equity Risk Premium using Measures of Capital Appreciation and Income Returns from *Value Line* for the S&P 500 less Projected Aaa Corporate Bond Yields	10.95%
Prospective Equity Risk Premium using Measures of Capital Appreciation and Income Returns from Bloomberg Professional Services for the S&P 500 less Projected Aaa Corporate Bond Yields	11.01%
Average	9.48%

After calculating the average market equity risk premium of 9.48%, I adjusted it by beta to account for the risk of the Utility Proxy Group. As discussed below, beta is a meaningful measure of prospective relative risk to the market as a whole, and is a logical way to allocate a company's, or proxy group's, share of the market's total equity risk premium relative to corporate bond yields. As shown on page 1 of Attachment___(DWD-1), Schedule 5, the average of the mean and median beta for the Utility Proxy Group is 0.95. Multiplying the 0.95 average beta

[45] As shown on page 8 of Attachment___(DWD-1), Schedule 4.

by the market equity risk premium of 9.48% results in a beta-adjusted equity risk premium for the Utility Proxy Group of 9.01%.

b. S&P Utility Index Derived Equity Risk Premium

Q. How did you derive the equity risk premium based on the S&P Utility Index and Moody's A2-rated public utility bonds?

A. I estimated three equity risk premiums based on S&P Utility Index holding period returns, and two equity risk premiums based on the expected returns of the S&P Utilities Index, using *Value Line* and Bloomberg data, respectively. Turning first to the S&P Utility Index holding period returns, I derived a long-term monthly arithmetic mean equity risk premium between the S&P Utility Index total returns of 10.74% and monthly Moody's A2-rated public utility bond yields of 6.53% from 1928 to 2019 to arrive at an equity risk premium of 4.21%.[46] I then used the same historical data to derive an equity risk premium of 6.84% based on a regression of the monthly equity risk premiums. The final S&P Utility Index holding period equity risk premium involved applying the PRPM using the historical monthly equity risk premiums from January 1928 to October 2020 to arrive at a PRPM-derived equity risk premium of 5.59% for the S&P Utility Index.

[46] As shown on line 1, page 12 of Attachment___(DWD-1), Schedule 4.

I then derived expected total returns on the S&P Utilities Index of 10.17% and 8.25% using data from *Value Line* and Bloomberg, respectively, and subtracted the prospective Moody's A2-rated public utility bond yield of 3.55%[47], which resulted in equity risk premiums of 6.62% and 4.70%, respectively. As with the market equity risk premiums, I averaged each risk premium based on each source (i.e., historical, *Value Line*, and Bloomberg) to arrive at my utility-specific equity risk premium of 5.61%.

Table 5: Summary of the Calculation of the Equity Risk Premium Using S&P Utility Index Holding Returns[48]

Historical Spread Between Total Returns of the S&P Utilities Index and A2-Rated Utility Bond Yields (1928 – 2019)	4.21%
Regression Analysis on Historical Data	6.84%
PRPM Analysis on Historical Data	5.59%
Prospective Equity Risk Premium using Measures of Capital Appreciation and Income Returns from *Value Line* for the S&P Utilities Index less Projected A2 Utility Bond Yields	6.62%
Prospective Equity Risk Premium using Measures of Capital Appreciation and Income Returns from Bloomberg Professional Services for the S&P Utilities Index less Projected A2 Utility Bond Yields	4.70%
Average	5.59%

[47] Derived on line 3, page 3 of Attachment___(DWD-1), Schedule 4.

[48] As shown on page 12 of Attachment___(DWD-1), Schedule 4.

c. Authorized Return Derived Equity Risk Premium

Q. How do you derive an equity risk premium of 5.94% based on authorized ROEs for electric utilities?

A. The equity risk premium of 5.92% shown on line 3, page 7 of Attachment___(DWD-1), Schedule 4 is the result of a regression analysis based on regulatory awarded ROEs related to the yields on Moody's A2-rated public utility bonds. That analysis is shown on page 13 of Attachment___(DWD-1), Schedule 4. Page 13 of Attachment___(DWD-1), Schedule 4 contains the graphical results of a regression analysis of 1,169 rate cases for electric utilities which were fully litigated during the period from January 1, 1980 through October 31, 2020. It shows the implicit equity risk premium relative to the yields on A2-rated public utility bonds immediately prior to the issuance of each regulatory decision. That is, the analysis considers the relationship between authorized returns and prevailing public utility bond yields at the time of the decision.

It is readily discernible that there is an inverse relationship between the yield on A2-rated public utility bonds and equity risk premiums. In other words, as interest rates decline, the equity risk premium rises and vice versa, a result

consistent with financial literature on the subject.[49] I used the regression results to estimate the equity risk premium applicable to the projected yield on Moody's A2-rated public utility bonds. Given the expected A2-rated utility bond yield of 3.55%, it can be calculated that the indicated equity risk premium applicable to that bond yield is 5.92%, which is shown on line 3, page 7 of Attachment___(DWD-1), Schedule 4.

Q. What is your conclusion of an equity risk premium for use in your total market approach RPM analysis?

A. The equity risk premium I apply to the Utility Proxy Group is 6.84%, which is the average of the beta-adjusted equity risk premium for the Utility Proxy Group, the S&P Utilities Index, and the authorized return utility equity risk premiums of 9.01%, 5.59%, and 5.92%, respectively.[50]

[49] *See*, *e.g.*, Robert S. Harris and Felicia C. Marston, *The Market Risk Premium: Expectational Estimates Using Analysts' Forecasts*, Journal of Applied Finance, Vol. 11, No. 1, 2001, at 11-12; Eugene F. Brigham, Dilip K. Shome, and Steve R. Vinson, *The Risk Premium Approach to Measuring a Utility's Cost of Equity*, Financial Management, Spring 1985, at 33-45.

[50] As shown on page 7 of Attachment___(DWD-1), Schedule 4.

Q. What is the indicated RPM common equity cost rate based on the total market approach?

A. As shown on line 7, page 3 of Attachment___(DWD-1), Schedule 4 and shown on Table 8, below, I calculated a common equity cost rate of 10.50% for the Utility Proxy Group based on the total market approach RPM.

Table 6: Summary of the Total Market Return Risk Premium Model[51]

Prospective Moody's A3-Rated Utility Bond Applicable to the Utility Proxy Group	3.66%
Prospective Equity Risk Premium	6.84%
Indicated Cost of Common Equity	10.50%

Q. What are the results of your application of the PRPM and the total market approach RPM?

A. As shown on page 1 of Attachment___(DWD-1), Schedule 4, the indicated RPM-derived common equity cost rate is 10.40%, which gives equal weight to the PRPM (10.29%) and the adjusted-market approach results (10.50%).

[51] As shown on page 3 of Attachment___(DWD-1), Schedule 4.

C. The Capital Asset Pricing Model

Q. Please explain the theoretical basis of the CAPM.

A. CAPM theory defines risk as the co-variability of a security's returns with the market's returns as measured by beta (β). A beta that is less than 1.0 indicates lower variability than the market as a whole, while a beta that is greater than 1.0 indicates greater variability than the market.

The CAPM assumes that all non-market or unsystematic risk can be eliminated through diversification. The risk that cannot be eliminated through diversification is called market, or systematic, risk. In addition, the CAPM presumes that investors only require compensation for systematic risk, which is the result of macroeconomic and other events that affect the returns on all assets. The model is applied by adding a risk-free rate of return to a market risk premium, which is adjusted proportionately to reflect the systematic risk of the individual security relative to the total market as measured by beta. The traditional CAPM model is expressed as:

$$R_s = R_f + \beta (R_m - R_f)$$

Where:

R_s	=	Return rate on the common stock
R_f	=	Risk-free rate of return
R_m	=	Return rate on the market as a whole
β	=	Adjusted beta (volatility of the security relative to the market as a whole)

Numerous tests of the traditional CAPM have measured the extent to which security returns and beta are related as predicted by the CAPM, confirming its validity. The empirical CAPM ("ECAPM") reflects the reality that while the results of these tests support the notion that the beta is related to security returns, the empirical Security Market Line ("SML") described by the CAPM formula is not as steeply sloped as the predicted SML.[52]

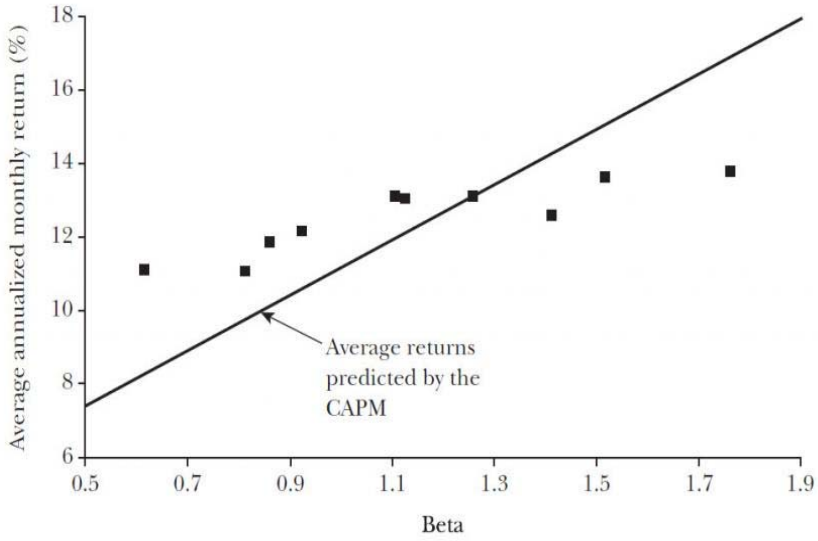
In their work on the CAPM, Fama and French clearly state regarding Figure 2, below, that "[t]he returns on the low beta portfolios are too high, and the returns on the high beta portfolios are too low."[53]

[52] Morin, at 175.

[53] Eugene F. Fama and Kenneth R. French, *The Capital Asset Pricing Model: Theory and Evidence*, Journal of Economic Perspectives, Vol. 18, No. 3, Summer 2004 at 33 ("Fama & French").

Figure 2 http://pubs.aeaweb.org/doi/pdfplus/10.1257/0895330042162430

Average Annualized Monthly Return versus Beta for Value Weight Portfolios Formed on Prior Beta, 1928–2003



In addition, Morin observes that while the results of these tests support the notion that beta is related to security returns, the empirical SML described by the CAPM formula is not as steeply sloped as the predicted SML. Morin states:

> With few exceptions, the empirical studies agree that … low-beta securities earn returns somewhat higher than the CAPM would predict, and high-beta securities earn less than predicted.[54]

* * *

[54] Morin, at 175.

Therefore, the empirical evidence suggests that the expected return on a security is related to its risk by the following approximation:

$$K = R_F + x (R_M - R_F) + (1-x) \beta(R_M - R_F)$$

where x is a fraction to be determined empirically. The value of x that best explains the observed relationship [is] Return = 0.0829 + 0.0520 β is between 0.25 and 0.30. If x = 0.25, the equation becomes:

$$K = R_F + 0.25(R_M - R_F) + 0.75 \beta(R_M - R_F)$$ [55]

Fama and French provide similar support for the ECAPM when they state:

> The early tests firmly reject the Sharpe-Lintner version of the CAPM. There is a positive relation between beta and average return, but it is too 'flat.'… The regressions consistently find that the intercept is greater than the average risk-free rate… and the coefficient on beta is less than the average excess market return… This is true in the early tests… as well as in more recent cross-section regressions tests, like Fama and French (1992).[56]

Finally, Fama and French further note:

> Confirming earlier evidence, the relation between beta and average return for the ten portfolios is much flatter than the Sharpe-Linter CAPM predicts. The returns on low beta portfolios are too high, and the returns on the high beta portfolios are too low. For example, the predicted return on the portfolio with the lowest beta is 8.3 percent per year; the actual return as 11.1 percent. The predicted return on the portfolio with the t beta is 16.8 percent per year; the actual is 13.7 percent.[57]

[55] Morin, at 190.

[56] Fama & French, at 32.

[57] *Ibid.,* at 33.

Clearly, the justification from Morin, Fama, and French, along with their reviews of other academic research on the CAPM, validate the use of the ECAPM. In view of theory and practical research, I have applied both the traditional CAPM and the ECAPM to the companies in the Utility Proxy Group and averaged the results.

Q. What betas did you use in your CAPM analysis?

A. For the beta in my CAPM analysis, I considered two sources: *Value Line* and Bloomberg Professional Services. While both of those services adjust their calculated (or "raw") beta to reflect the tendency of beta to regress to the market mean of 1.00, *Value Line* calculates betas over a five-year period, while Bloomberg calculates them over a two-year period.

Q. Please describe your selection of a risk-free rate of return.

A. As discussed previously, the risk-free rate adopted for both applications of the CAPM is 2.16%. This risk-free rate is based on the average of the *Blue Chip* consensus forecast of the expected yields on 30-year U.S. Treasury bonds for the six quarters ending with the first calendar quarter of 2022, and long-term projections for the years 2022 to 2026 and 2027 to 2031.

Q. Please explain the estimation of the expected risk premium for the market used in your CAPM analyses.

A. The basis of the market risk premium is explained in detail in note 1 on page 2 of Attachment___(DWD-1), Schedule 5. As discussed above, the market risk premium is derived from an average of three historical data-based market risk premiums, two *Value Line* data-based market risk premiums, and one Bloomberg data-based market risk premium.

The long-term income return on U.S. Government securities of 5.09% was deducted from the SBBI - 2020 monthly historical total market return of 12.10%, which results in an historical market equity risk premium of 7.01%.[58] I applied a linear OLS regression to the monthly annualized historical returns on the S&P 500 relative to historical yields on long-term U.S. Government securities from SBBI - 2020. That regression analysis yielded a market equity risk premium of 10.13%. The PRPM market equity risk premium is 10.64%, and is derived using the PRPM relative to the yields on long-term U.S. Treasury securities from January 1926 through October 2020.

[58] SBBI - 2020, at Appendix A-1 (1) through A-1 (3) and Appendix A-7 (19) through A-7 (21).

The *Value Line*-derived forecasted total market equity risk premium is derived by deducting the forecasted risk-free rate of 2.16%, discussed above, from the *Value Line* projected total annual market return of 13.30%, resulting in a forecasted total market equity risk premium of 11.14%. The S&P 500 projected market equity risk premium using *Value Line* data is derived by subtracting the projected risk-free rate of 2.16% from the projected total return of the S&P 500 of 13.96%. The resulting market equity risk premium is 11.80%.

The S&P 500 projected market equity risk premium using Bloomberg data is derived by subtracting the projected risk-free rate of 2.16% from the projected total return of the S&P 500 of 14.02%. The resulting market equity risk premium is 11.86%. These six measures, when averaged, result in an average total market equity risk premium of 10.43%.

Table 7: Summary of the Calculation of the Market Risk Premium for Use in the CAPM[59]

Historical Spread Between Total Returns of Large Stocks and Long-Term Government Bond Yields (1926 – 2019)	7.01%
Regression Analysis on Historical Data	10.13%
PRPM Analysis on Historical Data	10.64%
Prospective Equity Risk Premium using Total Market Returns from *Value Line* Summary & Index less Projected 30-Year Treasury Bond Yields	11.14%
Prospective Equity Risk Premium using Measures of Capital Appreciation and Income Returns from *Value Line* for the S&P 500 less Projected 30-Year Treasury Bond Yields	11.80%
Prospective Equity Risk Premium using Measures of Capital Appreciation and Income Returns from Bloomberg Professional Services for the S&P 500 less Projected 30-Year Treasury Bond Yields	11.86%
Average	10.43%

Q. What are the results of your application of the traditional and Empirical CAPM to the Utility Proxy Group?

A. As shown on page 1 of Attachment___(DWD-1), Schedule 5, the mean result of my CAPM/ECAPM analyses is 12.25%, the median is 11.95%, and the average of the two is 12.10%. Consistent with my reliance on the average of mean and median

[59] As shown on page 2 of Attachment___(DWD-1), Schedule 5.

DCF results discussed above, the indicated common equity cost rate using the CAPM/ECAPM is 12.10%.

D. Common Equity Cost Rates for a Proxy Group of Domestic, Non-Price Regulated Companies Based on the DCF, RPM, and CAPM

Q. Why do you also consider a proxy group of domestic, non-price regulated companies?

A. Although I am not an attorney, my interpretation of the *Hope* and *Bluefield* cases is that they did not specify that comparable risk companies had to be utilities. Since the purpose of rate regulation is to be a substitute for marketplace competition, non-price regulated firms operating in the competitive marketplace make an excellent proxy if they are comparable in total risk to the Utility Proxy Group being used to estimate the cost of common equity. The selection of such domestic, non-price regulated competitive firms theoretically and empirically results in a proxy group which is comparable in total risk to the Utility Proxy Group, since all of these companies compete for capital in the exact same markets.

Q. How did you select non-price regulated companies that are comparable in total risk to the Utility Proxy Group?

A. In order to select a proxy group of domestic, non-price regulated companies similar in total risk to the Utility Proxy Group, I relied on the beta and related statistics

derived from *Value Line* regression analyses of weekly market prices over the most recent 260 weeks (*i.e.*, five years). These selection criteria resulted in a proxy group of 47 domestic, non-price regulated firms comparable in total risk to the Utility Proxy Group. Total risk is the sum of non-diversifiable market risk and diversifiable company-specific risks. The criteria used in selecting the domestic, non-price regulated firms was:

(i) they must be covered by Value Line (Standard Edition);

(ii) they must be domestic, non-price regulated companies, i.e., not utilities;

(iii) their unadjusted betas must lie within plus or minus two standard deviations of the average unadjusted betas of the Utility Proxy Group; and

(iv) the residual standard errors of the Value Line regressions which gave rise to the unadjusted beta must lie within plus or minus two standard deviations of the average residual standard error of the Utility Proxy Group.

As discussed above, betas measure market, or systematic, risk, which is not diversifiable. The residual standard errors of the regressions measure each firm's company-specific, diversifiable risk. Companies that have similar betas and similar residual standard errors resulting from the same regression analyses have similar total investment risk.

Q. Have you prepared a schedule which shows the data from which you selected the 47 domestic, non-price regulated companies that are comparable in total risk to the Utility Proxy Group?

A. Yes, the basis of my selection and both proxy groups' regression statistics are shown in Attachment___(DWD-1), Schedule 6.

Q. Did you calculate common equity cost rates using the DCF model, RPM, and CAPM for the Non-Price Regulated Proxy Group?

A. Yes. Because the DCF model, RPM, and CAPM have been applied in an identical manner as described above, I will not repeat the details of the rationale and application of each model. One exception is in the application of the RPM, where I did not use public utility-specific equity risk premiums, nor did I apply the PRPM to the individual non-price regulated companies.

Pages 2 and 3 of Attachment___(DWD-1), Schedule 7 applies the Constant Growth and NM DCF models to the Non-Price Regulated Proxy Group. As shown, the indicated common equity cost rates are 12.11% and 13.43%, respectively, averaging 12.77%.

Pages 4 through 6 of Attachment___(DWD-1), Schedule 7 contain the data and calculations that support the 12.57% RPM common equity cost rate. As shown on line 1, page 4 of Attachment___(DWD-1), Schedule 7, the consensus

prospective yield on Moody's Baa2-rated corporate bonds for the six quarters ending in the first quarter of 2022, and for the years 2022 to 2026 and 2027 to 2031, is 4.13%.[60] Since the Non-Price Regulated Proxy Group has an average Moody's long-term issuer rating of Baa1, a downward adjustment of 0.19% to the projected Baa2 rated corporate bond yield is necessary to reflect the difference in ratings which results in a projected Baa1-rated corporate bond yield of 3.94%.

When the beta-adjusted risk premium of 8.63%[61] relative to the Non-Price Regulated Proxy Group is added to the prospective Baa1-rated corporate bond yield of 3.94%, the indicated RPM common equity cost rate is 12.57%.

Page 7 of Attachment___(DWD-1), Schedule 7 contains the inputs and calculations that support my indicated CAPM/ECAPM common equity cost rate of 11.79%.

Q. How is the cost rate of common equity based on the Non-Price Regulated Proxy Group comparable in total risk to the Utility Proxy Group?

A. As shown on page 1 of Attachment___(DWD-1), Schedule 7, the results of the common equity models applied to the Non-Price Regulated Proxy Group – which

[60] *Blue Chip*, June 1, 2020, at page 14 and October 30, 2020, at 2.

[61] Derived on page 6 of Attachment___(DWD-1), Schedule 7.

is comparable in total risk to the Utility Proxy Group – are as follows: 12.77% (DCF), 12.57% (RPM), and 11.79% (CAPM). The average of the mean and median of these models is 12.48%, which I used as the indicated common equity cost rates for the Non-Price Regulated Proxy Group.

VII. CONCLUSION OF COMMON EQUITY COST ANALYTICAL RESULTS BEFORE ADJUSTMENTS

Q. Based on your analyses, what is the indicated common equity cost rate before adjustments?

A. By applying multiple cost of common equity models to the Utility Proxy Group and the Non-Price Regulated Proxy Group, the indicated range of common equity cost rates attributable to the Utility Proxy Group before any relative risk adjustments is between 9.92% and 10.96%. I used multiple cost of common equity models as primary tools in arriving at my recommended common equity cost rate, because each of these models is theoretically sound and available to investors and because no single model is so inherently precise that it can be relied on to the exclusion of other theoretically sound models. Using multiple models adds reliability to the estimated common equity cost rate, with the prudence of using multiple cost of common equity models supported in both the financial literature and regulatory precedent.

Based on these common equity cost results, I conclude that a range of common equity cost rates between 9.92% and 10.96% is reasonable and appropriate before any adjustments for relative risk differences between SPS and the Utility

Proxy Group are made.[62] I have chosen this indicated range of common equity cost rates applicable to the Utility Proxy Group as a conservative estimate of the required ROE.

Q. Why did you use the midpoint between your average model result and your lowest model result as the bottom of your indicated reasonable range before adjustment?

A. As explained in detail in Section IX below, the COVID-19 pandemic has created turmoil in the markets. Key takeaways include:

- The full impact and duration of the COVID-19 pandemic are unknown, and outcomes are still highly uncertain; and

- This uncertainty increases volatility. Volatility increases the chances of investment losses. As a result, investors flee to bonds to limit their investment losses, which is known as "the flight to quality". Increased levels of bond purchases increase their price, and drive down their yields, *i.e.,* interest rates. Because of this, the current low-interest rate environment is due to increased volatility in the market, and not a steady lowering of the cost of debt over time.

While the current volatility and uncertainty could justify a higher ROE, my recommendation to use the lower end of the range of my results for my Utility

[62] The 9.92% low end of the range is calculated by averaging: (1) the average model result (10.96%); and (2) the average of my Constant Growth DCF results and the results of the Commission's preferred DCF approach (8.88%). The 10.96% high end of the range is the approximate average of all model results.

Proxy Group reasonable range is designed to provide a conservative estimate of SPS's required return.

VIII. ADJUSTMENTS TO THE COMMON EQUITY COST RATE

A. Size Adjustment

Q. Does SPS's smaller size relative to the Utility Proxy Group companies increase its business risk?

A. Yes. As a preliminary matter, because I have developed my cost of common equity recommendation for SPS's New Mexico operations based on market data applied to the Utility Proxy Group of risk-comparable companies, in order to assess SPS's risk associated with its relative small size of its New Mexico operations, it is necessary to compare SPS's New Mexico-jurisdictional size relative to the Utility Proxy Group. SPS's smaller size relative to the Utility Proxy Group companies indicates greater relative business risk for SPS because, all else being equal, size has a material bearing on risk.

Size affects business risk because smaller companies generally are less able to cope with significant events that affect sales, revenues and earnings. For example, smaller companies face more risk exposure to business cycles and economic conditions, both nationally and locally. Additionally, the loss of revenues from a few larger customers would have a greater effect on a small company than on a bigger company with a larger, more diverse, customer base. This is true for utilities, as well as for non-regulated companies.

As further evidence that smaller firms are riskier, investors generally demand greater returns from smaller firms to compensate for less marketability and liquidity of their securities. Duff & Phelps' ("D&P") 2020 Valuation Handbook – U.S. Guide to Cost of Capital ("D&P - 2020") discusses the nature of the small-size phenomenon, providing an indication of the magnitude of the size premium based on several measures of size. In discussing "Size as a Predictor of Equity Returns," D&P - 2020 states:

> The size effect is based on the empirical observation that companies of smaller size are associated with greater risk and, therefore, have greater cost of capital [sic]. The "size" of a company is one of the most important risk elements to consider when developing cost of equity capital estimates for use in valuing a business simply because size has been shown to be a *predictor* of equity returns. In other words, there is a significant (negative) relationship between size and historical equity returns - as size *decreases*, returns tend to *increase*, and vice versa. (footnote omitted) (emphasis in original)[63]

Furthermore, in "The Capital Asset Pricing Model: Theory and Evidence," Fama and French note size is indeed a risk factor which must be reflected when estimating the cost of common equity. On page 14, they note:

[63] Duff & Phelps Valuation Handbook – U.S. Guide to Cost of Capital, Wiley 2020, at 4-1.

> . . . the higher average returns on small stocks and high book-to-market stocks reflect unidentified state variables that produce undiversifiable risks (covariances) in returns not captured in the market return and are priced separately from market betas.[64]

Based on this evidence, Fama and French proposed their three-factor model which includes a size variable in recognition of the effect size has on the cost of common equity.

Also, it is a basic financial principle that the use of funds invested, and not the source of funds, is what gives rise to the risk of any investment.[65] Eugene Brigham, a well-known authority, states:

> A number of researchers have observed that portfolios of small-firms (sic) have earned consistently higher average returns than those of large-firm stocks; this is called the "small-firm effect." On the surface, it would seem to be advantageous to the small firms to provide average returns in a stock market that are higher than those of larger firms. In reality, it is bad news for the small firm; **what the small-firm effect means is that the capital market demands higher returns on stocks of small firms than on otherwise similar stocks of the large firms**. (emphasis added)[66]

[64] Fama & French, at 25-43.

[65] Richard A. Brealey and Stewart C. Myers, Principles of Corporate Finance (McGraw-Hill Book Company, 1996), at 204-205, 229.

[66] Eugene F. Brigham, Fundamentals of Financial Management, Fifth Edition (The Dryden Press, 1989), at 623.

Consistent with the financial principle of risk and return discussed above, increased relative risk due to small size must be considered in the allowed rate of ROE. Therefore, the Commission's authorization of a cost rate of common equity in this proceeding must appropriately reflect the unique risks of SPS, including its small relative size to the Utility Proxy Group, which is justified and supported above by evidence in the financial literature.

Q. Earlier you explained that credit ratings can act as a proxy for a firm's combined business and financial risks to equity owners. Do rating agencies account for company size in their bond ratings?

A. No. Neither S&P nor Moody's have minimum company size requirements for any given rating level. This means, all else equal, a relative size analysis must be conducted for equity investments in companies with similar bond ratings.

Q. Is there a way to quantify a relative risk adjustment due to SPS's small size when compared to the utility proxy group?

A. Yes. SPS has greater relative risk than the average utility in the Utility Proxy Group because of its smaller size, as measured by an estimated market capitalization of common equity for SPS's New Mexico operations.

Table 8: Size as Measured by Market Capitalization for SPS's Electric Operations and the Utility Proxy Group

	Market Capitalization* ($ Millions)	Times Greater than The Company
SPS NM Jurisdictional	$1,837.306	
Utility Proxy Group	$11,812.423	6.4x
*From page 1 of Attachment___(DWD-1), Schedule 8.		

The Company's estimated market capitalization for its New Mexico operations was $1,837.306 million as of October 30, 2020, compared with the market capitalization of the average company in the Utility Proxy Group of $11,812.423 million as of October 30, 2020. The average company in the Utility Proxy Group has a market capitalization 6.4 times the size of SPS's estimated New Mexico-based market capitalization.

As a result, it is necessary to upwardly adjust the indicated range of common equity cost rates attributable to the Utility Proxy Group to reflect SPS's greater risk due to their smaller relative size. The determination is based on the size premiums for portfolios of New York Stock Exchange, American Stock Exchange, and NASDAQ listed companies ranked by deciles for the 1926 to 2019 period.[67] The

[67] Source: Duff & Phelps Cost of Capital Navigator.

average size premium for the Utility Proxy Group with a market capitalization of $11,812.423 million falls in the 3rd decile, while SPS's estimated market capitalization of $1,837,306 million places it in the 6th decile. The size premium spread between the 3rd decile and the 6th decile is 0.61%.[68] Even though a 0.61% upward size adjustment is indicated, I applied a size premium of 0.15% to SPS's indicated common equity cost rate in order to be conservative.

Q. Since SPS is part of a larger company, why is the size of Xcel Energy not more appropriate to use when determining the size adjustment?

A. The return derived in this proceeding will not apply to Xcel Energy's operations as a whole, but only to SPS's New Mexico operations. Xcel Energy is the sum of its constituent parts, including those constituent parts' ROEs. Potential investors in Xcel Energy are aware that it is a combination of operations in each state, and that each state's operations experience the operating risks specific to their jurisdiction. The market's expectation of Xcel Energy's return is commensurate with the realities of its composite operations in each of the states in which it operates.

[68] *Ibid.,* See also, Attachment__(DWD-1), Schedule 8.

B. Credit Risk Adjustment

Q. Please discuss your proposed credit risk adjustment.

A. SPS's long-term issuer ratings are Baa2 and A-[69] from Moody's Investors Services and S&P, respectively, which are riskier than the average long-term issuer ratings for the Utility Proxy Group of A3 and BBB+, respectively.[70] Hence, an upward credit risk adjustment is necessary to reflect the lower credit rating, *i.e.,* Baa2, of SPS's relative to the A3 average Moody's bond rating of the Utility Proxy Group.[71]

An indication of the magnitude of the necessary downward adjustment to reflect the higher credit risk inherent in a Baa2 bond rating is one-third of a recent three-month average spread between Moody's Baa2 and A2-rated public utility bond yields of 0.33%, shown on page 4 of Attachment___(DWD-1), Schedule 4, or 0.11%.[72] This adjustment is conservative because, as noted earlier, equity investors demand higher returns than debt investors for companies with greater financial leverage.

[69] Company Witness Martin notes SPS's Stand Alone Credit Profile rating from S&P is BBB+.

[70] Source of Information: S&P Global Market Intelligence.

[71] As shown on page 5 of Attachment___(DWD-1), Schedule 4.

[72] 0.11% = 0.33% * (1/3). Moody's does not provide public utility bond yields for A3-rated bonds. As such, it was necessary to estimate the difference between A2-rated and A3-rated public utility bonds. Because there are three steps between Baa2 and A2 (Baa2 to Baa1, Baa1 to A3, and A3 to A2) I assumed an adjustment of one-third of the difference between the A2-rated and Baa2-rated public utility bond yield was appropriate.

Q. Has the Commission previously recognized SPS's increased risk associated with its lower credit rating relative to its peers?

A. Yes. In NMPRC Case No. 17-00255-UT, the Recommended Decision noted SPS's higher risk relative to the proxy group warranted selecting an ROE on the higher end of the reasonable range.[73]

C. Flotation Costs

Q. What are flotation costs?

A. Flotation costs are those costs associated with the sale of new issuances of common stock. They include market pressure and the mandatory unavoidable costs of issuance (e.g., underwriting fees and out-of-pocket costs for printing, legal, registration, etc.). For every dollar raised through debt or equity offerings, a company receives less than one full dollar in financing.

Q. Why is it important to recognize flotation costs in the allowed common equity cost rate?

A. It is important because there is no other mechanism in the ratemaking paradigm through which such costs can be recognized and recovered. Because these costs

[73] NMPRC Case No. 17-00255-UT, Recommended Decision, at 115-116.

are real, necessary, and legitimate, recovery of these costs should be permitted. As noted by Morin:

> The costs of issuing these securities are just as real as operating and maintenance expenses or costs incurred to build utility plants, and fair regulatory treatment must permit recovery of these costs….
>
> The simple fact of the matter is that common equity capital is not free….[Flotation costs] must be recovered through a rate of return adjustment.[74]

Q. Do the common equity cost rate models you have used already reflect investors' anticipation of flotation costs?

A. No. All of these models assume no transaction costs. The literature is quite clear that these costs are not reflected in the market prices paid for common stocks. For example, Brigham and Daves confirm this and provide the methodology utilized to calculate the flotation adjustment.[75] In addition, Morin confirms the need for such an adjustment even when no new equity issuance is imminent.[76] Consequently, it is proper to include a flotation cost adjustment when using cost of common equity models to estimate the common equity cost rate.

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[74] Morin, at p. 321.

[75] Eugene F. Brigham and Phillip R. Daves, Intermediate Financial Management, 9th Edition, Thomson/Southwestern, at p. 342.

[76] Morin, at pp. 327-30.

Q. How did you calculate the flotation cost allowance?

A. I modified the DCF calculation to provide a dividend yield that would reimburse investors for issuance costs in accordance with the method cited in literature by Brigham and Daves, as well as by Morin. The flotation cost adjustment recognizes the actual costs of issuing equity that were incurred by Xcel Energy. Based on the issuance costs shown on page 1 of Attachment__(DWD-1), Schedule 9, an adjustment of 0.15% is required to reflect the flotation costs applicable to the Utility Proxy Group.

Q. What is the indicated cost of common equity after your company-specific adjustments?

A. Applying the 0.15% size adjustment, the 0.11% credit risk adjustment, and the 0.15% flotation cost adjustment to the indicated range of common equity cost rates between 9.92% and 10.96% results in a Company-specific range of common equity rates between 10.33% and 11.37%. In consideration of both of these indicated ranges, I recommend an ROE of 10.35% for SPS in this proceeding.

IX. CAPITAL MARKET CONDITIONS AND ADDITIONAL CONSIDERATIONS

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

A. Yes. The models used to estimate the cost of common equity are meant to reflect, and therefore are influenced by, current and expected capital market conditions. Therefore, it is important to assess the reasonableness of any financial model's results in the context of observable market data.

Q. Please summarize the recent capital market environment.

A. It is well recognized that there have been dramatic shifts in the capital markets brought about by COVID-19. The Federal Reserve and the U.S. government have implemented multiple policies to address the financial market and economic instability.

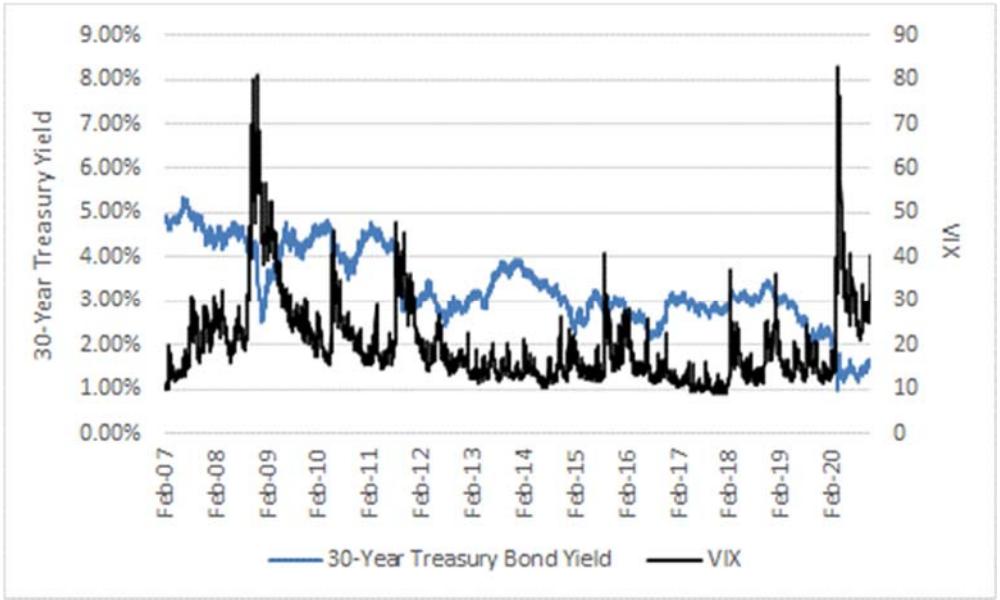
Although government and central bank actions have stabilized the capital markets somewhat, as explained in more detail below, volatility (and, therefore, risk) remain elevated for the utility sector, which has important implications on the ROE.

Q. How do significant and abrupt increases in volatility affect interest rates?

A. Significant and abrupt increases in volatility tend to be associated with declines in Treasury yields. That relationship makes intuitive sense; as volatility (*i.e.,* risk)

increases, investors will seek to avoid a capital loss by investing in Treasury securities in a "flight to safety." Because Treasury yields are inversely related to Treasury bond prices, as investors bid up the prices of bonds, they bid down the yields. As Chart 2 below demonstrates, decreases in the 30-year Treasury yield are coincident with significant increases in the Volatility Index ("VIX").[77] In those instances, the fall in yields does not reflect a reduction in required returns, it reflects an increase in risk aversion and, therefore, an increase in required equity returns.

Chart 2: 30-Year Treasury Yields vs. VIX[78]



[77] The VIX is a calculation designed to produce a measure of constant, 30-day expected volatility of the U.S. stock market, derived from real-time, mid-quote prices of S&P 500 Index call and put options. Source: www.cboe.com/vix.

[78] Source: Bloomberg Professional Service.

Q. Has market volatility increased in recent months?

A. Yes, it has. A visible and widely reported measure of expected volatility is the VIX. Because volatility is a measure of risk, increases in the VIX, or in its volatility, are a broad indicator of expected increases in market risk. That is, if the level of the VIX was 15.00, it would be interpreted as an expected standard deviation in annual market returns of 15.00% over the coming 30 days. Since 1990, the VIX has averaged about 19.45, which is consistent with the long-term standard deviation on annual market returns as reported by Duff & Phelps.[79] From March 1, 2020 to October 30, 2020, the VIX averaged 33.58, or more than 72.67% above its long term average.[80] In other words, since the COVID-19 pandemic began, market volatility has been, on average, 72.67% higher than the market's long-term average volatility.

Q. Is market volatility expected to remain elevated in the near term?

A. Yes. One means of assessing market expectations regarding the future level of volatility is to review Chicago Board Options Exchange's ("CBOE") "Term Structure of Volatility", which is described by CBOE as:

[79] SBBI-2020, at 6-17.

[80] Source: Bloomberg Professional Service.

> The implied volatility term structure observed in SPX options markets is analogous to the term structure of interest rates observed in fixed income markets. Similar to the calculation of forward rates of interest, it is possible to observe the option market's expectation of future market volatility through use of the SPX implied volatility term structure.[81]

As shown in Table 9, the implied volatility is expected to remain approximately 50% above historical volatility[82] until at least December 2021. That expected volatility is expected to remain elevated is not surprising given the considerable uncertainty surrounding the eventual scope and duration of the coronavirus pandemic in the near term.

Table 9: CBOE Term Structure of Volatility[83]

Date	Projected VIX
December 2020	37.65
January 2021	37.10
February 2021	35.59
March 2021	35.75
April 2021	33.96
June 2021	34.99
September 2021	33.74
December 2021	31.81
June 2022	28.72

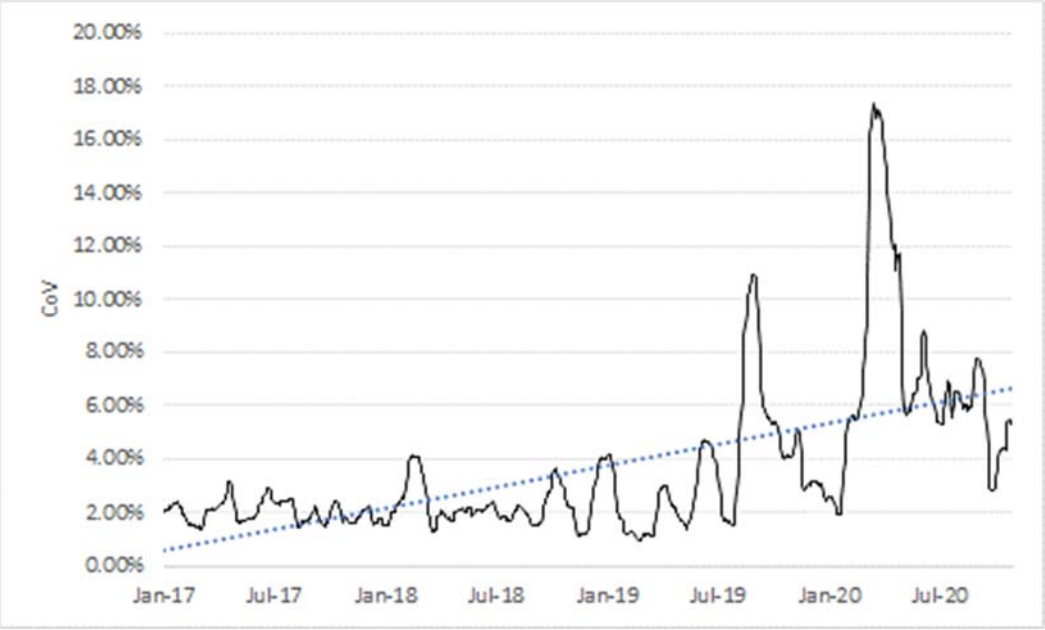
[81] Source: www.cboe.com/trading-tools/strategy-planning-tools/term-structure-data.

[82] The long-term average price of VIX is approximately 19.00, which is similar to the long-term standard deviation of market returns.

[83] Source: http://www.cboe.com/trading-tools/strategy-planning-tools/term-structure-data, as of October 30, 2020.

As discussed above, investors reacted to the increase in market uncertainty associated with COVID-19 by moving away from equity securities (including utilities) to Treasury securities, pushing down long-term Treasury yields. Both long-term Treasury and utility bond yields have been extremely volatile, as shown on Charts 3 and 4, below, as seen in its Coefficient of Variation ("CoV"):[84]

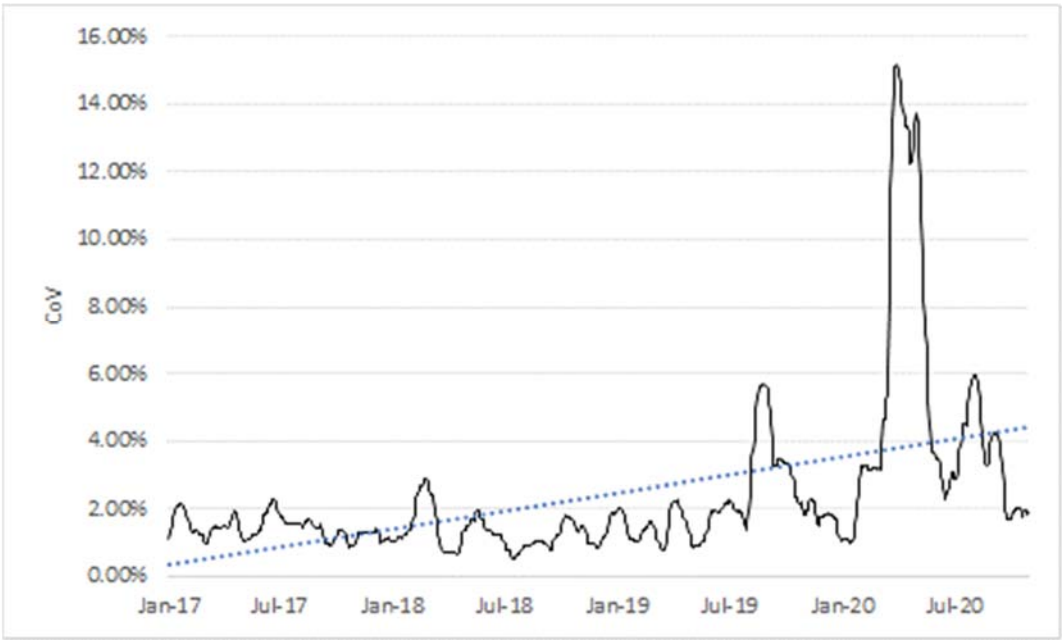
Chart 3: Coefficient of Variation in 30-Year Treasury Yields[85]



[84] The coefficient of variation is used by investors and economists to determine volatility.

[85] Source: Bloomberg Professional. Data through October 30, 2020.

Chart 4: Coefficient of Variation in A2-Rated Public Utility Bonds[86]



In view of all of the above, current levels of interest rates are the result of a volatility-driven "flight to safety" on the part of investors, which indicates increased risk aversion, and thus, an increased investor-required return.

[86] Source: Bloomberg Professional. Data through October 30, 2020.

X. CONCLUSION

Q. What is your recommended ROE for the Company?

A. Given the discussion above and the results from the analyses, I recommend that an ROE of 10.35% is appropriate for SPS at this time.

Q. In your opinion, is your proposed ROE of 10.35% fair and reasonable to SPS and its customers?

A. Yes, it is.

Q. In your opinion, is SPS's proposed capital structure fair and reasonable?

A. Yes, it is.

Q. Does this conclude your direct testimony?

A. Yes, it does.

BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF SOUTHWESTERN PUBLIC SERVICE COMPANY'S APPLICATION FOR: (1) REVISION OF ITS RETAIL RATES UNDER ADVICE NOTICE NO. 292; (2) AUTHORIZATION AND APPROVAL TO ABANDON ITS PLANT X UNIT 3 GENERATING STATION; AND (3) OTHER ASSOCIATED RELIEF,	)	**CASE NO. 20-00238-UT**
SOUTHWESTERN PUBLIC SERVICE COMPANY,	)	
APPLICANT.	)	

VERIFICATION

On this day, December 30, 2020, I, Dylan W. D'Ascendis, swear and affirm under penalty of perjury under the law of the State of New Mexico, that my testimony contained in Direct Testimony of Dylan W. D'Ascendis is true and correct.

/s/ Dylan W. D'Ascendis
DYLAN W. D'ASCENDIS

Southwestern Public Service Company
Table of Contents
to Attachment__(DWD-1)

Southwestern Public Service Company
Brief Summary of Common Equity Cost Rate

Line No.	Principal Methods	Proxy Group of Thirteen Electric Companies
1.	Discounted Cash Flow Model (DCF) (1)	9.06%
2.	Risk Premium Model (RPM) (2)	10.40%
3.	Capital Asset Pricing Model (CAPM) (3)	12.10%
4.	Market Models Applied to Comparable Risk, Non-Price Regulated Companies (4)	12.48%
5.	Indicated Range of Common Equity Cost Rates before Adjustment for Company-Specific Risk (5)	9.92% - 10.96%
6.	Size Risk Adjustment (6)	0.15%
7.	Credit Risk Adjustment (7)	0.11%
8.	Flotation Cost Adjustment (8)	0.15%
9.	Indicated Range of Common Equity Cost Rates after Adjustment	10.33% - 11.37%
10.	Recommended Common Equity Cost Rate	10.35%

Notes:
(1) Commission preferred DCF result from page 2 of Schedule 3.
(2) From page 1 of Schedule 4.
(3) From page 1 of Schedule 5.
(4) From page 1 of Schedule 7.
(5) The low end of the indicated range is calculated by using the average of the average DCF results (8.88%) and average model result (10.96%). The high end of the indicated range is the average model result (10.96%).
(6) Adjustment to reflect the Company's greater business risk due to its smaller size realtive to the Utility Proxy Group as detailed in Mr. D'Ascendis' direct testimony.
(7) Company-specific risk adjustment to reflect SPS's greater credit risk compared to the Utility Proxy Group as detailed in Mr. D'Ascendis' direct testimony.
(8) From Schedule 9

Capital Structure Based upon Total Permanent Capital for the
Proxy Group of Thirteen Electric Companies
2015 - 2019, Inclusive

	2019	2018	2017	2016	2015	5 YEAR AVERAGE
ALLETE, Inc.						
Long-Term Debt	41.96 %	40.80 %	42.09 %	45.15 %	46.86 %	43.37 %
Preferred Stock	-	-	-	-	-	-
Common Equity	58.04	59.20	57.91	54.85	53.14	56.63
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Alliant Energy Corporation						
Long-Term Debt	53.39 %	53.49 %	52.62 %	50.34 %	49.43 %	51.85 %
Preferred Stock	1.72	1.94	2.16	2.33	2.58	2.15
Common Equity	44.89	44.57	45.22	47.33	47.99	46.00
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Ameren Corporation						
Long-Term Debt	53.29 %	52.05 %	51.52 %	50.11 %	50.65 %	51.52 %
Preferred Stock	0.81	0.88	0.92	0.98	0.99	0.92
Common Equity	45.90	47.07	47.56	48.91	48.36	47.56
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Edison International						
Long-Term Debt	54.21 %	53.76 %	46.65 %	44.02 %	45.68 %	48.86 %
Preferred Stock	6.48	8.02	8.44	8.65	8.20	7.96
Common Equity	39.31	38.22	44.91	47.33	46.12	43.18
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Entergy Corporation						
Long-Term Debt	63.12 %	64.08 %	64.80 %	64.16 %	58.19 %	62.87 %
Preferred Stock	0.78	0.87	0.85	0.88	1.39	0.95
Common Equity	36.10	35.05	34.35	34.96	40.42	36.18
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Evergy, Inc.						
Long-Term Debt	51.77 %	42.70 %	49.60 %	NA %	NA %	48.02 %
Preferred Stock	-	-	-	NA	NA	-
Common Equity	48.23	57.30	50.40	NA	NA	51.98
Total Capital	100.00 %	100.00 %	100.00 %	- %	- %	100.00 %
IDACORP, Inc.						
Long-Term Debt	42.70 %	43.63 %	43.68 %	44.77 %	45.62 %	44.08 %
Preferred Stock	-	-	-	-	-	-
Common Equity	57.30	56.37	56.32	55.23	54.38	55.92
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
NorthWestern Corporation						
Long-Term Debt	52.27 %	51.98 %	50.26 %	52.05 %	53.08 %	51.93 %
Preferred Stock	-	-	-	-	-	-
Common Equity	47.73	48.02	49.74	47.95	46.92	48.07
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %

Capital Structure Based upon Total Permanent Capital for the
Proxy Group of Thirteen Electric Companies
2015 - 2019, Inclusive

	2019	2018	2017	2016	2015	5 YEAR AVERAGE
OGE Energy Corporation						
Long-Term Debt	43.56 %	44.00 %	43.78 %	43.31 %	45.31 %	43.99 %
Preferred Stock	-	-	-	-	-	-
Common Equity	56.44	56.00	56.22	56.69	54.69	56.01
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Otter Tail Corporation						
Long-Term Debt	46.88 %	44.74 %	41.31 %	44.56 %	45.17 %	44.53 %
Preferred Stock	-	-	-	-	-	-
Common Equity	53.12	55.26	58.69	55.44	54.83	55.47
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Pinnacle West Capital Corp.						
Long-Term Debt	50.91 %	49.59 %	48.68 %	46.33 %	45.45 %	48.19 %
Preferred Stock	-	-	-	-	-	-
Common Equity	49.09	50.41	51.32	53.67	54.55	51.81
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Portland General Electric Co.						
Long-Term Debt	50.06 %	49.72 %	50.10 %	50.06 %	49.39 %	49.87 %
Preferred Stock	-	-	-	-	-	-
Common Equity	49.94	50.28	49.90	49.94	50.61	50.13
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Xcel Energy, Inc.						
Long-Term Debt	57.77 %	57.01 %	56.66 %	56.73 %	55.36 %	56.71 %
Preferred Stock	-	-	-	-	-	-
Common Equity	42.23	42.99	43.34	43.27	44.64	43.29
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Proxy Group of Thirteen Electric Companies						
Long-Term Debt	50.91 %	49.81 %	49.37 %	49.30 %	49.18 %	49.71 %
Preferred Stock	0.75	0.90	0.95	1.07	1.10	0.96
Common Equity	48.34	49.29	49.68	49.63	49.72	49.33
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %

Source of Information
Annual Forms 10-K

Southwestern Public Service Company
Operating Subsidiary Company Capital Structures of the
Proxy Group of Thirteen Electric Companies

Company Name	Parent Company Ticker	2019 Common Equity	2019 Long-Term Debt	2019 Total Capital
ALLETE (Minnesota Power)	ALE	59.59%	40.41%	100.00%
Superior Water, Light and Power Company	ALE	58.08%	41.92%	100.00%
Interstate Power and Light Company	LNT	50.23%	49.77%	100.00%
Wisconsin Power and Light Company	LNT	53.78%	46.22%	100.00%
Ameren Illinois Company	AEE	53.00%	47.00%	100.00%
Union Electric Company	AEE	51.90%	48.10%	100.00%
Southern California Edison Company	EIX	50.43%	49.57%	100.00%
Entergy Arkansas, LLC	ETR	47.90%	52.10%	100.00%
Entergy Louisiana, LLC	ETR	47.47%	52.53%	100.00%
Entergy Mississippi, LLC	ETR	48.60%	51.40%	100.00%
Entergy New Orleans, LLC	ETR	49.26%	50.74%	100.00%
Entergy Texas, Inc.	ETR	50.43%	49.57%	100.00%
Evergy Kansas Central, Inc.	EVRG	57.97%	42.03%	100.00%
Evergy Missouri West, Inc.	EVRG	50.34%	49.66%	100.00%
Evergy Metro, Inc.	EVRG	50.31%	49.69%	100.00%
Idaho Power Company	IDA	55.14%	44.86%	100.00%
NorthWestern Corporation	NWE	47.59%	52.41%	100.00%
Oklahoma Gas and Electric Company	OGE	55.15%	44.85%	100.00%
Otter Tail Power Company	OTTR	51.12%	48.88%	100.00%
Arizona Public Service Company	PNW	52.80%	47.20%	100.00%
Portland General Electric Company	POR	49.85%	50.15%	100.00%
Northern States Power Company - MN	XEL	52.20%	47.80%	100.00%
Northern States Power Company - WI	XEL	54.23%	45.77%	100.00%
Public Service Company of Colorado	XEL	56.32%	43.68%	100.00%
Southwestern Public Service Company	XEL	54.14%	45.86%	100.00%
	Mean	52.31%	47.69%	100.00%
	Median	51.90%	48.10%	100.00%

Source: S&P Global Market Intelligence

Southwestern Public Service Company
CAPITALIZATION AND FINANCIAL STATISTICS (1)
2015 - 2019, Inclusive

	2019	2018	2017	2016	2015	
			(MILLIONS OF DOLLARS)			
CAPITALIZATION STATISTICS						
AMOUNT OF CAPITAL EMPLOYED						
TOTAL PERMANENT CAPITAL	$ 5,327.381	$ 4,683.085	$ 3,978.618	$ 3,582.061	$ 3,358.554	
SHORT-TERM DEBT	-	42.000	-	50.000	15.000	
TOTAL-CAPITAL EMPLOYED	$ 5,327.381	$ 4,725.085	$ 3,978.618	$ 3,632.061	$ 3,373.554	
INDICATED AVERAGE CAPITAL COST RATES (2)						
TOTAL DEBT	4.27 %	4.03 %	4.70 %	5.31 %	5.50 %	
CAPITAL STRUCTURE RATIOS						5 YEAR
BASED ON TOTAL PERMANENT CAPITAL:						AVERAGE
LONG-TERM DEBT	45.86 %	45.83 %	46.45 %	46.07 %	46.17 %	46.08 %
PREFERRED STOCK	-	-	-	-	-	-
COMMON EQUITY	54.14	54.17	53.55	53.93	53.83	53.92
TOTAL	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
BASED ON TOTAL CAPITAL:						
TOTAL DEBT, INCLUDING SHORT-TERM	45.86 %	46.32 %	46.45 %	46.82 %	46.41 %	46.37 %
PREFERRED STOCK	-	-	-	-	-	-
COMMON EQUITY	54.14	53.68	53.55	53.18	53.59	53.63
TOTAL	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
DIVIDEND PAYOUT RATIO	126.89 %	69.93 %	65.73 %	67.96 %	66.99 %	79.50 %
RATE OF RETURN ON AVERAGE BOOK COMMON EQUITY	9.71 %	9.14 %	7.84 %	8.14 %	7.56 %	8.48 %
TOTAL DEBT / EBITDA (3)	4.03 x	4.17 x	3.80 x	3.54 x	3.70 x	3.85 x
FUNDS FROM OPERATIONS / TOTAL DEBT (4)	17.33 %	18.34 %	25.33 %	25.33 %	17.58 %	20.78 %
TOTAL DEBT / TOTAL CAPITAL	45.86 %	46.32 %	46.45 %	46.82 %	46.41 %	46.37 %

Notes:
(1) All capitalization and financial statistics are based upon financial statements as originally reported in each year.
(2) Computed by relating actual total debt interest or preferred stock dividends booked to average of beginning and ending total debt or preferred stock reported to be outstanding.
(3) Total debt relative to EBITDA (Earnings before Interest, Income Taxes, Depreciation and Amortization).
(4) Funds from operations (sum of net income, depreciation, amortization, net deferred income tax and investment tax credits, less total AFUDC) plus interest charges as a percentage of total debt.

Source of Information: Company audited financial statements

Proxy Group of Thirteen Electric Companies
CAPITALIZATION AND FINANCIAL STATISTICS (1)
2015 - 2019, Inclusive

	2019	2018	2017	2016	2015	5 YEAR AVERAGE
			(MILLIONS OF DOLLARS)			
CAPITALIZATION STATISTICS						
AMOUNT OF CAPITAL EMPLOYED						
TOTAL PERMANENT CAPITAL	$13,685.012	$12,364.206	$10,935.651	$10,734.064	$10,340.857	
SHORT-TERM DEBT	$384.823	$456.703	$504.687	$307.917	$236.191	
TOTAL CAPITAL EMPLOYED	$14,069.835	$12,820.909	$11,440.338	$11,041.981	$10,577.048	
INDICATED AVERAGE CAPITAL COST RATES (2)						
TOTAL DEBT	4.48 %	4.70 %	4.65 %	4.89 %	4.70 %	
PREFERRED STOCK	5.65	5.38	5.46	5.63	5.60	
CAPITAL STRUCTURE RATIOS						
BASED ON TOTAL PERMANENT CAPITAL:						
LONG-TERM DEBT	50.91 %	49.81 %	49.37 %	49.30 %	49.18 %	49.71 %
PREFERRED STOCK	0.75	0.90	0.95	1.07	1.10	0.96
COMMON EQUITY	48.34	49.29	49.68	49.63	49.72	49.33
TOTAL	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
BASED ON TOTAL CAPITAL:						
TOTAL DEBT, INCLUDING SHORT-TERM	51.70 %	50.85 %	51.19 %	50.67 %	50.27 %	50.93 %
PREFERRED STOCK	0.74	0.87	0.89	1.02	1.07	0.92
COMMON EQUITY	47.56	48.29	47.92	48.31	48.66	48.15
TOTAL	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
FINANCIAL STATISTICS						
FINANCIAL RATIOS - MARKET BASED						
EARNINGS / PRICE RATIO	4.99 %	5.11 %	4.68 %	4.58 %	4.99 %	4.87 %
MARKET / AVERAGE BOOK RATIO	206.43	200.55	210.64	171.53	166.42	191.11
DIVIDEND YIELD	3.11	3.42	3.20	3.49	3.62	3.37
DIVIDEND PAYOUT RATIO	61.53	44.30	74.31	48.26	29.35	51.55
RATE OF RETURN ON AVERAGE BOOK COMMON EQUITY	10.20 %	8.97 %	9.21 %	8.26 %	8.40 %	9.01 %
TOTAL DEBT / EBITDA (3)	4.25 x	4.83 x	3.83 x	5.25 x	4.09 x	4.45 x
FUNDS FROM OPERATIONS / TOTAL DEBT (4)	15.35 %	21.24 %	20.78 %	19.75 %	24.13 %	20.25 %
TOTAL DEBT / TOTAL CAPITAL	51.70 %	50.85 %	51.19 %	50.67 %	50.27 %	50.94 %

Notes:

(1) All capitalization and financial statistics for the group are the arithmetic average of the achieved results for each individual company in the group, and are based upon financial statements as originally reported in each year.

(2) Computed by relating actual total debt interest or preferred stock dividends booked to average of beginning and ending total debt or preferred stock reported to be outstanding.

(3) Total debt relative to EBITDA (Earnings before Interest, Income Taxes, Depreciation and Amortization).

(4) Funds from operations (sum of net income, depreciation, amortization, net deferred income tax and investment tax credits, less total AFUDC) plus interest charges as a percentage of total debt.

Source of Information: Company Annual Forms 10-K

Southwestern Public Service Company
Indicated Common Equity Cost Rate Using the Discounted Cash Flow Model for the
Proxy Group of Thirteen Electric Companies

Proxy Group of Thirteen Electric Companies	[1] Average Dividend Yield (1)	[2] Value Line Projected Five Year Growth in EPS (2)	[3] Zack's Five Year Projected Growth Rate in EPS	[4] Bloomberg's Five Year Projected Growth Rate in EPS	[5] Yahoo! Finance Projected Five Year Growth in EPS	[6] Average Projected Five Year Growth in EPS (3)	[7] Adjusted Dividend Yield (4)	[8] Indicated Common Equity Cost Rate (5)
ALLETE, Inc.	4.58 %	4.50 %	NA %	6.40 %	7.00 %	5.97 %	4.72 %	10.69 %
Alliant Energy Corporation	2.83	5.50	5.80	5.85	5.50	5.66	2.91	8.57
Ameren Corporation	2.57	6.00	6.90	7.09	6.00	6.50	2.65	9.15
Edison International	4.76	NMF	3.10	4.16	(0.50)	3.63	4.85	8.48
Entergy Corporation	3.76	3.00	5.40	5.15	5.40	4.74	3.85	8.59
Evergy, Inc.	3.83	4.50	6.30	7.50	6.00	6.08	3.95	10.03
IDACORP, Inc.	3.28	3.50	2.60	2.88	2.60	2.89	3.33	6.22
NorthWestern Corporation	4.61	2.50	3.40	3.46	3.78	3.29	4.69	7.98
OGE Energy Corporation	5.13	3.00	3.70	3.59	2.40	3.17	5.21	8.38
Otter Tail Corporation	3.84	5.00	NA	7.00	9.00	7.00	3.97	10.97
Pinnacle West Capital Corp.	4.30	4.50	3.50	4.29	3.38	3.92	4.38	8.30
Portland General Electric Co.	4.27	4.00	5.00	4.86	5.00	4.72	4.37	9.09
Xcel Energy, Inc.	2.45	6.00	5.80	5.87	5.85	5.88	2.52	8.40
							Average	8.83 %
							Median	8.57 %
							Average of Mean and Median	8.70 %

NMF= Not Meaningful Figure

Notes:

(1) Indicated dividend at 10/30/2020 divided by the average closing price of the last 60 trading days ending 10/30/2020 for each company.
(2) From pages 3 through 15 of this Schedule.
(3) Average of columns 2 through 5 excluding negative growth rates.
(4) This reflects a growth rate component equal to one-half the conclusion of growth rate (from column 6) x column 1 to reflect the periodic payment of dividends (Gordon Model) as opposed to the continuous payment. Thus, for ALLETE, Inc., 4.58% x (1+(1/2 x 5.97%)) = 4.72%.
(5) Column 6 + column 7.

Source of Information:
Value Line Investment Survey
www.zacks.com Downloaded on 10/30/2020
www.yahoo.com Downloaded on 10/30/2020
Bloomberg Professional Services

Southwestern Public Service Company
Indicated Common Equity Cost Rate Using the NMPRC's Discounted Cash Flow Model for the
Proxy Group of Thirteen Electric Companies

Proxy Group of Thirteen Electric Companies	[1] Average Dividend Yield (1)	[2] Value Line Projected Five Year Growth in EPS (2)	[3] Zack's Five Year Projected Growth Rate in EPS	[4] Bloomberg's Five Year Projected Growth Rate in EPS	[5] Yahoo! Finance Projected Five Year Growth in EPS	[6] Average Projected Five Year Growth in EPS (3)	[7] Adjusted Dividend Yield (4)	[8] Mean Common Equity Cost Rate (5)	[9] High Common Equity Cost Rate (6)
ALLETE, Inc.	4.64 %	4.50 %	NA %	6.40 %	7.00 %	5.97 %	4.92 %	10.89 %	11.96 %
Alliant Energy Corporation	2.83	5.50	5.80	5.85	5.50	5.66	2.99	8.65	8.85
Ameren Corporation	2.55	6.00	6.90	7.09	6.00	6.50	2.72	9.22	9.82
Edison International	4.64	NMF	3.10	4.16	(0.50)	3.63	4.81	8.44	8.99
Entergy Corporation	3.69	3.00	5.40	5.15	5.40	4.74	3.86	8.60	9.29
Evergy, Inc.	3.80	4.50	6.30	7.50	6.00	6.08	4.03	10.11	11.59
IDACORP, Inc.	3.32	3.50	2.60	2.88	2.60	2.89	3.42	6.31	6.94
NorthWestern Corporation	4.68	2.50	3.40	3.46	3.78	3.29	4.83	8.12	8.64
OGE Energy Corporation	5.17	3.00	3.70	3.59	2.40	3.17	5.33	8.50	9.06
Otter Tail Corporation	3.87	5.00	NA	7.00	9.00	7.00	4.14	11.14	13.22
Pinnacle West Capital Corp.	4.17	4.50	3.50	4.29	3.38	3.92	4.33	8.25	8.86
Portland General Electric Co.	4.36	4.00	5.00	4.86	5.00	4.72	4.57	9.29	9.58
Xcel Energy, Inc.	2.43	6.00	5.80	5.87	5.85	5.88	2.57	8.45	8.58
							Average	8.92 %	9.64 %
							Median	8.60 %	9.06 %
							Average of Mean and Median	8.76 %	9.35 %
							Indicated DCF Result	9.06 %	

NA= Not Available
NMF= Not Meaningful Figure

Notes:

(1) Indicated dividend at 10/30/2020 divided by the average closing price of the last 30 trading days ending 10/30/2020 for each company.
(2) From pages 3 through 15 of this Schedule.
(3) Average of columns 2 through 5 excluding negative growth rates.
(4) This reflects a growth rate component equal to the conclusion of growth rate (from column 6) x column 1 to reflect the periodic payment of dividends (Gordon Model) as opposed to the continuous payment. Thus, for ALLETE, 4.64% x (1+ 5.97%) = 4.92%.
(5) Column 6 + column 7.
(6) [1]*(1+(MAX([2],[3],[4],[5])/100)+(MAX([2],[3],[4],[5]))

Source of Information:

Value Line Investment Survey
www.zacks.com Downloaded on 10/30/2020
www.yahoo.com Downloaded on 10/30/2020
Bloomberg Professional Services

ALLETE NYSE-ALE

RECENT PRICE **53.96** | P/E RATIO **17.9** (Trailing: 16.9 Median: 18.0) | RELATIVE P/E RATIO **0.84** | DIV'D YLD **4.7%** | **VALUE LINE**

TIMELINESS 3 Lowered 4/5/19
SAFETY 2 New 10/1/04
TECHNICAL 3 Raised 9/11/20
BETA .85 (1.00 = Market)

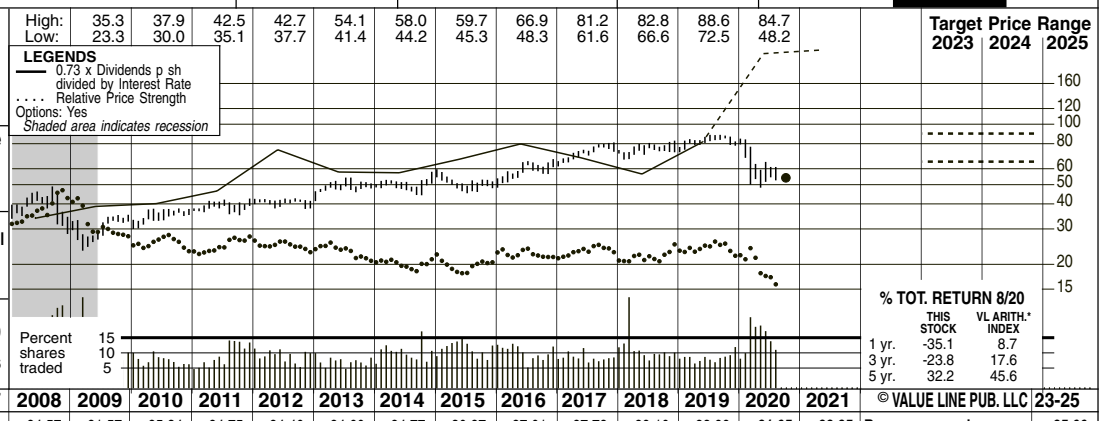
18-Month Target Price Range
Low-High **Midpoint (% to Mid)**
$47-$104 $76 (40%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	90	(+65%)	*17%*
Low	65	(+20%)	*9%*

Institutional Decisions

	4Q2019	1Q2020	2Q2020
to Buy	158	124	141
to Sell	120	154	136
Hld's(000)	38235	38410	37540



2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	© VALUE LINE PUB. LLC	23-25
25.30	24.50	25.23	27.33	24.57	21.57	25.34	24.75	24.40	24.60	24.77	30.27	27.01	27.78	29.10	23.99	*21.05*	*22.35*	Revenues per sh	*25.00*
2.97	3.85	4.14	4.42	4.23	3.57	4.35	4.91	5.01	5.35	5.68	6.79	7.08	6.59	7.37	7.24	*7.10*	*7.70*	"Cash Flow" per sh	*9.25*
1.35	2.48	2.77	3.08	2.82	1.89	2.19	2.65	2.58	2.63	2.90	3.38	3.14	3.13	3.38	3.33	*3.10*	*3.50*	Earnings per sh [A]	*4.25*
.30	1.25	1.45	1.64	1.72	1.76	1.76	1.78	1.84	1.90	1.96	2.02	2.08	2.14	2.24	2.35	*2.47*	*2.58*	Div'd Decl'd per sh [B] ■ †	*2.90*
2.12	1.95	3.37	6.82	9.24	9.05	6.95	6.38	10.30	7.93	12.48	5.84	5.35	4.08	6.07	11.55	*14.80*	*11.20*	Cap'l Spending per sh	*3.25*
21.23	20.03	21.90	24.11	25.37	26.41	27.26	28.78	30.48	32.44	35.06	37.07	38.17	40.47	41.86	43.17	*46.35*	*47.75*	Book Value per sh [C]	*51.75*
29.70	30.10	30.40	30.80	32.60	35.20	35.80	37.50	39.40	41.40	45.90	49.10	49.60	51.10	51.50	51.70	*52.75*	*53.50*	Common Shs Outst'g [D]	*54.25*
25.2	17.9	16.5	14.8	13.9	16.1	16.0	14.7	15.9	18.6	17.2	15.1	18.6	23.0	22.2	24.7	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*18.5*
1.33	.95	.89	.79	.84	1.07	1.02	.92	1.01	1.05	.91	.76	.98	1.16	1.20	1.32			Relative P/E Ratio	*1.05*
.9%	2.8%	3.2%	3.6%	4.4%	5.8%	5.0%	4.6%	4.5%	3.9%	3.9%	4.0%	3.6%	3.0%	3.0%	2.9%			Avg Ann'l Div'd Yield	*3.7%*
907.0	928.2	961.2	1018.4	1136.8	1486.4	1339.7	1419.3	1498.6	1240.5	*1110*	*1195*	Revenues ($mill)	*1350*
75.3	93.8	97.1	104.7	124.8	163.4	155.3	159.2	174.1	172.4	*165*	*190*	Net Profit ($mill)	*230*
37.2%	27.6%	28.1%	21.5%	22.6%	19.4%	11.3%	14.8%	14.8%	NMF	*NMF*	*NMF*	Income Tax Rate	*NMF*
8.9%	2.7%	5.3%	4.4%	6.3%	2.0%	1.4%	.8%	.7%	1.3%	*2.0%*	*2.0%*	AFUDC % to Net Profit	*1.0%*
44.2%	44.3%	43.7%	44.6%	44.2%	46.3%	42.0%	41.0%	39.9%	38.6%	*41.0%*	*40.0%*	Long-Term Debt Ratio	*41.0%*
55.8%	55.7%	56.3%	55.4%	55.8%	53.7%	58.0%	59.0%	60.1%	61.4%	*59.0%*	*60.0%*	Common Equity Ratio	*59.0%*
1747.6	1937.2	2134.6	2425.9	2882.2	3388.9	3263.4	3507.4	3584.3	3632.8	*4145*	*4255*	Total Capital ($mill)	*4775*
1805.6	1982.7	2347.6	2576.5	3286.4	3669.1	3741.2	3822.4	3904.4	4377.0	*4945*	*5320*	Net Plant ($mill)	*5575*
5.4%	6.0%	5.6%	5.3%	5.2%	5.8%	5.8%	5.5%	5.8%	5.6%	*4.5%*	*5.5%*	Return on Total Cap'l	*6.0%*
7.7%	8.7%	8.1%	7.8%	7.8%	9.0%	8.2%	7.7%	8.1%	7.7%	*6.5%*	*7.5%*	Return on Shr. Equity	*8.0%*
7.7%	8.7%	8.1%	7.8%	7.8%	9.0%	8.2%	7.7%	8.1%	7.7%	*6.5%*	*7.5%*	Return on Com Equity [E]	*8.0%*
1.5%	2.9%	2.3%	2.2%	2.5%	3.6%	2.8%	2.4%	2.7%	2.3%	*1.5%*	*2.0%*	Retained to Com Eq	*2.5%*
81%	66%	71%	72%	67%	60%	66%	68%	66%	70%	*79%*	*73%*	All Div'ds to Net Prof	*68%*

CAPITAL STRUCTURE as of 6/30/20
Total Debt $1890.7 mill. **Due in 5 Yrs** $562.6 mill.
LT Debt $1381.0 mill. **LT Interest** $60.1 mill.
(LT interest earned: 3.4x)

Leases, Uncapitalized Annual rentals $6.6 mill.

Pension Assets-12/19 $699.6 mill.
Oblig $854.0 mill.

Pfd Stock None

Common Stock 51,880,664 shs.

MARKET CAP: $2.8 billion (Mid Cap)

ELECTRIC OPERATING STATISTICS

	2017	2018	2019
% Change Retail Sales (KWH)	+8.4	-.2	-1.5
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Winter (Mw)	1599	1589	1573
Annual Load Factor (%)	NA	NA	NA
% Change Customers (avg.)	NA	NA	NA
Fixed Charge Cov. (%)	339	296	277

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '17-'19 to '23-'25
Revenues	1.0%	2.0%	*-1.5%*
"Cash Flow"	5.5%	6.0%	*4.5%*
Earnings	2.5%	4.0%	*4.5%*
Dividends	3.0%	3.5%	*4.5%*
Book Value	5.0%	5.0%	*3.5%*

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2017	365.6	353.3	362.5	337.9	1419.3
2018	358.2	344.1	348.0	448.3	1498.6
2019	357.2	290.4	288.3	304.6	1240.5
2020	311.6	243.2	*275*	*280.2*	*1110*
2021	*325*	*285*	*285*	*300*	*1195*

EARNINGS PER SHARE [A]

Calendar	Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2017	.97	.72	.88	.56	3.13
2018	.99	.61	.59	1.18	3.38
2019	1.18	.64	.60	.92	3.33
2020	1.28	.39	*.57*	*.86*	*3.10*
2021	*1.20*	*.70*	*.65*	*.95*	*3.50*

QUARTERLY DIVIDENDS PAID [B] ■ †

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2016	.52	.52	.52	.52	2.08
2017	.535	.535	.535	.535	2.14
2018	.56	.56	.56	.56	2.24
2019	.5875	.5875	.5875	.5875	2.35
2020	.6175	.6175	.6175		

BUSINESS: ALLETE, Inc. is the parent of Minnesota Power, which supplies electricity to 146,000 customers in northeastern MN, & Superior Water, Light & Power in northwestern WI. Electric rev. breakdown: taconite mining/processing, 26%; paper/wood products, 9%; other industrial, 8%; residential, 12%; commercial, 13%; wholesale, 16% other, 16%. ALLETE Clean Energy (ACE) owns renewable energy projects. Acq'd U.S. Water Services 2/15; sold it 3/19. Generating sources: coal & lignite, 30%; wind, 11%; other, 5%; purchased, 54%. Fuel costs: 31% of revs. '19 deprec. rate: 3.3%. Has 1,400 employees. Chairman: Alan R. Hodnik. President & CEO: Bethany M. Owen. Inc.: MN. Address: 30 West Superior St., Duluth, MN 55802-2093. Tel.: 218-279-5000. Internet: www.allete.com.

We expect an earnings decline for ALLETE in 2020. In the second quarter, the company took an aftertax charge of $8.3 million ($0.16 a share) for a refund to customers of previously collected revenues. This was part of an order that allowed the company's primary utility subsidiary, Minnesota Power, to effect a $25.5 million rate hike, effective May 1st. The utility may not file a rate application until November 1, 2021, unless specified conditions occur that permit it to file as early as March 1, 2021. (If and when Minnesota Power will file next year remains to be determined.) We *include* the $0.16-a-share charge in our earnings presentation. ALLETE's 2020 earnings guidance (on a GAAP basis) is $3.09-$3.29 a share. Note that management has cut expenses to offset the costs associated with the coronavirus.

There is mixed news on the state of the economy in the utility's service area. Most of Minnesota Power's large industrial customers expect to operate at full capacity for the remainder of 2020 (and will pay demand charges in accordance with this expectation). However, two plants (one taconite, one paper) remain shut indefinitely.

We think earnings will recover next year. The absence of the charge should be a key factor. We figure the economy will be in better condition in 2021, as well, although there is more uncertainty than usual in this regard.

ALLETE Clean Energy is building a large wind project in Oklahoma. The 300-megawatt, $450 million facility is expected to be completed by yearend. A similar project is planned for 2021. Note that ALLETE has a negative tax rate thanks to significant tax credits arising from this subsidiary's investments in renewable energy.

The price of ALLETE stock has fallen 34% this year. Investors are worried about the effects of the weak economy on Minnesota Power's heavily industrial service territory. This might well persist into 2021. The dividend yield is almost a percentage point above the utility mean. Total return potential is attractive for the next 18 months. For the 3- to 5-year period, total return potential is modest, but still better than that of most utility equities.

Paul E. Debbas, CFA *September 11, 2020*

(A) Diluted EPS. Excl. nonrec. gains (losses): '04, (25¢); '05, ($1.84); '15, (46¢); '17, 25¢; '19, 26¢; gain (losses) on disc. ops.: '04, $2.57, '05, (16¢); '06, (2¢). '18 & '19 EPS don't sum due to rounding. Next earnings report due early Nov. **(B)** Div'ds historically paid in early Mar., June, Sept. and Dec. ■ Div'd reinvest. plan avail. † Shareholder invest. plan avail. **(C)** Incl. deferred charges. In '19: $8.15/sh. **(D)** In mill. **(E)** Rate base: Orig. cost depr. Rate allowed in MN on com. eq. in '18: 9.25%; earned on avg. com. eq., '19: 7.9%. Regulatory Climate: Avg.

Company's Financial Strength	A
Stock's Price Stability	95
Price Growth Persistence	80
Earnings Predictability	85

ALLIANT ENERGY NDQ-LNT

RECENT PRICE 54.15 | P/E RATIO 23.2 (Trailing: 20.4 Median: 17.0) | RELATIVE P/E RATIO 1.08 | DIV'D YLD 2.8% | VALUE LINE

TIMELINESS 3 Lowered 9/11/20
SAFETY 2 Raised 9/28/07
TECHNICAL 3 Lowered 6/19/20
BETA .85 (1.00 = Market)

18-Month Target Price Range

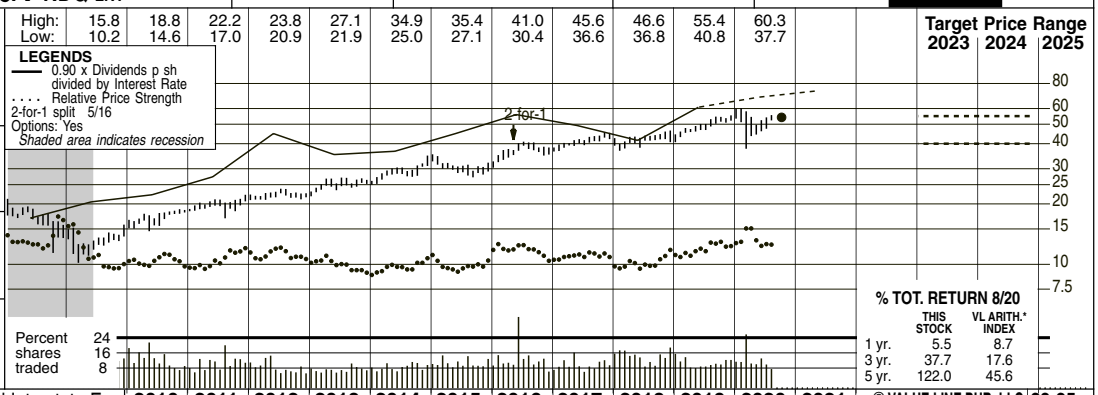
Low-High	Midpoint (% to Mid)
$41-$89	$65 (20%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	55	(Nil)	4%
Low	40	(-25%)	-3%

Institutional Decisions

	4Q2019	1Q2020	2Q2020
to Buy	272	236	227
to Sell	209	272	258
Hld's(000)	188011	182284	186056



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Target Price Range 2023	2024	2025
High:	15.8	18.8	22.2	23.8	27.1	34.9	35.4	41.0	45.6	46.6	55.4	60.3			
Low:	10.2	14.6	17.0	20.9	21.9	25.0	27.1	30.4	36.6	36.8	40.8	37.7			

% TOT. RETURN 8/20

	THIS STOCK	VL ARITH.* INDEX
1 yr.	5.5	8.7
3 yr.	37.7	17.6
5 yr.	122.0	45.6

Alliant Energy, formerly called Interstate Energy Corporation, was formed on April 21, 1998 through the merger of WPL Holdings, IES Industries, and Interstate Power. WPL stockholders received one share of Interstate Energy stock for each WPL share, IES stockholders received 1.14 Interstate Energy shares for each IES share, and Interstate Power stockholders received 1.11 Interstate Energy shares for each Interstate Power share.

© VALUE LINE PUB. LLC	23-25	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Revenues per sh	15.85	15.40	16.51	13.94	14.77	15.10	14.34	14.58	14.62	14.97	14.89	14.70	15.10
"Cash Flow" per sh	5.25	2.60	2.75	2.95	3.34	3.44	3.45	3.45	3.10	4.32	4.59	4.75	4.90
Earnings per sh A	3.00	1.38	1.38	1.53	1.65	1.74	1.69	1.65	1.99	2.19	2.33	2.45	2.55
Div'd Decl'd per sh B ■ †	2.00	.79	.85	.90	.94	1.02	1.10	1.18	1.26	1.34	1.42	1.52	1.64
Cap'l Spending per sh	6.15	3.91	3.03	5.22	3.32	3.78	4.25	5.26	6.34	6.34	6.28	5.65	5.90
Book Value per sh C	28.25	13.05	13.57	14.12	14.79	15.54	16.41	16.96	17.21	19.43	21.24	22.75	24.10
Common Shs Outst'g D	265.00	221.79	222.04	221.97	221.89	221.87	226.92	227.67	231.35	236.06	245.02	250.00	255.00
Avg Ann'l P/E Ratio	16.0	12.5	14.5	14.5	15.3	16.6	18.1	22.3	20.6	19.1	21.2	Bold figures are Value Line estimates	
Relative P/E Ratio	.90	.80	.91	.92	.86	.87	.91	1.17	1.04	1.03	1.19		
Avg Ann'l Div'd Yield	4.2%	4.6%	4.3%	4.1%	3.7%	3.5%	3.6%	3.2%	3.1%	3.2%	2.9%		
Revenues ($mill)	4205	3416.1	3665.3	3094.5	3276.8	3350.3	3253.6	3320.0	3382.2	3534.5	3647.7	3675	3850
Net Profit ($mill)	790	303.9	304.4	337.8	382.1	385.5	380.7	373.8	455.9	512.1	557.2	610	630
Income Tax Rate	11.0%	30.1%	19.0%	21.5%	12.4%	10.1%	15.3%	13.4%	12.5%	8.4%	10.8%	NMF	11.0%
AFUDC % to Net Profit	7.5%	- -	- -	- -	- -	- -	6.5%	7.0%	7.6%	7.8%	7.6%	7.5%	7.5%
Long-Term Debt Ratio	52.0%	46.3%	45.7%	48.4%	46.1%	49.7%	48.6%	52.8%	49.0%	53.4%	51.5%	52.0%	52.0%
Common Equity Ratio	48.0%	49.5%	50.9%	48.4%	50.8%	47.5%	51.4%	47.2%	48.6%	46.6%	48.5%	48.0%	48.0%
Total Capital ($mill)	12000	5840.8	5921.2	6476.6	6461.0	7257.2	7246.3	8177.6	8192.8	9832.0	10226	10000	10500
Net Plant ($mill)	18000	6730.6	7037.1	7838.0	7147.3	6442.0	8970.2	9809.9	10798	12031	13527	14000	15000
Return on Total Cap'l	6.5%	6.6%	6.4%	6.3%	7.0%	6.3%	6.3%	5.6%	6.8%	6.3%	4.1%	4.0%	6.0%
Return on Shr. Equity	10.5%	9.7%	9.5%	10.1%	11.0%	10.6%	10.2%	9.7%	10.9%	11.2%	10.7%	10.5%	10.0%
Return on Com Equity E	10.5%	9.9%	9.5%	10.3%	11.3%	10.9%	10.2%	9.7%	6.4%	11.2%	10.7%	10.5%	10.0%
Retained to Com Eq	3.5%	3.8%	3.3%	3.9%	4.9%	4.3%	3.6%	2.8%	4.0%	4.4%	4.2%	4.0%	3.5%
All Div'ds to Net Prof	67%	64%	67%	64%	57%	61%	65%	71%	63%	61%	61%	62%	64%

CAPITAL STRUCTURE as of 6/30/20
Total Debt $6765.2 mill. **Due in 5 Yrs** $1000.0 mill.
LT Debt $6572.4 mill. **LT Interest** $240.0 mill.
(LT interest earned: 2.9x)

Pension Assets-12/19 $930.4 mill. **Oblig.** $1279.7 mill.
Pfd Stock $400.0 mill. **Pfd Div'd** $10.2 mill.
16,000,000 shs.

Common Stock 249,644,352 shs.

MARKET CAP: $13.5 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2017	2018	2019
% Change Retail Sales (KWH)	-1.0	+2.0	-2.2
Avg. Indust. Use (MWH)	11769	11830	11448
Avg. Indust. Revs. per KWH (¢)	7.16	7.25	6.98
Capacity at Peak (Mw)	5375	5459	5626
Peak Load, Summer (Mw)	5375	5459	5626
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+.4	+.4	+.6
Fixed Charge Cov. (%)	319	322	324

ANNUAL RATES

of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '17-'19 to '23-'25
Revenues	-.5%	-.5%	*1.0%*
"Cash Flow"	4.5%	3.5%	*4.5%*
Earnings	5.0%	5.0%	*5.5%*
Dividends	7.0%	7.0%	*7.0%*
Book Value	4.0%	5.0%	*6.5%*

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	853.9	765.3	906.9	856.1	3382.2
2018	916.3	816.1	928.6	873.5	3534.5
2019	987.2	790.2	990.2	880.1	3647.7
2020	915.7	763.1	*1000*	*996.2*	*3675*
2021	*1000*	*880*	*1040*	*930*	*3850*

EARNINGS PER SHARE A

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.44	.41	.73	.41	1.99
2018	.52	.43	.87	.37	2.19
2019	.53	.40	.94	.46	2.33
2020	.72	.54	*.85*	*.34*	*2.45*
2021	*.60*	*.50*	*1.00*	*.45*	*2.55*

QUARTERLY DIVIDENDS PAID B ■†

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2016	.295	.295	.295	.295	1.18
2017	.315	.315	.315	.315	1.26
2018	.335	.335	.335	.335	1.34
2019	.355	.355	.355	.355	1.42
2020	.38	.38	.38		

BUSINESS: Alliant Energy Corp., formerly named Interstate Energy, is a holding company formed through the merger of WPL Holdings, IES Industries, and Interstate Power. Supplies electricity, gas, and other services in Wisconsin, Iowa, and Minnesota. Elect. revs. by state: WI, 42%; IA, 57%; MN, 1%. Elect. rev.: residential, 34%; commercial, 29%; industrial, 28%; wholesale, 7%; other, 2%. Fuel sources, 2019: coal, 27%; gas, 34%; other, 39%. Fuel costs: 41% of revs. 2019 depreciation rate: 5.9%. Estimated plant age: 17 years. Has approximately 3,597 employees. Chairman & Chief Executive Officer: John O. Larsen. Incorporated: Wisconsin. Address: 4902 N. Biltmore Lane, Madison, Wisconsin 53718. Telephone: 608-458-3311. Internet: www.alliantenergy.com.

We estimate that Alliant Energy's earnings will advance 4%-5% in both 2020 and 2021. The utility's largest subsidiary, Interstate Power and Light, as well as Wisconsin Power and Light, should benefit from an increasing rate base, higher electric margins, and continued cost-control efforts. In terms of rate relief, the Iowa Utilities Board approved tariff increases worth $139 million earlier this year for Interstate Power and Light. Wisconsin Power and Light has submitted a revised plan that would allow it to use tax and fuel savings in lieu of rate hikes to cover expenses associated with two major energy investments. If granted, the utility would delay all pending rate cases until mid-2021. A decision by the Public Service Commission of Wisconsin is expected soon.

Alliant continues to invest heavily in renewables. In Wisconsin, the company announced plans to acquire and advance 675 megawatts (mw) of solar energy in mostly rural areas across six counties. The projects are the next step in the utility's Clean Energy Blueprint, which calls for the elimination and replacement of all coal-generating capacity by 2040. Alliant is also on track to install an additional 280 mw of wind power this year through the Richland and Kossuth wind farm projects.

Leadership recently announced that 30% of its energy mix now comes from renewable resources. That puts Alliant on track to achieve its stated 2030 goal of reducing carbon emissions by 50% and water supply by 75% from 2005 levels.

The West Riverside Energy Center is finally in service. The 730-megawatt combined-cycle natural gas-generating station cost $660 million and took three years to build. The plant can produce enough power for more than 550,000 homes. The next step for the project includes constructing an integrated solar facility adjacent to the natural gas station. Construction is expected to break ground soon.

This stock is now ranked 3 (Average) for year-ahead price performance, having slipped a notch on our Timeliness scale since June. Like many utility issues, the recent quotation is well within our 2023-2025 Target Price Range, resulting in lackluster 3- to 5-year appeal. The dividend yield is also subpar for a utility.

Daniel Henigson, CFA September 11, 2020

(A) Diluted EPS. Excl. nonrecur. gains (losses): '10, (8¢); '11, (1¢); '12, (8¢). Next earnings rpt. due early November. **(B)** Dividends historically paid in mid-Feb., May, Aug., and Nov. ■ Div'd reinvest. plan avail. † Shareholder invest. plan avail. **(C)** Incl. deferred chgs. In '19: $72.0 mill., $0.29/sh. **(D)** In millions, adjusted for split. **(E)** Rate base: Orig. cost. Rates all'd on com. eq. in IA in '19: 10.0%; in WI in '19 Regul. Clim.: WI, Above Avg.; IA, Avg.

Company's Financial Strength	A
Stock's Price Stability	95
Price Growth Persistence	95
Earnings Predictability	90

AMEREN NYSE-AEE

RECENT PRICE **79.11** | P/E RATIO **22.2** (Trailing: 23.1 Median: 17.0) | RELATIVE P/E RATIO **1.04** | DIV'D YLD **2.6%** | **VALUE LINE**

TIMELINESS 2 Raised 9/11/20
SAFETY 2 Raised 6/20/14
TECHNICAL 2 Lowered 6/19/20
BETA .80 (1.00 = Market)

18-Month Target Price Range

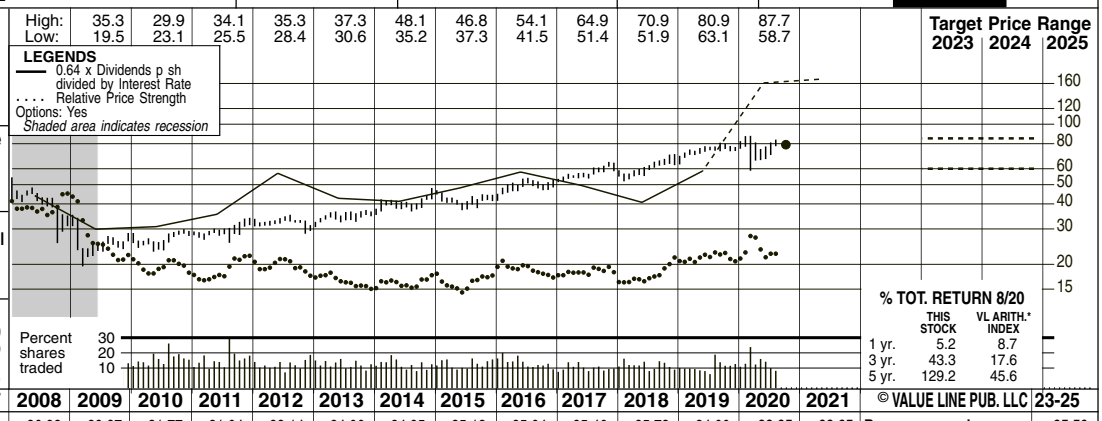
Low-High	Midpoint (% to Mid)
$61-$123	$92 (15%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	85	(+5%)	*5%*
Low	60	(-25%)	*-3%*

Institutional Decisions

	4Q2019	1Q2020	2Q2020
to Buy	266	242	220
to Sell	265	273	301
Hld's(000)	186367	187833	196379



2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	© VALUE LINE PUB. LLC	23-25
26.43	33.12	33.30	36.23	36.92	29.87	31.77	31.04	28.14	24.06	24.95	25.13	25.04	25.46	25.73	24.00	*22.85*	*23.65*	Revenues per sh	*25.50*
5.57	6.10	6.02	6.76	6.44	6.06	6.33	5.87	5.87	5.25	5.77	6.08	6.59	6.80	7.64	7.83	*8.20*	*8.75*	"Cash Flow" per sh	*10.75*
2.82	3.13	2.66	2.98	2.88	2.78	2.77	2.47	2.41	2.10	2.40	2.38	2.68	2.77	3.32	3.35	*3.50*	*3.70*	Earnings per sh A	*4.50*
2.54	2.54	2.54	2.54	2.54	1.54	1.54	1.56	1.60	1.60	1.61	1.66	1.72	1.78	1.85	1.92	*2.01*	*2.11*	Div'd Decl'd per sh B ■	*2.45*
4.13	4.63	4.99	6.96	9.75	7.51	4.66	4.50	5.49	5.87	7.66	8.12	8.78	9.05	9.56	9.92	*15.85*	*11.65*	Cap'l Spending per sh	*11.00*
29.71	31.09	31.86	32.41	32.80	33.08	32.15	32.64	27.27	26.97	27.67	28.63	29.27	29.61	31.21	32.73	*35.75*	*37.75*	Book Value per sh C	*44.50*
195.20	204.70	206.60	208.30	212.30	237.40	240.40	242.60	242.63	242.63	242.63	242.63	242.63	242.63	244.50	246.20	*254.00*	*258.00*	Common Shs Outst'g D	*270.00*
16.3	16.7	19.4	17.4	14.2	9.3	9.7	11.9	13.4	16.5	16.7	17.5	18.3	20.6	18.3	22.1	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*16.0*
.86	.89	1.05	.92	.85	.62	.62	.75	.85	.93	.88	.88	.96	1.04	.99	1.18			Relative P/E Ratio	*.90*
5.5%	4.9%	4.9%	4.9%	6.2%	6.0%	5.8%	5.3%	5.0%	4.6%	4.0%	4.0%	3.5%	3.1%	3.0%	2.6%			Avg Ann'l Div'd Yield	*3.4%*
7638.0	7531.0	6828.0	5838.0	6053.0	6098.0	6076.0	6177.0	6291.0	5910.0	*5800*	*6100*	Revenues ($mill)	*6900*
669.0	602.0	589.0	518.0	593.0	585.0	659.0	683.0	821.0	834.0	*875*	*960*	Net Profit ($mill)	*1225*
36.8%	37.3%	36.9%	37.5%	38.9%	38.3%	36.7%	38.2%	22.4%	17.9%	*15.5%*	*12.5%*	Income Tax Rate	*12.5%*
7.8%	5.6%	6.1%	7.1%	5.7%	5.1%	4.1%	5.6%	6.9%	5.8%	*6.0%*	*5.0%*	AFUDC % to Net Profit	*4.0%*
48.2%	45.3%	49.5%	45.2%	47.2%	49.3%	47.7%	49.2%	50.3%	52.1%	*54.0%*	*52.0%*	Long-Term Debt Ratio	*50.0%*
50.9%	53.7%	49.4%	53.7%	51.7%	49.7%	51.3%	49.8%	48.8%	47.1%	*45.5%*	*47.0%*	Common Equity Ratio	*49.0%*
15185	14738	13384	12190	12975	13968	13840	14420	15632	17116	*20000*	*20675*	Total Capital ($mill)	*24500*
17853	18127	16096	16205	17424	18799	20113	21466	22810	24376	*27200*	*28900*	Net Plant ($mill)	*33300*
6.0%	5.6%	6.0%	5.6%	5.8%	5.3%	6.0%	6.0%	6.4%	6.0%	*5.5%*	*6.0%*	Return on Total Cap'l	*6.0%*
8.5%	7.5%	8.7%	7.7%	8.7%	8.3%	9.1%	9.3%	10.6%	10.2%	*9.5%*	*9.5%*	Return on Shr. Equity	*10.0%*
8.6%	7.5%	8.8%	7.8%	8.7%	8.3%	9.2%	9.4%	10.7%	10.3%	*9.5%*	*10.0%*	Return on Com Equity E	*10.0%*
3.8%	2.8%	3.0%	1.9%	2.9%	2.5%	3.3%	3.4%	4.8%	4.4%	*4.0%*	*4.0%*	Retained to Com Eq	*4.5%*
56%	63%	66%	76%	67%	70%	64%	64%	56%	57%	*57%*	*57%*	All Div'ds to Net Prof	*54%*

CAPITAL STRUCTURE as of 6/30/20
Total Debt $10648 mill. **Due in 5 Yrs** $2165 mill.
LT Debt $10171 mill. **LT Interest** $456 mill.
(LT interest earned: 3.5x)
Leases, Uncapitalized Annual rentals $8 mill.
Pension Assets-12/19 $4564 mill.
Oblig $4967 mill.
Pfd Stock $142 mill. **Pfd Div'd** $6 mill.
807,595 sh. $3.50 to $5.50 cum. (no par), $100 stated val., redeem. $102.176-$110/sh.; 616,323 sh. 4.00% to 6.625%, $100 par, redeem. $100-$104/sh.
Common Stock 247,079,529 shs. **as of 7/31/20**
MARKET CAP: $20 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2017	2018	2019
% Change Retail Sales (KWH)	-3.4	+5.6	-3.5
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	NA	NA	NA
Fixed Charge Cov. (%)	350	313	307

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '17-'19 to '23-'25
Revenues	-3.0%	-.5%	*.5%*
"Cash Flow"	1.5%	5.5%	*6.5%*
Earnings	1.0%	6.5%	*6.0%*
Dividends	-2.0%	3.0%	*5.0%*
Book Value	-.5%	2.5%	*6.0%*

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	1514	1538	1723	1402	6177.0
2018	1585	1563	1724	1419	6291.0
2019	1556	1379	1659	1316	5910.0
2020	1440	1398	*1650*	*1312*	*5800*
2021	*1600*	*1450*	*1700*	*1350*	*6100*

EARNINGS PER SHARE A

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.42	.79	1.18	.39	2.77
2018	.62	.97	1.45	.28	3.32
2019	.78	.72	1.47	.38	3.35
2020	.59	.98	*1.53*	*.40*	*3.50*
2021	*.65*	*.85*	*1.70*	*.45*	*3.70*

QUARTERLY DIVIDENDS PAID B ■

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2016	.425	.425	.425	.44	1.72
2017	.44	.44	.44	.4575	1.78
2018	.4575	.4575	.4575	.475	1.85
2019	.475	.475	.475	.495	1.92
2020	.495	.495	.495		

BUSINESS: Ameren Corporation is a holding company formed through the merger of Union Electric and CIPSCO. Has 1.2 million electric and 127,000 gas customers in Missouri; 1.2 million electric and 813,000 gas customers in Illinois. Discontinued nonregulated power-generation operation in '13. Electric revenue breakdown: residential, 43%; commercial, 32%; industrial, 8%; other, 17%. Generating sources: coal, 63%; nuclear, 23%; hydro & other, 6%; purchased, 8%. Fuel costs: 24% of revenues. '19 reported deprec. rates: 3%-4%. Has 9,300 employees. Chairman, President & CEO: Warner L. Baxter. Inc.: Missouri. Address: One Ameren Plaza, 1901 Chouteau Ave., P.O. Box 66149, St. Louis, Missouri 63166-6149. Tel.: 314-621-3222. Internet: www.ameren.com.

We have boosted our 2020 and 2021 earnings estimates for Ameren by a nickel a share each year. Second-quarter earnings were better than our estimate of $0.80 a share because Ameren was able to cut expenses more than we expected in order to offset the effects of the slump in kilowatt-hour sales resulting from the weak economy. Our revised 2020 share-net estimate is at the midpoint of Ameren's targeted range of $3.40-$3.60. Our 2021 estimate would produce profit growth of 6%, within the company's targeted range of 6%-8% annually.

A gas rate case is pending in Illinois. The utility is seeking a base rate increase of $96 million (including $46 million that would otherwise be recovered through riders in 2021), based on a 10.5% return on equity and a 54.1% common-equity ratio. The staff of the Illinois Commerce Commission is recommending a hike of $67 million, based on a 9.32% ROE and a 50.43% common-equity ratio. Various intervenors are proposing an increase of $66 million, based on a 9.2% ROE and a 50% common-equity ratio. A ruling is required by January, with new tariffs taking effect in February. This is one source of the profit growth that is likely in 2021.

Ameren is building a wind project. The utility is spending $1.2 billion to add 700 megawatts of capacity. Most of this will be in service by yearend, but about $100 million of this spending is expected to slip into 2021. This will not affect the production tax credits associated with the project, however.

We expect a dividend increase in the fourth quarter. This is the usual timing. We estimate an increase of $0.025 a share (5.1%) in the quarterly disbursement, but wouldn't be surprised by a larger hike, given that the payout ratio is near the lower end of Ameren's target of 55%-70%.

Ameren stock is timely, but has a high valuation. The stock price has risen 3% in what has been a bad year for most utility issues, as the market likes the company's status as a fully regulated utility. The dividend yield is a percentage point below the utility mean. Total return potential for the 18-month span is only about average. The recent quotation is near the upper end of our 3- to 5-year Target Price Range.

Paul E. Debbas, CFA *September 11, 2020*

Company's Financial Strength	A
Stock's Price Stability	95
Price Growth Persistence	80
Earnings Predictability	90

(A) Dil. EPS. Excl. nonrec. gain (losses): '05, (11¢); '10, ($2.19); '11, (32¢); '12, ($6.42); '17, (63¢); gain (loss) from disc. ops.: '13, (92¢); '15, 21¢. '17 EPS don't sum due to rounding. Next egs. report due early Aug. **(B)** Div'ds pd. late Mar., June, Sept., & Dec. ■ Div'd reinv. plan avail. **(C)** Incl. intang. In '19: $5.70/sh. **(D)** In mill. **(E)** Rate base: Orig. cost depr. Rate all'd on com. eq. in MO in '20: elec., none; in '11: gas, none; in IL in '14: elec., 8.7%, in '18: gas, 9.87%; earned on avg. com. eq., '19: 10.5%. Reg. Climate: MO, Avg.; IL, Below Avg.

EDISON INTERNAT'L NYSE-EIX

RECENT PRICE **56.27** | P/E RATIO **37.5** (Trailing: 17.9 Median: 14.0) | RELATIVE P/E RATIO **1.70** | DIV'D YLD **4.7%** | **VALUE LINE**

TIMELINESS 3 Raised 8/30/19
SAFETY 3 Lowered 11/23/18
TECHNICAL 4 Lowered 10/23/20
BETA .90 (1.00 = Market)

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$43-$109	$76 (35%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	95	(+70%)	*17%*
Low	65	(+15%)	*8%*

Institutional Decisions

	4Q2019	1Q2020	2Q2020
to Buy	328	274	294
to Sell	243	304	264
Hld's(000)	325429	318333	329959

High:	36.7	39.4	41.6	48.0	54.2	68.7	69.6	78.7	83.4	71.0	76.4	78.9						
Low:	23.1	30.4	32.6	39.6	44.3	44.7	55.2	58.0	62.7	45.5	53.4	43.6						

LEGENDS
0.80 x Dividends p sh divided by Interest Rate
Relative Price Strength
Options: Yes
Shaded area indicates recession

Percent shares traded 30 20 10

Target Price Range 2023 2024 2025: 200 160 100 80 60 50 40 30 20

% TOT. RETURN 9/20

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-29.6	0.8
3 yr.	-25.8	7.9
5 yr.	-4.0	47.8

2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	© VALUE LINE PUB. LLC	23-25
31.30	36.38	38.74	40.25	43.31	37.98	38.09	39.16	36.41	38.61	41.17	35.37	36.43	37.81	38.85	34.11	*33.00*	*34.55*	Revenues per sh	*40.25*
3.79	6.99	7.25	7.60	8.08	7.96	8.41	9.03	9.63	8.80	9.95	10.35	10.43	11.03	4.69	9.15	*7.50*	*10.90*	"Cash Flow" per sh	*12.75*
.69	3.34	3.28	3.32	3.68	3.24	3.35	3.23	4.55	3.78	4.33	4.15	3.94	4.51	d1.26	3.98	*1.25*	*4.30*	Earnings per sh [A]	*5.25*
.80	1.02	1.10	1.18	1.23	1.25	1.27	1.29	1.31	1.37	1.48	1.73	1.98	2.23	2.43	2.48	*2.58*	*2.68*	Div'd Decl'd per sh [B] ■	*3.00*
5.32	5.73	7.78	8.67	8.67	10.07	13.94	14.76	12.73	11.05	11.99	12.97	11.46	11.75	13.84	13.47	*13.20*	*14.25*	Cap'l Spending per sh	*14.25*
18.57	20.30	23.66	25.92	29.21	30.20	32.44	30.86	28.95	30.50	33.64	34.89	36.82	35.82	32.10	36.75	*36.20*	*37.80*	Book Value per sh [C]	*43.75*
325.81	325.81	325.81	325.81	325.81	325.81	325.81	325.81	325.81	325.81	325.81	325.81	325.81	325.81	325.81	361.99	*379.00*	*379.00*	Common Shs Outst'g [D]	*379.00*
37.6	11.7	13.0	16.0	12.4	9.7	10.3	11.8	9.7	12.7	13.0	14.8	17.9	17.2	- -	16.7	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*15.0*
1.99	.62	.70	.85	.75	.65	.66	.74	.62	.71	.68	.75	.94	.87	- -	.89			Relative P/E Ratio	*.85*
3.1%	2.6%	2.6%	2.2%	2.7%	4.0%	3.7%	3.4%	3.0%	2.8%	2.6%	2.8%	2.8%	2.9%	3.8%	3.7%			Avg Ann'l Div'd Yield	*3.8%*
12409	12760	11862	12581	13413	11524	11869	12320	12657	12347	*12500*	*13100*	Revenues ($mill)	*15300*
1153.0	1112.0	1594.0	1344.0	1539.0	1480.0	1422.0	1603.0	d290.0	1477.0	*585*	*1730*	Net Profit ($mill)	*2070*
32.1%	25.7%	14.3%	25.2%	22.4%	6.6%	11.1%	5.0%	- -	NMF	*NMF*	*Nil*	Income Tax Rate	*Nil*
16.9%	14.8%	8.5%	7.8%	5.8%	8.0%	6.8%	7.2%	- -	11.1%	*29.0%*	*10.0%*	AFUDC % to Net Profit	*8.0%*
51.8%	55.3%	45.2%	45.7%	44.1%	45.0%	41.8%	45.6%	53.6%	53.5%	*56.0%*	*57.0%*	Long-Term Debt Ratio	*60.0%*
44.3%	40.6%	46.2%	46.2%	47.2%	46.7%	49.2%	45.8%	38.3%	39.9%	*39.0%*	*38.0%*	Common Equity Ratio	*36.5%*
23861	24773	20422	21516	23216	24352	24362	25506	27284	33360	*34975*	*37525*	Total Capital ($mill)	*45700*
24778	32116	30273	30455	32981	35085	37000	39050	41348	44285	*46900*	*49800*	Net Plant ($mill)	*57700*
6.3%	6.0%	8.9%	7.3%	7.7%	7.1%	6.9%	7.3%	.1%	5.6%	*3.0%*	*6.0%*	Return on Total Cap'l	*6.0%*
10.0%	10.0%	14.2%	11.5%	11.9%	11.1%	10.0%	11.6%	NMF	9.5%	*4.0%*	*11.0%*	Return on Shr. Equity	*11.5%*
10.4%	10.5%	15.9%	12.5%	13.0%	12.0%	10.8%	12.7%	NMF	10.2%	*3.5%*	*11.5%*	Return on Com Equity [E]	*12.0%*
6.5%	6.3%	11.4%	8.1%	8.8%	7.2%	5.6%	6.6%	NMF	4.1%	*NMF*	*4.5%*	Retained to Com Eq	*5.0%*
40%	43%	32%	40%	37%	44%	53%	52%	NMF	63%	*NMF*	*64%*	All Div'ds to Net Prof	*60%*

CAPITAL STRUCTURE as of 6/30/20
Total Debt $20742 mill. **Due in 5 Yrs** $4847 mill.
LT Debt $19238 mill. **LT Interest** $904 mill.
(LT interest earned: 2.3x)
Leases, Uncapitalized Annual rentals $107 mill.
Pens. Assets-12/19 $3755 mill. **Oblig** $4139 mill.
Pfd Stock $2193 mill. **Pfd Div'd** $121 mill.
4,800,198 sh. 4.08%-4.78%, $25 par, call. $25.50-$28.75/sh.; 3,250,000 sh. variable, noncum., call. $100; 1,250,000 sh. 6.5%, cum., $100 liq. value; 350,000 sh. 6.25%, $1000 liq. value; 460,012 sh. 5.1%-5.75%, $2500 liq. value.
Common Stock 378,220,989 shs. **as of 7/23/20**
MARKET CAP: $21 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2017	2018	2019
% Change Retail Sales (KWH)	+.2	-.4	-2.7
Avg. Indust. Use (MWH)	643	667	657
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	23508	23766	22009
Annual Load Factor (%)	48.8	48.0	49.6
% Change Customers (yr-end)	+.7	+.6	+.5
Fixed Charge Cov. (%)	241	NMF	172

ANNUAL RATES

of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '17-'19 to '23-'25
Revenues	-1.0%	-1.0%	*1.5%*
"Cash Flow"	.5%	-2.5%	*7.5%*
Earnings	-3.5%	-10.5%	*NMF*
Dividends	7.0%	11.5%	*4.0%*
Book Value	2.0%	2.5%	*4.0%*

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	2463	2965	3672	3220	12320
2018	2564	2815	4269	3009	12657
2019	2824	2812	3741	2970	12347
2020	2790	2987	***3800***	***2923***	***12500***
2021	***2900***	***3100***	***4000***	***3100***	***13100***

EARNINGS PER SHARE [A]

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	1.11	.85	1.43	1.12	4.51
2018	.82	.84	1.57	d4.49	d1.26
2019	.64	1.57	1.35	.45	3.98
2020	.50	.85	***d.90***	***.80***	***1.25***
2021	***.75***	***1.20***	***1.50***	***.85***	***4.30***

QUARTERLY DIVIDENDS PAID [B] ■

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2016	.48	.48	.48	.48	1.92
2017	.5425	.5425	.5425	.5425	2.17
2018	.605	.605	.605	.605	2.42
2019	.6125	.6125	.6125	.6125	2.45
2020	.6375	.6375	.6375		

BUSINESS: Edison International (formerly SCECorp) is a holding company for Southern California Edison Company (SCE), which supplies electricity to 5.1 mill. customers in a 50,000-sq.-mi. area in central, coastal, & southern CA (excl. Los Angeles & San Diego). Edison Energy is an energy svcs. co. Disc. Edison Mission Energy (independent power producer) in '12. Elec. rev. breakdown: residential, 39%; commercial, 43%; industrial, 4%; other, 14%. Generating sources: nuclear, 8%; gas, 7%; hydro, 5%; purchased, 80%. Fuel costs: 39% of revs. '19 reported depr. rate: 3.6%. Has 12,500 empls. Chairman: William P. Sullivan. Pres. & CEO: Pedro J. Pizzaro. Inc.: CA. Address: 2244 Walnut Grove Ave., P.O. Box 976, Rosemead, CA 91770. Tel.: 626-302-2222. Web: www.edison.com.

Edison International will take a big charge for the third quarter. The company's utility subsidiary, Southern California Edison, has faced huge liabilities stemming from wildfires in its service area in the past few years. This prompted the company to take a sizable charge in the fourth quarter of 2018 and a smaller one in the same period of 2019. Based on settlements reached with plaintiffs for wildfires in 2017 and 2018 (and a mudslide in 2018), SCE's best estimate of its total expected losses is $6.2 billion, up $1.3 billion from the previous figure. Accordingly, the company plans to take an aftertax charge of $878 million when it reports earnings in late October. We will *include* this in our earnings presentation, even though Edison International excludes this from its 2020 earnings guidance of $4.37-$4.62 a share. The company also excludes the amortization of wildfire insurance fund expenses ($60 million quarterly after taxes), which we include. Hence, our 2020 earnings estimate is well below the company's guidance. Note that California's revenue decoupling mechanism protects SCE from the effects of a decline in volume.

The utility is awaiting an order in its general rate case. SCE is seeking increases of $1.1 billion (11.3%) in 2021, $434 million in 2022, and $500 million in 2023. Even if a decision comes after the start of 2021, the increase will be retroactive to January 1st.

Earnings should wind up much higher in 2021. We assume no additional wildfire-related liability charges, although SCE will continue to book amortization costs for the wildfire insurance fund. Also, SCE will benefit from rate relief.

We expect the board to raise the dividend in December, effective with the January payment. We estimate a hike of $0.025 a share (3.9%) in the quarterly disbursement. The directors consider adjusted profits when making their decision.

This stock has an above-average dividend yield, even for a utility. The price has fallen 25% this year, probably due to concerns about wildfires. The equity has appeal for 18-month total return potential, but prospects for 2023-2025 are just average. Conservative utility accounts should look elsewhere.

Paul E. Debbas, CFA *October 23, 2020*

(A) Dil. EPS. Excl. nonrec. gains (losses): '04, $2.12; '09, (64¢); '10, 54¢; '11, ($3.33); '13, ($1.12); '15, ($1.18); '17, ($1.37); '18, (15¢); '19, (21¢); gains (loss) from disc. ops.: '12, ($5.11); '13, 11¢; '14, 57¢; '15, 11¢; '18, 10¢. '19 EPS don't sum due to chng. in shs. Next earnings report due late Oct. **(B)** Div'ds paid late Jan., Apr., July, & Oct. ■ Div'd reinv. plan avail. **(C)** Incl. def'd charges. In '19: $16.82/sh. **(D)** In mill. **(E)** Rate base: net orig. cost. Rate all'd on com. eq. in '20: 10.3%; earned on avg. com. eq., '19: 11.5%. Regulatory Climate: Avg.

Company's Financial Strength	B+
Stock's Price Stability	80
Price Growth Persistence	70
Earnings Predictability	5

ENTERGY CORP. NYSE-ETR

RECENT PRICE **99.14** | P/E RATIO **19.6** (Trailing: 16.1 Median: 13.0) | RELATIVE P/E RATIO **0.92** | DIV'D YLD **3.8%** | **VALUE LINE**

TIMELINESS 3 Raised 10/26/18
SAFETY 2 Raised 12/13/19
TECHNICAL 3 Raised 9/11/20
BETA .95 (1.00 = Market)

18-Month Target Price Range

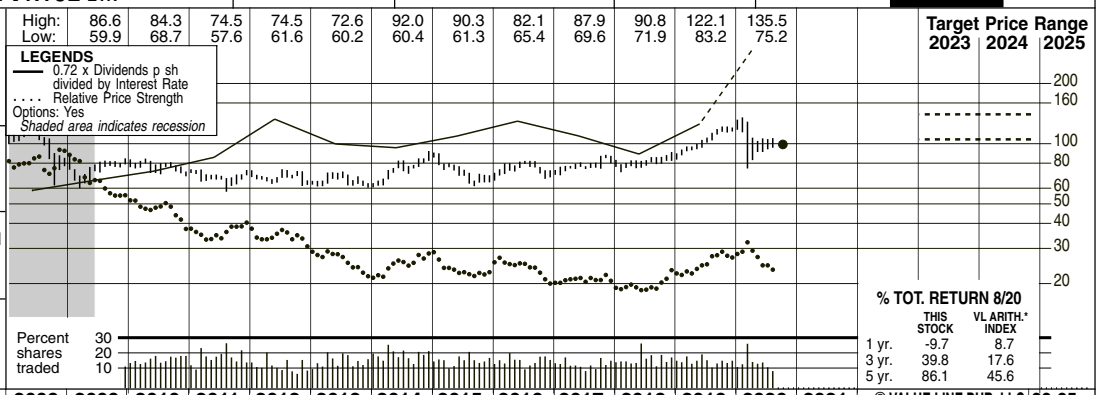
Low-High	Midpoint (% to Mid)
$74-$169	$122 (25%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	140	(+40%)	*12%*
Low	105	(+5%)	*6%*

Institutional Decisions

	4Q2019	1Q2020	2Q2020
to Buy	348	281	283
to Sell	242	349	315
Hld's(000)	176392	172217	173722



2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	© VALUE LINE PUB. LLC	23-25
46.69	46.61	53.94	59.47	69.15	56.82	64.27	63.67	57.94	63.86	69.71	64.54	60.55	61.35	58.23	54.63	*51.00*	*50.50*	Revenues per sh	*50.50*
8.33	8.18	10.69	11.73	12.89	13.29	16.54	17.53	15.98	16.25	17.68	17.71	18.72	16.70	16.50	17.19	*16.50*	*18.10*	"Cash Flow" per sh	*21.25*
3.93	4.40	5.36	5.60	6.20	6.30	6.66	7.55	6.02	4.96	5.77	5.81	6.88	5.19	5.88	6.30	*5.00*	*5.95*	Earnings per sh [A]	*7.00*
1.89	2.16	2.16	2.58	3.00	3.00	3.24	3.32	3.32	3.32	3.32	3.34	3.42	3.50	3.58	3.66	*3.74*	*3.86*	Div'd Decl'd per sh [B] ■ †	*4.55*
6.51	6.72	9.44	10.29	13.92	12.99	13.33	15.21	18.18	15.73	14.82	16.79	17.28	22.07	22.45	21.72	*20.60*	*19.15*	Cap'l Spending per sh	*19.00*
38.26	35.71	40.45	40.71	42.07	45.54	47.53	50.81	51.73	54.00	55.83	51.89	45.12	44.28	46.78	51.34	*52.90*	*55.70*	Book Value per sh [C]	*64.00*
216.83	216.83	202.67	193.12	189.36	189.12	178.75	176.36	177.81	178.37	179.24	178.39	179.13	180.52	189.06	199.15	*201.00*	*204.00*	Common Shs Outst'g [D]	*210.00*
15.1	16.3	14.3	19.3	16.6	12.0	11.6	9.1	11.2	13.2	12.9	12.5	10.9	15.0	13.8	16.5	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*17.5*
.80	.87	.77	1.02	1.00	.80	.74	.57	.71	.74	.68	.63	.57	.75	.75	.88			Relative P/E Ratio	*.95*
3.2%	3.0%	2.8%	2.4%	2.9%	4.0%	4.2%	4.9%	4.9%	5.1%	4.5%	4.6%	4.6%	4.5%	4.4%	3.5%			Avg Ann'l Div'd Yield	*3.7%*
11488	11229	10302	11391	12495	11513	10846	11074	11009	10879	*10250*	*10300*	Revenues ($mill)	*10600*
1270.3	1367.4	1091.9	904.5	1060.0	1061.2	1249.8	950.7	1092.1	1258.2	*1020*	*1230*	Net Profit ($mill)	*1490*
32.7%	17.3%	13.0%	26.7%	37.8%	2.2%	11.3%	1.8%	1.8%	NMF	*18.0%*	*21.0%*	Income Tax Rate	*22.0%*
7.4%	8.9%	11.9%	10.1%	9.3%	7.4%	8.1%	14.7%	17.5%	16.7%	*18.0%*	*14.0%*	AFUDC % to Net Profit	*13.0%*
56.3%	52.2%	55.8%	55.1%	54.9%	57.8%	63.6%	63.6%	63.2%	62.0%	*63.0%*	*63.0%*	Long-Term Debt Ratio	*59.5%*
42.1%	46.4%	42.9%	43.6%	43.8%	40.8%	35.5%	35.5%	35.9%	37.1%	*36.0%*	*36.0%*	Common Equity Ratio	*39.5%*
20166	19324	21432	22109	22842	22714	22777	22528	24602	27557	*29600*	*31425*	Total Capital ($mill)	*33800*
23848	25609	27299	27882	28723	27824	27921	29664	31974	35183	*37075*	*38550*	Net Plant ($mill)	*41700*
7.7%	8.5%	6.4%	5.4%	6.0%	6.0%	6.9%	5.7%	5.8%	5.9%	*5.0%*	*5.0%*	Return on Total Cap'l	*5.5%*
14.4%	14.8%	11.5%	9.1%	10.3%	11.1%	15.1%	11.6%	12.0%	12.0%	*9.5%*	*10.5%*	Return on Shr. Equity	*11.0%*
14.7%	15.0%	11.6%	9.2%	10.4%	11.2%	15.2%	11.7%	12.2%	12.1%	*9.5%*	*10.5%*	Return on Com Equity [E]	*11.0%*
7.6%	8.4%	5.2%	3.0%	4.4%	4.8%	7.7%	3.9%	4.9%	5.2%	*2.5%*	*4.0%*	Retained to Com Eq	*4.0%*
49%	45%	56%	68%	58%	58%	50%	68%	61%	58%	*75%*	*65%*	All Div'ds to Net Prof	*65%*

CAPITAL STRUCTURE as of 6/30/20
Total Debt $21430 mill. **Due in 5 Yrs** $8321.8 mill.
LT Debt $18278 mill. **LT Interest** $800.0 mill.
Incl. $231.9 mill. of securitization bonds.
(LT interest earned: 1.9x)
Leases, Uncapitalized Annual rentals $62.1 mill.
Pension Assets-12/19 $6271.2 mill.
Oblig $8406.2 mill.
Pfd Stock $254.4 mill. **Pfd Div'd** $18.3 mill.
200,000 shs. 6.25%-7.5%, $100 par; 250,000 shs. 8.75%, 1.4 mill. shs. 5.375%; all cum., without sinking fund.
Common Stock 200,211,323 shs. **as of 7/31/20**
MARKET CAP: $20 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2017	2018	2019
% Change Retail Sales (KWH)	+.2	+4.1	-1.4
Avg. Indust. Use (MWH)	1034	946	1070
Avg. Indust. Revs. per KWH(¢)	5.41	5.16	5.24
Capacity at Peak (Mw)	24279	23121	23887
Peak Load, Summer (Mw)	21671	21587	21598
Annual Load Factor (%)	62	65	64
% Change Customers (yr-end)	+.6	+.6	+.8
Fixed Charge Cov. (%)	169	95	165

ANNUAL RATES

of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '17-'19 to '23-'25
Revenues	-.5%	-2.0%	*-2.5%*
"Cash Flow"	3.0%	- -	*4.0%*
Earnings	-.5%	.5%	*3.0%*
Dividends	2.5%	1.5%	*4.0%*
Book Value	1.0%	-2.5%	*5.0%*

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	2588	2618	3244	2624	11074
2018	2724	2669	3104	2512	11009
2019	2610	2666	3141	2462	10879
2020	2427	2413	*3010*	*2400*	*10250*
2021	*2600*	*2500*	*2900*	*2300*	*10300*

Calendar	EARNINGS PER SHARE [A] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.46	2.27	2.21	.25	5.19
2018	.73	1.34	3.42	.39	5.88
2019	1.32	1.22	1.82	1.94	6.30
2020	.59	1.79	*1.95*	*.67*	*5.00*
2021	*1.15*	*1.50*	*2.60*	*.70*	*5.95*

Calendar	QUARTERLY DIVIDENDS PAID [B] ■ † Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2016	.85	.85	.85	.87	3.42
2017	.87	.87	.87	.89	3.50
2018	.89	.89	.89	.91	3.58
2019	.91	.91	.91	.93	3.66
2020	.93	.93	.93		

BUSINESS: Entergy Corporation supplies electricity to 2.9 million customers through subsidiaries in Arkansas, Louisiana, Mississippi, Texas, and New Orleans (regulated separately from Louisiana). Distributes gas to 202,000 customers in Louisiana. Has a nonutility subsidiary that owns four nuclear units (two no longer operating). Electric revenue breakdown: residential, 38%; commercial, 26%; industrial, 27%; other, 9%. Generating sources: gas, 40%; nuclear, 28%; coal, 6%; purchased, 26%. Fuel costs: 30% of revenues. '19 reported depreciation rate: 2.8%. Has 13,600 employees. Chairman & CEO: Leo P. Denault. Incorporated: Delaware. Address: 639 Loyola Avenue, P.O. Box 61000, New Orleans, Louisiana 70161. Telephone: 504-576-4000. Internet: www.entergy.com.

Entergy continues to exit most of its nonregulated power-generating activities. Nonregulated nuclear units have not fared well for the past several years because of unfavorable conditions in the power markets, so the company has gradually been shutting and selling these facilities. Earlier this year, Entergy shut Indian Point Unit 2 in New York, and will close Unit 3 in 2021. In 2022, the company will shut the Palisades plant in Michigan. We are *including* the results of this business in our earnings presentation, even though Entergy excludes this from its share-net targets of $5.45-$5.75 in 2020 and $5.80-$6.10 in 2021. Entergy estimates that this business will lose $0.55 a share this year, so our 2020 profit estimate is $5.00 a share. Note that the company has cut operating and maintenance expenses by $100 million to offset the effects of the weak economy on commercial and industrial kilowatt-hour sales.

Entergy faces a regulatory risk. Its System Energy subsidiary, which has ownership and leasehold interests in the Grand Gulf nuclear plant, sells power to Entergy's utilities. System Energy is facing challenges by state regulatory commissions to its allowed return on equity, which is set by the Federal Energy Regulatory Commission. Our estimates and projections are based on no change to the allowed ROE, although Entergy has already taken a reserve for a possible refund. When this matter will be resolved is unknown.

We expect a dividend increase at the board meeting in the fourth quarter. We think the directors will hike the quarterly payout two cents a share (2.2%), the same as in recent years. This is less than half the norm for utilities, but we expect growth to accelerate beginning in 2021.

Entergy's service area was hit by a hurricane in late August. As we went to press, the amount of the damage was still being tallied. It is likely that the company will defer most of the costs for future recovery.

Entergy stock's yield is about average for a utility. The equity offers solid total return potential for the next 18 months, but unspectacular prospects for the 3- to 5-year period.

Paul E. Debbas, CFA *September 11, 2020*

(A) Diluted EPS. Excl. nonrec. losses: '05, 21¢; '12, $1.26; '13, $1.14; '14, 56¢; '15, $6.99; '16, $10.14; '17, $2.91; '18, $1.25. Next earnings report due late Oct. **(B)** Div'ds historically paid in early Mar., June, Sept., & Dec. ■ Div'd reinvestment plan avail. † Shareholder investment plan avail. **(C)** Incl. def'd charges. In '19: $29.67/sh. **(D)** In millions. **(E)** Rate base: Net original cost. Allowed ROE (blended): 9.95%; earned on avg. com. eq., '19: 13.0%. Regulatory Climate: Average.

Company's Financial Strength	B++
Stock's Price Stability	90
Price Growth Persistence	25
Earnings Predictability	60

EVERGY, INC. NYSE-EVRG

RECENT PRICE **53.22** | P/E RATIO **18.4** (Trailing: 19.4 Median: NMF) | RELATIVE P/E RATIO **0.86** | DIV'D YLD **4.0%** | **VALUE LINE**

TIMELINESS 3 New 9/11/20
SAFETY 2 New 9/14/18
TECHNICAL 5 New 9/11/20
BETA 1.00 (1.00 = Market)

18-Month Target Price Range

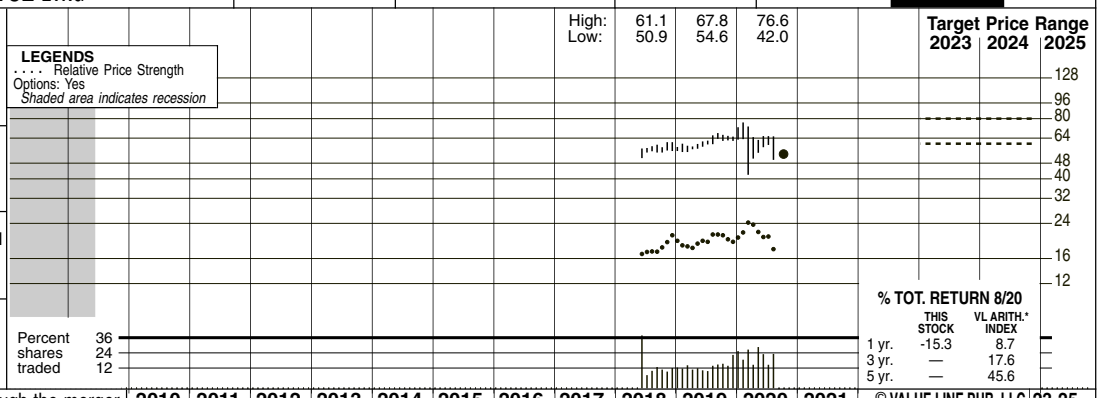
Low-High	Midpoint (% to Mid)
$39-$95	$67 (25%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	80	(+50%)	*14%*
Low	60	(+15%)	*7%*

Institutional Decisions

	4Q2019	1Q2020	2Q2020
to Buy	263	232	216
to Sell	278	302	312
Hld's(000)	191230	185949	184926



Evergy, Inc. was formed through the merger of Great Plains Energy and Westar Energy in June of 2018. Great Plains Energy holders received .5981 of a share of Evergy for each of their shares, and Westar Energy holders received one share of Evergy for each of their shares. The merger was completed on June 4, 2018. Shares of Evergy began trading on the New York Stock Exchange one day later.

CAPITAL STRUCTURE as of 6/30/20
Total Debt $10415 mill. **Due in 5 Yrs** $3294.4 mill.
LT Debt $9281.2 mill. **LT Interest** $378.3 mill.
Incl. $47.9 mill. capitalized leases.
(LT interest earned: 3.1x)

Leases, Uncapitalized Annual rentals $20.5 mill.

Pension Assets-12/19 $1732.8 mill. **Oblig** $2718.2 mill.
Pfd Stock None

Common Stock 226,827,540 shs.
as of 7/31/20
MARKET CAP: $12 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2017	2018	2019
% Change Retail Sales (KWH)	NA	NA	NA
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	7.11	7.25
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	NA	NA	NA
Fixed Charge Cov. (%)	NA	322	305

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd 2019 to '23-'25
Revenues	--	--	*1.5%*
"Cash Flow"	--	--	*4.5%*
Earnings	--	--	*4.5%*
Dividends	--	--	*5.5%*
Book Value	--	--	*2.0%*

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	--	--	--	--	--
2018	600.2	893.4	1582.5	1199.8	4275.9
2019	1216.9	1221.7	1577.6	1131.6	5147.8
2020	1117	1185	***1548***	***1100***	***4950***
2021	***1200***	***1200***	***1550***	***1100***	***5050***

EARNINGS PER SHARE A

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	--	--	--	--	--
2018	.42	.56	1.32	.07	2.50
2019	.39	.57	1.56	.28	2.79
2020	.31	.59	***1.55***	***.30***	***2.75***
2021	***.45***	***.65***	***1.65***	***.35***	***3.10***

QUARTERLY DIVIDENDS PAID B ■

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2016	--	--	--	--	--
2017	--	--	--	--	--
2018	.40	.40	.46	.475	1.74
2019	.475	.475	.475	.505	1.93
2020	.505	.505			

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	© VALUE LINE PUB. LLC	23-25
	--	--	--	--	--	--	--	--	16.75	22.71	***21.80***	***22.25***	Revenues per sh	***24.50***
	--	--	--	--	--	--	--	--	4.89	7.18	***7.05***	***7.65***	"Cash Flow" per sh	***9.00***
	--	--	--	--	--	--	--	--	2.50	2.79	***2.75***	***3.10***	Earnings per sh A	***3.50***
	--	--	--	--	--	--	--	--	1.74	1.93	***2.05***	***2.17***	Div'd Decl'd per sh B ■	***2.55***
	--	--	--	--	--	--	--	--	4.19	5.34	***7.00***	***7.60***	Cap'l Spending per sh	***6.50***
	--	--	--	--	--	--	--	--	39.28	37.82	***38.45***	***39.40***	Book Value per sh C	***42.25***
	--	--	--	--	--	--	--	--	255.33	226.64	***227.00***	***227.00***	Common Shs Outst'g D	***227.00***
	--	--	--	--	--	--	--	--	22.7	21.8	*Bold figures are*		Avg Ann'l P/E Ratio	***19.5***
	--	--	--	--	--	--	--	--	1.23	1.17	*Value Line*		Relative P/E Ratio	***1.10***
	--	--	--	--	--	--	--	--	3.1%	3.2%	*estimates*		Avg Ann'l Div'd Yield	***3.7%***
	--	--	--	--	--	--	--	--	4275.9	5147.8	***4950***	***5050***	Revenues ($mill)	***5550***
	--	--	--	--	--	--	--	--	535.8	669.9	***640***	***685***	Net Profit ($mill)	***775***
	--	--	--	--	--	--	--	--	9.8%	12.6%	***13.0%***	***13.0%***	Income Tax Rate	***13.0%***
	--	--	--	--	--	--	--	--	2.5%	2.5%	***2.0%***	***2.0%***	AFUDC % to Net Profit	***2.0%***
	--	--	--	--	--	--	--	--	40.0%	50.6%	***51.5%***	***52.5%***	Long-Term Debt Ratio	***53.5%***
	--	--	--	--	--	--	--	--	60.0%	49.4%	***48.5%***	***47.5%***	Common Equity Ratio	***46.5%***
	--	--	--	--	--	--	--	--	16716	17337	***17950***	***18750***	Total Capital ($mill)	***20500***
	--	--	--	--	--	--	--	--	18952	19346	***19950***	***20650***	Net Plant ($mill)	***22700***
	--	--	--	--	--	--	--	--	4.0%	4.8%	***4.5%***	***5.0%***	Return on Total Cap'l	***5.0%***
	--	--	--	--	--	--	--	--	5.3%	7.8%	***7.0%***	***8.0%***	Return on Shr. Equity	***8.5%***
	--	--	--	--	--	--	--	--	5.3%	7.8%	***7.0%***	***8.0%***	Return on Com Equity E	***8.5%***
	--	--	--	--	--	--	--	--	.6%	2.4%	***2.0%***	***2.5%***	Retained to Com Eq	***2.5%***
	--	--	--	--	--	--	--	--	89%	69%	***73%***	***68%***	All Div'ds to Net Prof	***71%***

BUSINESS: Evergy, Inc. was formed through the merger of Great Plains Energy and Westar Energy in June of 2018. Through its subsidiaries (now doing business under the Evergy name), provides electric service to 1.6 million customers in Kansas and Missouri, including the greater Kansas City area. Electric revenue breakdown: residential, 37%; commercial, 35%; industrial, 12%; wholesale, 7%; other, 9%. Generating sources: coal, 54%; nuclear, 17%; purchased, 29%. Fuel costs: 25% of revenues. '19 reported deprec. rate: 3%. Has 4,600 employees. Chairman: Mark A. Ruelle. President & Chief Executive Officer: Terry Bassham. Incorporated: Missouri. Address: 1200 Main Street, Kansas City, Missouri 64105. Tel.: 816-556-2200. Internet: www.evergyinc.com.

Evergy has announced the result of its strategic review. This arose from the stake (equivalent to 11.3 million shares) Elliott Management, an activist investor group, took in January. Elliott pushed Evergy to explore options such as a sale or merger of the company, or an increase in capital spending aimed at adding renewable generation. Evergy chose the latter option. The company increased its five-year capital budget by $1.4 billion, to $8.9 billion. This will boost annual rate-base growth to 5%-6% from 3%-4% previously, which is lower than that of most utilities.

Wall Street was disappointed by the news. It's not that increased capital spending, and much-greater rate-base growth, is bad. The problem is that the market was hoping for a takeover. The stock price has declined 15% since August 3rd, the day before news broke about the company's decision. This is unrelated to the upcoming retirement of Evergy's chief executive officer, Terry Bassham.

The regulatory commissions in Missouri and Kansas have opened investigations into Evergy's plan. The regulators want to ensure this won't lead to unnecessarily higher rates or a lower quality of service. Whether this will affect the plan remains to be seen.

We raised our 2020 and 2021 share-earnings estimates by $0.10 and $0.15, respectively. June-quarter profits topped our estimate by $0.10 a share, due in part to favorable weather patterns. Our revised estimate of $2.75 a share is within Evergy's targeted range of $2.66-$2.96 a share (on a GAAP basis). Our estimate, and this guidance, includes adviser fees and a charge for an early retirement program, which together are expected to amount to $0.24 a share. Without these costs in 2021, profits should top the $3.00-a-share mark.

We expect a dividend hike in the fourth quarter. We look for a boost of $0.03 a share (5.9%) in the quarterly payout, and project healthy dividend growth over the 3- to 5-year period.

The stock's dividend yield is about average for a utility. Total return potential is more attractive for the 18-month span than for the 2023-2025 period. Note that the equity has a Timeliness rank now that its trading history is long enough.

Paul E. Debbas, CFA *September 11, 2020*

(A) Diluted EPS. '19 earnings don't sum to full-year total due to rounding. Next earnings report due early Nov. **(B)** Dividends paid in mid-March, June, September, and December. ■ Dividend reinvestment plan available. **(C)** Incl. intangibles. In '19: $4077.1 mill., $17.99/sh. **(D)** In millions. **(E)** Rate base: Original cost depreciated. Rate allowed on common equity in Missouri in '18: none specified; in Kansas in '18: 9.3%. Earned on average common equity, '19: 7.2%. Regulatory Climate: Average.

Company's Financial Strength	B++
Stock's Price Stability	60
Price Growth Persistence	NMF
Earnings Predictability	NMF

IDACORP, INC. NYSE-IDA

RECENT PRICE **88.40** | P/E RATIO **18.6** (Trailing: 19.0 Median: 16.0) | RELATIVE P/E RATIO **0.85** | DIV'D YLD **3.2%** | **VALUE LINE**

TIMELINESS 2 Raised 10/23/20
SAFETY 2 Raised 8/2/13
TECHNICAL 3 Raised 4/24/20
BETA .80 (1.00 = Market)

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$68-$144	$106 (20%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	120	(+35%)	*11%*
Low	90	(Nil)	*4%*

Institutional Decisions

	4Q2019	1Q2020	2Q2020
to Buy	172	167	154
to Sell	157	174	166
Hld's(000)	39667	39043	39111

% TOT. RETURN 9/20

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-27.6	0.8
3 yr.	-2.3	7.9
5 yr.	40.3	47.8

2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	© VALUE LINE PUB. LLC	23-25
20.00	20.15	21.23	19.51	20.47	21.92	20.97	20.55	21.55	24.81	25.51	25.23	25.04	26.76	27.19	26.70	*25.25*	*26.25*	Revenues per sh	*29.25*
4.12	3.87	4.58	4.11	4.27	5.07	5.35	5.84	5.93	6.29	6.58	6.70	6.86	7.50	7.85	8.07	*8.15*	*8.40*	"Cash Flow" per sh	*9.75*
1.90	1.75	2.35	1.86	2.18	2.64	2.95	3.36	3.37	3.64	3.85	3.87	3.94	4.21	4.49	4.61	*4.65*	*4.80*	Earnings per sh [A]	*5.50*
1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.37	1.57	1.76	1.92	2.08	2.24	2.40	2.56	*2.72*	*2.89*	Div'd Decl'd per sh [B] ■ †	*3.50*
4.73	4.53	5.16	6.39	5.19	5.26	6.85	6.76	4.78	4.68	5.45	5.84	5.89	5.66	5.51	5.53	*6.80*	*6.95*	Cap'l Spending per sh	*7.00*
23.88	24.04	25.77	26.79	27.76	29.17	31.01	33.19	35.07	36.84	38.85	40.88	42.74	44.65	47.01	48.88	*50.70*	*52.50*	Book Value per sh [C]	*58.50*
42.22	42.66	43.63	45.06	46.92	47.90	49.41	49.95	50.16	50.23	50.27	50.34	50.40	50.42	50.42	50.42	*50.45*	*50.45*	Common Shs Outst'g [D]	*50.45*
15.5	16.7	15.1	18.2	13.9	10.2	11.8	11.5	12.4	13.4	14.7	16.2	19.1	20.6	20.5	22.3	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*18.5*
.82	.89	.82	.97	.84	.68	.75	.72	.79	.75	.77	.82	1.00	1.04	1.11	1.19			Relative P/E Ratio	*1.05*
4.1%	4.1%	3.4%	3.5%	4.0%	4.5%	3.4%	3.1%	3.3%	3.2%	3.1%	3.1%	2.8%	2.6%	2.6%	2.5%			Avg Ann'l Div'd Yield	*3.4%*
1036.0	1026.8	1080.7	1246.2	1282.5	1270.3	1262.0	1349.5	1370.8	1346.4	*1275*	*1325*	Revenues ($mill)	*1475*
142.5	166.9	168.9	182.4	193.5	194.7	198.3	212.4	226.8	232.9	*235*	*240*	Net Profit ($mill)	*285*
--	--	13.4%	28.3%	8.0%	19.0%	15.5%	18.6%	7.1%	9.5%	*12.0%*	*12.0%*	Income Tax Rate	*10.0%*
19.1%	23.3%	20.3%	12.3%	13.6%	16.3%	16.3%	13.9%	15.2%	16.2%	*17.0%*	*17.0%*	AFUDC % to Net Profit	*15.0%*
49.3%	45.6%	45.5%	46.6%	45.3%	45.6%	44.8%	43.7%	43.6%	41.3%	*44.5%*	*44.5%*	Long-Term Debt Ratio	*45.0%*
50.7%	54.4%	54.5%	53.4%	54.7%	54.4%	55.2%	56.3%	56.4%	58.7%	*55.5%*	*55.5%*	Common Equity Ratio	*55.0%*
3020.4	3045.2	3225.4	3465.9	3567.6	3783.3	3898.5	3997.5	4205.1	4201.3	*4605*	*4770*	Total Capital ($mill)	*5350*
3161.4	3406.6	3536.0	3665.0	3833.5	3992.4	4172.0	4283.9	4395.7	4531.5	*4695*	*4865*	Net Plant ($mill)	*5325*
6.0%	6.8%	6.5%	6.4%	6.6%	6.2%	6.1%	6.3%	6.4%	6.5%	*6.0%*	*6.0%*	Return on Total Cap'l	*6.0%*
9.3%	10.1%	9.6%	9.9%	9.9%	9.5%	9.2%	9.4%	9.6%	9.4%	*9.0%*	*9.0%*	Return on Shr. Equity	*9.5%*
9.3%	10.1%	9.6%	9.9%	9.9%	9.5%	9.2%	9.4%	9.6%	9.4%	*9.0%*	*9.0%*	Return on Com Equity [E]	*9.5%*
5.5%	6.5%	5.7%	5.6%	5.4%	4.8%	4.3%	4.4%	4.4%	4.2%	*4.0%*	*3.5%*	Retained to Com Eq	*3.5%*
41%	36%	41%	43%	46%	50%	53%	53%	54%	56%	*59%*	*60%*	All Div'ds to Net Prof	*62%*

CAPITAL STRUCTURE as of 6/30/20
Total Debt $2175.5 mill. **Due in 5 Yrs** $299.8 mill.
LT Debt $2000.5 mill. **LT Interest** $83.4 mill.
(LT interest earned: 3.7x)

Pension Assets-12/19 $763.1 mill.
Oblig $1134.8 mill.

Pfd Stock None

Common Stock 50,461,132 shs.
as of 7/24/20

MARKET CAP: $4.5 billion (Mid Cap)

ELECTRIC OPERATING STATISTICS

	2017	2018	2019
% Change Retail Sales (KWH)	+2.6	+.1	-.3
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	5.83	5.64	5.32
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	3422	3392	3242
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+2.0	+2.3	+2.5
Fixed Charge Cov. (%)	329	309	307

ANNUAL RATES

of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '17-'19 to '23-'25
Revenues	2.5%	2.5%	*1.5%*
"Cash Flow"	5.5%	4.5%	*4.0%*
Earnings	7.0%	4.0%	*3.5%*
Dividends	7.0%	9.0%	*6.5%*
Book Value	5.5%	5.0%	*4.0%*

QUARTERLY REVENUES($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	302.6	333.0	408.3	305.6	1349.5
2018	310.1	340.0	408.8	311.9	1370.8
2019	350.3	316.9	386.3	292.9	1346.4
2020	291.0	318.8	*385*	*280.2*	*1275*
2021	*305*	*330*	*400*	*290*	*1325*

EARNINGS PER SHARE [A]

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.66	.99	1.80	.76	4.21
2018	.72	1.23	2.02	.52	4.49
2019	.84	1.05	1.78	.93	4.61
2020	.74	1.19	*1.95*	*.77*	*4.65*
2021	*.85*	*1.15*	*2.00*	*.80*	*4.80*

QUARTERLY DIVIDENDS PAID [B] ■ †

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2016	.51	.51	.51	.55	2.08
2017	.55	.55	.55	.59	2.24
2018	.59	.59	.59	.63	2.40
2019	.63	.63	.63	.67	2.56
2020	.67	.67	.67	.71	

BUSINESS: IDACORP, Inc. is a holding company for Idaho Power Company, a regulated electric utility that serves 580,000 customers throughout a 24,000-square-mile area in southern Idaho and eastern Oregon (population: 1.2 million). Most of the company's revenues are derived from the Idaho portion of its service area. Revenue breakdown: residential, 39%; commercial, 22%; industrial, 13%; irrigation, 10%; other, 16%. Generating sources: hydro, 45%; coal, 16%; gas, 11%; purchased, 28%. Fuel costs: 33% of revenues. '19 reported depreciation rate: 2.9%. Has 2,000 employees. Chairman: Richard J. Dahl. President & CEO: Lisa Grow. Incorporated: Idaho. Address: 1221 W. Idaho St., Boise, Idaho 83702. Telephone: 208-388-2200. Internet: www.idacorpinc.com.

We have raised our 2020 earnings estimate for IDACORP by $0.10 a share, to $4.65. The company's utility subsidiary, Idaho Power, benefited from hot and dry weather in the second and third quarters. (Dry weather boosts kilowatt-hour sales because this increases irrigation load.) The utility has controlled operating and maintenance expenses well, and has received permission from the Idaho regulators to defer for future recovery costs associated with the coronavirus. Third-period results were scheduled to be reported shortly after this report came out in print. Our revised estimate is at the upper end of IDACORP's guidance of $4.45-$4.65 a share.

The utility's service area has held up well, all things considered. Idaho has not been untouched by the national recession, but continues to benefit as people relocate from other states. The customer count rose 2.6% for the 12-month period that ended on June 30th. Also, Idaho Power has a lot of foodservice customers, which are recession-resistant. Furthermore, the service territory might well attract data centers, given the utility's low rates and the state government's abolition of a sales tax on data centers.

We estimate modest earnings improvement in 2021. The economy of Idaho Power's service area ought to be better. On the other hand, we assume normal weather patterns. Our estimate of $4.80 a share would produce a 3% growth rate.

The board of directors raised the dividend, effective with the payment in the current quarter. The quarterly increase was $0.04 a share (6.0%). IDACORP's goal is annual dividend growth of at least 5% and a payout ratio in a range of 60%-70%. This figure is now near the low end of this range.

Idaho Power may use accumulated deferred investment tax credits to stabilize its income, if needed. The utility may use up to $25 million annually if its return on equity falls below 9.4%. This will not be necessary in 2020.

The price of this timely stock has declined 17% in 2020. This is in line with many utility issues. The dividend yield is slightly below the utility average. Total return potential is more attractive for the 18-month span than the 2023-2025 period.

Paul E. Debbas, CFA *October 23, 2020*

(A) Diluted EPS. Excl. nonrecurring gain (loss): '05, (24¢); '06, 17¢. '17 & '19 earnings don't sum due to rounding. Next earnings report due late Oct. **(B)** Dividends historically paid in late Feb., May, Aug., and Nov. ■ Dividend reinvestment plan available. † Shareholder investment plan available. **(C)** Incl. intangibles. In '19: $26.31/sh. **(D)** In millions. **(E)** Rate base: Net original cost. Rate allowed on common equity in '12: 10% (imputed); earned on avg. com. eq., '19: 9.6%. Regulatory Climate: Above Average.

Company's Financial Strength	A
Stock's Price Stability	100
Price Growth Persistence	95
Earnings Predictability	95

NORTHWESTERN NDQ-NWE

RECENT PRICE **52.69** | P/E RATIO **15.3** (Trailing: 17.4 Median: 17.0) | RELATIVE P/E RATIO **0.70** | DIV'D YLD **4.7%** | **VALUE LINE**

TIMELINESS 4 Lowered 10/23/20
SAFETY 2 Raised 7/27/18
TECHNICAL 3 Raised 10/23/20
BETA .90 (1.00 = Market)

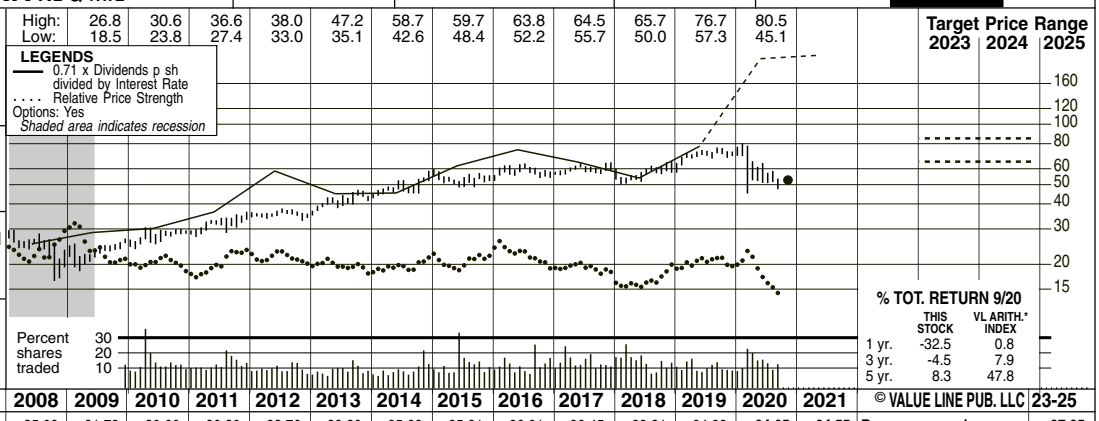
18-Month Target Price Range
Low-High **Midpoint (% to Mid)**
$43-$99 $71 (35%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	85	(+60%)	*16%*
Low	65	(+25%)	*10%*

Institutional Decisions

	4Q2019	1Q2020	2Q2020
to Buy	127	127	143
to Sell	133	144	137
Hld's(000)	49394	48390	48127



2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	© VALUE LINE PUB. LLC	23-25
29.18	32.57	31.49	30.79	35.09	31.72	30.66	30.80	28.76	29.80	25.68	25.21	26.01	26.45	23.81	24.93	*24.05*	*24.55*	Revenues per sh	*27.25*
3.20	4.00	3.62	3.70	4.40	4.62	4.76	5.42	5.18	5.45	5.39	5.92	6.74	6.76	6.96	7.07	*7.05*	*7.35*	"Cash Flow" per sh	*8.50*
d14.32	1.71	1.31	1.44	1.77	2.02	2.14	2.53	2.26	2.46	2.99	2.90	3.39	3.34	3.40	3.53	*3.30*	*3.50*	Earnings per sh A	*4.00*
- -	1.00	1.24	1.28	1.32	1.34	1.36	1.44	1.48	1.52	1.60	1.92	2.00	2.10	2.20	2.30	*2.40*	*2.50*	Div'd Decl'd per sh B ■ †	*2.80*
2.25	2.26	2.81	3.00	3.47	5.26	6.30	5.20	5.89	5.95	5.76	5.89	5.96	5.60	5.64	6.26	*7.90*	*7.85*	Cap'l Spending per sh	*6.00*
19.92	20.60	20.65	21.12	21.25	21.86	22.64	23.68	25.09	26.60	31.50	33.22	34.68	36.44	38.60	40.42	*41.80*	*43.00*	Book Value per sh C	*46.00*
35.60	35.79	35.97	38.97	35.93	36.00	36.23	36.28	37.22	38.75	46.91	48.17	48.33	49.37	50.32	50.45	*50.50*	*51.50*	Common Shs Outst'g D	*53.00*
- -	17.1	26.0	21.7	13.9	11.5	12.9	12.6	15.7	16.9	16.2	18.4	17.2	17.8	16.8	19.9	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*19.0*
- -	.91	1.40	1.15	.84	.77	.82	.79	1.00	.95	.85	.93	.90	.90	.91	1.06			Relative P/E Ratio	*1.05*
- -	3.4%	3.6%	4.1%	5.4%	5.7%	4.9%	4.5%	4.2%	3.7%	3.3%	3.6%	3.4%	3.5%	3.9%	3.3%			Avg Ann'l Div'd Yield	*3.7%*
1110.7	1117.3	1070.3	1154.5	1204.9	1214.3	1257.2	1305.7	1198.1	1257.9	*1215*	*1265*	Revenues ($mill)	*1450*
77.4	92.6	83.7	94.0	120.7	138.4	164.2	162.7	171.1	179.3	*170*	*180*	Net Profit ($mill)	*215*
25.0%	9.8%	9.6%	13.2%	- -	13.7%	- -	7.6%	7.6%	1.6%	*NMF*	*Nil*	Income Tax Rate	*10.0%*
14.2%	3.3%	9.4%	8.7%	8.9%	9.8%	4.3%	5.2%	3.4%	4.6%	*6.0%*	*6.0%*	AFUDC % to Net Profit	*4.0%*
57.2%	52.2%	53.8%	53.5%	53.4%	53.1%	52.0%	50.2%	52.2%	52.5%	*49.0%*	*51.0%*	Long-Term Debt Ratio	*49.5%*
42.8%	47.8%	46.2%	46.5%	46.6%	46.9%	48.0%	49.8%	47.8%	47.5%	*51.0%*	*49.0%*	Common Equity Ratio	*50.5%*
1916.4	1797.1	2020.7	2215.7	3168.0	3408.6	3493.9	3614.5	4064.6	4289.8	*4120*	*4520*	Total Capital ($mill)	*4850*
2118.0	2213.3	2435.6	2690.1	3758.0	4059.5	4214.9	4358.3	4521.3	4700.9	*4910*	*5115*	Net Plant ($mill)	*5500*
5.9%	7.0%	5.5%	5.5%	4.8%	5.2%	5.9%	5.6%	5.2%	5.2%	*5.0%*	*5.0%*	Return on Total Cap'l	*5.5%*
9.4%	10.8%	9.0%	9.1%	8.2%	8.6%	9.8%	9.0%	8.8%	8.8%	*8.0%*	*8.0%*	Return on Shr. Equity	*8.5%*
9.4%	10.8%	9.0%	9.1%	8.2%	8.6%	9.8%	9.0%	8.8%	8.8%	*8.0%*	*8.0%*	Return on Com Equity E	*8.5%*
3.5%	4.7%	3.2%	3.5%	3.8%	3.0%	4.1%	3.4%	3.2%	3.1%	*2.0%*	*2.5%*	Retained to Com Eq	*2.5%*
63%	56%	65%	61%	54%	65%	58%	62%	64%	64%	*72%*	*71%*	All Div'ds to Net Prof	*69%*

CAPITAL STRUCTURE as of 6/30/20
Total Debt $2276.5 mill. **Due in 5 Yrs** $548.1 mill.
LT Debt $2173.9 mill. **LT Interest** $79.7 mill.
Incl. $16.2 mill. capitalized leases.
(LT interest earned: 2.7x)

Pension Assets-12/19 $609.0 mill.
Oblig $735.6 mill.

Pfd Stock None

Common Stock 50,576,049 shs.
as of 7/24/20

MARKET CAP: $2.7 billion (Mid Cap)

ELECTRIC OPERATING STATISTICS

	2017	2018	2019
% Change Retail Sales (KWH)	+3.8	+2.9	+4.6
Avg. Indust. Use (MWH)	30987	34573	37808
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Winter (Mw)	2133	2173	2237
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+1.3	+1.2	+1.2
Fixed Charge Cov. (%)	275	275	284

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '17-'19 to '23-'25
Revenues	-2.5%	-2.0%	*1.5%*
"Cash Flow"	5.0%	5.5%	*3.5%*
Earnings	7.0%	6.0%	*2.5%*
Dividends	5.5%	7.5%	*4.0%*
Book Value	6.0%	7.0%	*3.0%*

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	367.3	283.9	309.9	344.6	1305.7
2018	341.5	261.8	279.9	314.9	1198.1
2019	384.2	270.7	274.8	328.2	1257.9
2020	335.3	269.4	*290*	*320.3*	*1215*
2021	*355*	*285*	*295*	*330*	*1265*

EARNINGS PER SHARE A

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	1.17	.44	.75	.98	3.34
2018	1.18	.61	.56	1.06	3.40
2019	1.44	.49	.42	1.18	3.53
2020	1.00	.43	*.66*	*1.21*	*3.30*
2021	*1.15*	*.50*	*.65*	*1.20*	*3.50*

QUARTERLY DIVIDENDS PAID B ■ †

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2016	.50	.50	.50	.50	2.00
2017	.525	.525	.525	.525	2.10
2018	.55	.55	.55	.55	2.20
2019	.575	.575	.575	.575	2.30
2020	.60	.60	.60		

BUSINESS: NorthWestern Corporation (doing business as NorthWestern Energy) supplies electricity & gas in the Upper Midwest and Northwest, serving 443,000 electric customers in Montana and South Dakota and 292,000 gas customers in Montana (85% of gross margin), South Dakota (14%), and Nebraska (1%). Electric revenue breakdown: residential, 39%; commercial, 47%; industrial, 4%; other, 10%. Generating sources: hydro, 34%; coal, 28%; wind, 5%; other, 3%; purchased, 30%. Fuel costs: 25% of revenues. '19 reported deprec. rate: 2.8%. Has 1,500 employees. Chairman: Stephen P. Adik. President & CEO: Robert C. Rowe. Inc.: Delaware. Address: 3010 West 69th Street, Sioux Falls, South Dakota 57108. Tel.: 605-978-2900. Internet: www.northwesternenergy.com.

NorthWestern's earnings are likely to decline in 2020. First-quarter profits fell well below the previous year's tally (and management's expectation) due to some unusual costs and mild winter weather patterns. The effects of the recession on commercial and industrial kilowatt-hour sales and coronavirus-related expenses are other factors; in fact, the company reduced its guidance by $0.15 a share upon reporting first-quarter results in late April. Our 2020 earnings estimate remains at the low end of NorthWestern's targeted range of $3.30-$3.45.

We expect an earnings recovery in 2021. The economy should be in much-better shape, especially since NorthWestern's service area wasn't hit as hard as many other areas by the coronavirus. Also, we assume normal weather conditions in the first quarter. We are sticking with our estimate of $3.50 a share. This would produce a profit increase of 6%.

The utility is adding generating capacity. NorthWestern is spending $80 million to build a 60-megawatt gas-fired facility in South Dakota. This is expected to be completed by the end of 2021. The company has agreed to pay 50 cents to a utility for a 92.5 megawatt stake (12.5%) in a coal-fired unit in Montana. NorthWestern would sell 45 mw of power back to that utility and use the remaining capacity to serve its customers. Finally, by early 2021 the company expects to select the winning project(s) for 280 mw of peaking and intermediate capacity in Montana that would be available in early 2023. NorthWestern does not want to have too much exposure to the vagaries of the purchased-power markets. Currently, the utility has more exposure to purchased power than other companies in the region.

NorthWestern stock is untimely, but has an attractive dividend yield. This is about one percentage point above the utility average. The equity has underperformed most utility issues in 2020, having fallen 26%, as the market was disappointed with the cut in earnings guidance. Total return potential is attractive for the next 18 months and respectable for the 3- to 5-year period. We project a continuation of steady dividend growth through mid-decade.

Paul E. Debbas, CFA *October 23, 2020*

(A) Diluted EPS. Excl. gain (loss) on disc. ops.: '05, (6¢); '06, 1¢; nonrec. gains: '12, 39¢ net; '15, 27¢; '18, 52¢; '19, 45¢. '18 EPS don't sum due to rounding. Next earnings report due mid-Feb. **(B)** Div'ds historically paid in late Mar., June, Sept. & Dec. ■ Div'd reinvestment plan avail. **(C)** Incl. def'd charges. In '19: $16.68/sh. **(D)** In mill. **(E)** Rate base: Net orig. cost. Rate allowed on com. eq. in MT in '19 (elec.): 9.65%; in '17 (gas): 9.55%; in SD in '15: none spec.; in NE in '07: 10.4%; earned on avg. com. eq., '19: 9.0%. Reg. Climate: Below Avg.

Company's Financial Strength	B++
Stock's Price Stability	90
Price Growth Persistence	70
Earnings Predictability	85

PINNACLE WEST NYSE-PNW

RECENT PRICE **81.56** | P/E RATIO **16.9** (Trailing: 15.3 Median: 16.0) | RELATIVE P/E RATIO **0.77** | DIV'D YLD **4.1%** | **VALUE LINE**

TIMELINESS 1 Raised 10/23/20
SAFETY 1 Raised 5/3/13
TECHNICAL 5 Lowered 10/23/20
BETA .85 (1.00 = Market)

18-Month Target Price Range

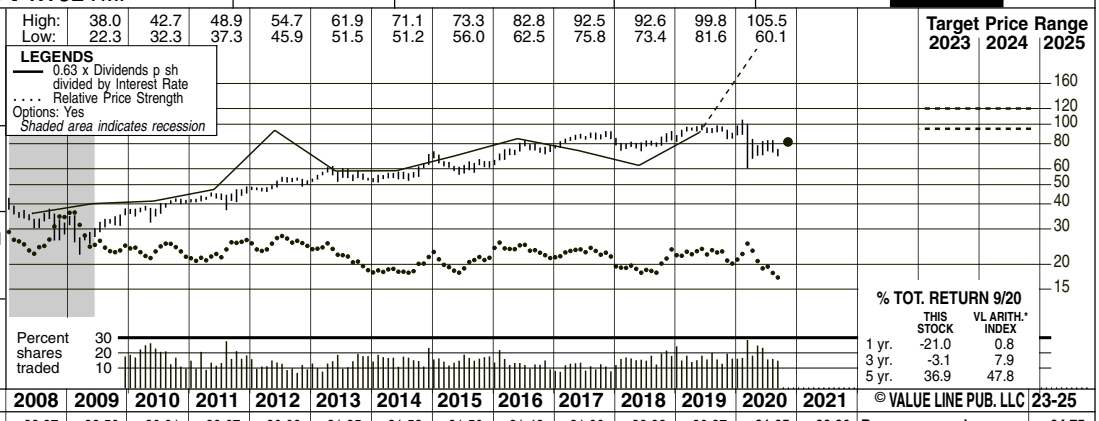
Low-High	Midpoint (% to Mid)
$61-$135	$98 (20%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	120	(+45%)	*13%*
Low	95	(+15%)	*8%*

Institutional Decisions

	4Q2019	1Q2020	2Q2020
to Buy	221	207	229
to Sell	251	277	245
Hld's(000)	98387	95773	95025



2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	© VALUE LINE PUB. LLC	23-25
31.59	30.16	34.03	35.07	33.37	32.50	30.01	29.67	30.09	31.35	31.58	31.50	31.42	31.90	32.93	30.87	*31.05*	*32.30*	Revenues per sh	*34.75*
6.93	5.76	9.70	9.29	8.13	8.08	6.85	7.52	7.92	8.15	8.09	9.09	9.39	9.79	11.41	11.13	*11.50*	*11.85*	"Cash Flow" per sh	*13.50*
2.58	2.24	3.17	2.96	2.12	2.26	3.08	2.99	3.50	3.66	3.58	3.92	3.95	4.43	4.54	4.77	*4.95*	*5.15*	Earnings per sh [A]	*6.00*
1.83	1.93	2.03	2.10	2.10	2.10	2.10	2.10	2.67	2.23	2.33	2.44	2.56	2.70	2.87	3.04	*3.22*	*3.41*	Div'd Decl'd per sh [B] ■	*4.00*
5.86	6.39	7.59	9.37	9.46	7.64	7.03	8.26	8.24	9.36	8.38	9.84	11.64	12.80	10.73	10.76	*12.20*	*15.20*	Cap'l Spending per sh	*11.75*
32.14	34.57	34.48	35.15	34.16	32.69	33.86	34.98	36.20	38.07	39.50	41.30	43.15	44.80	46.59	48.30	*49.95*	*51.55*	Book Value per sh [C]	*58.25*
91.79	99.08	99.96	100.49	100.89	101.43	108.77	109.25	109.74	110.18	110.57	110.98	111.34	111.75	112.10	112.44	*112.65*	*113.00*	Common Shs Outst'g [D]	*118.00*
15.8	19.2	13.7	14.9	16.1	13.7	12.6	14.6	14.3	15.3	15.9	16.0	18.7	19.3	17.8	19.4	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*18.0*
.83	1.02	.74	.79	.97	.91	.80	.92	.91	.86	.84	.81	.98	.97	.96	1.03			Relative P/E Ratio	*1.00*
4.5%	4.5%	4.7%	4.8%	6.2%	6.8%	5.4%	4.8%	5.3%	4.0%	4.1%	3.9%	3.5%	3.2%	3.5%	3.3%			Avg Ann'l Div'd Yield	*3.7%*
3263.6	3241.4	3301.8	3454.6	3491.6	3495.4	3498.7	3565.3	3691.2	3471.2	*3500*	*3650*	Revenues ($mill)	*4100*
330.4	328.2	387.4	406.1	397.6	437.3	442.0	497.8	511.0	538.3	*560*	*580*	Net Profit ($mill)	*720*
31.9%	34.0%	36.2%	34.4%	34.2%	34.3%	33.9%	32.5%	20.2%	20.2%	*13.0%*	*13.0%*	Income Tax Rate	*13.0%*
11.7%	12.8%	9.7%	10.0%	11.6%	11.8%	14.1%	13.9%	15.2%	9.3%	*8.0%*	*12.0%*	AFUDC % to Net Profit	*7.0%*
45.3%	44.1%	44.6%	40.0%	41.0%	43.0%	45.6%	48.9%	47.0%	47.1%	*53.0%*	*55.5%*	Long-Term Debt Ratio	*55.0%*
54.7%	55.9%	55.4%	60.0%	59.0%	57.0%	54.4%	51.1%	53.0%	52.9%	*47.0%*	*44.5%*	Common Equity Ratio	*45.0%*
6729.1	6840.9	7171.9	6990.9	7398.7	8046.3	8825.4	9796.4	9861.1	10263	*11950*	*13150*	Total Capital ($mill)	*15325*
9578.8	9962.3	10396	10889	11194	11809	12714	13445	14030	14523	*15175*	*16125*	Net Plant ($mill)	*18175*
6.5%	6.4%	6.8%	7.1%	6.4%	6.4%	6.0%	6.1%	6.2%	6.3%	*5.5%*	*5.5%*	Return on Total Cap'l	*6.0%*
9.0%	8.6%	9.8%	9.7%	9.1%	9.5%	9.2%	9.9%	9.8%	9.9%	*10.0%*	*10.0%*	Return on Shr. Equity	*10.5%*
9.0%	8.6%	9.8%	9.7%	9.1%	9.5%	9.2%	9.9%	9.8%	9.9%	*10.0%*	*10.0%*	Return on Com Equity [E]	*10.5%*
3.1%	2.8%	4.1%	4.1%	3.5%	3.9%	3.5%	4.2%	3.9%	3.8%	*3.5%*	*3.5%*	Retained to Com Eq	*3.5%*
66%	68%	58%	58%	62%	59%	62%	58%	60%	61%	*65%*	*66%*	All Div'ds to Net Prof	*65%*

CAPITAL STRUCTURE as of 6/30/20
Total Debt $6214.1 mill. **Due in 5 Yrs** $1807.0 mill.
LT Debt $5922.2 mill. **LT Interest** $217.1 mill.
Incl. $13.4 mill. Palo Verde sale leaseback lessor notes.
(LT interest earned: 3.4x)
Leases, Uncapitalized Annual rentals $14.7 mill.
Pension Assets-12/19 $3318.4 mill.
Oblig $3613.1 mill.
Pfd Stock None

Common Stock 112,556,967 shs.
as of 7/30/20
MARKET CAP: $9.2 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2017	2018	2019
% Change Retail Sales (KWH)	- -	-.3	-.3
Avg. Indust. Use (MWH)	620	662	714
Avg. Indust. Revs. per KWH (¢)	8.34	8.40	7.88
Capacity at Peak (Mw)	8438	8643	8241
Peak Load, Summer (Mw)	7363	7320	7115
Annual Load Factor (%)	46.3	47.0	47.1
% Change Customers (yr-end)	+1.8	+2.0	+2.0
Fixed Charge Cov. (%)	425	318	286

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '17-'19 to '23-'25
Revenues	-.5%	.5%	*1.5%*
"Cash Flow"	2.5%	6.0%	*4.0%*
Earnings	6.5%	5.0%	*4.5%*
Dividends	3.0%	3.5%	*5.5%*
Book Value	3.0%	4.0%	*4.0%*

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	677.7	944.6	1183.3	759.7	3565.3
2018	692.7	974.1	1268.0	756.4	3691.2
2019	740.5	869.5	1190.8	670.4	3471.2
2020	661.9	929.6	*1200*	*708.5*	*3500*
2021	*750*	*900*	*1250*	*750*	*3650*

EARNINGS PER SHARE [A]

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.21	1.49	2.46	.27	4.43
2018	.03	1.48	2.80	.23	4.54
2019	.16	1.28	2.77	.57	4.77
2020	.27	1.71	*2.90*	*.07*	*4.95*
2021	*.15*	*1.50*	*3.15*	*.35*	*5.15*

QUARTERLY DIVIDENDS PAID [B] ■

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2016	.625	.625	.625	.655	2.53
2017	.655	.655	.655	.695	2.66
2018	.695	.695	.695	.7375	2.82
2019	.7375	.7375	.7375	.7825	3.00
2020	.7825	.7825	.7825		

BUSINESS: Pinnacle West Capital Corporation is a holding company for Arizona Public Service Company (APS), which supplies electricity to 1.3 million customers in most of Arizona, except about half of the Phoenix metro area, the Tucson metro area, and Mohave County in northwestern Arizona. Discontinued SunCor real estate subsidiary in '10. Electric revenue breakdown: residential, 51%; commercial, 38%; industrial, 5%; other, 6%. Generating sources: nuclear, 28%; gas & other, 28%; coal, 24%; purchased, 20%. Fuel costs: 30% of revenues. '19 reported deprec. rate: 2.8%. Has 6,200 employees. Chairman, President & CEO: Jeffrey B. Guldner. Inc.: AZ. Address: 400 North Fifth St., P.O. Box 53999, Phoenix, AZ 85072-3999. Tel.: 602-250-1000. Internet: www.pinnaclewest.com.

Pinnacle West's utility subsidiary has a rate case pending. Arizona Public Service is seeking an increase of $183.6 million (5.6%), based on a return on equity of 10.15% and a common-equity ratio of 54.7%. The staff of the Arizona Corporation Commission proposed a hike of $68.6 million (2.1%), based on an ROE of 9.4% and the same common-equity ratio. APS is seeking recovery of an environmental upgrade to a coal-fired plant, new gas-fired generating units, and a regulatory mechanism to recover increases in certain costs, such as property taxes. An order is expected in mid-2021. Note that APS filed the case in October of 2019, but the proceedings have been delayed. Originally, a decision might have come as early as December of 2020.

We raised our 2020 and 2021 earnings estimates. June-quarter profits soared above the typical level due to favorable weather patterns. Despite this, Pinnacle West did not change its earnings guidance of $4.75-$4.95 a share because the seasonally strong third quarter was not yet complete and there was added uncertainty related to the coronavirus. The hotter-than-normal weather continued into July and August. All told, we boosted our 2020 estimate by $0.20 a share, to $4.95. It's possible that the company will pull some planned expenses from 2021 into 2020 thanks to the headroom resulting from favorable weather conditions. This prompted us to raise our 2021 profit estimate by $0.10 a share, to $5.15.

We think the board of directors raised the dividend shortly after our report went to press. October is the usual timing of dividend hikes for Pinnacle West. We estimate an increase of $0.18 a share (5.8%) in the annual disbursement. The company's goal for yearly dividend growth is 6%.

This stock has our top ranks for Timeliness and Safety. Finances are strong, and the company has a Financial Strength rating of A+. The dividend yield is somewhat above the utility average. This makes the stock suitable for conservative, income-oriented investors. Total return prospects are attractive for the 18-month span, but not as appealing for the 3- to 5-year period.

Paul E. Debbas, CFA *October 23, 2020*

Company's Financial Strength	A+
Stock's Price Stability	90
Price Growth Persistence	80
Earnings Predictability	100

(A) Diluted EPS. Excl. nonrec. gain (loss): '09, ($1.45); '17, 8¢; gains (losses) from discont. ops.: '05, (36¢); '06, 10¢; '08, 28¢; '09, (13¢); '10, 18¢; '11, 10¢; '12, (5¢). '19 EPS don't sum due to rounding. Next earnings report due late Oct. **(B)** Div'ds historically paid in early Mar., June, Sept., & Dec. There were 5 declarations in '12. ■ Div'd reinvestment plan avail. **(C)** Incl. deferred charges. In '19: $14.00/sh. **(D)** In mill. **(E)** Rate base: Fair value. Rate allowed on com. eq. in '17: 10.0%; earned on avg. com. eq., '19: 10.1%. Regulatory Climate: Average.

PORTLAND GENERAL NYSE-POR

RECENT PRICE **38.09** | P/E RATIO **27.4** (Trailing: 14.5 Median: 17.0) | RELATIVE P/E RATIO **1.25** | DIV'D YLD **4.3%** | **VALUE LINE**

TIMELINESS 2 Raised 10/23/20
SAFETY 3 Lowered 10/23/20
TECHNICAL 4 Lowered 10/23/20
BETA .85 (1.00 = Market)

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$33-$77	$55 (45%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	65	(+70%)	*17%*
Low	45	(+20%)	*9%*

Institutional Decisions

	4Q2019	1Q2020	2Q2020
to Buy	160	132	157
to Sell	159	197	158
Hld's(000)	86645	86455	90761

	2021	2022	2023	2024	2025
High:	21.4	22.7	26.0	28.1	33.3	40.3	41.0	45.2	50.1	50.4	58.4	63.1
Low:	13.5	17.5	21.3	24.3	27.4	29.0	33.0	35.3	42.4	39.0	44.0	32.0

LEGENDS
0.73 x Dividends p sh divided by Interest Rate
Relative Price Strength
Options: Yes
Shaded area indicates recession

Target Price Range 2023 2024 2025: 128, 96, 80, 64, 48, 40, 32, 24, 16, 12

Percent shares traded: 21, 14, 7

% TOT. RETURN 9/20

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-34.7	0.8
3 yr.	-14.2	7.9
5 yr.	12.4	47.8

2004	2005F	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	© VALUE LINE PUB. LLC	23-25
- -	23.14	24.32	27.87	27.89	23.99	23.67	24.06	23.89	23.18	24.29	21.38	21.62	22.54	22.30	23.75	*24.00*	*24.55*	Revenues per sh	*27.25*
- -	4.75	4.64	5.21	4.71	4.07	4.82	4.96	5.15	4.93	6.08	5.37	5.78	6.16	6.65	6.97	*6.15*	*7.35*	"Cash Flow" per sh	*8.75*
- -	1.02	1.14	2.33	1.39	1.31	1.66	1.95	1.87	1.77	2.18	2.04	2.16	2.29	2.37	2.39	*1.45*	*2.50*	Earnings per sh A	*3.00*
- -	- -	.68	.93	.97	1.01	1.04	1.06	1.08	1.10	1.12	1.18	1.26	1.34	1.43	1.52	*1.59*	*1.68*	Div'd Decl'd per sh B ■ †	*2.00*
- -	4.08	5.94	7.28	6.12	9.25	5.97	3.98	4.01	8.40	12.87	6.73	6.57	5.77	6.67	6.78	*8.50*	*6.45*	Cap'l Spending per sh	*6.00*
- -	19.15	19.58	21.05	21.64	20.50	21.14	22.07	22.87	23.30	24.43	25.43	26.35	27.11	28.07	28.99	*28.80*	*29.65*	Book Value per sh C	*32.25*
- -	62.50	62.50	62.53	62.58	75.21	75.32	75.36	75.56	78.09	78.23	88.79	88.95	89.11	89.27	89.39	*89.55*	*89.65*	Common Shs Outst'g D	*90.00*
- -	- -	23.4	11.9	16.3	14.4	12.0	12.4	14.0	16.9	15.3	17.7	19.1	20.0	18.4	22.3	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*18.0*
- -	- -	1.26	.63	.98	.96	.76	.78	.89	.95	.81	.89	1.00	1.01	.99	1.19			Relative P/E Ratio	*1.00*
- -	- -	2.5%	3.3%	4.3%	5.4%	5.2%	4.4%	4.1%	3.7%	3.3%	3.3%	3.1%	2.9%	3.3%	2.8%			Avg Ann'l Div'd Yield	*3.7%*
						1783.0	1813.0	1805.0	1810.0	1900.0	1898.0	1923.0	2009.0	1991.0	2123.0	*2150*	*2200*	Revenues ($mill)	*2450*
						125.0	147.0	141.0	137.0	175.0	172.0	193.0	204.0	212.0	214.0	*130*	*225*	Net Profit ($mill)	*260*
						30.5%	28.3%	31.4%	23.2%	26.0%	20.7%	20.6%	25.3%	7.4%	11.2%	*11.0%*	*11.0%*	Income Tax Rate	*11.0%*
						17.6%	5.4%	7.1%	14.6%	33.7%	19.8%	16.6%	8.8%	8.0%	7.0%	*15.0%*	*7.0%*	AFUDC % to Net Profit	*6.0%*
						53.0%	49.6%	47.1%	51.3%	52.7%	47.8%	48.4%	50.1%	46.5%	51.3%	*53.5%*	*55.0%*	Long-Term Debt Ratio	*54.5%*
						47.0%	50.4%	52.9%	48.7%	47.3%	52.2%	51.6%	49.9%	53.5%	48.7%	*46.5%*	*45.0%*	Common Equity Ratio	*45.5%*
						3390.0	3298.0	3264.0	3735.0	4037.0	4329.0	4544.0	4842.0	4684.0	5323.0	*5535*	*5910*	Total Capital ($mill)	*6375*
						4133.0	4285.0	4392.0	4880.0	5679.0	6012.0	6434.0	6741.0	6887.0	7161.0	*7500*	*7645*	Net Plant ($mill)	*7775*
						5.4%	6.2%	5.9%	5.1%	5.8%	5.4%	5.6%	5.5%	5.8%	5.1%	*3.5%*	*5.0%*	Return on Total Cap'l	*5.5%*
						7.9%	8.8%	8.2%	7.5%	9.2%	7.6%	8.2%	8.4%	8.5%	8.3%	*5.0%*	*8.5%*	Return on Shr. Equity	*9.0%*
						7.9%	8.8%	8.2%	7.5%	9.2%	7.6%	8.2%	8.4%	8.5%	8.3%	*5.0%*	*8.5%*	Return on Com Equity E	*9.0%*
						3.0%	4.1%	3.5%	2.9%	4.6%	3.3%	3.5%	3.6%	3.5%	3.1%	*NMF*	*3.0%*	Retained to Com Eq	*3.0%*
						62%	54%	57%	61%	50%	56%	57%	58%	59%	63%	*NMF*	*66%*	All Div'ds to Net Prof	*69%*

CAPITAL STRUCTURE as of 6/30/20
Total Debt $2966 mill. **Due in 5 Yrs** $466 mill.
LT Debt $2676 mill. **LT Interest** $130 mill.
Incl. $135 mill. capitalized leases.
(LT interest earned: 3.1x)
Leases, Uncapitalized Annual rentals $8 mill.
Pension Assets-12/19 $695 mill.
Oblig $905 mill.
Pfd Stock None

Common Stock 89,508,545 shs.
as of 7/27/20

MARKET CAP: $3.4 billion (Mid Cap)

ELECTRIC OPERATING STATISTICS

	2017	2018	2019
% Change Retail Sales (KWH)	+3.9	-2.5	+1.2
Avg. Indust. Use (MWH)	16041	16207	17827
Avg. Indust. Revs. per KWH (¢)	4.94	4.79	4.75
Capacity at Peak (Mw)	4743	4859	NA
Peak Load, Summer (Mw)	3976	3816	3765
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+1.3	+1.1	+1.1
Fixed Charge Cov. (%)	298	266	265

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '17-'19 to '23-'25
Revenues	-1.5%	-1.0%	*3.0%*
"Cash Flow"	3.5%	4.0%	*5.0%*
Earnings	3.5%	4.0%	*4.0%*
Dividends	4.0%	5.5%	*6.0%*
Book Value	3.0%	3.5%	*2.5%*

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	530	449	515	515	2009
2018	493	449	525	524	1991
2019	573	460	542	548	2123
2020	573	469	*553*	*555*	*2150*
2021	*580*	*475*	*570*	*575*	*2200*

EARNINGS PER SHARE A

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.82	.36	.44	.67	2.29
2018	.72	.51	.59	.55	2.37
2019	.82	.28	.61	.68	2.39
2020	.91	.43	*d.60*	*.71*	*1.45*
2021	*.85*	*.45*	*.45*	*.75*	*2.50*

QUARTERLY DIVIDENDS PAID B ■ †

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2016	.30	.30	.32	.32	1.24
2017	.32	.32	.34	.34	1.32
2018	.34	.34	.3625	.3625	1.41
2019	.3625	.3625	.385	.385	1.50
2020	.385	.385	.385	.4075	

BUSINESS: Portland General Electric Company (PGE) provides electricity to 901,000 customers in 52 cities in a 4,000-square-mile area of Oregon, including Portland and Salem. The company is in the process of decommissioning the Trojan nuclear plant, which it closed in 1993. Electric revenue breakdown: residential, 47%; commercial, 30%; industrial, 9%; other, 14%. Generating sources: gas, 36%; coal, 19%; wind, 8%; hydro, 6%; purchased, 31%. Fuel costs: 29% of revenues. '19 reported depreciation rate: 3.6%. Has 2,900 employees. Chairman: Jack E. Davis. President and Chief Executive Officer: Maria M. Pope. Incorporated: Oregon. Address: 121 S.W. Salmon Street, Portland, Oregon 97204. Telephone: 503-464-8000. Internet: www.portlandgeneral.com.

Portland General Electric experienced a large energy-trading loss in the third quarter. The announcement happened on August 24th after the stock market closed. This amounted to $128 million before taxes. The utility will not seek recovery of the loss from ratepayers. PGE put two employees on administrative leave, and a special committee of the board of directors is looking into this matter. As a result of this loss, PGE now estimates it will earn $1.40-$1.60 a share this year. (Management had cut its guidance from $2.20-$2.50 to $1.30-$1.60 when a loss of up to $155 million appeared possible.) Operating and maintenance expenses (including incentive compensation) have been reduced by $20 million to offset a small portion of the trading loss. Our 2020 earnings estimate is $1.45 a share.

The stock lost roughly 10% of its value after the disclosure of the trading loss. Wall Street is concerned not just about the loss, but about the indication of deficiencies in PGE's risk management. The price has not recovered much since then, and is down 32% year to date.

We expect earnings to return to a normal level in 2021. We assume no trading losses. In addition, the economy should be better, and PGE will likely record lower bad-debt expense, as this increased when disconnections were suspended and late fees waived in 2020.

In July, the board raised the annual dividend $0.09 a share (5.8%), effective in October. PGE expects the trading loss will not affect the company's dividend policy. The company's goals for the disbursement are a growth rate of 5%-7% yearly and a payout ratio of 60%-70%.

Two key capital projects are on schedule and on budget. PGE has a $160 million investment for a one-third stake in a joint venture in a wind project that should be completed by yearend. The utility is spending $200 million on an integrated operations center that is scheduled for completion by the end of 2021. PGE is using debt financing for these projects.

This timely stock has a dividend yield that is slightly above the utility mean. Total return potential is attractive for the 18-month span and decent for the 3- to 5-year period.

Paul E. Debbas, CFA *October 23, 2020*

(A) Diluted EPS. Excl. nonrecurring losses: '13, 42¢; '17, 19¢. Next earnings report due late Oct. **(B)** Div'ds paid mid-Jan., Apr., July, and Oct. ■ Div'd reinvestment plan avail. † Shareholder investment plan avail. **(C)** Incl. deferred charges. In '19: $483 mill., $5.40/sh. **(D)** In mill. **(E)** Rate base: Net orig. cost. Rate allowed on com. eq. in '19: 9.5%; earned on avg. com. eq., '19: 8.4%. Regulatory Climate: Average. **(F)** '05 per-share data are pro forma, based on shs. outstanding when stock began trading in '06.

Company's Financial Strength	B++
Stock's Price Stability	95
Price Growth Persistence	90
Earnings Predictability	90

XCEL ENERGY NDQ-XEL

RECENT PRICE **73.62** | P/E RATIO **25.9** (Trailing: 27.6 Median: 16.0) | RELATIVE P/E RATIO **1.18** | DIV'D YLD **2.4%** | **VALUE LINE**

TIMELINESS 3 Lowered 9/20/19
SAFETY 1 Raised 5/1/15
TECHNICAL 3 Lowered 10/23/20
BETA .80 (1.00 = Market)

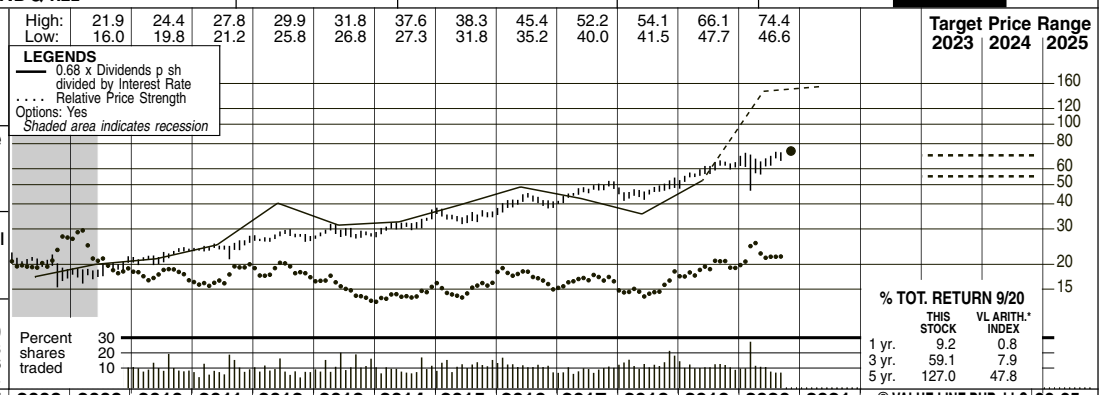
18-Month Target Price Range
Low-High **Midpoint (% to Mid)**
$53-$107 $80 (10%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	70	(-5%)	*2%*
Low	55	(-25%)	*-4%*

Institutional Decisions

	4Q2019	1Q2020	2Q2020
to Buy	395	365	343
to Sell	320	378	366
Hld's(000)	409339	407479	412864



2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	© VALUE LINE PUB. LLC	23-25
20.84	23.86	24.16	23.40	24.69	21.08	21.38	21.90	20.76	21.92	23.11	21.72	21.90	22.46	22.44	21.98	*20.80*	*22.15*	Revenues per sh	*24.75*
3.27	3.28	3.61	3.45	3.50	3.48	3.51	3.79	4.00	4.10	4.28	4.56	5.04	5.47	5.92	6.25	*6.55*	*7.00*	"Cash Flow" per sh	*8.50*
1.27	1.20	1.35	1.35	1.46	1.49	1.56	1.72	1.85	1.91	2.03	2.10	2.21	2.30	2.47	2.64	*2.75*	*2.90*	Earnings per sh A	*3.50*
.81	.85	.88	.91	.94	.97	1.00	1.03	1.07	1.11	1.20	1.28	1.36	1.44	1.52	1.62	*1.72*	*1.82*	Div'd Decl'd per sh B ■	*2.15*
3.19	3.25	4.00	4.89	4.66	3.91	4.60	4.53	5.27	6.82	6.33	7.26	6.42	6.54	7.70	8.05	*6.70*	*7.05*	Cap'l Spending per sh	*8.50*
12.99	13.37	14.28	14.70	15.35	15.92	16.76	17.44	18.19	19.21	20.20	20.89	21.73	22.56	23.78	25.24	*27.20*	*28.50*	Book Value per sh C	*32.50*
400.46	403.39	407.30	428.78	453.79	457.51	482.33	486.49	487.96	497.97	505.73	507.54	507.22	507.76	514.04	524.54	*539.00*	*542.00*	Common Shs Outst'g D	*548.00*
13.6	15.4	14.8	16.7	13.7	12.7	14.1	14.2	14.8	15.0	15.4	16.5	18.5	20.2	18.9	22.3	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*18.0*
.72	.82	.80	.89	.82	.85	.90	.89	.94	.84	.81	.83	.97	1.02	1.02	1.19			Relative P/E Ratio	*1.00*
4.7%	4.6%	4.4%	4.0%	4.7%	5.1%	4.5%	4.2%	3.9%	3.9%	3.8%	3.7%	3.3%	3.1%	3.3%	2.7%			Avg Ann'l Div'd Yield	*3.4%*
10311	10655	10128	10915	11686	11024	11107	11404	11537	11529	*11200*	*12000*	Revenues ($mill)	*13500*
727.0	841.4	905.2	948.2	1021.3	1063.6	1123.4	1171.0	1261.0	1372.0	*1460*	*1570*	Net Profit ($mill)	*1885*
37.5%	35.8%	33.2%	33.8%	33.9%	35.8%	34.1%	30.7%	12.6%	8.5%	*Nil*	*Nil*	Income Tax Rate	*Nil*
11.7%	9.4%	10.8%	13.4%	12.5%	7.7%	7.8%	9.4%	12.4%	8.3%	*10.0%*	*9.0%*	AFUDC % to Net Profit	*8.0%*
53.1%	51.1%	53.3%	53.3%	53.0%	54.1%	56.3%	55.9%	56.4%	56.8%	*57.0%*	*57.0%*	Long-Term Debt Ratio	*57.0%*
46.3%	48.9%	46.7%	46.7%	47.0%	45.9%	43.7%	44.1%	43.6%	43.2%	*43.0%*	*43.0%*	Common Equity Ratio	*43.0%*
17452	17331	19018	20477	21714	23092	25216	25975	28025	30646	*34175*	*35925*	Total Capital ($mill)	*41200*
20663	22353	23809	26122	28757	31206	32842	34329	36944	39483	*41025*	*42600*	Net Plant ($mill)	*48400*
5.7%	6.5%	6.1%	6.0%	6.0%	5.8%	5.7%	5.8%	5.7%	5.6%	*5.5%*	*5.5%*	Return on Total Cap'l	*5.5%*
8.9%	9.9%	10.2%	9.9%	10.0%	10.0%	10.2%	10.2%	10.3%	10.4%	*10.0%*	*10.0%*	Return on Shr. Equity	*10.5%*
8.9%	9.9%	10.2%	9.9%	10.0%	10.0%	10.2%	10.2%	10.3%	10.4%	*10.0%*	*10.0%*	Return on Com Equity E	*10.5%*
3.6%	4.3%	4.7%	4.5%	4.5%	4.3%	4.0%	3.9%	4.3%	4.4%	*3.5%*	*4.0%*	Retained to Com Eq	*4.0%*
59%	56%	54%	54%	55%	57%	61%	62%	58%	58%	*63%*	*63%*	All Div'ds to Net Prof	*62%*

CAPITAL STRUCTURE as of 6/30/20
Total Debt $21974 mill. **Due in 5 Yrs** $4635 mill.
LT Debt $19463 mill. **LT Interest** $797 mill.
Incl. $77 mill. capitalized leases.
(LT interest earned: 2.8x)

Leases, Uncapitalized Annual rentals $262 mill.
Pension Assets-12/19 $3184 mill.
Oblig $3701 mill.

Pfd Stock None

Common Stock 525,342,304 shs.
as of 7/28/20
MARKET CAP: $39 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2017	2018	2019
% Change Retail Sales (KWH)	-.7	+3.2	-1.2
Large C & I Use (MWH)	22642	23004	NA
Large C & I Revs. per KWH (¢)	6.36	5.91	5.96
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	19591	20293	20146
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+.9	+1.1	+1.0
Fixed Charge Cov. (%)	330	281	272

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '17-'19 to '23-'25
Revenues	-.5%	.5%	*2.0%*
"Cash Flow"	5.5%	7.5%	*6.5%*
Earnings	5.5%	5.0%	*6.0%*
Dividends	5.0%	6.5%	*6.0%*
Book Value	4.5%	4.5%	*5.5%*

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	2946	2645	3017	2796	11404
2018	2951	2658	3048	2880	11537
2019	3141	2577	3013	2798	11529
2020	2811	2586	*3003*	*2800*	*11200*
2021	*3100*	*2700*	*3150*	*3050*	*12000*

EARNINGS PER SHARE A

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.47	.45	.97	.42	2.30
2018	.57	.52	.96	.42	2.47
2019	.61	.46	1.01	.56	2.64
2020	.56	.54	*1.10*	*.55*	*2.75*
2021	*.65*	*.55*	*1.15*	*.55*	*2.90*

QUARTERLY DIVIDENDS PAID B ■

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2016	.32	.34	.34	.34	1.34
2017	.34	.36	.36	.36	1.42
2018	.36	.38	.38	.38	1.50
2019	.38	.405	.405	.405	1.60
2020	.405	.43	.43	.43	

BUSINESS: Xcel Energy Inc. is the parent of Northern States Power, which supplies electricity to Minnesota, Wisconsin, North Dakota, South Dakota & Michigan & gas to Minnesota, Wisconsin, North Dakota & Michigan; P.S. of Colorado, which supplies electricity & gas to Colorado; & Southwestern Public Service, which supplies electricity to Texas & New Mexico. Customers: 3.7 mill. elec., 2.1 mill. gas. Elec. rev. breakdown: res'l, 31%; sm. comm'l & ind'l, 36%; lg. comm'l & ind'l, 18%; other, 15%. Generating sources not avail. Fuel costs: 39% of revs. '19 reported depr. rate: 3.3%. Has 11,300 empls. Chairman & CEO: Ben Fowke. President & COO: Bob Frenzel. Inc.: MN. Address: 414 Nicollet Mall, Minneapolis, MN 55401. Tel.: 612-330-5500. Internet: www.xcelenergy.com.

We expect a continuation of Xcel Energy's steady earnings growth in 2020 and 2021. The company will benefit from electric rate increases its Southwestern Public Service subsidiary received in Texas and New Mexico. In addition, Public Service of Colorado is awaiting a ruling (probably in the current quarter) on a settlement that would see it book a gas tariff hike of $76.9 million, based on a return on equity of 9.2% and a common-equity ratio of 55.6%, as of November of 2020. Although the company's utilities have been affected by the recession, Xcel has been able to offset weakness in kilowatt-hour sales thanks to expense reductions and regulatory mechanisms in certain jurisdictions that decouple revenues and volume. Our 2020 earnings estimate of $2.75 a share is within the company's targeted range of $2.73-$2.83. We estimate 5% growth, to $2.90 a share, in 2021. Xcel was scheduled to report earnings in late October, shortly after our report came out, and was expected to release a new five-year capital spending and financing plan and provide earnings guidance for 2021.

The company isn't as active as usual in the regulatory arena. P.S. of Colorado is seeking regulatory mechanisms to recover wildfire mitigation and grid modification plans, and expects a decision in the second quarter of 2021. Northern States Power should soon ask the Minnesota commission to either raise rates or continue regulatory mechanisms that provide some rate relief annually. We think the latter is the more likely outcome. **Finances are solid.** Xcel consistently earns a healthy ROE and has a good fixed-charge coverage. The company's Financial Strength rating is A+.

Xcel Energy stock has been one of the top performers in the electric utility industry in 2020. The quotation has risen 16% in what has been a bad year for most utility equities. Wall Street likes the company's consistent profit growth, and some investors find Xcel's position in renewable energy appealing. However, the stock is now expensively priced. The dividend yield is well below the industry mean, and the recent price is above our 2023-2025 Target Price Range.

Paul E. Debbas, CFA *October 23, 2020*

(A) Diluted EPS. Excl. nonrecurring gain (losses): '10, 5¢; '15, (16¢); '17, (5¢); gains (losses) on discontinued ops.: '04, (30¢); '05, 3¢; '06, 1¢; '09, (1¢); '10, 1¢. '17 EPS don't sum due to rounding. Next earnings report due late Oct. **(B)** Div'ds historically paid mid-Jan., Apr., July, and Oct. ■ Div'd reinvestment plan available. **(C)** Incl. intangibles. In '19: $5.60/sh. **(D)** In mill. **(E)** Rate base: Varies. Rate allowed on com. eq. (blended): 9.6%; earned on avg. com. eq., '19: 10.8%. Regulatory Climate: Average.

Company's Financial Strength	A+
Stock's Price Stability	95
Price Growth Persistence	80
Earnings Predictability	100

OGE ENERGY CORP. NYSE-OGE

RECENT PRICE **31.86** | P/E RATIO **15.0** (Trailing: 14.2 / Median: 17.0) | RELATIVE P/E RATIO **0.70** | DIV'D YLD **5.1%** | **VALUE LINE**

TIMELINESS 3 Lowered 3/6/20
SAFETY 2 Lowered 12/18/15
TECHNICAL 3 Lowered 5/1/20
BETA 1.05 (1.00 = Market)

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$23-$61	$42 (30%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	55	(+75%)	*18%*
Low	40	(+25%)	*10%*

Institutional Decisions

	4Q2019	1Q2020	2Q2020
to Buy	205	176	203
to Sell	185	221	182
Hld's(000)	133273	128589	129209

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
High:	18.9	23.1	28.6	30.1	40.0	39.3	36.5	34.2	37.4	41.8	45.8	46.4						
Low:	9.9	16.9	20.3	25.1	27.7	32.8	24.2	23.4	32.6	29.6	38.0	23.0						

LEGENDS
0.76 x Dividends p sh divided by Interest Rate
Relative Price Strength
2-for-1 split 7/13
Options: Yes
Shaded area indicates recession

Target Price Range 2023 | 2024 | 2025

% TOT. RETURN 8/20

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-23.1	8.7
3 yr.	-0.5	17.6
5 yr.	36.7	45.6

27.37	32.83	21.96	20.68	21.77	14.79	19.04	19.96	18.58	14.45	12.30	11.00	11.31	11.32	11.37	11.15	***10.50***	***11.50***
1.87	1.94	2.23	2.39	2.40	2.69	3.01	3.31	3.69	3.46	3.40	3.23	3.31	3.34	3.74	4.02	***4.05***	***4.35***
.89	.92	1.23	1.32	1.25	1.33	1.50	1.73	1.79	1.94	1.98	1.69	1.69	1.92	2.12	2.24	***2.10***	***2.25***
.67	.67	.67	.68	.70	.71	.73	.76	.80	.85	.95	1.05	1.16	1.27	1.40	1.51	***1.60***	***1.68***
1.51	1.65	2.67	3.04	4.01	4.37	4.36	6.48	5.85	4.99	2.86	2.74	3.31	4.13	2.87	3.18	***2.90***	***3.65***
7.14	7.59	8.79	9.16	10.14	10.52	11.73	13.06	14.00	15.30	16.27	16.66	17.24	19.28	20.06	20.69	***18.25***	***18.85***
180.00	181.20	182.40	183.60	187.00	194.00	195.20	196.20	197.60	198.50	199.40	199.70	199.70	199.70	199.70	200.10	***200.00***	***200.00***
14.1	14.9	13.7	13.8	12.4	10.8	13.3	14.4	15.2	17.7	18.3	17.7	17.7	18.3	16.5	19.0	***Bold figures are Value Line estimates***	
.74	.79	.74	.73	.75	.72	.85	.90	.97	.99	.96	.89	.93	.92	.89	1.02		
5.3%	4.9%	4.0%	3.8%	4.5%	5.0%	3.7%	3.1%	2.9%	2.5%	2.6%	3.5%	3.9%	3.6%	4.0%	3.5%		
3716.9	3915.9	3671.2	2867.7	2453.1	2196.9	2259.2	2261.1	2270.3	2231.6	***2100***	***2300***
295.3	342.9	355.0	387.6	395.8	337.6	338.2	384.3	425.5	449.6	***420***	***450***
34.9%	30.7%	26.0%	24.9%	30.4%	29.2%	30.5%	32.5%	14.5%	7.4%	***13.0%***	***13.0%***
5.7%	9.0%	2.7%	2.6%	1.7%	3.7%	6.4%	15.0%	8.3%	1.6%	***1.0%***	***2.0%***
50.8%	51.6%	50.7%	43.1%	45.9%	44.3%	41.1%	41.7%	42.0%	43.6%	***49.0%***	***48.0%***
49.2%	48.4%	49.3%	56.9%	54.1%	55.7%	58.9%	58.3%	58.0%	56.4%	***51.0%***	***52.0%***
4652.5	5300.4	5615.8	5337.2	5999.7	5971.6	5849.6	6600.7	6902.0	7334.7	***7150***	***7265***
6464.4	7474.0	8344.8	6672.8	6979.9	7322.4	7696.2	8339.9	8643.8	9044.6	***9235***	***9545***
7.8%	7.8%	7.7%	8.6%	7.8%	6.9%	7.0%	7.0%	7.3%	7.1%	***7.0%***	***7.0%***
12.9%	13.4%	12.8%	12.8%	12.2%	10.2%	9.8%	10.0%	10.6%	10.9%	***11.5%***	***12.0%***
12.9%	13.4%	12.8%	12.8%	12.2%	10.2%	9.8%	10.0%	10.6%	10.9%	***11.5%***	***12.0%***
6.7%	7.7%	7.2%	7.3%	6.5%	4.0%	3.3%	3.5%	3.8%	3.6%	***3.0%***	***3.0%***
48%	43%	44%	43%	47%	61%	67%	64%	64%	67%	***76%***	***74%***

© VALUE LINE PUB. LLC	23-25
Revenues per sh	*13.75*
"Cash Flow" per sh	*5.00*
Earnings per sh A	*2.50*
Div'd Decl'd per sh B ■	*1.95*
Cap'l Spending per sh	*3.75*
Book Value per sh C	*20.50*
Common Shs Outst'g D	*200.00*
Avg Ann'l P/E Ratio	*19.5*
Relative P/E Ratio	*1.10*
Avg Ann'l Div'd Yield	*4.0%*
Revenues ($mill)	*2750*
Net Profit ($mill)	*505*
Income Tax Rate	*13.0%*
AFUDC % to Net Profit	*2.0%*
Long-Term Debt Ratio	*49.0%*
Common Equity Ratio	*51.0%*
Total Capital ($mill)	*8050*
Net Plant ($mill)	*10325*
Return on Total Cap'l	*7.5%*
Return on Shr. Equity	*12.0%*
Return on Com Equity E	*12.0%*
Retained to Com Eq	*2.5%*
All Div'ds to Net Prof	*78%*

CAPITAL STRUCTURE as of 6/30/20
Total Debt $3568.4 mill. **Due in 5 Yrs** $75.0 mill.
LT Debt $3493.4 mill. **LT Interest** $154.4 mill.
(LT interest earned: 4.2x)

Leases, Uncapitalized Annual rentals $6.2 mill.

Pension Assets-12/19 $530.3 mill.
Oblig $616.9 mill.

Pfd Stock None

Common Stock 200,169,838 shs.

MARKET CAP: $6.4 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2017	2018	2019
% Change Retail Sales (KWH)	-2.2	+6.8	+1.1
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	5.30	4.86	4.69
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	6456	6863	6817
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+1.0	+.9	+1.0
Fixed Charge Cov. (%)	315	292	335

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '17-'19 to '23-'25
Revenues	-5.0%	-5.5%	*3.5%*
"Cash Flow"	4.0%	1.0%	*5.0%*
Earnings	5.0%	2.0%	*3.0%*
Dividends	7.0%	10.0%	*6.0%*
Book Value	7.0%	5.5%	*.5%*

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	456.0	586.4	716.8	501.9	2261.1
2018	492.7	567.0	698.8	511.8	2270.3
2019	490.0	513.7	755.4	472.5	2231.6
2020	431.3	503.5	***715.2***	***450***	***2100***
2021	***500***	***550***	***750***	***500***	***2300***

EARNINGS PER SHARE A

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.18	.52	.92	.30	1.92
2018	.27	.55	1.02	.27	2.12
2019	.24	.50	1.25	.26	2.24
2020	.23	.51	***1.13***	***.23***	***2.10***
2021	***.25***	***.55***	***1.20***	***.25***	***2.25***

QUARTERLY DIVIDENDS PAID B ■

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2016	.275	.275	.275	.3025	1.13
2017	.3025	.3025	.3025	.3325	1.24
2018	.3325	.3325	.3325	.365	1.36
2019	.365	.365	.365	.3875	1.48
2020	.3875	.3875	.3875		

BUSINESS: OGE Energy Corp. is a holding company for Oklahoma Gas and Electric Company (OG&E), which supplies electricity to 858,000 customers in Oklahoma (84% of electric revenues) and western Arkansas (8%); wholesale is (8%). Owns 25.5% of Enable Midstream Partners. Electric revenue breakdown: residential, 40%; commercial, 23%; industrial, 10%; oilfield, 9%; other, 18%. Generating sources: gas, 35%; coal, 15%; wind, 5%; purchased, 45%. Fuel costs: 35% of revenues. '19 reported depreciation rate (utility): 2.7%. Has 2,400 employees. Chairman, President and Chief Executive Officer: Sean Trauschke. Incorporated: Oklahoma. Address: 321 North Harvey, P.O. Box 321, Oklahoma City, Oklahoma 73101-0321. Telephone: 405-553-3000. Internet: www.oge.com.

The price of Enable Midstream Partners stock continues to affect the price of OGE Energy stock. OGE has a 25.5% stake in the midstream natural gas master limited partnership. Enable has been hurt by reduced activity in the gas and oil sector this year, so its units have lost nearly 50% of their value since the start of 2020. The distributions that OGE receives from Enable have been halved. In addition, OGE took a pretax charge of $780 million in the first quarter to write down the value of its stake in Enable. (There will be tax adjustments throughout the remainder of 2020, and the company expects the aftertax nonrecurring charge for the full year to amount to $590 million.) The price of OGE stock has fallen 28% this year, making this one of the worst-performing equities in the electric utility industry.

We cut our 2020 earnings estimate by $0.05 a share, to $2.10. June-quarter profits were a bit below our estimate. Our revised estimate is near the low end of OGE's targeted range of $2.08-$2.18 a share, which is unchanged. Earnings are likely to fall short of the 2019 tally due to a decline in equity income from OGE's stake in Enable. Oklahoma Gas and Electric has held up well despite the coronavirus problem. Oklahoma has a relatively low unemployment rate, and OG&E received permission to defer for future recovery its coronavirus-related costs in Oklahoma and Arkansas. A better economy ought to help earnings rebound in 2021.

OG&E is awaiting a regulatory decision in Oklahoma. The utility is asking the state regulators to approve an $810 million grid modernization plan. The company wants to recover the costs through a rider (surcharge) on customers' bills. A ruling is expected by yearend.

A dividend increase is likely later this month, effective with the October payment. We estimate a boost of $0.09 a share (5,8%) in the annual disbursement, and project similar dividend growth over the 3- to 5-year period.

This stock has an attractive yield. This is more than one percentage point above the utility average. Total return potential is strong for the 18-month period and respectable for the pull to 2023-2025.

Paul E. Debbas, CFA *September 11, 2020*

(A) Diluted EPS. Excl. nonrecurring gain (losses): '04, (3¢); '15, (33¢); '17, $1.18; '19, (8¢); '20, ($2.95); gains on discont. ops.: '05, 25¢; '06, 20¢. '18 & '19 EPS don't sum due to rounding. Next earnings report due early Nov. **(B)** Div'ds historically paid in late Jan., Apr., July, & Oct. ■ Div'd reinvestment plan avail. **(C)** Incl. deferred charges. In '19: $1.53/sh. **(D)** In mill., adj. for split. **(E)** Rate base: Net original cost. Rate allowed on com. eq. in OK in '19: 9.5%; in AR in '18: 9.5%; earned on avg. com. eq., '19: 11.0%. Regulatory Climate: Average.

Company's Financial Strength	A
Stock's Price Stability	80
Price Growth Persistence	40
Earnings Predictability	85

OTTER TAIL CORP. NDQ-OTTR

RECENT PRICE **38.85** | P/E RATIO **17.4** (Trailing: 18.1 Median: 22.0) | RELATIVE P/E RATIO **0.81** | DIV'D YLD **4.0%** | **VALUE LINE**

TIMELINESS 4 Lowered 9/11/20
SAFETY 2 Raised 6/17/16
TECHNICAL 3 Raised 5/8/20
BETA .85 (1.00 = Market)

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$31-$67	$49 (25%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	60	(+55%)	*14%*
Low	45	(+15%)	*8%*

Institutional Decisions

	4Q2019	1Q2020	2Q2020
to Buy	85	78	75
to Sell	69	84	82
Hld's(000)	18484	18228	18869

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	© VALUE LINE PUB. LLC	23-25
High:	25.4	25.4	23.5	25.3	31.9	32.7	33.4	42.6	48.7	51.9	57.7	56.9								
Low:	15.5	18.2	17.5	20.7	25.2	26.5	24.8	25.8	35.7	39.0	45.9	31.0								
	30.45	35.59	37.43	41.50	37.06	29.03	31.08	29.86	23.76	24.63	21.48	20.60	20.42	21.47	23.10	22.90	*20.50*	*22.60*	Revenues per sh	*26.50*
	2.88	3.35	3.39	3.55	2.81	2.76	2.60	2.36	2.71	3.02	3.09	3.14	3.44	3.70	3.96	4.11	*4.05*	*4.35*	"Cash Flow" per sh	*5.25*
	1.50	1.78	1.69	1.78	1.09	.71	.38	.45	1.05	1.37	1.55	1.56	1.60	1.86	2.06	2.17	*2.15*	*2.30*	Earnings per sh [A]	*2.75*
	1.10	1.12	1.15	1.17	1.19	1.19	1.19	1.19	1.19	1.19	1.21	1.23	1.25	1.28	1.34	1.40	*1.48*	*1.56*	Div'd Decl'd per sh [B] ■	*1.80*
	1.72	2.04	2.35	5.43	7.51	4.95	2.38	2.04	3.20	4.53	4.40	4.23	4.10	3.36	2.66	5.16	*9.15*	*3.75*	Cap'l Spending per sh	*3.00*
	14.81	15.80	16.67	17.55	19.14	18.78	17.57	15.83	14.43	14.75	15.39	15.98	17.03	17.62	18.38	19.46	*20.70*	*21.40*	Book Value per sh [C]	*23.75*
	28.98	29.40	29.52	29.85	35.38	35.81	36.00	36.10	36.17	36.27	37.22	37.86	39.35	39.56	39.66	40.16	*41.50*	*41.60*	Common Shs Outst'g [D]	*42.00*
	17.3	15.4	17.3	19.0	30.1	31.2	55.1	47.5	21.7	21.1	18.8	18.2	20.2	22.1	22.2	23.5	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*18.5*
	.91	.82	.93	1.01	1.81	2.08	3.51	2.98	1.38	1.19	.99	.92	1.06	1.11	1.20	1.26			Relative P/E Ratio	*1.05*
	4.2%	4.1%	3.9%	3.5%	3.6%	5.4%	5.7%	5.6%	5.2%	4.1%	4.1%	4.3%	3.9%	3.1%	2.9%	2.7%			Avg Ann'l Div'd Yield	*3.5%*
							1119.1	1077.9	859.2	893.3	799.3	779.8	803.5	849.4	916.4	919.5	*850*	*940*	Revenues ($mill)	*1115*
							13.6	16.4	39.0	50.2	56.9	58.6	62.0	73.9	82.3	86.8	*90.0*	*95.0*	Net Profit ($mill)	*110*
							- -	14.5%	5.2%	21.3%	22.5%	27.0%	24.5%	25.5%	15.0%	16.7%	*18.0%*	*18.0%*	Income Tax Rate	*18.0%*
							.6%	3.8%	1.7%	5.6%	3.9%	3.5%	2.2%	2.3%	4.1%	4.9%	*9.0%*	*4.0%*	AFUDC % to Net Profit	*3.0%*
							40.2%	44.6%	44.0%	42.1%	46.5%	42.4%	43.0%	41.3%	44.7%	46.9%	*42.0%*	*45.0%*	Long-Term Debt Ratio	*47.0%*
							58.4%	54.0%	54.4%	57.9%	53.5%	57.6%	57.0%	58.7%	55.3%	53.1%	*58.0%*	*55.0%*	Common Equity Ratio	*53.0%*
							1083.3	1058.9	959.2	924.4	1071.3	1051.0	1175.4	1187.3	1318.9	1471.1	*1485*	*1625*	Total Capital ($mill)	*1850*
							1108.7	1077.5	1049.5	1167.0	1268.5	1387.8	1477.2	1539.6	1581.1	1753.8	*2055*	*2125*	Net Plant ($mill)	*2275*
							2.7%	3.2%	5.7%	6.8%	6.7%	6.8%	6.5%	7.3%	7.3%	7.0%	*7.0%*	*7.0%*	Return on Total Cap'l	*7.0%*
							2.1%	2.8%	7.3%	9.4%	9.9%	9.7%	9.3%	10.6%	11.3%	11.1%	*10.0%*	*11.0%*	Return on Shr. Equity [E]	*11.5%*
							2.0%	2.7%	7.3%	9.3%	9.9%	9.7%	9.3%	10.6%	11.3%	11.1%	*10.0%*	*11.0%*	Return on Com Equity	*11.5%*
							NMF	NMF	NMF	1.2%	2.2%	2.0%	2.1%	3.3%	4.0%	4.0%	*3.0%*	*3.5%*	Retained to Com Eq	*4.0%*
							NMF	NMF	113%	87%	78%	79%	78%	69%	65%	64%	*69%*	*67%*	All Div'ds to Net Prof	*66%*

% TOT. RETURN 8/20

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-21.2	8.7
3 yr.	1.0	17.6
5 yr.	76.5	45.6

CAPITAL STRUCTURE as of 6/30/20
Total Debt $765.9 mill. **Due in 5 Yrs** $190.3 mill.
LT Debt $724.4 mill. **LT Interest** $33.8 mill.
(LT interest earned: 4.1x)

Leases, Uncapitalized Annual rentals $22.3 mill.
Pension Assets-12/19 $329.8 mill.
Oblig $384.8 mill.

Pfd Stock None

Common Stock 40,872,064 shs.
as of 7/31/20

MARKET CAP: $1.6 billion (Mid Cap)

ELECTRIC OPERATING STATISTICS

	2017	2018	2019
% Change Retail Sales (KWH)	+1.4	+3.4	-.2
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	6.26	5.97	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Winter (Mw)	917	912	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+.5	+.2	+.1
Fixed Charge Cov. (%)	608	409	407

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '17-'19 to '23-'25
Revenues	-4.5%	-.5%	*3.0%*
"Cash Flow"	2.5%	6.0%	*5.0%*
Earnings	5.5%	9.0%	*5.0%*
Dividends	1.5%	2.5%	*5.0%*
Book Value	- -	4.5%	*4.5%*

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	214.1	212.1	216.5	206.7	849.4
2018	241.2	226.3	227.7	221.2	916.4
2019	246.0	229.2	228.6	215.7	919.5
2020	234.7	192.8	*212.5*	*210*	*850*
2021	*250*	*235*	*235*	*220*	*940*

EARNINGS PER SHARE [A]

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.49	.42	.45	.50	1.86
2018	.66	.47	.58	.35	2.06
2019	.66	.39	.62	.51	2.17
2020	.60	.42	*.63*	*.50*	*2.15*
2021	*.68*	*.47*	*.65*	*.50*	*2.30*

QUARTERLY DIVIDENDS PAID [B] ■

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2016	.3125	.3125	.3125	.3125	1.25
2017	.32	.32	.32	.32	1.28
2018	.335	.335	.335	.335	1.34
2019	.35	.35	.35	.35	1.40
2020	.37	.37	.37		

BUSINESS: Otter Tail Corporation is the parent of Otter Tail Power Company, which supplies electricity to 132,000 customers in Minnesota (52% of retail electric revenues), North Dakota (38%), and South Dakota (10%). Electric rev. breakdown: residential, 32%; commercial & farms, 36%; industrial, 30%; other, 2%. Generating sources: coal, 45%; wind & hydro, 8%; other, 1%; purchased, 46%. Fuel costs: 14% of revenues. Also has operations in manufacturing and plastics (38% of '18 income). '19 reported deprec. rate (utility): 2.8%. Has 2,300 employees. Chairman: Nathan I. Partain. President & CEO: Charles S. MacFarlane. Inc.: Minnesota. Address: 215 South Cascade St., P.O. Box 496, Fergus Falls, Minnesota 56538-0496. Tel.: 866-410-8780. Internet: www.ottertail.com.

Otter Tail Corporation raised its earnings guidance for 2020 upon reporting June-quarter results. Profits of $0.42 a share topped the year-ago tally and were above our estimate of $0.35. The Plastics segment is faring better than expected. Market conditions suggest that volume and (possibly) pricing will improve in the second half of 2020. Management now estimates that this operation will generate a profit of $0.50-$0.54 this year, versus $0.51 in 2019 and its previous expectation of just $0.43-$0.47. This is the primary reason why Otter Tail revised its targeted range for 2020 from $2.00-$2.25 a share to $2.10-$2.30 a share. (This is still below the company's original guidance of $2.23-$2.37, issued in February.) Another reason is the negative effect on earnings from declines in commercial and industrial kilowatt-hour sales at Otter Tail Power will probably be less than expected three months ago: $0.04-$0.06, versus $0.06-$0.10. We raised our 2020 and 2021 estimates by $0.10 each year, to $2.15 and $2.30, respectively. The stock's reaction was positive, but modest. The share price is still down 24% for the year.

The weak economy has hurt Otter Tail. Besides the negative effect of the sales decline on utility income, the company's Manufacturing segment has been hit hard, as many customers closed facilities due to the coronavirus. A slowdown in sales of oil and gas fracking equipment is another factor. In response, the company has cut operating and maintenance costs in each division. Otter Tail Power has also asked the regulators in each state to allow the utility to defer for future recovery costs associated with the coronavirus. We expect a stronger economy in 2021, which points to higher earnings next year.

Two significant projects are under construction. Otter Tail Power is building a 245-megawatt gas-fired plant at an expected cost of $154 million and a 150-mw wind farm at an expected cost of $260 million. The projects should be completed in late 2020 or early 2021.

The dividend yield of this untimely stock is about equal to the utility average. The equity offers attractive total return potential for the 18-month span, but isn't as high for the 2023-2025 period.

Paul E. Debbas, CFA *September 11, 2020*

(A) Dil. EPS. Excl. nonrec. gains (loss): '10, (44¢); '11, 26¢; '13, 2¢; gains (losses) from disc. ops.: '04, 8¢; '05, 33¢; '06, 1¢; '11, ($1.11); '12, ($1.22); '13, 2¢; '14, 2¢; '15, 2¢; '16, 1¢; '17, 1¢. '19 EPS don't sum due to rndg. Next egs. rept. due early Nov. **(B)** Div'ds histor. pd. in early Mar., Jun., Sept., & Dec. ■ Div'd reinv. plan avail. **(C)** Incl. intang. In '19: $4.67/sh. **(D)** In mill. **(E)** Rate all'd on com. eq. in MN in '17: 9.41%; in ND in '18: 9.77%; in SD in '19: 8.75%; earn. avg. com. eq., '19: 11.6%. Reg. Clim.: MN, ND, Avg.; SD, Above Avg.

Company's Financial Strength	A
Stock's Price Stability	95
Price Growth Persistence	85
Earnings Predictability	85

Southwestern Public Service Company
Summary of Risk Premium Models for the
Proxy Group of Thirteen Electric Companies

	Proxy Group of Thirteen Electric Companies
Predictive Risk Premium Model (PRPM) (1)	10.29 %
Risk Premium Using an Adjusted Total Market Approach (2)	10.50 %
Average	10.40 %

Notes:
(1) From page 2 of this Schedule.
(2) From page 3 of this Schedule.

Southwestern Public Service Company
Indicated ROE
Derived by the Predictive Risk Premium Model (1)

Proxy Group of Thirteen Electric Companies	[1] LT Average Predicted Variance	[2] Spot Predicted Variance	[3] Recommended Variance (2)	[4] GARCH Coefficient	[5] Predicted Risk Premium (3)	[6] Risk-Free Rate (4)	[7] Indicated ROE (5)
ALLETE, Inc.	0.28%	0.44%	0.28%	2.0499	7.23%	2.16%	9.39%
Alliant Energy Corporation	0.27%	0.36%	0.27%	2.6511	8.85%	2.16%	11.01%
Ameren Corporation	0.23%	0.29%	0.23%	1.9777	5.55%	2.16%	7.71%
Edison International	0.43%	0.66%	0.43%	1.4688	7.89%	2.16%	10.05%
Entergy Corporation	0.40%	0.60%	0.40%	2.2194	11.18%	2.16%	13.34%
Evergy, Inc.	0.88%	4.72%	0.88%	NMF	NMF	2.16%	NMF
IDACORP, Inc.	0.29%	0.43%	0.29%	2.1557	7.67%	2.16%	9.83%
NorthWestern Corporation	0.34%	0.43%	0.34%	2.3151	9.76%	2.16%	11.92%
OGE Energy Corporation	0.31%	0.44%	0.31%	2.1304	8.19%	2.16%	10.35%
Otter Tail Corporation	0.37%	0.37%	0.37%	1.5664	7.25%	2.16%	9.41%
Pinnacle West Capital Corp.	0.60%	0.72%	0.60%	1.2404	9.33%	2.16%	11.49%
Portland General Electric Co.	0.27%	0.67%	0.27%	1.7952	6.04%	2.16%	8.20%
Xcel Energy, Inc.	0.27%	0.24%	0.27%	2.8257	9.67%	2.16%	11.83%
						Average	10.38%
						Median	10.20%
					Average of Mean and Median		10.29%

Notes:
(1) The Predictive Risk Premium Model uses historical data to generate a predicted variance and a GARCH coefficient. The historical data used are the equity risk premiums for the first available trading month as reported by Bloomberg Professional Service.
(2) Given current market conditions, I recommend using the long-term average predicted variance.
(3) (1+(Column [3] * Column [4]) ^12) - 1.
(4) From note 2 on page 2 of Attachment__(DWD-1), Schedule 5.
(5) Column [5] + Column [6].

Southwestern Public Service Company
Indicated Common Equity Cost Rate
Through Use of a Risk Premium Model
Using an Adjusted Total Market Approach

Line No.		Proxy Group of Thirteen Electric Companies	
1.	Prospective Yield on Aaa Rated Corporate Bonds (1)	3.01	%
2.	Adjustment to Reflect Yield Spread Between Aaa Rated Corporate Bonds and A2 Rated Public Utility Bonds	0.54	(2)
3.	Adjusted Prospective Yield on A2 Rated Public Utility Bonds	3.55	%
4.	Adjustment to Reflect Bond Rating Difference of Proxy Group	0.11	(3)
5.	Adjusted Prospective Bond Yield	3.66	%
6.	Equity Risk Premium (4)	6.84	
7.	Risk Premium Derived Common Equity Cost Rate	10.50	%

Notes:
(1) Consensus forecast of Moody's Aaa Rated Corporate bonds from Blue Chip Financial Forecasts (see pages 10 and 11 of this Schedule).
(2) The average yield spread of A2 rated public utility bonds over Aaa rated corporate bonds of 0.54% from page 4 of this Schedule.
(3) Adjustment to reflect the A3 Moody's LT issuer rating of the Utility Proxy Group as shown on page 5 of this Schedule. The 0.11% upward adjustment is derived by taking 1/3 of the spread between A2 and Baa2 Public Utility Bonds (1/3 * 0.33% = 0.11%) as derived from page 4 of this Schedule.
(4) From page 7 of this Schedule.

Southwestern Public Service Company
Interest Rates and Bond Spreads for
Moody's Corporate and Public Utility Bonds

Selected Bond Yields

	[1] Aaa Rated Corporate Bond	[2] A2 Rated Public Utility Bond	[3] Baa2 Rated Public Utility Bond
Oct-2020	2.35 %	2.95 %	3.27 %
Sep-2020	2.31	2.84	3.17
Aug-2020	2.25	2.73	3.06
Average	2.30 %	2.84 %	3.17 %

Selected Bond Spreads

A2 Rated Public Utility Bonds Over Aaa Rated Corporate Bonds:
0.54 % (1)

Baa2 Rated Public Utility Bonds Over A2 Rated Public Utility Bonds:
0.33 % (2)

Notes:
(1) Column [2] - Column [1].
(2) Column [3] - Column [2].

Source of Information:
Bloomberg Professional Service

Southwestern Public Service Company
Comparison of Long-Term Issuer Ratings for
Proxy Group of Thirteen Electric Companies

Proxy Group of Thirteen Electric Companies	Moody's Long-Term Issuer Rating October 2020		Standard & Poor's Long-Term Issuer Rating October 2020	
	Long-Term Issuer Rating (1)	Numerical Weighting (2)	Long-Term Issuer Rating (1)	Numerical Weighting (2)
ALLETE, Inc.	A3	7.0	NR	- -
Alliant Energy Corporation	A3/Baa1	7.5	A/A-	6.5
Ameren Corporation	A3	7.0	BBB+	8.0
Edison International	Baa2	9.0	BBB	9.0
Entergy Corporation	Baa1/Baa2	8.5	BBB+	8.0
Evergy, Inc.	Baa1	8.0	A-	7.0
IDACORP, Inc.	A3	7.0	BBB	9.0
NorthWestern Corporation	NR	- -	NR	- -
OGE Energy Corporation	A3	7.0	A-	7.0
Otter Tail Corporation	A3	7.0	BBB+	8.0
Pinnacle West Capital Corp.	A2	6.0	A-	7.0
Portland General Electric Co.	A3	7.0	BBB+	8.0
Xcel Energy, Inc.	A3	7.0	A-	7.0
Average	A3	7.3	BBB+	7.7

Notes:

(1) Ratings are that of the average of each company's utility operating subsidiaries.
(2) From page 6 of this Schedule.

Source Information: Moody's Investors Service
Standard & Poor's Global Utilities Rating Service

Numerical Assignment for
Moody's and Standard & Poor's Bond Ratings

Moody's Bond Rating	Numerical Bond Weighting	Standard & Poor's Bond Rating
Aaa	1	AAA
Aa1	2	AA+
Aa2	3	AA
Aa3	4	AA-
A1	5	A+
A2	6	A
A3	7	A-
Baa1	8	BBB+
Baa2	9	BBB
Baa3	10	BBB-
Ba1	11	BB+
Ba2	12	BB
Ba3	13	BB-
B1	14	B+
B2	15	B
B3	16	B-

Southwestern Public Service Company
Judgment of Equity Risk Premium for
Proxy Group of Thirteen Electric Companies

Line No.		Proxy Group of Thirteen Electric Companies
1.	Calculated equity risk premium based on the total market using the beta approach (1)	9.01 %
2.	Mean equity risk premium based on a study using the holding period returns of public utilities with A2 rated bonds (2)	5.59
3.	Predicted Equity Risk Premium Based on Regression Analysis of 1,169 Fully-Litigated Electric Utility Rate Cases	5.92
4.	Average equity risk premium	6.84 %

Notes: (1) From page 8 of this Schedule.
(2) From page 12 of this Schedule.
(3) From page 13 of this Schedule.

Southwestern Public Service Company
Derivation of Equity Risk Premium Based on the Total Market Approach
Using the Beta for the
Proxy Group of Thirteen Electric Companies

Line No.	Equity Risk Premium Measure	Proxy Group of Thirteen Electric Companies
	Ibbotson-Based Equity Risk Premiums:	
1.	Ibbotson Equity Risk Premium (1)	5.78 %
2.	Regression on Ibbotson Risk Premium Data (2)	9.36
3.	Ibbotson Equity Risk Premium based on PRPM (3)	9.52
4.	Equity Risk Premium Based on Value Line Summary and Index (4)	10.29
5.	Equity Risk Premium Based on Value Line S&P 500 Companies (5)	10.95
6.	Equity Risk Premium Based on Bloomberg S&P 500 Companies (6)	11.01
7.	Conclusion of Equity Risk Premium	9.48 %
8.	Adjusted Beta (7)	0.95
9.	Forecasted Equity Risk Premium	9.01 %

Notes provided on page 9 of this Schedule.

Southwestern Public Service Company
Derivation of Equity Risk Premium Based on the Total Market Approach
Using the Beta for the
Proxy Group of Thirteen Electric Companies

Notes:

(1) Based on the arithmetic mean historical monthly returns on large company common stocks from Ibbotson® SBBI® 2020 Market Report minus the arithmetic mean monthly yield of Moody's average Aaa and Aa2 corporate bonds from 1928-2019.

(2) This equity risk premium is based on a regression of the monthly equity risk premiums of large company common stocks relative to Moody's average Aaa and Aa2 rated corporate bond yields from 1928-2019 referenced in Note 1 above.

(3) The Predictive Risk Premium Model (PRPM) is discussed in the accompanying direct testimony. The Ibbotson equity risk premium based on the PRPM is derived by applying the PRPM to the monthly risk premiums between Ibbotson large company common stock monthly returns and average Aaa and Aa2 corporate monthly bond yields, from January 1928 through October 2020.

(4) The equity risk premium based on the Value Line Summary and Index is derived by subtracting the average consensus forecast of Aaa corporate bonds of 3.01% (from page 3 of this Schedule) from the projected 3-5 year total annual market return of 13.30% (described fully in note 1 on page 2 of Attachment__(DWD-1), Schedule 5).

(5) Using data from Value Line for the S&P 500, an expected total return of 13.96% was derived based upon expected dividend yields and long-term earnings growth estimates as a proxy for capital appreciation. Subtracting the average consensus forecast of Aaa corporate bonds of 3.01% results in an expected equity risk premium of 10.95%.

(6) Using data from the Bloomberg Professional Service for the S&P 500, an expected total return of 14.02% was derived based upon expected dividend yields and long-term earnings growth estimates as a proxy for capital appreciation. Subtracting the average consensus forecast of Aaa corporate bonds of 3.01% results in an expected equity risk premium of 11.01%.

(7) Average of mean and median beta from Attachment__(DWD-1), Schedule 5.

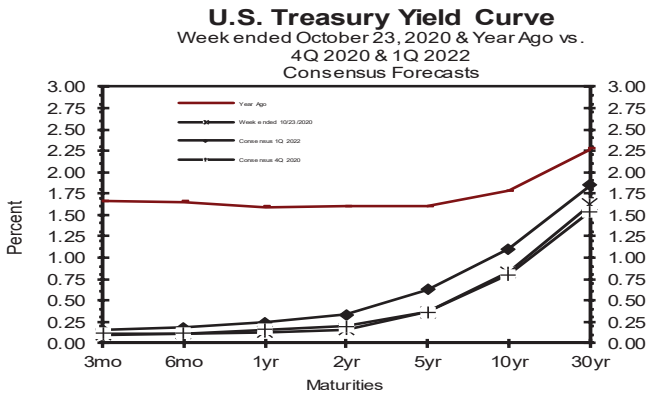
Sources of Information:

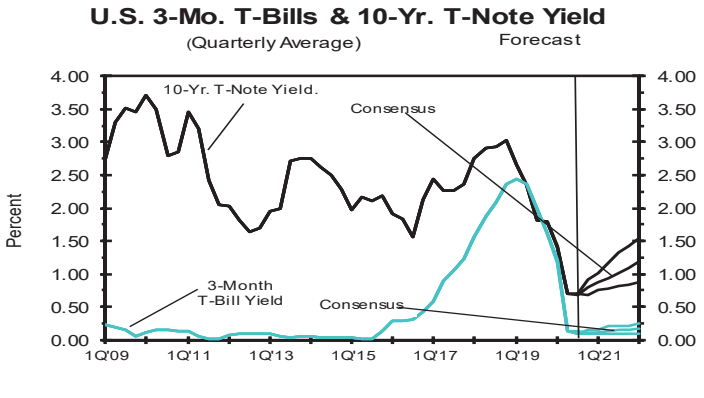
Stocks, Bonds, Bills, and Inflation - 2020 SBBI Yearbook, John Wiley & Sons, Inc.
Industrial Manual and Mergent Bond Record Monthly Update.
Value Line Summary and Index
Blue Chip Financial Forecasts, June 1, 2020 and October 30, 2020
Bloomberg Professional Service

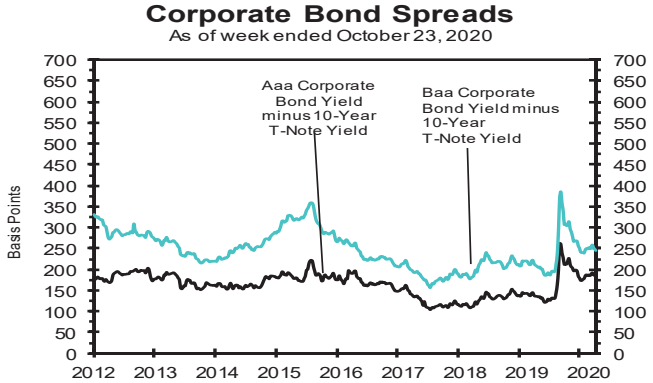
Consensus Forecasts of U.S. Interest Rates and Key Assumptions

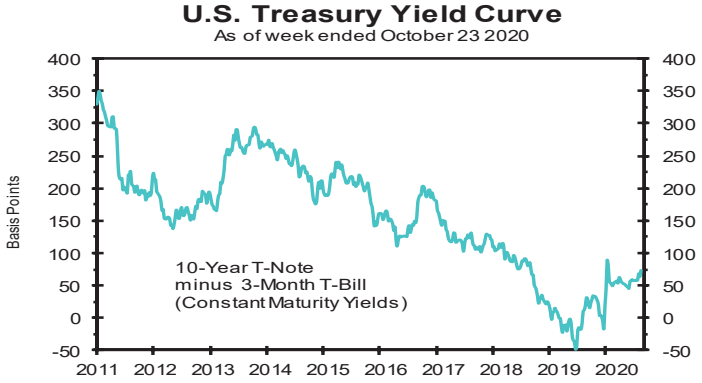
	History								Consensus Forecasts-Quarterly Avg.					
	Average For Week Ending				Average For Month			*Latest Qtr*	4Q	1Q	2Q	3Q	4Q	1Q
Interest Rates	Oct 23	Oct 16	Oct 9	Oct 2	Sep	Aug	Jul	3Q 2020	2020	2021	2021	2021	2021	2022
Federal Funds Rate	0.09	0.09	0.09	0.09	0.09	0.10	0.09	0.09	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**
Prime Rate	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	**3.3**	**3.3**	**3.3**	**3.3**	**3.3**	**3.3**
LIBOR, 3-mo.	0.21	0.23	0.22	0.23	0.24	0.25	0.27	0.25	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**
Commercial Paper, 1-mo.	0.09	0.09	0.08	0.08	0.09	0.09	0.11	0.10	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**
Treasury bill, 3-mo.	0.10	0.11	0.10	0.10	0.11	0.10	0.13	0.11	**0.1**	**0.1**	**0.1**	**0.2**	**0.2**	**0.2**
Treasury bill, 6-mo.	0.11	0.12	0.12	0.11	0.12	0.12	0.14	0.13	**0.1**	**0.1**	**0.2**	**0.2**	**0.2**	**0.2**
Treasury bill, 1 yr.	0.13	0.13	0.13	0.12	0.13	0.13	0.15	0.14	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.3**
Treasury note, 2 yr.	0.16	0.15	0.15	0.13	0.13	0.14	0.15	0.14	**0.2**	**0.2**	**0.3**	**0.3**	**0.3**	**0.4**
Treasury note, 5 yr.	0.36	0.31	0.33	0.27	0.27	0.27	0.28	0.27	**0.4**	**0.4**	**0.5**	**0.5**	**0.6**	**0.7**
Treasury note, 10 yr.	0.83	0.74	0.78	0.68	0.68	0.65	0.62	0.65	**0.8**	**0.9**	**0.9**	**1.0**	**1.1**	**1.2**
Treasury note, 30 yr.	1.62	1.52	1.58	1.44	1.42	1.36	1.31	1.36	**1.5**	**1.6**	**1.7**	**1.8**	**1.9**	**2.0**
Corporate Aaa bond	2.67	2.60	2.66	2.61	2.56	2.48	2.43	2.49	**2.4**	**2.5**	**2.6**	**2.6**	**2.7**	**2.8**
Corporate Baa bond	3.28	3.22	3.30	3.27	3.20	3.09	3.12	3.14	**3.6**	**3.6**	**3.7**	**3.7**	**3.8**	**3.9**
State & Local bonds	2.93	2.93	2.94	2.92	2.92	2.88	2.99	2.93	**2.5**	**2.5**	**2.6**	**2.6**	**2.7**	**2.7**
Home mortgage rate	2.80	2.81	2.87	2.88	2.89	2.94	3.02	2.95	**2.9**	**3.0**	**3.0**	**3.0**	**3.1**	**3.2**
	History								Consensus Forecasts-Quarterly					
	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q
Key Assumptions	2018	2019	2019	2019	2019	2020	2020	2020	2020	2021	2021	2021	2021	2022
Fed's AFE $ Index	109.4	109.4	110.3	110.5	110.3	111.2	112.4	107.2	**106.8**	**107.0**	**106.7**	**106.2**	**106.1**	**106.4**
Real GDP	1.3	2.9	1.5	2.6	2.4	-5.0	-31.4	33.1	**3.9**	**4.0**	**3.8**	**3.3**	**3.2**	**2.9**
GDP Price Index	1.8	1.2	2.5	1.5	1.4	1.4	-1.8	3.6	**1.6**	**1.7**	**1.5**	**1.7**	**1.7**	**1.8**
Consumer Price Index	1.3	0.9	3.0	1.8	2.4	1.2	-3.5	5.2	**2.1**	**1.9**	**1.8**	**2.1**	**2.0**	**2.0**

Forecasts for interest rates and the Federal Reserve's Major Currency Index represent averages for the quarter. Forecasts for Real GDP, GDP Price Index and Consumer Price Index are seasonally-adjusted annual rates of change (saar). Individual panel members' forecasts are on pages 4 through 9. Historical data: Treasury rates from the Federal Reserve Board's H.15; AAA-AA and A-BBB corporate bond yields from Bank of America-Merrill Lynch and are 15+ years, yield to maturity; State and local bond yields from Bank of America-Merrill Lynch, A-rated, yield to maturity; Mortgage rates from Freddie Mac, 30-year, fixed; LIBOR quotes from Intercontinental Exchange. All interest rate data are sourced from Haver Analytics. Historical data for Fed's Major Currency Index are from FRSR H.10. Historical data for Real GDP and GDP Chained Price Index are from the Bureau of Economic Analysis (BEA). Consumer Price Index (CPI) history is from the Department of Labor's Bureau of Labor Statistics (BLS).









Long-Range Survey:

The table below contains the results of our twice-annual long-range CONSENSUS survey. There are also Top 10 and Bottom 10 averages for each variable. Shown are consensus estimates for the years 2021 through 2026 and averages for the five-year periods 2022-2026 and 2027-2031. Apply these projections cautiously. Few if any economic, demographic and political forces can be evaluated accurately over such long time spans.

		Average For The Year						Five-Year Averages	
		2021	2022	2023	2024	2025	2026	2022-2026	2027-2031
1. Federal Funds Rate	**CONSENSUS**	**0.2**	**0.4**	**1.0**	**1.6**	**1.9**	**2.1**	**1.4**	**2.3**
	Top 10 Average	0.4	0.8	1.6	2.2	2.5	2.7	1.9	2.8
	Bottom 10 Average	0.1	0.1	0.4	1.0	1.3	1.5	0.9	1.7
2. Prime Rate	**CONSENSUS**	**3.4**	**3.6**	**4.1**	**4.7**	**5.0**	**5.2**	**4.5**	**5.4**
	Top 10 Average	3.5	3.9	4.6	5.3	5.5	5.7	5.0	5.9
	Bottom 10 Average	3.3	3.3	3.7	4.2	4.5	4.7	4.1	4.9
3. LIBOR, 3-Mo.	**CONSENSUS**	**0.6**	**0.9**	**1.4**	**2.0**	**2.3**	**2.4**	**1.8**	**2.6**
	Top 10 Average	0.8	1.3	1.9	2.5	2.7	3.0	2.3	3.1
	Bottom 10 Average	0.4	0.5	0.9	1.6	1.9	2.0	1.4	2.1
4. Commercial Paper, 1-Mo	**CONSENSUS**	**0.6**	**0.9**	**1.4**	**2.0**	**2.2**	**2.3**	**1.7**	**2.6**
	Top 10 Average	0.7	1.2	1.8	2.3	2.6	2.8	2.1	3.0
	Bottom 10 Average	0.3	0.5	1.1	1.6	1.9	2.0	1.4	2.2
5. Treasury Bill Yield, 3-Mo	**CONSENSUS**	**0.2**	**0.5**	**1.1**	**1.6**	**1.9**	**2.1**	**1.4**	**2.3**
	Top 10 Average	0.4	0.9	1.6	2.2	2.4	2.6	1.9	2.8
	Bottom 10 Average	0.1	0.2	0.5	1.1	1.4	1.6	0.9	1.8
6. Treasury Bill Yield, 6-Mo	**CONSENSUS**	**0.3**	**0.6**	**1.1**	**1.7**	**2.0**	**2.2**	**1.5**	**2.5**
	Top 10 Average	0.4	0.9	1.7	2.3	2.6	2.7	2.0	3.0
	Bottom 10 Average	0.2	0.2	0.6	1.2	1.5	1.7	1.1	1.9
7. Treasury Bill Yield, 1-Yr	**CONSENSUS**	**0.4**	**0.7**	**1.3**	**1.8**	**2.1**	**2.3**	**1.7**	**2.6**
	Top 10 Average	0.5	1.1	1.8	2.4	2.7	2.9	2.2	3.1
	Bottom 10 Average	0.2	0.3	0.7	1.3	1.6	1.8	1.1	2.0
8. Treasury Note Yield, 2-Yr	**CONSENSUS**	**0.5**	**0.9**	**1.5**	**2.0**	**2.3**	**2.5**	**1.8**	**2.7**
	Top 10 Average	0.8	1.3	2.0	2.5	2.9	3.0	2.4	3.3
	Bottom 10 Average	0.3	0.4	0.9	1.4	1.7	2.0	1.3	2.2
9. Treasury Note Yield, 5-Yr	**CONSENSUS**	**0.7**	**1.1**	**1.7**	**2.2**	**2.5**	**2.7**	**2.0**	**2.9**
	Top 10 Average	1.1	1.6	2.3	2.8	3.1	3.3	2.6	3.5
	Bottom 10 Average	0.5	0.7	1.2	1.6	1.8	2.1	1.5	2.3
10. Treasury Note Yield, 10-Yr	**CONSENSUS**	**1.2**	**1.5**	**2.1**	**2.5**	**2.7**	**2.9**	**2.3**	**3.1**
	Top 10 Average	1.5	2.0	2.6	3.1	3.3	3.5	2.9	3.8
	Bottom 10 Average	0.8	1.1	1.6	1.9	2.1	2.2	1.8	2.5
11. Treasury Bond Yield, 30-Yr	**CONSENSUS**	**1.8**	**2.2**	**2.7**	**3.1**	**3.3**	**3.5**	**3.0**	**3.8**
	Top 10 Average	2.2	2.7	3.3	3.7	3.9	4.1	3.5	4.4
	Bottom 10 Average	1.4	1.7	2.2	2.6	2.8	2.9	2.4	3.1
12. Corporate Aaa Bond Yield	**CONSENSUS**	**2.8**	**3.2**	**3.6**	**4.0**	**4.2**	**4.3**	**3.9**	**4.6**
	Top 10 Average	3.1	3.6	4.2	4.6	4.7	4.8	4.4	5.1
	Bottom 10 Average	2.4	2.7	3.1	3.5	3.7	3.8	3.4	4.2
13. Corporate Baa Bond Yield	**CONSENSUS**	**4.1**	**4.5**	**4.9**	**5.2**	**5.3**	**5.4**	**5.0**	**5.7**
	Top 10 Average	4.6	5.0	5.4	5.7	5.8	6.0	5.6	6.2
	Bottom 10 Average	3.6	3.9	4.3	4.6	4.7	4.8	4.4	5.2
14. State & Local Bonds Yield	**CONSENSUS**	**2.6**	**3.0**	**3.5**	**3.7**	**3.8**	**3.8**	**3.6**	**4.1**
	Top 10 Average	3.0	3.3	3.9	4.2	4.3	4.4	4.0	4.6
	Bottom 10 Average	2.3	2.6	2.9	3.2	3.2	3.3	3.0	3.7
15. Home Mortgage Rate	**CONSENSUS**	**3.4**	**3.6**	**4.0**	**4.4**	**4.5**	**4.7**	**4.2**	**4.9**
	Top 10 Average	3.8	4.0	4.5	4.8	5.0	5.2	4.7	5.5
	Bottom 10 Average	3.0	3.2	3.5	3.9	4.1	4.1	3.7	4.4
A. Fed's AFE Nominal $ Index	**CONSENSUS**	**112.8**	**112.6**	**112.5**	**111.8**	**111.4**	**111.0**	**111.9**	**110.6**
	Top 10 Average	114.1	114.5	114.1	113.8	113.5	113.4	113.9	113.9
	Bottom 10 Average	111.7	110.7	110.7	110.2	109.5	108.7	110.0	107.6
		Year-Over-Year, % Change						Five-Year Averages	
		2021	2022	2023	2024	2025	2026	2022-2026	2027-2031
B. Real GDP	**CONSENSUS**	**3.2**	**3.2**	**2.4**	**2.2**	**2.1**	**2.0**	**2.4**	**2.1**
	Top 10 Average	5.7	4.3	2.9	2.5	2.3	2.3	2.9	2.4
	Bottom 10 Average	0.5	2.2	1.9	1.9	1.8	1.8	1.9	1.8
C. GDP Chained Price Index	**CONSENSUS**	**1.1**	**1.7**	**1.9**	**2.0**	**2.0**	**2.0**	**1.9**	**2.0**
	Top 10 Average	1.8	2.2	2.2	2.2	2.3	2.2	2.2	2.2
	Bottom 10 Average	0.3	1.3	1.6	1.8	1.8	1.8	1.7	1.9
D. Consumer Price Index	**CONSENSUS**	**1.3**	**2.0**	**2.1**	**2.1**	**2.1**	**2.1**	**2.1**	**2.2**
	Top 10 Average	2.2	2.5	2.3	2.3	2.4	2.3	2.4	2.4
	Bottom 10 Average	0.4	1.5	1.8	1.8	1.9	1.9	1.8	2.0

Southwestern Public Service Company
Derivation of Mean Equity Risk Premium Based Studies
Using Holding Period Returns and
Projected Market Appreciation of the S&P Utility Index

Line No.		Implied Equity Risk Premium
	Equity Risk Premium based on S&P Utility Index Holding Period Returns (1):	
1.	Historical Equity Risk Premium	4.21 %
2.	Regression of Historical Equity Risk Premium (2)	6.84
3.	Forecasted Equity Risk Premium Based on PRPM (3)	5.59
4.	Forecasted Equity Risk Premium based on Projected Total Return on the S&P Utilities Index (Value Line Data) (4)	6.62
5.	Forecasted Equity Risk Premium based on Projected Total Return on the S&P Utilities Index (Bloomberg Data) (5)	4.70
6.	Average Equity Risk Premium (6)	5.59 %

Notes:
(1) Based on S&P Public Utility Index monthly total returns and Moody's Public Utility Bond average monthly yields from 1928-2019. Holding period returns are calculated based upon income received (dividends and interest) plus the relative change in the market value of a security over a one-year holding period.

(2) This equity risk premium is based on a regression of the monthly equity risk premiums of the S&P Utility Index relative to Moody's A2 rated public utility bond yields from 1928 - 2019 referenced in note 1 above.

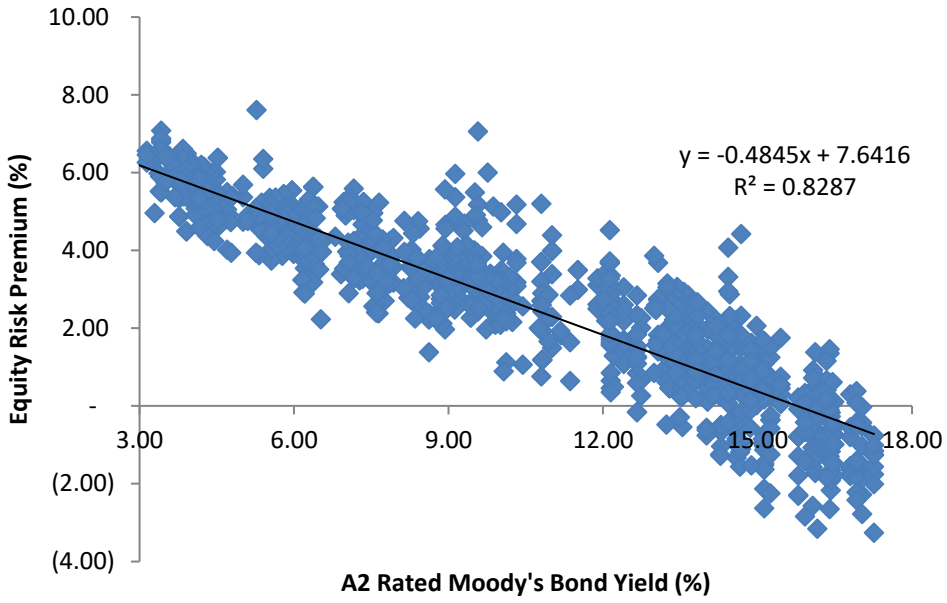
(3) The Predictive Risk Premium Model (PRPM) is applied to the risk premium of the monthly total returns of the S&P Utility Index and the monthly yields on Moody's A2 rated public utility bonds from January 1928 - October 2020.

(4) Using data from Value Line for the S&P Utilities Index, an expected return of 10.17% was derived based on expected dividend yields and long-term growth estimates as a proxy for market appreciation. Subtracting the expected A2 rated public utility bond yield of 3.52%, calculated on line 3 of page 3 of this Schedule results in an equity risk premium of 6.65%. (10.17% - 3.52% = 6.65%)

(5) Using data from Bloomberg Professional Service for the S&P Utilities Index, an expected return of 8.25% was derived based on expected dividend yields and long-term growth estimates as a proxy for market appreciation. Subtracting the expected A2 rated public utility bond yield of 3.52%, calculated on line 3 of page 3 of this Schedule results in an equity risk premium of 4.73%. (8.25% - 3.52% = 4.73%)

(6) Average of lines 1 through 5.

Southwestern Public Service Company
Prediction of Equity Risk Premiums Relative to
Moody's A2 Rated Utility Bond Yields



Constant	Slope	Prospective A2 Rated Utility Bond (1)	Prospective Equity Risk Premium
7.641552 %	-0.48446	3.55 %	5.92 %

Notes:
(1) From line 3 of page 3 of this Schedule.

Source of Information: Regulatory Research Associates

Southwestern Public Service Company
Indicated Common Equity Cost Rate Through Use
of the Traditional Capital Asset Pricing Model (CAPM) and Empirical Capital Asset Pricing Model (ECAPM)

Proxy Group of Thirteen Electric Companies	[1] Value Line Adjusted Beta	[2] Bloomberg Adjusted Beta	[3] Average Beta	[4] Market Risk Premium (1)	[5] Risk-Free Rate (2)	[6] Traditional CAPM Cost Rate	[7] ECAPM Cost Rate	[8] Indicated Common Equity Cost Rate (3)
ALLETE, Inc.	0.85	1.01	0.93	10.43 %	2.16 %	11.86 %	12.04 %	11.95 %
Alliant Energy Corporation	0.85	1.01	0.93	10.43	2.16	11.86	12.04	11.95
Ameren Corporation	0.80	0.93	0.87	10.43	2.16	11.23	11.57	11.40
Edison International	0.90	1.05	0.97	10.43	2.16	12.28	12.35	12.32
Entergy Corporation	0.95	1.11	1.03	10.43	2.16	12.90	12.82	12.86
Evergy, Inc.	1.00	1.04	1.02	10.43	2.16	12.80	12.75	12.77
IDACORP, Inc.	0.80	1.01	0.90	10.43	2.16	11.55	11.81	11.68
NorthWestern Corporation	0.90	1.21	1.05	10.43	2.16	13.11	12.98	13.05
OGE Energy Corporation	1.05	1.19	1.12	10.43	2.16	13.84	13.53	13.68
Otter Tail Corporation	0.85	1.01	0.93	10.43	2.16	11.86	12.04	11.95
Pinnacle West Capital Corp.	0.85	1.06	0.96	10.43	2.16	12.17	12.28	12.22
Portland General Electric Co.	0.85	1.01	0.93	10.43	2.16	11.86	12.04	11.95
Xcel Energy, Inc.	0.80	0.96	0.88	10.43	2.16	11.34	11.65	11.49
Mean			0.96			12.20 %	12.30 %	12.25 %
Median			0.93			11.86 %	12.04 %	11.95 %
Average of Mean and Median			0.95			12.03 %	12.17 %	12.10 %

Notes on page 2 of this Schedule.

Southwestern Public Service Company
Notes to Accompany the Application of the CAPM and ECAPM

Notes:

(1) The market risk premium (MRP) is derived by using six different measures from three sources: Ibbotson, Value Line, and Bloomberg as illustrated below:

Historical Data MRP Estimates:

Measure 1: Ibbotson Arithmetic Mean MRP (1926-2019)

Arithmetic Mean Monthly Returns for Large Stocks 1926-2019:	12.10 %
Arithmetic Mean Income Returns on Long-Term Government Bonds:	5.09
MRP based on Ibbotson Historical Data:	7.01 %

Measure 2: Application of a Regression Analysis to Ibbotson Historical Data
(1926-2019) 10.13 %

Measure 3: Application of the PRPM to Ibbotson Historical Data:
(January 1926 - October 2020) 10.64 %

Value Line MRP Estimates:

Measure 4: Value Line Projected MRP (Thirteen weeks ending October 30, 2020)

Total projected return on the market 3-5 years hence*:	13.30 %
Projected Risk-Free Rate (see note 2):	2.16
MRP based on Value Line Summary & Index:	11.14 %

*Forcasted 3-5 year capital appreciation plus expected dividend yield

Measure 5: Value Line Projected Return on the Market based on the S&P 500

Total return on the Market based on the S&P 500:	13.96 %
Projected Risk-Free Rate (see note 2):	2.16
MRP based on Value Line data	11.80 %

Measure 6: Bloomberg Projected MRP

Total return on the Market based on the S&P 500:	14.02 %
Projected Risk-Free Rate (see note 2):	2.16
MRP based on Bloomberg data	11.86 %

Average of Value Line, Ibbotson, and Bloomberg MRP: 10.43 %

(2) For reasons explained in the direct testimony, the appropriate risk-free rate for cost of capital purposes is the average forecast of 30 year Treasury Bonds per the consensus of nearly 50 economists reported in Blue Chip Financial Forecasts. (See pages 10 and 11 of Attachment__(DWD-1), Schedule 4.) The projection of the risk-free rate is illustrated below:

Fourth Quarter 2020	1.50 %
First Quarter 2021	1.60
Second Quarter 2021	1.70
Third Quarter 2021	1.80
Fourth Quarter 2021	1.90
First Quarter 2022	2.00
2022-2026	3.00
2027-2031	3.80
	2.16 %

(3) Average of Column 6 and Column 7.

Sources of Information:
Value Line Summary and Index
Blue Chip Financial Forecasts, June 1, 2020 and October 30, 2020
Stocks, Bonds, Bills, and Inflation - 2020 SBBI Yearbook, John Wiley & Sons, Inc.
Bloomberg Professional Services

Southwestern Public Service Company
Basis of Selection of the Group of Non-Price Regulated Companies
Comparable in Total Risk to the Utility Proxy Group

The criteria for selection of the Non-Price Regulated Proxy Group was that the non-price regulated companies be domestic and reported in Value Line Investment Survey (Standard Edition).

The Non-Price Regulated Proxy Group companies were then selected based on the unadjusted beta range of 0.64 – 0.92 and residual standard error of the regression range of 2.5179 – 3.0031 of the Utility Proxy Group.

These ranges are based upon plus or minus two standard deviations of the unadjusted beta and standard error of the regression. Plus or minus two standard deviations captures 95.50% of the distribution of unadjusted betas and residual standard errors of the regression.

The standard deviation of the Gas Utility Proxy Group's residual standard error of the regression is 0.1213. The standard deviation of the standard error of the regression is calculated as follows:

$$\text{Standard Deviation of the Std. Err. of the Regr.} = \frac{\text{Standard Error of the Regression}}{\sqrt{2N}}$$

where: N = number of observations. Since Value Line betas are derived from weekly price change observations over a period of five years, N = 259

$$\text{Thus, } 0.1213 = \frac{2.7605}{\sqrt{518}} = \frac{2.7605}{22.7596}$$

Source of Information: Value Line, Inc., September 2020
Value Line Investment Survey (Standard Edition)

Southwestern Public Service Company
Basis of Selection of Comparable Risk
Domestic Non-Price Regulated Companies

Proxy Group of Thirteen Electric Companies	[1] Value Line Adjusted Beta	[2] Unadjusted Beta	[3] Residual Standard Error of the Regression	[4] Standard Deviation of Beta
ALLETE, Inc.	0.85	0.75	2.6950	0.0650
Alliant Energy Corporation	0.85	0.71	2.7451	0.0662
Ameren Corporation	0.80	0.67	2.6415	0.0637
Edison International	0.90	0.83	3.3008	0.0796
Entergy Corporation	0.95	0.87	2.6048	0.0628
Evergy, Inc.	1.00	0.96	3.3926	0.0944
IDACORP, Inc.	0.80	0.65	2.5574	0.0617
NorthWestern Corporation	0.90	0.81	2.7617	0.0666
OGE Energy Corporation	1.05	1.06	2.6320	0.0635
Otter Tail Corporation	0.85	0.73	2.4700	0.0596
Pinnacle West Capital Corp.	0.85	0.76	2.7037	0.0652
Portland General Electric Co.	0.85	0.74	2.6955	0.0650
Xcel Energy, Inc.	0.80	0.62	2.6858	0.0648
Average	0.88	0.78	2.7605	0.0675

Beta Range (+/- 2 std. Devs. of Beta)	0.64	0.92
2 std. Devs. of Beta	0.14	
Residual Std. Err. Range (+/- 2 std. Devs. of the Residual Std. Err.)	2.5179	3.0031
Std. dev. of the Res. Std. Err.	0.1213	
2 std. devs. of the Res. Std. Err.	0.2426	

Source of Information: Valueline Proprietary Database, September 2020

Southwestern Public Service Company
Proxy Group of Non-Price Regulated Companies
Comparable in Total Risk to the
Proxy Group of Thirteen Electric Companies

Proxy Group of Forty-Seven Non-Price Regulated Companies	[1] VL Adjusted Beta	[2] Unadjusted Beta	[3] Residual Standard Error of the Regression	[4] Standard Deviation of Beta
Apple, Inc.	0.90	0.82	2.9301	0.0707
Analog Devices	0.95	0.90	2.7378	0.0660
Assurant Inc.	0.90	0.83	2.8328	0.0683
Amgen	0.85	0.71	2.7710	0.0668
Amer. Tower 'A'	0.90	0.82	2.9258	0.0706
ANSYS, Inc.	0.90	0.78	2.7817	0.0671
Smith (A.O.)	0.95	0.90	2.7403	0.0661
Booz Allen Hamilton	0.90	0.83	2.9779	0.0718
Becton, Dickinson	0.80	0.68	2.7571	0.0665
Brown-Forman	0.85	0.77	2.6358	0.0636
Black Knight, Inc.	0.85	0.70	2.6360	0.0636
Broadridge Fin'l	0.85	0.72	2.7607	0.0666
Cadence Design Sys.	0.95	0.86	2.9525	0.0712
Cerner Corp.	0.95	0.86	2.8908	0.0697
Chemed Corp.	0.85	0.74	2.6626	0.0642
Cooper Cos.	0.95	0.91	2.7758	0.0669
CSW Industrials	0.85	0.75	2.7722	0.0704
Quest Diagnostics	0.95	0.87	2.5322	0.0611
Dolby Labs.	0.90	0.85	2.6390	0.0636
Estee Lauder	0.90	0.82	2.7685	0.0668
ESCO Technologies	0.95	0.90	2.5552	0.0616
Exponent, Inc.	0.85	0.74	2.8830	0.0695
Forward Air	0.95	0.91	2.7386	0.0660
Gentex Corporation	0.95	0.89	2.7515	0.0664
Alphabet Inc.	0.90	0.78	2.5770	0.0621
Hershey Co.	0.85	0.70	2.7360	0.0660
Ingredion Inc.	0.90	0.81	2.8462	0.0686
Hunt (J.B.)	0.95	0.87	2.7881	0.0672
J & J Snack Foods Corp.	0.90	0.80	2.7601	0.0666
St. Joe Corp	0.85	0.72	2.9838	0.0720
McCormick and Co.	0.85	0.70	2.7767	0.0670
Altria Group	0.85	0.74	2.8919	0.0697
MSCI Inc.	0.95	0.90	2.8992	0.0699
Motorola Solutions, Inc.	0.90	0.81	2.8385	0.0685
Northrop Grumman	0.85	0.73	2.8790	0.0694
Progressive Corp.	0.80	0.66	2.5793	0.0622
Pool Corp.	0.90	0.80	2.8410	0.0685
Rollins, Inc.	0.85	0.76	2.8905	0.0697
Selective Ins. Group	0.85	0.72	2.7828	0.0671
Sirius XM Holdings	0.95	0.91	2.7016	0.0652
Tetra Tech	0.90	0.81	2.8814	0.0695
Texas Instruments	0.90	0.79	2.6711	0.0644
AMERCO	0.90	0.83	2.6726	0.0645
Verisign	0.95	0.85	2.5785	0.0622
Waters Corp.	0.95	0.87	2.7023	0.0652
Watsco, Inc.	0.90	0.78	2.5227	0.0608
Western Union	0.85	0.72	2.6612	0.0642
Average	0.89	0.80	2.7600	0.0700
Proxy Group of Thirteen Electric Companies	0.88	0.78	2.7605	0.0675

Source of Information: Valueline Proprietary Database, September 2020

Southwestern Public Service Company
Summary of Cost of Equity Models Applied to
Proxy Group of Forty-Seven Non-Price Regulated Companies
Comparable in Total Risk to the
Proxy Group of Thirteen Electric Companies

Principal Methods	Proxy Group of Forty-Seven Non-Price Regulated Companies
Discounted Cash Flow Model (DCF) (1)	12.77 %
Risk Premium Model (RPM) (2)	12.57
Capital Asset Pricing Model (CAPM) (3)	11.79
	12.38 %
	12.57 %
	12.48 %

Notes:
(1) From pages 2 and 3 of this Schedule.
(2) From page 4 of this Schedule.
(3) From page 7 of this Schedule.

Southwestern Public Service Company
DCF Results for the Proxy Group of Non-Price-Regulated Companies Comparable in Total Risk to the
Proxy Group of Thirteen Electric Companies

	[1]	[2]	[3]		[4]	[5]	[6]	[7]
Proxy Group of Forty-Seven Non-Price Regulated Companies	Average Dividend Yield	Value Line Projected Five Year Growth in EPS	Zack's Five Year Projected Growth Rate in EPS	Bloomberg's Five Year Projected Growth Rate in EPS	Yahoo! Finance Projected Five Year Growth in EPS	Average Projected Five Year Growth Rate in EPS	Adjusted Dividend Yield	Indicated Common Equity Cost Rate (1)
Apple, Inc.	0.70 %	15.50 %	11.00 %	9.30 %	12.44 %	12.06 %	0.74 %	12.80 %
Analog Devices	2.10	7.00	10.00	9.05	8.44	8.62	2.19	10.81
Assurant Inc.	2.06	6.50	NA	36.60	19.40	20.83	2.27	23.10
Amgen	2.65	6.50	7.20	7.59	6.84	7.03	2.74	9.77
Amer. Tower 'A'	1.86	7.50	14.80	16.45	15.18	13.48	1.99	15.47
ANSYS, Inc.	-	10.00	NA	10.90	7.10	9.33	-	NA
Smith (A.O.)	2.01	5.00	8.00	10.00	8.00	7.75	2.09	9.84
Booz Allen Hamilton	1.48	10.50	10.60	NA	11.83	10.98	1.56	12.54
Becton, Dickinson	1.32	9.00	8.00	8.73	6.40	8.03	1.37	9.40
Brown-Forman	0.93	11.00	NA	5.02	6.85	7.62	0.97	8.59
Black Knight, Inc.	-	11.00	7.30	8.21	8.32	8.71	-	NA
Broadridge Fin'l	1.67	9.00	NA	7.40	10.00	8.80	1.74	10.54
Cadence Design Sys.	-	10.00	15.40	11.18	15.40	13.00	-	NA
Cerner Corp.	1.00	9.00	10.90	11.86	10.50	10.56	1.05	11.61
Chemed Corp.	0.28	12.00	9.60	10.10	9.65	10.34	0.29	10.63
Cooper Cos.	0.04	14.50	10.00	8.80	10.00	10.83	0.04	10.87
CSW Industrials	0.69	8.50	NA	NA	12.00	10.25	0.73	10.98
Quest Diagnostics	1.92	9.00	9.00	8.91	9.72	9.16	2.01	11.17
Dolby Labs.	1.29	9.50	13.00	10.00	16.00	12.13	1.37	13.50
Estee Lauder	0.88	12.00	11.90	14.95	14.19	13.26	0.94	14.20
ESCO Technologies	0.37	11.00	NA	16.00	15.00	14.00	0.40	14.40
Exponent, Inc.	0.99	11.50	NA	15.00	15.00	13.83	1.06	14.89
Forward Air	1.42	12.00	NA	NA	13.16	12.58	1.51	14.09
Gentex Corporation	1.77	7.00	NA	7.54	15.00	9.85	1.86	11.71
Alphabet Inc.	-	14.50	16.30	17.57	4.81	13.30	-	NA
Hershey Co.	2.22	5.00	8.50	7.40	6.78	6.92	2.30	9.22
Ingredion Inc.	3.27	6.00	NA	8.60	1.90	5.50	3.36	8.86
Hunt (J.B.)	0.81	6.50	15.00	11.67	11.65	11.20	0.86	12.06
J & J Snack Foods Corp.	1.73	6.00	NA	NA	6.00	6.00	1.78	7.78
St. Joe Corp	1.21	15.00	NA	NA	(28.10)	15.00	1.30	16.30
McCormick and Co.	1.26	6.50	5.50	10.04	4.80	6.71	1.30	8.01
Altria Group	8.40	6.00	4.00	4.45	6.10	5.14	8.62	13.76
MSCI Inc.	0.88	17.00	NA	12.15	13.10	14.08	0.94	15.02
Motorola Solutions, Inc.	1.63	8.00	9.00	11.10	10.32	9.61	1.71	11.32
Northrop Grumman	1.77	11.00	NA	20.07	7.62	12.90	1.88	14.78
Progressive Corp.	0.43	9.50	6.40	6.72	1.42	6.01	0.44	6.45
Pool Corp.	0.70	14.50	NA	17.00	17.00	16.17	0.76	16.93
Rollins, Inc.	0.57	12.00	NA	NA	8.20	10.10	0.60	10.70
Selective Ins. Group	1.83	6.50	NA	NA	(2.19)	6.50	1.89	8.39
Sirius XM Holdings	1.03	24.50	14.70	14.09	15.38	17.17	1.12	18.29
Tetra Tech	0.70	11.00	15.00	15.50	15.00	14.13	0.75	14.88
Texas Instruments	2.86	4.00	9.30	10.30	10.00	8.40	2.98	11.38
AMERCO	0.56	7.50	NA	NA	15.00	11.25	0.59	11.84
Verisign	5.37	9.50	NA	10.30	8.00	9.27	5.62	14.89
Waters Corp.	-	6.00	5.00	5.23	4.90	5.28	-	NA
Watsco, Inc.	3.01	7.50	NA	NA	15.00	11.25	3.18	14.43
Western Union	4.01	6.00	25.80	5.45	8.51	11.44	4.24	15.68
							Mean	12.43 %
							Median	11.78 %
							Average of Mean and Median	12.11 %

NA= Not Available
NMF= Not Meaningful Figure

(1) The application of the DCF model to the domestic, non-price regluated comparable risk companies is identical to the application of the DCF to the Utility Proxy Group. The dividend yield is derived by using the 60 day average price and the spot indicated dividend as of October 30, 2020. The dividend yield is then adjusted by 1/2 the average projected growth rate in EPS, which is calculated by averaging the 5 year projected growth in EPS provided by Value Line, www.zacks.com, Bloomberg Professional Services, and www.yahoo.com (excluding any negative growth rates) and then adding that growth rate to the adjusted dividend yield.

Source of Information:
Value Line Investment Survey
www.zacks.com Downloaded on 10/30/2020
www.yahoo.com Downloaded on 10/30/2020
Bloomberg Professional Services

Southwestern Public Service Company
NM DCF Results for the Proxy Group of Non-Price-Regulated Companies Comparable in Total Risk to the
Proxy Group of Thirteen Electric Companies

	[1]	[2]	[3]		[4]	[5]	[6]	[7]	[8]
Proxy Group of Forty-Seven Non-Price Regulated Companies	Average Dividend Yield	Value Line Projected Five Year Growth in EPS	Zack's Five Year Projected Growth Rate in EPS	Bloomberg's Five Year Projected Growth Rate in EPS	Yahoo! Finance Projected Five Year Growth in EPS	Average Projected Five Year Growth Rate in EPS	Adjusted Dividend Yield (4)	Mean Common Equity Cost Rate (5)	High Common Equity Cost Rate (6)
Apple, Inc.	0.71 %	15.50 %	11.00 %	9.30 %	12.44 %	12.06 %	0.80 %	12.86 %	16.32 %
Analog Devices	2.08	7.00	10.00	9.05	8.44	8.62	2.26	10.88	12.29
Assurant Inc.	2.06	6.50	NA	36.60	19.40	20.83	2.49	23.32	39.41
Amgen	2.69	6.50	7.20	7.59	6.84	7.03	2.88	9.91	10.49
Amer. Tower 'A'	1.90	7.50	14.80	16.45	15.18	13.48	2.16	15.64	18.66
ANSYS, Inc.	-	10.00	NA	10.90	7.10	9.33	-	9.33	10.90
Smith (A.O.)	1.92	5.00	8.00	10.00	8.00	7.75	2.07	9.82	12.11
Booz Allen Hamilton	1.52	10.50	10.60	NA	11.83	10.98	1.69	12.67	13.53
Becton, Dickinson	1.35	9.00	8.00	8.73	6.40	8.03	1.46	9.49	10.47
Brown-Forman	0.93	11.00	NA	5.02	6.85	7.62	1.00	8.62	12.03
Black Knight, Inc.	-	11.00	7.30	8.21	8.32	8.71	-	8.71	11.00
Broadridge Fin'l	1.67	9.00	NA	7.40	10.00	8.80	1.82	10.62	11.84
Cadence Design Sys.	-	10.00	15.40	11.18	15.40	13.00	-	13.00	15.40
Cerner Corp.	1.00	9.00	10.90	11.86	10.50	10.56	1.11	11.67	12.97
Chemed Corp.	0.28	12.00	9.60	10.10	9.65	10.34	0.31	10.65	12.31
Cooper Cos.	0.03	14.50	10.00	8.80	10.00	10.83	0.03	10.86	14.53
CSW Industrials	0.66	8.50	NA	NA	12.00	10.25	0.73	10.98	12.74
Quest Diagnostics	1.89	9.00	9.00	8.91	9.72	9.16	2.06	11.22	11.79
Dolby Labs.	1.29	9.50	13.00	10.00	16.00	12.13	1.45	13.58	17.50
Estee Lauder	0.87	12.00	11.90	14.95	14.19	13.26	0.99	14.25	15.95
ESCO Technologies	0.38	11.00	NA	16.00	15.00	14.00	0.43	14.43	16.44
Exponent, Inc.	1.04	11.50	NA	15.00	15.00	13.83	1.18	15.01	16.20
Forward Air	1.40	12.00	NA	NA	13.16	12.58	1.58	14.16	14.74
Gentex Corporation	1.78	7.00	NA	7.54	15.00	9.85	1.96	11.81	17.05
Alphabet Inc.	-	14.50	16.30	17.57	4.81	13.30	-	13.30	17.57
Hershey Co.	2.25	5.00	8.50	7.40	6.78	6.92	2.41	9.33	10.94
Ingredion Inc.	3.35	6.00	NA	8.60	1.90	5.50	3.53	9.03	12.24
Hunt (J.B.)	0.83	6.50	15.00	11.67	11.65	11.20	0.92	12.12	15.95
J & J Snack Foods Corp.	1.74	6.00	NA	NA	6.00	6.00	1.84	7.84	7.84
St. Joe Corp	1.16	15.00	NA	NA	(28.10)	15.00	1.33	16.33	16.33
McCormick and Co.	1.28	6.50	5.50	10.04	4.80	6.71	1.37	8.08	11.45
Altria Group	8.86	6.00	4.00	4.45	6.10	5.14	9.32	14.46	15.50
MSCI Inc.	0.89	17.00	NA	12.15	13.10	14.08	1.02	15.10	18.04
Motorola Solutions, Inc.	1.57	8.00	9.00	11.10	10.32	9.61	1.72	11.33	12.84
Northrop Grumman	1.85	11.00	NA	20.07	7.62	12.90	2.09	14.99	22.29
Progressive Corp.	0.42	9.50	6.40	6.72	1.42	6.01	0.45	6.46	9.96
Pool Corp.	0.68	14.50	NA	17.00	17.00	16.17	0.79	16.96	17.80
Rollins, Inc.	0.56	12.00	NA	NA	8.20	10.10	0.62	10.72	12.63
Selective Ins. Group	1.91	6.50	NA	NA	(2.19)	6.50	2.03	8.53	8.53
Sirius XM Holdings	1.04	24.50	14.70	14.09	15.38	17.17	1.22	18.39	25.79
Tetra Tech	0.68	11.00	15.00	15.50	15.00	14.13	0.78	14.91	16.29
Texas Instruments	2.80	4.00	9.30	10.30	10.00	8.40	3.04	11.44	13.39
AMERCO	0.56	7.50	NA	NA	15.00	11.25	0.62	11.87	15.64
Verisign	5.40	9.50	NA	10.30	8.00	9.27	5.90	15.17	16.26
Waters Corp.	-	6.00	5.00	5.23	4.90	5.28	-	5.28	6.00
Watsco, Inc.	3.06	7.50	NA	NA	15.00	11.25	3.40	14.65	18.52
Western Union	4.16	6.00	25.80	5.45	8.51	11.44	4.64	16.08	31.03
							Mean	12.25 %	15.10 %
							Median	11.81 %	14.53 %
							Average of Mean and Median	12.03 %	14.82 %
							Indicated DCF Cost Rate	13.43 %	

NA= Not Available
NMF= Not Meaningful Figure

(1) The application of the NM DCF model to the domestic, non-price regluated comparable risk companies is identical to the application of the DCF to the Utility Proxy Group. The dividend yield is derived by using the 30 day average price and the spot indicated dividend as of October 30, 2020. The dividend yield is then adjusted by the projected growth rate in EPS, which is calculated by (1) averaging the 5 year projected growth in EPS provided by Value Line, www.zacks.com, Bloomberg Professional Services, and www.yahoo.com (excluding any negative growth rates) and (2) the maximum growth rate. The indicated mean and maximum DCF cost rate is calculated by adding the average and maximium growth rate to their respective adjusted dividend yield.

Source of Information:
Value Line Investment Survey
www.zacks.com Downloaded on 10/30/2020
www.yahoo.com Downloaded on 10/30/2020
Bloomberg Professional Services

Southwestern Public Service Company
Indicated Common Equity Cost Rate
Through Use of a Risk Premium Model
Using an Adjusted Total Market Approach

Line No.		Proxy Group of Forty-Seven Non-Price Regulated Companies
1.	Prospective Yield on Baa2 Rated Corporate Bonds (1)	4.13 %
2.	Adjustment to Reflect Proxy Group Bond Rating (2)	(0.19)
3.	Prospective Bond Rating	3.94
4.	Equity Risk Premium (3)	8.63
5	Risk Premium Derived Common Equity Cost Rate	12.57 %

Notes: (1) Average forecast of Baa2 corporate bonds based upon the consensus of nearly 50 economists reported in Blue Chip Financial Forecasts dated June 1, 2020 and October 30, 2020 (see pages 10 and 11 of Attachment__(DWD-1), Schedule 4). The estimates are detailed below.

Fourth Quarter 2020	3.60 %
First Quarter 2021	3.60
Second Quarter 2021	3.70
Third Quarter 2021	3.70
Fourth Quarter 2021	3.80
First Quarter 2022	3.90
2022-2026	5.00
2027-2031	5.70
Average	4.13 %

(2) To reflect the Baa1 average rating of the non-utility proxy group, the prosepctive yield on Baa corporate bonds must be adjusted downward by 1/3 of the spread between A2 and Baa2 corporate bond yields as shown below:

	A2 Corp. Bond Yield	Baa2 Corp. Bond Yield	Spread
Oct-2020	2.88 %	3.44 %	0.56 %
Sep-2020	2.79	3.36	0.57
Aug-2020	2.68	3.27	0.59
	Average yield spread		0.57 %
		1/3 of spread	0.19 %

(3) From page 6 of this Schedule.

Southwestern Public Service Company
Comparison of Long-Term Issuer Ratings for the
Proxy Group of Forty-Seven Non-Price Regulated Companies of Comparable risk to the
Proxy Group of Thirteen Electric Companies

Proxy Group of Forty-Seven Non-Price Regulated Companies	Moody's Long-Term Issuer Rating October 2020	Numerical Weighting (1)	Standard & Poor's Long-Term Issuer Rating October 2020	Numerical Weighting (1)
Apple, Inc.	Aa1	2.0	AA+	2.0
Analog Devices	Baa1	8.0	BBB+	8.0
Assurant Inc.	Baa3	10.0	BBB	9.0
Amgen	Baa1	8.0	A-	7.0
Amer. Tower 'A'	Baa3	10.0	BBB-	10.0
ANSYS, Inc.	NA	--	NA	--
Smith (A.O.)	NA	--	NA	--
Booz Allen Hamilton	NA	--	NA	--
Becton, Dickinson	Ba1	11.0	BBB	9.0
Brown-Forman	A1	5.0	A-	7.0
Black Knight, Inc.	Ba3	13.0	BB	12.0
Broadridge Fin'l	Baa1	8.0	BBB+	8.0
Cadence Design Sys.	Baa2	9.0	BBB+	8.0
Cerner Corp.	NA	--	NA	--
Chemed Corp.	WR	--	NR	--
Cooper Cos.	WR	--	NR	--
CSW Industrials	NA	--	NA	--
Quest Diagnostics	Baa2	9.0	BBB+	8.0
Dolby Labs.	NA	--	NA	--
Estee Lauder	A1	5.0	A+	5.0
ESCO Technologies	NA	--	NA	--
Exponent, Inc.	NA	--	NA	--
Forward Air	NA	--	NA	--
Gentex Corporation	NA	--	NA	--
Alphabet Inc.	Aa2	3.0	AA+	2.0
Hershey Co.	A1	5.0	A	6.0
Ingredion Inc.	Baa1	8.0	BBB	9.0
Hunt (J.B.)	Baa1	8.0	BBB+	8.0
J & J Snack Foods Corp.	NA	--	NA	--
St. Joe Corp	NA	--	NA	--
McCormick and Co.	Baa2	9.0	BBB	9.0
Altria Group	A3	7.0	BBB	9.0
MSCI Inc.	Ba2	12.0	BB+	11.0
Motorola Solutions, Inc.	Baa3	10.0	BBB-	10.0
Northrop Grumman	Baa2	9.0	BBB	9.0
Progressive Corp.	A2	6.0	A	6.0
Pool Corp.	NA	--	NA	--
Rollins, Inc.	NA	--	NA	--
Selective Ins. Group	Baa2	9.0	BBB	9.0
Sirius XM Holdings	NA	--	NA	--
Tetra Tech	NA	--	NA	--
Texas Instruments	A1	5.0	A+	5.0
AMERCO	WR	--	NR	--
Verisign	Ba1	11.0	BBB-	10.0
Waters Corp.	NA	--	NA	--
Watsco, Inc.	NA	--	NA	--
Western Union	Baa2	9.0	BBB	9.0
Average	Baa1	8.0	BBB+	7.9

Notes:
(1) From page 6 of Attachment__(DWD-1), Schedule 4.

Source of Information:
Bloomberg Professional Services

Southwestern Public Service Company
Derivation of Equity Risk Premium Based on the Total Market Approach
Using the Beta for
Proxy Group of Forty-Seven Non-Price Regulated Companies of Comparable risk to the
Proxy Group of Thirteen Electric Companies

Line No.	Equity Risk Premium Measure	Proxy Group of Forty-Seven Non-Price Regulated Companies
	Ibbotson-Based Equity Risk Premiums:	
1.	Ibbotson Equity Risk Premium (1)	5.78 %
2.	Regression on Ibbotson Risk Premium Data (2)	9.36
3.	Ibbotson Equity Risk Premium based on PRPM (3)	9.52
4.	Equity Risk Premium Based on Value Line Summary and Index (4)	10.29
5	Equity Risk Premium Based on Value Line S&P 500 Companies (5)	10.95
6.	Equity Risk Premium Based on Bloomberg S&P 500 Companies (6)	11.01
7.	Conclusion of Equity Risk Premium	9.48 %
8.	Adjusted Beta (7)	0.91
9.	Forecasted Equity Risk Premium	8.63 %

Notes:
(1) From note 1 of page 9 of Attachment__(DWD-1), Schedule 4.
(2) From note 2 of page 9 of Attachment__(DWD-1), Schedule 4.
(3) From note 3 of page 9 of Attachment__(DWD-1), Schedule 4.
(4) From note 4 of page 9 of Attachment__(DWD-1), Schedule 4.
(5) From note 5 of page 9 of Attachment__(DWD-1), Schedule 4.
(6) From note 6 of page 9 of Attachment__(DWD-1), Schedule 4.
(7) Average of mean and median beta from page 7 of this Schedule.

Sources of Information:
Stocks, Bonds, Bills, and Inflation - 2020 SBBI Yearbook, John Wiley & Sons, Inc.
Value Line Summary and Index
Blue Chip Financial Forecasts, June 1, 2020 and October 30, 2020
Bloomberg Professional Services

Southwestern Public Service Company
Traditional CAPM and ECAPM Results for the Proxy Group of Non-Price-Regulated Companies Comparable in Total Risk to the
Proxy Group of Thirteen Electric Companies

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Proxy Group of Forty-Seven Non-Price Regulated Companies	Value Line Adjusted Beta	Bloomberg Beta	Average Beta	Market Risk Premium (1)	Risk-Free Rate (2)	Traditional CAPM Cost Rate	ECAPM Cost Rate	Indicated Common Equity Cost Rate (3)
Apple, Inc.	0.90	1.03	0.97	10.43 %	2.16 %	12.28 %	12.35 %	12.32 %
Analog Devices	0.95	1.02	0.99	10.43	2.16	12.48	12.51	12.50
Assurant Inc.	0.90	1.05	0.97	10.43	2.16	12.28	12.35	12.32
Amgen	0.85	0.77	0.81	10.43	2.16	10.61	11.10	10.86
Amer. Tower 'A'	0.90	0.89	0.89	10.43	2.16	11.44	11.73	11.59
ANSYS, Inc.	0.90	0.94	0.92	10.43	2.16	11.75	11.96	11.86
Smith (A.O.)	0.95	1.00	0.97	10.43	2.16	12.28	12.35	12.32
Booz Allen Hamilton	0.90	0.91	0.90	10.43	2.16	11.55	11.81	11.68
Becton, Dickinson	0.80	0.67	0.73	10.43	2.16	9.77	10.48	10.13
Brown-Forman	0.85	0.92	0.89	10.43	2.16	11.44	11.73	11.59
Black Knight, Inc.	0.85	0.85	0.85	10.43	2.16	11.02	11.42	11.22
Broadridge Fin'l	0.85	0.83	0.84	10.43	2.16	10.92	11.34	11.13
Cadence Design Sys.	0.95	0.98	0.97	10.43	2.16	12.28	12.35	12.32
Cerner Corp.	0.95	0.94	0.94	10.43	2.16	11.96	12.12	12.04
Chemed Corp.	0.85	0.95	0.90	10.43	2.16	11.55	11.81	11.68
Cooper Cos.	0.95	0.93	0.94	10.43	2.16	11.96	12.12	12.04
CSW Industrials	0.85	0.99	0.92	10.43	2.16	11.75	11.96	11.86
Quest Diagnostics	0.95	0.98	0.97	10.43	2.16	12.28	12.35	12.32
Dolby Labs.	0.90	0.96	0.93	10.43	2.16	11.86	12.04	11.95
Estee Lauder	0.90	0.93	0.92	10.43	2.16	11.75	11.96	11.86
ESCO Technologies	0.95	0.94	0.95	10.43	2.16	12.07	12.20	12.13
Exponent, Inc.	0.85	0.90	0.88	10.43	2.16	11.34	11.65	11.49
Forward Air	0.95	1.10	1.02	10.43	2.16	12.80	12.75	12.77
Gentex Corporation	0.95	0.99	0.97	10.43	2.16	12.28	12.35	12.32
Alphabet Inc.	0.90	0.89	0.89	10.43	2.16	11.44	11.73	11.59
Hershey Co.	0.85	0.77	0.81	10.43	2.16	10.61	11.10	10.86
Ingredion Inc.	0.90	0.93	0.91	10.43	2.16	11.65	11.89	11.77
Hunt (J.B.)	0.95	0.92	0.93	10.43	2.16	11.86	12.04	11.95
J & J Snack Foods Corp.	0.90	0.78	0.84	10.43	2.16	10.92	11.34	11.13
St. Joe Corp	0.85	1.01	0.93	10.43	2.16	11.86	12.04	11.95
McCormick and Co.	0.85	0.70	0.77	10.43	2.16	10.19	10.79	10.49
Altria Group	0.85	0.87	0.86	10.43	2.16	11.13	11.49	11.31
MSCI Inc.	0.95	0.91	0.93	10.43	2.16	11.86	12.04	11.95
Motorola Solutions, Inc.	0.90	0.94	0.92	10.43	2.16	11.75	11.96	11.86
Northrop Grumman	0.85	0.80	0.83	10.43	2.16	10.82	11.26	11.04
Progressive Corp.	0.80	0.82	0.81	10.43	2.16	10.61	11.10	10.86
Pool Corp.	0.90	0.94	0.92	10.43	2.16	11.75	11.96	11.86
Rollins, Inc.	0.85	0.70	0.77	10.43	2.16	10.19	10.79	10.49
Selective Ins. Group	0.85	0.95	0.90	10.43	2.16	11.55	11.81	11.68
Sirius XM Holdings	0.95	1.15	1.05	10.43	2.16	13.11	12.98	13.05
Tetra Tech	0.90	1.02	0.96	10.43	2.16	12.17	12.28	12.22
Texas Instruments	0.90	0.90	0.90	10.43	2.16	11.55	11.81	11.68
AMERCO	0.90	1.01	0.96	10.43	2.16	12.17	12.28	12.22
Verisign	0.95	0.81	0.88	10.43	2.16	11.34	11.65	11.49
Waters Corp.	0.95	0.88	0.92	10.43	2.16	11.75	11.96	11.86
Watsco, Inc.	0.90	0.79	0.84	10.43	2.16	10.92	11.34	11.13
Western Union	0.80	1.01	0.90	10.43	2.16	11.55	11.81	11.68
Mean			0.90			11.58 %	11.84 %	11.71 %
Median			0.92			11.75 %	11.96 %	11.86 %
Average of Mean and Median			0.91			11.67 %	11.90 %	11.79 %

Notes:
(1) From note 1 of page 2 of Attachment__(DWD-1), Schedule 5.
(2) From note 2 of page 2 of Attachment__(DWD-1), Schedule 5.
(3) Average of CAPM and ECAPM cost rates.

Southwestern Public Service Company
Derivation of Investment Risk Adjustment Based upon
Ibbotson Associates' Size Premia for the Decile Portfolios of the NYSE/AMEX/NASDAQ

Line No.		[1] Market Capitalization on October 30, 2020 (1) (millions)		[2] Applicable Decile of the NYSE/AMEX/ NASDAQ (2)	[3] Applicable Size Premium (3)	[4] Spread from Applicable Size Premium (4)
1.	Southwestern Public Service Company	$ 1,837.306		6	1.34%	
2.	Proxy Group of Thirteen Electric Companies	$ 11,812.423	6.4 x	3	0.73%	0.61%
			[A]	[B]	[C]	[D]

	Decile	Market Capitalization of Smallest Company (millions)	Market Capitalization of Largest Company (millions)	Size Premium (Return in Excess of CAPM)*
Largest	1	$ 31,090.379	$ 1,061,355.011	-0.28%
	2	13,142.606	30,542.936	0.50%
	3	6,618.604	13,100.225	0.73%
	4	4,312.546	6,614.962	0.79%
	5	2,688.889	4,311.252	1.10%
	6	1,669.856	2,685.865	1.34%
	7	993.855	1,668.282	1.47%
	8	515.621	993.847	1.59%
	9	230.024	515.603	2.22%
Smallest	10	1.973	229.748	4.99%

*From 2020 Duff & Phelps Cost of Capital Navigator

Notes:

(1) From page 2 of this Schedule.
(2) Gleaned from Columns [B] and [C] on the bottom of this page. The appropriate decile (Column [A]) corresponds to the market capitalization of the proxy group, which is found in Column [1].
(3) Corresponding risk premium to the decile is provided in Column [D] on the bottom of this page.
(4) Line No. 1 Column [3] – Line No. 2 Column [3]. For example, the 0.61% in Column [4], Line No. 2 is derived as follows 0.61% = 1.34% - 0.73%.

Southwestern Public Service Company
Market Capitalization of Southwestern Public Service Company and the
Proxy Group of Thirteen Electric Companies

Company	Exchange	[1] Common Stock Shares Outstanding at Fiscal Year End 2019 (millions)	[2] Book Value per Share at Fiscal Year End 2019 (1)	[3] Total Common Equity at Fiscal Year End 2019 (millions)	[4] Closing Stock Market Price on October 30, 2020	[5] Market-to-Book Ratio on October 30, 2020 (2)	[6] Market Capitalization on October 30, 2020 (3) (millions)
Southwestern Public Service Company		NA	NA	1,008.401 (4)	NA		
Based upon Proxy Group of Thirteen Electric Companies						182.2 (5)	$ 1,837.306 (6)
Proxy Group of Thirteen Electric Companies							
ALLETE, Inc.	NYSE	51.696	$ 43.173	$ 2,231.900	$ 51.580	119.5 %	$ 2,666.505
Alliant Energy Corporation	NASDAQ	245.023	21.243	5,205.100	55.280	260.2	13,544.860
Ameren Corporation	NYSE	246.232	32.729	8,059.000	81.120	247.9	19,974.316
Edison International	NYSE	361.985	36.750	13,303.000	56.040	152.5	20,285.647
Entergy Corporation	NYSE	199.727	51.188	10,223.675	101.220	197.7	20,216.340
Evergy, Inc.	NYSE	226.641	37.821	8,571.900	55.200	146.0	12,510.608
IDACORP, Inc.	NYSE	50.410	48.892	2,464.628	87.730	179.4	4,422.461
NorthWestern Corporation	NYSE	53.999	37.762	2,039.094	52.130	138.0	2,814.978
OGE Energy Corporation	NYSE	200.177	20.679	4,139.500	30.770	148.8	6,159.457
Otter Tail Corporation	NASDAQ	40.158	19.460	781.482	38.350	197.1	1,540.044
Pinnacle West Capital Corp.	NYSE	112.540	48.255	5,430.648	81.570	169.0	9,179.898
Portland General Electric Co.	NYSE	89.387	28.986	2,591.000	39.300	135.6	3,512.914
Xcel Energy, Inc.	NASDAQ	524.539	25.239	13,239.000	70.030	277.5	36,733.466
Average		184.809	$ 34.783	$ 6,021.533	$ 61.563	182.2 %	$ 11,812.423

NA= Not Available

Notes: (1) Column 3 / Column 1.
(2) Column 4 / Column 2.
(3) Column 1 * Column 4.
(4) Average rate base multiplied by the requested common equity ratio.
(5) The market-to-book ratio of Southwestern Public Service Company on October 30, 2020 is assumed to be equal to the market-to-book ratio of Proxy Group of Thirteen Electric Companies on October 30, 2020 as appropriate.
(6) Column [3] multiplied by Column [5].

Source of Information: 2019 Annual Forms 10K
yahoo.finance.com
Bloomberg Professional

Southwestern Public Service Company
Derivation of the Flotation Cost Adjustment to the Cost of Common Equity

Equity Issuances (Company Provided)

Date	Issuing Company	[Column 1] Shares Issued (1)	[Column 2] Market Price per Share (1)	[Column 3] Average Offering Price per Share (1)	[Column 4] Underwriting Discount (1)	[Column 5] Total Offering Expense per Share (1)	[Column 6] Net Proceeds per Share (2)	[Column 7] Total Flotation Costs (3)	[Column 8] Gross Equity Issue before Costs (4)	[Column 9] Net Proceeds (5)	[Column 10] Flotation Cost Percentage (6)
11/16/1949	Northern States Power	1,584,238	$ 10.750	$ 10.250	$ 0.124	$ 0.137	$ 9.989	$ 1,205,605	$ 17,030,559	$ 15,824,953	7.079%
6/4/1952	Northern States Power	1,108,966	10.500	10.500	0.098	0.162	10.240	288,331	11,644,143	11,355,812	2.476%
4/14/1954	Northern States Power	1,219,856	15.250	14.000	0.060	0.124	13.816	1,749,274	18,602,804	16,853,530	9.403%
2/29/1956	Northern States Power	670,920	17.825	16.750	0.050	0.221	16.479	903,058	11,959,149	11,056,091	7.551%
7/22/1959	Northern States Power	952,033	23.375	22.000	0.069	0.191	21.740	1,556,574	22,253,771	20,697,197	6.995%
7/28/1965	Northern States Power	772,008	35.250	33.000	0.092	0.225	32.683	1,981,745	27,213,282	25,231,537	7.282%
1/22/1969	Northern States Power	1,080,811	29.000	27.000	0.119	0.187	26.694	2,492,350	31,343,519	28,851,169	7.952%
10/21/1970	Northern States Power	1,729,298	23.125	21.500	0.175	0.149	21.176	3,370,402	39,990,016	36,619,614	8.428%
7/26/1972	Northern States Power	1,902,228	25.000	23.500	0.129	0.166	23.205	3,414,499	47,555,700	44,141,201	7.180%
10/10/1973	Northern States Power	2,092,451	25.825	24.500	0.128	0.153	24.219	3,360,476	54,037,547	50,677,071	6.219%
11/20/1974	Northern States Power	2,300,000	17.625	17.500	0.910	0.069	16.521	2,539,200	40,537,500	37,998,300	6.264%
8/14/1975	Northern States Power	1,750,000	23.000	23.000	0.740	0.077	22.183	1,429,750	40,250,000	38,820,250	3.552%
6/3/1976	Northern States Power	2,000,000	24.000	24.000	0.720	0.064	23.216	1,568,000	48,000,000	46,432,000	3.267%
5/31/1993	Northern States Power	3,041,955	44.125	43.625	1.200	0.048	42.377	5,317,337	134,226,264	128,908,927	3.961%
9/23/1997	Northern States Power	4,500,000	49.938	49.563	1.230	0.133	48.200	7,821,000	224,721,000	216,900,000	3.480%
9/29/1997	Northern States Power	400,000	50.500	49.563	1.230	0.133	48.200	920,000	20,200,000	19,280,000	4.554%
2/25/2002	Xcel Energy, Inc.	20,000,000	22.950	22.500	0.730	0.015	21.755	23,900,000	459,000,000	435,100,000	5.207%
9/9/2008	Xcel Energy, Inc.	17,250,000	20.860	20.200	0.100	0.006	20.094	13,218,352	359,835,000	346,616,648	3.673%
8/3/2010	Xcel Energy, Inc.	21,850,000	22.100	21.500	0.645	0.013	20.571	33,407,927	482,885,000	449,477,073	6.918%
3/1/2013	Xcel Energy, Inc.	7,757,449	29.057	29.057	0.291	0.052	28.714	2,657,558	225,407,642	222,750,085	1.179%
6/1/2014	Xcel Energy, Inc.	5,693,946	30.663	30.663	0.307	0.030	30.326	1,915,210	174,592,340	172,677,130	1.097%
9/1/2018	Xcel Energy, Inc.	4,733,435	47.885	47.885	0.407	0.073	47.405	2,271,040	226,661,287	224,390,247	1.002%
8/29/2019	Xcel Energy, Inc.	9,359,103	48.416	48.416	0.173	0.030	48.213	1,901,526	453,132,797	451,231,271	0.420%
	Total Public Issuances							$ 119,189,213	$ 3,171,079,321	$ 3,051,890,108	3.759%

Flotation Cost Adjustment

	[Column 11] Average Dividend Yield (7)	[Column 12] Average Projected EPS Growth Rate (7)	[Column 13] Adjusted Dividend Yield (8)	[Column 14] Average DCF Cost Rate Unadjusted for Flotation (9)	[Column 15] DCF Cost Rate Adjusted for Flotation (10)	[Column 16] Flotation Cost Adjustment (11)
Proxy Group of Thirteen Electric Companies	3.86 %	4.88 %	3.95 %	8.83 %	8.98 %	0.15 %

Notes:
(1) Company provided
(2) Col. 3 - Col. 4 - Col. 5
(3) (Col. 2 - Col. 6) x Col. 1
(4) Col. 1 x Col. 2
(5) Col. 1 x Col. 6
(6) Col. 7 / Col. 8
(7) Attachment__(DWD-1). Schedule 5
(8) Col. 11 x (1 + 0.5 x Col. 12)
(9) Col. 12 + Col. 13
(10) (Col. 13 / (1 - Col. 10)) + Col. 12
(11) Col. 15 - Col. 14

Attachment__(DWD-1)
Schedule 9
Page 1 of 1

scottmadden
MANAGEMENT CONSULTANTS

Appendix A – Resume & Testimony Listing of:
Dylan W. D'Ascendis, CRRA, CVA
Director

Summary

Dylan is an experienced consultant and a Certified Rate of Return Analyst (CRRA) and Certified Valuation Analyst (CVA). He has served as a consultant for investor-owned and municipal utilities and authorities for 12 years. Dylan has extensive experience in rate of return analyses, class cost of service, rate design, and valuation for regulated public utilities. He has testified as an expert witness in the subjects of rate of return, cost of service, rate design, and valuation before 23 regulatory commissions in the U.S., one Canadian province, and an American Arbitration Association panel.

He also maintains the benchmark index against which the Hennessy Gas Utility Mutual Fund performance is measured.

Areas of Specialization

- Regulation and Rates
- Utilities
- Mutual Fund Benchmarking
- Capital Market Risk
- Financial Modeling
- Valuation
- Regulatory Strategy
- Rate Case Support
- Rate of Return
- Cost of Service
- Rate Design

Recent Expert Testimony Submission/Appearances

Jurisdiction	***Topic***
Massachusetts Department of Public Utilities	Rate of Return
New Jersey Board of Public Utilities	Rate of Return
Hawaii Public Utilities Commission	Cost of Service, Rate Design
South Carolina Public Service Commission	Return on Common Equity
American Arbitration Association	Valuation

Recent Assignments

- Provided expert testimony on the cost of capital for ratemaking purposes before numerous state utility regulatory agencies
- Maintains the benchmark index against which the Hennessy Gas Utility Mutual Fund performance is measured
- Sponsored valuation testimony for a large municipal water company in front of an American Arbitration Association Board to justify the reasonability of their lease payments to the City
- Co-authored a valuation report on behalf of a large investor-owned utility company in response to a new state regulation which allowed the appraised value of acquired assets into rate base

Recent Publications and Speeches

- Co-Author of: "Decoupling, Risk Impacts and the Cost of Capital", co-authored with Richard A. Michelfelder, Ph.D., Rutgers University and Pauline M. Ahern. The Electricity Journal, March, 2020.
- Co-Author of: "Decoupling Impact and Public Utility Conservation Investment", co-authored with Richard A. Michelfelder, Ph.D., Rutgers University and Pauline M. Ahern. Energy Policy Journal, 130 (2019), 311-319.
- "Establishing Alternative Proxy Groups", before the Society of Utility and Regulatory Financial Analysts: 51st Financial Forum, April 4, 2019, New Orleans, LA.
- "Past is Prologue: Future Test Year", Presentation before the National Association of Water Companies 2017 Southeast Water Infrastructure Summit, May 2, 2017, Savannah, GA.
- Co-author of: "Comparative Evaluation of the Predictive Risk Premium Model™, the Discounted Cash Flow Model and the Capital Asset Pricing Model", co-authored with Richard A. Michelfelder, Ph.D., Rutgers University, Pauline M. Ahern, and Frank J. Hanley, The Electricity Journal, May, 2013.
- "Decoupling: Impact on the Risk and Cost of Common Equity of Public Utility Stocks", before the Society of Utility and Regulatory Financial Analysts: 45th Financial Forum, April 17-18, 2013, Indianapolis, IN.

SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Regulatory Commission of Alaska				
Alaska Power Company	09/20	Alaska Power Company; Goat Lake Hydro, Inc.; BBL Hydro, Inc.	Tariff Nos. TA886-2; TA6-521; TA4-573	Capital Structure
Alaska Power Company	07/16	Alaska Power Company	Docket No. TA857-2	Rate of Return
Alberta Utilities Commission				
AltaLink, L.P., and EPCOR Distribution & Transmission, Inc.	01/20	AltaLink, L.P., and EPCOR Distribution & Transmission, Inc.	2021 Generic Cost of Capital, Proceeding ID. 24110	Rate of Return
Arizona Corporation Commission				
EPCOR Water Arizona, Inc.	06/20	EPCOR Water Arizona, Inc.	Docket No. WS-01303A-20-0177	Rate of Return
Arizona Water Company	12/19	Arizona Water Company – Western Group	Docket No. W-01445A-19-0278	Rate of Return
Arizona Water Company	08/18	Arizona Water Company – Northern Group	Docket No. W-01445A-18-0164	Rate of Return
Colorado Public Utilities Commission				
Summit Utilities, Inc.	04/18	Colorado Natural Gas Company	Docket No. 18AL-0305G	Rate of Return
Atmos Energy Corporation	06/17	Atmos Energy Corporation	Docket No. 17AL-0429G	Rate of Return
Delaware Public Service Commission				
Delmarva Power & Light Co.	10/20	Delmarva Power & Light Co.	Docket No. 20-0150	Rate of Return
Tidewater Utilities, Inc.	11/13	Tidewater Utilities, Inc.	Docket No. 13-466	Capital Structure
Public Service Commission of the District of Columbia				
Washington Gas Light Company	09/20	Washington Gas Light Company	Formal Case No. 1162	Rate of Return
Federal Energy Regulatory Commission				
LS Power Grid California, LLC	10/20	LS Power Grid California, LLC	Docket No. ER21-195-000	Rate of Return
Florida Public Service Commission				
Peoples Gas System	09/20	Peoples Gas System	Docket No. 20200051-GU	Rate of Return
Utilities, Inc. of Florida	06/20	Utilities, Inc. of Florida	Docket No. 20200139-WS	Rate of Return
Hawaii Public Utilities Commission				
Lanai Water Company, Inc.	12/19	Lanai Water Company, Inc.	Docket No. 2019-0386	Cost of Service / Rate Design
Manele Water Resources, LLC	08/19	Manele Water Resources, LLC	Docket No. 2019-0311	Cost of Service / Rate Design
Kaupulehu Water Company	02/18	Kaupulehu Water Company	Docket No. 2016-0363	Rate of Return
Aqua Engineers, LLC	05/17	Puhi Sewer & Water Company	Docket No. 2017-0118	Cost of Service / Rate Design
Hawaii Resources, Inc.	09/16	Laie Water Company	Docket No. 2016-0229	Cost of Service / Rate Design
Illinois Commerce Commission				
Ameren Illinois Company d/b/a Ameren Illinois	07/20	Ameren Illinois Company d/b/a Ameren Illinois	Docket No. 20-0308	Return on Equity
Utility Services of Illinois, Inc.	11/17	Utility Services of Illinois, Inc.	Docket No. 17-1106	Cost of Service / Rate Design
Aqua Illinois, Inc.	04/17	Aqua Illinois, Inc.	Docket No. 17-0259	Rate of Return

SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Utility Services of Illinois, Inc.	04/15	Utility Services of Illinois, Inc.	Docket No. 14-0741	Rate of Return
Indiana Utility Regulatory Commission				
Aqua Indiana, Inc.	03/16	Aqua Indiana, Inc. Aboite Wastewater Division	Docket No. 44752	Rate of Return
Twin Lakes, Utilities, Inc.	08/13	Twin Lakes, Utilities, Inc.	Docket No. 44388	Rate of Return
Kansas Corporation Commission				
Atmos Energy	07/19	Atmos Energy	19-ATMG-525-RTS	Rate of Return
Louisiana Public Service Commission				
Atmos Energy	04/20	Atmos Energy	Docket No. U-35535	Rate of Return
Louisiana Water Service, Inc.	06/13	Louisiana Water Service, Inc.	Docket No. U-32848	Rate of Return
Maryland Public Service Commission				
Washington Gas Light Company	08/20	Washington Gas Light Company	Case No. 9651	Rate of Return
FirstEnergy, Inc.	08/18	Potomac Edison Company	Case No. 9490	Rate of Return
Massachusetts Department of Public Utilities				
Unitil Corporation	12/19	Fitchburg Gas & Electric Co. (Elec.)	D.P.U. 19-130	Rate of Return
Unitil Corporation	12/19	Fitchburg Gas & Electric Co. (Gas)	D.P.U. 19-131	Rate of Return
Liberty Utilities	07/15	Liberty Utilities d/b/a New England Natural Gas Company	Docket No. 15-75	Rate of Return
Mississippi Public Service Commission				
Atmos Energy	03/19	Atmos Energy	Docket No. 2015-UN-049	Capital Structure
Atmos Energy	07/18	Atmos Energy	Docket No. 2015-UN-049	Capital Structure
Missouri Public Service Commission				
Indian Hills Utility Operating Company, Inc.	10/17	Indian Hills Utility Operating Company, Inc.	Case No. SR-2017-0259	Rate of Return
Raccoon Creek Utility Operating Company, Inc.	09/16	Raccoon Creek Utility Operating Company, Inc.	Docket No. SR-2016-0202	Rate of Return
Public Utilities Commission of Nevada				
Southwest Gas Corporation	08/20	Southwest Gas Corporation	Docket No. 20-02023	Return on Equity
New Jersey Board of Public Utilities				
FirstEnergy	02/20	Jersey Central Power & Light Co.	Docket No. ER20020146	Rate of Return
Aqua New Jersey, Inc.	12/18	Aqua New Jersey, Inc.	Docket No. WR18121351	Rate of Return
Middlesex Water Company	10/17	Middlesex Water Company	Docket No. WR17101049	Rate of Return
Middlesex Water Company	03/15	Middlesex Water Company	Docket No. WR15030391	Rate of Return
The Atlantic City Sewerage Company	10/14	The Atlantic City Sewerage Company	Docket No. WR14101263	Cost of Service / Rate Design
Middlesex Water Company	11/13	Middlesex Water Company	Docket No. WR1311059	Capital Structure
North Carolina Utilities Commission				
Duke Energy Carolinas, LLC	07/20	Duke Energy Carolinas, LLC	Docket No. E-7, Sub 1214	Return on Equity
Duke Energy Progress, LLC	07/20	Duke Energy Progress, LLC	Docket No. E-2, Sub 1219	Return on Equity
Aqua North Carolina, Inc.	12/19	Aqua North Carolina, Inc.	Docket No. W-218 Sub 526	Rate of Return
Carolina Water Service, Inc.	06/19	Carolina Water Service, Inc.	Docket No. W-354 Sub 364	Rate of Return
Carolina Water Service, Inc.	09/18	Carolina Water Service, Inc.	Docket No. W-354 Sub 360	Rate of Return

SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Aqua North Carolina, Inc.	07/18	Aqua North Carolina, Inc.	Docket No. W-218 Sub 497	Rate of Return
Public Utilities Commission of Ohio				
Aqua Ohio, Inc.	05/16	Aqua Ohio, Inc.	Docket No. 16-0907-WW-AIR	Rate of Return
Pennsylvania Public Utility Commission				
Valley Energy, Inc.	07/19	C&T Enterprises	Docket No. R-2019-3008209	Rate of Return
Wellsboro Electric Company	07/19	C&T Enterprises	Docket No. R-2019-3008208	Rate of Return
Citizens' Electric Company of Lewisburg	07/19	C&T Enterprises	Docket No. R-2019-3008212	Rate of Return
Steelton Borough Authority	01/19	Steelton Borough Authority	Docket No. A-2019-3006880	Valuation
Mahoning Township, PA	08/18	Mahoning Township, PA	Docket No. A-2018-3003519	Valuation
SUEZ Water Pennsylvania Inc.	04/18	SUEZ Water Pennsylvania Inc.	Docket No. R-2018-000834	Rate of Return
Columbia Water Company	09/17	Columbia Water Company	Docket No. R-2017-2598203	Rate of Return
Veolia Energy Philadelphia, Inc.	06/17	Veolia Energy Philadelphia, Inc.	Docket No. R-2017-2593142	Rate of Return
Emporium Water Company	07/14	Emporium Water Company	Docket No. R-2014-2402324	Rate of Return
Columbia Water Company	07/13	Columbia Water Company	Docket No. R-2013-2360798	Rate of Return
Penn Estates Utilities, Inc.	12/11	Penn Estates, Utilities, Inc.	Docket No. R-2011-2255159	Capital Structure / Long-Term Debt Cost Rate
South Carolina Public Service Commission				
Blue Granite Water Co.	12/19	Blue Granite Water Company	Docket No. 2019-292-WS	Rate of Return
Carolina Water Service, Inc.	02/18	Carolina Water Service, Inc.	Docket No. 2017-292-WS	Rate of Return
Carolina Water Service, Inc.	06/15	Carolina Water Service, Inc.	Docket No. 2015-199-WS	Rate of Return
Carolina Water Service, Inc.	11/13	Carolina Water Service, Inc.	Docket No. 2013-275-WS	Rate of Return
United Utility Companies, Inc.	09/13	United Utility Companies, Inc.	Docket No. 2013-199-WS	Rate of Return
Utility Services of South Carolina, Inc.	09/13	Utility Services of South Carolina, Inc.	Docket No. 2013-201-WS	Rate of Return
Tega Cay Water Services, Inc.	11/12	Tega Cay Water Services, Inc.	Docket No. 2012-177-WS	Capital Structure
Tennessee Public Utility Commission				
Piedmont Natural Gas Company	07/20	Piedmont Natural Gas Company	Docket No. 20-00086	Return on Equity
Public Utility Commission of Texas				
Southwestern Electric Power Company	10/20	Southwestern Electric Power Company	Docket No. 51415	Rate of Return
Virginia State Corporation Commission				
Aqua Virginia, Inc.	07/20	Aqua Virginia, Inc.	PUR-2020-00106	Rate of Return
WGL Holdings, Inc.	07/18	Washington Gas Light Company	PUR-2018-00080	Rate of Return
Atmos Energy Corporation	05/18	Atmos Energy Corporation	PUR-2018-00014	Rate of Return
Aqua Virginia, Inc.	07/17	Aqua Virginia, Inc.	PUR-2017-00082	Rate of Return
Massanutten Public Service Corp.	08/14	Massanutten Public Service Corp.	PUE-2014-00035	Rate of Return / Rate Design