BEFORE THE

FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 20210034-EI

IN RE: PETITION FOR RATE INCREASE

BY TAMPA ELECTRIC COMPANY

DIRECT TESTIMONY AND EXHIBIT

OF

DYLAN W. D'ASCENDIS, CRRA, CVA

ON BEHALF OF TAMPA ELECTRIC COMPANY

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I. INTRODUCTION AND PURPOSE

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

A. My name is Dylan W. D'Ascendis. I am a Director at ScottMadden, Inc. 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 Florida Public Service Commission ("Commission") on behalf of Tampa Electric Company ("Tampa Electric" or the "company").

Q. Please summarize your educational background and professional experience.

A. 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.

I have offered expert testimony on behalf of investor-owned utilities in over 25 state regulatory commissions in the United States, the Federal Energy Regulatory Commission, 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 of "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 of "Certified Valuation Analyst" by the NACVA in 2015.

The details of my educational background and expert witness appearances are provided in Document No. 1 of Exhibit No. (DWD-1).

Q. What is the purpose of your prepared direct testimony in this proceeding?

A. The purpose of my direct testimony is to present evidence on behalf of Tampa Electric and recommend a return on equity ("ROE") to be used for ratemaking purposes in this proceeding.

Q. Have you prepared an exhibit in support of your prepared direct testimony?

A. Yes. My analyses and conclusions are supported by the data presented in Document Nos. 2 through 13 of Exhibit No. (DWD-1), which have been prepared by me or under my direction and supervision.

II. SUMMARY

Q. What is your recommended ROE for Tampa Electric?

A. I recommend that the Commission authorize Tampa Electric the opportunity to earn an ROE of 10.75 percent on its jurisdictional rate base. The ratemaking capital structure and cost of long-term debt is sponsored by Tampa Electric witnesses Jeffrey S. Chronister and Kenneth McOnie.

Q. Please summarize the support for your recommended ROE for Tampa Electric.

A. My recommended ROE of 10.75 percent is summarized in Document No. 2. To support my ROE recommendation, I have assessed the market-based common equity cost rates of companies of relatively similar, but not necessarily identical, risk to Tampa Electric. Using companies of relatively comparable risk as proxies is consistent with the principles of fair rate of return established by the United States Supreme Court in two cases: (1) *Federal Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 591 (1944) *("Hope")*; and (2) *Bluefield Water Works Improvement Co. v. Public Serv. Comm'n*, 262 U.S. 679 (1923) *("Bluefield")*. No proxy group can be identical in risk to any single company. Consequently, there must be an evaluation of relative risk

between the company 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 several cost of common equity models, specifically the Discounted Cash Flow ("DCF") model, the Risk Premium Model ("RPM"), and the Capital Asset Pricing Model ("CAPM"), to the market data of the Utility Proxy Group whose selection criteria will be discussed below. In addition, I applied the DCF model, RPM, and CAPM to the Non-Price Regulated Proxy Group as discussed further below. The results derived from each are summarized in Document No. 2.

As shown in Document No. 2, I adjusted the indicated common equity cost rate to reflect the effect of flotation costs, as well as the company's business risks associated with its smaller relative size and lack of geographic diversification as compared to the Utility Proxy Group. These adjustments resulted in a company-specific indicated range of common equity cost rates between 10.30 percent and 11.30 percent. Given the Utility Proxy Group and company-specific ranges of common equity cost rates, and the company's high customer growth and level of capital investment plans, my recommended ROE for the company is 10.75 percent.

Q. Please summarize the company's proposed capital structure.

A. The company is proposing a capital structure which includes a 55.00 percent common equity ratio. That common equity ratio is consistent with the company's historical equity ratios, and the equity ratios maintained by the Utility Proxy Group and their operating subsidiary utility companies.

III. GENERAL PRINCIPLES

Q. What general principles have you considered in arriving at your recommended common equity cost rate of 10.75 percent?

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 a 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 a utility to attract 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. Consequently, marketplace data must be relied on in assessing a common equity cost rate appropriate for ratemaking purposes. 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.

Business Risk

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

A. The investor-required return on common equity 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 risks.

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 risks is to view the former as the uncertainty of the expected earned return on common equity, assuming the firm

is financed with no debt.

Examples of business risks generally faced 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, 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. Therefore, it is difficult to specifically and numerically quantify the effect of any individual risk on investors' required return, *i.e.*, the cost of capital. For determining an appropriate return on common equity, the relevant issue is where investors see the subject company as falling within a spectrum of risk. 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 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 return on equity 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 return on common equity.

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). 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.[1] 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.

Q. Do rating agencies account for company size in their bond ratings?

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

IV. TAMPA ELECTRIC AND THE UTILITY PROXY GROUP

Q. Are you familiar with the company's operations?

A. Yes. Tampa Electric's electric division provides generation, transmission, and distribution electric service to approximately 800,000 retail customers in Florida.[2] Tampa Electric has long-term issuer ratings of A3 from Moody's and BBB+ from S&P.[3] The company is not publicly traded as it comprises an operating subsidiary of TECO Energy, Inc., whose ultimate parent is Emera Incorporated ("Emera" or the

"Parent"). Emera has electric generation, transmission, and distribution operations, natural gas transmission and distribution operations, and non-regulated energy marketing operations in Canada, the United States, and the Caribbean.[4]

Page 1 of Document No. 3 contains comparative capitalization and financial statistics for Tampa Electric for the years 2015 to 2019.[5] During the five-year period ending 2019, the historically achieved average earnings rate on book common equity for the company averaged 10.77 percent. The average common equity ratio based on total permanent capital (excluding short-term debt) was 55.44 percent, and the average dividend payout ratio was 99.71 percent.

Total debt to earnings before interest, taxes, depreciation, and amortization for the years 2015 to 2019 ranges between 2.65 and 3.82 times, with an average of 3.10 times. Funds from operations to total debt range from 20.92 percent to 32.22 percent, with an average of 25.46 percent.

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

A. The companies selected for the Utility Proxy Group met the following criteria:

- They were included in the Eastern, Central, or Western Electric Utility Group of *Value Line* (Standard Edition);
- They have 70.00 percent or greater of fiscal year 2019 total operating income derived from, and 70.00 percent or greater of fiscal year 2019 total assets attributable to, regulated electric operations;
- They are vertically integrated (*i.e.*, utilities that own and operate regulated generation, transmission, and distribution assets);
- At the time of preparation of this direct 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;
- They have not cut or omitted their common dividends during the five years ending 2019 or through the time of preparation of this direct testimony;
- They have *Value Line* and Bloomberg Professional Services ("Bloomberg") adjusted Betas;
- They have positive *Value Line* five-year dividends per share ("DPS") growth rate projections; and
- They have *Value Line*, Zacks, or Yahoo! Finance consensus five-year earnings per share ("EPS") growth rate projections.

The following 13 companies met these criteria: ALLETE, Inc. (ALE); Alliant Energy Corporation (LNT); Ameren Corporation (AEE); Duke Energy Corporation (DUK); Edison International (EIX); Entergy Corporation (ETR); IDACORP, Inc. (IDA); NorthWestern Corporation (NWE); OGE Energy Corporation (OGE); Otter Tail Corporation (OTTR); Pinnacle West Capital Corporation (PNW); Portland General Electric Company (POR); and Xcel Energy, Inc. (XEL).

Q. Please describe Document No. 3, page 2.

A. Page 2 of Document No. 3 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 8.92 percent, the average common equity ratio based on total permanent capital (excluding short-term debt) was 48.93 percent, and the average dividend payout ratio was 53.55 percent.

Total debt to earnings before interest, taxes, depreciation, and amortization for the years 2015 to 2019 for the Utility Proxy Group ranges between 3.96 and 5.30 times, with an

average of 4.52 times. Finally, funds from operations to total debt for the Utility Proxy Group range from 15.01 percent to 23.50 percent, with an average of 19.71 percent.

V. CAPITAL STRUCTURE

Q. What is Tampa Electric's requested capital structure?

A. The company's requested capital structure (investor sources) consists of 45.00 percent long-term debt and 55.00 percent common equity. Tampa Electric's requested capital structure is its projected capital structure at the end of the test year, as testified to by Mr. McOnie.

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

A. Yes. Tampa Electric is a separate corporate entity that has its own capital structure and issues its own debt. Tampa Electric's actual capital structure is reflected in registrations of its debt issuances with the United States Securities and Exchange Commission.

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.[6]

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.

Q. Why is it important that the company's requested capital structure, consisting of 45.00 percent long-term debt and 55.00 percent common equity, be authorized in this proceeding?

A. In order to provide safe, reliable, and affordable service to its customers, Tampa Electric must meet the needs and serve the interests of its various stakeholders, including its 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 the company 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 Mr. McOnie 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 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 the company's actual common equity will weaken the financial condition of its operations and adversely impact the company'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 the company's requested common equity ratio of 55.00 percent compare with the common equity ratios maintained by the Utility Proxy Group?

A. The company's requested ratemaking common equity ratio of 55.00 percent is reasonable and consistent with the range of common equity ratios maintained by the Utility Proxy

Group. As shown on pages 3 and 4 of Document No. 3, common equity ratios of the Utility Proxy Group companies range from 36.11 percent to 58.04 percent for fiscal year 2019.

I also considered the *Value Line* projected capital structures for the Utility Proxy Group companies for 2023-2025. That analysis shows a range of projected common equity ratios between 37.50 percent and 59.00 percent (*see*, pages 2 through 14 of Document No. 4).

In addition to comparing the company's actual common equity ratio with current and projected common equity ratios maintained by the Utility Proxy Group companies, I also compared the company's actual common equity ratio with the equity ratios maintained by the utility operating subsidiaries of the Utility Proxy Group companies. As shown on page 5 of Document No. 3, common equity ratios of the utility operating subsidiaries of the Utility Proxy Group range from 47.47 percent to 65.22 percent for fiscal year 2019.

Q. Is Tampa Electric's equity ratio of 55.00 percent appropriate for ratemaking purposes given these measures cited above?

A. Yes, it is. The company's equity ratio of 55.00 percent 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 utility operating subsidiaries.

VI. COMMON EQUITY COST RATE MODELS

Discounted Cash Flow Model

Q. What is the theoretical basis of the DCF model?

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 dividend yield on market price plus a growth rate equals the capitalization rate, *i.e.*, the total common equity return rate expected by investors.

Q. Which version of the DCF model did you rely on?

A. I used the single-stage constant growth DCF model in my analyses.

Q. Please describe the dividend yield you used in applying the constant growth DCF model.

A. The unadjusted dividend yields are based on the Utility Proxy Group companies' dividends as of January 29, 2021, divided by the average closing market price for the 60 trading days ended January 29, 2021 (*see*, Column 1, page 1 of Document No. 4).

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 increase their quarterly dividends at various times during the year, a reasonable assumption is to reflect one-half of the annual dividend 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 Document No. 4 were adjusted upward to reflect one-half of the average projected growth rate shown in Column 6.

Q. Please explain the basis for the growth rates you apply to the Utility Proxy Group 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 Document No. 4, the application of the constant growth DCF model to the Utility Proxy Group results in a wide range of indicated ROEs from 6.28 percent to 11.20 percent. The adjusted mean of those results is 9.03 percent, the adjusted median result is 8.85 percent, and the average of the two is 8.94 percent. In arriving at a conclusion for the constant growth DCF-indicated common equity cost rate for the Utility Proxy Group, I relied on an average of the mean and the median results of the DCF.

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

debtholders 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, the 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 Predictive Risk Premium Model ("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.

Q. Please explain the first risk premium method (*i.e.*, the PRPM).

A. The PRPM, published in the *Journal of Regulatory Economics*,[7] was developed from the work of Robert F. Engle III, who shared the Nobel Prize in Economics in 2003 "for methods of analyzing economic time series with time-varying volatility" or ARCH.[8] Engle found that volatility changes over time and is related from one period to the next, especially in financial markets. Furthermore, Engle discovered that the volatility of prices and returns cluster over time and is, therefore, highly predictable and can be used to predict future levels of risk and risk premiums.

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 United States Treasury securities through January 2021. 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 (*see*, Columns 1 and 2, page 2 of Document No. 5) and a GARCH coefficient (*see*, Column 4, page 2 of Document No. 5). Multiplying the predicted monthly variance by the GARCH coefficient and then annualizing it[9] produces the predicted annual equity risk premium. I then added the forecasted 30-year U.S. Treasury bond yield of 2.31 percent (*see*, Column 6, page 2 of Document No. 5.) 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 Financial Forecasts ("Blue Chip")*.[10]

As shown on page 2 of Document No. 5, the mean PRPM indicated common equity cost rate for the Utility Proxy Group is 10.47 percent, the median is 10.24 percent, and the average of the two is 10.36 percent. 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 10.36 percent.

Q. Please explain the second risk premium method (*i.e.*, 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 the basis of the expected bond yield of 3.66 percent 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. 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 second 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 Document No. 5, the average expected yield on Moody's Aaa-rated corporate bonds is 3.06 percent. In order to adjust the expected Aaa-rated corporate bond yield to an equivalent A2-rated public utility bond yield, I made an upward adjustment of 0.50 percent, which represents a recent spread between Aaa-rated corporate bonds and A2-rated public utility bonds (as shown on line 2 and explained in note 2 on page 3 of Document No. 5). Adding that recent 0.50 percent spread to the expected Aaa-rated corporate bond yield of 3.06 percent results in an expected A2-rated public utility bond yield of 3.56 percent. 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 this difference in bond ratings. An upward adjustment of 0.10 percent, 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 (as shown on line 4 and explained in note 3 on page 3 of Document No. 5). Adding the 0.10 percent to the 3.56 percent prospective A2-rated public utility bond yield results in a 3.66 percent expected bond yield applicable to the Utility Proxy Group as shown on page 3 of Document No. 5.

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) the Beta coefficient. The derivation of the Beta-derived equity risk premium that I applied to the Utility Proxy Group is shown on lines 1 through 9, on page 8 of Document No. 5. The 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")[11] less the average historical yield on Moody's Aaa/Aa-rated corporate bonds for the period 1928 to 2019. Using holding period returns over a long period of 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 percent and the long-term arithmetic mean monthly yield on Moody's Aaa/Aa-rated corporate bonds was 6.05 percent (as explained in note 1, page 9 of Document No. 5). As shown on line 1, page 8 of Document No. 5, subtracting the mean monthly bond yield from the total return on large company stocks results in a long-term historical equity risk premium of 5.78 percent.

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.[12] 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 9.30 percent shown on line 2, page 8 of Document No. 5, I used the same monthly annualized total returns on large company common stocks relative to the monthly annualized yields on Moody's Aaa/Aa-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/Aa-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/Aa-rated corporate bonds yield:

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

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

A. I applied 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/Aa-rated corporate bonds during the period from January 1928 through January 2021.[13] 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 9.65 percent (*see*, line 3, page 8 of Document No. 5).

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 Document No. 5. 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 January 29, 2021, plus an average of the median estimated dividend yield for the common stocks of the 1,700 firms

covered in *Value Line* (as explained in note 1, page 2 of Document No. 6).

The average median expected price appreciation is 35.00 percent, which translates to a 7.79 percent annual appreciation, and when added to the average of *Value Line's* median expected dividend yields of 2.04 percent, equates to a forecasted annual total return rate on the market of 9.83 percent. The forecasted Moody's Aaa-rated corporate bond yield of 3.06 percent is deducted from the total market return of 9.83 percent, resulting in an equity risk premium of 6.77 percent, as shown on line 4, page 8 of Document No. 5.

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 14.10 percent. Subtracting the prospective yield on Moody's Aaa-rated corporate bonds of 3.06 percent results in a 11.04 percent projected equity risk premium as shown on line 5, page 8 of Document No. 5.

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 17.78 percent. Subtracting the prospective yield on Moody's Aaa-rated corporate bonds of 3.06 percent results in a 14.72 percent projected equity risk premium as shown on line 6, page 8 of Document No. 5.

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 9.54 percent equity risk premium as shown on line 7, page 8 of Document No. 5.

After calculating the average market equity risk premium of 9.54 percent, I adjusted it by the Beta coefficient to account for the risk of the Utility Proxy Group. As discussed below, the Beta coefficient 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 Document No. 6, the average of the mean and median Beta coefficient for the Utility Proxy Group is 0.96. Multiplying the 0.96 average Beta coefficient by the market equity risk premium of 9.54 percent results in a Beta-adjusted equity risk premium for the Utility Proxy Group of 9.16 percent (see line 9, page 8 of Document No. 5).

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

A. I estimated three equity risk premiums based on the 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 percent and monthly Moody's A-rated public utility bond yields of 6.53 percent from 1928 to 2019 to arrive at an equity risk premium of 4.21 percent (as shown on line 1, page 12 of Document No. 5.). I then used the same

historical data to derive an equity risk premium of 6.83 percent based on a regression of the monthly equity risk premiums (as shown on line 2, page 12 of Document No. 5). 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 January 2021 to arrive at a PRPM-derived equity risk premium of 5.59 percent for the S&P Utility Index (as shown on line 3, page 12 of Document No. 5).

I then derived expected total returns on the S&P Utilities Index of 10.36 percent and 7.67 percent using data from *Value Line* and Bloomberg, respectively, and subtracted the prospective Moody's A2-rated public utility bond yield of 3.56 percent (derived on line 3, page 3 of Document No. 5), which resulted in equity risk premiums of 6.80 percent and 4.11 percent, respectively (as shown on lines 4 and 5, respectively, on page 12 of Document No. 5). 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 5.51 percent as shown on line 6, page 12 of Document No. 5.

Q. How do you derive an equity risk premium of 5.92 percent

based on authorized ROEs for electric utilities?

A. The equity risk premium of 5.92 percent shown on line 3, page 7 of Document No. 5 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 Document No. 5. Page 13 of Document No. 5 contains the graphical results of a regression analysis of 1,179 rate cases for electric utilities which were fully litigated during the period from January 1, 1980, through January 29, 2021. 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. 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.[14] 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 3.56 percent, it can be calculated that the indicated equity risk premium applicable to that bond yield is 5.92 percent, which is shown on line 3, page 7 of Document No. 5.

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 6.86 percent, 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 9.16 percent, 5.51 percent, and 5.92 percent, respectively, as shown on page 7 of Document No. 5.

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 Document No. 5, I calculated a common equity cost rate of 10.52 percent for the Utility Proxy Group based on the total market approach RPM.

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

A. As shown on page 1 of Document No. 5, the indicated RPM-derived common equity cost rate is 10.44 percent, which gives equal weight to the PRPM (10.36 percent) and the adjusted-market approach results (10.52 percent).

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 the Beta coefficient (β). A Beta coefficient less than 1.0 indicates lower variability than the market as a whole, while a Beta coefficient 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 the Beta coefficient. 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; and

β = Adjusted Beta coefficient (volatility of the security relative to the market as a whole)

Numerous tests of the CAPM have measured the extent to which security returns and Beta coefficients 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 coefficient 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.[15]

The ECAPM reflects this empirical reality. Fama and French clearly state regarding the figure in Document No. 12, that "[t]he returns on the low beta portfolios are too high, and the returns on the high beta portfolios are too low."[16]

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.[17]
>
> * * *
>
> 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:
>
> $$K = R_F + 0.25(R_M - R_F) + 0.75\,\beta(R_M - R_F)$$[18]

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).[19]

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 highest beta is 16.8 percent per year; the actual is 13.7 percent.[20]

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 Beta coefficients did you use in your CAPM analysis?

A. For the Beta coefficients in my CAPM analysis, I considered

two sources: *Value Line* and Bloomberg. While both of those services adjust their calculated (or "raw") Beta coefficients to reflect the tendency of the Beta coefficient to regress to the market mean of 1.00, *Value Line* calculates the Beta coefficient over a five-year period, while Bloomberg calculates it over a two-year period.

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

A. As shown in Column 5, page 1 of Document No. 6, the risk-free rate adopted for both applications of the CAPM is 2.31 percent. 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 second calendar quarter of 2022, and long-term projections for the years 2022 to 2026 and 2027 to 2031.

Q. Why is the yield on long-term U.S. Treasury bonds appropriate for use as the risk-free rate?

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 of public utilities measured by the yields on Moody's A-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.

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, page 2 of Document No. 6. 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 percent was deducted from the SBBI - 2020 monthly historical total market return of 12.10 percent, which results in an historical market equity risk premium of 7.01 percent.[21] 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 9.98 percent. The PRPM market equity risk premium is 10.76 percent and is derived using the PRPM relative to the yields on long-term U.S. Treasury securities from January 1926 through January 2021.

The *Value Line*-derived forecasted total market equity risk premium is derived by deducting the forecasted risk-free rate of 2.31 percent, discussed above, from the *Value Line* projected total annual market return of 9.83 percent, resulting in a forecasted total market equity risk premium of 7.52 percent. The S&P 500 projected market equity risk premium using *Value Line* data is derived by subtracting the projected risk-free rate of 2.31 percent from the projected total return of the S&P 500 of 14.10 percent. The resulting market equity risk premium is 11.79 percent.

The S&P 500 projected market equity risk premium using Bloomberg data is derived by subtracting the projected risk-free rate of 2.31 percent from the projected total return of the S&P 500 of 17.78 percent. The resulting market equity risk premium is 15.47 percent. These six measures, when averaged, result in an average total market equity risk premium of 10.42 percent as shown on page 2 of Document No. 6.

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 Document No. 6, the adjusted mean result of my CAPM/ECAPM analyses is 12.44 percent, the adjusted median is 12.28 percent, and the average of the two is 12.36 percent. Consistent with my reliance on the average of mean and median DCF results discussed above, the indicated common equity cost rate using the CAPM/ECAPM is 12.36 percent.

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. In the *Hope* and *Bluefield* cases, the U.S. Supreme Court 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 that 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 coefficients 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 48 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 were:

- They must be covered by *Value Line* (Standard Edition);
- They must be domestic, non-price regulated companies, *i.e.*, not utilities;
- Their Beta coefficients must lie within plus or minus two standard deviations of the average unadjusted Beta coefficients of the Utility Proxy Group; and
- The residual standard errors of the *Value Line* regressions which gave rise to the unadjusted Beta coefficients must

lie within plus or minus two standard deviations of the average residual standard error of the Utility Proxy Group.

Beta coefficients 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 Beta coefficients 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 48 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 Document No. 7.

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.

Page 2 of Document No. 8 derives the constant growth DCF model common equity cost rate. As shown, the indicated common equity cost rate, using the constant growth DCF for the Non-Price Regulated Proxy Group comparable in total risk to the Utility Proxy Group, is 11.52 percent.

Pages 3 through 5 of Document No. 8 contain the data and calculations that support the 12.67 percent RPM common equity cost rate. As shown on line 1, page 3 of Document No. 8, the consensus prospective yield on Moody's Baa-rated corporate bonds for the six quarters ending in the second quarter of 2022, and for the years 2022 to 2026 and 2027 to 2031, is 4.04 percent.[22] Since the Non-Price Regulated Proxy Group has an average Moody's long-term issuer rating of Baa1, a downward adjustment of 0.15 percent 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 3.89 percent.

When the Beta-adjusted risk premium of 8.78 percent (as

derived on page 5 of Document No. 8) relative to the Non-Price Regulated Proxy Group is added to the prospective A3/Baa1-rated corporate bond yield of 3.89 percent, the indicated RPM common equity cost rate is 12.67 percent.

Page 6 of Document No. 8 contains the inputs and calculations that support my indicated CAPM/ECAPM common equity cost rate of 12.00 percent.

Q. What 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 Document No. 8, the results of the common equity models applied to the Non-Price Regulated Proxy Group – which group is comparable in total risk to the Utility Proxy Group – are as follows: 11.52 percent (DCF), 12.67 percent (RPM), and 12.00 percent (CAPM). The average of the mean and median of these models is 12.03 percent, which I used as the indicated common equity cost rates for the Non-Price Regulated Proxy Group.

VII. CONCLUSION OF COMMON EQUITY COST RATE BEFORE ADJUSTMENTS

Q. 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 9.94 percent and 10.94 percent as shown in Document No. 2. I used multiple cost of common equity models as primary tools in arriving at my recommended common equity cost rate 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 rate results, I conclude that a range of common equity cost rates between 9.94 percent and 10.94 percent is reasonable and appropriate before any adjustments for relative risk differences between the company and the Utility Proxy Group are made. The bottom of the indicated range (*i.e.*, 9.94 percent) was calculated by averaging the average of all model results (10.94 percent) with the lowest model result (8.94 percent), and the top of the indicated range is the approximate average of all model results. 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.

VIII. ADJUSTMENTS TO THE COMMON EQUITY COST RATE

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, the 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 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.[23]

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.[24] In addition, Morin confirms the need for such an adjustment even when no new equity issuance is imminent.[25] Consequently, it is proper to include a flotation cost adjustment when using cost of common equity models to estimate the common equity cost rate.

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 Tampa Electric's parent, Emera, in its equity issuances since its acquisition of Tampa Electric. Based on the issuance costs shown on page 1 of Document No. 9, an adjustment of 0.13 percent is required to reflect the flotation costs applicable to the Utility Proxy Group.

Business Risk Adjustment

Q. What company-specific business risks did you consider in your recommended ROE?

A. As detailed below, I've considered the company's smaller size and lack of geographic diversification relative to the Utility Proxy Group in my ROE recommendation.

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

A. Yes. The company's smaller size relative to the Utility Proxy Group companies indicates greater relative business risk for the company 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.

Q. Is the increased relative risk due to small size and the associated implications on the rate of return on common equity supported by financial literature?

A. Yes, it is. 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' 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)[26]

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:

> . . . 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.[27]

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.[28] 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**.[29] (emphasis added)

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

Q. Please describe the company's lack of geographic diversity and why that increases its relative risk?

A. Tampa Electric's service area in West Central Florida is extremely compact compared to other Florida investor-owned utilities. In the event of a substantial storm or other catastrophic event, the entire system and customer base of Tampa Electric is at risk for damage, outages, and other customer impacts. This is unlike other utilities in Florida, and more importantly, the Utility Proxy Group, which have more geographically diverse service areas or larger service territories, which may only have a portion of the system assets and customer base affected in the case of storms or other natural disasters or catastrophic events, allowing the unaffected areas and assets to help mitigate certain impacts and help sustain the utility while repairs are made in affected areas. Tampa Electric's smaller size and limited geographic diversity have also been recognized as key risks in the company's recent S&P and Moody's credit ratings reports.[30]

Q. Is there a way to quantify a relative risk adjustment due to the company's smaller size and lack of geographic diversity when compared to the Utility Proxy Group?

A. Yes. The company has greater relative risk than the average utility in the Utility Proxy Group because of its smaller size and lack of geographic diversity. As a proxy for its greater risk, I will use the difference in size between Tampa Electric and the Utility Proxy Group as measured by its estimated market capitalization of common equity.

As shown in Document No. 10, the company's estimated market capitalization is approximately $7,780 million, compared with the market capitalization of the average company in the Utility Proxy Group of $15,616 million. The average company in the Utility Proxy Group has a market capitalization approximately 2.00 times the size of the company's estimated 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 the company's greater risk due to its 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. The average size premium for the Utility Proxy Group with a market capitalization of $15,616 million falls in the second decile, while the company's estimated market capitalization

of $7,780 million places it in the third decile. The size premium spread between the second decile and the third decile is 0.23 percent.

Q. Since Tampa Electric is part of a larger corporation, why is the size of the total corporation not more appropriate to use when determining the size adjustment?

A. The return derived in this proceeding will not apply to Emera's operations as a whole, but only to Tampa Electric's. Emera is the sum of its constituent parts, including those constituent parts' ROEs. Potential investors in the parent company are aware that it is a combination of operations in each state, province, and country and that each geographic area's operations experience the operating risks specific to their jurisdiction. The market's expectation of Emera's return is commensurate with the realities of the corporation's composite operations in each of the geographic areas in which it operates.

Other Considerations

Q. Have you considered any other company-specific issues in your recommended ROE?

A. Yes, I have. In addition to the company's flotation costs

and its smaller relative size, I have also considered the company's high customer growth, and level of capital expenditures compared to the Utility Proxy Group companies in my ROE recommendation.

Q. Please describe the company's high customer growth.

A. Tampa Electric's total number of retail customers has increased by 56,500 (*i.e.*, approximately 7.7 percent) over the past five years.[31] The increased customer growth in Tampa Electric's service territory necessitates increased and accelerated capital investment.

Q. Please briefly summarize the company's capital investment plans.

A. Tampa Electric currently plans to invest over $4.0 billion of additional capital over the 2021-2024 period,[32] which represents over 54.00 percent of its 2019 year-end net utility plant.[33] That amount includes investments required to support growth, and to maintain safe, sufficient, and reliable service in both its transmission and distribution facilities. As discussed by Mr. McOnie, the company will require continued access to the capital markets, at reasonable terms, to finance its capital spending plan. As

the company moves forward with its capital spending plan, timely recovery of its capital costs is critical to mitigate the delay of capital recovery and execute its capital spending program.

Q. Do substantial capital expenditures directly relate to a utility being allowed the opportunity to earn a return adequate to attract capital at reasonable terms?

A. Yes, they do. The allowed ROE should enable the subject utility to finance capital expenditures and working capital requirements at reasonable rates, and to maintain its financial integrity in a variety of economic and capital market conditions. As discussed throughout my direct testimony, a return adequate to attract capital at reasonable terms enables the utility to provide safe, reliable service while maintaining its financial soundness. To the extent a utility is provided the opportunity to earn its market-based cost of capital, neither customers nor shareholders should be disadvantaged. These requirements are of particular importance to a utility when it is engaged in a substantial capital expenditure program.

The ratemaking process is predicated on the principle that, for investors and companies to commit the capital needed to

provide safe and reliable utility services, the utility must have the opportunity to recover the return of, and the market-required return on, invested capital. Regulatory commissions recognize that since utility operations are capital intensive, regulatory decisions should enable the utility to attract capital at reasonable terms; doing so balances the long-term interests of the utility and its ratepayers.

Further, the financial community carefully monitors the current and expected financial conditions of utility companies, as well as the regulatory environment in which those companies operate. In that respect, the regulatory environment is one of the most important factors considered in both debt and equity investors' assessments of risk. That is especially important during periods in which the utility expects to make significant capital investments and, therefore, may require access to capital markets.

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

A. Yes, they do. From a credit perspective, the additional pressure on cash flows associated with high levels of capital expenditures exerts corresponding pressure on credit

metrics and, therefore, credit ratings. S&P has noted several long-term challenges for utilities' financial health including: heavy construction programs to address demand growth; declining capacity margins; and aging infrastructure and regulatory responsiveness to mounting requests for rate increases.[34] More recently, S&P noted:

> We assume that capital spending will remain a focus of most utility managements and strain credit metrics. It provides growth when sales are diminished by ongoing demanded efficiency from regulators and other trends, and it is welcomed by policymakers that appreciate the economic stimulus and the benefits of safer, more reliable service. The speed with which the regulatory process turns the new spending into higher rates to begin to pay for it is an important factor in our assumptions and the forecast. Any extended lag between spending and recovery can exacerbate the negative effect on credit metrics and therefore ratings.[35]

The rating agency views noted above also are consistent with certain observations discussed in my direct testimony: (1) the benefits of maintaining a strong financial profile are significant when capital access is required and become particularly acute during periods of market instability; and (2) the Commission's decision in this proceeding will have

a direct bearing on the company's credit profile and its ability to access the capital needed to fund its investments.

Q. How do the company's expected capital expenditures compare to the Utility Proxy Group?

A. To reasonably make that comparison, I calculated the ratio of expected capital expenditures to net plant for each company in the Utility Proxy Group. I performed that calculation using Tampa Electric's projected capital expenditures during 2021 through 2024 relative to its net plant for the year ended December 31, 2019. As shown in Document No. 11, Tampa Electric has the highest ratio of projected capital expenditures to net plant relative to the Utility Proxy Group, approximately 39.00 percent higher than the Utility Proxy Group median.

Q. What are your conclusions regarding the effect of Tampa Electric's capital investment plan on its risk profile and cost of capital?

A. It is clear that Tampa Electric's capital investment plan relative to net plant is larger than the median of the Utility Proxy Group companies. It also is clear that equity

investors and credit rating agencies recognize the additional risks associated with substantial capital expenditures.

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

A. Applying the 0.13 percent flotation cost adjustment and the 0.23 percent business risk adjustment to the indicated range of common equity cost rates between 9.94 percent and 10.94 percent results in a company-specific range of common equity rates between 10.30 percent and 11.30 percent. In consideration of both of these indicated ranges in addition to the company's high customer growth, and its substantial capital expenditure program, I recommend an ROE of 10.75 percent for Tampa Electric in this proceeding.

IX. CONCLUSION

Q. What is your recommended ROE for Tampa Electric?

A. Given the discussion above and the results from the analyses that I have performed, I recommend that an ROE of 10.75 percent is appropriate for the company at this time.

Q. In your opinion, is your proposed ROE of 10.75 percent fair

and reasonable to the company and its customers?

A. Yes, it is.

Q. In your opinion, is the company's proposed equity ratio of 55.00 percent fair and reasonable to the company and its customers?

A. Yes, it is.

Q. Does this conclude your prepared direct testimony?

A. Yes, it does.

EXHIBIT

OF

DYLAN W. D'ASCENDIS, CRRA, CVA

ON BEHALF OF TAMPA ELECTRIC COMPANY

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MANAGEMENT CONSULTANTS

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 30 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.

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MANAGEMENT CONSULTANTS

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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.	11/20	Delmarva Power & Light Co.	Docket No. 20-0149 (Electric)	Return on Equity
Delmarva Power & Light Co.	10/20	Delmarva Power & Light Co.	Docket No. 20-0150 (Gas)	Return on Equity
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				
Launiupoko Irrigation Company, Inc.	12/20	Launiupoko Irrigation Company, Inc.	Docket No. 2020-0217	Capital Structure
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

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MANAGEMENT CONSULTANTS

Resume & Testimony Listing of:
Dylan W. D'Ascendis, CRRA, CVA
Director

SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
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
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
Kentucky Public Service Commission				
Bluegrass Water Utility Operating Company	10/20	Bluegrass Water Utility Operating Company	2020-00290	Return on Equity
Louisiana Public Service Commission				
Southwestern Electric Power Company	12/20	Southwestern Electric Power Company	Docket No. U-35441	Return on Equity
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
Minnesota Public Utilities Commission				
Northern States Power Company	11/20	Northern States Power Company	Docket No. E002/GR-20-723	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				
Spire Missouri, Inc.	12/20	Spire Missouri, Inc.	Case No. GR-2021-0108	Return on Equity
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 Hampshire Public Utilities Commission				
Aquarion Water Company of New Hampshire, Inc.	12/20	Aquarion Water Company of New Hampshire, Inc.	Docket No. DW 20-184	Rate of Return

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MANAGEMENT CONSULTANTS

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SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
New Jersey Board of Public Utilities				
Atlantic City Electric Company	12/20	Atlantic City Electric Company	Docket No. ER20120746	Return on Equity
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
New Mexico Public Regulation Commission				
Southwestern Public Service Company	01/21	Southwestern Public Service Company	Case No. 20-00238-UT	Return on Equity
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
Aqua North Carolina, Inc.	07/18	Aqua North Carolina, Inc.	Docket No. W-218 Sub 497	Rate of Return
North Dakota Public Service Commission				
Northern States Power Company	11/20	Northern States Power Company	Case No. PU-20-441	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

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MANAGEMENT CONSULTANTS

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SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
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 Public Service Company	02/21	Southwestern Public Service Company	Docket No. 51802	Return on Equity
Southwestern Electric Power Company	10/20	Southwestern Electric Power Company	Docket No. 51415	Rate of Return
Virginia State Corporation Commission				
Massanutten Public Service Corporation	12/20	Massanutten Public Service Corporation	Case No. PUE-2020-00039	Return on Equity
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

Tampa Electric Company, Inc.
Brief Summary of Common Equity Cost Rate

Line No.	Principal Methods	Proxy Group of Thirteen Electric Companies
1.	Discounted Cash Flow Model (DCF) (1)	8.94%
2.	Risk Premium Model (RPM) (2)	10.44%
3.	Capital Asset Pricing Model (CAPM) (3)	12.36%
4.	Market Models Applied to Comparable Risk, Non-Price Regulated Companies (4)	12.03%
5.	Indicated Range of Common Equity Cost Rates before Adjustment for Company-Specific Risk (5)	9.94% - 10.94%
6.	Flotation Cost Adjustment (6)	0.13%
7.	Business Risk Adjustment (7)	0.23%
8.	Indicated Range of Common Equity Cost Rates after Adjustment	10.30% - 11.30%
9.	Recommended Common Equity Cost Rate	10.75%

Notes:
(1) From page 1 of Document No. 4.
(2) From page 1 of Document No. 5.
(3) From page 1 of Document No. 6.
(4) From page 1 of Document No. 8.
(5) The low end of the indicated range is calculated by using the average of the DCF results (8.94%) and average model result (10.94%). The high end of the indicated range is the average model result (10.94%).
(6) Adjustment to reflect an allowance for flotation costs as detailed in Mr. D'Ascendis' direct testimony.
(7) Adjustment to reflect the Company's greater business risk due to its smaller size and lack of geographic diversity relative to the Utility Proxy Group as detailed in Mr. D'Ascendis' direct testimony.

Tampa Electric Company, Inc.
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	$ 5,721.456	$ 5,152.162	$ 4,503.007	$ 4,333.101	$ 4,269.851	
SHORT-TERM DEBT	256.861	167.348	300.000	139.950	65.500	
TOTAL-CAPITAL EMPLOYED	$ 5,978.317	$ 5,319.510	$ 4,803.007	$ 4,473.051	$ 4,335.351	
INDICATED AVERAGE CAPITAL COST RATES (2)						
TOTAL DEBT	4.29 %	4.16 %	4.55 %	4.79 %	5.07 %	
CAPITAL STRUCTURE RATIOS						
BASED ON TOTAL PERMANENT CAPITAL:						5 YEAR AVERAGE
LONG-TERM DEBT	44.70 %	44.37 %	42.60 %	44.27 %	46.88 %	44.56 %
PREFERRED STOCK	-	-	-	-	-	-
COMMON EQUITY	55.30	55.63	57.40	55.73	53.12	55.44
TOTAL	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
BASED ON TOTAL CAPITAL:						
TOTAL DEBT, INCLUDING SHORT-TERM	47.08 %	46.12 %	46.18 %	46.02 %	47.69 %	46.62 %
PREFERRED STOCK	-	-	-	-	-	-
COMMON EQUITY	52.92	53.88	53.82	53.98	52.31	53.38
TOTAL	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
DIVIDEND PAYOUT RATIO	100.86 %	106.39 %	93.12 %	101.78 %	96.39 %	99.71 %
RATE OF RETURN ON AVERAGE BOOK COMMON EQUITY	10.48 %	10.77 %	10.91 %	10.68 %	10.99 %	10.77 %
TOTAL DEBT / EBITDA (3)	3.82 x	3.41 x	2.65 x	2.79 x	2.81 x	3.10 x
FUNDS FROM OPERATIONS / TOTAL DEBT (4)	25.69 %	27.02 %	21.46 %	32.22 %	20.92 %	25.46 %
TOTAL DEBT / TOTAL CAPITAL	47.08 %	46.12 %	46.18 %	46.02 %	47.69 %	46.62 %

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	$20,390.889	$18,583.106	$17,571.167	$16,749.598	$15,648.484	
SHORT-TERM DEBT	$556.677	$634.118	$649.864	$475.539	$497.484	
TOTAL CAPITAL EMPLOYED	$20,947.566	$19,217.224	$18,221.031	$17,225.137	$16,145.968	
INDICATED AVERAGE CAPITAL COST RATES (2)						
TOTAL DEBT	4.46 %	4.64 %	4.62 %	4.83 %	4.63 %	
PREFERRED STOCK	5.65	5.38	5.46	5.63	5.60	
CAPITAL STRUCTURE RATIOS						
BASED ON TOTAL PERMANENT CAPITAL:						
LONG-TERM DEBT	51.19 %	50.79 %	49.83 %	49.65 %	49.24 %	50.14 %
PREFERRED STOCK	0.75	0.90	0.95	0.99	1.01	0.93
COMMON EQUITY	48.06	48.31	49.22	49.36	49.75	48.93
TOTAL	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
BASED ON TOTAL CAPITAL:						
TOTAL DEBT, INCLUDING SHORT-TERM	51.90 %	51.68 %	51.60 %	51.01 %	50.41 %	51.32 %
PREFERRED STOCK	0.74	0.87	0.89	0.95	0.99	0.88
COMMON EQUITY	47.36	47.45	47.52	48.05	48.61	47.80
TOTAL	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
FINANCIAL STATISTICS						
FINANCIAL RATIOS - MARKET BASED						
EARNINGS / PRICE RATIO	5.07 %	5.11 %	4.76 %	4.59 %	5.01 %	4.91 %
MARKET / AVERAGE BOOK RATIO	205.45	198.40	206.63	168.79	163.94	188.64
DIVIDEND YIELD	3.19	3.52	3.29	3.55	3.66	3.44
DIVIDEND PAYOUT RATIO	61.96	44.61	75.17	52.82	33.22	53.55
RATE OF RETURN ON AVERAGE BOOK COMMON EQUITY	10.26 %	8.86 %	9.14 %	8.04 %	8.29 %	8.92 %
TOTAL DEBT / EBITDA (3)	4.30 x	4.88 x	3.96 x	5.30 x	4.15 x	4.52 x
FUNDS FROM OPERATIONS / TOTAL DEBT (4)	15.01 %	20.77 %	19.97 %	19.29 %	23.50 %	19.71 %
TOTAL DEBT / TOTAL CAPITAL	51.90 %	51.68 %	51.60 %	51.01 %	50.41 %	51.32 %

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

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 %
Duke Energy Corporation						
Long-Term Debt	55.39 %	55.45 %	55.61 %	53.85 %	49.87 %	54.03 %
Preferred Stock	-	-	-	-	-	-
Common Equity	44.61	44.55	44.39	46.15	50.13	45.97
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	8.01	8.44	8.65	8.20	7.96
Common Equity	39.31	38.23	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	0.77	0.87	0.85	0.88	1.39	0.95
Common Equity	36.11	35.05	34.35	34.96	40.42	36.18
Total Capital	100.00 %	100.00 %	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 %

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
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 %
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 Corporation						
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 Company						
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	51.19 %	50.79 %	49.83 %	49.65 %	49.24 %	50.14 %
Preferred Stock	0.75	0.90	0.95	0.99	1.01	0.92
Common Equity	48.06	48.31	49.22	49.36	49.75	48.94
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %

Source of Information: Company Annual Forms 10-K

Tampa Electric Company, Inc.
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%
Duke Energy Carolinas, LLC	DUK	52.11%	47.89%	100.00%
Duke Energy Florida, LLC	DUK	49.91%	50.09%	100.00%
Duke Energy Indiana, LLC	DUK	52.84%	47.16%	100.00%
Duke Energy Kentucky, Inc.	DUK	49.37%	50.63%	100.00%
Duke Energy Ohio, Inc.	DUK	65.22%	34.78%	100.00%
Duke Energy Progress, LLC	DUK	51.29%	48.71%	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%
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	52.50%	47.50%	100.00%
	Median	52.00%	48.00%	100.00%

Source of Information: S&P Global Market Intelligence

Tampa Electric Company, Inc.
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.	4.09 %	4.50 %	NA %	5.50 %	7.00 %	5.67 %	4.21 %	9.88 %
Alliant Energy Corporation	3.10	5.50	5.90	5.79	5.80	5.75	3.19	8.94
Ameren Corporation	2.65	6.00	6.80	7.03	6.60	6.61	2.74	9.35
Duke Energy Corporation	4.19	5.00	4.40	4.07	2.81	4.07	4.28	8.35
Edison International	4.29	12.00	3.10	4.17	(0.50)	6.42	4.43	10.85
Entergy Corporation	3.73	3.00	5.20	4.62	5.20	4.51	3.81	8.32
IDACORP, Inc.	3.09	4.50	2.60	2.88	2.60	3.14	3.14	6.28 (6)
NorthWestern Corporation	4.19	2.50	3.70	3.90	3.20	3.32	4.26	7.58
OGE Energy Corporation	4.99	3.00	3.60	3.51	2.10	3.05	5.07	8.12
Otter Tail Corporation	3.55	6.50	NA	7.05	9.00	7.52	3.68	11.20
Pinnacle West Capital Corporation	4.10	4.50	3.50	3.78	3.70	3.87	4.18	8.05
Portland General Electric Company	3.87	4.00	5.50	5.12	5.50	5.03	3.97	9.00
Xcel Energy, Inc.	2.55	6.00	6.20	6.14	6.20	6.13	2.63	8.76
							Average	9.03 %
							Median	8.85 %
							Average of Mean and Median	8.94 %

NMF= Not Meaningful Figure

Notes:

(1) Indicated dividend at 01/29/2021 divided by the average closing price of the last 60 trading days ending 01/29/2021 for each company.

(2) From pages 2 through 14 of Document No. 4.

(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., 4.09% x (1+(1/2 x 5.67%)) = 4.21%.

(5) Column 6 + column 7.

(6) IDACORP Inc.'s results were excluded from the final average and median as they were more than two standard deviations below the proxy group mean.

Sources of Information: Value Line Investment Survey
www.zacks.com Downloaded on 01/29/2021
www.yahoo.com Downloaded on 01/29/2021
Bloomberg Professional Services

ALLETE NYSE-ALE

RECENT PRICE **56.24** | P/E RATIO **16.4** (Trailing: 16.7 Median: 18.0) | RELATIVE P/E RATIO **0.78** | DIV'D YLD **4.6%** | **VALUE LINE**

TIMELINESS **3** Raised 12/11/20
SAFETY **2** New 10/1/04
TECHNICAL **4** Raised 11/27/20
BETA .85 (1.00 = Market)

18-Month Target Price Range

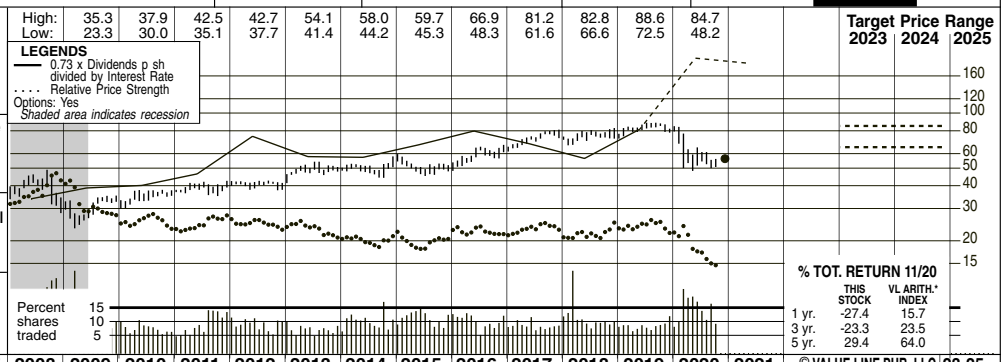
Low-High	Midpoint (% to Mid)
$44-$107	$76 (35%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	85	(+50%)	*14%*
Low	65	(+15%)	*8%*

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	*22.20*	*23.60*	Revenues per sh	*25.75*
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	*7.25*	*7.75*	"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	*3.20*	*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*	*2.56*	Div'd Decl'd per sh [B] ■ †	*2.80*
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*	*9.45*	Cap'l Spending per sh	*4.75*
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	*45.95*	*46.80*	Book Value per sh [C]	*51.25*
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	*52.00*	*52.50*	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	*18.0*
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	*1.00*
.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	*1155*	*1240*	Revenues ($mill)	*1350*
75.3	93.8	97.1	104.7	124.8	163.4	155.3	159.2	174.1	172.4	*165*	*185*	Net Profit ($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%	*41.5%*	*41.0%*	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%	*58.5%*	*59.0%*	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	*4080*	*4150*	Total Capital ($mill)	*4725*
1805.6	1982.7	2347.6	2576.5	3286.4	3669.1	3741.2	3822.4	3904.4	4377.0	*4935*	*5205*	Net Plant ($mill)	*5350*
5.4%	6.0%	5.6%	5.3%	5.2%	5.8%	5.8%	5.5%	5.8%	5.6%	*5.0%*	*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%	*7.0%*	*7.5%*	Return on Shr. Equity	*8.5%*
7.7%	8.7%	8.1%	7.8%	7.8%	9.0%	8.2%	7.7%	8.1%	7.7%	*7.0%*	*7.5%*	Return on Com Equity [E]	*8.5%*
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	*3.0%*
81%	66%	71%	72%	67%	60%	66%	68%	66%	70%	*77%*	*73%*	All Div'ds to Net Prof	*65%*

CAPITAL STRUCTURE as of 9/30/20
Total Debt $2012.5 mill. **Due in 5 Yrs** $712.6 mill.
LT Debt $1608.0 mill. **LT Interest** $65.6 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 51,974,885 shs.

MARKET CAP: $2.9 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%	*-1.0%*
"Cash Flow"	5.5%	6.0%	*4.5%*
Earnings	2.5%	4.0%	*4.5%*
Dividends	3.0%	3.5%	*4.0%*
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	293.9	*306.3*	*1155*
2021	*325*	*285*	*305*	*325*	*1240*

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	.78	*.75*	*3.20*
2021	*1.20*	*.70*	*.75*	*.85*	*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	.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.

ALLETE is facing a challenging operating environment. The recession and the coronavirus problems have hurt the company's primary utility subsidiary, Minnesota Power, more than most electric companies because the utility has a smaller residential sector and a larger industrial sector. One of its industrial customers just restarted its facility this month, but another customer's plant remains shut. ALLETE Clean Energy (ACE), which invests in wind projects, is experiencing increased competition and pricing pressure. Profits are likely to decline in 2020 due in part to a $0.16-a-share charge the company took in the second quarter for the refund of previously collected revenues. We *include* this in our earnings presentation even though management is excluding it from its guidance of $3.25-$3.45 a share. Considering all of these factors, the stock price has declined 31% in 2020, making this one of the worst-performing equities in this industry.

We expect much higher earnings in 2021. The second-quarter comparison will be easy due to the revenue refund in 2020. Most of Minnesota Power's taconite customers have submitted demand nominations (telling the utility how much electricity they expect to need) for full power for the first four months of 2021. ACE should benefit from a 303-megawatt project in Oklahoma that should be completed by yearend 2020 at a cost of $450 million.

Rate cases are likely upcoming in 2021. Filings were postponed from 2020 due to the effects of the weak economy. Minnesota Power expects to apply in November, and Superior Water, Light & Power will probably file sometime next year. These applications should raise ALLETE's earning power in 2022.

We expect a dividend increase in the first quarter of 2021. This is the usual timing of a hike. We estimate a boost of $0.09 a share (3.6%) in the annual disbursement. This would be smaller than in 2020 because the payout ratio is above ALLETE's targeted range of 60%-65%.

The equity's dividend yield is about one percentage point above the utility average. Total return potential is above average for the next 18 months and decent for the 3- to 5-year period.

Paul E. Debbas, CFA *December 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 Feb. **(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	60
Earnings Predictability	85

ALLIANT ENERGY NDQ-LNT

RECENT PRICE 52.60 | P/E RATIO 22.5 (Trailing: 19.8 Median: 17.0) | RELATIVE P/E RATIO 1.08 | DIV'D YLD 2.9% | VALUE LINE

TIMELINESS 3 Lowered 7/3/20
SAFETY 2 Raised 9/28/07
TECHNICAL 1 Raised 12/11/20
BETA .85 (1.00 = Market)

18-Month Target Price Range

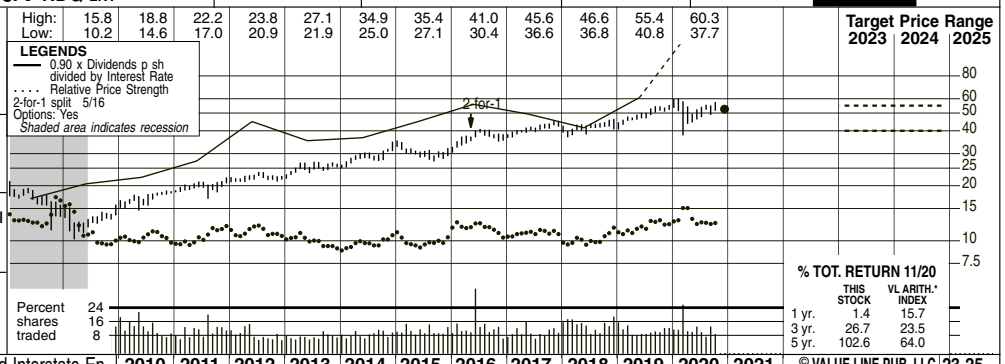
Low-High	Midpoint (% to Mid)
$43-$91	$67 (25%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	55	(+5%)	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



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	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	23-25
Revenues per sh	15.40	16.51	13.94	14.77	15.10	14.34	14.58	14.62	14.97	14.89	*14.60*	*14.90*	*15.65*
"Cash Flow" per sh	2.60	2.75	2.95	3.34	3.44	3.45	3.45	3.10	4.32	4.59	*4.75*	*4.95*	*5.25*
Earnings per sh A	1.38	1.38	1.53	1.65	1.74	1.69	1.65	1.99	2.19	2.33	*2.45*	*2.60*	*3.00*
Div'd Decl'd per sh B ■ †	.79	.85	.90	.94	1.02	1.10	1.18	1.26	1.34	1.42	*1.52*	*1.61*	*1.96*
Cap'l Spending per sh	3.91	3.03	5.22	3.32	3.78	4.25	5.26	6.34	6.34	6.28	*5.50*	*5.05*	*5.15*
Book Value per sh C	13.05	13.57	14.12	14.79	15.54	16.41	16.96	17.21	19.43	21.24	*23.60*	*24.35*	*28.45*
Common Shs Outst'g D	221.79	222.04	221.97	221.89	221.87	226.92	227.67	231.35	236.06	245.02	*250.00*	*255.00*	*265.00*
Avg Ann'l P/E Ratio	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*		*16.0*
Relative P/E Ratio	.80	.91	.92	.86	.87	.91	1.17	1.04	1.03	1.19			*.90*
Avg Ann'l Div'd Yield	4.6%	4.3%	4.1%	3.7%	3.5%	3.6%	3.2%	3.1%	3.2%	2.9%			*4.1%*
Revenues ($mill)	3416.1	3665.3	3094.5	3276.8	3350.3	3253.6	3320.0	3382.2	3534.5	3647.7	*3650*	*3800*	*4150*
Net Profit ($mill)	303.9	304.4	337.8	382.1	385.5	380.7	373.8	455.9	512.1	557.2	*610*	*655*	*790*
Income Tax Rate	30.1%	19.0%	21.5%	12.4%	10.1%	15.3%	13.4%	12.5%	8.4%	10.8%	*NMF*	*NMF*	*11.0%*
AFUDC % to Net Profit	- -	- -	- -	- -	- -	6.5%	7.0%	7.6%	7.8%	7.6%	*7.5%*	*7.5%*	*7.5%*
Long-Term Debt Ratio	46.3%	45.7%	48.4%	46.1%	49.7%	48.6%	52.8%	49.0%	53.4%	51.5%	*52.0%*	*52.0%*	*52.0%*
Common Equity Ratio	49.5%	50.9%	48.4%	50.8%	47.5%	51.4%	47.2%	48.6%	46.6%	48.5%	*48.0%*	*48.0%*	*48.0%*
Total Capital ($mill)	5840.8	5921.2	6476.6	6461.0	7257.2	7246.3	8177.6	8192.8	9832.0	10226	*10500*	*11000*	*12500*
Net Plant ($mill)	6730.6	7037.1	7838.0	7147.3	6442.0	8970.2	9809.9	10798	12031	13527	*14000*	*15000*	*18000*
Return on Total Cap'l	6.6%	6.4%	6.3%	7.0%	6.3%	6.3%	5.6%	6.8%	6.3%	4.1%	*6.0%*	*6.0%*	*6.5%*
Return on Shr. Equity	9.7%	9.5%	10.1%	11.0%	10.6%	10.2%	9.7%	10.9%	11.2%	10.7%	*10.5%*	*10.5%*	*10.5%*
Return on Com Equity E	9.9%	9.5%	10.3%	11.3%	10.9%	10.2%	9.7%	6.4%	11.2%	10.7%	*10.5%*	*10.5%*	*10.5%*
Retained to Com Eq	3.8%	3.3%	3.9%	4.9%	4.3%	3.6%	2.8%	4.0%	4.4%	4.2%	*4.0%*	*4.0%*	*3.5%*
All Div'ds to Net Prof	64%	67%	64%	57%	61%	65%	71%	63%	61%	61%	*62%*	*63%*	*65%*

CAPITAL STRUCTURE as of 9/30/20
Total Debt $7003.0 mill. **Due in 5 Yrs** $1500.0 mill.
LT Debt $6574.0 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 249,760,663 shs.

MARKET CAP: $13.1 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%*

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.

Alliant Energy raised its 2020 earnings outlook. The utility now expects share net to be between $2.40 and $2.46, versus its previous guidance range of $2.34-$2.48. The midpoint of the forecast was increased by $0.02 a share, primarily due to higher earnings from temperature impacts on retail electric and gas sales during the first nine months of the year.

The company provided 2021 earnings guidance for the first time. Leadership expects share net to be between $2.50 and $2.64, representing growth of 2%-8% from our 2020 estimate of $2.45. The projection assumes, among other things, a stable economy and continued negative impact from the COVID-19 health crisis. In addition, due to production tax credits from wind projects being placed into service, Alliant expects to have a consolidated effective tax rate of negative 14% in 2021.

The Iowa Service Area was hit by a Derecho in late August. The wind storm caused considerable damage to the company's electric distribution system, resulting in over 250,000 customers losing power. Repair and restoration efforts are currently ongoing, and LNT's estimate of the total cost of the weather event stands at approximately $140 million. Although this will mostly impact 2020 figures (earnings guidance incorporated expected Derecho-related costs), leadership is anticipating a modest sales headwind in the affected areas through the first half of 2021.

The board of directors raised the dividend in November. This has been the pattern in recent years. The increase was $0.0225 a share (6%) quarterly, slightly less than last year's expansion. Alliant is targeting a payout ratio of 60%-70%.

Alliant continues to bet big on renewables. In 2020, the company will generate approximately 34% of its energy from renewables, with much of that coming from wind power. Coal-fired generation currently stands at 25%, though management intends to reduce that number to the low single digits by 2030. Natural gas, at 41% of the energy mix, is expected to stay roughly the same over the next five years.

This stock does not stand out. The dividend yield is below average for an electric utility, and capital appreciation potential out to 2023-2025 is flat to negative.

Daniel Henigson, CFA December 11, 2020

Cal-endar	QUARTERLY REVENUES ($ mill.) 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	920.0	*1051.2*	*3650*
2021	*1000*	*890*	*970*	*940*	*3800*

Cal-endar	EARNINGS PER SHARE A 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	.94	*.25*	*2.45*
2021	*.62*	*.53*	*1.00*	*.45*	*2.60*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■† 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	.38	

(A) Diluted EPS. Excl. nonrecur. gains (losses): '10, (8¢); '11, (1¢); '12, (8¢). Next earnings rpt. due mid-February. **(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	75
Earnings Predictability	90

AMEREN NYSE-AEE

RECENT PRICE 77.78 | P/E RATIO 22.7 (Trailing: 22.7 Median: 17.0) | RELATIVE P/E RATIO 1.09 | DIV'D YLD 2.7% | VALUE LINE

TIMELINESS 2 Lowered 11/20/20
SAFETY 2 Raised 6/20/14
TECHNICAL 2 Raised 12/11/20
BETA .85 (1.00 = Market)

18-Month Target Price Range

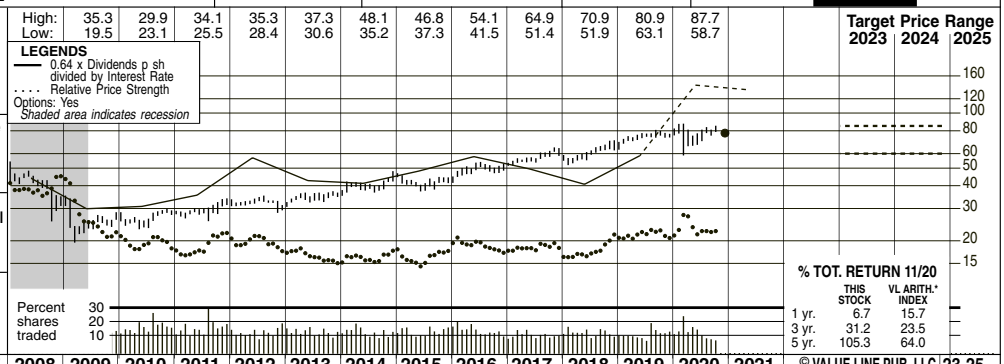
Low-High	Midpoint (% to Mid)
$63-$127	$95 (20%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	85	(+10%)	*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	*22.65*	*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	*8.15*	*8.80*	"Cash Flow" per sh	*10.50*
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	*3.45*	*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	*2.00*	*2.09*	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	*35.70*	*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	*5750*	*6100*	Revenues ($mill)	*6900*
669.0	602.0	589.0	518.0	593.0	585.0	659.0	683.0	821.0	834.0	*870*	*965*	Net Profit ($mill)	*1220*
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%	*54.5%*	*53.0%*	Long-Term Debt Ratio	*51.0%*
50.9%	53.7%	49.4%	53.7%	51.7%	49.7%	51.3%	49.8%	48.8%	47.1%	*44.5%*	*46.5%*	Common Equity Ratio	*48.5%*
15185	14738	13384	12190	12975	13968	13840	14420	15632	17116	*20325*	*20975*	Total Capital ($mill)	*24800*
17853	18127	16096	16205	17424	18799	20113	21466	22810	24376	*27200*	*28900*	Net Plant ($mill)	*33300*
6.0%	5.6%	6.0%	5.6%	5.8%	5.3%	6.0%	6.0%	6.4%	6.0%	*5.5%*	*5.5%*	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%*	*10.0%*	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%	*58%*	*56%*	All Div'ds to Net Prof	*54%*

CAPITAL STRUCTURE as of 9/30/20
Total Debt $10801 mill. **Due in 5 Yrs** $2317 mill.
LT Debt $10172 mill. **LT Interest** $456 mill.
(LT interest earned: 3.3x)
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 247,206,978 shs. **as of 10/30/20**
MARKET CAP: $19 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%	*6.0%*
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	1628	*1284*	*5750*
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	1.47	*.41*	*3.45*
2021	*.65*	*.90*	*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	.515	

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 trimmed our 2020 earnings estimate for Ameren by $0.05 a share, to $3.45. Third-quarter profits were slightly below our expectation. Even so, earnings should still wind up above the 2019 tally, despite the negative effects of the recession on kilowatt-hour sales in Missouri, and coronavirus-related expenses. (Ameren Illinois operates under a regulatory mechanism that decouples revenues and volume.) Among the positive factors are an electric rate hike that took effect in Missouri on April 1st and investments in the electric transmission business. Our revised estimate is within Ameren's targeted range of $3.40-$3.55 a share, which was adjusted from $3.40-$3.60 when third-period results were reported in November.

A rate case is pending in Illinois. Ameren is seeking a gas increase of $97 million (including $46 million that would otherwise be recovered through riders on customers' bills), based on a 10.5% return on equity and a common-equity ratio of 54.1%. The staff of the Illinois Commerce Commission recommended a $69 million increase, based on a 9.32% ROE and a 50.4% common-equity ratio, and other intervenors proposed a hike that was slightly less favorable than the staff recommendation. An order is due by January, with new tariffs taking effect in February. This, along with a better economy, should produce higher profits in 2021.

Ameren is building a wind project. The company will add 700 megawatts of capacity at a cost of $1.2 billion. Most of this will be completed by yearend, but a portion of the spending ($200 million) will slip into the first quarter of 2021.

The board of directors raised the dividend in the fourth quarter. The increase was two cents a share (4.0%) quarterly, the same as last year. Ameren's goal for the payout ratio is 55%-70%, and this figure remains near the lower end.

This timely stock has been one of the top performers among utilities in 2020. The price has risen slightly in what has been a bad year for most electric utility issues, as investors like Ameren's stability. The dividend yield is a percentage point below the utility mean. Total return potential has appeal for the 18-month span, but is low for the 2023-2025 period.

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

(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 mid-Feb. **(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.

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

DUKE ENERGY NYSE-DUK

RECENT PRICE **93.82** | P/E RATIO **17.9** (Trailing: 18.7 Median: 18.0) | RELATIVE P/E RATIO **0.94** | DIV'D YLD **4.2%** | **VALUE LINE**

TIMELINESS — Suspended 11/13/20
SAFETY 2 New 6/1/07
TECHNICAL — Suspended 11/13/20
BETA .85 (1.00 = Market)

18-Month Target Price Range

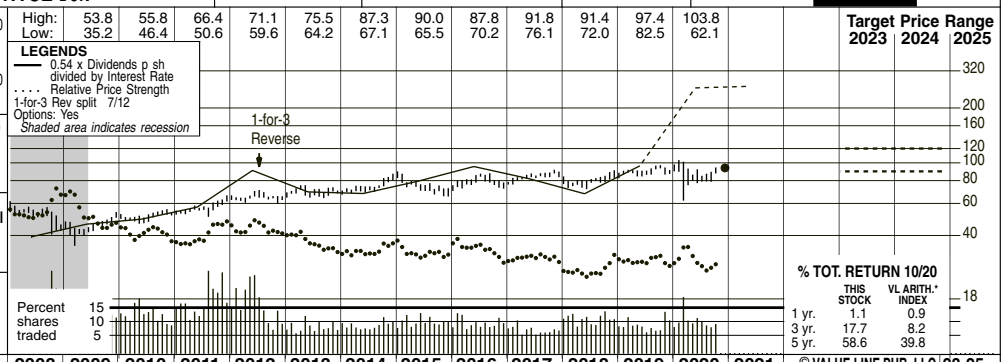
Low-High	Midpoint (% to Mid)
$62-$138	$100 (5%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	120	(+30%)	*10%*
Low	90	(-5%)	*3%*

Institutional Decisions

	4Q2019	1Q2020	2Q2020
to Buy	806	682	699
to Sell	557	723	666
Hld's(000)	476731	473369	471851



2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	© VALUE LINE PUB. LLC	23-25
--	--	25.32	30.24	31.15	29.18	32.22	32.63	27.88	34.84	33.84	34.10	32.49	33.66	33.73	34.21	*31.55*	*32.15*	Revenues per sh	*34.50*
--	--	7.86	8.11	7.34	7.58	8.49	8.68	6.80	8.56	9.11	9.40	9.20	10.01	10.49	12.13	*12.20*	*12.75*	"Cash Flow" per sh	*14.50*
--	--	2.76	3.60	3.03	3.39	4.02	4.14	3.71	3.98	4.13	4.10	3.71	4.22	4.13	5.07	*5.20*	*5.30*	Earnings per sh A	*6.00*
--	--	--	2.58	2.70	2.82	2.91	2.97	3.03	3.09	3.15	3.24	3.36	3.49	3.64	3.75	*3.82*	*3.90*	Div'd Decl'd per sh B ■	*4.15*
--	--	8.07	7.43	10.35	9.85	10.84	9.80	7.81	7.83	7.62	9.83	11.29	11.50	12.91	15.17	*15.50*	*14.70*	Cap'l Spending per sh	*13.75*
--	--	62.30	50.40	49.51	49.85	50.84	51.14	58.04	58.54	57.81	57.74	58.62	59.63	60.27	61.20	*61.75*	*63.35*	Book Value per sh C	*69.00*
--	--	418.96	420.62	423.96	436.29	442.96	445.29	704.00	706.00	707.00	688.00	700.00	700.00	727.00	733.00	*764.00*	*770.00*	Common Shs Outst'g D	*785.00*
--	--	--	16.1	17.3	13.3	12.7	13.8	17.5	17.4	17.9	18.2	21.3	19.9	19.4	17.7	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*17.5*
--	--	--	.85	1.04	.89	.81	.87	1.11	.98	.94	.92	1.12	1.00	1.05	.94			Relative P/E Ratio	*.95*
--	--	--	4.4%	5.2%	6.2%	5.7%	5.2%	4.7%	4.4%	4.3%	4.3%	4.3%	4.2%	4.5%	4.2%			Avg Ann'l Div'd Yield	*4.0%*
						14272	14529	19624	24598	23925	23459	22743	23565	24521	25079	*24100*	*24750*	Revenues ($mill)	*27000*
						1765.0	1839.0	2136.0	2813.0	2934.0	2854.0	2560.0	2963.0	2928.0	3755.0	*3940*	*4180*	Net Profit ($mill)	*4750*
						32.6%	31.3%	30.2%	32.6%	30.6%	32.2%	31.0%	30.4%	14.2%	12.7%	*12.0%*	*12.0%*	Income Tax Rate	*12.0%*
						22.7%	23.2%	22.3%	8.8%	7.2%	9.2%	11.7%	12.3%	13.0%	7.9%	*8.0%*	*8.0%*	AFUDC % to Net Profit	*8.0%*
						44.3%	45.1%	47.0%	48.0%	47.7%	48.6%	52.6%	54.0%	53.8%	54.0%	*53.0%*	*53.5%*	Long-Term Debt Ratio	*54.0%*
						55.7%	54.9%	52.9%	52.0%	52.3%	51.4%	47.4%	46.0%	46.2%	44.1%	*45.0%*	*44.5%*	Common Equity Ratio	*44.5%*
						40457	41451	77307	79482	78088	77222	86609	90774	94940	101807	*105100*	*109175*	Total Capital ($mill)	*122000*
						40344	42661	68558	69490	70046	75709	82520	86391	91694	102127	*108475*	*114050*	Net Plant ($mill)	*128400*
						5.5%	5.6%	3.6%	4.6%	4.8%	4.8%	4.0%	4.3%	4.2%	4.8%	*5.0%*	*5.0%*	Return on Total Cap'l	*5.0%*
						7.8%	8.1%	5.2%	6.8%	7.2%	7.2%	6.2%	7.1%	6.7%	8.0%	*8.0%*	*8.0%*	Return on Shr. Equity	*8.5%*
						7.8%	8.1%	5.2%	6.8%	7.2%	7.2%	6.2%	7.1%	6.7%	8.3%	*8.0%*	*8.5%*	Return on Com Equity E	*8.5%*
						2.1%	2.2%	.9%	1.5%	1.7%	1.5%	.6%	1.2%	1.0%	2.4%	*2.0%*	*2.0%*	Retained to Com Eq	*2.5%*
						73%	72%	82%	78%	76%	79%	91%	83%	84%	71%	*75%*	*74%*	All Div'ds to Net Prof	*71%*

CAPITAL STRUCTURE as of 6/30/20
Total Debt $64684 mill. **Due in 5 Yrs** $22390 mill.
LT Debt $56143 mill. **LT Interest** $2190 mill.
Incl. $969 mill. capitalized leases.
(LT interest earned: 2.7x)
Leases, Uncapitalized Annual rentals $268 mill.
Pension Assets-12/19 $8910 mill.
Oblig $8231 mill.
Pfd Stock $1962 mill. **Pfd Div'd** $58 mill.
40 mill. shs. 5.75%, cum., $25 liq. value, redeemable at $25.50 prior to 6/15/24; 1 mill. shs. 4.875%, cum., $1000 liq. value.
Common Stock 735,432,137 shs. **as of 7/31/20**
MARKET CAP: $69 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2017	2018	2019
% Change Retail Sales (KWH)	-2.0	+3.9	-.9
Avg. Indust. Use (MWH)	2914	2953	2934
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 (avg.)	+1.3	+1.4	+1.5
Fixed Charge Cov. (%)	272	218	233

ANNUAL RATES of change (per sh)

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

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	5729	5555	6482	5799	23565
2018	6135	5643	6628	6115	24521
2019	6163	5873	6940	6103	25079
2020	5949	5421	*6780*	*5950*	*24100*
2021	*6200*	*5650*	*6850*	*6050*	*24750*

EARNINGS PER SHARE A

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	1.02	.98	1.36	.86	4.22
2018	1.17	.71	1.63	.61	4.13
2019	1.24	1.12	1.82	.89	5.07
2020	1.24	1.08	*1.88*	*1.00*	*5.20*
2021	*1.25*	*1.10*	*1.95*	*1.00*	*5.30*

QUARTERLY DIVIDENDS PAID B ■

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2016	.825	.825	.855	.855	3.36
2017	.855	.855	.89	.89	3.49
2018	.89	.89	.9275	.9275	3.64
2019	.9275	.9275	.945	.945	3.75
2020	.945	.945	.965		

BUSINESS: Duke Energy Corporation is a holding company for utilities with 7.6 mill. elec. customers in NC, FL, IN, SC, OH, & KY, and 1.6 mill. gas customers in OH, KY, NC, SC, and TN. Owns independent power plants & has 25% stake in National Methanol in Saudi Arabia. Acq'd Progress Energy 7/12; Piedmont Natural Gas 10/16; discontinued most int'l ops. in '16. Elec. rev. breakdown: residential, 44%; commercial, 28%; industrial, 14%; other, 14%. Generating sources: gas, 29%; nuclear, 29%; coal, 22%; other, 1%; purchased, 19%. Fuel costs: 30% of revs. '19 reported deprec. rate: 3.1%. Has 28,800 employees. Chairman, President & CEO: Lynn J. Good. Inc.: DE. Address: 550 South Tryon St., Charlotte, NC 28202-1803. Tel.: 704-382-3853. Internet: www.duke-energy.com.

Is Duke Energy a takeover candidate? The stock price rose 7% on September 30th, after *The Wall Street Journal* reported that NextEra Energy approached Duke about a possible combination. Not surprisingly, Duke did not issue a comment about this. Even if NextEra makes a formal offer, there is no assurance that Duke will accept the proposal, and even if a deal is struck, there is no assurance that this will win regulatory approval. The price of Duke stock has strengthened further since late September, and has been trading in the low-$90 range recently (compared with the low-$80 range prior to the *Journal*'s report). The stock's Timeliness rank is suspended due to the takeover speculation.

The company took a huge nonrecurring charge for the second quarter. This was $1.6 billion ($2.21 a share) after taxes, and was for the write-off of Duke's interest in a pipeline project that was canceled due to delays and cost overruns stemming from litigation from environmental opponents. Duke expects to record additional charges of under $100 million within the next 12 months.

We estimate modest earnings increases in 2020 and 2021. Despite the effects of the recession on kilowatt-hour sales, management expects to offset this by cutting expenses by $350 million-$450 million. Rate relief is a positive factor. Duke was granted an increase in Indiana earlier this year, and has reached a settlement, subject to regulatory approval, in North Carolina (see below). Our 2020 profit estimate is within the company's targeted range of $5.05-$5.45 a share. Duke is guiding analysts toward the lower half.

Duke's utilities in North Carolina have reached settlements of their general rate cases. The company and the staff of the state commission agreed to rate hikes totaling $70 million, based on a return of 9.6% and a common-equity ratio of 52%. Interim rates (subject to refund) took effect in the third quarter. When the North Carolina commission will rule on the settlement is unknown.

Duke stock has an above-average dividend yield for a utility. Prospects for the 18-month span are attractive, but 3- to 5-year total return potential is subpar.

Paul E. Debbas, CFA November 13, 2020

(A) Dil. EPS. Excl. nonrec. losses: '12, 70¢; '13, 24¢; '14, 67¢; '17, 15¢; '18, 41¢; '20, $2.21; losses on disc. ops.: '14, 80¢; '16, 60¢; '18 EPS don't sum due to rounding. Next egs. report due mid-Feb. **(B)** Div'ds paid mid-Mar., June, Sept., & Dec. ■ Div'd reinv. plan avail. **(C)** Incl. intang. In '19: $44.37/sh. **(D)** In mill., adj. for rev. split. **(E)** Rate base: Net orig. cost. Rate all'd on com. eq. in '18 in NC: 9.9%; in '19 in SC: 9.5%; in '20 in FL: 9.5%-11.5%; in '20 in IN: 9.7%; earn. on avg. com. eq., '19: 8.3%. Reg. Clim.: NC Avg.; SC, OH, IN Above Avg.

Company's Financial Strength	A
Stock's Price Stability	90
Price Growth Persistence	40
Earnings Predictability	90

EDISON INTERNAT'L NYSE-EIX

RECENT PRICE 61.67 | P/E RATIO NMF (Trailing: NMF Median: 14.0) | RELATIVE P/E RATIO NMF | DIV'D YLD 4.3% | VALUE LINE

TIMELINESS 3 Lowered 1/22/21
SAFETY 3 Lowered 11/23/18
TECHNICAL 4 Lowered 1/22/21
BETA .95 (1.00 = Market)

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$45-$116	$81 (30%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	95	(+55%)	*14%*
Low	65	(+5%)	*6%*

Institutional Decisions

	1Q2020	2Q2020	3Q2020
to Buy	274	294	269
to Sell	304	264	264
Hld's(000)	318333	329959	334110

	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:	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								
Revenues per sh	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	*35.60*	*35.45*	Revenues per sh	*41.25*
"Cash Flow" per sh	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	*7.95*	*10.30*	"Cash Flow" per sh	*12.25*
Earnings per sh A	.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	*1.70*	*4.05*	Earnings per sh A	*4.75*
Div'd Decl'd per sh B ■	.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*
Cap'l Spending per sh	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*	*13.65*	Cap'l Spending per sh	*13.75*
Book Value per sh C	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	*36.65*	*39.05*	Book Value per sh C	*44.00*
Common Shs Outst'g D	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*	*395.00*	Common Shs Outst'g D	*395.00*
Avg Ann'l P/E Ratio	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	*NMF*		Avg Ann'l P/E Ratio	*16.5*
Relative P/E Ratio	1.99	.62	.70	.85	.75	.65	.66	.74	.62	.71	.68	.75	.94	.87	- -	.89	*NMF*		Relative P/E Ratio	*.90*
Avg Ann'l Div'd Yield	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%	4.3%		Avg Ann'l Div'd Yield	*3.8%*
Revenues ($mill)	12409	12760	11862	12581	13413	11524	11869	12320	12657	12347	*13500*	*14000*	Revenues ($mill)	*16300*
Net Profit ($mill)	1153.0	1112.0	1594.0	1344.0	1539.0	1480.0	1422.0	1603.0	d290.0	1477.0	*755*	*1730*	Net Profit ($mill)	*2000*
Income Tax Rate	32.1%	25.7%	14.3%	25.2%	22.4%	6.6%	11.1%	5.0%	- -	NMF	*NMF*	*Nil*	Income Tax Rate	*Nil*
AFUDC % to Net Profit	16.9%	14.8%	8.5%	7.8%	5.8%	8.0%	6.8%	7.2%	- -	11.1%	*24.0%*	*10.0%*	AFUDC % to Net Profit	*9.0%*
Long-Term Debt Ratio	51.8%	55.3%	45.2%	45.7%	44.1%	45.0%	41.8%	45.6%	53.6%	53.5%	*55.5%*	*57.0%*	Long-Term Debt Ratio	*59.0%*
Common Equity Ratio	44.3%	40.6%	46.2%	46.2%	47.2%	46.7%	49.2%	45.8%	38.3%	39.9%	*39.5%*	*38.0%*	Common Equity Ratio	*37.5%*
Total Capital ($mill)	23861	24773	20422	21516	23216	24352	24362	25506	27284	33360	*35125*	*38600*	Total Capital ($mill)	*46500*
Net Plant ($mill)	24778	32116	30273	30455	32981	35085	37000	39050	41348	44285	*46900*	*49800*	Net Plant ($mill)	*57700*
Return on Total Cap'l	6.3%	6.0%	8.9%	7.3%	7.7%	7.1%	6.9%	7.3%	.1%	5.6%	*3.5%*	*5.5%*	Return on Total Cap'l	*5.5%*
Return on Shr. Equity	10.0%	10.0%	14.2%	11.5%	11.9%	11.1%	10.0%	11.6%	NMF	9.5%	*5.0%*	*9.5%*	Return on Shr. Equity	*10.5%*
Return on Com Equity E	10.4%	10.5%	15.9%	12.5%	13.0%	12.0%	10.8%	12.7%	NMF	10.2%	*4.5%*	*10.0%*	Return on Com Equity E	*11.0%*
Retained to Com Eq	6.5%	6.3%	11.4%	8.1%	8.8%	7.2%	5.6%	6.6%	NMF	4.1%	*NMF*	*3.5%*	Retained to Com Eq	*4.0%*
All Div'ds to Net Prof	40%	43%	32%	40%	37%	44%	53%	52%	NMF	63%	*NMF*	*68%*	All Div'ds to Net Prof	*64%*

% TOT. RETURN 12/20

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-12.8	18.8
3 yr.	12.0	29.9
5 yr.	26.6	81.5

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

CAPITAL STRUCTURE as of 9/30/20
Total Debt $21738 mill. **Due in 5 Yrs** $6123 mill.
LT Debt $18958 mill. **LT Interest** $891 mill.
(LT interest earned: 2.0x)
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 378,513,912 shs. **as of 10/20/20**
MARKET CAP: $23 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%	*2.0%*
"Cash Flow"	.5%	-2.5%	*6.5%*
Earnings	-3.5%	-10.5%	*12.0%*
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	4644	*3079*	*13500*
2021	*2900*	*3100*	*4800*	*3200*	*14000*

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.76	*1.11*	*1.70*
2021	*.65*	*1.10*	*1.40*	*.90*	*4.05*

QUARTERLY DIVIDENDS PAID B ■

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
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	.6375	2.55
2021	.6625				

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.

Our 2020 earnings estimate for Edison International requires an explanation. The bottom line fell into the red in the third quarter due to a $2.33-a-share charge for expected liabilities stemming from wildfires and mudslides in Southern California Edison's service area in 2017 and 2018. We also include the effects of amortization of SCE's contributions to the state's wildfire insurance fund, which reduces quarterly earnings by $0.16 a share. Edison International is excluding these items from its 2020 "core" earnings guidance of $4.47-$4.62 a share. Note that the weak economy and lockdowns in California don't have a large effect on the company's income because SCE operates under a regulatory mechanism that decouples revenues and volume.

The utility is awaiting an order in its general rate case. SCE is seeking rate increases of $1.3 billion in 2021 (and asking that the order be retroactive to the start of the year), $452 million in 2022, and $524 million in 2023. Rate relief and the absence of the wildfire-liability reserve point to material earnings improvement this year. The California commission will consider the recovery of incremental wildfire mitigation costs in two separate tracks. SCE and other parties reached a settlement that, if approved by the commission, would raise rates $391 million to recover incremental wildfire mitigation costs from 2018 and 2019. A decision is expected in the current quarter. In March, the utility will apply for recovery of its incremental costs from 2020. Separately, the regulators have allowed the company to recover incremental wildfire insurance premium costs that were incurred through mid-2020.

An equity issuance is upcoming. Edison International expects to issue $1 billion of common stock in order to fund expected wildfire liability payments.

The board of directors raised the dividend, effective with the January payment. The increase was $0.10 a share (3.9%) annually.

This stock's dividend yield is above the utility average. Total return potential is attractive for the next 18 months and a bit above average for the 2023-2025 period.

Paul E. Debbas, CFA *January 22, 2021*

(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 Feb. **(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	75
Price Growth Persistence	50
Earnings Predictability	5

ENTERGY CORP. NYSE-ETR

RECENT PRICE 108.85 | P/E RATIO 18.4 (Trailing: 15.8 Median: 13.0) | RELATIVE P/E RATIO 0.88 | DIV'D YLD 3.5% | VALUE LINE

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

18-Month Target Price Range
Low-High Midpoint (% to Mid)
$82-$181 $132 (20%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	140	(+30%)	*10%*
Low	105	(-5%)	*3%*

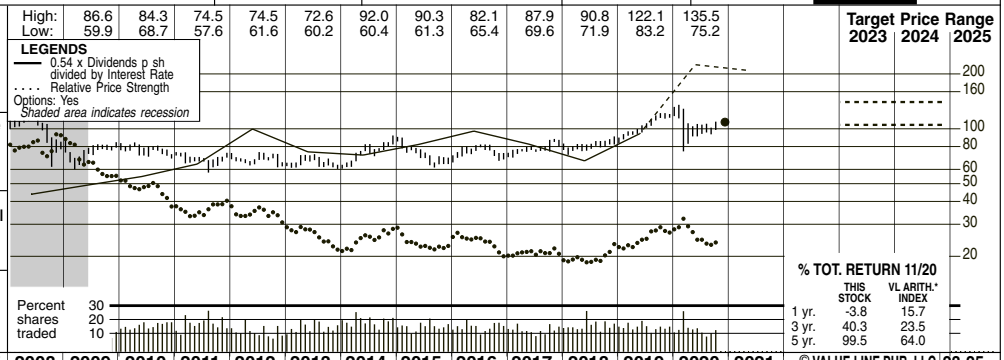
Institutional Decisions

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

	High:	86.6	84.3	74.5	74.5	72.6	92.0	90.3	82.1	87.9	90.8	122.1	135.5
	Low:	59.9	68.7	57.6	61.6	60.2	60.4	61.3	65.4	69.6	71.9	83.2	75.2

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

Target Price Range 2023 2024 2025



% TOT. RETURN 11/20

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-3.8	15.7
3 yr.	40.3	23.5
5 yr.	99.5	64.0

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	*50.50*	*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	*17.10*	*18.05*	"Cash Flow" per sh	*21.00*
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	*5.65*	*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*	*18.70*	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	*53.55*	*56.30*	Book Value per sh C	*64.50*
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	*10150*	*10300*	Revenues ($mill)	*10600*
1270.3	1367.4	1091.9	904.5	1060.0	1061.2	1249.8	950.7	1092.1	1258.2	*1155*	*1225*	Net Profit ($mill)	*1480*
32.7%	17.3%	13.0%	26.7%	37.8%	2.2%	11.3%	1.8%	1.8%	NMF	*14.0%*	*22.0%*	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	*12.0%*
56.3%	52.2%	55.8%	55.1%	54.9%	57.8%	63.6%	63.6%	63.2%	62.0%	*64.5%*	*64.0%*	Long-Term Debt Ratio	*60.5%*
42.1%	46.4%	42.9%	43.6%	43.8%	40.8%	35.5%	35.5%	35.9%	37.1%	*35.0%*	*35.0%*	Common Equity Ratio	*38.5%*
20166	19324	21432	22109	22842	22714	22777	22528	24602	27557	*30900*	*32725*	Total Capital ($mill)	*35100*
23848	25609	27299	27882	28723	27824	27921	29664	31974	35183	*37075*	*38475*	Net Plant ($mill)	*42400*
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%	*10.5%*	*10.5%*	Return on Shr. Equity	*10.5%*
14.7%	15.0%	11.6%	9.2%	10.4%	11.2%	15.2%	11.7%	12.2%	12.1%	*10.5%*	*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%	*3.5%*	*3.5%*	Retained to Com Eq	*4.0%*
49%	45%	56%	68%	58%	58%	50%	68%	61%	58%	*66%*	*65%*	All Div'ds to Net Prof	*66%*

CAPITAL STRUCTURE as of 9/30/20
Total Debt $22060 mill. **Due in 5 Yrs** $8573.8 mill.
LT Debt $19613 mill. **LT Interest** $831.0 mill.
Incl. $209.2 mill. of securitization bonds.
(LT interest earned: 2.2x)
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 200,232,522 shs. **as of 10/30/20**
MARKET CAP: $22 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%*

QUARTERLY REVENUES ($ mill.)

Calendar	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	2904	*2406*	*10150*
2021	*2600*	*2500*	*2900*	*2300*	*10300*

EARNINGS PER SHARE A

Calendar	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	2.59	*.68*	*5.65*
2021	*1.15*	*1.50*	*2.60*	*.70*	*5.95*

QUARTERLY DIVIDENDS PAID B ■ †

Calendar	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	.95	

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.

We raised our 2020 share-earnings estimate for Entergy from $5.00 to $5.65. Third-quarter results were better than we expected because Entergy's nonregulated subsidiary turned a small profit. This business has been hurt by unfavorable conditions in the power markets, so Entergy has been selling or shutting its nuclear plants. Two units are still operating, but are scheduled for closing in 2021 and 2022. Management has cut expenses effectively to offset the effects of the weak economy and the coronavirus. Note that we *include* the results of the nonutility business, even though Entergy excludes it from its definition of operating earnings.

The service area was hit by hurricanes in August and October. The worst of these caused an estimated $1.5 billion-$1.7 billion of damage. Two other hurricanes raised the total to $2.2 billion-$2.5 billion. Entergy is deferring these costs for future recovery. The company might eventually recoup these costs through the issuance of bonds securitized by payments on customers' bills. However Entergy recovers the hurricane-related costs, the method of recovery will require regulatory approval.

Some regulatory matters are pending. Entergy Arkansas is seeking a $73 million rate hike under the state's Formula Rate Plan (FRP). The utility also wants to renew the FRP. Entergy Louisiana wants to review that state's FRP, as well. Entergy Texas filed for increases totaling $38.4 million under regulatory mechanisms for the recovery of transmission and distribution costs. Rate relief and a stronger economy should enable earnings to increase in 2021. However, there is a potentially negative matter before federal regulators. State regulators allege that the federally granted allowed return on equity on certain assets is too high.

The board of directors raised the dividend in the fourth quarter. The increase was two cents a share (2.2%) quarterly, the same as in recent years. Entergy has stated that it expects dividend growth to accelerate in late 2021.

The dividend yield is about average for a utility. Total return potential is attractive for the 18-month period, but low for the next 3 to 5 years.

Paul E. Debbas, CFA *December 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 early Feb. **(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	35
Earnings Predictability	65

IDACORP, INC. NYSE-IDA

RECENT PRICE 90.39 | P/E RATIO 19.2 (Trailing: 18.5 Median: 16.0) | RELATIVE P/E RATIO 0.88 | DIV'D YLD 3.2% | VALUE LINE

TIMELINESS 2 Raised 8/28/20
SAFETY 1 Raised 1/22/21
TECHNICAL 4 Lowered 12/25/20
BETA .80 (1.00 = Market)

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$73-$151	$112 (25%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	115	(+25%)	9%
Low	95	(+5%)	5%

Institutional Decisions

	1Q2020	2Q2020	3Q2020
to Buy	167	154	186
to Sell	174	166	147
Hld's(000)	39043	39111	38758

	32.8	37.8	42.7	45.7	54.7	70.1	70.5	83.4	100.0	102.4	114.0	113.6
High:	20.9	30.0	33.9	38.2	43.1	50.2	55.4	65.0	77.5	79.6	89.3	69.1
Low:												

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

Target Price Range 2023 2024 2025

% TOT. RETURN 12/20

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-8.0	18.8
3 yr.	13.2	29.9
5 yr.	60.5	81.5

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	*26.25*	*27.25*	Revenues per sh	*30.25*
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	*8.20*	*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]	*5.75*
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*	*52.55*	Book Value per sh [C]	*58.75*
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	*20.0*		Avg Ann'l P/E Ratio	*18.0*
.82	.89	.82	.97	.84	.68	.75	.72	.79	.75	.77	.82	1.00	1.04	1.11	1.19	*1.00*		Relative P/E Ratio	*1.00*
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%	2.9%		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	*1325*	*1375*	Revenues ($mill)	*1525*
142.5	166.9	168.9	182.4	193.5	194.7	198.3	212.4	226.8	232.9	*235*	*240*	Net Profit ($mill)	*290*
--	--	13.4%	28.3%	8.0%	19.0%	15.5%	18.6%	7.1%	9.5%	*10.0%*	*10.0%*	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	*16.0%*
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	*44.5%*
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	*55.5%*
3020.4	3045.2	3225.4	3465.9	3567.6	3783.3	3898.5	3997.5	4205.1	4201.3	*4605*	*4770*	Total Capital ($mill)	*5375*
3161.4	3406.6	3536.0	3665.0	3833.5	3992.4	4172.0	4283.9	4395.7	4531.5	*4695*	*4865*	Net Plant ($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	*6.5%*
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 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	*4.0%*
41%	36%	41%	43%	46%	50%	53%	53%	54%	56%	*58%*	*60%*	All Div'ds to Net Prof	*61%*

CAPITAL STRUCTURE as of 9/30/20
Total Debt $2000.4 mill. **Due in 5 Yrs** $124.8 mill.
LT Debt $2000.4 mill. **LT Interest** $83.4 mill.
(LT interest earned: 3.8x)

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

Pfd Stock None

Common Stock 50,461,885 shs.
as of 10/23/20

MARKET CAP: $4.6 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%	*2.0%*
"Cash Flow"	5.5%	4.5%	*4.0%*
Earnings	7.0%	4.0%	*4.5%*
Dividends	7.0%	9.0%	*6.5%*
Book Value	5.5%	5.0%	*4.0%*

BUSINESS: IDACORP, Inc. is a holding company for Idaho Power Company, a regulated electric utility that serves 583,000 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.

Calendar	QUARTERLY REVENUES($ mill.) 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	425.3	***289.9***	***1325***
2021	***305***	***330***	***440***	***300***	***1375***

Calendar	EARNINGS PER SHARE [A] 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	2.02	***.70***	***4.65***
2021	***.85***	***1.15***	***2.00***	***.80***	***4.80***

Calendar	QUARTERLY DIVIDENDS PAID [B] ■ † Mar.31	Jun.30	Sep.30	Dec.31	Full Year
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	2.72
2021					

We estimate that IDACORP's earnings rose slightly in 2020. We figure this happened despite a difficult comparison in the fourth quarter. The company's utility subsidiary, Idaho Power, benefited from favorable weather conditions in its service area. Also, while the national recession hurt the economy in Idaho, this was less severe in the state because of the concentration of food-processing customers, which continued to operate even as some other businesses were ordered to close. Other businesses are expanding; for instance, Amazon opened a distribution center. Some companies have relocated from California to Idaho. Customer growth is rapid, and amounted to 2.6% for the 12-month period that ended on September 30th. Cost control has been effective, and operating and maintenance expenses likely declined. Upon reporting third-quarter results in late October, IDACORP narrowed its share-earnings guidance from $4.45-$4.65 to $4.55-$4.65. Our estimate remains at the upper end of this range.

We look for a modest profit increase this year. The service area's economy should continue to recover. On the other hand, a return to normal weather patterns would be a negative factor for the year-to-year comparison. Our estimate of $4.80 a share would produce a 3% increase over our expectation for 2020. Management will issue earnings guidance for 2021 when it reports fourth-quarter results next month.

Finances are solid. The fixed-charge coverage and common-equity ratio are comfortably above the averages for the electric utility industry. The earned return on equity is consistently healthy. IDACORP has not issued any common equity for several years, and expects no need for new equity in the next few years. The company's Financial Strength rating is A. We have raised the equity's Safety rank one notch, to 1 (Highest).

The dividend yield of this timely stock is a cut below the utility mean. The issue offers superior total return potential for the next 18 months. For the 3- to 5-year period, however, total return prospects are unexceptional, despite the likelihood of strong dividend growth. The recent quotation is near the lower end of our 2023-2025 Target Price Range.

Paul E. Debbas, CFA *January 22, 2021*

(A) Diluted EPS. Excl. nonrecurring gain (loss): '05, (24¢); '06, 17¢. '17 & '19 earnings don't sum due to rounding. Next earnings report due mid-Feb. **(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	90
Earnings Predictability	100

NORTHWESTERN NDQ-NWE

RECENT PRICE 56.72 | P/E RATIO 16.8 (Trailing: 17.8 Median: 17.0) | RELATIVE P/E RATIO 0.77 | DIV'D YLD 4.4% | VALUE LINE

TIMELINESS 3 Raised 11/6/20
SAFETY 2 Raised 7/27/18
TECHNICAL 4 Lowered 1/15/21
BETA .95 (1.00 = Market)

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$41-$101	$71 (25%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	85	(+50%)	*14%*
Low	65	(+15%)	*8%*

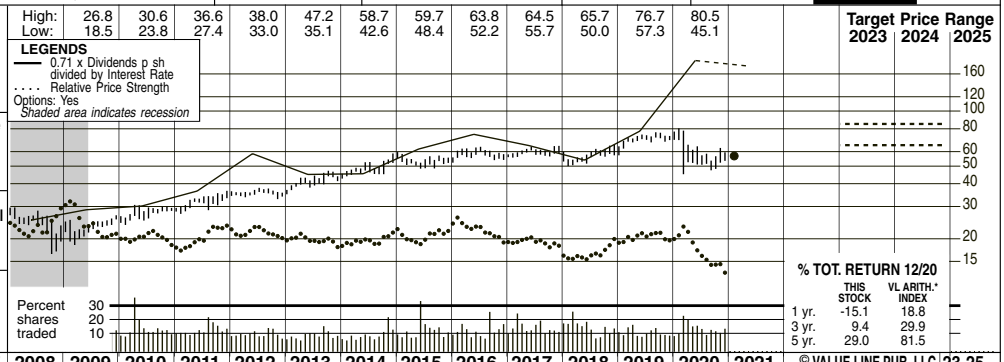
Institutional Decisions

	1Q2020	2Q2020	3Q2020
to Buy	127	143	134
to Sell	144	137	126
Hld's(000)	48390	48127	47772

	2023	2024	2025
Target Price Range			

High:	26.8	30.6	36.6	38.0	47.2	58.7	59.7	63.8	64.5	65.7	76.7	80.5
Low:	18.5	23.8	27.4	33.0	35.1	42.6	48.4	52.2	55.7	50.0	57.3	45.1

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



% TOT. RETURN 12/20

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-15.1	18.8
3 yr.	9.4	29.9
5 yr.	29.0	81.5

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	*24.00*	*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	*6.80*	*7.25*	"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	*3.15*	*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	*2.48*	Div'd Decl'd per sh [B] ■ †	*2.75*
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*	*8.75*	Cap'l Spending per sh	*7.50*
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	*41.10*	*42.40*	Book Value per sh [C]	*45.75*
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	*50.60*	*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	*18.9*		Avg Ann'l P/E Ratio	*18.5*
- -	.91	1.40	1.15	.84	.77	.82	.79	1.00	.95	.85	.93	.90	.90	.91	1.06	*.95*		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%	4.0%		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 ($mill)	*1450*
77.4	92.6	83.7	94.0	120.7	138.4	164.2	162.7	171.1	179.3	*160*	*180*	Net Profit ($mill)	*220*
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%*	*51.5%*	Long-Term Debt Ratio	*48.0%*
42.8%	47.8%	46.2%	46.5%	46.6%	46.9%	48.0%	49.8%	47.8%	47.5%	*51.0%*	*48.5%*	Common Equity Ratio	*52.0%*
1916.4	1797.1	2020.7	2215.7	3168.0	3408.6	3493.9	3614.5	4064.6	4289.8	*4090*	*4490*	Total Capital ($mill)	*4675*
2118.0	2213.3	2435.6	2690.1	3758.0	4059.5	4214.9	4358.3	4521.3	4700.9	*4915*	*5175*	Net Plant ($mill)	*5800*
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%*	*8.5%*	Return on Shr. Equity	*9.0%*
9.4%	10.8%	9.0%	9.1%	8.2%	8.6%	9.8%	9.0%	8.8%	8.8%	*8.0%*	*8.5%*	Return on Com Equity [E]	*9.0%*
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	*3.0%*
63%	56%	65%	61%	54%	65%	58%	62%	64%	64%	*75%*	*70%*	All Div'ds to Net Prof	*66%*

CAPITAL STRUCTURE as of 9/30/20
Total Debt $2307.0 mill. **Due in 5 Yrs** $548.1 mill.
LT Debt $2204.4 mill. **LT Interest** $80.5 mill.
Incl. $15.5 mill. capitalized leases.
(LT interest earned: 2.8x)

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

Pfd Stock None

Common Stock 50,581,973 shs.
as of 10/16/20

MARKET CAP: $2.9 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	280.6	***329.7***	***1215***
2021	***355***	***285***	***290***	***335***	***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	.58	***1.14***	***3.15***
2021	***1.15***	***.50***	***.65***	***1.20***	***3.50***

QUARTERLY DIVIDENDS PAID [B] ■ †

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
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	.60	2.40
2021					

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 almost certainly declined in 2020. Mild weather and unusual costs hurt the first-quarter comparison. Over the remainder of the year, the utility was affected by the slump in commercial and industrial kilowatt-hour sales resulting from the weak economy (partly offset by higher residential volume) and some coronavirus-related costs. NorthWestern stated that it planned to book a pretax charge of $9.5 million against fourth-quarter results because the Montana commission disallowed some purchased-power costs. We are *including* this in our earnings presentation even though the company is excluding it from its targeted range of $3.30-$3.45 a share.

We expect earnings in 2021 to approach the 2019 tally. We figure NorthWestern will have a more-typical showing in the March quarter, lower coronavirus-related effects for the full-year, and no charge for the disallowance in the December period. Our profit estimate of $3.50 a share is at the midpoint of the company's preliminary guidance of $3.40-$3.60.

NorthWestern is adding generating capacity. The company is building a 60-megawatt gas-fired plant in South Dakota that is scheduled to be on line in late 2021 at a cost of $80 million. The utility plans to add another 30-40 mw of capacity in 2023 at an expected cost of $60 million. NorthWestern canceled plans to purchase a stake in a coal-fired plant because obtaining regulatory approval appeared unlikely. The utility has a request for proposals pending in Montana, and expects to announce the winning bidder(s) in the current quarter.

We think the board of directors will raise the dividend in the current quarter. We estimate the annual disbursement will be hiked by $0.08 a share (3.3%). This would be a slightly smaller increase than in recent years. Based on our estimates for earnings and dividends this year, the payout ratio would be at the upper end of NorthWestern's goal of 60%-70%.

The dividend yield of NorthWestern stock is somewhat above the utility average. Total return potential is attractive for the year ahead and respectable for the 3- to 5-year period.

Paul E. Debbas, CFA *January 22, 2021*

(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

OGE ENERGY CORP. NYSE-OGE

RECENT PRICE 32.39 | P/E RATIO 15.7 (Trailing: 15.9 Median: 17.0) | RELATIVE P/E RATIO 0.75 | DIV'D YLD 5.0% | VALUE LINE

TIMELINESS 3 Lowered 3/6/20
SAFETY 2 Lowered 12/18/15
TECHNICAL 4 Raised 11/20/20
BETA 1.10 (1.00 = Market)

18-Month Target Price Range

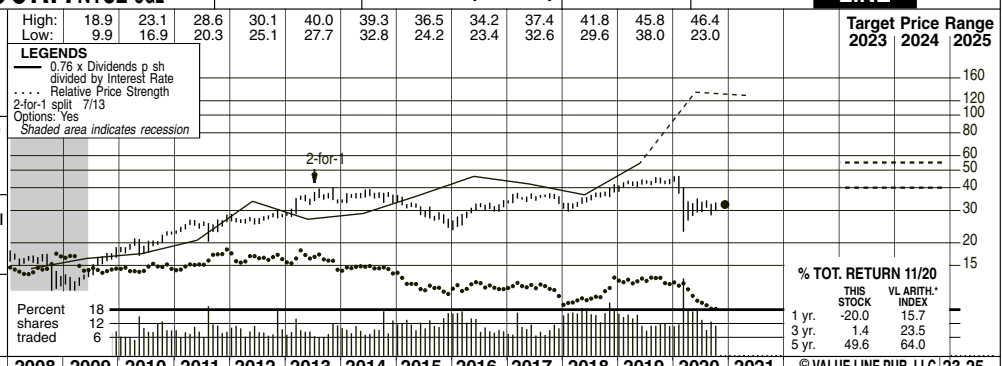
Low-High	Midpoint (% to Mid)
$23-$62	$43 (30%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	55	(+70%)	*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	© VALUE LINE PUB. LLC	23-25
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*	Revenues per sh	*13.75*
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*	*4.40*	"Cash Flow" per sh	*5.25*
.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	*2.05*	*2.25*	Earnings per sh A	*2.50*
.67	.67	.67	.68	.70	.71	.73	.76	.80	.85	.95	1.05	1.16	1.27	1.40	1.51	*1.58*	*1.68*	Div'd Decl'd per sh B ■	*1.95*
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*	Cap'l Spending per sh	*3.75*
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	*18.15*	*18.80*	Book Value per sh C	*20.75*
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*	Common Shs Outst'g D	*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*		Avg Ann'l P/E Ratio	*19.5*
.74	.79	.74	.73	.75	.72	.85	.90	.97	.99	.96	.89	.93	.92	.89	1.02			Relative P/E Ratio	*1.10*
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%			Avg Ann'l Div'd Yield	*4.0%*
3716.9	3915.9	3671.2	2867.7	2453.1	2196.9	2259.2	2261.1	2270.3	2231.6	*2100*	*2300*	Revenues ($mill)	*2750*
295.3	342.9	355.0	387.6	395.8	337.6	338.2	384.3	425.5	449.6	*415*	*450*	Net Profit ($mill)	*520*
34.9%	30.7%	26.0%	24.9%	30.4%	29.2%	30.5%	32.5%	14.5%	7.4%	*13.0%*	*13.0%*	Income Tax Rate	*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%*	AFUDC % to Net Profit	*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%*	Long-Term Debt Ratio	*49.0%*
49.2%	48.4%	49.3%	56.9%	54.1%	55.7%	58.9%	58.3%	58.0%	56.4%	*51.0%*	*52.0%*	Common Equity Ratio	*51.0%*
4652.5	5300.4	5615.8	5337.2	5999.7	5971.6	5849.6	6600.7	6902.0	7334.7	*7130*	*7250*	Total Capital ($mill)	*8100*
6464.4	7474.0	8344.8	6672.8	6979.9	7322.4	7696.2	8339.9	8643.8	9044.6	*9225*	*9525*	Net Plant ($mill)	*10275*
7.8%	7.8%	7.7%	8.6%	7.8%	6.9%	7.0%	7.0%	7.3%	7.1%	*7.0%*	*7.5%*	Return on Total Cap'l	*7.5%*
12.9%	13.4%	12.8%	12.8%	12.2%	10.2%	9.8%	10.0%	10.6%	10.9%	*11.5%*	*12.0%*	Return on Shr. Equity	*12.5%*
12.9%	13.4%	12.8%	12.8%	12.2%	10.2%	9.8%	10.0%	10.6%	10.9%	*11.5%*	*12.0%*	Return on Com Equity E	*12.5%*
6.7%	7.7%	7.2%	7.3%	6.5%	4.0%	3.3%	3.5%	3.8%	3.6%	*2.5%*	*3.5%*	Retained to Com Eq	*3.0%*
48%	43%	44%	43%	47%	61%	67%	64%	64%	67%	*76%*	*73%*	All Div'ds to Net Prof	*75%*

CAPITAL STRUCTURE as of 9/30/20
Total Debt $3493.9 mill. **Due in 5 Yrs** $79.4 mill.
LT Debt $3493.9 mill. **LT Interest** $150.2 mill.
(LT interest earned: 3.9x)

Leases, Uncapitalized Annual rentals $6.2 mill.

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

Pfd Stock None

Common Stock 200,020,017 shs.

MARKET CAP: $6.5 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%	*6.0%*
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	702.1	*463.9*	*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	1.04	*.27*	*2.05*
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	.4025	

BUSINESS: OGE Energy Corp. is a holding company for Oklahoma Gas and Electric Company (OG&E), which supplies electricity to 865,000 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.

OGE Energy's stock price continues to be held back by the poor performance of the units of Enable Midstream Partners. OGE has a 25.5% stake in Enable, a midstream gas master limited partnership that has been hurt by difficult conditions in the gas and oil industry. This has affected not only OGE's quotation, but its equity income and cash from distributions after Enable's board cut the payout. So far this year, the price of OGE stock has fallen 27%, far worse than most utility issues.

We have cut our 2020 earnings estimate by $0.05 a share. Unusually cool summer weather conditions hurt the third-quarter earnings comparison. Our revised estimate of $2.05 a share is near the upper end of management's targeted range of $2.00-$2.06.

We continue to expect improved earnings in 2021. We assume normal weather patterns in our estimate. The economy will likely be in better shape, too, although we note that the utility's service territory has fared better than the national economy in 2020. Revenues from a grid-enhancement plan will help, too.

The Oklahoma Corporation Commission approved a grid-enhancement plan. Oklahoma Gas and Electric plans to spend $810 million through 2024. The utility will receive $7 million in revenues for this plan in 2021 and 2022, and file a rate case by the end of the first quarter of 2022.

The utility filed for an increase in Arkansas under the state's formula rate plan. OG&E is seeking $7 million, which would take effect at the start of April. The company has reached settlements in previous formula rate requests.

The board of directors raised the dividend, effective with the October payment. The increase was $0.06 a share (3.9%) annually, smaller than in recent years. We believe this deceleration reflects the situation with Enable. We project better dividend growth by 2023-2025.

This stock offers an attractive dividend yield. The yield is more than one percentage point above the utility average. In addition, total return potential is superior for both the 18-month span and the 3- to 5-year period.

Paul E. Debbas, CFA *December 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 late Feb. **(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	35
Earnings Predictability	85

OTTER TAIL CORP. NDQ-OTTR

RECENT PRICE 39.82 | P/E RATIO 16.4 (Trailing: 16.6 Median: 22.0) | RELATIVE P/E RATIO 0.78 | DIV'D YLD 3.9% | VALUE LINE

TIMELINESS 3 Raised 11/13/20
SAFETY 2 Raised 6/17/16
TECHNICAL 3 Raised 12/11/20
BETA .85 (1.00 = Market)

18-Month Target Price Range
Low-High Midpoint (% to Mid)
$31-$69 $50 (25%)

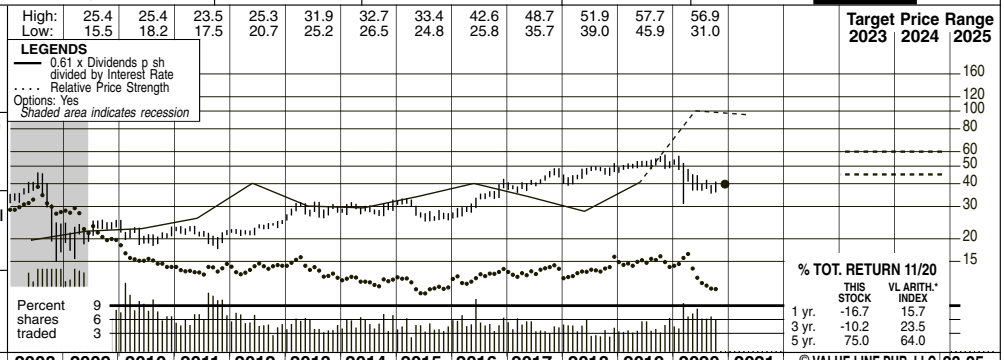
2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	60	(+50%)	*14%*
Low	45	(+15%)	*7%*

Institutional Decisions

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

	2025	2026	2027
Target Price Range	160	120	100



2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	© VALUE LINE PUB. LLC	23-25
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	*21.20*	*22.85*	Revenues per sh	*26.75*
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	*4.25*	*4.55*	"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	*2.30*	*2.45*	Earnings per sh A	*3.00*
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	*20.85*	*21.70*	Book Value per sh C	*24.50*
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	*17.0*
.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	*.95*
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	*880*	*950*	Revenues ($mill)	*1125*
13.6	16.4	39.0	50.2	56.9	58.6	62.0	73.9	82.3	86.8	*95.0*	*105*	Net Profit ($mill)	*125*
--	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%	*8.0%*	*4.0%*	AFUDC % to Net Profit	*2.0%*
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	*45.5%*
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	*54.5%*
1083.3	1058.9	959.2	924.4	1071.3	1051.0	1175.4	1187.3	1318.9	1471.1	*1490*	*1640*	Total Capital ($mill)	*1900*
1108.7	1077.5	1049.5	1167.0	1268.5	1387.8	1477.2	1539.6	1581.1	1753.8	*2050*	*2120*	Net Plant ($mill)	*2275*
2.7%	3.2%	5.7%	6.8%	6.7%	6.8%	6.5%	7.3%	7.3%	7.0%	*7.5%*	*7.5%*	Return on Total Cap'l	*7.5%*
2.1%	2.8%	7.3%	9.4%	9.9%	9.7%	9.3%	10.6%	11.3%	11.1%	*11.0%*	*11.5%*	Return on Shr. Equity E	*12.0%*
2.0%	2.7%	7.3%	9.3%	9.9%	9.7%	9.3%	10.6%	11.3%	11.1%	*11.0%*	*11.5%*	Return on Com Equity	*12.0%*
NMF	NMF	NMF	1.2%	2.2%	2.0%	2.1%	3.3%	4.0%	4.0%	*4.0%*	*4.0%*	Retained to Com Eq	*4.5%*
NMF	NMF	113%	87%	78%	79%	78%	69%	65%	64%	*64%*	*63%*	All Div'ds to Net Prof	*62%*

CAPITAL STRUCTURE as of 9/30/20
Total Debt $813.1 mill. **Due in 5 Yrs** $197.7 mill.
LT Debt $764.3 mill. **LT Interest** $35.1 mill.
(LT interest earned: 4.3x)

Leases, Uncapitalized Annual rentals $22.3 mill.
Pension Assets-12/19 $329.8 mill.
Oblig $384.8 mill.
Pfd Stock None

Common Stock 41,064,051 shs.
as of 10/31/20

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%	*6.5%*
Dividends	1.5%	2.5%	*5.0%*
Book Value	--	4.5%	*5.0%*

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	235.8	*216.7*	*880*
2021	*250*	*235*	*245*	*220*	*950*

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	.87	*.41*	*2.30*
2021	*.68*	*.47*	*.80*	*.50*	*2.45*

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 (27% of '19 operating 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, MN 56538-0496. Tel.: 866-410-8780. Internet: www.ottertail.com.

Otter Tail Corporation raised its 2020 earnings guidance for the second-consecutive quarter. The company's nonutility operations are faring better than management expected three months earlier. Accordingly, upon reporting third-quarter profits in early November, Otter Tail raised its targeted range for share net from $2.10-$2.30 to $2.26-$2.36. The company now expects its Manufacturing division to earn $0.23-$0.25 a share, versus $0.15-$0.23 previously and $0.32 in 2019, and its Plastics segment to contribute $0.64-$0.66, versus $0.50-$0.54 previously and $0.51 in 2019. The latter operation is seeing strong demand and pricing for PVC pipe. The revised earnings guidance is near the $2.22-$2.37 range Otter Tail issued in mid-February, before the coronavirus problems emerged. We raised our 2020 share-earnings estimate by $0.15, to $2.30, and boosted our 2021 estimate by the same amount, to $2.45, thanks to the nonutility operations' improved prospects.

Otter Tail Power filed a rate case in Minnesota. This was the utility's first application there since 2016. Otter Tail requested a hike of $14.5 million (6.8%), based on a return on equity of 10.2% and a common-equity ratio of 52.5%. The utility is requesting an interim tariff increase of $13.6 million that would take effect at the start of 2021. Otter Tail also wants a regulatory mechanism that would decouple revenues and volume. An order is expected in late 2021.

Two large construction projects are scheduled for completion soon. A 150-megawatt wind project, the largest in Otter Tail Power's history, is slated for commercial operation by yearend at an expected cost of $260 million. A 245-mw gas-fired plant is scheduled for commercial operation in the first quarter of 2021 at an expected cost of $152.5 million. Separately, the utility has submitted 12 potential projects with the Minnesota commission for a total capital investment of $153 million-$173 million.

This stock's dividend yield is slightly above the utility average. Despite Otter Tail's improved prospects, the stock price is down 22% in 2020. Total return potential is appealing for the next 18 months, but unexciting for the 2023-2025 period.

Paul E. Debbas, CFA *December 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 mid-Feb. **(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	70
Earnings Predictability	90

PINNACLE WEST NYSE-PNW

RECENT PRICE 76.69 | P/E RATIO 16.1 (Trailing: 13.6 Median: 16.0) | RELATIVE P/E RATIO 0.74 | DIV'D YLD 4.5% | VALUE LINE

TIMELINESS 2 Lowered 11/27/20
SAFETY 1 Raised 5/3/13
TECHNICAL 3 Lowered 1/8/21
BETA .90 (1.00 = Market)

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$57-$134	$96 (25%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	120	(+55%)	*15%*
Low	100	(+30%)	*11%*

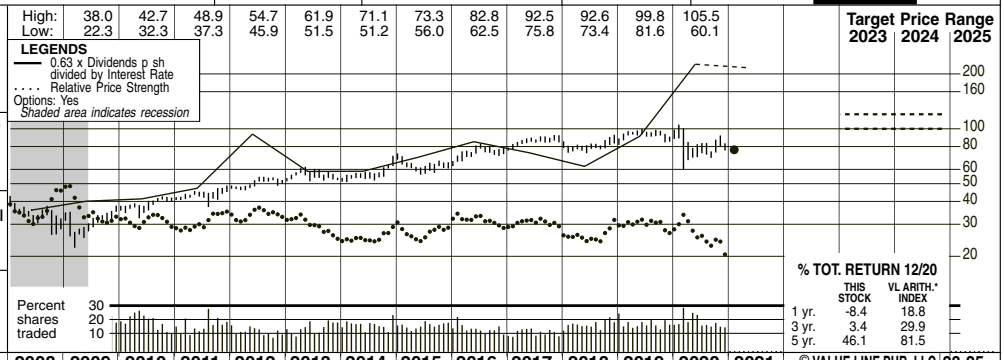
Institutional Decisions

	1Q2020	2Q2020	3Q2020
to Buy	207	229	237
to Sell	277	245	229
Hld's(000)	95773	95025	93145

	2023	2024	2025
Target Price Range			
High:	38.0	42.7	48.9
Low:	22.3	32.3	37.3

	54.7	61.9	71.1	73.3	82.8	92.5	92.6	99.8	105.5
	45.9	51.5	51.2	56.0	62.5	75.8	73.4	81.6	60.1

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



% TOT. RETURN 12/20

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-8.4	18.8
3 yr.	3.4	29.9
5 yr.	46.1	81.5

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	*31.75*	*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	*11.65*	*11.90*	"Cash Flow" per sh	*13.25*
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	*5.10*	*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	3.23	*3.42*	Div'd Decl'd per sh [B] ■	*4.05*
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	*11.65*	*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	*50.10*	*51.70*	Book Value per sh [C]	*58.00*
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	*16.0*		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	*.80*		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%	4.0%		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	*3575*	*3650*	Revenues ($mill)	*4100*
330.4	328.2	387.4	406.1	397.6	437.3	442.0	497.8	511.0	538.3	*575*	*585*	Net Profit ($mill)	*710*
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%	*9.0%*	*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	*57.0%*
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	*43.0%*
6729.1	6840.9	7171.9	6990.9	7398.7	8046.3	8825.4	9796.4	9861.1	10263	*11975*	*13175*	Total Capital ($mill)	*16025*
9578.8	9962.3	10396	10889	11194	11809	12714	13445	14030	14523	*15100*	*16050*	Net Plant ($mill)	*18100*
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	*5.5%*
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 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%	*4.0%*	*3.5%*	Retained to Com Eq	*3.5%*
66%	68%	58%	58%	62%	59%	62%	58%	60%	61%	*63%*	*66%*	All Div'ds to Net Prof	*67%*

CAPITAL STRUCTURE as of 9/30/20
Total Debt $6374.3 mill. **Due in 5 Yrs** $1573.0 mill.
LT Debt $6316.4 mill. **LT Interest** $226.5 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 112,596,784 shs.
as of 10/23/20
MARKET CAP: $8.6 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%	*3.5%*
Earnings	6.5%	5.0%	*4.5%*
Dividends	3.0%	3.5%	*6.0%*
Book Value	3.0%	4.0%	*3.5%*

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	1254.5	*729*	*3575*
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	3.07	*.05*	*5.10*
2021	*.15*	*1.50*	*3.15*	*.35*	*5.15*

QUARTERLY DIVIDENDS PAID [B] ■

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
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	.83	3.18
2021					

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 revised its general rate case. Arizona Public Service originally filed for an increase of $184 million (5.6%), based on a return on equity of 10.15% and a common-equity ratio of 54.7%. The utility reduced its requested hike to $169 million (5.1%), based on an ROE of 10% and the same common-equity ratio. APS is trying to place capital investments in the rate base and obtain regulatory mechanism to track and recover certain expenses, such as property taxes. The staff of the Arizona Corporation Commission recommended an increase of $59.8 million (1.8%), based on a 9.4% ROE and the same common-equity ratio. There is no statutory time frame for an order, and the case has been delayed several months. Perhaps an increase will go into effect as early as mid-2021. There is always some risk surrounding rate cases, but the fact that two of the five commissioners are new to their positions adds uncertainty to the current proceedings.

We raised our 2020 earnings estimate by $0.15 a share, to $5.10. The company's third-quarter tally was boosted significantly by a record-hot summer in APS' service area. In fact, upon reporting third-quarter profits, Pinnacle West raised its targeted range by $0.20 a share, to $4.95-$5.15. The fourth-quarter comparison will almost certainly be materially negative due to some discretionary spending and the acceleration of some operating expenses from 2021 to 2020.

We look for slightly higher profits this year. This is based on the assumption that a rate increase will be in effect by the start of the seasonally strong third quarter. However, APS benefited from favorable weather conditions in the second and third quarters of 2020, and we base our 2021 estimate on normal weather.

The board of directors raised the annual dividend $0.19 a share (6.1%) in the fourth quarter. This has been the growth rate of the disbursement in recent years. We think dividend hikes will continue at that level through 2023-2025.

This timely stock is attractive for conservative income-oriented investors. The yield is above the utility average, and total return potential for the 18-month span and 3- to 5-year period are solid.

Paul E. Debbas, CFA *January 22, 2021*

(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 Feb. **(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.

Company's Financial Strength	A+
Stock's Price Stability	90
Price Growth Persistence	65
Earnings Predictability	100

PORTLAND GENERAL NYSE-POR

RECENT PRICE 41.90 | P/E RATIO 27.7 (Trailing: 14.3 Median: 17.0) | RELATIVE P/E RATIO 1.28 | DIV'D YLD 4.0% | VALUE LINE

TIMELINESS 4 Lowered 1/22/21
SAFETY 3 Lowered 9/4/20
TECHNICAL 4 Lowered 1/8/21
BETA .85 (1.00 = Market)

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$34-$80	$57 (35%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	65	(+55%)	*15%*
Low	45	(+5%)	*6%*

Institutional Decisions

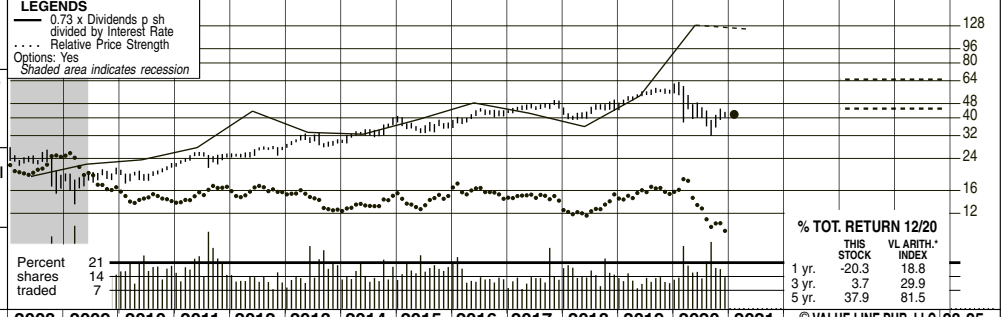
	1Q2020	2Q2020	3Q2020
to Buy	132	157	147
to Sell	197	158	180
Hld's(000)	86455	90761	81534

	2023	2024	2025
High:	21.4	22.7	26.0
Low:	13.5	17.5	21.3

28.1	33.3	40.3	41.0	45.2	50.1	50.4	58.4	63.1			
24.3	27.4	29.0	33.0	35.3	42.4	39.0	44.0	32.0			

Target Price Range

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



% TOT. RETURN 12/20

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-20.3	18.8
3 yr.	3.7	29.9
5 yr.	37.9	81.5

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	*6.25*	*7.50*	"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	*1.55*	*2.65*	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	*8.60*	*7.45*	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	*28.95*	*29.90*	Book Value per sh C	*33.00*
- -	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	*29.4*		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	*1.50*		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%	3.5%		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 ($mill)	*2450*
						125.0	147.0	141.0	137.0	175.0	172.0	193.0	204.0	212.0	214.0	*140*	*240*	Net Profit ($mill)	*275*
						30.5%	28.3%	31.4%	23.2%	26.0%	20.7%	20.6%	25.3%	7.4%	11.2%	*Nil*	*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%	*14.0%*	*6.0%*	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	*54.0%*
						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	*46.0%*
						3390.0	3298.0	3264.0	3735.0	4037.0	4329.0	4544.0	4842.0	4684.0	5323.0	*5575*	*5965*	Total Capital ($mill)	*6475*
						4133.0	4285.0	4392.0	4880.0	5679.0	6012.0	6434.0	6741.0	6887.0	7161.0	*7510*	*7745*	Net Plant ($mill)	*7875*
						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%	*5.5%*	*9.0%*	Return on Shr. Equity	*9.5%*
						7.9%	8.8%	8.2%	7.5%	9.2%	7.6%	8.2%	8.4%	8.5%	8.3%	*5.5%*	*9.0%*	Return on Com Equity E	*9.5%*
						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*	*63%*	All Div'ds to Net Prof	*65%*

CAPITAL STRUCTURE as of 9/30/20
Total Debt $3058 mill. **Due in 5 Yrs** $541 mill.
LT Debt $2657 mill. **LT Interest** $129 mill.
Incl. $135 mill. capitalized leases.
(LT interest earned: 2.2x)
Leases, Uncapitalized Annual rentals $8 mill.
Pension Assets-12/19 $695 mill.
Oblig $905 mill.
Pfd Stock None

Common Stock 89,510,606 shs.
as of 10/26/20

MARKET CAP: $3.8 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%*

Calendar	QUARTERLY REVENUES ($ mill.) 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	547	*561*	*2150*
2021	*580*	*475*	*570*	*575*	*2200*

Calendar	EARNINGS PER SHARE A 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.19	*.40*	*1.55*
2021	*.85*	*.45*	*.60*	*.75*	*2.65*

Calendar	QUARTERLY DIVIDENDS PAID B ■ † Mar.31	Jun.30	Sep.30	Dec.31	Full Year
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	1.56
2021	.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's earnings almost certainly declined sharply in 2020. The reason was a large energy-trading loss in August. This hurt third-quarter and full-year profits by $1.09 a share, and sent the September-period tally into the red. The company established a committee of board members to review its operations, and made some changes in personnel and its organizational structure as a result. The costs of these changes were not material, and PGE cut some expenses to offset part of the cost of the trading loss. Management is guiding Wall Street to the upper half of its earnings target of $1.40-$1.60 a share.

We expect an earnings recovery this year. The energy-trading loss was limited to the incident in the third quarter of 2020, so we assume no recurrence of any such problems. We also expect the utility to benefit from a better economy in its service area. Renewable-energy investments are being recovered through a renewable adjustment clause. PGE's long-term goal for annual earnings growth is 4%-6%, using the 2019 tally as the base. We expect a dividend increase, too, as the company expects the trading loss will not affect this.

A noteworthy capital project was completed in 2020, and another is on track for completion in 2021. PGE has a one-third stake in a 300-megawatt wind-farm in a joint venture with NextEra Energy. (In conjunction with the project, the latter company will own 50 mw of solar capacity and 30 mw of battery of storage that are scheduled for completion by year-end.) The cost of PGE's share of the wind-farm was $160 million. The company is building an integrated operations center at an expected cost of $200 million. This is scheduled for completion by yearend.

Despite the trading loss, finances are sound. Interest coverage is adequate, and the common-equity ratio is healthy. PGE does not need to issue equity to finance its capital expenditures. PGE's Financial Strength rating is B++.

This untimely stock's dividend yield is slightly above the utility average. The equity is noteworthy for its 18-month prospects, however, and offers respectable 3- to 5-year total return potential.

Paul E. Debbas, CFA *January 22, 2021*

(A) Diluted EPS. Excl. nonrecurring losses: '13, 42¢; '17, 19¢. Next earnings report due mid-Feb. **(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	90
Price Growth Persistence	75
Earnings Predictability	90

XCEL ENERGY NDQ-XEL

RECENT PRICE 64.40 | P/E RATIO 22.2 (Trailing: 23.0 Median: 16.0) | RELATIVE P/E RATIO 1.02 | DIV'D YLD 2.8% | VALUE LINE

TIMELINESS 1 Raised 12/4/20
SAFETY 1 Raised 5/1/15
TECHNICAL 2 Lowered 1/15/21
BETA .80 (1.00 = Market)

18-Month Target Price Range

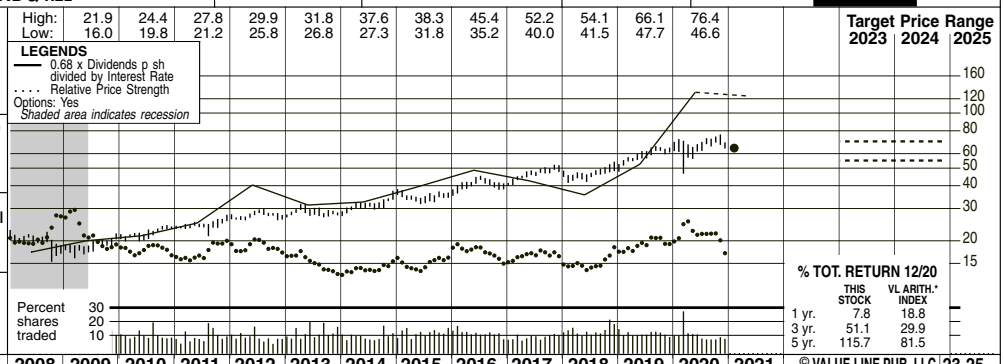
Low-High	Midpoint (% to Mid)
$51-$106	$79 (20%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	70	(+10%)	5%
Low	55	(-15%)	Nil

Institutional Decisions

	1Q2020	2Q2020	3Q2020
to Buy	365	343	356
to Sell	378	366	362
Hld's(000)	407479	412864	407854



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	*21.15*	*22.15*	Revenues per sh	*24.25*
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	*6.60*	*7.20*	"Cash Flow" per sh	*9.00*
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	*2.80*	*2.95*	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*	*7.70*	Cap'l Spending per sh	*8.25*
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	*27.25*	*28.55*	Book Value per sh [C]	*33.25*
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]	*555.00*
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	*23.8*		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	*1.20*		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%	2.6%		Avg Ann'l Div'd Yield	*3.4%*
						10311	10655	10128	10915	11686	11024	11107	11404	11537	11529	*11400*	*12000*	Revenues ($mill)	*13500*
						727.0	841.4	905.2	948.2	1021.3	1063.6	1123.4	1171.0	1261.0	1372.0	*1480*	*1600*	Net Profit ($mill)	*1960*
						37.5%	35.8%	33.2%	33.8%	33.9%	35.8%	34.1%	30.7%	12.6%	8.5%	*Nil*	*NMF*	Income Tax Rate	*NMF*
						11.7%	9.4%	10.8%	13.4%	12.5%	7.7%	7.8%	9.4%	12.4%	8.3%	*11.0%*	*7.0%*	AFUDC % to Net Profit	*7.0%*
						53.1%	51.1%	53.3%	53.3%	53.0%	54.1%	56.3%	55.9%	56.4%	56.8%	*57.0%*	*56.0%*	Long-Term Debt Ratio	*55.5%*
						46.3%	48.9%	46.7%	46.7%	47.0%	45.9%	43.7%	44.1%	43.6%	43.2%	*43.0%*	*44.0%*	Common Equity Ratio	*44.5%*
						17452	17331	19018	20477	21714	23092	25216	25975	28025	30646	*34350*	*35325*	Total Capital ($mill)	*41500*
						20663	22353	23809	26122	28757	31206	32842	34329	36944	39483	*41000*	*42875*	Net Plant ($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	*6.0%*
						8.9%	9.9%	10.2%	9.9%	10.0%	10.0%	10.2%	10.2%	10.3%	10.4%	*10.0%*	*10.5%*	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%*	*10.5%*	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%	*4.0%*	*4.0%*	Retained to Com Eq	*4.0%*
						59%	56%	54%	54%	55%	57%	61%	62%	58%	58%	*62%*	*61%*	All Div'ds to Net Prof	*61%*

CAPITAL STRUCTURE as of 9/30/20
Total Debt $20861 mill. **Due in 5 Yrs** $3725 mill.
LT Debt $19960 mill. **LT Interest** $800 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 525,457,773 shs.
as of 10/19/20
MARKET CAP: $34 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%	*1.5%*
"Cash Flow"	5.5%	7.5%	*7.5%*
Earnings	5.5%	5.0%	*6.0%*
Dividends	5.0%	6.5%	*6.0%*
Book Value	4.5%	4.5%	*5.5%*

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.

Calendar	QUARTERLY REVENUES ($ mill.) 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	3182	*2821*	*11400*
2021	*3100*	*2700*	*3150*	*3050*	*12000*

Calendar	EARNINGS PER SHARE [A] 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	1.14	*.56*	*2.80*
2021	*.65*	*.55*	*1.15*	*.60*	*2.95*

Calendar	QUARTERLY DIVIDENDS PAID [B] ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
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	1.70
2021					

Xcel Energy's Northern States Power facility will not have a general rate case in Minnesota in 2021. NSP had filed a request for a multiyear rate hike over three years, but included an alternative proposal for a continuation of mechanisms that benefited the utility's earning power in 2020 by adjusting revenues for fluctuations in sales, earning a return on certain capital expenditures, and recouping higher property taxes. The commission adopted the alternative proposal, just as it did a year earlier. NSP did file a traditional rate case in North Dakota. The utility asked for a hike of $22 million (10.8%), based on a return on equity of 10.2% and a common-equity ratio of 52.5%. An interim increase of $16 million this month, and a final order is expected in the third quarter.

The Minnesota commission approved a proposal to repower some wind projects. This will add 650 megawatts of capacity at a cost of $750 million. NSP plans to ask the regulators to approve the addition of 460 mw of solar capacity at a projected cost of $650 million. The spending will occur from 2021 through 2024.

A rate filing is pending in New Mexico and upcoming in Texas. Southwestern Public Service filed for an $88 million increase in New Mexico, based on a 10.35% ROE and a 54.7% common-equity ratio. We were expecting an application in Texas as this report went to press. The utility wants to place a wind project in the rate base. Orders on the cases are expected later in 2021, but won't likely have much effect on Xcel's earning power until next year.

Earnings probably rose strongly in 2020, and we expect another solid increase this year. Xcel's utilities are benefiting from rate relief. Effective cost control is helping, too. We have raised our 2020 and 2021 share-earnings estimates $0.05 each year. These are within the company's guidance of $2.75-$2.81 and $2.90-$3.00 for 2020 and 2021, respectively.

This timely and high-quality equity has a low dividend yield for a utility. This is about a percentage point below the industry mean. Total return potential is attractive for the 18-month span, but low for the 2023-2025 period.

Paul E. Debbas, CFA *January 22, 2021*

(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 Jan. **(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	65
Earnings Predictability	100

Tampa Electric Company, Inc.
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)	10.36 %
Risk Premium Using an Adjusted Total Market Approach (2)	10.52 %
Average	10.44 %

Notes:
(1) From page 2 of Document No. 5.
(2) From page 3 of Document No. 5.

Tampa Electric Company, Inc.
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.	0.29%	0.46%	0.29%	2.1356	7.57%	2.31%	9.88%
Alliant Energy Corporation	0.27%	0.31%	0.27%	2.5648	8.54%	2.31%	10.85%
Ameren Corporation	0.23%	0.23%	0.23%	1.9178	5.38%	2.31%	7.69%
Duke Energy Corporation	0.31%	0.27%	0.31%	1.8161	7.01%	2.31%	9.32%
Edison International	0.43%	0.61%	0.43%	1.4753	7.93%	2.31%	10.24%
Entergy Corporation	0.40%	0.56%	0.40%	2.1949	11.06%	2.31%	13.37%
IDACORP, Inc.	0.29%	0.39%	0.29%	2.1492	7.65%	2.31%	9.96%
NorthWestern Corporation	0.34%	0.34%	0.34%	2.3264	9.94%	2.31%	12.25%
OGE Energy Corporation	0.31%	0.30%	0.31%	2.1283	8.17%	2.31%	10.48%
Otter Tail Corporation	0.37%	0.35%	0.37%	1.5726	7.28%	2.31%	9.59%
Pinnacle West Capital Corporation	0.60%	0.42%	0.60%	1.2411	9.27%	2.31%	11.58%
Portland General Electric Company	0.27%	0.35%	0.27%	2.0055	6.73%	2.31%	9.04%
Xcel Energy, Inc.	0.27%	0.18%	0.27%	2.7949	9.54%	2.31%	11.85%
						Average	10.47%
						Median	10.24%
						Average of Mean and Median	10.36%

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 Document No. 6
(5) Column [5] + Column [6].

Tampa Electric Company, Inc.
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)	3.06 %
2.	Adjustment to Reflect Yield Spread Between Aaa Rated Corporate Bonds and A2 Rated Public Utility Bonds	0.50 (2)
3.	Adjusted Prospective Yield on A2 Rated Public Utility Bonds	3.56 %
4.	Adjustment to Reflect Bond Rating Difference of Proxy Group	0.10 (3)
5.	Adjusted Prospective Bond Yield	3.66 %
6.	Equity Risk Premium (4)	6.86
7.	Risk Premium Derived Common Equity Cost Rate	10.52 %

Notes:
(1) Consensus forecast of Moody's Aaa Rated Corporate bonds from Blue Chip Financial Forecasts (see pages 10 and 11 of Document No. 5).
(2) The average yield spread of A2 rated public utility bonds over Aaa rated corporate bonds of 0.50% from page 4 of Document No. 5.
(3) Adjustment to reflect the A3 Moody's LT issuer rating of the Utility Proxy Group as shown on page 5 of Document No. 5. The 0.1% upward adjustment is derived by taking 1/3 of the spread between A2 and Baa2 Public Utility Bonds (1/3 * 0.3% = 0.10%) as derived from page 4 of Document No. 5.
(4) From page 7 of Document No. 5.

Tampa Electric Company, Inc.
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
Jan-2021	2.45 %	2.91 %	3.19 %
Dec-2020	2.26	2.77	3.05
Nov-2020	2.30	2.85	3.17
Average	2.34 %	2.84 %	3.14 %

Selected Bond Spreads

A2 Rated Public Utility Bonds Over Aaa Rated Corporate Bonds: 0.50 % (1)

Baa2 Rated Public Utility Bonds Over A2 Rated Public Utility Bonds: 0.30 % (2)

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

Source of Information: Bloomberg Professional Service

Tampa Electric Company, Inc.
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 January 2021 (1)	Moody's Numerical Weighting (2)	Standard & Poor's Long-Term Issuer Rating January 2021 (1)	Standard & Poor's 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
Duke Energy Corporation	A3	7.0	BBB+	8.0
Edison International	Baa2	9.0	BBB	9.0
Entergy Corporation	Baa1/Baa2	8.5	BBB+	8.0
IDACORP, Inc.	A3	7.0	BBB	9.0
NorthWestern Corporation	Baa2	9.0	BBB	9.0
OGE Energy Corporation	A3	7.0	A-	7.0
Otter Tail Corporation	A3	7.0	BBB+	8.0
Pinnacle West Capital Corporation	A2	6.0	A-	7.0
Portland General Electric Company	A3	7.0	BBB+	8.0
Xcel Energy, Inc.	A3	7.0	A-	7.0
Average	A3	7.4	BBB+	7.9

Notes:
(1) Ratings are that of the average of each company's utility operating subsidiaries.
(2) From page 6 of Document No. 5.

Sources of 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-

Tampa Electric Company, Inc.
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)	9.16 %
2.	Mean equity risk premium based on a study using the holding period returns of public utilities with A2 rated bonds (2)	5.51
3.	Predicted Equity Risk Premium Based on Regression Analysis of 1,179 Fully-Litigated Electric Utility Rate Cases	5.92
4.	Average equity risk premium	6.86 %

Notes: (1) From page 8 of Document No. 5.
(2) From page 12 of Document No. 5.
(3) From page 13 of Document No. 5.

Tampa Electric Company, Inc.
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)	9.30
3.	Ibbotson Equity Risk Premium based on PRPM (3)	9.65
4.	Equity Risk Premium Based on Value Line Summary and Index (4)	6.77
5.	Equity Risk Premium Based on Value Line S&P 500 Companies (5)	11.04
6.	Equity Risk Premium Based on Bloomberg S&P 500 Companies (6)	14.72
7.	Conclusion of Equity Risk Premium	9.54 %
8.	Adjusted Beta (7)	0.96
9.	Forecasted Equity Risk Premium	9.16 %

Notes provided on page 9 of Document No. 5.

Tampa Electric Company, Inc.
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® 2021 Market Report minus the arithmetic mean monthly yield of Moody's average Aaa and Aa2 corporate bonds from 1926-2019.

(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 January 2021.

(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 3.06% (from page 3 of Document No. 5) from the projected 3-5 year total annual market return of 9.83% (described fully in note 1 on page 2 of Document No. 6).

(5) Using data from Value Line for the S&P 500, an expected total return of 14.10% was derived of 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 3.06% results in an expected equity risk premium of 11.04%.

(6) Using data from the Bloomberg Professional Service for the S&P 500, an expected total return of 17.78% was derived of 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 3.06% results in an expected equity risk premium of 14.72%.

(7) Average of mean and median beta from Document No. 6.

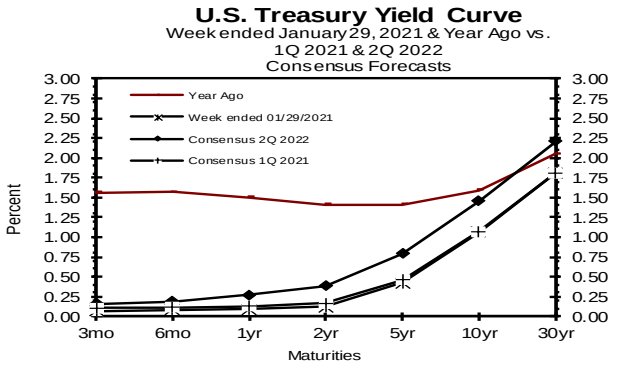
Sources of Information:

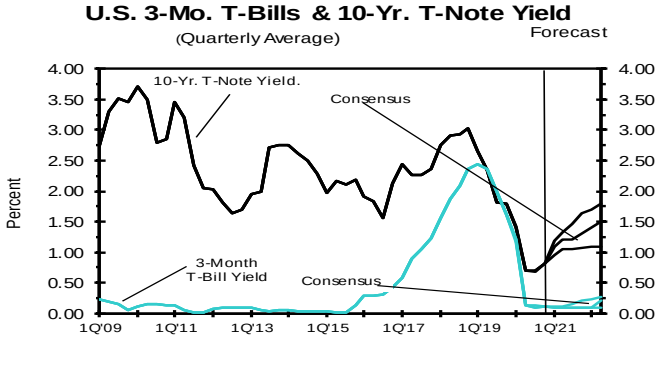
Stocks, Bonds, Bills, and Inflation - 2020 SBBI Yearbook, John Wiley & Sons, Inc.
Industrial Manual and Mergent Bond Record Monthly Update.
Value Line Summary and Index
Blue Chip Financial Forecasts, December 1, 2020 and February 3, 2021
Bloomberg Professional Service

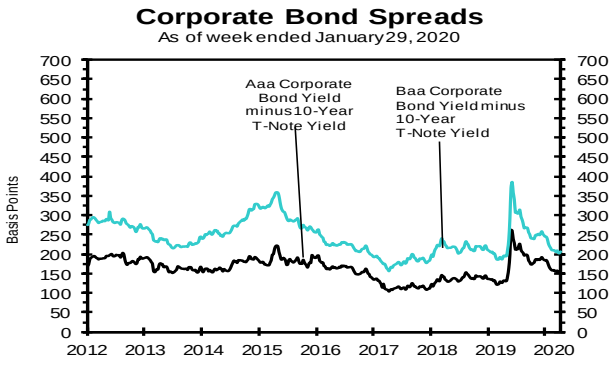
Consensus Forecasts of U.S. Interest Rates and Key Assumptions

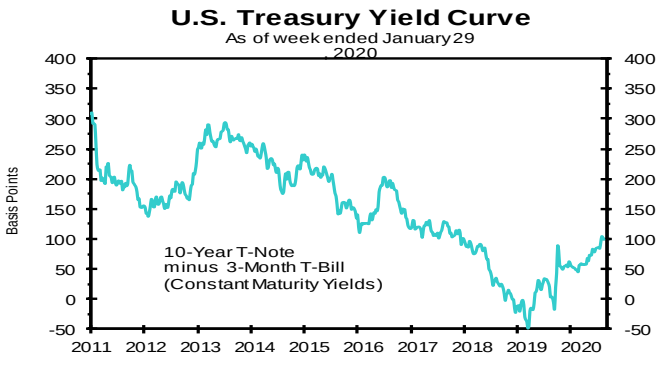
	History								Consensus Forecasts-Quarterly Avg.					
	Average For Week Ending				Average For Month			*Latest Qtr*	1Q	2Q	3Q	4Q	1Q	2Q
Interest Rates	Jan 22	Jan 15	Jan 8	Jan 1	Dec	Nov	Oct	4Q 2020	2021	2021	2021	2021	2022	2022
Federal Funds Rate	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	**0.1**	**0.1**	**0.1**	**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.	0.22	0.23	0.23	0.24	0.23	0.22	0.22	0.22	**0.2**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**
Commercial Paper, 1-mo.	0.08	0.09	0.09	0.09	0.09	0.09	0.09	0.09	**0.1**	**0.1**	**0.2**	**0.2**	**0.2**	**0.2**
Treasury bill, 3-mo.	0.09	0.09	0.09	0.10	0.09	0.09	0.10	0.09	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.2**
Treasury bill, 6-mo.	0.10	0.10	0.09	0.10	0.09	0.10	0.11	0.10	**0.1**	**0.1**	**0.1**	**0.2**	**0.2**	**0.2**
Treasury bill, 1 yr.	0.10	0.11	0.10	0.11	0.10	0.12	0.13	0.12	**0.1**	**0.2**	**0.2**	**0.2**	**0.2**	**0.3**
Treasury note, 2 yr.	0.13	0.14	0.13	0.13	0.14	0.17	0.15	0.15	**0.2**	**0.2**	**0.3**	**0.3**	**0.3**	**0.4**
Treasury note, 5 yr.	0.45	0.49	0.42	0.37	0.39	0.39	0.34	0.37	**0.5**	**0.5**	**0.6**	**0.7**	**0.7**	**0.8**
Treasury note, 10 yr.	1.11	1.13	1.03	0.94	0.93	0.87	0.79	0.86	**1.1**	**1.2**	**1.2**	**1.3**	**1.4**	**1.5**
Treasury note, 30 yr.	1.85	1.86	1.78	1.66	1.67	1.62	1.57	1.62	**1.8**	**1.9**	**2.0**	**2.1**	**2.1**	**2.2**
Corporate Aaa bond	2.65	2.67	2.61	2.49	2.52	2.58	2.65	2.58	**2.5**	**2.6**	**2.7**	**2.8**	**2.9**	**2.9**
Corporate Baa bond	3.13	3.16	3.12	3.00	3.03	3.13	3.27	3.14	**3.4**	**3.6**	**3.7**	**3.8**	**3.9**	**3.9**
State & Local bonds	2.66	2.67	2.67	2.67	2.70	2.82	2.93	2.82	**2.5**	**2.6**	**2.7**	**2.8**	**2.8**	**2.9**
Home mortgage rate	2.77	2.79	2.65	2.67	2.68	2.77	2.83	2.76	**2.8**	**3.0**	**3.0**	**3.1**	**3.2**	**3.2**
	History								Consensus Forecasts-Quarterly					
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q
Key Assumptions	2019	2019	2019	2019	2020	2020	2020	2020	2021	2021	2021	2021	2022	2022
Fed's AFE $ Index	109.4	110.3	110.5	110.3	111.2	112.4	107.2	105.2	**103.4**	**102.8**	**102.7**	**102.7**	**102.5**	**102.6**
Real GDP	2.9	1.5	2.6	2.4	-5.0	-31.4	33.4	4.0	**2.1**	**5.4**	**6.0**	**4.5**	**3.4**	**3.0**
GDP Price Index	1.2	2.5	1.5	1.4	1.4	-1.8	3.5	2.0	**1.8**	**1.7**	**1.9**	**1.9**	**1.9**	**2.0**
Consumer Price Index	0.9	3.0	1.8	2.4	1.2	-3.5	5.2	2.2	**2.3**	**1.8**	**2.1**	**2.0**	**2.1**	**2.1**
PCE Price Index	0.6	2.5	1.4	1.5	1.3	-1.6	3.7	1.5	**2.1**	**1.7**	**1.9**	**1.9**	**1.9**	**1.9**

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 2022 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	
		2022	2023	2024	2025	2026	2022-2026	2027-2031
1. Federal Funds Rate	**CONSENSUS**	**0.1**	**0.3**	**0.7**	**1.2**	**1.5**	**0.8**	**1.8**
	Top 10 Average	0.2	0.7	1.4	2.0	2.4	1.3	2.5
	Bottom 10 Average	0.1	0.1	0.2	0.4	0.6	0.3	1.2
2. Prime Rate	**CONSENSUS**	**3.3**	**3.5**	**3.9**	**4.3**	**4.6**	**3.9**	**4.9**
	Top 10 Average	3.4	3.7	4.4	5.0	5.4	4.4	5.4
	Bottom 10 Average	3.2	3.2	3.3	3.5	3.8	3.4	4.5
3. LIBOR, 3-Mo.	**CONSENSUS**	**0.4**	**0.6**	**1.1**	**1.5**	**1.8**	**1.1**	**2.2**
	Top 10 Average	0.5	1.0	1.7	2.2	2.6	1.6	2.7
	Bottom 10 Average	0.3	0.3	0.5	0.8	1.1	0.6	1.6
4. Commercial Paper, 1-Mo	**CONSENSUS**	**0.3**	**0.7**	**1.2**	**1.6**	**1.9**	**1.1**	**2.1**
	Top 10 Average	0.4	0.9	1.6	2.1	2.4	1.5	2.5
	Bottom 10 Average	0.2	0.4	0.8	1.2	1.5	0.8	1.7
5. Treasury Bill Yield, 3-Mo	**CONSENSUS**	**0.2**	**0.4**	**0.8**	**1.2**	**1.5**	**0.8**	**1.9**
	Top 10 Average	0.3	0.7	1.5	2.0	2.4	1.4	2.5
	Bottom 10 Average	0.1	0.1	0.2	0.5	0.7	0.3	1.3
6. Treasury Bill Yield, 6-Mo	**CONSENSUS**	**0.2**	**0.5**	**0.9**	**1.3**	**1.6**	**0.9**	**2.0**
	Top 10 Average	0.3	0.8	1.6	2.1	2.5	1.5	2.6
	Bottom 10 Average	0.1	0.2	0.3	0.5	0.8	0.4	1.4
7. Treasury Bill Yield, 1-Yr	**CONSENSUS**	**0.3**	**0.6**	**1.0**	**1.4**	**1.8**	**1.0**	**2.1**
	Top 10 Average	0.5	1.0	1.7	2.3	2.6	1.6	2.7
	Bottom 10 Average	0.2	0.3	0.4	0.7	0.9	0.5	1.6
8. Treasury Note Yield, 2-Yr	**CONSENSUS**	**0.4**	**0.8**	**1.2**	**1.6**	**1.9**	**1.2**	**2.3**
	Top 10 Average	0.7	1.2	1.9	2.4	2.8	1.8	2.9
	Bottom 10 Average	0.2	0.3	0.6	0.8	1.1	0.6	1.7
9. Treasury Note Yield, 5-Yr	**CONSENSUS**	**0.8**	**1.2**	**1.6**	**2.0**	**2.3**	**1.5**	**2.5**
	Top 10 Average	1.1	1.6	2.3	2.8	3.1	2.1	3.1
	Bottom 10 Average	0.5	0.7	1.0	1.2	1.4	1.0	1.9
10. Treasury Note Yield, 10-Yr	**CONSENSUS**	**1.3**	**1.7**	**2.0**	**2.4**	**2.6**	**2.0**	**2.8**
	Top 10 Average	1.7	2.2	2.7	3.1	3.4	2.6	3.5
	Bottom 10 Average	0.9	1.2	1.4	1.7	1.8	1.4	2.2
11. Treasury Bond Yield, 30-Yr	**CONSENSUS**	**2.1**	**2.4**	**2.8**	**3.1**	**3.4**	**2.8**	**3.6**
	Top 10 Average	2.5	3.0	3.5	4.0	4.2	3.4	4.3
	Bottom 10 Average	1.6	1.9	2.2	2.4	2.6	2.1	2.9
12. Corporate Aaa Bond Yield	**CONSENSUS**	**2.8**	**3.2**	**3.6**	**4.0**	**4.2**	**3.6**	**4.5**
	Top 10 Average	3.1	3.6	4.2	4.6	4.9	4.1	5.0
	Bottom 10 Average	2.4	2.8	3.0	3.3	3.6	3.0	3.9
13. Corporate Baa Bond Yield	**CONSENSUS**	**3.9**	**4.3**	**4.7**	**5.0**	**5.2**	**4.6**	**5.4**
	Top 10 Average	4.3	4.7	5.2	5.6	5.9	5.1	6.0
	Bottom 10 Average	3.5	3.9	4.1	4.3	4.5	4.1	4.9
14. State & Local Bonds Yield	**CONSENSUS**	**2.8**	**3.1**	**3.4**	**3.6**	**3.8**	**3.3**	**3.9**
	Top 10 Average	3.1	3.5	3.8	4.1	4.3	3.8	4.3
	Bottom 10 Average	2.5	2.8	2.9	3.2	3.4	2.9	3.6
15. Home Mortgage Rate	**CONSENSUS**	**3.2**	**3.5**	**3.9**	**4.2**	**4.5**	**3.9**	**4.7**
	Top 10 Average	3.5	3.9	4.4	4.9	5.2	4.4	5.2
	Bottom 10 Average	2.9	3.2	3.4	3.6	3.8	3.4	4.2
A. Fed's AFE Nominal $ Index	**CONSENSUS**	**107.2**	**107.0**	**106.5**	**106.4**	**106.6**	**106.7**	**106.7**
	Top 10 Average	109.0	108.9	108.8	108.9	109.5	109.0	110.2
	Bottom 10 Average	105.4	105.2	104.4	103.8	103.7	104.5	103.0
		Year-Over-Year, % Change					Five-Year Averages	
		2022	2023	2024	2025	2026	2022-2026	2027-2031
B. Real GDP	**CONSENSUS**	**3.2**	**2.5**	**2.3**	**2.2**	**2.1**	**2.4**	**2.1**
	Top 10 Average	3.8	3.0	2.6	2.5	2.4	2.9	2.4
	Bottom 10 Average	2.6	2.1	1.9	1.9	1.8	2.1	1.8
C. GDP Chained Price Index	**CONSENSUS**	**1.9**	**2.0**	**2.1**	**2.1**	**2.1**	**2.0**	**2.1**
	Top 10 Average	2.2	2.3	2.3	2.3	2.3	2.3	2.3
	Bottom 10 Average	1.7	1.8	1.9	1.9	1.9	1.8	1.9
D. Consumer Price Index	**CONSENSUS**	**2.1**	**2.2**	**2.2**	**2.1**	**2.2**	**2.1**	**2.2**
	Top 10 Average	2.4	2.4	2.4	2.4	2.4	2.4	2.4
	Bottom 10 Average	1.8	1.9	1.9	1.9	1.9	1.9	1.9
E. PCE Price Index	**CONSENSUS**	**1.9**	**2.0**	**2.1**	**2.1**	**2.1**	**2.0**	**2.1**
	Top 10 Average	2.2	2.2	2.2	2.2	2.3	2.2	2.4
	Bottom 10 Average	1.7	1.8	1.9	1.9	1.9	1.8	1.9

Tampa Electric Company, Inc.
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)	6.83
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)	6.80
5.	Forecasted Equity Risk Premium based on Projected Total Return on the S&P Utilities Index (Bloomberg Data) (5)	4.11
6.	Average Equity Risk Premium (6)	5.51 %

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.

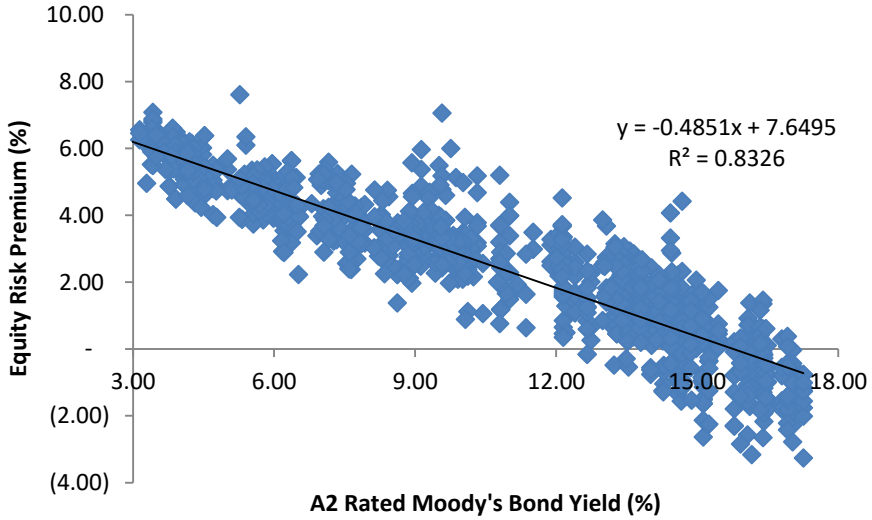
(3) The Predictive Risk Premium Model (PRPM) is applied to the risk premium of the monthly total returns of the S&P Utility Index and the monthly yields on Moody's A2 rated public utility bonds from January 1928 - January 2021.

(4) Using data from Value Line for the S&P 500 Utilities Index, an expected return of 10.36% was derived of based upon expected dividend yields and long-term earnings growth estimates as a proxy for market appreciation. Subtracting the expected A2 rated public utility bond yield of 3.56%, calculated on line 3 of page 3 of Document No. 5 results in an equity risk premium of 6.80%. (10.36% - 3.56%)

(5) Using data from the Bloomberg Professional Service for the S&P 500 Utilities Index, an expected return of 7.67% was derived of based upon expected dividend yields and long-term earnings growth estimates as a proxy for market appreciation. Subtracting the expected A2 rated public utility bond yield of 3.56%, calculated on line 3 of page 3 of Document No. 5 results in an equity risk premium of 4.11%. (7.67% - 3.56% = 4.11%)

(6) Average of lines 1 through 5.

Tampa Electric Company, Inc.
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
7.649492 %	-0.48508	3.56 %	5.92 %

Notes:
(1) From line 3 of page 3 of Document No. 5.

Source of Information: Regulatory Research Associates

Tampa Electric Company, Inc.
Indicated Common Equity Cost Rate Through Use
of the Traditional Capital Asset Pricing Model (CAPM) and Empirical Capital Asset Pricing Model (ECAPM)

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Proxy Group of Thirteen Electric Companies	Value Line Adjusted Beta	Bloomberg Adjusted Beta	Average Beta	Market Risk Premium (1)	Risk-Free Rate (2)	Traditional CAPM Cost Rate	ECAPM Cost Rate	Indicated Common Equity Cost Rate (3)
ALLETE, Inc.	0.85	1.05	0.95	10.42 %	2.31 %	12.21 %	12.34 %	12.28 %
Alliant Energy Corporation	0.85	1.01	0.93	10.42	2.31	12.00	12.19	12.09
Ameren Corporation	0.85	0.94	0.90	10.42	2.31	11.69	11.95	11.82
Duke Energy Corporation	0.85	0.98	0.92	10.42	2.31	11.90	12.11	12.00
Edison International	0.95	1.10	1.03	10.42	2.31	13.05	12.97	13.01
Entergy Corporation	0.95	1.17	1.06	10.42	2.31	13.36	13.20	13.28
IDACORP, Inc.	0.80	1.04	0.92	10.42	2.31	11.90	12.11	12.00
NorthWestern Corporation	0.95	1.25	1.10	10.42	2.31	13.77	13.51	13.64
OGE Energy Corporation	1.10	1.25	1.18	10.42	2.31	14.61	14.14	14.37 (4)
Otter Tail Corporation	0.85	1.05	0.95	10.42	2.31	12.21	12.34	12.28
Pinnacle West Capital Corporation	0.90	1.12	1.01	10.42	2.31	12.84	12.81	12.82
Portland General Electric Company	0.85	1.05	0.95	10.42	2.31	12.21	12.34	12.28
Xcel Energy, Inc.	0.80	0.98	0.89	10.42	2.31	11.59	11.87	11.73
Mean			0.97			12.39 %	12.48 %	12.44 %
Median			0.95			12.21 %	12.34 %	12.28 %
Average of Mean and Median			0.96			12.30 %	12.41 %	12.36 %

Notes on page 2 of Document No. 6.

Tampa Electric Company, Inc.
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) 9.98 %

Measure 3: Application of the PRPM to Ibbotson Historical Data:
(January 1926 - January 2021) 10.76 %

Value Line MRP Estimates:

Measure 4: Value Line Projected MRP (Thirteen weeks ending January 29, 2021)

Total projected return on the market 3-5 years hence*:	9.83 %
Projected Risk-Free Rate (see note 2):	2.31
MRP based on Value Line Summary & Index:	7.52 %

*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:	14.10 %
Projected Risk-Free Rate (see note 2):	2.31
MRP based on Value Line data	11.79 %

Measure 6: Bloomberg Projected MRP

Total return on the Market based on the S&P 500:	17.78 %
Projected Risk-Free Rate (see note 2):	2.31
MRP based on Bloomberg data	15.47 %

Average of Value Line, Ibbotson, and Bloomberg MRP: 10.42 %

(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 Document No. 5) The projection of the risk-free rate is illustrated below:

First Quarter 2021	1.80 %
Second Quarter 2021	1.90
Third Quarter 2021	2.00
Fourth Quarter 2021	2.10
First Quarter 2022	2.10
Second Quarter 2022	2.20
2022-2026	2.80
2027-2031	3.60
	2.31 %

(3) Average of column 6 and column 7.

(4) OGE Energy Corporation's results were excluded from the final average and median as they were more than two standard deviations above the proxy group mean.

Sources of Information:
Value Line Summary and Index
Blue Chip Financial Forecasts, December 1, 2020 and February 3, 2021
Stocks, Bonds, Bills, and Inflation - 2020 SBBI Yearbook, John Wiley & Sons, Inc.
Bloomberg Professional Services

Tampa Electric Company, Inc.
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 was then selected based on the unadjusted beta range of 0.65 – 0.93 and residual standard error of the regression range of 2.4869 – 2.9661 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 Utility Proxy Group's residual standard error of the regression is 0.1198. 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

$$\text{Thus, } 0.1198 = \frac{2.7265}{\sqrt{518}} = \frac{2.7265}{22.7596}$$

Source of Information: Value Line, Inc., January 2021
Value Line Investment Survey (Standard Edition)

Tampa Electric Company, Inc.
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	2.7231	0.0685
Alliant Energy Corporation	0.85	0.73	2.7326	0.0687
Ameren Corporation	0.85	0.70	2.6062	0.0655
Duke Energy Corporation	0.85	0.77	2.8284	0.0711
Edison International	0.95	0.88	3.2843	0.0826
Entergy Corporation	0.95	0.89	2.6240	0.0660
IDACORP, Inc.	0.80	0.68	2.5421	0.0639
NorthWestern Corporation	0.95	0.85	2.7335	0.0687
OGE Energy Corporation	1.10	1.08	2.6719	0.0672
Otter Tail Corporation	0.85	0.76	2.4857	0.0625
Pinnacle West Capital Corporation	0.90	0.80	2.7203	0.0684
Portland General Electric Company	0.85	0.75	2.8187	0.0709
Xcel Energy, Inc.	0.80	0.66	2.6743	0.0672
Average	0.89	0.79	2.7265	0.0686
Beta Range (+/- 2 std. Devs. of Beta)	0.65	0.93		
2 std. Devs. of Beta	0.14			
Residual Std. Err. Range (+/- 2 std. Devs. of the Residual Std. Err.)	2.4869	2.9661		
Std. dev. of the Res. Std. Err.	0.1198			
2 std. devs. of the Res. Std. Err.	0.2396			

Source of Information: Value Line Proprietary Database, January 2021

Tampa Electric Company, Inc.
Proxy Group of Non-Price Regulated Companies
Comparable in Total Risk to the
Proxy Group of Thirteen Electric Companies

Proxy Group of Forty-Eight Non-Price Regulated Companies	[1] VL Adjusted Beta	[2] Unadjusted Beta	[3] Residual Standard Error of the Regression	[4] Standard Deviation of Beta
Abbot Laboratories	0.95	0.91	2.7460	0.0690
Analog Devices	0.95	0.86	2.6778	0.0673
Assurant Inc.	0.95	0.85	2.9139	0.0733
ANSYS, Inc.	0.85	0.76	2.8279	0.0711
Smith (A.O.)	0.90	0.83	2.7524	0.0692
Becton, Dickinson	0.80	0.67	2.8794	0.0724
Brown-Forman 'B'	0.85	0.76	2.6920	0.0677
Broadridge Fin'l	0.85	0.72	2.7392	0.0689
Cerner Corp.	0.95	0.87	2.7913	0.0702
Chemed Corp.	0.85	0.75	2.5303	0.0636
Cooper Cos.	0.95	0.92	2.7038	0.0680
Cisco Systems, Inc.	0.95	0.85	2.4987	0.0628
CSW Industrials	0.85	0.76	2.7444	0.0690
Quest Diagnostics	0.90	0.80	2.6677	0.0671
Dolby Labs.	0.95	0.87	2.6659	0.0670
Estee Lauder	0.90	0.83	2.7514	0.0692
Exponent, Inc.	0.85	0.76	2.9154	0.0733
Gentex Corporation	0.95	0.91	2.7484	0.0691
Alphabet Inc.	0.85	0.75	2.5514	0.0641
Hershey Co.	0.85	0.72	2.7087	0.0681
Ingredion Inc.	0.90	0.78	2.9266	0.0736
Hunt (J.B.)	0.95	0.88	2.8114	0.0707
J & J Snack Foods Corp.	0.90	0.82	2.8400	0.0714
Jack Henry & Associates, Inc.	0.85	0.70	2.7540	0.0692
McCormick and Co.	0.85	0.70	2.7595	0.0694
Altria Group	0.90	0.79	2.8916	0.0727
MSCI Inc.	0.95	0.86	2.9256	0.0735
Motorola Solutions, Inc.	0.90	0.82	2.8041	0.0705
Maxim Integrated	0.95	0.85	2.9413	0.0739
NewMarket Corp.	0.80	0.66	2.5362	0.0638
Northrop Grumman	0.85	0.71	2.8969	0.0728
Omnicom Group Inc.	1.00	0.93	2.5166	0.0633
PerkinElmer, Inc.	0.95	0.92	2.6809	0.0674
Pool Corp.	0.90	0.82	2.9389	0.0739
Rollins, Inc.	0.85	0.76	2.8807	0.0724
Starbucks Corporation	0.95	0.92	2.6496	0.0666
The Sherwin-Williams Company	0.95	0.91	2.5559	0.0643
Selective Ins. Group	0.85	0.74	2.9102	0.0732
Synopsys, Inc.	0.95	0.92	2.5128	0.0632
Sensient Technologies Corporation	0.90	0.82	2.5687	0.0646
Tetra Tech	0.90	0.83	2.9490	0.0741
Texas Instruments	0.85	0.76	2.5625	0.0644
AMERCO	0.95	0.87	2.6739	0.0672
UniFirst Corporation	0.95	0.92	2.4960	0.0628
Verisign	0.95	0.85	2.6197	0.0659
Waters Corp.	0.95	0.87	2.7355	0.0688
Watsco, Inc.	0.85	0.76	2.6256	0.0660
Western Union	0.80	0.68	2.7006	0.0679
Average	0.90	0.81	2.7300	0.0700
Proxy Group of Thirteen Electric Companies	0.89	0.79	2.7265	0.0686

Source of Information: Value Line Proprietary Database, January 2021

Tampa Electric Company, Inc.
Summary of Cost of Equity Models Applied to
Proxy Group of Forty-Eight Non-Price Regulated Companies
Comparable in Total Risk to the
Proxy Group of Thirteen Electric Companies

Principal Methods	Proxy Group of Forty-Eight Non-Price Regulated Companies
Discounted Cash Flow Model (DCF) (1)	11.52 %
Risk Premium Model (RPM) (2)	12.67 %
Capital Asset Pricing Model (CAPM) (3)	12.00 %
Mean	12.06 %
Median	12.00 %
Average of Mean and Median	12.03 %

Notes:
(1) From page 2 of Document No. 8.
(2) From page 3 of Document No. 8.
(3) From page 6 of Document No. 8.

Tampa Electric Company, Inc.
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-Eight 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)
Abbot Laboratories	1.63 %	12.00 %	12.30 %	15.11 %	16.34 %	13.94 %	1.74 %	15.68 %
Analog Devices	1.72	8.50	12.30	8.80	11.47	10.27	1.81	12.08
Assurant Inc.	1.97	6.50	NA	NA	19.40	12.95	2.10	15.05
ANSYS, Inc.	-	10.00	NA	13.60	6.39	10.00	-	NA
Smith (A.O.)	1.86	5.00	9.00	10.00	8.00	8.00	1.93	9.93
Becton, Dickinson	1.35	9.00	9.00	11.79	9.50	9.82	1.42	11.24
Brown-Forman 'B'	0.93	12.00	NA	5.57	8.81	8.79	0.97	9.76
Broadridge Fin'l	1.54	10.50	NA	7.40	10.00	9.30	1.61	10.91
Cerner Corp.	1.15	9.00	11.80	10.04	10.03	10.22	1.21	11.43
Chemed Corp.	0.27	12.50	10.10	10.19	10.10	10.72	0.28	11.00
Cooper Cos.	0.02	14.50	11.00	10.83	10.00	11.58	0.02	11.60
Cisco Systems, Inc.	3.32	7.00	6.30	6.57	7.50	6.84	3.43	10.27
CSW Industrials	0.48	8.50	NA	5.00	12.00	8.50	0.50	9.00
Quest Diagnostics	1.81	11.00	26.50	17.71	9.72	16.23	1.96	18.19
Dolby Labs.	0.97	10.50	13.00	NA	16.00	13.17	1.03	14.20
Estee Lauder	0.85	12.00	13.00	15.85	17.10	14.49	0.91	15.40
Exponent, Inc.	0.88	11.00	NA	15.00	15.00	13.67	0.94	14.61
Gentex Corporation	1.43	9.50	2.60	5.86	15.00	8.24	1.49	9.73
Alphabet Inc.	-	14.50	16.90	17.88	16.81	16.52	-	NA
Hershey Co.	2.15	5.00	7.70	7.07	7.78	6.89	2.22	9.11
Ingredion Inc.	3.28	6.00	NA	8.60	1.90	5.50	3.37	8.87
Hunt (J.B.)	0.81	6.50	15.00	17.23	20.73	14.87	0.87	15.74
J & J Snack Foods Corp.	1.50	10.00	NA	NA	6.00	8.00	1.56	9.56
Jack Henry & Associates, Inc.	1.09	10.50	10.70	9.00	10.80	10.25	1.15	11.40
McCormick and Co.	1.46	6.50	6.50	11.07	4.80	7.22	1.51	8.73
Altria Group	8.37	6.50	4.00	3.70	4.12	4.58	8.56	13.14
MSCI Inc.	0.75	17.00	NA	11.35	13.20	13.85	0.80	14.65
Motorola Solutions, Inc.	1.67	8.00	9.00	11.10	5.88	8.50	1.74	10.24
Maxim Integrated	-	7.00	10.00	11.30	18.44	11.69	-	NA
NewMarket Corp.	1.93	2.00	NA	NA	7.70	4.85	1.98	6.83
Northrop Grumman	1.92	10.50	NA	4.61	6.04	7.05	1.99	9.04
Omnicom Group Inc.	4.22	5.50	4.70	2.19	3.20	3.90	4.30	8.20
PerkinElmer, Inc.	0.20	17.50	19.50	11.07	17.20	16.32	0.22	16.54
Pool Corp.	0.65	17.50	NA	17.00	17.00	17.17	0.71	17.88
Rollins, Inc.	0.83	12.00	NA	NA	8.20	10.10	0.87	10.97
Starbucks Corporation	1.79	13.50	13.60	18.24	50.81	24.04	2.01	26.05 (2)
The Sherwin-Williams Company	0.74	10.00	10.30	9.07	10.01	9.84	0.78	10.62
Selective Ins. Group	1.54	6.50	NA	37.89	1.88	15.42	1.66	17.08
Synopsys, Inc.	-	12.50	11.50	13.38	11.50	12.22	-	NA
Sensient Technologies Corporation	2.13	2.50	NA	7.55	3.80	4.62	2.18	6.80
Tetra Tech	0.56	11.00	15.00	13.65	15.00	13.66	0.60	14.26
Texas Instruments	2.51	4.00	9.30	10.03	10.00	8.33	2.61	10.94
AMERCO	-	1.50	NA	NA	15.00	8.25	-	NA
UniFirst Corporation	0.50	3.00	NA	10.00	10.00	7.67	0.52	8.19
Verisign	-	9.50	NA	NA	8.00	8.75	-	NA
Waters Corp.	-	6.00	5.10	5.32	4.90	5.33	-	NA
Watsco, Inc.	3.05	8.00	NA	NA	15.00	11.50	3.23	14.73
Western Union	4.09	6.00	NA	11.90	8.88	8.93	4.27	13.20
							Mean	11.92 %
							Median	11.12 %
							Average of Mean and Median	11.52 %

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 January 8, 2021. 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.

(2) SBUX's DCF results were excluded from the final average and median as they were more than 2 standard deviations above the proxy group's mean.

Sources of Information:
Value Line Investment Survey
www.zacks.com Downloaded on 01/29/2021
www.yahoo.com Downloaded on 01/29/2021
Bloomberg Professional Services

Tampa Electric Company, Inc.
Indicated Common Equity Cost Rate
Through Use of a Risk Premium Model
Using an Adjusted Total Market Approach

Line No.		Proxy Group of Forty-Eight Non-Price Regulated Companies
1.	Prospective Yield on Baa2 Rated Corporate Bonds (1)	4.04 %
2.	Adjustment to Reflect Proxy Group Bond Rating (2)	(0.15)
3.	Prospective Bond Rating	3.89
4.	Equity Risk Premium (3)	8.78
5	Risk Premium Derived Common Equity Cost Rate	12.67 %

Notes: (1) Average forecast of Baa2 corporate bonds based upon the consensus of nearly 50 economists reported in Blue Chip Financial Forecasts dated December 1, 2020 and February 3, 2021 (see pages 10 and 11 of Document No. 5). The estimates are detailed below.

First Quarter 2021	3.40 %
Second Quarter 2021	3.60
Third Quarter 2021	3.70
Fourth Quarter 2021	3.80
First Quarter 2022	3.90
Second Quarter 2022	3.90
2022-2026	4.60
2027-2031	5.40
Average	4.04 %

(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
Jan-2021	2.84 %	3.25 %	0.41 %
Dec-2020	2.72	3.16	0.44
Nov-2020	2.79	3.30	0.51
	Average yield spread		0.45 %
		1/3 of spread	0.15 %

(3) From page 5 of Document No. 8.

Tampa Electric Company, Inc.
Comparison of Long-Term Issuer Ratings for the
Proxy Group of Forty-Eight Non-Price Regulated Companies of Comparable risk to the
Proxy Group of Thirteen Electric Companies

	Moody's Long-Term Issuer Rating January 2021		Standard & Poor's Long-Term Issuer Rating January 2021	
Proxy Group of Forty-Eight Non-Price Regulated Companies	Long-Term Issuer Rating	Numerical Weighting (1)	Long-Term Issuer Rating	Numerical Weighting (1)
Abbot Laboratories	A3	7.0	A	6.0
Analog Devices	Baa1	8.0	BBB	9.0
Assurant Inc.	Baa3	10.0	BBB	9.0
ANSYS, Inc.	NA	--	NA	--
Smith (A.O.)	NA	--	NA	--
Becton, Dickinson	Baa3	10.0	BBB	9.0
Brown-Forman 'B'	A1	5.0	A-	7.0
Broadridge Fin'l	Baa1	8.0	BBB+	8.0
Cerner Corp.	NA	--	NA	--
Chemed Corp.	WR	--	NR	--
Cooper Cos.	WR	--	NR	--
Cisco Systems, Inc.	A1	5.0	AA-	4.0
CSW Industrials	NA	--	NA	--
Quest Diagnostics	Baa2	9.0	BBB+	8.0
Dolby Labs.	NA	--	NA	--
Estee Lauder	A1	5.0	A+	5.0
Exponent, Inc.	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	--
Jack Henry & Associates, Inc.	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
Maxim Integrated	Baa1	8.0	BBB+	8.0
NewMarket Corp.	Baa2	9.0	BBB+	8.0
Northrop Grumman	Baa2	9.0	BBB	9.0
Omnicom Group Inc.	Baa1	8.0	BBB+	8.0
PerkinElmer, Inc.	Baa3	10.0	BBB	9.0
Pool Corp.	NA	--	NA	--
Rollins, Inc.	NA	--	NA	--
Starbucks Corporation	Baa1	8.0	BBB+	8.0
The Sherwin-Williams Company	Baa2	9.0	BBB-	10.0
Selective Ins. Group	Baa2	9.0	BBB	9.0
Synopsys, Inc.	NA	--	NA	--
Sensient Technologies Corporation	WR	--	NR	--
Tetra Tech	NA	--	NA	--
Texas Instruments	A1	5.0	A+	5.0
AMERCO	WR	--	NR	--
UniFirst Corporation	NA	--	NA	--
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 Document No. 5

Source of Information:
Bloomberg Professional Services

Tampa Electric Company, Inc.
Derivation of Equity Risk Premium Based on the Total Market Approach
Using the Beta for
Proxy Group of Forty-Eight 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-Eight 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)	9.30
3.	Ibbotson Equity Risk Premium based on PRPM (3)	9.65
4.	Equity Risk Premium Based on Value Line Summary and Index (4)	6.77
5	Equity Risk Premium Based on Value Line S&P 500 Companies (5)	11.04
6.	Equity Risk Premium Based on Bloomberg S&P 500 Companies (6)	14.72
7.	Conclusion of Equity Risk Premium	9.54 %
8.	Adjusted Beta (7)	0.92
9.	Forecasted Equity Risk Premium	8.78 %

Notes:
(1) From note 1 of page 9 of Document No. 5.
(2) From note 2 of page 9 of Document No. 5.
(3) From note 3 of page 9 of Document No. 5.
(4) From note 4 of page 9 of Document No. 5.
(5) From note 5 of page 9 of Document No. 5.
(6) From note 6 of page 9 of Document No. 5.
(7) Average of mean and median beta from page 6 of Document No. 8.

Sources of Information:
Stocks, Bonds, Bills, and Inflation - 2020 SBBI Yearbook, John Wiley & Sons, Inc.
Value Line Summary and Index
Blue Chip Financial Forecasts, December 1, 2020 and February 3, 2021
Bloomberg Professional Services

Tampa Electric Company, Inc.
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-Eight 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)
Abbot Laboratories	0.95	0.90	0.92	10.42 %	2.31 %	11.90 %	12.11 %	12.00 %
Analog Devices	0.95	1.06	1.01	10.42	2.31	12.84	12.81	12.82
Assurant Inc.	0.90	1.01	0.95	10.42	2.31	12.21	12.34	12.28
ANSYS, Inc.	0.90	0.93	0.92	10.42	2.31	11.90	12.11	12.00
Smith (A.O.)	0.90	1.01	0.96	10.42	2.31	12.32	12.42	12.37
Becton, Dickinson	0.80	0.62	0.71	10.42	2.31	9.71	10.47	10.09 (4)
Brown-Forman 'B'	0.85	0.97	0.91	10.42	2.31	11.79	12.03	11.91
Broadridge Fin'l	0.85	0.83	0.84	10.42	2.31	11.07	11.48	11.27
Cerner Corp.	0.95	0.91	0.93	10.42	2.31	12.00	12.19	12.09
Chemed Corp.	0.85	0.90	0.88	10.42	2.31	11.48	11.79	11.64
Cooper Cos.	0.95	0.93	0.94	10.42	2.31	12.11	12.26	12.19
Cisco Systems, Inc.	0.95	0.84	0.90	10.42	2.31	11.69	11.95	11.82
CSW Industrials	0.85	1.02	0.94	10.42	2.31	12.11	12.26	12.19
Quest Diagnostics	0.90	0.99	0.95	10.42	2.31	12.21	12.34	12.28
Dolby Labs.	0.95	0.95	0.95	10.42	2.31	12.21	12.34	12.28
Estee Lauder	0.90	0.97	0.94	10.42	2.31	12.11	12.26	12.19
Exponent, Inc.	0.85	0.91	0.88	10.42	2.31	11.48	11.79	11.64
Gentex Corporation	0.95	1.05	1.00	10.42	2.31	12.73	12.73	12.73
Alphabet Inc.	0.90	0.88	0.89	10.42	2.31	11.59	11.87	11.73
Hershey Co.	0.85	0.83	0.84	10.42	2.31	11.07	11.48	11.27
Ingredion Inc.	0.90	0.92	0.91	10.42	2.31	11.79	12.03	11.91
Hunt (J.B.)	0.95	0.91	0.93	10.42	2.31	12.00	12.19	12.09
J & J Snack Foods Corp.	0.90	0.78	0.84	10.42	2.31	11.07	11.48	11.27
Jack Henry & Associates, Inc.	0.85	0.90	0.87	10.42	2.31	11.38	11.72	11.55
McCormick and Co.	0.85	0.69	0.77	10.42	2.31	10.34	10.93	10.64
Altria Group	0.90	0.87	0.89	10.42	2.31	11.59	11.87	11.73
MSCI Inc.	0.95	0.92	0.93	10.42	2.31	12.00	12.19	12.09
Motorola Solutions, Inc.	0.90	0.94	0.92	10.42	2.31	11.90	12.11	12.00
Maxim Integrated	0.95	1.01	0.98	10.42	2.31	12.52	12.58	12.55
NewMarket Corp.	0.80	0.55	0.68	10.42	2.31	9.40	10.23	9.81 (4)
Northrop Grumman	0.85	0.78	0.82	10.42	2.31	10.86	11.33	11.09
Omnicom Group Inc.	1.00	1.03	1.02	10.42	2.31	12.94	12.89	12.92
PerkinElmer, Inc.	0.95	0.85	0.90	10.42	2.31	11.69	11.95	11.82
Pool Corp.	0.90	0.94	0.92	10.42	2.31	11.90	12.11	12.00
Rollins, Inc.	0.85	0.67	0.76	10.42	2.31	10.23	10.86	10.54
Starbucks Corporation	0.95	1.07	1.01	10.42	2.31	12.84	12.81	12.82
The Sherwin-Williams Company	0.95	1.02	0.98	10.42	2.31	12.52	12.58	12.55
Selective Ins. Group	0.85	0.97	0.91	10.42	2.31	11.79	12.03	11.91
Synopsys, Inc.	1.00	1.00	1.00	10.42	2.31	12.73	12.73	12.73
Sensient Technologies Corporation	0.90	0.95	0.92	10.42	2.31	11.90	12.11	12.00
Tetra Tech	0.90	1.02	0.96	10.42	2.31	12.32	12.42	12.37
Texas Instruments	0.85	0.91	0.88	10.42	2.31	11.48	11.79	11.64
AMERCO	0.95	1.09	1.02	10.42	2.31	12.94	12.89	12.92
UniFirst Corporation	0.95	1.11	1.03	10.42	2.31	13.05	12.97	13.01
Verisign	0.95	0.81	0.88	10.42	2.31	11.48	11.79	11.64
Waters Corp.	0.95	0.84	0.90	10.42	2.31	11.69	11.95	11.82
Watsco, Inc.	0.85	0.80	0.82	10.42	2.31	10.86	11.33	11.09
Western Union	0.85	1.05	0.95	10.42	2.31	12.21	12.34	12.28
Mean			0.92			11.89 %	12.10 %	11.99 %
Median			0.92			11.90 %	12.11 %	12.00 %
Average of Mean and Median			0.92			11.90 %	12.11 %	12.00 %

Notes:
(1) From note 1 of page 2 of Document No. 6.
(2) From note 2 of page 2 of Document No. 6.
(3) Average of CAPM and ECAPM cost rates.
(4) NEU's CAPM results were excluded from the final average and median as they were more than 2 standard deviations below the proxy group's mean.

Tampa Electric Company, Inc.
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)
At-The-Market 7/11/2019	Emera Incorporated	2,782,982	NA	NA	NA	$ 0.755	$ 56.307	$ 2,100,000	$ 158,800,000	$ 156,700,000	1.322%
12/18/2017	Emera Incorporated	15,659,000	47.980	47.900	1.916	0.029	45.955	31,705,364	751,318,820	719,613,456	4.220%
12/8/2016	Emera Incorporated	7,624,500	44.260	45.250	1.810	0.059	43.381	6,702,090	337,460,370	330,758,280	1.986%
	Total Public Issuances							$ 40,507,454	$ 1,247,579,190	$ 1,207,071,736	3.247%

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	3.78 %	5.16 %	3.88 %	9.04 %	9.17 %	0.13 %

Notes:
(1) From Company prospectuses or annual filings.
(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) From Document No. 4.
(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.

Tampa Electric Company, Inc.
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 January 29, 2021 (1) (millions)		[2] Applicable Decile of the NYSE/AMEX/ NASDAQ (2)	[3] Applicable Size Premium (3)	[4] Spread from Applicable Size Premium (4)
1.	Tampa Electric Company, Inc.	$ 7,780.290		3	0.73%	
2.	Proxy Group of Thirteen Electric Companies	$ 15,616.160	2.0 x	2	0.50%	0.23%
			[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 Document No. 10.
(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 0.23% in Line No. 2, Column [4] is derived as follows: 0.23% = 0.73% - 0.50%.

Tampa Electric Company, Inc.
Market Capitalization of Tampa Electric Company, Inc. and the
Proxy Group of Thirteen Electric Companies

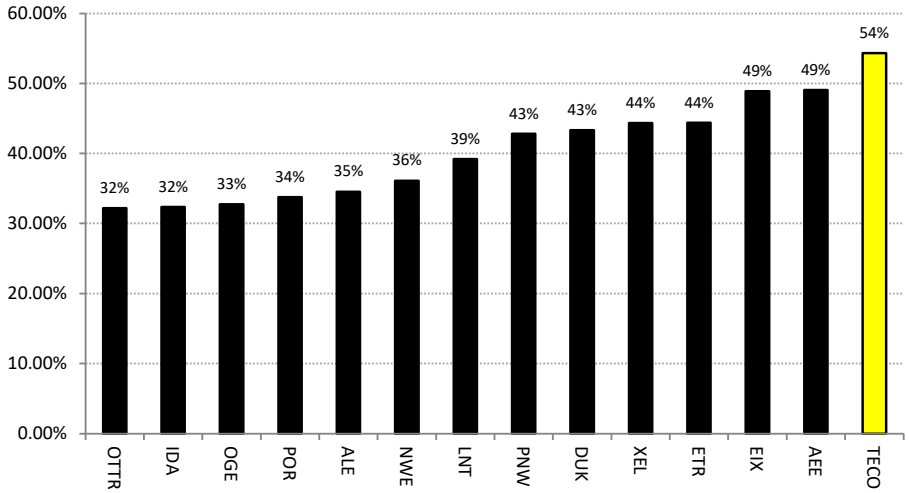
Company	Exchange	[1] Common Stock Shares Outstanding at Fiscal Year End 2019 (millions)	[2] Book Value per Share at Fiscal Year End 2019 (1)	[3] Total Common Equity at Fiscal Year End 2019 (millions)	[4] Closing Stock Market Price on January 29, 2021	[5] Market-to-Book Ratio on January 29, 2021 (2)	[6] Market Capitalization on January 29, 2021 (3) (millions)
Tampa Electric Company, Inc.		NA	NA	4,358.706 (4)	NA		
Based upon Proxy Group of Thirteen Electric Companies						178.5 (5)	$ 7,780.290 (6)
Proxy Group of Thirteen Electric Companies							
ALLETE, Inc.	NYSE	51.696	$ 43.173	$ 2,231.900	$ 62.840	145.6 %	$ 3,248.608
Alliant Energy Corporation	NASDAQ	245.023	21.243	5,205.100	48.650	229.0	11,920.359
Ameren Corporation	NYSE	246.232	32.729	8,059.000	72.720	222.2	17,905.970
Duke Energy Corporation	NYSE	733.321965	63.849	46,822.000	94.000	147.2	68,932.265
Edison International	NYSE	361.985	36.750	13,303.000	58.160	158.3	21,053.055
Entergy Corporation	NYSE	199.727	51.188	10,223.675	95.330	186.2	19,039.950
IDACORP, Inc.	NYSE	50.410	48.892	2,464.628	88.300	180.6	4,451.194
NorthWestern Corporation	NASDAQ	53.999	37.762	2,039.094	54.470	144.2	2,941.336
OGE Energy Corporation	NYSE	200.177	20.679	4,139.500	30.520	147.6	6,109.413
Otter Tail Corporation	NASDAQ	40.158	19.460	781.482	39.690	204.0	1,593.855
Pinnacle West Capital Corporation	NYSE	112.540	48.255	5,430.648	75.250	155.9	8,468.644
Portland General Electric Company	NYSE	89.387	28.986	2,591.000	42.290	145.9	3,780.181
Xcel Energy, Inc.	NASDAQ	524.539	25.239	13,239.000	63.990	253.5	33,565.251
Average		223.784	$ 36.785	$ 8,963.848	$ 63.555	178.5 %	$ 15,616.160

NA= Not Available

Notes: (1) Column 3 / Column 1.
(2) Column 4 / Column 2.
(3) Column 1 * Column 4.
(4) Proposed rate base multiplied by the requested common equity ratio.
(5) The market-to-book ratio of Tampa Electric Company, Inc. on January 29, 2021 is assumed to be equal to the market-to-book ratio of Proxy Group of Thirteen Electric Companies on January 29, 2021 as appropriate.
(6) Column [3] multiplied by Column [5].

Sources of Information: 2019 Annual Forms 10-K
yahoo.finance.com
Bloomberg Professional Service

Tampa Electric Company, Inc.
Comparison of Projected Capital Expenditures Relative to Net Plant

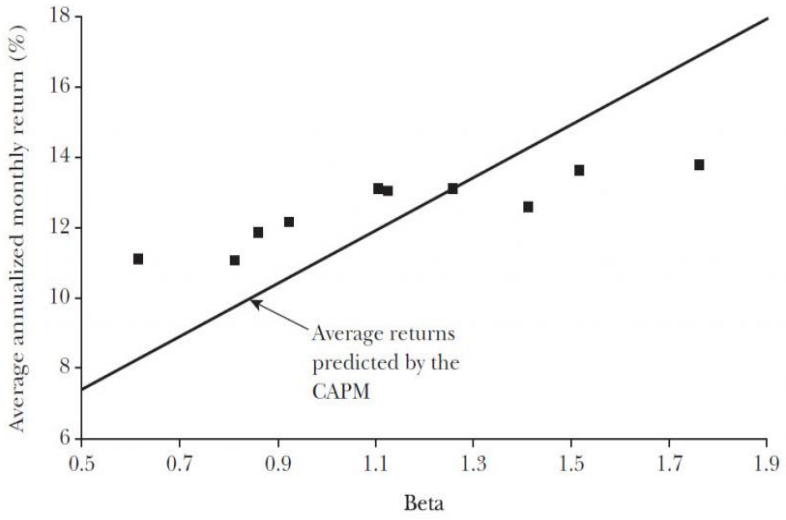


Sources of Information: Value Line
Tampa Electric Company, Inc., 2019 FERC Form 1
Company provided data

Fama and French's Figure 2[1]

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



[1] 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").

REFERENCED ENDNOTES

FOR THE

PREPARED DIRECT TESTIMONY

OF

DYLAN W. D'ASCENDIS

[1] 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.

[2] *See*, Tampa Electric Company, SEC Form 10-K, at 5 (Dec. 31, 2020). The Company's operations include electricity sold at the wholesale level to municipalities, electric cooperative utilities, power marketers, and other load-serving entities.

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

[4] *See*, Emera Incorporated, SEC Form 40-F, at 7-8 (Dec. 31, 2019).

[5] Source: Tampa Electric Company, FERC Form 1.

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

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

[8] Autoregressive conditional heteroscedasticity; *see also*, www.nobelprize.org/prizes/economic-sciences/2003/engle/facts/.

[9] Annualized Return = (1 + Monthly Return)^ 12 – 1.

[10] *See*, *Blue Chip Financial Forecasts*, December 1, 2020 at 14; and February 3, 2021 at 2.

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

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

[13] Data from January 1928 to December 2019 is from SBBI - 2020. Data from January 2020 to January 2021 is from Bloomberg Professional Services.

[14] *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.

[15] Roger A. Morin, New Regulatory Finance, at 175 ("Morin").

[16] 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").

[17] Morin, at 175.

[18] Morin, at 190.

[19] Fama and French, at 32.

[20] Fama and French, at 33.

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

[22] *Blue Chip Financial Forecasts*, December 1, 2020, at 14; and February 3, 2021, at 2.

[23] Morin, at 321.

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

[25] Morin, at 327-30.

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

[27] Fama and French, at 25-43.

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

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

[30] *See*, S&P Global Ratings, RatingsDirect: Tampa Electric Co., April 17, 2020; and Moody's Investor Service, Credit Opinion: Tampa Electric Company, December 22, 2020.

[31] Source: Company provided data.

[32] Source: Company provided data.

[33] Source: Tampa Electric Company, 2019 FERC Form 1, at 110.

[34] Standard & Poor's, Industry Report Card: Utility Sectors in the Americas Remain Stable, While Challenges Beset European, Australian, and New Zealand Counterparts, RatingsDirect, June 27, 2008, at 4.

[35] Standard & Poor's, *Industry Top Trends 2017: Utilities*, RatingsDirect, February 16, 2017, at 4.