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March 12, 2021

**VIA ELECTRONIC FILING**

Adam Teitzman, Commission Clerk  
Division of the Commission Clerk and Administrative Services  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, FL 32399-0850

Re: Docket No. 20210015-EI  
Petition by FPL for Base Rate Increase and Rate Unification

Dear Mr. Teitzman:

Attached for filing on behalf of Florida Power & Light Company ("FPL") in the above-referenced docket are the Direct Testimony and Exhibits of FPL witness James M. Coyne.

Please let me know if you should have any questions regarding this submission.

(Document 6 of 69)

Sincerely,

A handwritten signature in black ink that reads "Wade Litchfield".

R. Wade Litchfield  
Vice President & General Counsel  
Florida Power & Light Company

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**BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**  
**FLORIDA POWER & LIGHT COMPANY**  
**DIRECT TESTIMONY OF JAMES M. COYNE**  
**DOCKET NO. 20210015-EI**  
**MARCH 12, 2021**

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**I. INTRODUCTION AND SUMMARY**

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

A. My name is James M. Coyne, and I am employed by Concentric Energy Advisors, Inc. (“Concentric”) as a Senior Vice President. Concentric is a management consulting and economic advisory firm, focused on the North American energy and water industries. Based in Marlborough, Massachusetts and Washington, D.C., Concentric specializes in regulatory and litigation support, financial advisory services, energy market strategies, market assessments, energy commodity contracting and procurement, economic feasibility studies, and capital market analyses. My business address is 293 Boston Post Road West, Suite 500, Marlborough, MA 01752.

**Q. On whose behalf are you testifying?**

A. I am submitting this testimony to the Florida Public Service Commission (the “Commission”) on behalf of Florida Power & Light Company (“FPL” or the “Company”), which is a wholly-owned subsidiary of NextEra Energy, Inc.

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

A. I am among Concentric’s professionals who provide expert testimony before federal, state, and Canadian provincial agencies on matters pertaining to economics, finance, and public policy in the energy industry. I regularly advise regulatory agencies, utilities, generating companies, and private equity investors on business issues pertaining to the utility industry. This work includes calculating the cost of capital for the purpose of ratemaking and

1 providing expert testimony and studies on matters pertaining to rate policy,  
2 valuation, capital costs, and performance-based regulation. I have authored  
3 numerous articles on the energy industry, lectured on utility regulation for  
4 regulatory commission staff, and provided testimony before the Federal Energy  
5 Regulatory Commission (“FERC”) as well as state and provincial jurisdictions  
6 in the U.S. and Canada. I hold a B.S. in Business Administration from  
7 Georgetown University and an M.S. in Resource Economics from the  
8 University of New Hampshire. My educational and professional background is  
9 summarized more fully in Exhibit JMC-1.

10 **Q. Are you sponsoring or co-sponsoring any exhibits in this case?**

11 A. Yes. My analyses and recommendations are supported by the data presented in  
12 Exhibits JMC-2 through JMC-11, which have been prepared by me or under  
13 my direction. I am sponsoring the following exhibits:

- 14 • JMC 2 – Comprehensive Summary of ROE Results
- 15 • JMC-3 – Proxy Group Screening Analysis
- 16 • JMC-4 – Constant Growth DCF Analysis
- 17 • JMC-5.1 – Market Risk Premium
- 18 • JMC-5.2 – CAPM Analysis
- 19 • JMC-6 – Risk Premium Analysis
- 20 • JMC-7 – Expected Earnings Analysis
- 21 • JMC-8 – Capital Expenditures Analysis
- 22 • JMC-9 – Regulatory Risk Assessment
- 23 • JMC-10 – Flotation Cost Analysis



1 recommend an ROE of 11.0 percent as just and reasonable for FPL for the 2022-  
2 2025 rate period.

3 **Q. Please provide a brief overview of the analyses that you conducted to**  
4 **support your ROE recommendation.**

5 A. My ROE recommendation is based on the range of results produced from four  
6 modeling methodologies, the DCF model, the CAPM, the Risk Premium  
7 approach, and the Expected Earnings analysis. Analysts and academics  
8 understand that ROE models are tools to be used in the ROE estimation process,  
9 and that strict adherence to any single approach, or the specific results of any  
10 single approach, can lead to flawed conclusions. No model can exactly pinpoint  
11 the correct cost of equity, but rather each model brings its own perspective and  
12 set of inputs that inform the estimate of the ROE. This has been particularly  
13 evident in recent market conditions where the market inputs have rendered  
14 some models more reliable than others. Therefore, my analysis appropriately  
15 considers the range of results produced by these four different models. From  
16 within that range, regulators use informed judgment to select an authorized  
17 ROE that takes into consideration the relevant risk factors, as well as capital  
18 market conditions and the management performance of the utility, in order to  
19 send appropriate market signals. The DCF analysis estimates the cost of equity  
20 based on market data on dividend yields and analysts' projected earnings per  
21 share growth rates from reputable third-party sources. The CAPM analysis is  
22 based on both current and forecasted interest rates and a forward-looking  
23 market risk premium. The Risk Premium approach calculates the risk premium

1 as the spread between authorized ROEs for integrated electric utilities and  
2 Treasury bond yields to estimate the ROE. The Expected Earnings approach  
3 estimates the cost of equity based on projected returns on book equity that  
4 investors expect to receive over the next three to five years. My ROE  
5 recommendation is based on the results produced by these four methodologies  
6 to provide a robust analytical framework for determining FPL's ROE without  
7 the undue influence of any single approach or set of assumptions.

8  
9 My recommendation also considers the general economic and capital market  
10 environment and the influence capital market conditions exert over the results  
11 of the DCF, CAPM and Risk Premium models. In addition, I consider the  
12 Company's business and regulatory risks in relation to a set of proxy companies  
13 to assist in the determination of the appropriate ROE and capital structure from  
14 within the range of my analytical results. I identify risk factors that indicate  
15 FPL is above average risk. FPL witness Reed concurs with this assessment:  
16 "The Company has achieved these results in spite of the fact that it faces a  
17 greater than average set of challenges (i.e., "degree of difficulty") from  
18 exogenous factors that impact a utility's ability to achieve top performance and  
19 macro-economic trends that put significant cost pressures on FPL." While I  
20 have not made any explicit risk adjustment in my ROE or capital structure  
21 analysis, FPL's risk profile warrants such consideration.

22

1 **Q. Your ROE recommendation for FPL is slightly higher than what was**  
2 **included in the Settlement Agreement in the Company’s last rate case that**  
3 **was filed in March 2016. Please summarize the primary factors that**  
4 **support this view.**

5 A. FPL’s current authorized ROE is 10.55 percent and a range from 9.60 percent  
6 to 11.60 percent. I would first note that the current ROE was the result of a  
7 settlement with several components. Settlements invariably include gives and  
8 takes, so any one element, including ROE, is not necessarily representative of  
9 a litigated outcome. Further, while interest rates on government and corporate  
10 bonds declined to historically low levels in June 2020, they have since  
11 rebounded in the latter part of 2020 and the first two months of 2021 to levels  
12 that approach the interest rates that existed at the time FPL reached its 2016  
13 settlement. The level of current interest rates does not suggest that the cost of  
14 equity for FPL has declined. On the contrary, other risk factors indicate that  
15 the uncertainty and volatility in financial markets have caused equity investors  
16 to require a higher rate of return to compensate them for the additional  
17 uncertainty and risk created by the COVID-19 pandemic and the corresponding  
18 economic fallout in the near term. Longer term, the industry faces complex  
19 structural challenges associated with climate change, decarbonization, cyber  
20 security, grid modernization and shifting consumer preferences amid a flat  
21 overall consumption profile.

22

1 Volatility in equity markets reached levels in March 2020 not seen since the  
2 financial crisis of 2008/2009. Credit spreads between government and utility  
3 bonds increased to levels well above their historical average, and the correlation  
4 between utility share prices and the broader market has increased, which  
5 reflects the fact that investors have not viewed the utility sector as a safe-haven  
6 during the current economic downturn, unlike what typically has happened  
7 during economic downturns. Beta coefficients (which are the measure of risk  
8 in the CAPM analysis) have increased substantially both for electric and natural  
9 gas utilities, which is consistent with these higher correlations between utility  
10 share prices and the broader market. Furthermore, the economic stimulus  
11 provided through monetary and fiscal policy increases the likelihood of higher  
12 inflation as expansion of the money supply is frequently accompanied by  
13 inflation. This inflation risk, which I discuss in more detail later in this Direct  
14 Testimony, is an important consideration for the Commission in setting FPL's  
15 authorized ROE for the term of its proposed 4-year rate plan.

16 **Q. Does your analysis also take into consideration the integration of FPL and**  
17 **Gulf?**

18 A. Yes, it does. In January 2019, NextEra Energy completed the acquisition of  
19 Gulf from Southern Company. As of December 31, 2019, Gulf provided  
20 electric utility service to approximately 470,000 customers in northwest  
21 Florida. FPL and Gulf legally merged effective January 1, 2021, and it is my  
22 understanding that integration will be essentially complete by January 1, 2022,  
23 at which point the two companies will be indistinguishable from an investor

1 perspective. My Direct Testimony assumes that FPL and Gulf are fully  
2 integrated into one company.

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

4 A. The remainder of my Direct Testimony is organized as follows. Section III  
5 provides background on the regulatory principles that guide the determination  
6 of ROE. Section IV presents a review of current and prospective economic and  
7 capital market conditions and the implications for utility cost of capital. Section  
8 V describes the criteria and approach for the selection of a proxy group of  
9 comparable companies. Section VI provides a description of the data and  
10 methodologies used to estimate the cost of equity, as well as the results of the  
11 various ROE estimation models. Section VII provides an assessment of the  
12 business and regulatory risk factors I have considered in arriving at an  
13 appropriate ROE for FPL. Section VIII reviews FPL's capital structure in the  
14 context of the proxy group. Finally, Section IX summarizes my results,  
15 conclusions, and recommendations.

16

17 **III. REGULATORY PRINCIPLES**

18

19 **Q. Please describe the guiding principles used in establishing the cost of**  
20 **capital for a regulated utility.**

21 A. The foundations of public utility regulation require that utilities receive a fair  
22 rate of return sufficient to attract needed capital to maintain important  
23 infrastructure for customers at reasonable rates. The basic tenets of this  
24 regulatory doctrine originate from several bellwether decisions by the United

1 States Supreme Court, notably *Bluefield Waterworks and Improvement*  
2 *Company v. Public Service Commission of West Virginia*, 262 U.S. 679 (1923)  
3 (“*Bluefield*”), and *Federal Power Commission v. Hope Natural Gas Company*,  
4 320 U.S. 591 (1944) (“*Hope*”). In *Bluefield*, the Court stated:

5 A public utility is entitled to such rates as will permit it to earn  
6 a return on the value of the property which it employs for the  
7 convenience of the public equal to that generally being made at  
8 the same time and in the same general part of the country on  
9 investments in other business undertakings which are attended  
10 by corresponding risks and uncertainties...

11 The return should be reasonably sufficient to assure investor  
12 confidence in the financial soundness of the utility and should  
13 be adequate, under efficient and economical management, to  
14 maintain and support its credit and enable it to raise the money  
15 necessary for the proper discharge of its public duties.

16 Later, in *Hope*, the Court established a standard for the ROE that remains the  
17 guiding principle for ratemaking regulatory proceedings to this day:

18 [T]he return to the equity owner should be commensurate with  
19 returns on investments in other enterprises having corresponding  
20 risks. That return, moreover, should be sufficient to assure  
21 confidence in the financial integrity of the enterprise, so as to  
22 maintain its credit and to attract capital.

23 **Q. Has the Commission provided similar guidance?**

24 A. Yes, the Commission applies the precedents of the *Hope* and *Bluefield*  
25 decisions. For example, in a May 2008 decision for Florida Public Utilities, the  
26 Commission stated:

27 The statutory principles for determining the appropriate rate of  
28 return for a regulated utility are set forth by the U.S. Supreme  
29 Court in its *Hope* and *Bluefield* decisions. These decisions  
30 define the fair and reasonable standards for determining rate of  
31 return for regulated enterprises. Namely, these decisions hold  
32 that the authorized return for a public utility should be  
33 commensurate with return on investments in other companies of  
34 comparable risk, sufficient to maintain the financial integrity of

1 the company, and sufficient to maintain its ability to attract  
2 capital on reasonable terms.<sup>1</sup>

3 **Q. Please explain how these principles apply in the context of the regulated**  
4 **rate of return.**

5 A. Regulated utilities rely primarily on common stock and long-term debt to  
6 finance permanent property, plant, and equipment. The allowed rate of return  
7 for a regulated utility is based on its weighted average cost of capital, where the  
8 costs of the individual sources of capital (i.e., debt and equity) are weighted by  
9 their respective book values. The ROE represents the cost of raising and  
10 retaining equity capital and is estimated by using one or more analytical  
11 techniques that use market data to quantify investor requirements for equity  
12 returns. However, the ROE cannot be derived through quantitative metrics and  
13 models alone. To properly estimate the ROE, the financial, regulatory, and  
14 economic context must also be considered.

15  
16 The DCF, CAPM, Risk Premium and Expected Earnings approaches, while  
17 fundamental to the ROE determination, are still only models. The results of  
18 these models cannot be mechanically applied without also using informed  
19 judgment to consider economic and capital market conditions and the relative  
20 risk of FPL as compared to the proxy group companies.

21  
22 Based on these widely recognized standards, the Commission's order in this  
23 case should provide FPL with the opportunity to earn a return on equity that is:

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<sup>1</sup> Order No. PSC-08-0327-FOF-EI, Docket Nos. 070300-EI and 070304-EI, at 35.

- 1           • Commensurate with returns on investments in enterprises having
- 2           comparable risks;
- 3           • Adequate to attract capital on reasonable terms, thereby enabling FPL
- 4           to provide safe, reliable service; and
- 5           • Sufficient to ensure the financial soundness of FPL’s electric utility
- 6           operations.

7           Importantly, a fair return must satisfy all three of these standards. The allowed  
8           ROE should enable FPL to finance capital expenditures on reasonable terms  
9           and provide the Company with the ability to raise capital under a full range of  
10          capital market circumstances.

11   **Q.    What are your conclusions regarding regulatory principles?**

12   A.    The ratemaking process is premised on the principle that, in order for investors  
13          and companies to commit the capital needed to provide safe and reliable utility  
14          services, the utility must have the opportunity to recover invested capital and  
15          the market-required return on that capital. Because utility operations are  
16          capital-intensive, regulatory decisions should enable the utility to attract capital  
17          on favorable terms. The financial community carefully monitors the current  
18          and expected financial condition of utility companies as well as the regulatory  
19          environment in which they operate. In that respect, the regulatory environment  
20          is one of the most important factors considered by both debt and equity  
21          investors in their assessments of risk. It is therefore essential that the ROE  
22          authorized in this proceeding takes into consideration the current and expected  
23          capital market conditions that FPL faces, as well as investors’ expectations and

1 requirements regarding both risks and returns. A reasonable ROE is required  
2 both for continued capital investment by FPL and to maintain confidence in  
3 Florida's regulatory environment among credit rating agencies and investors.

4

#### 5 **IV. ECONOMIC AND CAPITAL MARKET CONDITIONS**

6

7 **Q. Why is it important to consider the effects of current and expected**  
8 **economic and financial market conditions when setting the appropriate**  
9 **ROE?**

10 A. It is important to consider current and expected conditions in the general  
11 economy and financial markets because the authorized ROE for a public utility  
12 should allow the utility to attract investor capital at a reasonable cost under a  
13 variety of economic and financial market conditions, as underscored by the  
14 *Hope* and *Bluefield* decisions. The standard ROE estimation tools, such as the  
15 DCF, CAPM, and Risk Premium models, each reflect the state of the general  
16 economy and financial markets by incorporating specific economic and  
17 financial data. These inputs are, however, only samples of the various  
18 economic and market forces that determine a utility's required return.  
19 Consideration must be given to whether the assumptions relied on in the current  
20 or projected market data are appropriate. If investors do not expect current  
21 market conditions to be sustained in the future, it is possible that the ROE  
22 estimation models will not provide an accurate estimate of investors' forward-  
23 looking required return. Therefore, an assessment of current and projected  
24 market conditions is integral to any ROE recommendation.

1 **Q. What are the key factors affecting the cost of equity for regulated utilities**  
2 **in the current and prospective capital markets?**

3 A. The cost of equity for regulated utility companies is being affected by several  
4 key factors in the current and prospective capital markets, including: (1)  
5 ongoing uncertainty and volatility in equity markets; (2) valuations and  
6 dividend yields of utility stocks relative to historical levels; (3) increased  
7 correlations and Beta coefficients for utilities since the onset of the COVID-19  
8 pandemic; and (4) the steepening yield curve and the interest rate outlook. In  
9 this section, I discuss each of these factors and how it affects the models used  
10 to estimate the cost of equity for regulated utilities.

11

12 **A. Uncertainty and Volatility in Capital Markets**

13 **Q. Please discuss economic and capital market conditions in 2020.**

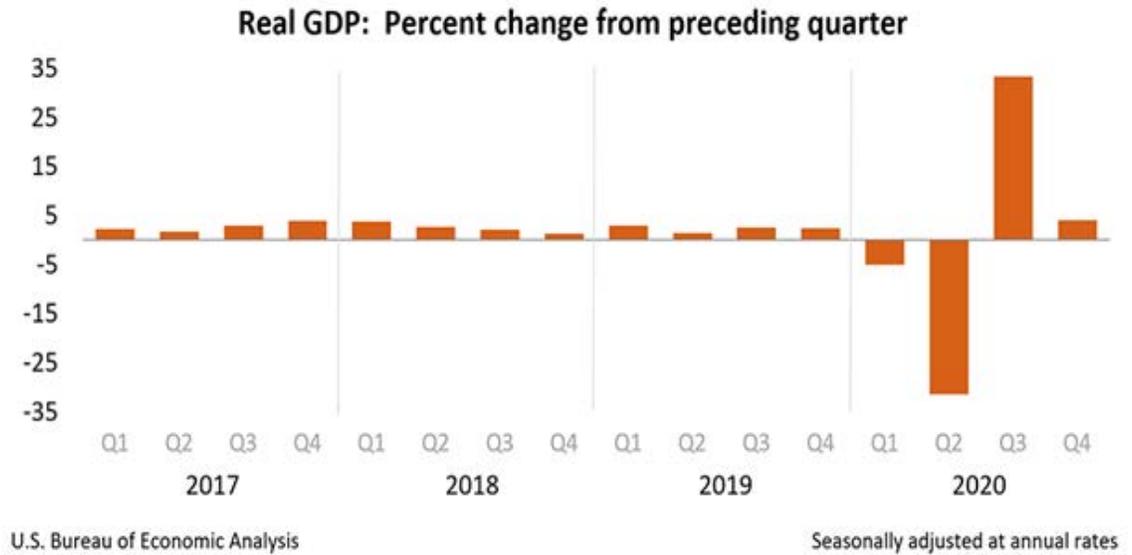
14 A. Capital market conditions were unsettled in 2020 due to the economic effects  
15 of the COVID-19 pandemic. Measures taken to contain COVID-19 and  
16 associated impacts on businesses and consumers forced the U.S. economy into  
17 a sharp recession. As shown in Figure 1, according to the Bureau of Economic  
18 Analysis, real gross domestic product (“GDP”) decreased at an annual rate of  
19 5.0 percent in the first quarter of 2020 and at a startling annual rate of 31.4  
20 percent in the second quarter before rebounding in the third quarter at an annual  
21 rate of 33.4 percent. The “advance” estimate for the fourth quarter shows GDP  
22 expanded at an annual rate of 4.0 percent.<sup>2</sup>

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<sup>2</sup> [Gross Domestic Product, 4th Quarter and Year 2020 \(Advance Estimate\) | U.S. Bureau of Economic Analysis \(BEA\)](#)

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**Figure 1: U.S. GDP Growth – 2016-2020**



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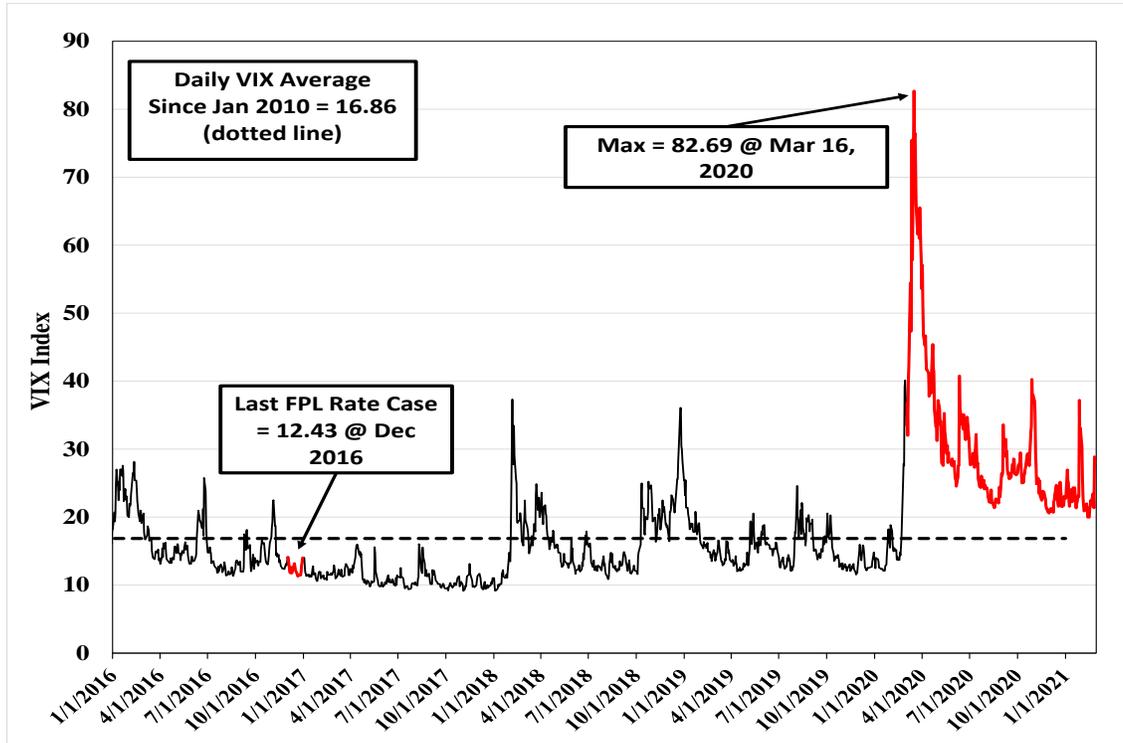
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As a result of concerns about weak economic growth, capital market volatility increased to levels not seen since the Great Recession of 2008/09. The Chicago Board Options Exchange (“CBOE”) Volatility Index (“VIX”) measures investors’ expectations of volatility in the S&P 500 over the next 30 days. As shown in Figure 2, the VIX reached 82.69 on March 16, 2020 in response to the pandemic. The VIX last traded above 80 in November 2008 during the financial crisis and Great Recession of 2008/09. This indicator shows that COVID-19 has caused an increase in the level of uncertainty and volatility in the market even greater than during the Great Recession of 2008/09.

As a point of comparison, in February 2021, the VIX averaged 22.98 as compared to an average VIX of 12.43 in December 2016 when the Commission approved the Settlement Agreement in FPL’s last rate case. The long-term

1 average VIX from January 2010 through December 2019 was 16.86. This  
2 indicates that equity markets remain unsettled with volatility levels well above  
3 the historic mean and the level when the Commission last considered FPL's  
4 cost of capital.

5 **Figure 2: CBOE VIX – January 2016 – February 2021<sup>3</sup>**



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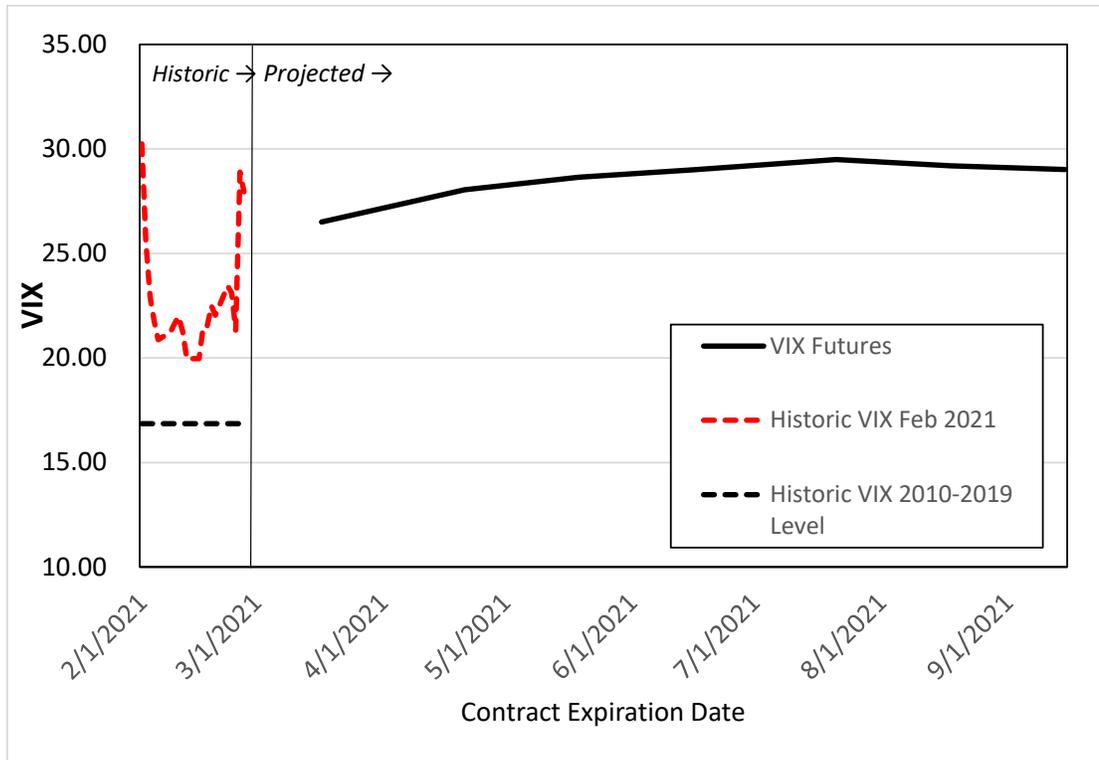
8 **Q. What are investors' expectations regarding the VIX over the near-term?**

9 A. The VIX futures published by the CBOE reflect investors' views regarding the  
10 value of the VIX for different expiration dates in the future. As shown in Figure  
11 3, investors expect the VIX to remain at levels that exceed 25.00 at least through  
12 September 2021, which is the longest dated futures contract on the VIX at this

<sup>3</sup> Source: Bloomberg Professional.

1 time. Therefore, investors expect higher volatility and uncertainty to persist  
2 over the near-term as the economy recovers from the economic effects of the  
3 COVID-19 pandemic and the market gauges the broad-ranging economic  
4 policies of the new administration.

5 **Figure 3: CBOE VIX Futures as of February 26, 2021<sup>4</sup>**



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Longer term, there are structural risks to both economic growth and equity markets. Among these is the level of government debt amassed by the U.S. and other countries that are members of the Organisation for Economic Co-operation and Development (“OECD “). The most recent comparison data for the 37 OECD countries at the end of 2019 show U.S. government debt stood at

<sup>4</sup> Source: Bloomberg Professional.

1 135 percent of GDP, exceeded only by Portugal, Italy, and Greece in this  
2 measure.<sup>5</sup> Federal stimulus spending in 2020 and expected in 2021 will only  
3 expand this balance. The most recent data reported by the St. Louis Federal  
4 Reserve Bank indicate that government debt grew by over 16 percent between  
5 the 4<sup>th</sup> quarter of 2019 to the 3<sup>rd</sup> quarter of 2020.<sup>6</sup> The Federal Reserve recently  
6 confirmed its intention to increase its holdings of Treasury securities by at least  
7 \$80 billion per month and agency mortgage-backed securities by another \$40  
8 billion per month until further notice to “support the flow of credit to  
9 households and businesses.”<sup>7</sup> While supportive in the near-term, increasing  
10 debt creates concerns among investors for increased inflation and tax rates in  
11 the future that could serve as a drag on the economy.

12 **Q. What additional steps have the Federal Reserve and the U.S. Congress**  
13 **taken to stabilize financial markets and support the economy?**

14 A. In response to the economic effects of COVID-19, the Federal Reserve  
15 decreased the federal funds rate twice in March 2020, resulting in a target range  
16 of 0.00 percent to 0.25 percent and also announced plans to increase its holdings  
17 of both Treasury and mortgage-backed securities. In addition, on March 23,  
18 2020, the Federal Reserve began expansive programs to support credit to large  
19 employers, including the Primary Market Corporate Credit Facility (“PMCCF”)  
20 to provide liquidity for new issuances of corporate bonds, and the Secondary  
21 Market Corporate Credit Facility (“SMCCF”) to provide liquidity for

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<sup>5</sup> <https://data.oecd.org/gga/general-government-debt.htm>

<sup>6</sup> <https://fred.stlouisfed.org/series/GFDEBTN>

<sup>7</sup> <https://www.federalreserve.gov/newsevents/pressreleases/monetary20210127a.htm>

1 outstanding corporate debt issuances. Further, the Federal Reserve supported  
2 the flow of credit to consumers and businesses through the Term Asset-Backed  
3 Securities Loan Facility (“TALF”).<sup>8</sup>

4  
5 In addition to the Federal Reserve’s response, the U.S. Congress passed its own  
6 fiscal stimulus programs. On March 27, 2020, the Coronavirus Aid, Relief, and  
7 Economic Security (“CARES”) Act was signed into law, providing a large  
8 fiscal stimulus package aimed at mitigating the economic effects of the  
9 coronavirus. While these expansive monetary and fiscal programs have  
10 provided for greater price stability, as shown in Figures 2 and 3, the VIX  
11 remains well above long-term historical levels and is expected to remain above  
12 long-term historical levels. The extraordinary measures taken by the Federal  
13 Reserve to stabilize the economy and financial markets have thus far been  
14 successful, but in doing so have driven investors from very low yielding bonds  
15 into equities, creating upward pressure on valuations and downward pressure  
16 on yields for dividend paying companies such as utilities. Furthermore, the  
17 U.S. Congress is considering additional stimulus of as much as \$1.9 trillion in  
18 response to the ongoing economic effects of COVID-19. Additional fiscal  
19 stimulus is likely to increase pressure on the inflation rate, and the bond market  
20 may be at risk of a sharp upward spike in interest rates if inflation is higher than  
21 currently anticipated by investors.

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<sup>8</sup> Federal Reserve Board Press Release, “Federal Reserve announces extensive new measures to support the economy,” March 23, 2020.

1 **Q. How do the Federal Reserve’s recently announced programs affect the**  
2 **economy and financial markets?**

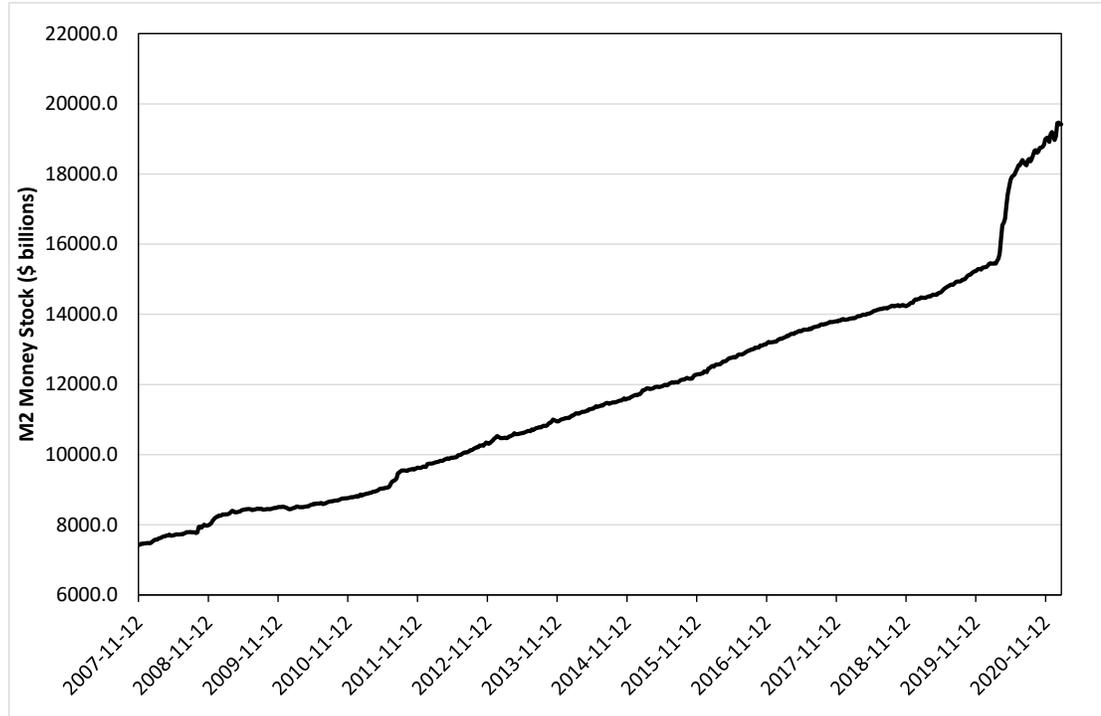
3 A. These programs allow the Federal Reserve to purchase government bonds and  
4 corporate bonds from banks. The banks then receive cash from the Federal  
5 Reserve, which results in an expansion of the money supply. This increase in  
6 the money supply keeps short-term interest rates low and increases the ability  
7 of banks to lend to consumers and businesses. Investors in longer term bonds  
8 also respond, which affects the entire duration of the bond yield curve, from  
9 very near-term rates all the way out to 30-year yields. Continued access to  
10 capital is particularly important in current market conditions because it allows  
11 companies to offset the negative effects of COVID-19 on business operations.  
12 As shown in Figure 4, the programs enacted by the Federal Reserve have  
13 resulted in an unprecedented expansion of the money supply as measured by  
14 M2<sup>9</sup> in recent months. That expansion has been much greater than the increase  
15 following the Federal Reserve’s response to the Great Recession of 2008/2009.  
16 This response again demonstrates the level of intervention necessary to provide  
17 some stability to markets, suggesting greater market risk at this time than in  
18 December 2016 when FPL’s currently-authorized ROE was approved by the  
19 Commission.

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<sup>9</sup> M2 is defined by the Federal Reserve as follows: M2 includes a broader set of financial assets held principally by households. M2 consists of M1 plus: (1) savings deposits (which include money market deposit accounts, or MMDAs); (2) small-denomination time deposits (time deposits in amounts of less than \$100,000); and (3) balances in retail money market mutual funds (MMMFs).

1

**Figure 4: M2 Money Stock – September 2009 – February 2021<sup>10</sup>**



2

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4 **Q. How has the market responded to the unprecedented intervention by the**  
5 **Federal Reserve?**

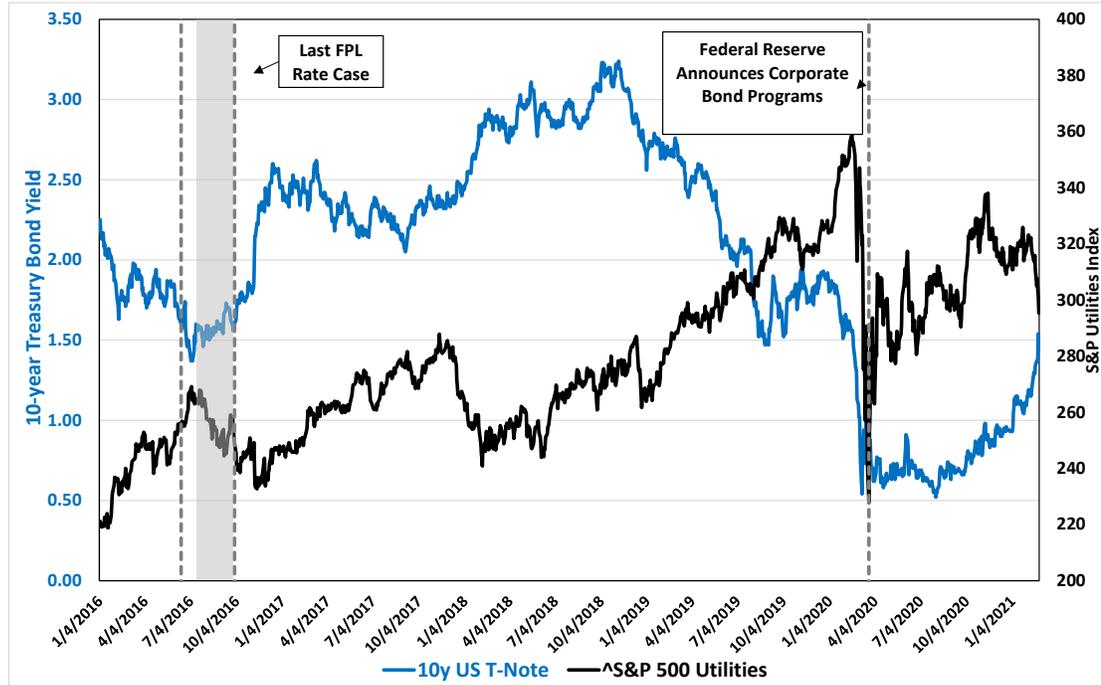
6 A. As discussed above, the Federal Reserve's programs increased the money  
7 supply, which resulted in lower borrowing costs for corporations and  
8 individuals. For investors seeking returns greater than record low bond yields,  
9 this led to allocating more funds to equities. As shown in Figure 5, while the  
10 yield on the 10-year Treasury bond remained in the range of 0.52 percent to  
11 0.98 percent between March 23, 2020 and December 31, 2020, the S&P  
12 Utilities Index increased dramatically in the days immediately following the

<sup>10</sup> Board of Governors of the Federal Reserve System (US), M2 Money Stock [M2], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/M2>, February 26, 2021.

1 Federal Reserve's announcement on March 23, 2020. In recent weeks,  
2 however, yields on U.S. Treasury bonds have increased and the yield curve has  
3 steepened, as investors anticipate the economic recovery with concerns about  
4 corresponding inflation. I discuss these issues in more detail in subsection (d).  
5  
6 The policies of the Federal Reserve, while helping to stabilize the bond markets  
7 in 2020, have resulted in higher equity prices, as investors search for higher  
8 returns given the current low interest rate environment. Thus, I am concerned  
9 that current dividend yields, driven by share prices which, although lower than  
10 pre-pandemic levels, remain elevated over historical levels for the proxy group  
11 utilities (on a price/earnings ratio basis) and lower competing bond yields, will  
12 not be representative of the share prices and dividend yields that will exist over  
13 the term of FPL's rate plan.

1

**Figure 5: 10-year U.S. Treasury Yield and S&P Utilities Index<sup>11</sup>**



2

3

4 **Q. How have rating agencies responded in general to the current economic**  
5 **environment for utilities?**

6 A. According to a recent report by S&P Global, credit ratings for North American  
7 utilities “weakened sharply in 2020.” “The percentage of North American  
8 regulated utilities with a negative outlook or on CreditWatch with negative  
9 implications surged from 18% in 2019 to 36% in 2020” according to S&P. The  
10 report also indicated “that the number of downgrades exceeded the number of  
11 upgrades by a wide margin in 2020 for the first time since 2010.” On the causes  
12 of the weakening credit profiles, S&P stated: “The main causes of weakening  
13 credit quality reflected environment, social, and governance (ESG) risks,

<sup>11</sup> Source: Bloomberg Professional.

1 regulatory issues, and companies' practice of strategically managing financial  
2 measures close to their downgrade threshold with little or no cushion", and the  
3 novel coronavirus pandemic "was not the culprit for weaker credit quality" the  
4 report states.<sup>12</sup> While the views of rating agencies represent an important  
5 consideration, they are not the only factor that equity investors consider. The  
6 important distinction is that credit rating agencies are primarily focused on the  
7 ability of a utility to pay its debts, while equity analysts and institutional  
8 investors are more concerned with profitability and value creation.

9 **Q. What are your conclusions regarding the effects of the current market**  
10 **environment on the cost of equity for FPL?**

11 A. The risks in the current market environment have increased since the time of  
12 FPL's last rate case. Given the uncertainty and volatility that has characterized  
13 capital markets since February 2020, and the pressures cited by S&P on utility  
14 credit quality, it is reasonable that equity investors would now require a higher  
15 return on equity to compensate them for the additional risk associated with  
16 owning common stock. Current market data suggest that the cost of equity has  
17 increased since the Commission approved the settlement in FPL's last rate  
18 proceeding.

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<sup>12</sup> <https://www.spglobal.com/platts/en/market-insights/latest-news/natural-gas/012121-utility-sectors-credit-ratings-weakened-sharply-in-2020-sampp-global-ratings>

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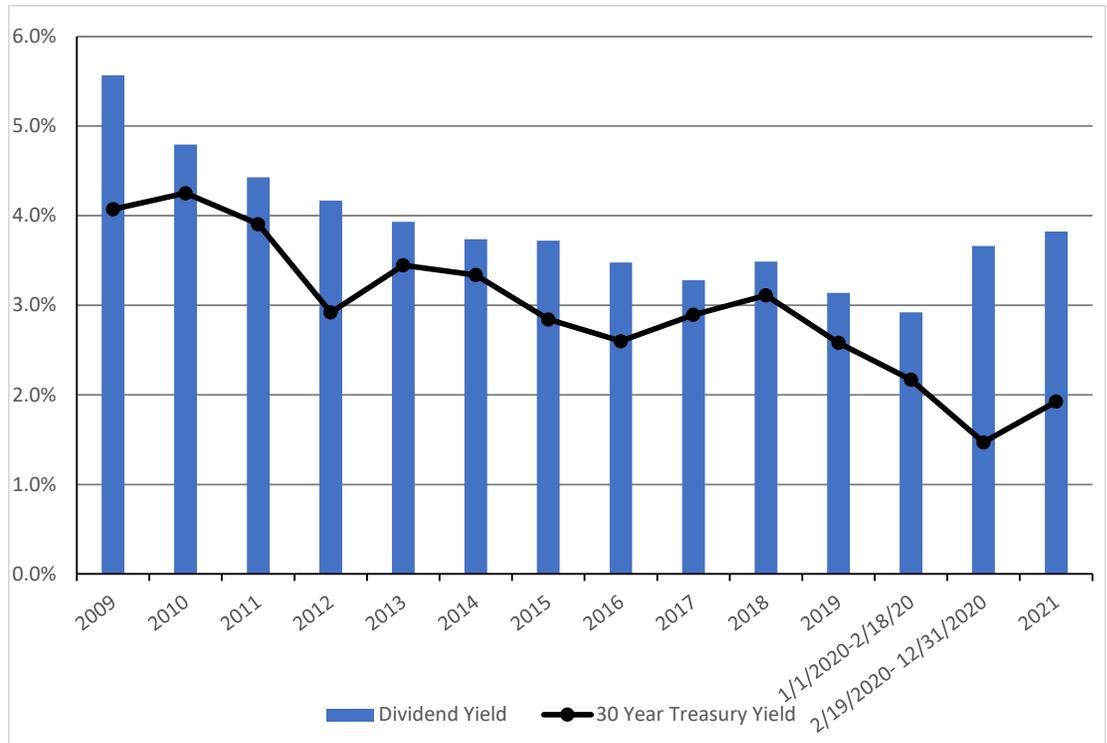
## **B. Utility Valuations and Dividend Yields**

**Q. How has the period of abnormally low interest rates affected the valuations and dividend yields of utilities?**

A. The Federal Reserve’s accommodative monetary policy resulted in higher asset prices for many common stocks, including shares of public utility companies, as investors sought higher returns and more attractive yields than were available on government bonds. Consequently, the share prices for many common stocks, especially dividend-paying stocks such as utilities, were driven higher, while the dividend yields (which are computed by dividing the dividend payment by the stock price) decreased to levels well below the historical average. Average yields on 30-year Treasury bonds declined by approximately 26 basis points in February 2021 as compared to the mid-June to late September 2016 period, when the Settlement Agreement in FPL’s last rate case was being negotiated, while, as shown in Figure 6, dividend yields on electric utilities have actually increased by 34 basis points over this same period, suggesting a disconnect between how investors see the cost of risk-free government bonds and the cost of equity for utilities. Viewed from a different perspective, even though share prices for many companies in the proxy group have declined from their peak in February 2020, the share prices, and Price/Earnings (“P/E”) ratios for the proxy companies remain higher than historical average levels over the past two decades, while dividend yields remain lower than historical average levels. Investors are paying more for utility investments even though the yields are lower. Stimulative government policies have driven government bond

1 yields lower, but equity investors have not modified their required rate of return  
 2 downward in response; instead, they have moved upward. Equity markets and  
 3 government bond yields are influenced by a different set of factors, although  
 4 some are common, such as inflation expectations.

5 **Figure 6: Dividend Yields for Electric Utility Proxy Group<sup>13</sup>**



6

7

8 **Q. How have higher stock valuations and lower dividend yields for utility**  
 9 **companies affected the results of the DCF model?**

10 A. During periods of general economic and capital market stability, the DCF  
 11 model adequately reflects market conditions and investor expectations.  
 12 However, in the current market environment, the DCF model results are

<sup>13</sup> Source: Bloomberg Professional. Market data as of February 26, 2021.

1 distorted by the historically low level of interest rates and the higher valuations  
2 and lower dividend yields of utility stocks. In its commentary on the Electric  
3 Utility industry, Value Line observes that some of the stocks in the electric  
4 utility sector are expensively priced and are trading within their three-to-five-  
5 year price targets.<sup>14</sup> This expected increase in dividend yields implies that the  
6 ROE calculated using current utility stock valuations and low dividend yields  
7 underestimates the forward-looking return requirements of investors under the  
8 DCF methodology. Figure 6 shows this expected shift began in the latter part  
9 of 2020, as dividend yields have recovered somewhat from their lows earlier in  
10 the year.

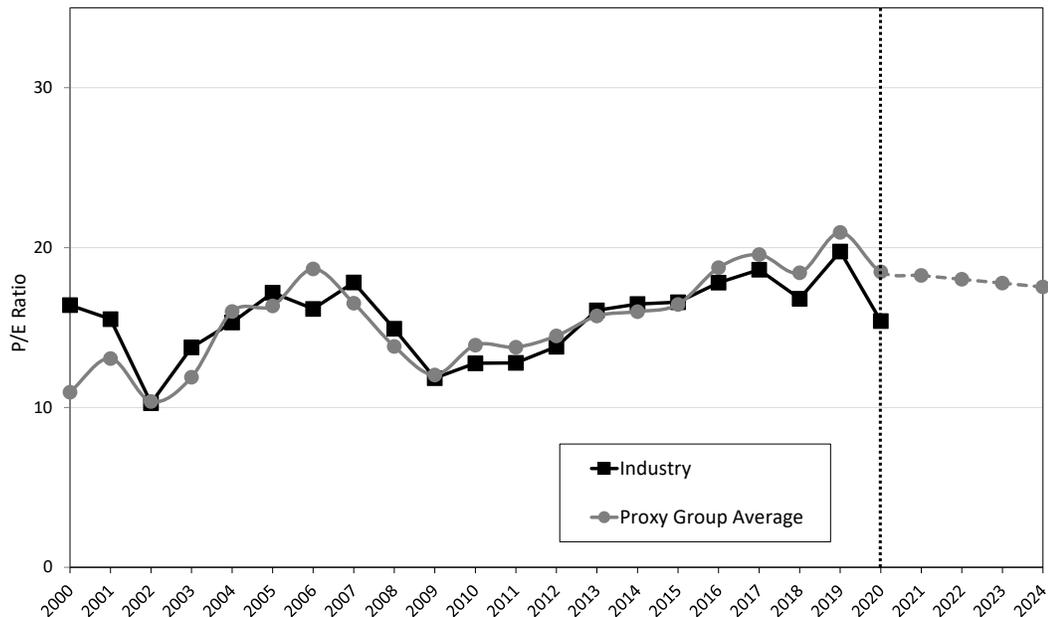
11  
12 This point is further emphasized by analyzing the average historical P/E ratios  
13 for the proxy companies and utilities in general. As shown in Figure 7, the  
14 proxy group average P/E ratio has been steadily climbing since the end of the  
15 financial crisis in 2009 and peaked in 2019 at approximately 21.0. P/E ratios  
16 for the proxy group companies in 2020 declined to an average of approximately  
17 18.5, and according to Value Line the average P/E ratio for the proxy is  
18 projected to decline to approximately 17.5 over the period from 2023-2025, as  
19 compared with an average P/E ratio for the proxy group in 2016 of 18.8. A  
20 constant P/E ratio is one of the key assumptions of the Constant Growth DCF  
21 model. The Value Line data indicates that the high current valuations for the  
22 proxy group companies are not considered sustainable, which means that the

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<sup>14</sup> Value Line Investment Survey, Electric Utility (East) Industry, November 13, 2020, at 135.

1 DCF model using historical stock prices will tend to understate the forward-  
2 looking cost of equity for the proxy group companies.

3 **Figure 7: Utility P/E Ratios vs. Proxy Group<sup>15</sup>**



4

5

6 **Q. Have equity analysts commented on the unusually high valuations of utility**  
7 **shares compared to historical levels?**

8 **A.** Yes, several equity analysts have recognized that utility stock valuations remain  
9 very high relative to historical levels even after the decline in share prices that  
10 occurred as a result of the economic effects of COVID-19. For example,  
11 Barron's noted:

<sup>15</sup> Source: Historical data from Bloomberg Professional, using market data as of February 26, 2021. Projected data from Value Line Investment Survey.

1 Charles Fishman, a utility analyst at Morningstar, points out that  
2 “utility valuations in February were at record highs,” and that  
3 “commercial and industrial electricity demand reductions and  
4 delay in investment due to the pandemic” have weighed on these  
5 stocks as well.

6 In May, power demand in the U.S. was down 8% year over year,  
7 according to Morgan Stanley. That follows a 5% drop in April.

8 But even after lackluster performance recently, utility shares still  
9 aren’t cheap. The stocks in the Utilities Select Sector SPDR ETF  
10 trade at about 19 times their current fiscal year profit estimates,  
11 according to FactSet. That’s above their five-year average of a  
12 little below 18 times.<sup>16</sup>

13 This implies that, even after the decline in share prices for many utilities in  
14 2020, the ROE calculated using the DCF model is understating the forward-  
15 looking cost of equity if the expectation is that utility valuations will retreat to  
16 their historic norms.

17 **Q. What are your conclusions regarding the recent valuations of utilities and**  
18 **the effect on the cost of equity for FPL in this proceeding?**

19 A. Current utility valuations are still well above the long-term average. The  
20 current high valuations result in relatively low dividend yields for utilities, and  
21 at the same time near-term earnings growth projections have moderated in the  
22 wake of the pandemic, which means that the DCF model likely underestimates  
23 investors’ normalized required returns. Therefore, it is important to consider  
24 the results of alternative models, as I have with the CAPM, Risk Premium and  
25 Expected Earnings models.

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<sup>16</sup> Strauss, Lawrence C. “Utility Stocks Aren’t Acting Like The Havens They’re Supposed Be. Here’s Why.” Utility Stocks Aren’t Acting Like The Havens They’re Supposed Be – Barron’s, 12 June 2020, [www.barrons.com/articles/utility-stocks-arent-acting-like-the-havens-theyre-supposed-be-51591979393](http://www.barrons.com/articles/utility-stocks-arent-acting-like-the-havens-theyre-supposed-be-51591979393).

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**C. Utilities Have Not Been a Safe-Haven for Investors**

**Q. Utilities traditionally have been a safe haven for investors during periods of market volatility. Has this been true during the recent period of volatility?**

A. No, it has not. Electric utilities have not been a safe-haven for investors during the COVID-19 pandemic. To this point, Charles Schwab recently rated the Utilities sector as “Underperform,” noting:

The Utilities sector has tended to perform relatively better when concerns about slowing economic growth resurface, and to underperform when those worries fade. That’s partly because of the sector’s traditional defensive nature and steady revenues—people need water, gas and electric services during all phases of the business cycle. Meanwhile, the low interest rates that typically come with a weak economy provide cheap funding for the large capital expenditures required in this industry.

However, valuations have been driven up in recent years as investors have reached for yield in this new era of low interest rates; this may decrease the sector’s traditional defensive characteristics. And while interest rates are expected to remain generally low, they could edge higher as the economy continues to expand. On the flip side, there is the potential for a renewed decline in the economy to push rates even lower, or there could be significant government funding to Utilities as part of clean-energy initiatives that would benefit the sector’s profit outlook.<sup>17</sup>

**Q. How did the S&P Utilities sector perform in 2020 relative to the S&P 500?**

A. Despite the strong valuations in relation to earnings I cited in the previous discussion, the utilities sector was one of the worst performing market sectors in 2020, having declined by 7.49 percent from the mid-February peak as compared to a 12.57 percent increase for the S&P 500.<sup>18</sup> The only market

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<sup>17</sup> Charles Schwab, Schwab Sector Insights: A View on 11 Equity Sectors, February 11, 2021.  
<sup>18</sup> Comparison from February 19, 2020 through December 31, 2020.

1 sectors that underperformed utilities in 2020 were real estate (down 8.30  
2 percent) and energy (down 26.31 percent). As of December 31, 2020, seven of  
3 the other eight market sectors were above their mid-February levels, led by  
4 technology (up 28.09 percent), consumer discretionary (up 22.92 percent), and  
5 materials (up 22.26 percent).

6 **Q. What contributed to the underperformance of the utilities sector?**

7 A. The relative underperformance of the utilities sector was partly attributable to  
8 reduced demand for electricity as non-essential businesses in many parts of the  
9 country were forced to close for a period in March through May 2020 and began  
10 to re-open slowly in June and July. While electricity demand is typically  
11 inelastic, the load data demonstrates that electric utilities have been affected by  
12 COVID-19. In December 2020, the U.S. Energy Information Administration  
13 (“EIA”) estimated that overall electricity sales would decrease by 3.9 percent  
14 in 2020 compared to 2019. While residential electricity sales were estimated to  
15 increase by 1.5 percent, commercial sales were estimated to decline by 5.9  
16 percent in 2020 due to COVID-19 mitigation efforts, and electricity sales to the  
17 industrial sector were expected to fall by 8.8 percent. In 2021, the EIA forecasts  
18 that overall electricity consumption will increase by 1.3 percent.<sup>19</sup> While  
19 dividend yields for electric utilities remain attractive to income-oriented  
20 investors, there is heightened risk that lower electricity demand will cause  
21 electric utilities without revenue decoupling mechanisms to be unable to earn  
22 their authorized return for several quarters until demand returns to pre-COVID-

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<sup>19</sup> U.S. Energy Information Administration: Short-Term Energy Outlook, December 2020, at 4.

1 19 levels. Lower demand also creates earnings uncertainty associated with the  
2 post-pandemic economic recovery, which could last for years. A related issue  
3 is the growing magnitude of residential and commercial bills in arrears  
4 permitted by shutoff moratoria and voluntary payment deferrals by utilities  
5 across the country. Recent data compiled by the National Energy Assistance  
6 Directors' Association places the residential and commercial arrearage at \$35-  
7 40 billion by March 2021, and questions remain as to who will bear  
8 responsibility for these bills.<sup>20</sup>

9 **Q. How has increased volatility in equity markets been reflected in the market**  
10 **data used to estimate the cost of equity?**

11 A. As discussed above, utility company stocks have traded more in-line with the  
12 broader market since February 2020 when the COVID-19 pandemic became a  
13 concern in financial markets. This higher correlation is reflected in the Beta  
14 coefficients, which are the measure of risk in the CAPM and which have  
15 increased substantially between January 2020 and February 2021 for the  
16 companies in my proxy group. Figure 8 presents the average Value Line and  
17 Bloomberg Beta coefficients for my proxy group companies over this period.  
18 These higher Beta coefficients have caused a significant increase in the CAPM  
19 results for regulated utilities.

---

<sup>20</sup> <https://www.utilitydive.com/news/customers-owe-billions-in-covid-debt-to-their-utilities-and-somebody-has-to/589525/>

1

**Figure 8: Beta Coefficients for Proxy Group**

	<b>January 2020</b>	<b>February 2021</b>
Value Line Beta	0.569	0.879
Bloomberg Beta	0.650	0.878

2

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**D. Steepening Yield Curve and Inflation Risk**

4

**Q. How do current yields on government bonds compare to those at the time of FPL’s last rate case?**

5

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A. The average yield on 30-year Treasury bonds was 2.30 percent from June 15 through September 30, 2016 (the period of the settlement negotiations in the 2016 rate case), while the average yield on 30-year Treasuries in February 2021 was 2.04 percent. This represents a decline of approximately 26 basis points. As discussed previously in my testimony, this decrease is primarily attributable to the steps taken by the Federal Reserve to stabilize financial markets and support the economy in response to the economic effects of COVID-19, but has not translated to a reduction in the cost of equity for utilities. Furthermore, as shown in my Risk Premium analysis, there is an inverse relationship between interest rates and the equity risk premium. That is, as interest rates decrease, the equity risk premium increases, and vice versa. Mr. Hevert made this point to the Commission in FPL’s last rate case, and the ensuing period has underscored this point: “It is important to recognize that the Equity Risk Premium is not constant over time. Rather, as interest rates fall, the Equity Risk

19

1 Premium increases, even when we consider additional measures of market  
2 risk.”<sup>21</sup>

3 **Q. If the Federal Reserve is expected to keep short-term interest rates low for**  
4 **an extended period of time, please explain why the cost of capital for**  
5 **utilities has not declined.**

6 A. While the Federal Reserve has indicated it will keep the federal funds rate near  
7 zero for the near-term, the short-term federal funds rate does not have a direct  
8 effect on long-term interest rates. In fact, one of the leading indicators used by  
9 investors to determine what stage of the business cycle the economy is in is the  
10 yield curve, which measures the difference between long-term and short-term  
11 interest rates. A flat or inverted yield curve occurs when long-term interest rates  
12 are equal to or less than short-term interest rates, which usually occurs prior to  
13 a recession, while a steepening yield curve occurs when the difference between  
14 long-term interest rates and short-term interest rates is increasing and indicates  
15 that the economy is entering a period of economic expansion following a  
16 recession.<sup>22</sup>

17 **Q. Have you reviewed the yield curve to determine investors’ expectations**  
18 **regarding the economy over the near-term?**

19 A. Yes, I have. Specifically, I calculated the difference between the yield on the  
20 10-year Treasury bond and the 2-year Treasury bond from January 2018 to  
21 February 2021. I selected the 10-year Treasury bond yield to represent long-

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<sup>21</sup> Rebuttal Testimony of Robert B. Hevert, Docket No. 160021-E1, August 1, 2016, p. 8.

<sup>22</sup> “What is a yield curve”, Fidelity.com. <https://www.fidelity.com/learning-center/investment-products/fixed-income-bonds/bond-yield-curve>

1 term interest rates and the 2-year Treasury bond to represent short-term interest  
2 rates. As shown in Figure 9, the yield curve has been steepening since June  
3 2020 and the spread between 2-year and 10-year Treasury yields has increased  
4 to approximately 80 basis points, which is the highest level over this time  
5 period. The steepening of the yield curve indicates that investors expect  
6 economic growth and inflation to increase in the near-term. As a result, they  
7 are expected to rotate out of long-term government bonds to avoid being locked  
8 into low interest rates for the long-term. The steeper yield curve signals that  
9 higher yields are required by investors to invest in long-term government bonds.

1  
2

**Figure 9: 10-year Treasury Bond Yield Minus 2-year Treasury Bond Yield  
– January 2018 – February 2021<sup>23</sup>**



3

4 **Q. Have investment firms commented on the steepening of the yield curve?**

5 A. Yes. Several investment firms have noted that the yield curve is expected to  
6 continue to steepen into 2021, which is an indicator that the economy is entering  
7 the early expansion phase of the business cycle. For example, Morgan Stanley  
8 recently indicated that they expected a “V-shaped” economic recovery and  
9 therefore advised investors to underweight government bonds and overweight  
10 equities.<sup>24</sup> Similarly, Goldman Sachs noted:

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<sup>23</sup> Federal Reserve Bank of St. Louis, 10-Year Treasury Constant Maturity Minus 2-Year Treasury Constant Maturity [T10Y2Y], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/T10Y2Y>, December 31, 2020.

<sup>24</sup> Ossinger, Joanna. “Morgan Stanley Says Go Risk-On and ‘Trust the Recovery’ in 2021.” *Bloomberg.com*, 15 Nov. 2020, [www.bloomberg.com/news/articles/2020-11-16/morgan-stanley-says-go-risk-on-and-trust-the-recovery-in-2021](http://www.bloomberg.com/news/articles/2020-11-16/morgan-stanley-says-go-risk-on-and-trust-the-recovery-in-2021).

1 “As the economic recovery consolidates next year, we expect to  
2 see more differentiation across the curve, with policymakers  
3 committing to keeping front-end rates low, but higher  
4 expectations for real growth and inflation driving long-end rates  
5 higher,” Goldman strategists including Zach Pandl wrote in the  
6 report, released Tuesday.

7 This should be especially true in the U.S. due to the Federal  
8 Reserve’s new average inflation targeting framework, which  
9 commits the central bank to holding off on rate hikes until  
10 inflation has reached its target and is on track to overshoot it.<sup>25</sup>

11 Finally, Citigroup also projected that the yield on the 10-year Treasury bond is  
12 expected to increase in 2021, which prompted Citigroup’s recommendation to  
13 overweight equities and favor cyclical sectors over more defensive sectors such  
14 as utilities.<sup>26</sup>

15 **Q. How has the utility sector performed historically during periods when the**  
16 **yield curve is steepening, and the economy is in the early stage of the**  
17 **business cycle?**

18 A. In a recent report, Fidelity Investments noted that the utility sector has  
19 historically been one of the worst performing sectors during the early phase of  
20 the business cycle, with a geometric average return of -10.5 percent.<sup>27</sup> This is  
21 important because, if the utility sector underperforms over the near-term, then  
22 the DCF model, which relies on historical averages of share prices, is likely to

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<sup>25</sup> McCormick, Liz. “Goldman Goes All-In for Steeper U.S. Yield Curves as 2021 Theme.” *Bloomberg.com*, 10 Nov. 2020, [www.bloomberg.com/news/articles/2020-11-10/goldman-goes-all-in-for-steeper-u-s-yield-curves-as-2021-theme](http://www.bloomberg.com/news/articles/2020-11-10/goldman-goes-all-in-for-steeper-u-s-yield-curves-as-2021-theme).

<sup>26</sup> Keown, Callum. “10-Year Treasury Yields Will Rise Into 2021, Citi Says. This ‘Aggressive’ Equity Strategy Can Outperform.” *Barrons.com*, 16 Nov. 2020, [www.barrons.com/articles/10-year-treasury-yields-will-rise-into-2021-citi-says-this-aggressive-equity-strategy-can-outperform-51605543920](http://www.barrons.com/articles/10-year-treasury-yields-will-rise-into-2021-citi-says-this-aggressive-equity-strategy-can-outperform-51605543920).

<sup>27</sup> Fidelity Investments, “The Business Cycle Approach to Equity Sector Investing,” 2020.

1           understate the cost of equity for FPL over the period that Company's rates will  
2           be in effect.

3   **Q.    What is the interest rate outlook?**

4   A.    While yields on government and corporate bonds are rebounding from near  
5           historical lows, investors continue to expect that interest rates will increase over  
6           the next several years. According to Blue Chip Financial Forecasts, yields on  
7           30-year Treasury bonds are forecast to increase from the current 30-day average  
8           of 1.97 percent as of February 26, 2021 to 2.80 percent over the period from  
9           2022-2026.<sup>28</sup>

10   **Q.    How have you accounted for market expectations of higher interest rates  
11           in your recommended cost of equity for FPL?**

12   A.    I am able to capture the effects of forward-looking interest rates in two of the  
13           ROE estimation models. I have used a forecasted 30-year Treasury bond yield  
14           in both the CAPM and Risk Premium analyses in order to take into  
15           consideration the consensus view of higher interest rates.

16   **Q.    What is your conclusion with regard to current and prospective interest  
17           rates?**

18   A.    Government bond yields are only one of many factors that equity investors  
19           consider in determining their return requirements. It is important to view  
20           current Treasury bond yields in the context of conditions in the economy and  
21           capital markets. It would not be reasonable for the Commission to consider  
22           only the decline in 30-year Treasury bond yields, without also considering the

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<sup>28</sup> Blue Chip Financial Forecasts, Issue 39, Vol. 12, December 1, 2020, at 14.

1 recent market conditions that have contributed to that decline. Further, there  
2 are reasons to believe that the recent declines in Treasury bond yields are not  
3 representative of the longer-term trend in government and corporate bond  
4 yields. Rather, those lower interest rates are directly attributable to the COVID-  
5 19 pandemic. The Federal Reserve has taken steps to contain the economic  
6 effects of COVID-19, including reducing the federal funds rates and taking  
7 additional measures to support the U.S. economy and provide liquidity and  
8 stability in financial markets. These are short-term events that have little to do  
9 with the longer-term trend in bond yields or equity costs. The steepening yield  
10 curve indicates that investors believe the economy is in the early stages of an  
11 economic recovery and suggests that yields on longer-term Treasury bonds will  
12 continue to increase as the recovery progresses.

13

#### 14 **V. PROXY GROUP SELECTION**

15

16 **Q. Why is it necessary to select a proxy group to estimate the cost of equity**  
17 **for FPL?**

18 A. Since the ROE is a market-based concept and FPL is not publicly traded, it is  
19 necessary to establish a group of companies that is both publicly traded and  
20 comparable to FPL. Even if FPL were a publicly traded entity, it is possible  
21 that transitory events could bias the Company's market value in one way or  
22 another in a given period of time. A significant benefit of using a proxy group  
23 is the ability to mitigate the effects of short-term events that may be associated  
24 with any one company. The proxy companies used in my ROE analyses possess

1 a set of business and operating characteristics similar to FPL’s vertically  
2 integrated electric utility operations, and thus provide a reasonable basis for  
3 estimating the Company’s ROE.

4 **Q. Please provide a summary profile of FPL, including Gulf.**

5 A. FPL is a wholly owned subsidiary of NextEra Energy, Inc., providing electric  
6 generation, transmission, and distribution service to more than five million  
7 residential, commercial, and industrial customers in Florida, and Gulf provides  
8 electric utility service to approximately 470,000 customers in northwest  
9 Florida. FPL owns 27,440 MW of regulated generation assets, including  
10 nuclear facilities, gas-fired plants, and solar generation facilities, while Gulf  
11 owns 2,300 MW net generating capacity that includes fossil-fueled units and  
12 some solar generation.<sup>29</sup> As demonstrated in the testimony of FPL witness  
13 Reed, FPL is the most efficient provider of electricity services in the U.S., as  
14 measured by average O&M costs per kilowatt hour. FPL is making significant  
15 investments in renewable energy generation, while continuing to maintain and  
16 expand its fleet of nuclear and advanced gas combined cycle power plants. In  
17 addition, FPL has a substantial capital expenditure program that is focused on  
18 improving the reliability of the electricity grid and increasing storm resiliency.  
19 FPL has long-term issuer ratings from S&P of A (Outlook: Stable), Moody’s  
20 Investors Service (“Moody’s”) of A1 (Outlook: Stable), and FitchRatings  
21 (“Fitch”) of A (Outlook: Stable).<sup>30</sup>

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<sup>29</sup> NextEra Energy, Inc., 2019 SEC Form 10-K, at 7 and 18.

<sup>30</sup> Ibid, at 46.

- 1 **Q. Please describe the specific screening criteria you have utilized to select a**  
2 **proxy group.**
- 3 A. I began with the 36 investor-owned domestic electric utilities covered by Value  
4 Line and then screened companies according to the following criteria:
- 5 1. Consistently pays quarterly cash dividends;
  - 6 2. Maintains an investment grade long-term issuer rating (BBB- or  
7 higher) from S&P;
  - 8 3. Is covered by more than one equity analyst;
  - 9 4. Has positive earnings growth rates published by at least two of the  
10 following sources: Value Line, Thomson First Call (as reported by  
11 Yahoo! Finance), and Zack’s Investment Research (“Zacks”);
  - 12 5. Owns regulated electric generation assets;
  - 13 6. Regulated revenue and net operating income make up more than 60  
14 percent of the consolidated company’s revenue and net operating  
15 income (based on a 3-year average from 2017-2019);
  - 16 7. Regulated revenue and net operating income from regulated electric  
17 operations makes up more than 80 percent of the consolidated  
18 company’s regulated revenue and net operating income (based on a 3-  
19 year average from 2017-2019); and
  - 20 8. Is not involved in a merger or other transformative transaction for an  
21 approximate six-month period prior to my analysis.

1 **Q. Did you include NextEra Energy, Inc. in your analysis?**

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

5 **Q. What is the composition of your resulting proxy group?**

6 A. Based on the screening criteria discussed above, and financial information  
7 through fiscal year 2019, I arrived at a proxy group consisting of the companies  
8 shown in Figure 10. The results of my screening process are shown in Exhibit  
9 JMC-3.

1

**Figure 10: Proxy Group**

<b>Company</b>	<b>Ticker</b>
ALLETE, Inc.	ALE
Alliant Energy Corporation	LNT
Ameren Corporation	AEE
American Electric Power Company, Inc.	AEP
Duke Energy Corporation	DUK
Edison International	EIX
Entergy Corporation	ETR
Evergy, Inc.	EVERG
Hawaiian Electric Industries, Inc.	HE
IDACORP, Inc.	IDA
OGE Energy Corporation	OGE
Pinnacle West Capital Corporation	PNW
Portland General Electric Company	POR
Xcel Energy Inc.	XEL

2

3 **Q. Do your screening criteria result in a group of companies that investors**  
4 **would view as comparable to FPL?**

5 A. Yes. I have selected this group of electric utilities to best align with the financial  
6 and operational characteristics of FPL. The proxy group screening criterion  
7 requiring an investment grade credit rating ensures that the proxy group  
8 companies, like FPL, are in sound financial condition. Because credit ratings

1 take into account business and financial risks, the ratings provide a broad  
2 measure of investment risk for investors. I have only included companies in  
3 the proxy group that own regulated generation assets because vertically-  
4 integrated electric utilities have operating characteristics and unique business  
5 risks that cause investors to require a higher return on equity to compensate for  
6 those risks. These unique risks are not shared by pure Transmission and  
7 Distribution utilities. Additionally, I have screened on the percent of revenue  
8 and net operating income from regulated operations to differentiate between  
9 utilities that are protected by regulation and those with substantial unregulated  
10 operations or market-related risks. Also, I have screened on the percentage  
11 contribution of the electric utility segment to regulated consolidated financial  
12 results to select companies that, like FPL, derive the majority of their revenue  
13 and operating income from regulated electric operations. These screens  
14 collectively reflect key risk factors that investors consider in making  
15 investments in electric utilities.

16 **Q. What is your conclusion with regard to the proxy group for FPL?**

17 A. My conclusion is that my group of 14 vertically integrated electric utilities  
18 adequately reflects the broad set of risks that investors consider when investing  
19 in a U.S.-regulated vertically integrated electric utility such as FPL. Later in  
20 my testimony, I will evaluate whether an adjustment should be made to the  
21 results of my ROE analyses to account for differences in FPL's company-  
22 specific risks relative to the proxy group companies.



1 Assuming a constant growth rate in dividends, the model may be rearranged to  
2 compute the ROE accordingly, as shown in Formula [2]:

$$3 \quad r = \frac{D}{P} + g \quad [2]$$

4 Stated in this manner, the cost of common equity is equal to the dividend yield  
5 plus the dividend growth rate.

6 **Q. What are the assumptions underlying the Constant Growth DCF model?**

7 A. The Constant Growth DCF model is based on the following assumptions: (1) a  
8 constant average growth rate for earnings and dividends; (2) a stable dividend  
9 payout ratio; (3) a constant price-to-earnings multiple; and (4) a discount rate  
10 greater than the expected growth rate.

11 **Q. Please summarize your application of the Constant Growth DCF model.**

12 A. I calculated DCF results for each of the proxy group companies using the  
13 following inputs:

- 14 1. Average stock prices for the historical period, over 30-, 90-, and  
15 180-trading days through February 26, 2021;
- 16 2. Annualized dividend per share as of February 26, 2021; and
- 17 3. Company-specific earnings growth forecasts for the term  $g$ .

18

19 My application of the Constant Growth DCF model is provided in Exhibit JMC-

20 4.

21 **Q. Why did you use averaging periods of 30, 90, and 180 trading days?**

22 A. It is important to use an average of recent trading days to calculate the term  $P$   
23 in the DCF model to ensure that the calculated ROE is not skewed by

1 anomalous events that may affect stock prices on any given trading day. At the  
2 same time, it is important to reflect the conditions that have defined the financial  
3 markets over the recent past. In my view, consideration of those three averaging  
4 periods reasonably balances these interests.

5 **Q. Did you adjust the dividend yield to account for periodic growth in**  
6 **dividends?**

7 A. Yes, I did. Utility companies tend to increase their quarterly dividends at  
8 different times throughout the year, so it is reasonable to assume that such  
9 increases will be evenly distributed over calendar quarters. Given that  
10 assumption, it is reasonable to apply one-half of the expected annual dividend  
11 growth rate for the purposes of calculating this component of the DCF model.  
12 This adjustment ensures that the expected dividend yield is representative of the  
13 coming 12-month period. Accordingly, the DCF estimates reflect one-half of  
14 the expected growth in the dividend yield.<sup>32</sup>

15 **Q. What sources of growth have you used in your DCF analysis?**

16 A. I have used the consensus analyst five-year growth estimates in earnings per  
17 share (“EPS”) from Thomson First Call and Zacks, as well as EPS growth rate  
18 estimates published by Value Line.

19 **Q. Why did you focus on earnings per share growth?**

20 A. The Constant Growth DCF model assumes that dividends grow at a constant  
21 rate in perpetuity. Accordingly, in order to reduce the long-term growth rate to  
22 a single measure, one must assume a constant payout ratio, and that earnings

---

<sup>32</sup> The expected dividend yield is calculated as  $d_1 = d_0 (1 + \frac{1}{2} g)$ .

1 per share, dividends per share, and book value per share all grow at the same  
2 constant rate. Over the long term, however, dividend growth can only be  
3 sustained by earnings growth. As noted by Brigham and Houston in their text,  
4 *Fundamentals of Financial Management*: “Growth in dividends occurs  
5 primarily as a result of growth in *earnings per share* (EPS).”<sup>33</sup> It is therefore  
6 important to focus on measures of long-term earnings growth from credible  
7 sources as an appropriate measure of long-term growth in the DCF model.

8 **Q. Are other sources of dividend growth available to investors?**

9 A. Yes, although that does not mean that investors incorporate such estimates into  
10 their investment decisions. Academic studies suggest that investors base their  
11 investment decisions on analysts’ expectations of growth in earnings.<sup>34</sup> I am  
12 not aware of any similar findings regarding non-earnings-based growth  
13 estimates. In addition, the only forward-looking growth rates that are available  
14 on a consensus basis are analysts’ EPS growth rates. The fact that earnings  
15 growth projections are the only widely-accepted estimates of growth provides  
16 further support that earnings growth is the most meaningful measure of growth  
17 among the investment community.

---

<sup>33</sup> Eugene F. Brigham and Joel F. Houston, *Fundamentals of Financial Management* (Concise Fourth Edition, Thomson South-Western), at 317 (emphasis added).

<sup>34</sup> See, e.g., Harris and Marston, *Estimating Shareholder Risk Premia Using Analysts Growth Forecasts*, *Financial Management*, Summer 1992, at 65; and Vander Weide and Carleton, *Investor Growth Expectations: Analysts vs. History*, *The Journal of Portfolio Management*, Spring 1988, at 81. Please note that while the original study was published in 1988, it was updated in 2004 under the direction of Dr. Vander Weide. The results of that updated study are consistent with Vander Weide and Carleton’s original conclusions.

1 **Q. How have other utility regulators responded to the historically low**  
2 **dividend and bond yields and the corresponding effect on the DCF model?**

3 A. The reliability of the DCF model has been subject to increasing scrutiny over  
4 the past decade. A combination of unsustainably low interest rates, coupled  
5 with unsustainably high utility stock prices and reduced near-term earnings  
6 growth, affect all three inputs to the DCF model. So, in this environment where  
7 the fundamental assumptions of the model are flawed, the DCF model results  
8 cannot be expected to provide realistic estimates of the forward-looking  
9 required return.

10

11 The Federal Energy Regulatory Commission (“FERC”) recently issued Opinion  
12 No. 569-A, in which FERC determined that it would place equal weight on the  
13 results of the DCF, CAPM and Risk Premium analysis to establish the return  
14 for electric transmission companies, a significant departure from its historical  
15 reliance on the DCF exclusively. In reaching this decision, FERC explained  
16 that it continued to have concerns with the results of the DCF model.  
17 Specifically, FERC stated:

1 We disagree with CAPs’ contention that the record does not  
2 support our finding of model risk as justifying no longer relying  
3 solely on the DCF model. Model risk includes the broad  
4 conceptual issue of models being imperfect and not always  
5 working well in all situations. It also entails errors of specific  
6 model inputs, such as the error discussed with respect to the  
7 Portland General Electric inputs, discussed in paragraph 145  
8 below. We continue to find that ROE determinations should  
9 consider multiple models, both to capture the variety of models  
10 used by investors and to mitigate model risk. With respect to the  
11 former, we reiterate our findings from Opinion No. 569 in  
12 support of the finding that use of multiple models reduces model  
13 risk.<sup>35</sup>

14 **Q. Have state regulatory commissions also responded to the effect of recent**  
15 **market conditions on the results of the DCF model?**

16 A. Yes. For example, the Pennsylvania Public Utility Commission (“PPUC”) in a  
17 2012 decision on a rate case for PPL Electric Utilities, recognized that market  
18 conditions were causing the DCF model to produce results that were much  
19 lower than other models such as the CAPM and Bond Yield Plus Risk Premium.  
20 While noting that the PPUC had traditionally relied primarily on the DCF  
21 method to estimate the cost of equity for regulated utilities, the PPUC’s Order  
22 nevertheless explained:

23 Sole reliance on one methodology without checking the validity  
24 of the results of that methodology with other cost of equity  
25 analyses does not always lend itself to responsible ratemaking.  
26 We conclude that methodologies other than the DCF can be used  
27 as a check upon the reasonableness of the DCF derived equity  
28 return calculation.<sup>36</sup>

29 The PPUC ultimately concluded:

---

<sup>35</sup> FERC Opinion No. 569-A, issued May 21, 2020, at para. 43.

<sup>36</sup> Pennsylvania Public Utility Commission, PPL Electric Utilities, R-2012-2290597, meeting held December 5, 2012, at 80.

1                   As such, where evidence based on the CAPM and RP methods  
2                   suggest that the DCF-only results may understate the utility’s  
3                   current cost of equity capital, we will give consideration to those  
4                   other methods, to some degree, in determining the appropriate  
5                   range of reasonableness for our equity return determination.<sup>37</sup>

6                   In a 2016 case before the Illinois Commerce Commission (“ICC”), the Staff  
7                   relied on a DCF analysis that resulted in average returns for their proxy groups  
8                   of 7.24 percent to 7.51 percent. The company demonstrated that these results  
9                   were uncharacteristically too low, by comparing the results of Staff’s models to  
10                  recently authorized ROEs for regulated utilities and the return on the S&P 500.<sup>38</sup>  
11                  The ICC agreed with the Company that Staff’s proposed ROE of 8.04 percent  
12                  was anomalous and recognized that a return that is not competitive will deter  
13                  investment in Illinois. In setting the return, the ICC recognized that it was  
14                  necessary to consider other factors beyond the outputs of the financial models,  
15                  particularly whether the return is sufficient to attract capital, maintain financial  
16                  integrity, and commensurate with returns for companies of comparable risk,  
17                  while balancing the interests of customers and shareholders.<sup>39</sup>

18  
19                  As demonstrated by these examples, regulators have considered and in certain  
20                  cases found the DCF model has been understating the investor-required return  
21                  for regulated utilities. Based on the data I have presented, I believe that remains  
22                  the case today.

---

<sup>37</sup> *Id.*, at 81.

<sup>38</sup> State of Illinois Commerce Commission, Docket No. 16-0093, Illinois-American Water Company Initial Brief, August 31, 2016, at 10.

<sup>39</sup> State of Illinois Commerce Commission Decision, Docket No. 16-0093, Illinois-American Water Company, 2016 WL 7325212 (2016), at 55.

1 **Q. How have you reconciled the problems with the DCF model?**

2 A. I continue to estimate the model, but believe it is important to moderate the  
3 effect of abnormal economic and capital market conditions as I have done, by  
4 both considering the results of alternative analytical methods for determining  
5 the ROE and by normalizing inputs where possible (e.g., using a prospective  
6 measure of the risk-free rate, as I have done in my CAPM and Risk Premium  
7 analyses, discussed later in this testimony). I also calculate my results using a  
8 three-model approach (excluding the DCF) to test the impact.

9 **Q. What are the results of your Constant Growth DCF analysis?**

10 A. The results of my Constant Growth DCF analysis are provided in Exhibit JMC-  
11 4 and summarized in Figure 11.

12 **Figure 11: Constant Growth DCF Results**

	<b>Mean Low</b>	<b>Mean</b>	<b>Mean High</b>
30-day average	8.08%	9.33%	10.41%
90-day average	7.98%	9.23%	10.31%
180-day average	8.04%	9.30%	10.37%

13

14 **Q. How did you calculate the Mean High, Mean Low, and Overall Mean DCF**  
15 **results?**

16 A. I calculated the Mean High DCF result using the maximum growth rate (i.e.,  
17 the maximum of the First Call, Value Line, and Zacks EPS growth rates) in  
18 combination with the expected dividend yield for each of the proxy group

1 companies. I used a similar method to calculate the Mean Low DCF results,  
2 using the minimum growth rate for each company. The Mean results reflect the  
3 average growth rate from each source for each company in combination with  
4 the expected dividend yield.

5 **Q. What is your conclusion regarding the results of the DCF model?**

6 A. My primary conclusion is that the results of the DCF model understate the cost  
7 of equity for electric utilities under current market conditions and should not be  
8 used exclusively to establish the return for FPL in this proceeding. The FERC  
9 considered what it termed “anomalous” market conditions as a basis for  
10 abandoning its practice of sole reliance on the DCF model to set ROEs for  
11 electric transmission companies which began in the 1980s. FERC reasoned:

12 The fact that utility stock prices appear to have performed in a  
13 manner inconsistent with the theory underlying the DCF  
14 methodology during the periods at issue in these four complaint  
15 proceedings is an example of what NETOs have described as  
16 “model risk” — the risk that in some circumstances a model will  
17 produce results that do not reflect real world experience. It  
18 appears that, for whatever the reason, investors during this  
19 period have seen greater value in utility stocks than the DCF  
20 methodology would predict. This suggests that the ROE  
21 estimated by that methodology may be correspondingly  
22 inaccurate.<sup>40</sup>

23 The average DCF result using 90-day stock prices is 9.23 percent, and some are  
24 as low as 5-6 percent, well below the results of the other models and any  
25 reasonable indication of the cost of equity. Consequently, in an investment  
26 environment dominated by volatility and uncertainty, it is necessary to also  
27 consider the results of Risk Premium models, such as the CAPM and Bond

---

<sup>40</sup> 165 FERC ¶ 61,030, December 16, 2018, at 46.

1 Yield Risk Premium analysis, and the Expected Earnings model, in order to  
2 assess the reasonableness of the DCF results, determine whether, and if so how,  
3 to weight or otherwise address any deficiencies in the reliability of those results,  
4 and ultimately determine where to set the appropriate return from within the  
5 range of reasonable results. These models rely on longer term data and  
6 therefore avoid or mitigate the problems associated with the DCF method.

7

8

### B. CAPM Analysis

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

10 A. The CAPM is a risk premium approach that estimates the cost of equity for a  
11 given security as a function of a risk-free return plus a risk premium (to  
12 compensate investors for the non-diversifiable or “systematic” risk of that  
13 security).<sup>41</sup> As shown in Equation [3], the CAPM is defined by four  
14 components, each of which must theoretically be a forward-looking estimate:

$$15 \quad K_e = r_f + \beta(r_m - r_f) \quad [3]$$

16 where:

17  $K_e$  = the required ROE for a given security;

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

19  $\beta$  = the Beta of an individual security; and

20  $r_m$  = the required return for the market as a whole.

21

---

<sup>41</sup> Systematic risks are fundamental market risks that reflect aggregate economic measures and therefore cannot be mitigated through diversification. Unsystematic risks reflect company-specific risks that can be mitigated and ultimately eliminated through investments in a portfolio of companies and/or market sectors.

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

$$5 \quad \beta = \frac{\text{Covariance}(r_e, r_m)}{\text{Variance}(r_m)} \quad [4]$$

6 where:

7  $r_e$  = the rate of return for the individual security or portfolio.

8 The variance of the market return, noted in Equation [4], is a measure of the  
9 uncertainty of the general market, and the covariance between the return on a  
10 specific security and the market reflects the extent to which the return on that  
11 security will respond to a given change in the market return. Thus, Beta  
12 represents the risk that the selected security will not be effective in diversifying  
13 systematic market risks.

14 **Q. Have economic and financial market conditions also affected the CAPM?**

15 A. Yes. Given the extraordinarily low level of interest rates on Treasury bonds as  
16 compared to historical levels, using current or even near-term projections of  
17 government bond yields would distort market expectations for a reasonable  
18 risk-free rate. Using the 5-year forecast of bond yields helps alleviate these  
19 short-term market factors affecting the risk-free rate, or “ $r_f$ ” in the CAPM  
20 formula. As discussed in Section IV, interest rates have increased in recent  
21 months and are expected to continue to increase as the economy recovers from  
22 the effects of the COVID-19 pandemic. Further, due to the fiscal and monetary  
23 stimulus provided to the U.S. economy in recent months, inflation risk is

1 elevated over the period of FPL’s proposed rate plan. The use of longer-term  
2 projected interest rates is especially important in the CAPM and Risk Premium  
3 analyses given FPL’s need to attract capital to finance its capital expenditure  
4 plan, which as discussed in Section VII.A, is larger than any of the proxy group  
5 companies. It is also important to recognize that FPL is financing long-lived  
6 assets, and the cost of capital should reflect that long-term perspective.

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

8 A. Since both the DCF and CAPM models assume long-term investment horizons,  
9 I used the Blue Chip forecast of the yield on 30-year Treasury bonds for 2022-  
10 2026 of 2.80 percent as my estimate of the risk-free rate.<sup>42</sup> That time period  
11 reflects a forward-looking view, which is the objective of the ROE analysis.

12 **Q. Have regulators in other jurisdictions supported the use of a projected  
13 risk-free rate in the CAPM analysis?**

14 A. Yes. In a 2017 decision, the Massachusetts Department of Public Utilities (or  
15 “MDPU”) noted that accommodative Federal monetary policy had pushed  
16 Treasury yields to near historic lows. As a result, the MDPU found it  
17 appropriate to use prospective interest rate expectations in the CAPM, stating:

---

<sup>42</sup> Blue Chip Financial Forecasts, Volume 39, No. 12, December 1, 2020, at 14.

1 Current federal monetary policy that is intended to stimulate the  
2 economy has pushed treasury yields to near historic lows.  
3 Consequently, the Department has found that a CAPM analysis  
4 based on current treasury yields may tend to underestimate the  
5 risk-free rate over the long term and, thereby, understate the  
6 required ROE. The CAPM is based on investor expectations  
7 and, therefore, it is appropriate to use a prospective measure for  
8 the risk-free rate component. The Department has found that  
9 Blue Chip Financial Forecasts is widely relied on by investors  
10 and provides a useful proxy for investor expectations for the  
11 risk-free rate.<sup>43</sup>

12 **Q. What measures of Beta did you use in your CAPM analysis?**

13 A. As shown in Exhibit JMC-5.2, I considered two measures of Beta for the proxy  
14 group companies: (1) the reported Beta coefficients from Bloomberg (which  
15 are calculated using five years of weekly data against the S&P 500 Index); and  
16 (2) the reported Beta coefficients from Value Line (which are calculated using  
17 five years of weekly data against the New York Stock Exchange Composite  
18 Index). As discussed in Section IV, Beta coefficients for electric utilities have  
19 increased substantially since January 2020, as utilities have traded more like the  
20 broader market. It is important to emphasize that Beta coefficients are  
21 calculated over a five-year period, so this recent increase is not a short-term  
22 market phenomenon. The recent movement in betas captures a trend that began  
23 five years ago, but has been accelerated by the recent market conditions. In  
24 summary, the substantial increase in Beta coefficients for the proxy group  
25 companies represents a significant departure from how investors have typically

---

<sup>43</sup> D.P.U. 17-05 Petition of NSTAR Electric Company and Western Massachusetts Electric Company, each doing business as Eversource Energy, Pursuant to G.L. c. 164, § 94 and 220 CMR 5.00 et seq., for Approval of General Increases in Base Distribution Rates for Electric Service and a Performance Based Ratemaking Mechanism, November 30, 2017, at 693.

1 viewed electric utilities relative to the broader market and is not just COVID  
2 related.

3 **Q. What Market Risk Premium did you use in your CAPM analysis?**

4 A. I used the Constant Growth DCF model to estimate the total market return for  
5 the S&P 500 Index, using projected earnings growth rates and dividend yields  
6 from three sources: (1) S&P's Earnings and Estimates report; (2) Bloomberg  
7 Professional; and (3) Value Line. Using the DCF model for a broad-based total  
8 market return mitigates the challenges specific to the utilities sector. As of  
9 February 26, 2021, the average total market return from these three sources is  
10 15.75 percent, as shown in Figure 12 (also see Exhibit JMC-5.1).

11

**Figure 12: Total Market Return**

Source	Market Return
S&P Earnings & Estimates	17.70%
Bloomberg Professional	15.46%
Value Line	14.07%
Average	15.75%

12

13 I then used the MRP that results from subtracting the risk-free rate (based on  
14 the 5-year forecast of the 30-year Treasury bond of 2.80 percent) from the total  
15 market return. My calculation as shown in Exhibit JMC-5.2 yielded a market  
16 derived ex-ante MRP of 12.95 percent.

17

1 The CAPM is inherently a forward-looking model since it is designed to  
2 estimate investors' required equity return expectations. The MRP should,  
3 therefore, reflect investors' expected equity market returns relative to expected  
4 returns on Treasury securities. While these return expectations may be  
5 informed by history, they should primarily reflect forward-looking return  
6 expectations.

7 **Q. What are the results of your CAPM analyses?**

8 A. Using the MRP as calculated above, I now have the required market return ( $R_m$ )  
9 input to equation [3], and can solve the CAPM model. As shown in Exhibit  
10 JMC-5.2, the CAPM ROE results are 14.17 percent (using Bloomberg Betas)  
11 and 14.16 percent (using Value Line Betas), or an average of 14.17 percent.

12

### 13 **C. Risk Premium Analysis**

14 **Q. Please describe the Risk Premium approach that you used.**

15 A. In general terms, this approach recognizes that equity is riskier than debt  
16 because equity investors bear the residual risk associated with ownership.  
17 Equity investors, therefore, require a greater return (i.e., a premium) than would  
18 a bondholder. The Risk Premium approach estimates the cost of equity as the  
19 sum of the Equity Risk Premium and the yield on a particular class of bonds.

$$20 \quad \text{ROE} = \text{RP} + \text{Y} \quad [5]$$

21 Where:

22  $\text{RP} = \text{Risk Premium (difference between allowed ROE and the 30-Year}$   
23  $\text{Treasury Yield) and}$

1                   Y = Applicable bond yield.

2                   Since the equity risk premium is not directly observable, it is typically estimated  
3                   using a variety of approaches, some of which incorporate *ex-ante*, or forward-  
4                   looking, estimates of the cost of equity and others that consider historical, or  
5                   *ex-post*, estimates. For my Risk Premium analysis, I have relied on authorized  
6                   returns from a large sample of vertically-integrated electric utility companies.

7   **Q.    What did your Risk Premium analysis reveal?**

8   A.    To estimate the relationship between risk premia and interest rates, I conducted  
9           a regression analysis using the following equation:

10                   
$$RP = a + (b \times Y) \quad [6]$$

11           where:

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

14                    $a$  = Intercept term;

15                    $b$  = Slope term; and

16                    $Y$  = 30-Year Treasury Yield.

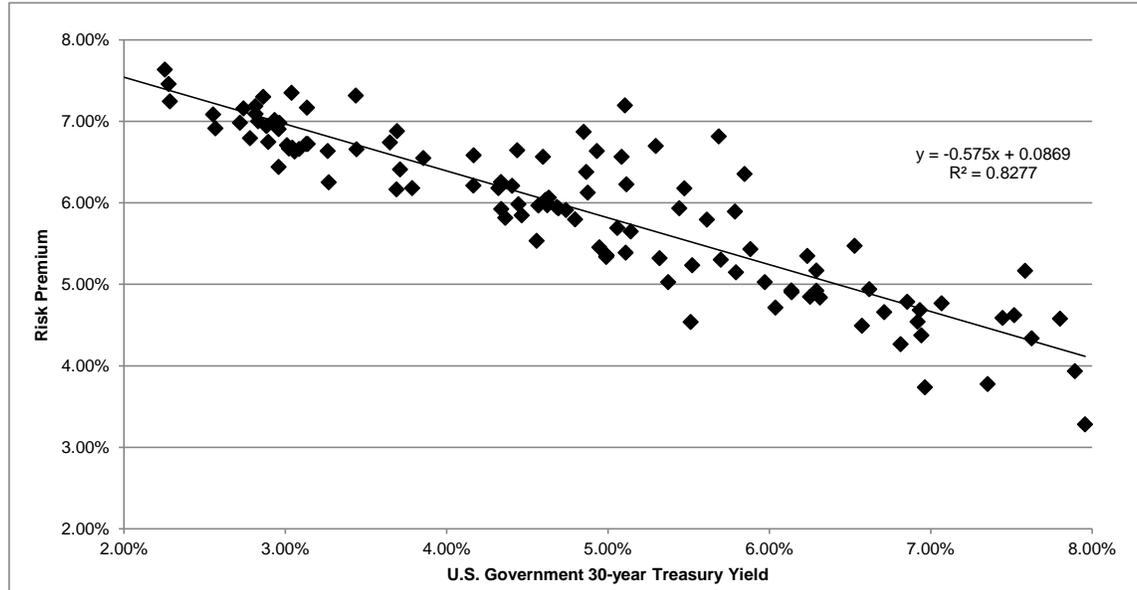
17           Data regarding allowed ROEs were derived from 651 integrated electric utility  
18           company rate cases from January 1992 through February 26, 2021, as reported  
19           by Regulatory Research Associates.<sup>44</sup>

---

<sup>44</sup> There have been no rate case decisions in 2021 for vertically-integrated electric utilities as of February 26, 2021, per Regulatory Research Associates.

1

**Figure 13: Risk Premium Results**



2

3

As illustrated by Figure 13 (above), the risk premium varies with the level of bond yield, and generally increases as the bond yields decrease, and vice versa.

4

5

In order to apply this relationship to current and expected bond yields, I

6

consider three estimates of the 30-year Treasury yield, including the current 30-

7

day average, a near-term Blue Chip consensus forecast for Q2 2021 – Q2 2022,

8

and a Blue Chip consensus forecast for 2022–2026. I find this 5-year result to

9

be most applicable for the following reasons: (1) investors are expecting

10

increases in government bond yields; (2) investors typically have a multi-year

11

view of their required returns on equity; and (3) FPL’s large capital expenditure

12

plan requires that the Company continue to be able to attract capital on

13

reasonable terms and conditions. Based on the regression coefficients in

14

Exhibit JMC-6, which allow for the estimation of the risk premium at varying

15

bond yields, the results of my Risk Premium analysis are shown in Figure 14.

1

**Figure 14: Risk Premium Results Using 30-Year Treasury Yield**

	<b>Using 30-Day Average Yield on 30-Year Treasury Bond</b>	<b>Using Q2 2021–Q2 2022 Forecast for Yield on 30-Year Treasury Bond<sup>45</sup></b>	<b>Using 2022-2026 Forecast for Yield 30-Year Treasury Bond<sup>46</sup></b>
Yield	1.97%	2.28%	2.80%
Risk Premium	7.56%	7.38%	7.08%
Resulting ROE	9.53%	9.66%	9.88%

2

3

**D. Expected Earnings Analysis**

4

**Q. Have you conducted any other analysis to estimate the cost of equity for FPL?**

5

6

A. Yes. I have also conducted an Expected Earnings analysis to estimate the cost of equity for FPL based on the projected ROEs for the proxy group companies.

7

8

**Q. What is an Expected Earnings Analysis?**

9

A. The Expected Earnings methodology is a comparable earnings analysis that calculates the earnings that an investor expects to receive on the book value of a stock. The Expected Earnings analysis is a forward-looking estimate of

10

11

<sup>45</sup> Blue Chip Financial Forecasts, Vol. 40, No. 3, March 1, 2021, at 2

<sup>46</sup> Blue Chip Financial Forecasts, Vol. 39, No. 12, December 1, 2020, at 14.

1 investors' expected returns. The use of an Expected Earnings approach based  
2 on the proxy companies provides a range of the expected returns on a group of  
3 risk-comparable companies to the subject company. This range is useful in  
4 helping to determine the opportunity cost of investing in the subject company,  
5 which is relevant in determining a company's ROE.

6 **Q. How did you develop the Expected Earnings Approach?**

7 A. I relied primarily on the projected ROE for the proxy companies as reported by  
8 Value Line for the period from 2023-2025. I then adjusted those projected  
9 ROEs to account for the fact that the ROEs reported by Value Line are  
10 calculated on the basis of common shares outstanding at the end of the period,  
11 as opposed to average shares outstanding over the entire period. As shown in  
12 Exhibit JMC-7, the Expected Earnings analysis results in a mean of 10.22  
13 percent and a median of 10.55 percent.

14

15 **E. Evaluating the Model Results**

16 **Q. Please explain how you have considered the results of the DCF, CAPM,**  
17 **Risk Premium and Expected Earnings analysis to arrive at your ROE**  
18 **recommendation.**

19 A. I have placed equal weight on the results of the DCF, CAPM, Bond Yield Risk  
20 Premium, and Expected Earnings analyses. In doing so, despite my  
21 reservations regarding the DCF, my ROE recommendation is based on the  
22 range produced by these four methodologies. As shown in Figure 15 (and  
23 computed in JMC-2 as the 4-Model Average), I derive an average base ROE

1 estimate for the proxy group companies of 10.89 percent, excluding flotation  
2 costs. Given the concerns I have expressed regarding the inputs to the DCF  
3 model in the current market environment, I have also examined the results  
4 excluding the DCF model (computed in JMC-2 as the 3-Model Average), and  
5 this yields an 11.42 percent ROE. Given market conditions, the current  
6 limitations of the DCF model, and FPL's risk in relation to the proxy group, I  
7 consider a range of 10.5 percent to 11.5 percent to be reasonable. From within  
8 that range, I recommend an ROE of 11.0 percent as just and reasonable for FPL  
9 for the 2022-2025 rate period.

10

**Figure 15: Base ROE Results**

	<b>ROE Estimate</b>
DCF	9.29%
CAPM	14.17%
Risk Premium	9.88%
Expected Earnings	10.22%
Range	9.23 – 14.17%
Average ROE	10.89%

11

12 As discussed in the next Section of my testimony, this estimate serves as a base  
13 prior to consideration of relative business risks, flotation costs, and  
14 management performance.

15

16

17

1 **VII. BUSINESS RISKS, FLOTATION COSTS, AND MANAGEMENT**

2 **PERFORMANCE**

3  
4 **Q. Are there factors specific to FPL's risk profile that you also considered in**  
5 **developing your ROE recommendation?**

6 A. Yes, there are several factors that have a direct bearing on FPL's risk profile in  
7 relation to the proxy group. Those risk factors include: (a) the Company's  
8 substantial capital expenditure program; (b) FPL's nuclear generation fleet;  
9 (c) risk associated with storm damage and resulting outages; (d) regulatory risk  
10 relative to the proxy group companies; and (e) risk related to the term of FPL's  
11 proposed 4-year rate plan. In aggregate, those risk factors elevate FPL's risk  
12 profile relative to the proxy group and would support an authorized ROE above  
13 the mean, but I have not made an explicit adjustment. I also considered flotation  
14 costs associated with the issuance of common equity, as well as the superior  
15 management performance of FPL, which should be recognized and rewarded  
16 through an upward adjustment to the authorized ROE.

17  
18 **A. Capital Expenditure Program**

19 **Q. Please discuss FPL's capital spending program.**

20 A. FPL projects that the Company will spend \$26.4 billion on capital projects over  
21 the period from 2021-2024.<sup>47</sup> The primary purpose of these capital projects is  
22 to enhance the reliability of FPL's electric transmission and distribution system,

---

<sup>47</sup> NextEra Energy, Inc. and Florida Power and Light Company, SEC Form 10-Q, for the quarter ended June 30, 2020, at 35.

1 to support customer growth, to maintain and expand the Company's generating  
2 capacity, and to harden the electrical system so as to further prepare for  
3 potential storm damage. FPL's projected capital expenditures represent  
4 approximately 59.3 percent of the Company's net utility plant of approximately  
5 \$45.1 billion as of December 31, 2019.<sup>48</sup>

6 **Q. How is FPL's risk profile affected by its capital expenditure requirements?**

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

12 **Q. Do credit rating agencies recognize the risks associated with elevated levels  
13 of capital expenditures?**

14 A. Yes. From a credit perspective, the additional pressure on cash flows associated  
15 with higher levels of capital expenditures exerts corresponding pressure on  
16 credit metrics and, therefore, credit ratings. To that point, S&P explains the  
17 importance of regulatory support for large capital projects:

---

<sup>48</sup> Ibid, at 13.

1                   When applicable, a jurisdiction’s willingness to support large  
2                   capital projects with cash during construction is an important  
3                   aspect of our analysis. This is especially true when the project  
4                   represents a major addition to rate base and entails long lead  
5                   times and technological risks that make it susceptible to  
6                   construction delays. Broad support for all capital spending is the  
7                   most credit-sustaining. Support for only specific types of capital  
8                   spending, such as specific environmental projects or system  
9                   integrity plans, is less so, but still favorable for creditors.  
10                  Allowance of a cash return on construction work-in-progress or  
11                  similar ratemaking methods historically were extraordinary  
12                  measures for use in unusual circumstances, but when  
13                  construction costs are rising, cash flow support could be crucial  
14                  to maintain credit quality through the spending program. Even  
15                  more favorable are those jurisdictions that present an  
16                  opportunity for a higher return on capital projects as an incentive  
17                  to investors.<sup>49</sup>

18                  Therefore, to the extent that FPL’s rates do not permit the Company an  
19                  opportunity to recover its full cost of doing business, FPL will face increased  
20                  recovery risk and thus increased pressure on its credit metrics. Maintaining  
21                  access to capital markets on favorable terms is important for utilities and their  
22                  customers, especially during periods of significant capital investment.

23       **Q.    Have you analyzed how FPL’s capital spending program compares to those**  
24       **of the proxy group companies?**

25       A.    Yes. I compared the ratio of projected capital expenditures to net utility plant  
26                  for FPL to the ratios for the proxy group companies. Figure 16 shows that  
27                  FPL’s ratio of projected capital expenditures to net utility plant is higher than  
28                  any of the proxy group companies and is 1.46 times higher than the median  
29                  ratio for the proxy group of 40.57 percent. As discussed in the Direct  
30                  Testimony of FPL witnesses Bores, Broad, Spoor and others, the Company’s

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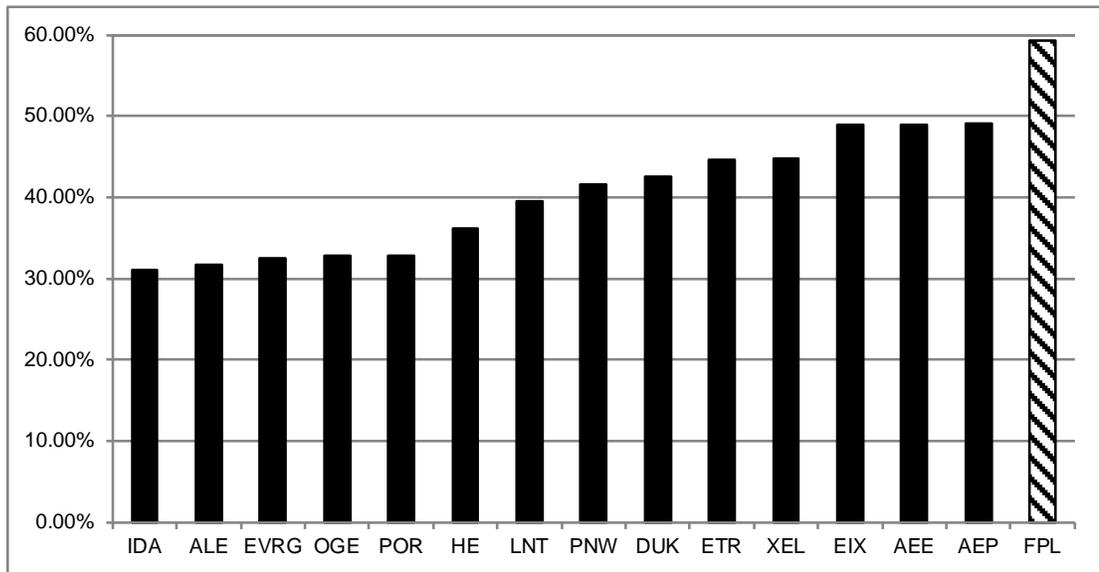
<sup>49</sup> S&P Global Ratings, “Assessing U.S. Investor-Owned Utility Regulatory Environments,” August 10, 2016, at 7.

1 capital expenditure program is designed to benefit and deliver value for  
2 customers but does slightly elevate the risk profile of FPL.

3 **Figure 16: Ratio of 2021-24 Capital Expenditures to 2019 Net Utility**

4

**Plant**



5

6

7

8 **Q. What is your conclusion regarding how FPL’s projected capital**  
9 **expenditure program affects the Company’s risk profile and cost of**  
10 **equity?**

11 A. My primary conclusion is that FPL is projecting a substantial capital spending  
12 program through 2024 that will require the Company to maintain access to  
13 capital markets on reasonable terms and conditions. FPL’s ratio of capital  
14 expenditure requirements to net utility plant is higher than the ratio for any of  
15 the proxy group companies, and the absolute magnitude of FPL’s capital  
16 program places pressure on the Company’s cash flows and credit metrics. For



1 and/or result in reduced revenues.”<sup>50</sup> Further, NextEra Energy also notes the  
2 risk associated with new regulatory requirements from the NRC as follows: “A  
3 major incident at a nuclear facility anywhere in the world could cause the NRC  
4 to limit or prohibit the operation or licensing of any domestic nuclear generation  
5 facility. An incident at a nuclear facility anywhere in the world could also cause  
6 the NRC to impose additional conditions or other requirements on the industry,  
7 or on certain types of nuclear generation units, which could increase costs,  
8 reduce revenues, or result in additional capital expenditures.”<sup>51</sup>

9 **Q. Are there examples of the increased risk of new regulatory requirements**  
10 **that nuclear generation plant operators face?**

11 A. Yes. One example is the increased oversight and regulatory requirements put  
12 in place after the March 11, 2011 earthquake and tsunami which caused  
13 significant damage to the Fukushima Daiichi nuclear complex in Japan and  
14 threatened the public health. After the Fukushima accident, the NRC formed a  
15 task force to assess current regulation and determine if new measures were  
16 required to ensure safety. The task force issued a report in July 2011 that  
17 included a set of recommendations for NRC consideration, and NRC Staff  
18 issued the first set of related regulatory requirements in March 2012. The  
19 Fukushima accident clearly demonstrates that additional regulatory oversight  
20 and requirements, which affect the cost of operating FPL’s nuclear plants, can  
21 result from events wholly unrelated to FPL or its facilities.

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<sup>50</sup> NextEra Energy, Inc., 2019 SEC Form 10-K, at 29.

<sup>51</sup> Ibid, at 30.

1 **Q. How does the investment community view the risk associated with nuclear**  
2 **generation assets?**

3 A. Both equity analysts and credit rating agencies are aware of the operating and  
4 safety risks associated with nuclear generation assets. For example, S&P noted  
5 in a recent report on Evergy, Inc. that, “[n]uclear generation increases  
6 operational risks and carries with it long-term storage concerns.”<sup>52</sup> UBS refers  
7 to FPL’s nuclear operating risk; BMO notes that the Company’s nuclear assets  
8 are subject to federal and state operational and safety standards;<sup>53</sup> and Atlantic  
9 Equities notes that despite receiving federal approval to expand its 3,500 MW  
10 of existing nuclear capacity in Florida, FPL has paused capital spending for new  
11 nuclear, partly due to construction/cost problems elsewhere in non-associated  
12 nuclear plants and partly due to cost effective alternatives with lower up-front  
13 costs, including solar.<sup>54</sup> Further, a recent equity analyst report from CFRA  
14 indicates that, “[f]or economic reasons, several nuclear plants have been retired  
15 and we expect that more will be, although a handful of plants have been rescued  
16 from early retirement through state legislation in New Jersey, New York and  
17 Illinois.”<sup>55</sup>

18

19 Credit rating firms consider the risk of nuclear generation in their ratings  
20 analysis. For example, S&P Global Ratings made the following comments on  
21 the challenges for nuclear operators:

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<sup>52</sup> S&P Global Ratings, “Evergy Inc.,” May 27, 2020, at 7.

<sup>53</sup> BMO Capital Markets, “NEE Gets Clean Bill of Health,” April 22, 2020, at 2.

<sup>54</sup> Atlantic Equities, “Utilities: Initiate NEE, WEC at Overweight,” September 4, 2020, at 45.

<sup>55</sup> CFRA, S&P Global Market Intelligence, NextEra Energy, Inc. Stock Report, October 10, 2020.

1 Nuclear energy has faced mounting criticism over security concerns,  
2 especially in the aftermath of the Fukushima disaster on March 11,  
3 2011. Nuclear operators face unique risks of low-probability, but high-  
4 impact catastrophic events. As a consequence, operators face increasing  
5 political and social pressures on safety, waste disposal, and storage.  
6 While profitability remains a key pillar of our business risk assessment  
7 of nuclear operators, we equally take these other risks into account.  
8 Furthermore, nuclear-related long-term liabilities typically represent a  
9 large portion of nuclear operators' overall S&P-adjusted debt.<sup>56</sup>

10

11 **Q. Do other companies in the proxy group also face nuclear generation risk?**

12 A. Yes. Eight of the 14 companies in the proxy group also own regulated nuclear  
13 generating assets. From that perspective, all other things equal, FPL has higher  
14 risk than six of the companies in the proxy group and comparable risk to eight  
15 of the companies in the proxy group. Moreover, FPL's generation mix is 22.4  
16 percent nuclear versus an average of 17.1 percent for the proxy group, based  
17 on 2019 data. Even though the investment community may consider nuclear  
18 risk binomial, the extent of nuclear risk does vary by company according to the  
19 age, technologies, invested assets, fleet management capabilities, location, and  
20 other factors that would distinguish one company from another. Even though  
21 FPL has established a track record of an above average nuclear plant operator,  
22 I conclude that FPL has greater risk than the proxy group companies, on  
23 average, with respect to nuclear generating assets, which supports an authorized  
24 ROE higher than the average for the proxy companies.

25

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<sup>56</sup> "The Energy Transition: Nuclear Dead or Alive," S&P Global Ratings, November 11, 2019, p. 10.

1 **C. Severe Weather Risk**

2 **Q. Please explain the risk associated with severe weather in FPL’s service**  
3 **territory.**

4 A. FPL faces the risk of sudden, unexpected damage from severe storms. The  
5 prevalence of hurricanes, such as Hurricane Irma, make FPL’s operating area  
6 an especially high-risk area for incurring weather-related infrastructure repair  
7 costs and service disruptions. For example, FPL incurred approximately \$1.3  
8 billion in storm recovery costs to restore electric transmission and distribution  
9 services in 2017, which was equivalent to approximately 4.4 percent of the  
10 Company’s average rate base in 2016. As FPL witness Barrett reports,  
11 hurricanes, and storms over 2016-2020 (Matthew, Irma, Dorian, Isaias, and Eta)  
12 inflicted a total of more than \$2.0 billion of damage to FPL’s system. Mr.  
13 Barrett shows how these risks have grown substantially over the decades. Even  
14 since the last Settlement, in the Atlantic Basin there were 17 named storms in  
15 2017, 10 of which became hurricanes. In 2018, there were 15 named storms of  
16 which 8 became hurricanes. The 2019 season yielded 18 named storms of  
17 which 6 became hurricanes. The record-breaking 2020 season produced 30  
18 named storms of which 13 became hurricanes.<sup>57</sup> The addition of Gulf to FPL  
19 does not diminish these storm related risks.

20

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<sup>57</sup> Insurance Information Institute: <https://www.iii.org/fact-statistic/facts-statistics-hurricanes#Top%20Coastal%20Counties%20Most%20Frequently%20Hit%20By%20Hurricanes:%201960-2008>

1 In addition to the need to fund repair costs, severe weather causes FPL to incur  
2 unplanned expenses (such as labor costs that aren't recovered in existing rates)  
3 and results in lower sales due to damage of transmission or distribution  
4 infrastructure, the disruption of generating capacity, or property damage so  
5 extensive that it prevents customers from taking service. Together, these effects  
6 can reduce FPL's revenue and strain the Company's operating cash flow. In  
7 order to continue to attract capital on reasonable terms, FPL must have the  
8 financial strength and flexibility to cover these severe weather costs until the  
9 Company is able to recover the costs from customers, which can take several  
10 years.

11 **Q. Have credit rating agencies commented on FPL's risk related to severe**  
12 **weather?**

13 A. Yes. For example, Moody's has noted that, "FPL's credit profile considers its  
14 high geographic concentration risk, as it operates solely in one state that is  
15 exposed to extreme weather events such as hurricanes and tropical storms."<sup>58</sup>

16 **Q. Does FPL have a regulatory mechanism that mitigates the risk related to**  
17 **severe weather?**

18 A. Yes. The approved settlement from the 2016 rate case provides that FPL's  
19 future storm costs would be recoverable on an interim basis beginning 60 days  
20 from the filing of a cost recovery request but would be capped at an amount that  
21 would produce a surcharge no greater than \$4/1,000 kWh of usage on  
22 residential bills during the first 12 months of cost recovery. Any additional

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<sup>58</sup> Moody's Investor Service, Florida Power & Light Company Credit Opinion, August 25, 2020, at 1.

1 costs are eligible for recovery in subsequent years. If storm restoration costs  
2 exceed \$800 million in any given calendar year, FPL can request an increase to  
3 the \$4 surcharge limit. More recently, the Florida Legislature passed SB 796  
4 in 2019 entitled “Storm protection plan cost recovery.” The law mandates the  
5 preparation of 10-year storm protection plans for utilities that must be updated  
6 every three years. According to the Commission:

7 Section 366.96, F.S., requires each investor owned electric  
8 utility (IOU) to file a transmission and distribution storm  
9 protection plan (storm protection plan) for the Commission's  
10 review and directs the Commission to hold an annual proceeding  
11 to determine the IOU's prudently incurred costs to implement  
12 the plan and allow recovery of those costs through a Storm  
13 Protection Plan Cost Recovery Clause (SPPCRC).<sup>59</sup>

14 **Q. Do other companies in the proxy group also have storm-related risk?**

15 A. Several other companies in the proxy group have storm-related risk. However,  
16 the severe weather risk for FPL is greater in magnitude due to the potential for  
17 storm damage that may cause extended outages and cost a substantial amount  
18 to repair. As FPL witness Barrett points out in his testimony, “Florida’s  
19 geographic peninsular location, within the subtropical latitudes, and its  
20 topography exposes its electrical infrastructure to a higher likelihood of adverse  
21 weather events and overall climate risks than most other parts of the country.”  
22 Florida is consistently ranked among, or at the top, of the highest level of natural  
23 disaster risk in comparison to other U.S. states.

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<sup>59</sup> <http://www.psc.state.fl.us/library/filings/2019/08909-2019/08909-2019.pdf>

1 **Q. Is risk associated with climate change and severe weather an increasing**  
2 **concern for utilities and their investors?**

3 A. Yes. McKinsey and Company published a report in April 2019 in which the  
4 consulting firm made specific recommendations to the utility industry with  
5 regard to managing climate change risk. While noting that severe weather  
6 events such as hurricanes and wildfires are getting worse, McKinsey writes:  
7 “In other ways, too, utilities are more vulnerable to extreme weather events than  
8 in the past.”<sup>60</sup> The report goes on to observe: “Unless utilities become more  
9 resilient to extreme weather events, they put themselves at unnecessary risk, in  
10 both physical and financial terms. Repairing storm damage and upgrading  
11 infrastructure after the fact is expensive and traumatic.”<sup>61</sup> McKinsey also  
12 quotes from a 2018 report by the National Climate Assessment which stated  
13 that “utilities could see negative impacts from increased temperatures and heat  
14 waves, as well as sea level rises even in the absence of storms. This will  
15 increase the financial cost to utilities of climate change and increase the benefits  
16 of being prepared.”<sup>62</sup>

17 Accentuating these reports, as mentioned the 2020 Atlantic storm season was  
18 the most active on record for the number of named storms (with 30 through  
19 November), exceeding the total of 27 in 2005. Prior to 2005, no season had

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<sup>60</sup> McKinsey and Company, “Why, and how, utilities should start to manage climate change risk,” April 2019, at 3.

<sup>61</sup> *Ibid.*

<sup>62</sup> *Ibid.*, at 4.

1 exceeded 20 since reliable record keeping began in 1944, and only once prior  
2 to then in 1933, with 21.<sup>63</sup>

3 **Q. What is your conclusion with respect to FPL’s risk due to severe weather?**

4 A. My conclusion is that FPL has above average risk due to severe weather  
5 compared to the proxy group companies. As Moody’s observes, FPL provides  
6 service in a state that is exposed to extreme weather events such as hurricanes  
7 and tropical storms. While FPL has a storm cost recovery mechanism that  
8 allows the Company to petition for recovery of cost associated with restoring  
9 service after severe weather events, the recovery is capped in the first year,  
10 additional costs above the cap may not be sought for recovery until after the  
11 first year, and final cost recovery has continually been the subject of protracted  
12 litigation before the Commission. The more recent storm hardening mandate  
13 under Section 366.96, Florida Statutes offers the ability to further mitigate these  
14 risks, but climate change increases the risk that severe weather events will  
15 increase in frequency and magnitude. As FPL witness Barrett points out,  
16 “These risks have the potential to directly impact FPL’s credit profile and  
17 therefore, financial strength, if the Company is unable to deploy the necessary  
18 capital to continue to mitigate these risks and respond quickly and efficiently  
19 when these events occur.” FPL is undertaking substantial capital spending over  
20 the next decade to improve the reliability of its electric transmission and  
21 distribution system. It is necessary for the Company to have an authorized ROE

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<sup>63</sup> <https://www.ncdc.noaa.gov/sotc/tropical-cyclones/20051>

1 that will allow FPL to attract capital to finance these investments that other  
2 utilities are not required to make.

3

4

#### **D. Regulatory Risk**

5 **Q. Have you performed an analysis of the regulatory mechanisms for FPL as**  
6 **compared to those for the proxy group companies?**

7 A. Yes. I have conducted an analysis of the regulatory mechanisms that are in  
8 place for FPL compared with those for the operating utility companies held by  
9 the proxy group. The results of my analysis are presented in Exhibit JMC-9.  
10 Specifically, I examined the following factors that affect the regulatory risk of  
11 FPL and the proxy group companies: (1) test year convention; (2) rate base  
12 convention; (3) revenue decoupling; (4) capital cost recovery; and (5) CWIP in  
13 rate base.

14

15 As shown in Exhibit JMC-9, 58 percent of the operating companies in the proxy  
16 group like FPL provide service in jurisdictions that allow the use of a fully or  
17 partially forecasted test year. Further, 62 percent of the operating companies in  
18 the proxy group use average rate base like FPL, while 38 percent are allowed  
19 to use year-end rate base. FPL does not have any revenue protection against  
20 fluctuations in customer demand, while approximately 55 percent of the  
21 operating companies held by the proxy group have either full or partial revenue  
22 decoupling mechanisms that protect against volumetric risk. Generally, FPL's  
23 generation costs must be recovered through rate cases, although the generation

1 base rate adjustment and solar base rate adjustment mechanisms (known as  
2 GBRA and SoBRA) have allowed FPL to recover costs for certain units  
3 between rate cases when those mechanisms have been approved by the  
4 Commission. Approximately 20 percent of the operating companies in the  
5 proxy group have a cost recovery mechanism for generation capacity, and about  
6 42 percent have cost recovery for generic infrastructure replacement. Finally,  
7 FPL is allowed to include CWIP in rate base, similar to approximately 73  
8 percent of the operating companies held by the proxy group.

9 **Q. Based on this analysis, what is your conclusion regarding the level of**  
10 **regulatory risk for FPL relative to that of the proxy group companies?**

11 A. As discussed above and as shown in Exhibit JMC-9, FPL has similar regulatory  
12 risk to the proxy group companies in terms of test year and rate base convention.  
13 Moreover, FPL has comparable regulatory risk with respect to cost recovery for  
14 large capital projects and the ability to include CWIP in rate base. However,  
15 FPL does not have protection against volumetric risk, while slightly more than  
16 50 percent of the operating companies held by the proxy group have revenue  
17 decoupling mechanisms that mitigate the effect on revenue of variations in  
18 demand. On balance, my conclusion is that FPL has comparable regulatory risk  
19 to the proxy group.

#### 20 **E. Multi-Year Rate Plan**

21 **Q. Please explain the risk associated with FPL's proposed four-year rate plan.**

22 A. FPL is proposing a four-year rate plan under which the rates set in this  
23 proceeding would be in effect from 2022-2025. A multi-year rate plan has

1 benefits for the Company and customers in terms of providing rate stability, but  
2 there are also certain risks associated with a longer-term rate plan. One of those  
3 risks relates to inflation. Specifically, given the economic stimulus that has  
4 been provided to support the economy in response to the COVID-19 pandemic  
5 in the form of both monetary policy from the Federal Reserve and fiscal policy  
6 from the U.S. Congress, there is an increased likelihood of upward pressure on  
7 inflation over the next several years. Illustrating this risk, Morgan Stanley’s  
8 research points to a combination of economic fundamentals that lead to an  
9 inflation forecast of 2% in 2021 and “staying above 2% on a sustained basis  
10 from 2022.”<sup>64</sup> On the other hand, as pointed out by FPL witness Jun Park, FPL  
11 has planned on inflation of 1.7 percent in 2022 declining to 0.8 percent in 2023.

12

13 A recent article in Barron’s also commented on the rising inflation risk:

14 Yet the fundamentally more important financial development  
15 was, as usual in the bond market. The yield curve—the graph of  
16 Treasuries from short- to long-term maturities—is the most  
17 sharply upward sloped in years. That’s a result of long-term  
18 yields climbing, with the benchmark 10-year note ending the  
19 week at 1.17%, near the high end of its recent trading range, and  
20 the 30-year bond at 1.98%, nearing 2% for the first time in about  
21 a year.

22 This is a classic indication that the bond market is anticipating  
23 stronger economic growth and higher inflation. Those  
24 expectations got a boost Friday after both houses of Congress  
25 voted to begin the process of approving President Joe Biden’s  
26 \$1.9 trillion fiscal relief plan without votes from congressional  
27 Republicans.<sup>65</sup>

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<sup>64</sup> Morgan Stanley and Co. LLC., “Don’t Underestimate Inflation’s Upside Risks” January 5, 2021.

<sup>65</sup> Randall W. Forsyth, “Amid Stock Frenzy, Bonds Send Message: Inflation is Coming,” Barron’s, February 5, 2021.

1 **Q. Are there other risks related to a multi-year rate plan?**

2 A. Yes, in addition to the potential for higher interest rates over the term of the  
3 four-year rate plan, a multi-year rate plan limits the Company's ability to  
4 request a change in rates due to other factors. This inability to seek recovery of  
5 higher operating costs during the term of the rate plan increases the utility's  
6 risk. Further, if any of the inputs to the DCF or CAPM methods (e.g., growth  
7 rates, dividend yields, Beta coefficients, market risk premiums, or long-term  
8 Treasury yields) increase, the cost of equity for FPL will increase without a  
9 corresponding increase in the authorized ROE. Given the currently low levels  
10 of inflation and interest rates, one could conclude that these risks are  
11 asymmetric – with the probability that external cost pressures will more likely  
12 increase over the rate period.

13 **Q. What is your conclusion with regard to the multi-year rate plan?**

14 A. While FPL's proposed four-year rate plan provides rate certainty for both  
15 customers and the Company, there are attendant costs and risks of any multi-  
16 year rate plan. In particular, a multi-year stay-out agreement places certain risks  
17 on FPL's shareholders, including unexpected increases in operating costs or  
18 interest rates.

19 **F. Flotation Costs**

20 **Q. What are flotation costs, and how do they affect the cost of capital?**

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

1 a company is denied the opportunity to recover prudently incurred flotation  
2 costs, actual returns will fall short of expected (or required) returns, thereby  
3 diminishing the utility's ability to attract adequate capital on reasonable terms.  
4 To appropriately reflect flotation costs, the DCF calculation should be modified  
5 to provide a dividend yield that would reimburse investors for issuance costs.  
6 Based on the proxy group issuance costs shown in Exhibit JMC-10.1, I  
7 conclude that flotation costs for the proxy companies have equaled roughly 2.64  
8 percent of gross equity raised. To properly reflect these issuance costs in my  
9 cost of capital estimates, it would be appropriate to increase the authorized ROE  
10 by approximately 11 basis points for FPL, as shown in Exhibit JMC-10.2.

11 **Q. Do your final results include an adjustment for flotation cost recovery?**

12 A. Yes. I have adjusted the results of my various models to include an adjustment  
13 of 11 basis points for flotation costs, while rounding down to 11.0 percent.

14

15 **G. Management Performance**

16 **Q. Please summarize the superior management performance proposal of**  
17 **FPL.**

18 A. As discussed in the testimony of FPL witness Barrett, the Company is proposing  
19 a 0.50 percent ROE incentive in recognition of its superior management  
20 performance, and to incent continued superior performance over the course of  
21 the 4-year rate plan.

1 **Q. Is the proposed adjustment to FPL’s authorized ROE reasonable**  
2 **considering the management performance of the Company?**

3 A. Yes. I believe it sends a signal to management and employees of the Company  
4 that efficiencies that benefit customers will be rewarded, and these types of  
5 incentives can be effective in promoting continuous pursuit of additional  
6 efficiencies. Standard ROE analysis does not capture these signals, and the total  
7 ROE would still fall well within the appropriate range for a company with  
8 FPL’s business profile.

9

10 **VIII. CAPITAL STRUCTURE**

11

12 **Q. What is FPL’s proposed capital structure?**

13 A. FPL is proposing a financial capital structure consisting of 59.6 percent  
14 common equity and 40.4 percent debt. In Florida, Accumulated Deferred  
15 Income Taxes are included in rate base and are part of the regulatory capital  
16 structure at 0 percent cost. Florida also includes customer deposits in the  
17 regulatory capital structure. FPL’s proposed equity ratio using a regulatory  
18 capital structure is 48.04 percent in the 2022 Test Year. As explained by FPL  
19 witness Barrett, this is the Company’s actual capital structure and how the  
20 Company has been financed for more than twenty years.

21 **Q. How have you assessed the reasonableness of FPL’s proposed capital**  
22 **structure with respect to the proxy group?**

23 A. The proxy group has been selected to reflect comparable companies in terms of  
24 business and financial risks. Therefore, it is appropriate to compare the

1 financial capital structures of the proxy group companies to the financial capital  
2 structure proposed by FPL in order to assess whether the Company's capital  
3 structure is reasonable and consistent with industry standards for companies  
4 with commensurate risk. I calculated the weighted average capital structures  
5 for each of the proxy group operating companies on a quarterly basis for the  
6 eight quarters through Q3 2020. Exhibit JMC-11 shows that the Company's  
7 proposed common equity ratio of approximately 59.6 percent on a financial  
8 basis (48.04 percent on a regulatory basis in the Test Year) is the upper end of  
9 the range of actual common equity ratios of 46.91 percent to 58.95 percent for  
10 the operating companies held by the proxy group over this period.

11 **Q. What is your conclusion regarding the appropriateness of FPL's proposed**  
12 **capital structure in this proceeding?**

13 A. Based on the analysis presented in Exhibit JMC-11, my conclusion is that FPL's  
14 proposed financial capital structure of 59.6 percent common equity and 40.4  
15 percent debt is reasonable. FPL's equity ratio of 59.6 percent on a financial  
16 basis is the upper end of the range established by the operating companies held  
17 by the proxy group. Sufficient equity in the capital structure is an important  
18 factor for maintaining FPL's financial integrity and investment grade credit  
19 rating. As noted by FPL witness Barrett, the Company has maintained this same  
20 equity ratio for more than two decades, and it is an essential component of  
21 FPL's financial policies enabling access to capital on favorable terms in a  
22 variety of market circumstances. This capital structure represents  
23 management's decisions on how best to finance its operations. The Company's

1 proposed equity ratio is reasonable, given the additional risk borne by FPL  
2 relative to the proxy group—i.e., the Company’s projected capital expenditure  
3 requirements, risk associated with ownership of regulated nuclear generation  
4 assets, and storm-related risks.

5

## 6 IX. CONCLUSIONS AND RECOMMENDATION

7

8 **Q. What is your conclusion regarding a fair ROE for FPL?**

9 A. Based on the quantitative analyses provided in my Direct Testimony, I have  
10 established a range of ROE results shown previously in Figure 15 (also see  
11 Exhibit JMC-2 for summary table). I consider a reasonable range of ROE for  
12 FPL to be in the range 10.5 percent to 11.5 percent, inclusive of flotation costs.  
13 In creating this range, I give equal weight to the results of the DCF, CAPM,  
14 Bond Yield Risk Premium and Expected Earnings analyses despite the current  
15 limitations of the DCF model. From within that range, I recommend a base  
16 authorized ROE for FPL of 11.0 percent based on the average of the four  
17 methodologies, and considering 11 basis points for flotation costs. In addition,  
18 I support the proposed ROE incentive of 0.50 percent for superior management  
19 performance.

20 **Q. What is your recommendation with regard to the capital structure for FPL**  
21 **in this proceeding?**

22 A. I support FPL’s proposed financial capital structure of 59.6 percent common  
23 equity and 40.4 percent debt as reasonable, relative to the range of capital  
24 structures for the operating companies held by the proxy group companies, and

1 consistent with the actual capital structure of the Company. This capital  
2 structure appropriately reflects FPL's risk profile with its substantial capital  
3 expenditure program, ownership of nuclear generation, and the Company's  
4 storm-related risk which place it at higher risk than the proxy companies. I  
5 recommend the Commission adopt FPL's proposed capital structure.

6 **Q. Does this conclude your Direct Testimony?**

7 A. Yes.

**JAMES M. COYNE**

Senior Vice President

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Mr. Coyne provides financial, regulatory, strategic, and litigation support services to clients in the natural gas, power, and utilities industries. Drawing upon his industry and regulatory expertise, he regularly advises utilities, public agencies and investors on business strategies, investment evaluations, and matters pertaining to rate and regulatory policy. Prior to Concentric, Mr. Coyne worked in senior consulting positions focused on North American utilities industries, in corporate planning for an integrated energy company, and in regulatory and policy positions in Maine and Massachusetts. He has authored numerous articles on the energy industry and provided testimony and expert reports before the Federal Energy Regulatory Commission and numerous jurisdictions in the U.S. and Canada. Mr. Coyne holds a B.S. in Business from Georgetown University with honors and an M.S. in Resource Economics from the University of New Hampshire.

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**AREAS OF EXPERTISE**

## Energy Regulation

- Rate policy
- Cost of capital
- Incentive regulation
- Fuels and power markets

## Management and Business Strategy

- Fuels and power market assessments
- Investment feasibility
- Corporate and business unit planning
- Benchmarking and productivity analysis

## Financial and Economic Advisory

- Valuation analysis
- Due diligence
- Buy and sell-side advisory

## Litigation Support and Expert Testimony

- Rate and regulatory policy
- Fuels and power markets
- Contract litigation
- Valuation and damages



## **PROFESSIONAL HISTORY**

### **Concentric Energy Advisors, Inc. (2006 – Present)**

Senior Vice President

Vice President

### **FTI Consulting (Lexecon) (2002 – 2006)**

Senior Managing Director – Energy Practice

### **Arthur Andersen LLP (2000 – 2002)**

Managing Director, Andersen Corporate Finance – Energy and Utilities

### **Navigant Consulting, Inc. (1996 – 2000)**

Managing Director, Financial Services Practice

Senior Vice President, Strategy Practice

### **TotalFinaElf (1990 – 1996)**

Manager, Corporate Planning and Development

Manager, Investor Relations

Manager of Strategic Planning and Vice President, Natural Gas Division

### **Arthur D. Little, Inc. (1989 – 1990)**

Senior Consultant – International Energy Practice

### **DRI/McGraw-Hill (1984 – 1989)**

Director, North American Natural Gas Consulting

Senior Economist, U.S. Electricity Service

### **Massachusetts Energy Facilities Siting Council (1982 – 1984)**

Senior Economist – Gas and Electric Utilities

### **Maine Office of Energy Resources (1981 – 1982)**

State Energy Economist

## **EDUCATION**

### **University of New Hampshire**

M.S., Resource Economics, *with honors*, 1981

### **Georgetown University**

B.S., Business Administration and Economics, *cum laude*, 1975

## **DESIGNATIONS AND AFFILIATIONS**

Community Rowing Inc., Board of Directors, 2015 - 2019

Georgetown University, Alumni Admissions Interviewer, 1988 – current

NASD General Securities Representative and Managing Principal (Series 7, 63 and 24 Certifications),  
2001



American Petroleum Institute, CEO's Liaison to Management and Policy Committees, 1994-1996

National Petroleum Council, Regulatory and Policy Task Forces, 1992

President, International Association for Energy Economics, Dallas Chapter, 1995

Gas Research Institute, Economics Advisory Committee, 1990-1993

NARUC, Advanced Regulatory Studies Program, Michigan State University, 1984

## **PUBLICATIONS AND RESEARCH**

"Advancing FERC's Methodology for Determining Allowed ROEs for Electric Transmission Companies," submitted to FERC on behalf of EEI, James Coyne, Joshua Nowak and Julie Lieberman, May, 2020.

"Regulator Rationale for Ratepayer-Funded Electricity and Natural Gas Innovation", James M. Coyne, Robert C. Yardley, Jr. and Jessalyn G. Pryciak, Energy Regulation Quarterly, Volume 6, Issue 3, 2018.

"Stimulating Innovation on Behalf of Canada's Electricity and Natural Gas Consumers" (with Robert Yardley), prepared for the Canadian Gas Association and Canadian Electricity Association, May 2015.

"Autopilot Error: Why Similar U.S. and Canadian Risk Profiles Yield Varied Rate-making Results" (with John Trogonoski), Public Utilities Fortnightly, May 2010

"A Comparative Analysis of Return on Equity of Natural Gas Utilities" (with Dan Dane and Julie Lieberman), prepared for the Ontario Energy Board, June 2007

"Do Utilities Mergers Deliver?" (with Prescott Hartshorne), Public Utilities Fortnightly, June 2006

"Winners and Losers: Utility Strategy and Shareholder Return" (with Prescott Hartshorne), Public Utilities Fortnightly, October 2004

"Winners and Losers in Restructuring: Assessing Electric and Gas Company Financial Performance" (with Prescott Hartshorne), white paper distributed to clients and press, August 2003

"The New Generation Business," commissioned by the Electric Power Research Institute (EPRI) and distributed to EPRI members to contribute to a series on the changes in the Power Industry, December 2001

Potential for Natural Gas in the United States, Volume V, Regulatory and Policy Issues (co-author), National Petroleum Council, December 1992

"Natural Gas Outlook," articles on U.S. natural gas markets, published quarterly in the Data Resources Energy Review and Natural Gas Review, 1984-1989

## **SELECTED SPEAKING ENGAGEMENTS**

"Energy Sector in Transition", Ontario Energy Association, Toronto, ON, September 24, 2018.



“Understanding Regulated Utilities in Today’s Capital Markets”, NARUC Annual Meeting, La Quinta, CA, November 14, 2016.

“Rate of Return: Where the Regulatory Rubber Meets the Road,” CAMPUT Annual Conference, Montreal, Quebec, May 17, 2016.

“Innovations in Utility Business Models and Regulation”, The Canadian Association of Members of Public Utility Tribunals (CAMPUT) 2015 Energy Regulation Course, Queens University, Kingston, Ontario, June 2015

“M&A and Valuations,” Panelist at Infocast Utility Scale Solar Summit, September 2010

“The Use of Expert Evidence,” The Canadian Association of Members of Public Utility Tribunals (CAMPUT) 2010 Energy Regulation Course, Queens University, Kingston, Ontario, June 2010

“A Comparative Analysis of Return on Equity for Utilities in Canada and the U.S.”, The Canadian Association of Members of Public Utility Tribunals (CAMPUT) Annual Conference, Banff, Alberta, April 22, 2008

“Nuclear Power on the Verge of a New Era,” moderator for a client event co-hosted by Sutherland Asbill & Brennan and Lexecon, Washington D.C., October 2005

“The Investment Implications of the Repeal of PUCHA,” Skadden Arps Client Conference, New York, NY, October 2005

“Anatomy of the Deal,” First Annual Energy Transactions Conference, Newport, RI, May 2005

“The Outlook for Wind Power,” Skadden Arps Annual Energy and Project Finance Seminar, Naples, FL, March 2005

“Direction of U.S. M&A Activity for Utilities,” Energy and Mineral Law Foundation Conference, Sanibel Island, FL, February 2002

“Outlook for U.S. Merger & Acquisition Activity,” Utility Mergers & Acquisitions Conference, San Antonio, TX, October 2001

“Investor Perspectives on Emerging Energy Companies,” Panel Moderator at Energy Venture Conference, Boston, MA, June 2001

“Electric Generation Asset Transactions: A Practical Guide,” workshop conducted at the 1999 Thai Electricity and Gas Investment Briefing, Bangkok, Thailand, July 1999

“New Strategic Options for the Power Sector,” Electric Utility Business Environment Conference, Denver, CO, May 1999

“Electric and Gas Industries: Moving Forward Together,” New England Gas Association Annual Meeting, November 1998

“Opportunities and Challenges in the Electric Marketplace,” Electric Power Research Institute, July 1998



SPONSOR	DATE	CASE/APPLICANT	DOCKET	SUBJECT
<b>Alberta Beverage Container Management Board</b>				
Alberta Beverage Container Management Board	2016 2019	Expert for the Board	N/A	Return Margin on Bottle Depots
<b>Alberta Utilities Commission</b>				
ATCO Utilities Group	2008 2009	ATCO Gas; ATCO Pipelines Ltd.; ATCO Electric Ltd.	Application No. 1578571 / Proceeding ID. 85	2009 Generic Cost of Capital Proceeding (Gas & Electric)
Enmax Power Corporation	2017	Enmax	22570	Cost of Common Equity
Enmax Power Corporation	2020	Enmax	24110	2021 Generic Cost of Capital
<b>American Arbitration Association</b>				
TransCanada Corporation	2004	TransCanada Corporation	AAA Case No. 50T 1810018804	Valuation of Natural Gas Pipeline
<b>British Columbia Utilities Commission</b>				
FortisBC	2012	FortisBC Utilities	G-20-12	Cost of Capital Adjustment Mechanisms
FortisBC	2015 2016	FortisBC Utilities	Project 3698852	Cost of Capital (Gas and Electric Distribution)
<b>California Utilities Commission</b>				
San Diego Gas & Electric Company	2019	San Diego Gas & Electric Company	A-19-04-014	Cost of Capital (Gas Distribution)
<b>Connecticut Department of Public Utility Control</b>				
Aquarion Water Company of CT/ Macquarie Securities	2007	Aquarion Water Company of CT	DPUC Docket No. 07-05-19	Return on Equity (Water)
<b>Federal Energy Regulatory Commission</b>				
Atlantic Power Corporation	2007	Atlantic Path 15, LLC	ER08-374-000	Return on Equity (Electric)
Atlantic Power Corporation	2010	Atlantic Path 15, LLC	Docket No. ER11-2909-000	Return on Equity (Electric)
Atlantic Power Corporation	2011	Atlantic Path 15, LLC	Docket Nos. ER11-2909 and EL11-29	Rate of Return (Electric Transmission)
Startrans IO, LLC	2012	Startrans IO, LLC	ER-13-272-000	Cost of Capital (Electric Transmission)
Startrans IO, LLC	2015	Startran IO, LLC	ER-16-194-000 and EL16-25-000	Cost of Capital (Electric Transmission)
Northern States Power Company	2019	Northern States Power Company	ER20-26-000	Cost of Capital (Electric Transmission)



SPONSOR	DATE	CASE/APPLICANT	DOCKET	SUBJECT
PPL Electric Utilities Corp.	2020	PP&I Industrial Customer Alliance v. PPL Electric	EL20-48-000	Answering Testimony in Response to a Section 206 ROE Complaint
South First Energy Operating Companies	2020	South First Energy Operating Companies	ER21-___-000	Cost of Capital (Electric Transmission)
<b>Hawaii Public Utility Commission</b>				
The Gas Company	2017	The Gas Company	Docket No. 2017-0105	Cost of Capital (Gas Distribution)
<b>Maine Public Utilities Commission</b>				
Bangor Hydro Electric Company	1998	Bangor Hydro Electric Company	MPUC Docket No. 98-820	Transaction-Related Financial Advisory Services, Valuation
Central Maine Power Company	2007	Central Maine Power Company	MPUC Docket No. 2007-215	Sales Forecast
Enmax Corporation	2019	Enmax Corporation	2019-00097	Regulatory Approval of Emera Maine Acquisition
Versant Power	2021	Versant Power	MPUC Docket No. 2020-00316	Cost of Capital (Electric)
<b>Maryland State Board of Contract Appeals</b>				
Green Planet Power Solutions	2018	Green Planet Power Solutions and Maryland Bio Energy LLC v. Maryland Department of General Services	MSBCA 3061	Contract Litigation, Power Purchase Agreement, Damages Analysis
<b>Massachusetts Superior Court</b>				
Burncoat Pond Watershed District	2010	Central Water District v. Burncoat Pond Watershed District	WDCV 2001-0105	Valuation/Eminent Domain
<b>Minnesota Public Utilities Commission</b>				
Northern States Power Company	2015 2016	Northern States Power Company	E-002-GR-15-826	Cost of Capital (Electric)
Northern States Power Company	2017	Northern States Power Company	E002/M-17-797 G002/M-17-787 E002/M-17-818	Cost of Capital (Electric and Gas Rate Riders for Transmission, Renewable Generation and Gas Distribution)
<b>Newfoundland and Labrador Board of Commissioners of Public Utilities</b>				



SPONSOR	DATE	CASE/APPLICANT	DOCKET	SUBJECT
Newfoundland Power	2016	Newfoundland Power	2016 GRA	Cost of Capital (Electric)
Newfoundland Power	2018	Newfoundland Power	2018 GRA	Cost of Capital (Electric)
<b>New Jersey Board of Public Utilities</b>				
Conectiv	2000-2001	Atlantic City Electric Company	NJBPU Docket No. EM00020106	Transaction-Related Financial Advisory Services
<b>Nova Scotia Utility and Review Board</b>				
Nova Scotia Power Inc.	2012	Nova Scotia Power Inc.	2013 GRA	Return on Equity/Business Risk (Electric)
<b>Ontario Energy Board</b>				
Enbridge Gas Distribution and Hydro One Networks and the Coalition of Large Distributors	2009	Enbridge Gas Distribution and Hydro One Networks and the Coalition of Large Distributors	EB-2009-0084	Ontario Energy Board's 2009 Consultative Process on Cost of Capital Review (Gas & Electric)
Enbridge Gas Distribution	2012	Enbridge Gas Distribution	EB-2011-0354	Industry Benchmarking Study and Cost of Capital (Gas Distribution)
Enbridge Gas Distribution	2014	Enbridge Gas Distribution	EB-2012-0459	Incentive Regulation Plan and Industry Productivity Study
Ontario Power Generation	2016	Ontario Power Generation	EB-2016-0152	Cost of Capital (Electric Generation)
Ontario Power Generation	2020	Ontario Power Generation	EB-2020-0290	Capital Structure (Electric Generation)
<b>Prince Edward Island Regulatory and Appeals Commission</b>				
Maritime Electric Company	2015	Maritime Electric Company	UE20942	Return on Capital (Electric)
<b>Régie de l'énergie du Québec</b>				
Gaz Métro	2012	Gaz Métro	R-3809-2012	Return on Equity/Business Risk/ Capital Structure (Gas Distribution)
Hydro-Québec Distribution and Hydro- Québec TransÉnergie	2013	Hydro-Québec Distribution and Hydro- Québec TransÉnergie	R-3842-2013	Return on Equity/Business Risk (Electric)
Hydro-Québec Distribution	2014	Hydro-Québec Distribution	R-3905-2014	Remuneration of Deferral Accounts



SPONSOR	DATE	CASE/APPLICANT	DOCKET	SUBJECT
Hydro-Québec Distribution and Hydro- Québec TransÉnergie	2015-2017	Hydro-Québec Distribution and Hydro- Québec TransÉnergie	R-3897-2014	Performance-Based Ratemaking
<b>South Dakota Public Service Commission</b>				
Northern States Power Company-MN	2012	Northern States Power Company-MN	EL 11-019	Return on Equity
<b>Texas Public Utility Commission</b>				
Texas New Mexico Power Company	2004	Texas New Mexico Power Company	PUC Docket No. 29206	Auction Process and Stranded Cost Recovery
<b>U.S. Department of Commerce</b>				
Government of Québec	2017	Duty Investigation of Uncoated Groundwood Paper from Canada	PUC Docket No. 29206	Contracting for Renewable Resources, Market Analysis, Damages Analysis
<b>Vermont Public Service Board</b>				
Vermont Gas Systems, Inc.	2006	Vermont Gas Systems, Inc.	VPSB Docket No. 7109	Models of Incentive Regulation
Vermont Gas Systems, Inc.	2012	Vermont Gas Systems, Inc.	Docket No. 7803A	Cost of Capital (Gas Distribution)
Green Mountain Power Corporation	2013	Green Mountain Power Corporation	Docket No. 8191	Return on Equity (Electric)
Vermont Gas Systems, Inc.	2016	Vermont Gas Systems, Inc.	Docket No. 8698/8710	Return on Equity (Gas Distribution)
Green Mountain Power Corporation	2017	Green Mountain Power Corporation	Docket No. Tariff-8677	Return on Equity (Electric)
Green Mountain Power Corporation	2018	Green Mountain Power Corporation	18-0974	Return on Equity (Electric)
<b>Wisconsin Public Service Commission</b>				
Wisconsin Power and Light Company	2007	Wisconsin Power and Light Company	PSCW Docket No. 6680-CE-170	Return on Equity (Electric)
Wisconsin Power and Light Company	2007	Wisconsin Power and Light Company	PSCW Docket No. 6680-CE-171	Return on Equity (Electric)
Northern States Power Company	2011	Northern States Power Company	PSCW Docket No. 4220-UR-117	Return on Equity (Electric)
Northern States Power Company	2013	Northern States Power Company	PSCW Docket No. 4220-UR-119	Return on Equity (Gas & Electric)
Northern States Power Company	2015	Northern States Power Company	PSCW Docket No. 4220-UR-121	Return on Equity (Gas & Electric)



SPONSOR	DATE	CASE/APPLICANT	DOCKET	SUBJECT
Northern States Power Company	2017 2019	Northern States Power Company	PSCW Docket No. 4220-UR-123, 4220-UR-124	Return on Equity (Gas & Electric)
<b>Yukon Utilities Board</b>				
ATCO Electric Yukon	2016	ATCO Electric Yukon	2016-2017 GRA	Return on Equity (Electric)

COMBINED DCF, CAPM, RISK PREMIUM AND EXPECTED EARNINGS RESULTS

Company	30-Day DCF	90-Day DCF	180-Day DCF	CAPM VL Beta	CAPM BB Beta	AVG DCF	AVG CAPM	Risk Premium	Expected Earnings	4-model Average	3-model Average
ALLETE, Inc.	9.75%	10.04%	10.22%	13.80%	14.48%	10.00%	14.14%	9.88%	8.69%	10.68%	10.91%
Alliant Energy Corporation	9.06%	8.87%	8.87%	13.80%	14.03%	8.93%	13.92%	9.88%	10.70%	10.86%	11.50%
Ameren Corporation	9.38%	9.22%	9.21%	13.80%	13.15%	9.27%	13.48%	9.88%	10.40%	10.76%	11.25%
American Electric Power Company, Inc.	9.75%	9.58%	9.59%	12.51%	13.80%	9.64%	13.15%	9.88%	10.89%	10.89%	11.31%
Duke Energy Corporation	9.41%	9.37%	9.57%	13.80%	13.43%	9.45%	13.62%	9.88%	8.61%	10.39%	10.71%
Edison International	12.29%	12.11%	12.36%	15.10%	14.87%	12.25%	14.99%	9.88%	11.30%	12.10%	12.05%
Energy Corporation	8.59%	8.31%	8.34%	15.10%	15.32%	8.41%	15.21%	9.88%	11.31%	11.20%	12.13%
Energy, Inc.	10.59%	10.54%	10.49%	15.75%	13.98%	10.54%	14.87%	9.88%	9.12%	11.10%	11.29%
Hawaiian Electric Industries, Inc.	5.77%	5.68%	5.68%	13.16%	12.09%	5.71%	12.63%	9.88%	8.68%	9.22%	10.40%
IDACORP, Inc.	6.50%	6.42%	6.47%	13.16%	14.19%	6.46%	13.67%	9.88%	9.68%	9.92%	11.08%
OGE Energy Corp.	8.14%	8.01%	8.06%	17.04%	16.36%	8.07%	16.70%	9.88%	12.50%	11.79%	13.03%
Pinnacle West Capital Corporation	8.23%	8.02%	8.11%	14.45%	14.91%	8.12%	14.68%	9.88%	10.75%	10.86%	11.77%
Portland General Electric Corporation	14.31%	14.36%	14.45%	13.80%	14.10%	14.37%	13.95%	9.88%	9.63%	11.96%	11.16%
Xcel Energy Inc.	8.92%	8.76%	8.73%	13.16%	13.56%	8.80%	13.36%	9.88%	10.85%	10.72%	11.36%
PROXY GROUP MEAN	9.33%	9.23%	9.30%	14.17%	14.16%	9.29%	14.17%	9.88%	10.22%	10.89%	11.42%
PROXY GROUP MEDIAN	9.22%	9.05%	9.04%	13.80%	14.06%	9.10%	13.93%	9.88%	10.55%	10.86%	11.30%
Range - Low	5.77%	5.68%	5.68%	12.51%	12.09%	5.71%	12.63%	9.88%	8.61%	9.22%	10.40%
Range - High	14.31%	14.36%	14.45%	17.04%	16.36%	14.37%	16.70%	9.88%	12.50%	12.10%	13.03%

PROXY GROUP SCREENING DATA AND RESULTS - FINAL PROXY GROUP

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]		
Company	Ticker	Dividends	S&P Credit Rating Between AAA and BBB+	Covered by More Than 1 Analyst	Positive Growth Rates From At Least 2 Sources	Company-Owned Generation Assets Included in Rate Base	% Regulated Revenue of Total Utility Revenue > 60%	% Regulated Operating Income of Total Income > 60%	Regulated Electric Total Revenue > 80%	Regulated Electric Total Income > 80%	Announced Merger within 180 days from 2/28/21
ALLETE, Inc.	ALE	Yes	BBB	Yes	Yes	Yes	77%	84%	98%	97%	No
Alliant Energy Corporation	LNT	Yes	A-	Yes	Yes	Yes	98%	96%	86%	92%	No
Ameren Corporation	AEE	Yes	BBB+	Yes	Yes	Yes	102%	100%	86%	88%	No
American Electric Power Company, Inc.	AEP	Yes	A-	Yes	Yes	Yes	94%	98%	100%	100%	No
Duke Energy Corporation	DUK	Yes	BBB+	Yes	Yes	Yes	98%	100%	92%	92%	No
Edison International	EIX	Yes	BBB	Yes	Yes	Yes	100%	91%	100%	100%	No
Energy Corporation	ETR	Yes	BBB+	Yes	Yes	Yes	87%	100%	98%	99%	No
Evergy, Inc.	EVRG	Yes	A-	Yes	Yes	Yes	100%	100%	100%	100%	No
Hawaiian Electric Industries, Inc.	HE	Yes	BBB-	Yes	Yes	Yes	89%	74%	100%	100%	No
IDACORP, Inc.	IDA	Yes	BBB	Yes	Yes	Yes	100%	100%	100%	100%	No
OGE Energy Corp.	OGE	Yes	BBB+	Yes	Yes	Yes	100%	100%	100%	100%	No
Pinnacle West Capital Corporation	PNW	Yes	A-	Yes	Yes	Yes	100%	100%	100%	100%	No
Portland General Electric Company	POR	Yes	BBB+	Yes	Yes	Yes	100%	100%	100%	100%	No
Xcel Energy Inc.	XEL	Yes	A-	Yes	Yes	Yes	99%	100%	85%	87%	No

Notes:

- [1] Source: Bloomberg Professional
- [2] Source: SNL Financial
- [3] Source: Yahoo! Finance and Zacks
- [4] Source: Yahoo! Finance, Value Line Investment Survey, and Zacks
- [5] Source: SNL Financial
- [6] - [9] Source: Form 10-Ks for 2017, 2018 & 2019, three-year average
- [10] SNL Financial News Releases

30-DAY CONSTANT GROWTH DCF

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
Company	Annualized Dividend	Stock Price	Dividend Yield	Expected Dividend Yield	Value Line Earnings Growth	Yahoo! Finance Earnings Growth	Zacks Earnings Growth	Average Growth	Low DCF ROE	Mean DCF ROE	High DCF ROE
ALLETE, Inc.	\$2.52	\$64.82	3.89%	4.00%	4.50%	7.00%	NA%	5.75%	8.48%	9.75%	11.02%
Alliant Energy Corporation	\$1.61	\$48.74	3.30%	3.40%	5.50%	5.70%	5.80%	5.67%	8.89%	9.06%	9.20%
Ameren Corporation	\$2.06	\$73.02	2.82%	2.91%	6.00%	6.60%	6.80%	6.47%	8.91%	9.38%	9.72%
American Electric Power Company, Inc.	\$2.96	\$79.89	3.70%	3.81%	6.00%	6.00%	5.80%	5.93%	9.61%	9.75%	9.82%
Duke Energy Corporation	\$3.86	\$91.03	4.24%	4.35%	5.00%	4.99%	5.20%	5.06%	9.34%	9.41%	9.55%
Edison International	\$2.65	\$58.05	4.57%	4.74%	12.00%	Negative	3.10%	7.55%	7.74%	12.29%	16.84%
Energy Corporation	\$3.80	\$93.80	4.05%	4.14%	3.00%	5.15%	5.20%	4.45%	7.11%	8.59%	9.36%
Energy, Inc.	\$2.14	\$54.07	3.96%	4.09%	7.50%	5.90%	6.10%	6.50%	9.97%	10.59%	11.61%
Hawaiian Electric Industries, Inc.	\$1.36	\$34.26	3.97%	4.00%	1.50%	1.30%	2.50%	1.77%	5.30%	5.77%	6.52%
IDACORP, Inc.	\$2.84	\$88.22	3.22%	3.27%	4.50%	2.60%	2.60%	3.23%	5.86%	6.50%	7.79%
OGE Energy Corp.	\$1.61	\$31.16	5.17%	5.24%	3.00%	2.10%	3.60%	2.90%	7.32%	8.14%	8.86%
Pinnacle West Capital Corporation	\$3.32	\$76.37	4.35%	4.43%	4.50%	3.50%	3.40%	3.80%	7.82%	8.23%	8.95%
Portland General Electric Company	\$1.63	\$42.42	3.84%	4.04%	4.00%	13.40%	13.40%	10.27%	7.92%	14.31%	17.50%
Xcel Energy Inc.	\$1.72	\$62.91	2.73%	2.82%	6.00%	6.20%	6.10%	6.10%	8.82%	8.92%	9.02%
<b>PROXY GROUP MEAN</b>			<b>3.84%</b>	<b>3.95%</b>	<b>5.21%</b>	<b>5.42%</b>	<b>5.35%</b>	<b>5.39%</b>	<b>8.08%</b>	<b>9.33%</b>	<b>10.41%</b>

Notes

- [1] Source: Bloomberg Professional
- [2] Source: Bloomberg Professional, equals 30-day average as of February 28, 2021
- [3] Equals [1] / [2]
- [4] Equals [3] x (1 + 0.50 x [8])
- [5] Source: Value Line
- [6] Source: Yahoo! Finance
- [7] Source: Zacks
- [8] Equals Average ([5], [6], [7])
- [9] Equals [3] x (1 + 0.50 x Minimum ([5], [6], [7]) + Minimum ([5], [6], [7])
- [10] Equals [4] + [8]
- [11] Equals [3] x (1 + 0.50 x Maximum ([5], [6], [7]) + Maximum ([5], [6], [7])

90-DAY CONSTANT GROWTH DCF

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
Company	Annualized Dividend	Stock Price	Dividend Yield	Expected Dividend Yield	Value Line Earnings Growth	Yahoo! Finance Earnings Growth	Zacks Earnings Growth	Average Growth	Low DCF ROE	Mean DCF ROE	High DCF ROE
ALLETE, Inc.	\$2.52	\$60.44	4.17%	4.29%	4.50%	7.00%	NA%	5.75%	8.76%	10.04%	11.32%
Alliant Energy Corporation	\$1.61	\$51.66	3.12%	3.21%	5.50%	5.70%	5.80%	5.67%	8.70%	8.87%	9.01%
Ameren Corporation	\$2.06	\$77.18	2.67%	2.76%	6.00%	6.60%	6.80%	6.47%	8.75%	9.22%	9.56%
American Electric Power Company, Inc.	\$2.96	\$83.64	3.54%	3.64%	6.00%	6.00%	5.80%	5.93%	9.44%	9.58%	9.65%
Duke Energy Corporation	\$3.86	\$91.85	4.20%	4.31%	5.00%	4.99%	5.20%	5.06%	9.30%	9.37%	9.51%
Edison International	\$2.65	\$60.37	4.39%	4.56%	12.00%	Negative	3.10%	7.55%	7.56%	12.11%	16.65%
Edison Energy Corporation	\$3.80	\$100.56	3.78%	3.86%	3.00%	5.15%	5.20%	4.45%	6.84%	8.31%	9.08%
Eergy, Inc.	\$2.14	\$54.73	3.91%	4.04%	7.50%	5.90%	6.10%	6.50%	9.93%	10.54%	11.56%
Hawaiian Electric Industries, Inc.	\$1.36	\$35.07	3.88%	3.91%	1.50%	1.30%	2.50%	1.77%	5.20%	5.68%	6.43%
IDACORP, Inc.	\$2.84	\$90.68	3.13%	3.18%	4.50%	2.60%	2.60%	3.23%	5.77%	6.42%	7.70%
OGE Energy Corp.	\$1.61	\$31.98	5.04%	5.11%	3.00%	2.10%	3.60%	2.90%	7.19%	8.01%	8.73%
Pinnacle West Capital Corporation	\$3.32	\$80.26	4.14%	4.22%	4.50%	3.50%	3.40%	3.80%	7.61%	8.02%	8.73%
Portland General Electric Company	\$1.63	\$41.89	3.89%	4.09%	4.00%	13.40%	13.40%	10.27%	7.97%	14.36%	17.55%
Xcel Energy Inc.	\$1.72	\$66.68	2.58%	2.66%	6.00%	6.20%	6.10%	6.10%	8.66%	8.76%	8.86%
<b>PROXY GROUP MEAN</b>			<b>3.74%</b>	<b>3.84%</b>	<b>5.21%</b>	<b>5.42%</b>	<b>5.35%</b>	<b>5.39%</b>	<b>7.98%</b>	<b>9.23%</b>	<b>10.31%</b>

Notes

- [1] Source: Bloomberg Professional
- [2] Source: Bloomberg Professional, equals 90-day average as of February 28, 2021
- [3] Equals [1] / [2]
- [4] Equals [3] x (1 + 0.50 x [8])
- [5] Source: Value Line
- [6] Source: Yahoo! Finance
- [7] Source: Zacks
- [8] Equals Average ([5], [6], [7])
- [9] Equals [3] x (1 + 0.50 x Minimum ([5], [6], [7]) + Minimum ([5], [6], [7])
- [10] Equals [4] + [8]
- [11] Equals [3] x (1 + 0.50 x Maximum ([5], [6], [7]) + Maximum ([5], [6], [7])

180-DAY CONSTANT GROWTH DCF

Company	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
	Annualized Dividend	Stock Price	Dividend Yield	Expected Dividend Yield	Value Line Earnings Growth	Yahoo! Finance Earnings Growth	Zacks Earnings Growth	Average Growth	Low DCF ROE	Mean DCF ROE	High DCF ROE
ALLETE, Inc.	\$2.52	\$57.93	4.35%	4.47%	4.50%	7.00%	NA%	5.75%	8.95%	10.22%	11.50%
Alliant Energy Corporation	\$1.61	\$51.75	3.11%	3.20%	5.50%	5.70%	5.80%	5.67%	8.70%	8.87%	9.00%
Ameren Corporation	\$2.06	\$77.41	2.66%	2.75%	6.00%	6.60%	6.80%	6.47%	8.74%	9.21%	9.55%
American Electric Power Company, Inc.	\$2.96	\$83.28	3.55%	3.66%	6.00%	6.00%	5.80%	5.93%	9.46%	9.59%	9.66%
Duke Energy Corporation	\$3.86	\$87.84	4.39%	4.51%	5.00%	4.99%	5.20%	5.06%	9.49%	9.57%	9.71%
Edison International	\$2.65	\$57.18	4.63%	4.81%	12.00%	Negative	3.10%	7.55%	7.81%	12.36%	16.91%
Edison Corporation	\$3.80	\$99.92	3.80%	3.89%	3.00%	5.15%	5.20%	4.45%	6.86%	8.34%	9.10%
Eergy, Inc.	\$2.14	\$55.41	3.86%	3.99%	7.50%	5.90%	6.10%	6.50%	9.88%	10.49%	11.51%
Hawaiian Electric Industries, Inc.	\$1.36	\$35.10	3.87%	3.91%	1.50%	1.30%	2.50%	1.77%	5.20%	5.68%	6.42%
IDACORP, Inc.	\$2.84	\$89.14	3.19%	3.24%	4.50%	2.60%	2.60%	3.23%	5.83%	6.47%	7.76%
OGE Energy Corp.	\$1.61	\$31.66	5.08%	5.16%	3.00%	2.10%	3.60%	2.90%	7.24%	8.06%	8.78%
Pinnacle West Capital Corporation	\$3.32	\$78.49	4.23%	4.31%	4.50%	3.50%	3.40%	3.80%	7.70%	8.11%	8.82%
Portland General Electric Company	\$1.63	\$40.99	3.98%	4.18%	4.00%	13.40%	13.40%	10.27%	8.06%	14.45%	17.64%
Xcel Energy Inc.	\$1.72	\$67.37	2.55%	2.63%	6.00%	6.20%	6.10%	6.10%	8.63%	8.73%	8.83%
<b>PROXY GROUP MEAN</b>			<b>3.81%</b>	<b>3.91%</b>	<b>5.21%</b>	<b>5.42%</b>	<b>5.35%</b>	<b>5.39%</b>	<b>8.04%</b>	<b>9.30%</b>	<b>10.37%</b>

Notes

- [1] Source: Bloomberg Professional
- [2] Source: Bloomberg Professional, equals 180-day average as of February 28, 2021
- [3] Equals [1] / [2]
- [4] Equals [3] x (1 + 0.50 x [8])
- [5] Source: Value Line
- [6] Source: Yahoo! Finance
- [7] Source: Zacks
- [8] Equals Average ([5], [6], [7])
- [9] Equals [3] x (1 + 0.50 x Minimum ([5], [6], [7]) + Minimum ([5], [6], [7])
- [10] Equals [4] + [8]
- [11] Equals [3] x (1 + 0.50 x Maximum ([5], [6], [7]) + Maximum ([5], [6], [7])

MARKET RISK PREMIUM DERIVED FROM S&P EARNINGS AND ESTIMATE REPORT

[7] S&P's estimate of the S&P 500 Dividend Yield	1.52%
[8] S&P's estimate of the S&P 500 Growth Rate	16.06%
[9] S&P 500 Estimated Required Market Return	17.70%

Notes:

[7] Source: S&P Dow Jones Indices, S&P 500 Earnings and Estimate Report, February 26, 2021

[8] Source: S&P Dow Jones Indices, S&P 500 Earnings and Estimate Report, February 26, 2021

[9] Equals  $([7] \times (1 + (0.5 \times [8]))) + [8]$

MARKET RISK PREMIUM CALCULATION USING CAP. WEIGHTED BLOOMBERG GROWTH RATES

[10] Cap. Weighted Estimate of the S&P 500 Dividend Yield	1.49%
[11] Cap. Weighted Estimate of the S&P 500 Growth Rate	13.87%
[12] Cap. Weighted S&P 500 Estimated Required Market Return	15.46%

Notes:

- [10] Source: Bloomberg Professional, as of February 28, 2021
- [11] Source: Bloomberg Professional, as of February 28, 2021
- [12] Equals  $([10] \times (1 + (0.5 \times [11]))) + [11]$

Name	Ticker	Shares Out/g	Price	Dividend Yield	Bloomberg Long-Term Growth Estimate	Market Cap Excl. n/a Growth	% of Total Market Cap.	Cap. Weighted Div. Yield	Cap. Weighted Long-Term Growth
LyondellBasell Industries NV	LYB	334.13	103.09	4.07	5.50	34,445.46	0.11%	0.43%	0.58%
American Express Co	AXP	805.59	135.26	1.27	17.21	108,964.10	0.33%	0.42%	5.73%
Verizon Communications Inc	VZ	4138.15	55.30	4.54	2.35	228,839.70	0.70%	3.18%	1.64%
Broadcom Inc	AVGO	408.23	469.87	3.06	10.77	191,815.03	0.59%	1.79%	6.32%
Boeing Co/The	BA	583.00	212.01	n/a	n/a	0.00	0.00%		
Caterpillar Inc	CAT	545.30	215.88	1.91	14.75	117,719.36	0.36%	0.69%	5.31%
JPMorgan Chase & Co	JPM	3051.51	147.17	2.45	5.87	449,090.73	1.37%	3.36%	8.06%
Chevron Corp	CVX	1926.38	100.00	5.16	21.96	192,638.00	0.59%	3.04%	12.93%
Coca-Cola Co/The	KO	4309.31	48.99	3.43	5.80	211,113.10	0.65%	2.21%	3.74%
AbbVie Inc	ABBV	1765.88	107.74	4.83	1.67	190,255.91	0.58%	2.81%	0.97%
Walt Disney Co/The	DIS	1815.26	189.04	n/a	27.64	343,156.75	1.05%		29.00%
FleetCor Technologies Inc	FLT	83.67	277.31	n/a	14.51	23,202.53	0.07%		1.03%
Extra Space Storage Inc	EXR	131.36	125.70	3.18	2.86	16,511.95	0.05%	0.16%	0.14%
Exxon Mobil Corp	XOM	4228.23	54.37	6.40	8.53	229,888.87	0.70%	4.50%	5.99%
Phillips 66	PSX	436.93	83.05	4.33	4.50	36,287.04	0.11%	0.48%	0.50%
General Electric Co	GE	8767.94	12.54	0.32	47.03	109,949.97	0.34%	0.11%	15.81%
HP Inc	HPQ	1246.60	28.97	2.68	10.81	36,114.00	0.11%	0.30%	1.19%
Home Depot Inc/The	HD	1076.60	258.34	2.55	10.53	278,128.84	0.85%	2.17%	8.95%
Monolithic Power Systems Inc	MPWR	45.27	374.52	0.64	18.55	16,954.52	0.05%	0.03%	0.96%
International Business Machines Corp	IBM	893.59	118.93	5.48	9.72	106,274.66	0.32%	1.78%	3.16%
Johnson & Johnson	JNJ	2628.68	158.46	2.55	7.99	416,540.63	1.27%	3.25%	10.17%
McDonald's Corp	MCD	745.57	206.14	2.50	n/a	0.00	0.00%	0.00%	
Merck & Co Inc	MRK	2530.32	72.62	3.58	7.11	183,751.84	0.56%	2.01%	3.99%
3M Co	MMM	579.10	175.06	3.38	8.05	101,377.25	0.31%	1.05%	2.49%
American Water Works Co Inc	AWK	181.44	141.88	1.55	8.35	25,742.71	0.08%	0.12%	0.66%
Bank of America Corp	BAC	8633.19	34.71	2.07	14.30	299,658.02	0.92%	1.90%	13.10%
Baker Hughes Co	BKR	728.96	24.48	2.94	16.20	17,844.94	0.05%	0.16%	0.88%
Pfizer Inc	PFE	5577.63	33.49	4.66	2.35	186,794.83	0.57%	2.66%	1.34%
Procter & Gamble Co/The	PG	2462.48	123.53	2.56	7.15	304,190.15	0.93%	2.38%	6.65%
AT&T Inc	T	7131.76	27.89	7.46	0.73	198,904.79	0.61%	4.54%	0.44%
Travelers Cos Inc/The	TRV	252.21	145.50	2.34	7.36	36,696.56	0.11%	0.26%	0.83%
Raytheon Technologies Corp	RTX	1519.48	71.99	2.64	13.86	109,387.37	0.33%	0.88%	4.64%
Analog Devices Inc	ADI	368.89	155.82	1.77	8.95	57,480.44	0.18%	0.31%	1.57%
Walmart Inc	WMT	2829.29	129.92	1.69	6.27	367,581.36	1.12%	1.90%	7.05%
Cisco Systems Inc/Delaware	CSCO	4221.79	44.87	3.30	5.53	189,431.72	0.58%	1.91%	3.20%
Intel Corp	INTC	4063.00	60.78	2.29	5.24	246,949.14	0.75%	1.73%	3.96%
General Motors Co	GM	1440.91	51.33	n/a	13.01	73,961.91	0.23%		2.94%
Microsoft Corp	MSFT	7542.22	232.38	0.96	16.60	1,752,661.08	5.36%	5.14%	88.95%
Dollar General Corp	DG	245.00	188.99	0.76	15.30	46,302.55	0.14%	0.11%	2.17%
Cigna Corp	CI	351.85	209.90	1.91	11.02	73,853.32	0.23%	0.43%	2.49%
Kinder Morgan Inc	KMI	2264.45	14.70	7.14	4.00	33,287.42	0.10%	0.73%	0.41%
Citigroup Inc	C	2087.32	65.88	3.10	16.12	137,512.64	0.42%	1.30%	6.78%
American International Group Inc	AIG	864.79	43.95	2.91	20.10	38,007.52	0.12%	0.34%	2.34%
Honeywell International Inc	HON	695.50	202.35	1.84	9.50	140,734.43	0.43%	0.79%	4.09%
Altria Group Inc	MO	1858.69	43.60	7.89	3.70	81,038.88	0.25%	1.95%	0.92%
HCA Healthcare Inc	HCA	339.92	172.03	1.12	11.44	58,476.44	0.18%	0.20%	2.05%
Under Armour Inc	UA	188.62	21.89	n/a	35.60	4,128.89	0.01%		0.45%
International Paper Co	IP	393.12	49.65	4.13	3.10	19,518.41	0.06%	0.25%	0.18%
Hewlett Packard Enterprise Co	HPE	1300.90	14.56	3.30	14.46	18,941.10	0.06%	0.19%	0.84%
Abbott Laboratories	ABT	1771.53	119.78	1.50	14.64	212,193.86	0.65%	0.97%	9.50%
Aflac Inc	AFL	688.59	47.89	2.76	n/a	0.00	0.00%	0.00%	
Air Products and Chemicals Inc	APD	221.28	255.62	2.35	11.43	56,563.59	0.17%	0.41%	1.98%
Royal Caribbean Cruises Ltd	RCL	237.40	93.27	n/a	36.25	22,142.30	0.07%		2.45%
Hess Corp	HES	307.08	65.53	1.53	35.91	20,122.95	0.06%	0.09%	2.21%
Archer-Daniels-Midland Co	ADM	558.41	56.58	2.62	2.10	31,594.84	0.10%	0.25%	0.20%
Automatic Data Processing Inc	ADP	427.94	174.02	2.14	11.33	74,470.12	0.23%	0.49%	2.58%
Verisk Analytics Inc	VRSK	162.79	163.85	0.71	9.53	26,673.14	0.08%	0.06%	0.78%
AutoZone Inc	AZO	22.76	1159.92	n/a	8.64	26,399.78	0.08%		0.70%
Avery Dennison Corp	AVY	83.04	175.21	1.42	4.80	14,549.44	0.04%	0.06%	0.21%
Enphase Energy Inc	ENPH	129.02	176.06	n/a	37.68	22,715.26	0.07%		2.62%
MSCI Inc	MSCI	82.58	414.52	0.75	12.70	34,231.06	0.10%	0.08%	1.33%
Ball Corp	BLL	327.93	85.39	0.70	5.00	28,001.94	0.09%	0.06%	0.43%
Carrier Global Corp	CARR	869.21	36.53	1.31	6.20	31,752.24	0.10%	0.13%	0.60%
Bank of New York Mellon Corp/The	BK	878.74	42.16	2.94	8.65	37,047.68	0.11%	0.33%	0.98%
Otis Worldwide Corp	OTIS	433.67	63.71	1.26	2.20	27,629.12	0.08%	0.11%	0.19%
Baxter International Inc	BAX	505.10	77.69	1.26	9.66	39,241.22	0.12%	0.15%	1.16%
Becton Dickinson and Co	BDX	290.56	241.15	1.38	9.54	70,068.54	0.21%	0.30%	2.04%
Berkshire Hathaway Inc	BRK/B	1370.95	240.51	n/a	-15.10	329,727.18	1.01%		-15.22%
Best Buy Co Inc	BBY	258.95	100.35	2.79	9.85	25,985.63	0.08%	0.22%	0.78%
Boston Scientific Corp	BSX	1417.17	38.78	n/a	11.94	54,957.85	0.17%		2.01%
Bristol-Myers Squibb Co	BMJ	2240.48	61.33	3.20	7.84	137,408.64	0.42%	1.34%	3.29%
Fortune Brands Home & Security Inc	FBHS	136.67	83.14	1.25	10.56	11,529.02	0.04%	0.04%	0.37%
Brown-Forman Corp	BFB	309.49	71.58	1.00	5.57	22,153.29	0.07%	0.07%	0.38%

AbbVie Inc	ABBV	1765.88	107.74	4.83	1.67	190,255.91	0.58%	2.81%	0.97%
Walt Disney Co/The	DIS	1815.26	189.04	n/a	27.64	343,156.75	1.05%		29.00%
FleetCor Technologies Inc	FLT	83.67	277.31	n/a	14.51	23,202.53	0.07%		1.03%
Cabot Oil & Gas Corp	COG	399.42	18.51	2.16	2.77	7,393.26	0.02%	0.05%	0.06%
Campbell Soup Co	CPB	302.95	45.48	3.25	8.37	13,778.17	0.04%	0.14%	0.35%
Kansas City Southern	KSU	90.85	212.34	1.02	15.00	19,291.09	0.06%	0.06%	0.88%
Hilton Worldwide Holdings Inc	HLT	277.61	123.68	n/a	8.82	34,334.80	0.10%		0.93%
Carnival Corp	CCL	929.63	26.75	n/a	10.00	24,867.60	0.08%		0.76%
Qorvo Inc	QRVO	113.26	174.73	n/a	18.00	19,789.92	0.06%		1.09%
Lumen Technologies Inc	LUMN	1096.85	12.29	8.14	-4.52	13,480.29	0.04%	0.34%	-0.19%
UDR Inc	UDR	296.82	41.17	3.50	1.69	12,220.08	0.04%	0.13%	0.06%
Clorox Co/The	CLX	125.79	181.05	2.45	6.00	22,774.28	0.07%	0.17%	0.42%
Paycom Software Inc	PAYC	60.19	374.24	n/a	26.25	22,525.51	0.07%		1.81%
CMS Energy Corp	CMS	288.94	54.11	3.22	7.03	15,634.54	0.05%	0.15%	0.34%
Newell Brands Inc	NWL	424.60	23.17	3.97	2.00	9,837.98	0.03%	0.12%	0.06%
Colgate-Palmolive Co	CL	848.56	75.20	2.34	6.35	63,811.71	0.20%	0.46%	1.24%
Comerica Inc	CMA	139.29	68.10	3.99	6.43	9,485.65	0.03%	0.12%	0.19%
IPG Photonics Corp	IPGP	53.53	227.35	n/a	45.56	12,170.05	0.04%		1.70%
Conagra Brands Inc	CAG	488.58	33.93	3.24	7.30	16,577.52	0.05%	0.16%	0.37%
Consolidated Edison Inc	ED	342.42	65.65	4.72	3.30	22,479.87	0.07%	0.32%	0.23%
SL Green Realty Corp	SLG	70.51	69.07	5.27	2.93	4,870.13	0.01%	0.08%	0.04%
Comring Inc	GLW	768.37	38.24	2.51	14.26	29,382.47	0.09%	0.23%	1.28%
Cummins Inc	CMI	147.66	253.20	2.13	8.79	37,387.51	0.11%	0.24%	1.00%
Danaher Corp	DHR	712.20	219.67	0.38	11.55	156,448.97	0.48%	0.18%	5.52%
Target Corp	TGT	500.77	183.44	1.48	11.57	91,861.25	0.28%	0.42%	3.25%
Deere & Co	DE	313.44	349.12	1.03	24.31	109,428.17	0.33%	0.34%	8.13%
Dominion Energy Inc	D	805.65	68.32	3.69	7.02	55,042.01	0.17%	0.62%	1.18%
Dover Corp	DOV	143.65	123.26	1.61	10.87	17,706.30	0.05%	0.09%	0.58%
Alliant Energy Corp	LNT	249.88	46.16	3.49	6.12	11,534.46	0.04%	0.12%	0.22%
Duke Energy Corp	DUK	769.00	85.59	4.51	4.73	65,818.71	0.20%	0.91%	0.95%
Regency Centers Corp	REG	169.83	54.78	4.34	2.71	9,303.29	0.03%	0.12%	0.08%
Eaton Corp PLC	ETN	398.10	130.19	2.34	9.93	51,828.64	0.16%	0.37%	1.57%
Ecolab Inc	ECL	285.85	209.36	0.92	15.40	59,845.56	0.18%	0.17%	2.82%
PerkinElmer Inc	PKI	111.97	126.09	0.22	-3.97	14,118.30	0.04%	0.01%	-0.17%
Emerson Electric Co	EMR	600.03	85.90	2.35	9.88	51,542.58	0.16%	0.37%	1.56%
EOG Resources Inc	EOG	583.56	64.56	2.56	-1.77	37,674.63	0.12%	0.29%	-0.20%
Aon PLC	AON	225.98	227.71	0.81	13.10	51,457.91	0.16%	0.13%	2.06%
Entergy Corp	ETR	200.25	86.81	4.38	4.61	17,383.70	0.05%	0.23%	0.24%
Equifax Inc	EFX	121.79	161.88	0.96	12.59	19,715.37	0.06%	0.06%	0.76%
IQVIA Holdings Inc	IQV	191.75	192.79	n/a	18.04	36,967.48	0.11%		2.04%
Gartner Inc	IT	88.72	179.04	n/a	13.50	15,884.43	0.05%		0.66%
FedEx Corp	FDX	265.07	254.50	1.02	14.30	67,460.32	0.21%	0.21%	2.95%
FMC Corp	FMC	129.35	101.69	1.89	9.75	13,153.60	0.04%	0.08%	0.39%
Ford Motor Co	F	3907.84	11.70	n/a	47.86	45,721.73	0.14%		6.69%
NextEra Energy Inc	NEE	1959.88	73.48	2.10	8.30	144,011.98	0.44%	0.92%	3.65%
Franklin Resources Inc	BEN	505.40	26.17	4.28	11.00	13,226.32	0.04%	0.17%	0.44%
Freeport-McMoRan Inc	FCX	1459.48	33.91	n/a	21.89	49,457.06	0.15%		3.31%
Gap Inc/The	GPS	374.03	24.95	3.89	17.80	9,332.05	0.03%	0.11%	0.51%
DexCom Inc	DXCM	96.18	397.78	n/a	24.84	38,258.48	0.12%		2.91%
General Dynamics Corp	GD	286.27	163.47	2.69	6.65	46,796.56	0.14%	0.38%	0.95%
General Mills Inc	GIS	611.44	55.01	3.71	6.10	33,635.31	0.10%	0.38%	0.63%
Genuine Parts Co	GPC	144.40	105.35	3.09	5.83	15,212.54	0.05%	0.14%	0.27%
Alamos Energy Corp	ATO	128.16	84.61	2.95	7.16	10,843.62	0.03%	0.10%	0.24%
WW Grainger Inc	GWV	52.38	372.71	1.64	14.50	19,522.55	0.06%	0.10%	0.87%
Halliburton Co	HAL	888.63	21.83	0.82	49.00	19,398.79	0.06%	0.05%	2.91%
L3Harris Technologies Inc	LHX	210.11	181.91	2.24	8.70	38,221.11	0.12%	0.26%	1.02%
Healthpeak Properties Inc	PEAK	538.69	29.09	4.13	2.32	15,670.49	0.05%	0.20%	0.11%
Catalent Inc	CTLT	170.23	113.71	n/a	15.82	19,356.85	0.06%		0.94%
Fortive Corp	FTV	338.07	65.82	0.43	5.77	22,251.77	0.07%	0.03%	0.39%
Hershey Co/The	HSY	146.55	145.65	2.21	5.20	21,345.01	0.07%	0.14%	0.34%
Synchrony Financial	SYF	583.88	38.68	2.28	31.25	22,584.48	0.07%	0.16%	2.16%
Hormel Foods Corp	HRL	539.92	46.37	2.11	5.10	25,036.09	0.08%	0.16%	0.39%
Arthur J Gallagher & Co	AJG	193.74	119.80	1.60	9.64	23,210.05	0.07%	0.11%	0.68%
Mondelez International Inc	MDLZ	1412.12	53.16	2.37	8.62	75,068.30	0.23%	0.54%	1.98%
CenterPoint Energy Inc	CNP	544.82	19.44	3.29	2.18	10,591.30	0.03%	0.11%	0.07%
Humana Inc	HUM	128.86	379.65	0.74	11.69	48,921.70	0.15%	0.11%	1.75%
Willis Towers Watson PLC	WLW	128.97	220.64	1.29	10.00	28,455.94	0.09%	0.11%	0.87%
Illinois Tool Works Inc	ITW	316.66	202.18	2.26	10.62	64,022.32	0.20%	0.44%	2.08%
CDW Corp/DE	CDW	140.99	156.89	1.02	13.10	22,119.92	0.07%	0.07%	0.89%
Trane Technologies PLC	TT	238.43	153.24	1.54	12.37	36,537.01	0.11%	0.17%	1.38%
Interpublic Group of Cos Inc/The	IPG	390.68	26.12	4.13	4.62	10,204.56	0.03%	0.13%	0.14%
International Flavors & Fragrances Inc	IFF	248.73	135.51	2.27	19.83	33,705.40	0.10%	0.23%	2.04%
Jacobs Engineering Group Inc	J	130.09	115.08	0.73	12.19	14,970.76	0.05%	0.03%	0.56%
Hanesbrands Inc	HBI	348.81	17.69	3.39	5.72	6,170.45	0.02%	0.06%	0.11%
Kellogg Co	K	343.95	57.71	3.95	3.66	19,849.35	0.06%	0.24%	0.22%
Broadridge Financial Solutions Inc	BR	115.80	142.49	1.61	10.70	16,500.34	0.05%	0.08%	0.54%
Perrigo Co PLC	PRGO	136.49	40.36	2.38	-2.80	5,508.74	0.02%	0.04%	-0.05%
Kimberly-Clark Corp	KMB	338.36	128.33	3.55	5.35	43,421.74	0.13%	0.47%	0.71%
Kimco Realty Corp	KIM	432.44	18.33	3.71	4.57	7,926.63	0.02%	0.09%	0.11%
Oracle Corp	ORCL	2944.03	64.51	1.49	7.74	189,919.38	0.58%	0.87%	4.49%
Kroger Co/The	KR	761.35	32.21	2.24	7.50	24,523.08	0.07%	0.17%	0.56%
Leggett & Platt Inc	LEG	132.99	43.27	3.70	1.00	5,754.48	0.02%	0.07%	0.02%
Lennar Corp	LEN	274.50	82.97	1.21	10.59	22,775.27	0.07%	0.08%	0.74%
Eli Lilly and Co	LLY	958.43	204.89	1.66	n/a	0.00	0.00%	0.00%	
L Brands Inc	LB	278.11	54.66	n/a	14.50	15,201.49	0.05%		0.67%
Charter Communications Inc	CHTR	193.73	613.42	n/a	33.86	118,837.86	0.36%		12.30%
Lincoln National Corp	LNC	191.96	56.87	2.95	28.56	10,916.77	0.03%	0.10%	0.95%
Loews Corp	L	267.05	47.81	0.52	n/a	0.00	0.00%	0.00%	
Lowe's Cos Inc	LOW	731.00	159.75	1.50	19.01	116,777.25	0.36%	0.54%	6.79%
Xerox Holdings Corp	XRX	198.39	25.48	3.92	24.40	5,054.98	0.02%	0.06%	0.38%
IDEX Corp	IEX	75.89	195.17	1.02	13.83	14,811.45	0.05%	0.05%	0.63%
Marsh & McLennan Cos Inc	MMC	508.19	115.22	1.61	8.16	58,553.65	0.18%	0.29%	1.46%
Masco Corp	MAS	257.14	53.22	1.05	10.10	13,684.99	0.04%	0.04%	0.42%
S&P Global Inc	SPGI	240.70	329.36	0.94	8.30	79,276.95	0.24%	0.23%	2.01%
Medtronic PLC	MDT	1347.47	116.97	1.98	9.02	157,613.57	0.48%	0.95%	4.35%
Viatis Inc	VTRS	1215.57	14.85	n/a	-6.27	18,051.21	0.06%		-0.35%
CVS Health Corp	CVS	1311.36	68.13	2.94	6.45	89,342.96	0.27%	0.80%	1.76%
DuPont de Nemours Inc	DD	538.09	70.32	1.71	5.27	37,838.49	0.12%	0.20%	0.61%

AbbVie Inc	ABBV	1765.88	107.74	4.83	1.67	190,255.91	0.58%	2.81%	0.97%
Walt Disney Co/The	DIS	1815.26	189.04	n/a	27.64	343,156.75	1.05%		29.00%
FleetCor Technologies Inc	FLT	83.67	277.31	n/a	14.51	23,202.53	0.07%		1.03%
Micron Technology Inc	MU	1118.67	91.53	n/a	15.72	102,391.87	0.31%		4.92%
Motorola Solutions Inc	MSI	169.03	175.48	1.62	11.30	29,661.38	0.09%	0.15%	1.02%
Cboe Global Markets Inc	CBOE	107.21	98.96	1.70	1.23	10,609.50	0.03%	0.06%	0.04%
Laboratory Corp of America Holdings	LH	97.60	239.91	n/a	6.72	23,415.22	0.07%		0.48%
Newmont Corp	NEM	800.31	54.38	4.05	-6.75	43,520.86	0.13%	0.54%	-0.90%
NIKE Inc	NKE	1271.48	134.78	0.82	26.79	171,370.07	0.52%	0.43%	14.04%
NiSource Inc	NI	391.86	21.60	4.07	6.35	8,464.18	0.03%	0.11%	0.16%
Norfolk Southern Corp	NSC	251.91	252.06	1.57	10.91	63,496.43	0.19%	0.30%	2.12%
Principal Financial Group Inc	PFGE	272.61	56.58	3.96	15.69	15,424.27	0.05%	0.19%	0.74%
Eversource Energy	ES	343.00	79.48	3.03	7.32	27,261.64	0.08%	0.25%	0.61%
Northrop Grumman Corp	NOC	166.72	291.66	1.99	4.61	48,625.56	0.15%	0.30%	0.69%
Wells Fargo & Co	WFC	4134.11	36.17	1.11	6.01	149,530.76	0.46%	0.51%	2.75%
Nucor Corp	NUE	301.93	59.82	2.71	12.00	18,061.45	0.06%	0.15%	0.66%
PVH Corp	PVH	71.10	99.96	n/a	1.68	7,107.16	0.02%		0.04%
Occidental Petroleum Corp	OXY	931.21	26.61	0.15	13.95	24,779.50	0.08%	0.01%	1.06%
Omnicom Group Inc	OMC	215.01	68.73	4.07	9.02	14,777.64	0.05%	0.18%	0.41%
ONEOK Inc	OKE	444.98	44.29	8.44	13.10	19,708.16	0.06%	0.51%	0.79%
Raymond James Financial Inc	RJF	137.71	116.74	1.34	13.50	16,076.27	0.05%	0.07%	0.66%
Parker-Hannifin Corp	PH	129.08	286.96	1.23	12.83	37,040.80	0.11%	0.14%	1.45%
Rollins Inc	ROL	492.14	33.17	0.96	n/a	0.00	0.00%	0.00%	
PPL Corp	PPL	768.99	26.19	6.34	0.90	20,139.85	0.06%	0.39%	0.06%
ConocoPhillips	COP	1354.74	52.01	3.31	-54.00	70,460.03	0.22%	0.71%	-11.63%
PulteGroup Inc	PHM	265.89	45.11	1.24	9.50	11,994.30	0.04%	0.05%	0.35%
Pinnacle West Capital Corp	PNNW	112.69	69.93	4.75	3.66	7,880.41	0.02%	0.11%	0.09%
PNC Financial Services Group Inc/The	PNC	423.70	168.36	2.73	17.33	71,334.13	0.22%	0.60%	3.78%
PPG Industries Inc	PPG	236.79	134.82	1.60	6.93	31,924.03	0.10%	0.16%	0.68%
Progressive Corp/The	PGR	585.70	85.95	0.47	-1.64	50,340.92	0.15%	0.07%	-0.25%
Public Service Enterprise Group Inc	PEG	505.85	53.83	3.79	5.80	27,229.91	0.08%	0.32%	0.48%
Robert Half International Inc	RHI	113.13	77.79	1.95	10.13	8,800.38	0.03%	0.05%	0.27%
Edison International	EIX	379.28	53.99	4.91	4.07	20,477.33	0.06%	0.31%	0.25%
Lumber Liquidators Holdings Inc	SLB	1398.27	27.91	1.79	20.96	39,025.72	0.12%	0.21%	2.50%
Charles Schwab Corp/The	SCHW	1803.05	61.72	1.17	7.68	111,284.25	0.34%	0.40%	2.61%
Sherwin-Williams Co/The	SHW	89.60	680.34	0.97	8.32	60,958.46	0.19%	0.18%	1.55%
West Pharmaceutical Services Inc	WST	74.10	280.65	0.24	18.01	20,796.17	0.06%	0.02%	1.15%
J M Smucker Co/The	SJM	109.59	112.00	3.21	1.28	12,274.08	0.04%	0.12%	0.05%
Snap-on Inc	SNA	54.20	203.11	2.42	6.83	11,008.56	0.03%	0.08%	0.23%
AMETEK Inc	AME	230.56	117.97	0.68	8.55	27,199.16	0.08%	0.06%	0.71%
Southern Co/The	SO	1056.47	56.72	4.51	5.20	59,922.98	0.18%	0.83%	0.95%
Truist Financial Corp	TFC	1347.20	56.96	3.16	11.32	76,736.51	0.23%	0.74%	2.66%
Southwest Airlines Co	LUV	590.68	58.13	n/a	-12.93	34,336.23	0.10%		-1.36%
W R Berkley Corp	WRB	177.36	69.33	0.69	14.65	12,296.37	0.04%	0.03%	0.55%
Stanley Black & Decker Inc	SWK	160.89	174.84	1.60	8.63	28,130.01	0.09%	0.14%	0.74%
Public Storage	PSA	174.91	233.94	3.42	3.21	40,918.45	0.13%	0.43%	0.40%
Arista Networks Inc	ANET	76.33	279.84	n/a	11.30	21,360.19	0.07%		0.74%
Sysco Corp	SY	510.41	79.63	2.26	6.50	40,643.95	0.12%	0.28%	0.81%
Corteva Inc	CTVA	743.46	45.15	1.15	15.58	33,567.22	0.10%	0.12%	1.60%
Texas Instruments Inc	TXN	920.24	172.27	2.37	10.03	158,529.74	0.48%	1.15%	4.86%
Textron Inc	TXT	228.28	50.34	0.16	26.22	11,390.94	0.03%	0.01%	0.91%
Thermo Fisher Scientific Inc	TMO	393.79	450.08	0.23	13.80	177,237.00	0.54%	0.12%	7.48%
TJX Cos Inc/The	TJX	1200.63	65.99	1.58	9.13	79,229.57	0.24%	0.38%	2.21%
Globe Life Inc	GL	103.28	93.40	0.80	n/a	0.00	0.00%	0.00%	
Johnson Controls International plc	JCI	720.27	55.79	1.86	13.90	40,183.86	0.12%	0.23%	1.71%
Ulta Beauty Inc	ULTA	56.34	322.33	n/a	1.70	18,160.07	0.06%		0.09%
Union Pacific Corp	UNP	669.83	205.96	1.88	10.60	137,958.19	0.42%	0.79%	4.47%
KeySight Technologies Inc	KEYS	186.09	141.52	n/a	10.41	26,335.46	0.08%		0.84%
UnitedHealth Group Inc	UNH	948.82	332.22	1.51	12.14	315,216.98	0.96%	1.46%	11.70%
Unum Group	UNM	203.73	26.48	4.31	3.33	5,394.77	0.02%	0.07%	0.05%
Marathon Oil Corp	MRO	789.08	11.10	1.08	0.90	8,758.79	0.03%	0.03%	0.02%
Varian Medical Systems Inc	VAR	91.84	175.27	n/a	n/a	0.00	0.00%		
Bio-Rad Laboratories Inc	BIO	24.77	584.50	n/a	28.75	14,478.07	0.04%		1.27%
Ventas Inc	VTR	374.66	52.90	3.40	2.02	19,819.51	0.06%	0.21%	0.12%
VF Corp	VFC	391.71	79.13	2.48	7.83	30,996.01	0.09%	0.24%	0.74%
Vornado Realty Trust	VNO	191.36	42.94	4.94	-1.41	8,217.00	0.03%	0.12%	-0.04%
Vulcan Materials Co	VMC	132.55	166.99	0.89	13.82	22,134.52	0.07%	0.06%	0.94%
Weyerhaeuser Co	WY	747.77	33.87	2.01	3.80	25,326.97	0.08%	0.16%	0.29%
Whirlpool Corp	WHR	62.98	190.08	2.63	2.98	11,971.24	0.04%	0.10%	0.11%
Williams Cos Inc/The	WMB	1213.79	22.84	7.18	9.50	27,722.96	0.08%	0.61%	0.81%
WEC Energy Group Inc	WEC	315.44	80.64	3.36	6.58	25,437.08	0.08%	0.26%	0.51%
Adobe Inc	ADBE	478.70	459.67	n/a	15.98	220,044.03	0.67%		10.75%
AES Corp/The	AES	665.48	26.56	2.27	7.07	17,675.15	0.05%	0.12%	0.38%
Amgen Inc	AMGN	577.57	224.92	3.13	n/a	0.00	0.00%	0.00%	
Apple Inc	AAPL	16788.10	121.26	0.68	9.50	2,035,725.01	6.22%	4.23%	59.12%
Autodesk Inc	ADSK	219.89	276.00	n/a	28.95	60,689.64	0.19%		5.37%
Cintas Corp	CTAS	105.03	324.34	0.92	9.76	34,065.43	0.10%	0.10%	1.02%
Comcast Corp	CMCSA	4571.21	52.72	1.90	14.78	240,994.19	0.74%	1.40%	10.88%
Molson Coors Beverage Co	TAP	200.40	44.45	n/a	7.38	8,907.78	0.03%		0.20%
KLA Corp	KLAC	154.08	311.23	1.16	8.85	47,954.32	0.15%	0.17%	1.30%
Marriott International Inc/MD	MAR	324.41	148.07	n/a	4.91	48,035.39	0.15%		0.72%
McCormick & Co Inc/MD	MCC	248.94	84.28	1.61	5.72	20,980.66	0.06%	0.10%	0.37%
PACCAR Inc	PCAR	346.94	90.99	1.41	11.65	31,568.07	0.10%	0.14%	1.12%
Costco Wholesale Corp	COST	442.96	331.00	0.85	10.00	146,619.76	0.45%	0.38%	4.48%
First Republic Bank/CA	FRC	173.94	164.75	0.49	13.21	28,656.62	0.09%	0.04%	1.16%
Stryker Corp	SYK	376.20	242.69	1.04	8.38	91,299.98	0.28%	0.29%	2.34%
Tyson Foods Inc	TSN	294.72	67.67	2.63	5.66	19,943.70	0.06%	0.16%	0.35%
Lamb Weston Holdings Inc	LW	146.36	79.77	1.18	12.87	11,675.14	0.04%	0.04%	0.46%
Applied Materials Inc	AMAT	917.66	118.19	0.74	13.38	108,458.24	0.33%	0.25%	4.44%
American Airlines Group Inc	AAL	639.68	20.94	n/a	95.00	13,394.90	0.04%		3.89%
Cardinal Health Inc	CAH	293.67	51.52	3.77	5.01	15,129.88	0.05%	0.17%	0.23%
Cerner Corp	CERN	306.29	69.14	1.27	11.06	21,176.89	0.06%	0.08%	0.72%
Cincinnati Financial Corp	CINF	161.20	97.87	2.57	n/a	0.00	0.00%	0.00%	
ViacomCBS Inc	Viac	567.54	64.49	1.49	-0.13	36,600.65	0.11%	0.17%	-0.01%
DR Horton Inc	DHI	363.70	76.87	1.04	14.44	27,957.62	0.09%	0.09%	1.23%
Flowerserve Corp	FLS	130.28	37.00	2.16	7.05	4,820.36	0.01%	0.03%	0.10%
Electronic Arts Inc	EA	287.63	133.97	0.51	7.04	38,533.79	0.12%	0.06%	0.83%
Expeditors International of Washington Inc	EXPD	169.37	91.84	1.13	3.95	15,554.94	0.05%	0.05%	0.79%

AbbVie Inc	ABBV	1765.88	107.74	4.83	1.67	190,255.91	0.58%	2.81%	0.97%
Walt Disney Co/The	DIS	1815.26	189.04	n/a	27.64	343,156.75	1.05%		29.00%
FleetCor Technologies Inc	FLT	83.67	277.31	n/a	14.51	23,202.53	0.07%		1.03%
Fastenal Co	FAST	574.34	46.37	2.42	10.15	26,632.15	0.08%	0.20%	0.83%
M&T Bank Corp	MTB	128.64	150.94	2.92	9.57	19,416.92	0.06%	0.17%	0.57%
Xcel Energy Inc	XEL	537.65	58.59	3.12	6.10	31,500.91	0.10%	0.30%	0.59%
Fiserv Inc	FISV	669.46	115.37	n/a	18.30	77,235.60	0.24%		4.32%
Fifth Third Bancorp	FITB	712.76	34.69	3.11	20.95	24,725.64	0.08%	0.24%	1.58%
Gilead Sciences Inc	GILD	1256.59	61.40	4.63	n/a	0.00	0.00%	0.00%	
Hasbro Inc	HAS	137.35	93.71	2.90	11.79	12,871.07	0.04%	0.11%	0.46%
Huntington Bancshares Inc/OH	HBAN	1017.25	15.34	3.91	11.72	15,604.62	0.05%	0.19%	0.56%
Welltower Inc	WELL	417.38	67.90	3.59	3.45	28,340.10	0.09%	0.31%	0.30%
Biogen Inc	BIIB	152.34	272.88	n/a	n/a	0.00	0.00%		
Northern Trust Corp	NTRS	208.31	95.13	2.94	6.42	19,816.53	0.06%	0.18%	0.39%
Packaging Corp of America	PKG	94.83	132.02	3.03	1.63	12,519.46	0.04%	0.12%	0.06%
Paychex Inc	PAYX	360.63	91.07	2.72	8.50	32,842.57	0.10%	0.27%	0.85%
People's United Financial Inc	PBCT	425.53	17.94	4.01	n/a	0.00	0.00%	0.00%	
QUALCOMM Inc	QCOM	1136.00	136.19	1.91	24.73	154,711.84	0.47%	0.90%	11.70%
Roper Technologies Inc	ROP	104.94	377.62	0.60	13.70	39,627.44	0.12%	0.07%	1.66%
Ross Stores Inc	ROST	356.46	116.64	n/a	8.85	41,577.49	0.13%		1.12%
IDEXX Laboratories Inc	IDXX	85.43	520.17	n/a	15.76	44,438.12	0.14%		2.14%
Starbucks Corp	SBUX	1177.30	108.03	1.67	22.60	127,183.72	0.39%	0.65%	8.79%
KeyCorp	KEY	968.82	20.14	3.67	10.75	19,512.03	0.06%	0.22%	0.64%
Fox Corp	FOXA	334.35	33.31	1.38	1.93	11,137.20	0.03%	0.05%	0.07%
Fox Corp	FOX	256.19	31.93	1.44	1.93	8,180.15	0.03%	0.04%	0.05%
State Street Corp	STT	351.79	72.77	2.86	7.80	25,599.76	0.08%	0.22%	0.61%
Norwegian Cruise Line Holdings Ltd	NCLH	315.64	29.56	n/a	-2.60	9,330.32	0.03%		-0.07%
US Bancorp	USB	1502.14	50.00	3.36	4.40	75,107.00	0.23%	0.77%	1.01%
A O Smith Corp	AOS	135.75	59.37	1.75	10.00	8,059.48	0.02%	0.04%	0.25%
NortonLifeLock Inc	NLOK	581.90	19.51	2.56	16.65	11,352.87	0.03%	0.09%	0.58%
T Rowe Price Group Inc	TROW	227.95	162.14	2.66	13.15	36,959.81	0.11%	0.30%	1.49%
Waste Management Inc	WM	423.15	110.89	2.07	9.07	46,923.10	0.14%	0.30%	1.30%
Constellation Brands Inc	STZ	170.03	214.14	1.40	7.91	36,410.22	0.11%	0.16%	0.88%
Xilinx Inc	XLNX	245.28	130.30	n/a	9.90	31,959.98	0.10%		0.97%
DENTSPLY SIRONA Inc	XRAY	218.56	53.07	0.75	0.51	11,598.98	0.04%	0.03%	0.02%
Zions Bancorp NA	ZION	164.21	53.17	2.56	8.93	8,731.05	0.03%	0.07%	0.24%
Alaska Air Group Inc	ALK	124.23	65.02	n/a	191.70	8,077.43	0.02%		4.73%
Invesco Ltd	IVZ	459.07	22.42	2.77	2.00	10,292.35	0.03%	0.09%	0.06%
Linde PLC	LIN	522.92	244.27	1.74	9.90	127,733.67	0.39%	0.68%	3.87%
Intuit Inc	INTU	273.84	390.14	0.60	15.80	106,835.94	0.33%	0.20%	5.16%
Morgan Stanley	MS	1809.20	76.87	1.82	12.06	139,073.20	0.43%	0.77%	5.13%
Microchip Technology Inc	MCHP	269.26	152.63	1.02	12.20	41,097.15	0.13%	0.13%	1.53%
Chubb Ltd	CB	450.23	162.58	1.92	9.30	73,198.39	0.22%	0.43%	2.08%
Hologic Inc	HOLX	257.66	72.09	n/a	13.64	18,574.71	0.06%		0.77%
Citizens Financial Group Inc	CFG	425.11	43.44	3.59	2.21	18,466.78	0.06%	0.20%	0.12%
O'Reilly Automotive Inc	ORLY	70.21	447.33	n/a	11.77	31,407.04	0.10%		1.13%
Allstate Corp/The	ALL	302.87	106.60	3.04	6.35	32,285.94	0.10%	0.30%	0.63%
FLIR Systems Inc	FLIR	131.24	53.40	1.27	n/a	0.00	0.00%	0.00%	
Equity Residential	EQR	372.66	65.41	3.68	3.15	24,375.69	0.07%	0.27%	0.23%
BorgWarner Inc	BWA	239.02	45.00	1.51	10.71	10,755.90	0.03%	0.05%	0.35%
Host Hotels & Resorts Inc	HST	705.37	16.59	n/a	-7.40	11,702.09	0.04%		-0.26%
Incyte Corp	INCY	219.84	78.66	n/a	32.20	17,292.61	0.05%		1.70%
Simon Property Group Inc	SPG	328.49	112.92	4.61	-0.07	37,093.09	0.11%	0.52%	-0.01%
Eastman Chemical Co	EMN	135.86	109.26	2.53	6.45	14,844.06	0.05%	0.11%	0.29%
Twitter Inc	TWTR	798.15	77.06	n/a	80.00	61,505.44	0.19%		15.04%
AvalonBay Communities Inc	AVB	139.53	175.75	3.62	2.16	24,522.40	0.07%	0.27%	0.16%
Prudential Financial Inc	PRU	397.00	86.72	5.30	5.73	34,427.84	0.11%	0.56%	0.60%
United Parcel Service Inc	UPS	719.51	157.83	2.59	8.04	113,560.26	0.35%	0.90%	2.79%
Walgreens Boots Alliance Inc	WBA	864.04	47.93	3.90	3.64	41,413.44	0.13%	0.49%	0.46%
STERIS PLC	STE	85.35	174.80	0.92	11.80	14,919.18	0.05%	0.04%	0.54%
McKesson Corp	MCK	159.17	169.52	0.99	4.88	26,982.50	0.08%	0.08%	0.40%
Lockheed Martin Corp	LMT	280.10	330.25	3.15	5.20	92,503.03	0.28%	0.89%	1.47%
AmerisourceBergen Corp	ABC	204.71	101.22	1.74	6.78	20,720.75	0.06%	0.11%	0.43%
Capital One Financial Corp	COF	459.24	120.19	1.33	20.25	55,196.06	0.17%	0.22%	3.42%
Waters Corp	WAT	62.19	273.88	n/a	9.03	17,032.60	0.05%		0.47%
Dollar Tree Inc	DLTR	235.19	98.20	n/a	10.92	23,095.66	0.07%		0.77%
Darden Restaurants Inc	DRI	130.33	137.33	1.08	13.55	17,898.22	0.05%	0.06%	0.74%
Domino's Pizza Inc	DPZ	38.80	346.51	1.09	15.53	13,444.59	0.04%	0.04%	0.64%
NVR Inc	NVR	3.68	4500.84	n/a	16.91	16,563.09	0.05%		0.86%
NetApp Inc	NTAP	223.39	62.60	3.07	7.13	13,984.21	0.04%	0.13%	0.30%
Citrix Systems Inc	CTXS	122.96	133.58	1.11	9.60	16,425.00	0.05%	0.06%	0.48%
DXC Technology Co	DXC	254.59	25.22	n/a	-1.83	6,420.76	0.02%		-0.04%
Old Dominion Freight Line Inc	ODFL	116.94	214.77	0.37	15.86	25,115.20	0.08%	0.03%	1.22%
DaVita Inc	DVA	109.40	102.13	n/a	15.52	11,173.02	0.03%		0.53%
Hartford Financial Services Group Inc/The	HIG	357.51	50.69	2.76	7.00	18,122.18	0.06%	0.15%	0.39%
Iron Mountain Inc	IRM	288.42	34.79	7.11	2.87	10,034.13	0.03%	0.22%	0.09%
Estee Lauder Cos Inc/The	EL	229.74	285.86	0.74	16.98	65,673.48	0.20%	0.15%	3.41%
Cadence Design Systems Inc	CDNS	278.97	141.09	n/a	11.35	39,359.88	0.12%		1.37%
Tyler Technologies Inc	TYL	40.58	463.42	n/a	18.43	18,805.58	0.06%		1.06%
Universal Health Services Inc	UHS	77.84	125.33	0.64	7.58	9,755.69	0.03%	0.02%	0.23%
Skyworks Solutions Inc	SWKS	164.90	177.82	1.12	17.55	29,322.52	0.09%	0.10%	1.57%
NOV Inc	NOV	388.21	15.10	n/a	2.80	5,861.97	0.02%		0.05%
Quest Diagnostics Inc	DGX	133.46	115.59	2.15	-0.30	15,426.64	0.05%	0.10%	-0.01%
Activision Blizzard Inc	ATVI	774.75	95.61	0.49	14.15	74,073.85	0.23%	0.11%	3.20%
Rockwell Automation Inc	ROK	116.16	243.28	1.76	11.04	28,259.40	0.09%	0.15%	0.95%
Kraft Heinz Co/The	KHC	1223.18	36.38	4.40	0.42	44,999.29	0.14%	0.60%	0.06%
American Tower Corp	AMT	444.38	216.13	2.24	14.23	96,043.85	0.29%	0.66%	4.18%
HollyFrontier Corp	HFC	162.42	37.88	3.70	1.90	6,152.47	0.02%	0.07%	0.04%
Regeneron Pharmaceuticals Inc	REGN	105.28	450.57	n/a	8.04	47,436.01	0.15%		1.17%
Amazon.com Inc	AMZN	503.57	3092.93	n/a	20.95	1,557,506.76	4.76%		99.75%
Jack Henry & Associates Inc	JKHY	76.08	148.44	1.24	12.80	11,293.32	0.03%	0.04%	0.44%
Ralph Lauren Corp	RL	48.24	117.08	n/a	0.66	5,647.94	0.02%		0.01%
Boston Properties Inc	BXP	155.81	99.13	3.95	3.34	15,445.45	0.05%	0.19%	0.16%
Amphenol Corp	APH	599.15	62.84	0.92	11.28	37,650.59	0.12%	0.11%	1.30%
Howmet Aerospace Inc	HWM	433.62	28.11	n/a	80.40	12,189.06	0.04%		3.00%
Pioneer Natural Resources Co	PXD	216.11	148.57	1.51	15.13	32,107.46	0.10%	0.15%	1.49%
Valero Energy Corp	VLO	408.56	76.98	5.09	3.95	31,450.95	0.10%	0.49%	0.38%
Synopsys Inc	SNPS	152.37	245.21	n/a	14.72	37,362.65	0.11%		1.68%

AbbVie Inc	ABBV	1765.88	107.74	4.83	1.67	190,255.91	0.58%	2.81%	0.97%
Walt Disney Co/The	DIS	1815.26	189.04	n/a	27.64	343,156.75	1.05%		29.00%
FleetCor Technologies Inc	FLT	83.67	277.31	n/a	14.51	23,202.53	0.07%		1.03%
Western Union Co/The	WU	410.92	23.22	4.05	4.57	9,541.56	0.03%	0.12%	0.13%
Etsy Inc	ETSY	126.05	220.27	n/a	20.50	27,765.03	0.08%		1.74%
CH Robinson Worldwide Inc	CHRW	133.82	90.85	2.25	8.95	12,157.55	0.04%	0.08%	0.33%
Accenture PLC	ACN	661.14	250.90	1.40	10.85	165,880.03	0.51%	0.71%	5.50%
TransDigm Group Inc	TDG	54.69	576.67	n/a	18.39	31,538.08	0.10%		1.77%
Yum! Brands Inc	YUM	300.06	103.53	1.93	11.83	31,065.21	0.09%	0.18%	1.12%
Prologis Inc	PLD	738.58	99.07	2.54	6.55	73,171.12	0.22%	0.57%	1.47%
FirstEnergy Corp	FE	543.22	33.14	4.71	2.38	18,002.31	0.06%	0.26%	0.13%
VeriSign Inc	VRSN	113.10	194.03	n/a	4.30	21,944.79	0.07%		0.29%
Quanta Services Inc	PWR	138.86	83.85	0.29	n/a	0.00	0.00%	0.00%	
Henry Schein Inc	HSIC	142.46	61.85	n/a	5.64	8,811.15	0.03%		0.15%
Ameren Corp	AEE	247.20	70.27	3.13	7.33	17,370.74	0.05%	0.17%	0.39%
ANSYS Inc	ANSS	86.75	340.99	n/a	12.05	29,580.88	0.09%		1.09%
NVIDIA Corp	NVDA	619.00	548.58	0.12	17.90	339,571.02	1.04%	0.12%	18.58%
Sealed Air Corp	SEE	154.92	41.90	1.53	7.19	6,491.15	0.02%	0.03%	0.14%
Cognizant Technology Solutions Corp	CTSH	530.61	73.48	1.31	10.93	38,989.22	0.12%	0.16%	1.30%
SVB Financial Group	SIVB	51.89	505.36	n/a	8.00	26,223.13	0.08%		0.64%
Intuitive Surgical Inc	ISRG	117.72	736.80	n/a	8.50	86,736.10	0.27%		2.25%
Take-Two Interactive Software Inc	TTWO	115.18	184.46	n/a	6.38	21,246.10	0.06%		0.41%
Republic Services Inc	RSG	318.90	89.09	1.91	7.94	28,410.80	0.09%	0.17%	0.69%
eBay Inc	EBAY	680.45	56.42	1.28	28.77	38,390.99	0.12%	0.15%	3.38%
Goldman Sachs Group Inc/The	GS	345.79	319.48	1.57	10.78	110,472.99	0.34%	0.53%	3.64%
SBA Communications Corp	SBAC	109.32	255.13	0.91	28.70	27,890.81	0.09%	0.08%	2.45%
Sempra Energy	SRE	288.47	115.98	3.79	5.29	33,456.75	0.10%	0.39%	0.54%
Moody's Corp	MCO	187.10	274.89	0.90	11.30	51,431.32	0.16%	0.14%	1.78%
Booking Holdings Inc	BKNG	40.96	2328.51	n/a	8.23	95,375.77	0.29%		2.40%
FS Networks Inc	FFIV	61.65	189.98	n/a	14.82	11,712.27	0.04%		0.53%
Akamai Technologies Inc	AKAM	163.22	94.50	n/a	11.25	15,424.29	0.05%		0.53%
MarketAxess Holdings Inc	MKTX	38.00	555.94	0.47	n/a	0.00	0.00%	0.00%	
Devon Energy Corp	DVN	673.10	21.54	2.04	0.48	14,498.57	0.04%	0.09%	0.02%
Alphabet Inc	GOOGL	300.74	2021.91	n/a	18.28	608,069.21	1.86%		33.98%
Teleflex Inc	TFX	46.69	398.12	0.34	12.03	18,588.22	0.06%	0.02%	0.68%
Allegion plc	ALLE	90.73	108.78	1.32	7.59	9,869.61	0.03%	0.04%	0.23%
Netflix Inc	NFLX	442.90	538.85	n/a	26.20	238,656.67	0.73%		19.12%
Agilent Technologies Inc	A	305.39	122.07	0.64	7.60	37,278.96	0.11%	0.07%	0.87%
Trimble Inc	TRMB	250.18	74.14	n/a	8.25	18,548.35	0.06%		0.47%
Anthem Inc	ANTM	244.91	303.19	1.49	11.41	74,254.26	0.23%	0.34%	2.59%
CME Group Inc	CME	358.99	199.70	1.80	6.09	71,690.30	0.22%	0.39%	1.33%
Juniper Networks Inc	JNPR	328.17	23.28	3.44	9.22	7,639.80	0.02%	0.08%	0.22%
BlackRock Inc	BLK	152.63	694.50	2.38	10.85	106,001.54	0.32%	0.77%	3.52%
DTE Energy Co	DTE	192.11	117.72	3.69	6.17	22,615.19	0.07%	0.26%	0.43%
Celanese Corp	CE	114.17	138.91	1.96	5.52	15,859.35	0.05%	0.10%	0.27%
Nasdaq Inc	NDQA	164.80	138.29	1.42	6.85	22,790.19	0.07%	0.10%	0.48%
Philip Morris International Inc	PM	1557.45	84.02	5.71	9.14	130,856.95	0.40%	2.28%	3.66%
Ingersoll Rand Inc	IR	417.66	46.34	n/a	15.10	19,354.36	0.06%		0.89%
salesforce.com Inc	CRM	917.73	216.50	n/a	15.13	198,688.55	0.61%		9.19%
Huntington Ingalls Industries Inc	HII	40.32	175.91	2.59	27.25	7,092.69	0.02%	0.06%	0.59%
MetLife Inc	MET	884.40	57.60	3.19	4.75	50,941.44	0.16%	0.50%	0.74%
Under Armour Inc	UA	231.98	18.20	n/a	40.90	4,222.04	0.01%		0.53%
Tapestry Inc	TPR	277.84	42.14	n/a	14.18	11,708.18	0.04%		0.51%
CSX Corp	CSX	762.51	91.55	1.22	9.39	69,807.79	0.21%	0.26%	2.00%
Edwards Lifesciences Corp	EW	624.52	83.10	n/a	14.33	51,897.61	0.16%		2.27%
Ameriprise Financial Inc	AMP	116.75	221.24	1.88	5.20	25,829.77	0.08%	0.15%	0.41%
Zebra Technologies Corp	ZBRA	53.47	499.43	n/a	13.10	26,704.52	0.08%		1.07%
Zimmer Biomet Holdings Inc	ZBH	207.86	163.06	0.59	9.67	33,893.65	0.10%	0.06%	1.00%
CBRE Group Inc	CBRE	335.60	75.77	n/a	8.45	25,428.41	0.08%		0.66%
Mastercard Inc	MA	985.15	353.85	0.50	22.32	348,595.33	1.07%	0.53%	23.79%
CarMax Inc	KMX	162.54	119.51	n/a	7.16	19,425.16	0.06%		0.43%
Intercontinental Exchange Inc	ICE	561.71	110.31	1.20	10.51	61,962.23	0.19%	0.23%	1.99%
Fidelity National Information Services Inc	FIS	621.13	138.00	1.13	13.75	85,715.94	0.26%	0.30%	3.60%
Chipotle Mexican Grill Inc	CMG	28.14	1442.00	n/a	27.70	40,577.88	0.12%		3.44%
Wynn Resorts Ltd	WYNN	115.62	131.73	n/a	86.21	15,230.62	0.05%		4.01%
Live Nation Entertainment Inc	LYV	218.02	88.86	n/a	n/a	0.00	0.00%		
Assurant Inc	AIZ	57.90	123.22	2.14	n/a	0.00	0.00%	0.00%	
NRG Energy Inc	NRG	244.22	36.51	3.56	-8.76	8,916.47	0.03%	0.10%	-0.24%
Monster Beverage Corp	MNST	528.10	87.74	n/a	11.38	46,335.49	0.14%		1.61%
Regions Financial Corp	RF	960.67	20.63	3.01	26.00	19,818.62	0.06%	0.18%	1.58%
Mosaic Co/The	MOS	379.09	29.40	0.68	18.05	11,145.25	0.03%	0.02%	0.62%
Expedia Group Inc	EXPE	138.34	161.00	n/a	6.97	22,272.74	0.07%		0.47%
Evergy Inc	EVRG	226.66	53.63	3.99	7.43	12,155.78	0.04%	0.15%	0.28%
Discovery Inc	DISCA	162.49	53.03	n/a	4.67	8,616.84	0.03%		0.12%
CF Industries Holdings Inc	CF	214.16	45.28	2.65	14.35	9,697.16	0.03%	0.08%	0.43%
Leidos Holdings Inc	LDOS	141.90	88.45	1.54	10.42	12,551.06	0.04%	0.06%	0.40%
Alphabet Inc	GOOG	327.56	2036.86	n/a	18.28	667,193.86	2.04%		37.29%
TE Connectivity Ltd	TEL	330.89	130.03	1.48	12.38	43,025.63	0.13%	0.19%	1.63%
Cooper Cos Inc/The	COO	49.14	386.13	0.02	10.83	18,974.43	0.06%	0.00%	0.63%
Discover Financial Services	DFS	306.69	94.07	1.87	23.82	28,850.33	0.09%	0.16%	2.10%
Visa Inc	V	1696.11	212.39	0.60	18.45	360,236.80	1.10%	0.66%	20.32%
Mid-America Apartment Communities Inc	MAA	114.39	134.73	3.04	n/a	0.00	0.00%	0.00%	
Xylem Inc/NY	XYL	180.23	99.56	1.12	15.90	17,943.70	0.05%	0.06%	0.87%
Marathon Petroleum Corp	MPC	650.65	54.62	4.25	25.82	35,538.50	0.11%	0.46%	2.81%
Advanced Micro Devices Inc	AMD	1211.28	84.51	n/a	27.07	102,365.27	0.31%		8.47%
Tractor Supply Co	TSCO	116.30	158.96	1.31	7.37	18,487.05	0.06%	0.07%	0.42%
ResMed Inc	RMD	145.51	192.78	0.81	12.73	28,051.42	0.09%	0.07%	1.09%
Mettler-Toledo International Inc	MTD	23.41	1116.05	n/a	13.45	26,126.73	0.08%		1.07%
Copart Inc	CPRT	236.32	109.16	n/a	10.00	25,796.69	0.08%		0.79%
Fortinet Inc	FTNT	163.19	168.85	n/a	16.20	27,554.63	0.08%		1.36%
Albemarle Corp	ALB	116.63	157.21	0.99	15.63	18,335.40	0.06%	0.06%	0.88%
APA Corp	APA	377.86	19.73	0.51	145.95	7,455.18	0.02%	0.01%	3.33%
Essex Property Trust Inc	ESS	65.00	254.79	3.28	3.99	16,561.35	0.05%	0.17%	0.20%
Realty Income Corp	O	373.39	60.26	4.67	3.98	22,500.48	0.07%	0.32%	0.27%
Seagate Technology PLC	STX	236.68	73.23	3.66	4.50	17,332.08	0.05%	0.19%	0.24%
Westrock Co	WRK	263.52	43.59	1.84	10.42	11,486.84	0.04%	0.06%	0.37%
InS Market Ltd	INFO	396.59	90.16	0.89	11.40	35,756.55	0.11%	0.10%	1.25%
Westinghouse Air Brake Technologies Corp	WAB	189.90	72.43	0.66	5.39	13,682.03	0.04%	0.03%	0.23%

AbbVie Inc	ABBV	1765.88	107.74	4.83	1.67	190,255.91	0.58%	2.81%	0.97%
Walt Disney Co/The	DIS	1815.26	189.04	n/a	27.64	343,156.75	1.05%		29.00%
FleetCor Technologies Inc	FLT	83.67	277.31	n/a	14.51	23,202.53	0.07%		1.03%
Pool Corp	POOL	40.23	334.77	0.69	17.00	13,467.80	0.04%	0.03%	0.70%
Western Digital Corp	WDC	306.10	68.53	n/a	5.35	20,977.03	0.06%		0.34%
PepsiCo Inc	PEP	1379.61	129.19	3.17	7.39	178,231.82	0.54%	1.73%	4.03%
Diamondback Energy Inc	FANG	158.02	69.28	2.31	8.99	10,947.63	0.03%	0.08%	0.30%
Maxim Integrated Products Inc	MXIM	268.04	93.17	n/a	11.30	24,973.29	0.08%		0.86%
ServiceNow Inc	NOW	196.10	533.46	n/a	29.37	104,611.51	0.32%		9.39%
Church & Dwight Co Inc	CHD	245.07	78.75	1.26	7.97	19,299.26	0.06%	0.08%	0.47%
Duke Realty Corp	DRE	373.77	39.25	2.60	8.45	14,670.47	0.04%	0.12%	0.38%
Federal Realty Investment Trust	FRT	76.75	101.17	4.19	4.15	7,764.80	0.02%	0.10%	0.10%
MGM Resorts International	MGM	494.70	37.79	0.03	0.55	18,694.71	0.06%	0.00%	0.03%
American Electric Power Co Inc	AEP	496.60	74.85	3.95	6.52	37,170.51	0.11%	0.45%	0.74%
Vontier Corp	VNT	168.55	31.40	n/a	7.15	5,292.47	0.02%		0.12%
JB Hunt Transport Services Inc	JBHT	105.71	146.87	0.76	17.23	15,525.63	0.05%	0.04%	0.82%
Lam Research Corp	LRGX	142.91	567.19	0.92	19.27	81,057.12	0.25%	0.23%	4.78%
Mohawk Industries Inc	MHK	70.23	174.99	n/a	17.71	12,289.55	0.04%		0.67%
Pentair PLC	PNR	166.06	55.93	1.43	9.07	9,287.74	0.03%	0.04%	0.26%
Vertex Pharmaceuticals Inc	VRTX	259.96	212.55	n/a	43.03	55,254.50	0.17%		7.27%
Amcpr PLC	AMCR	1561.98	10.94	4.30	8.66	17,088.06	0.05%	0.22%	0.45%
Facebook Inc	FB	2405.45	257.62	n/a	23.20	619,692.03	1.69%		43.95%
T-Mobile US Inc	TMUS	1242.80	119.97	n/a	14.95	149,098.72	0.46%		6.81%
United Rentals Inc	URI	72.20	297.38	n/a	9.21	21,470.84	0.07%		0.60%
Alexandria Real Estate Equities Inc	ARE	136.69	159.69	2.73	5.74	21,828.03	0.07%	0.18%	0.38%
ABIOMED Inc	ABMD	45.23	324.55	n/a	16.00	14,679.40	0.04%		0.72%
Delta Air Lines Inc	DAL	638.15	47.94	n/a	388.45	30,592.91	0.09%		36.33%
United Airlines Holdings Inc	UAL	311.85	52.68	n/a	124.80	16,428.26	0.05%		6.27%
News Corp	NWS	199.63	22.92	0.87	30.80	4,575.52	0.01%	0.01%	0.43%
Centene Corp	CNC	581.59	58.54	n/a	12.85	34,046.28	0.10%		1.34%
Martin Marietta Materials Inc	MLM	62.29	336.87	0.68	11.39	20,983.63	0.06%	0.04%	0.73%
Teradyne Inc	TER	166.70	128.61	0.31	15.00	21,439.29	0.07%	0.02%	0.98%
PayPal Holdings Inc	PYPL	1171.18	259.85	n/a	22.59	304,331.12	0.93%		21.02%
Tesla Inc	TSLA	959.85	675.50	n/a	40.70	648,378.68	1.98%		80.68%
DISH Network Corp	DISH	287.74	31.51	n/a	3.99	9,066.69	0.03%		0.11%
Alexion Pharmaceuticals Inc	ALXN	219.71	152.75	n/a	18.00	33,560.70	0.10%		1.85%
Dow Inc	DOW	741.12	59.31	4.72	19.31	43,955.83	0.13%	0.63%	2.59%
Everest Re Group Ltd	RE	39.98	241.81	2.56	7.00	9,667.56	0.03%	0.08%	0.21%
Teledyne Technologies Inc	TDY	37.02	371.00	n/a	n/a	0.00	0.00%		
News Corp	NWSA	391.09	23.45	0.85	30.80	9,171.06	0.03%	0.02%	0.86%
Exelon Corp	EXC	973.93	38.60	3.96	4.70	37,593.70	0.11%	0.46%	0.54%
Global Payments Inc	GPN	295.24	197.99	0.39	12.58	58,454.57	0.18%	0.07%	2.25%
Crown Castle International Corp	CCI	431.31	155.75	3.42	20.80	67,176.53	0.21%	0.70%	4.27%
Aptiv PLC	APTIV	270.03	149.84	n/a	11.88	40,461.30	0.12%		1.47%
Advance Auto Parts Inc	AAP	65.52	160.35	0.62	13.84	10,506.13	0.03%	0.02%	0.44%
Align Technology Inc	ALGN	79.13	567.11	n/a	15.76	44,875.41	0.14%		2.16%
Illumina Inc	ILMN	145.90	439.41	n/a	28.36	64,109.92	0.20%		5.56%
LKQ Corp	LKQ	303.31	39.39	n/a	9.40	11,947.38	0.04%		0.34%
Nielsen Holdings PLC	NLSN	357.79	22.41	1.07	12.00	8,018.07	0.02%	0.03%	0.29%
Garmin Ltd	GRMN	197.57	124.02	2.16	7.13	23,758.51	0.07%	0.16%	0.52%
Zoetis Inc	ZTS	475.17	155.24	0.64	11.91	73,765.39	0.23%	0.14%	2.69%
Digital Realty Trust Inc	DLR	280.29	134.73	3.44	11.90	37,763.47	0.12%	0.40%	1.37%
Equinix Inc	EQIX	89.29	648.34	1.77	21.95	57,890.28	0.18%	0.31%	3.88%
Las Vegas Sands Corp	LVS	763.84	62.60	n/a	9.35	47,816.38	0.15%		1.37%
Discovery Inc	DISCK	318.33	45.00	n/a	4.67	14,324.85	0.04%		0.20%

MARKET RISK PREMIUM CALCULATION USING CAP. WEIGHTED VALUE LINE GROWTH RATES

[13] Cap. Weighted Estimate of the S&P 500 Dividend Yield	1.57%
[14] Cap. Weighted Estimate of the S&P 500 Growth Rate	12.41%
[15] Cap. Weighted S&P 500 Estimated Required Market Return	14.07%

Notes:

- [13] Source: Bloomberg Professional, as of February 28, 2021
- [14] Source: Bloomberg Professional, as of February 28, 2021, and Value Line, as of February 28, 2021
- [15] Equals  $([13] \times (1 + (0.5 \times [14]))) + [14]$

Name	Ticker	Shares Outst'g	Price	Dividend Yield	Value Line Long-Term Growth Estimate	Market Cap Excl. n/a Growth	% of Total Market Cap.	Cap. Weighted Div. Yield	Cap. Weighted Long-Term Growth
LyondellBasell Industries NV	LYB	334.13	103.09	4.07	0.00	34,445.77	0.11%	0.44%	0.00%
American Express Co	AXP	805.59	135.26	1.27	6.00	108,963.97	0.35%	0.44%	2.07%
Verizon Communications Inc	VZ	4138.15	55.30	4.54	4.00	228,839.64	0.73%	3.29%	2.90%
Broadcom Inc	AVGO	408.23	469.87	3.06	18.50	191,813.15	0.61%	1.86%	11.25%
Boeing Co/The	BA	583.00	212.01	n/a		0.00	0.00%		
Caterpillar Inc	CAT	545.30	215.88	1.91	7.00	117,720.23	0.37%	0.71%	2.61%
JPMorgan Chase & Co	JPM	3051.51	147.17	2.45	5.50	449,090.14	1.42%	3.48%	7.83%
Chevron Corp	CVX	1926.38	100.00	5.16	9.50	192,637.70	0.61%	3.15%	5.80%
Coca-Cola Co/The	KO	4309.31	48.99	3.43	6.50	211,113.19	0.67%	2.30%	4.35%
AbbVie Inc	ABBV	1765.88	107.74	4.83	10.50	190,256.13	0.60%	2.91%	6.33%
Walt Disney Co/The	DIS	1815.26	189.04	n/a	17.00	343,157.51	1.09%		18.49%
FleetCor Technologies Inc	FLT	83.67	277.31	n/a	12.50	23,201.42	0.07%		0.92%
Extra Space Storage Inc	EXR	131.36	125.70	3.18	3.00	16,511.70	0.05%	0.17%	0.16%
Exxon Mobil Corp	XOM	4228.23	54.37	6.40	2.50	229,889.08	0.73%	4.66%	1.82%
Phillips 66	PSX	436.93	83.05	4.33	3.00	36,286.70	0.12%	0.50%	0.35%
General Electric Co	GE	8767.94	12.54	0.32	4.00	109,949.99	0.35%	0.11%	1.39%
HP Inc	HPQ	1246.60	28.97	2.68	10.00	36,113.94	0.11%	0.31%	1.14%
Home Depot Inc/The	HD	1076.60	258.34	2.55	8.50	278,129.10	0.88%	2.25%	7.50%
Monolithic Power Systems Inc	MPWR	45.27	374.52	0.64	21.50	16,953.40	0.05%	0.03%	1.16%
International Business Machines Corp	IBM	893.59	118.93	5.48	-0.50	106,275.13	0.34%	1.85%	-0.17%
Johnson & Johnson	JNJ	2628.68	158.46	2.55	10.00	416,540.63	1.32%	3.37%	13.21%
McDonald's Corp	MCD	745.57	206.14	2.50	8.00	153,692.21	0.49%	1.22%	3.90%
Merck & Co Inc	MRK	2530.32	72.62	3.58	9.00	183,751.55	0.58%	2.09%	5.24%
3M Co	MMM	579.10	175.06	3.38	4.50	101,377.25	0.32%	1.09%	1.45%
American Water Works Co Inc	AWK	181.44	141.88	1.55	8.50	25,742.57	0.08%	0.13%	0.69%
Bank of America Corp	BAC	8633.19	34.71	2.07	4.00	299,657.89	0.95%	1.97%	3.80%
Baker Hughes Co	BKR	728.96	24.48	2.94		0.00	0.00%	0.00%	
Pfizer Inc	PFE	5577.63	33.49	4.66	8.50	186,794.80	0.59%	2.76%	5.03%
Procter & Gamble Co/The	PG	2462.48	123.53	2.56	8.00	304,189.66	0.96%	2.47%	7.72%
AT&T Inc	T	7131.76	27.89	7.46	5.50	198,904.87	0.63%	4.70%	3.47%
Travelers Cos Inc/The	TRV	252.21	145.50	2.34	9.00	36,697.14	0.12%	0.27%	1.05%
Raytheon Technologies Corp	RTX	1519.48	71.99	2.64	1.50	109,387.22	0.35%	0.92%	0.52%
Analog Devices Inc	ADI	368.89	155.82	1.77	8.50	57,481.06	0.18%	0.32%	1.55%
Walmart Inc	WMT	2829.29	129.92	1.69	8.00	367,580.84	1.17%	1.97%	9.32%
Cisco Systems Inc/Delaware	CSCO	4221.79	44.87	3.30	7.00	189,431.54	0.60%	1.98%	4.20%
Intel Corp	INTC	4063.00	60.78	2.29	7.00	246,949.14	0.78%	1.79%	5.48%
General Motors Co	GM	1440.91	51.33	n/a	7.00	73,962.06	0.23%		1.64%
Microsoft Corp	MSFT	7542.22	232.38	0.96	14.50	1,752,660.15	5.56%	5.36%	80.57%
Dollar General Corp	DG	245.00	188.99	0.76	13.00	46,302.74	0.15%	0.11%	1.91%
Cigna Corp	CI	351.85	209.90	1.91	11.50	73,852.48	0.23%	0.45%	2.69%
Kinder Morgan Inc	KMI	2264.45	14.70	7.14	16.50	33,287.42	0.11%	0.75%	1.74%
Citigroup Inc	C	2087.32	65.88	3.10	10.00	137,512.51	0.44%	1.35%	4.36%
American International Group Inc	AIG	864.79	43.95	2.91	28.50	38,007.56	0.12%	0.35%	3.43%
Honeywell International Inc	HON	695.50	202.35	1.84	8.00	140,734.63	0.45%	0.82%	3.57%
Altria Group Inc	MO	1858.69	43.60	7.89	6.50	81,038.88	0.26%	2.03%	1.67%
HCA Healthcare Inc	HCA	339.92	172.03	1.12	10.50	58,476.09	0.19%	0.21%	1.95%
Under Armour Inc	UA	188.62	21.89	n/a	11.00	4,128.87	0.01%		0.14%
International Paper Co	IP	393.12	49.65	4.13	6.50	19,518.26	0.06%	0.26%	0.40%
Hewlett Packard Enterprise Co	HPE	1300.90	14.56	3.30	2.50	18,941.03	0.06%	0.20%	0.15%
Abbott Laboratories	ABT	1771.53	119.78	1.50	12.00	212,193.74	0.67%	1.01%	8.07%
Aflac Inc	AFL	688.59	47.89	2.76	8.50	32,976.43	0.10%	0.29%	0.89%
Air Products and Chemicals Inc	APD	221.28	255.62	2.35	12.50	56,562.83	0.18%	0.42%	2.24%
Royal Caribbean Cruises Ltd	RCL	237.40	93.27	n/a	-0.50	22,142.20	0.07%		-0.04%
Hess Corp	HES	307.08	65.53	1.53		0.00	0.00%	0.00%	
Archer-Daniels-Midland Co	ADM	558.41	56.58	2.62	9.00	31,595.06	0.10%	0.26%	0.90%
Automatic Data Processing Inc	ADP	427.94	174.02	2.14	9.00	74,470.12	0.24%	0.50%	2.12%
Verisk Analytics Inc	VRSK	162.79	163.85	0.71	11.50	26,673.47	0.08%	0.06%	0.97%
AutoZone Inc	AZO	22.76	1159.92	n/a	12.00	26,398.62	0.08%		1.00%
Avery Dennison Corp	AVY	83.04	175.21	1.42	9.50	14,550.14	0.05%	0.07%	0.44%
Enphase Energy Inc	ENPH	129.02	176.06	n/a	40.00	22,715.44	0.07%		2.88%
MSCI Inc	MSCI	82.58	414.52	0.75	18.00	34,228.99	0.11%	0.08%	1.95%
Ball Corp	BLL	327.93	85.39	0.70	18.00	28,001.69	0.09%	0.06%	1.60%
Carrier Global Corp	CARR	869.21	36.53	1.31		0.00	0.00%	0.00%	
Bank of New York Mellon Corp/The	BK	878.74	42.16	2.94	3.00	37,047.47	0.12%	0.35%	0.35%
Otis Worldwide Corp	OTIS	433.67	63.71	1.26		0.00	0.00%	0.00%	
Baxter International Inc	BAX	505.10	77.69	1.26	8.50	39,241.53	0.12%	0.16%	1.06%

AbbVie Inc	ABBV	1765.88	107.74	4.83	10.50	190,256.13	0.60%	2.91%	6.33%
Walt Disney Co/The	DIS	1815.26	189.04	n/a	17.00	343,157.51	1.09%		18.49%
FleetCor Technologies Inc	FLT	83.67	277.31	n/a	12.50	23,201.42	0.07%		0.92%
Becton Dickinson and Co	BDX	290.56	241.15	1.38	9.00	70,068.54	0.22%	0.31%	2.00%
Berkshire Hathaway Inc	BRK/B	1370.95	240.51	n/a	6.00	329,727.67	1.05%		6.27%
Best Buy Co Inc	BBY	258.95	100.35	2.79	9.00	25,985.13	0.08%	0.23%	0.74%
Boston Scientific Corp	BSX	1417.17	38.78	n/a	12.50	54,957.70	0.17%		2.18%
Bristol-Myers Squibb Co	BMJ	2240.48	61.33	3.20	12.50	137,408.33	0.44%	1.39%	5.45%
Fortune Brands Home & Security Inc	FBHS	138.67	83.14	1.25	8.50	11,528.69	0.04%	0.05%	0.31%
Brown-Forman Corp	BF/B	309.49	71.58	1.00	12.00	22,153.22	0.07%	0.07%	0.84%
Cabot Oil & Gas Corp	COG	399.42	18.51	2.16	13.50	7,393.26	0.02%	0.05%	0.32%
Campbell Soup Co	CPB	302.95	45.48	3.25	4.00	13,777.94	0.04%	0.14%	0.17%
Kansas City Southern	KSU	90.85	212.34	1.02	13.00	19,290.66	0.06%	0.06%	0.80%
Hilton Worldwide Holdings Inc	HLT	277.61	123.68	n/a		0.00	0.00%		
Carnival Corp	CCL	929.63	26.75	n/a	-10.00	24,867.66	0.08%		-0.79%
Qorvo Inc	QRVO	113.26	174.73	n/a	37.00	19,790.44	0.06%		2.32%
Lumen Technologies Inc	LUMN	1096.85	12.29	8.14	2.50	13,480.27	0.04%	0.35%	0.11%
UDR Inc	UDR	296.82	41.17	3.50	3.50	12,220.12	0.04%	0.14%	0.14%
Clorox Co/The	CLX	125.79	181.05	2.45	5.00	22,774.46	0.07%	0.18%	0.36%
Paycom Software Inc	PAYC	60.19	374.24	n/a	23.00	22,525.13	0.07%		1.64%
CMS Energy Corp	CMS	288.94	54.11	3.22	7.50	15,634.71	0.05%	0.16%	0.37%
Newell Brands Inc	NWL	424.60	23.17	3.97	4.50	9,837.98	0.03%	0.12%	0.14%
Colgate-Palmolive Co	CL	848.56	75.20	2.34	5.00	63,811.94	0.20%	0.47%	1.01%
Comerica Inc	CMA	139.29	68.10	3.99	2.50	9,485.38	0.03%	0.12%	0.08%
IPG Photonics Corp	IPGP	53.53	227.35	n/a	10.00	12,170.95	0.04%		0.39%
Conagra Brands Inc	CAG	488.58	33.93	3.24	5.50	16,577.49	0.05%	0.17%	0.29%
Consolidated Edison Inc	ED	342.42	65.65	4.72	2.50	22,479.81	0.07%	0.34%	0.18%
SL Green Realty Corp	SLG	70.51	69.07	5.27	-1.50	4,870.26	0.02%	0.08%	-0.02%
Coming Inc	GLW	768.37	38.24	2.51	13.50	29,382.39	0.09%	0.23%	1.26%
Cummins Inc	CMI	147.66	253.20	2.13	4.00	37,387.01	0.12%	0.25%	0.47%
Danaher Corp	DHR	712.20	219.67	0.38	17.00	156,449.85	0.50%	0.19%	8.43%
Target Corp	TGT	500.77	183.44	1.48	13.00	91,861.80	0.29%	0.43%	3.79%
Deere & Co	DE	313.44	349.12	1.03	5.00	109,427.82	0.35%	0.36%	1.73%
Dominion Energy Inc	D	805.65	68.32	3.69	7.00	55,041.87	0.17%	0.64%	1.22%
Dover Corp	DOV	143.65	123.26	1.61	6.50	17,706.18	0.06%	0.09%	0.36%
Alliant Energy Corp	LNT	249.88	46.16	3.49	5.50	11,534.51	0.04%	0.13%	0.20%
Duke Energy Corp	DUK	769.00	85.59	4.51	5.00	65,818.71	0.21%	0.94%	1.04%
Regency Centers Corp	REG	169.83	54.78	4.34	14.50	9,303.23	0.03%	0.13%	0.43%
Eaton Corp PLC	ETN	398.10	130.19	2.34	4.00	51,828.64	0.16%	0.38%	0.66%
Ecobab Inc	ECL	285.85	209.36	0.92	6.00	59,845.56	0.19%	0.17%	1.14%
PerkinElmer Inc	PKI	111.97	126.09	0.22	17.50	14,118.80	0.04%	0.01%	0.78%
Emerson Electric Co	EMR	600.03	85.90	2.35	9.50	51,542.58	0.16%	0.38%	1.55%
EOG Resources Inc	EOG	583.56	64.56	2.56	6.50	37,674.83	0.12%	0.31%	0.78%
Aon PLC	AON	225.98	227.71	0.81	7.50	51,458.82	0.16%	0.13%	1.22%
Entergy Corp	ETR	200.25	86.81	4.38	3.00	17,383.27	0.06%	0.24%	0.17%
Equifax Inc	EFX	121.79	161.88	0.96	6.50	19,715.04	0.06%	0.06%	0.41%
IQVIA Holdings Inc	IQV	191.75	192.79	n/a	11.00	36,967.29	0.12%		1.29%
Gartner Inc	IT	88.72	179.04	n/a	10.50	15,884.79	0.05%		0.53%
FedEx Corp	FDX	265.07	254.50	1.02	8.50	67,460.57	0.21%	0.22%	1.82%
FMC Corp	FMC	129.35	101.69	1.89	11.50	13,154.01	0.04%	0.08%	0.48%
Ford Motor Co	F	3907.84	11.70	n/a	9.50	45,721.76	0.14%		1.38%
NextEra Energy Inc	NEE	1959.88	73.48	2.10	10.50	144,011.62	0.46%	0.96%	4.79%
Franklin Resources Inc	BEN	505.40	26.17	4.28	11.50	13,226.42	0.04%	0.18%	0.48%
Freeport-McMoRan Inc	FCX	1458.48	33.91	n/a	23.00	49,457.06	0.16%		3.61%
Gap Inc/The	GPS	374.03	24.95	3.89	2.50	9,332.02	0.03%	0.12%	0.07%
DexCom Inc	DXCM	96.18	397.78	n/a		0.00	0.00%		
General Dynamics Corp	GD	286.27	163.47	2.69	5.00	46,795.74	0.15%	0.40%	0.74%
General Mills Inc	GIS	611.44	55.01	3.71	4.00	33,635.15	0.11%	0.40%	0.43%
Genuine Parts Co	GPC	144.40	105.35	3.09	7.00	15,212.96	0.05%	0.15%	0.34%
Atmos Energy Corp	ATO	128.16	84.61	2.95	7.00	10,843.70	0.03%	0.10%	0.24%
VW Grainger Inc	GWV	52.38	372.71	1.64	7.50	19,521.06	0.06%	0.10%	0.46%
Halliburton Co	HAL	888.63	21.83	0.82	1.50	19,398.86	0.06%	0.05%	0.09%
L3Harris Technologies Inc	LHX	210.11	181.91	2.24		0.00	0.00%	0.00%	
Healthpeak Properties Inc	PEAK	538.69	29.09	4.13	-15.00	15,670.38	0.05%	0.20%	-0.75%
Catalent Inc	CTLT	170.23	113.71	n/a	21.00	19,356.51	0.06%		1.29%
Fortive Corp	FTV	337.90	65.82	0.43	8.50	22,240.58	0.07%	0.03%	0.60%
Hershey Co/The	HSY	146.55	145.65	2.21	5.00	21,345.30	0.07%	0.15%	0.34%
Synchrony Financial	SYF	583.88	38.68	2.28	4.50	22,584.56	0.07%	0.16%	0.32%
Hormel Foods Corp	HRL	539.92	46.37	2.11	10.00	25,036.00	0.08%	0.17%	0.79%
Arthur J Gallagher & Co	AJG	193.74	119.80	1.60	13.00	23,210.05	0.07%	0.12%	0.96%
Mondelez International Inc	MDLZ	1412.12	53.16	2.37	8.00	75,068.03	0.24%	0.56%	1.90%
CenterPoint Energy Inc	CNP	544.82	19.44	3.29	5.00	10,591.28	0.03%	0.11%	0.17%
Humana Inc	HUM	128.86	379.65	0.74	11.00	48,922.46	0.16%	0.11%	1.71%
Willis Towers Watson PLC	WLTW	128.97	220.64	1.29	11.50	28,456.16	0.09%	0.12%	1.04%
Illinois Tool Works Inc	ITW	316.66	202.18	2.26	9.00	64,022.72	0.20%	0.46%	1.83%
CDW Corp/DE	CDW	140.99	156.89	1.02	11.00	22,120.08	0.07%	0.07%	0.77%
Trane Technologies PLC	TT	238.43	153.24	1.54		0.00	0.00%	0.00%	
Interpublic Group of Cos Inc/The	IPG	390.68	26.12	4.13	10.00	10,204.51	0.03%	0.13%	0.32%
International Flavors & Fragrances Inc	IFF	248.73	135.51	2.27	6.00	33,704.86	0.11%	0.24%	0.64%
Jacobs Engineering Group Inc	J	130.09	115.08	0.73	14.50	14,970.30	0.05%	0.03%	0.69%
Hanesbrands Inc	HBI	348.81	17.69	3.39	3.50	6,170.36	0.02%	0.07%	0.07%
Kellogg Co	K	343.95	57.71	3.95	2.50	19,849.35	0.06%	0.25%	0.16%
Broadridge Financial Solutions Inc	BR	115.80	142.49	1.61	10.50	16,500.20	0.05%	0.08%	0.55%
Perrigo Co PLC	PRGO	136.49	40.36	2.38	3.50	5,508.78	0.02%	0.04%	0.06%
Kimberly-Clark Corp	KMB	338.36	128.33	3.55	6.50	43,422.25	0.14%	0.49%	0.89%
Kimco Realty Corp	KIM	432.44	18.33	3.71	5.00	7,926.63	0.03%	0.09%	0.13%
Oracle Corp	ORCL	2944.03	64.51	1.49	10.50	189,919.63	0.60%	0.90%	6.32%
Kroger Co/The	KR	761.35	32.21	2.24	7.50	24,522.99	0.08%	0.17%	0.58%
Leggett & Platt Inc	LEG	132.99	43.27	3.70	8.00	5,754.35	0.02%	0.07%	0.15%
Lennar Corp	LEN	274.50	82.97	1.21	9.50	22,774.83	0.07%	0.09%	0.69%
Eli Lilly and Co	LLY	958.43	204.89	1.66	10.00	196,371.90	0.62%	1.03%	6.23%

AbbVie Inc	ABBV	1765.88	107.74	4.83	10.50	190,256.13	0.60%	2.91%	6.33%
Walt Disney Co/The	DIS	1815.26	189.04	n/a	17.00	343,157.51	1.09%		18.49%
FleetCor Technologies Inc	FLT	83.67	277.31	n/a	12.50	23,201.42	0.07%		0.92%
L Brands Inc	LB	278.11	54.66	n/a	16.00	15,201.44	0.05%		0.77%
Charter Communications Inc	CHTR	193.73	613.42	n/a	36.50	118,838.47	0.38%		13.75%
Lincoln National Corp	LNC	191.96	56.87	2.95	9.50	10,916.65	0.03%	0.10%	0.33%
Loews Corp	L	267.05	47.81	0.52	13.00	12,767.52	0.04%	0.02%	0.53%
Lowe's Cos Inc	LOW	731.00	159.75	1.50	14.50	116,777.25	0.37%	0.56%	5.37%
Xerox Holdings Corp	XRX	198.39	25.48	3.92	5.00	5,054.85	0.02%	0.06%	0.08%
IDEX Corp	IEX	75.89	195.17	1.02	7.50	14,811.45	0.05%	0.05%	0.35%
Marsh & McLennan Cos Inc	MMC	508.19	115.22	1.61	9.00	58,553.31	0.19%	0.30%	1.67%
Masco Corp	MAS	257.14	53.22	1.05	9.00	13,685.10	0.04%	0.05%	0.39%
S&P Global Inc	SPGI	240.70	329.36	0.94	10.00	79,276.95	0.25%	0.24%	2.51%
Medtronic PLC	MDT	1347.47	116.97	1.98	6.50	157,613.68	0.50%	0.99%	3.25%
Viartis Inc	VTRS	1215.57	14.85	n/a		0.00	0.00%		
CVS Health Corp	CVS	1311.36	68.13	2.94	6.00	89,342.62	0.28%	0.83%	1.70%
DuPont de Nemours Inc	DD	538.09	70.32	1.71		0.00	0.00%	0.00%	
Micron Technology Inc	MU	1118.67	91.53	n/a	11.50	102,391.96	0.32%		3.73%
Motorola Solutions Inc	MSI	169.03	175.48	1.62	8.00	29,661.03	0.09%	0.15%	0.75%
Cboe Global Markets Inc	CBOE	107.21	98.96	1.70	12.50	10,609.50	0.03%	0.06%	0.42%
Laboratory Corp of America Holdings	LH	97.60	239.91	n/a	9.50	23,415.22	0.07%		0.71%
Newmont Corp	NEM	800.31	54.38	4.05	19.50	43,521.08	0.14%	0.56%	2.69%
NIKE Inc	NKE	1271.48	134.78	0.82	27.00	171,369.94	0.54%	0.44%	14.67%
NISource Inc	NI	391.86	21.60	4.07	10.00	8,464.18	0.03%	0.11%	0.27%
Norfolk Southern Corp	NSC	251.91	252.06	1.57	9.50	63,496.94	0.20%	0.32%	1.91%
Principal Financial Group Inc	PFG	272.61	56.58	3.96	5.50	15,424.50	0.05%	0.19%	0.27%
Eversource Energy	ES	343.00	79.48	3.03	6.50	27,261.88	0.09%	0.26%	0.56%
Northrop Grumman Corp	NOC	166.72	291.66	1.99	7.00	48,624.97	0.15%	0.31%	1.08%
Wells Fargo & Co	WFC	4134.11	36.17	1.11	5.00	149,530.65	0.47%	0.52%	2.37%
Nucor Corp	NUE	301.93	59.82	2.71	3.00	18,061.39	0.06%	0.16%	0.17%
PVH Corp	PVH	71.10	99.96	n/a	3.50	7,107.16	0.02%		0.08%
Occidental Petroleum Corp	OXY	931.21	26.61	0.15	12.00	24,779.47	0.08%	0.01%	0.94%
Omnicom Group Inc	OMC	215.01	68.73	4.07	5.50	14,777.91	0.05%	0.19%	0.26%
ONEOK Inc	OKE	444.98	44.29	8.44	9.50	19,708.34	0.06%	0.53%	0.59%
Raymond James Financial Inc	RJF	137.71	116.74	1.34	6.00	16,076.38	0.05%	0.07%	0.31%
Parker-Hannifin Corp	PH	129.08	286.96	1.23	11.50	37,041.08	0.12%	0.14%	1.35%
Rollins Inc	ROL	492.14	33.17	0.96	11.50	16,324.35	0.05%	0.05%	0.60%
PPL Corp	PPL	768.99	26.19	6.34	2.50	20,139.72	0.06%	0.40%	0.16%
ConocoPhillips	COP	1354.74	52.01	3.31	10.50	70,459.77	0.22%	0.74%	2.35%
PulteGroup Inc	PHM	265.89	45.11	1.24	10.00	11,994.48	0.04%	0.05%	0.38%
Pinnacle West Capital Corp	PNW	112.69	69.93	4.75	4.50	7,880.55	0.02%	0.12%	0.11%
PNC Financial Services Group Inc/The	PNC	423.70	168.36	2.73	3.00	71,334.30	0.23%	0.62%	0.68%
PPG Industries Inc	PPG	236.79	134.82	1.60	3.00	31,923.89	0.10%	0.16%	0.30%
Progressive Corp/The	PGR	585.70	85.95	0.47	9.00	50,340.92	0.16%	0.07%	1.44%
Public Service Enterprise Group Inc	PEG	505.85	53.83	3.79	5.00	27,229.80	0.09%	0.33%	0.43%
Robert Half International Inc	RHI	113.13	77.79	1.95	6.00	8,799.99	0.03%	0.05%	0.17%
Edison International	EIX	379.28	53.99	4.91	12.00	20,477.49	0.06%	0.32%	0.78%
Schlumberger NV	SLB	1398.27	27.91	1.79	0.00	39,025.69	0.12%	0.22%	0.00%
Charles Schwab Corp/The	SCHW	1803.05	61.72	1.17	7.50	111,284.25	0.35%	0.41%	2.65%
Sherwin-Williams Co/The	SHW	89.60	680.34	0.97	10.00	60,959.82	0.19%	0.19%	1.93%
West Pharmaceutical Services Inc	WST	74.10	280.65	0.24	17.00	20,797.01	0.07%	0.02%	1.12%
J M Smucker Co/The	SJM	109.59	112.00	3.21	2.50	12,273.63	0.04%	0.13%	0.10%
Snap-on Inc	SNA	54.20	203.11	2.42	5.00	11,009.17	0.03%	0.08%	0.17%
AMETEK Inc	AME	230.56	117.97	0.68	12.50	27,199.64	0.09%	0.06%	1.08%
Southern Co/The	SO	1056.47	56.72	4.51	3.50	59,922.69	0.19%	0.86%	0.66%
Truist Financial Corp	TFC	1347.20	56.96	3.16	7.00	76,736.46	0.24%	0.77%	1.70%
Southwest Airlines Co	LUV	590.68	58.13	n/a	1.50	34,336.05	0.11%		0.16%
W R Berkley Corp	WRB	177.36	69.33	0.69	13.50	12,296.51	0.04%	0.03%	0.53%
Stanley Black & Decker Inc	SWK	160.89	174.84	1.60	7.50	28,130.53	0.09%	0.14%	0.67%
Public Storage	PSA	174.91	233.94	3.42	4.00	40,918.91	0.13%	0.44%	0.52%
Arista Networks Inc	ANET	76.33	279.84	n/a	5.50	21,360.75	0.07%		0.37%
Sysco Corp	SY	510.41	79.63	2.26	11.50	40,644.11	0.13%	0.29%	1.48%
Corteva Inc	CTVA	743.46	45.15	1.15		0.00	0.00%	0.00%	
Texas Instruments Inc	TXN	920.24	172.27	2.37	4.00	158,529.57	0.50%	1.19%	2.01%
Textron Inc	TXT	226.28	50.34	0.16	8.50	11,391.14	0.04%	0.01%	0.31%
Thermo Fisher Scientific Inc	TMO	393.79	450.08	0.23	17.50	177,238.35	0.56%	0.13%	9.83%
TJX Cos Inc/The	TJX	1200.63	65.99	1.58	12.00	79,229.64	0.25%	0.40%	3.01%
Globe Life Inc	GL	103.28	93.40	0.80	8.00	9,646.63	0.03%	0.02%	0.24%
Johnson Controls International plc	JCI	720.27	55.79	1.86	8.00	40,183.97	0.13%	0.24%	1.02%
Ulta Beauty Inc	ULTA	56.34	322.33	n/a	7.00	18,159.75	0.06%		0.40%
Union Pacific Corp	UNP	669.83	205.96	1.88	10.00	137,957.98	0.44%	0.82%	4.37%
Keysight Technologies Inc	KEYS	186.09	141.52	n/a	17.00	26,334.75	0.08%		1.42%
UnitedHealth Group Inc	UNH	948.82	332.22	1.51	12.00	315,217.31	1.00%	1.50%	11.99%
Unum Group	UNM	203.73	26.48	4.31	3.50	5,394.80	0.02%	0.07%	0.06%
Marathon Oil Corp	MRO	789.08	11.10	1.08	13.00	8,758.74	0.03%	0.03%	0.36%
Varian Medical Systems Inc	VAR	91.84	175.27	n/a	13.50	16,096.62	0.05%		0.69%
Bio-Rad Laboratories Inc	BIO	24.77	584.50	n/a	11.50	14,477.48	0.05%		0.53%
Ventas Inc	VTR	374.66	52.90	3.40	1.50	19,819.46	0.06%	0.21%	0.09%
VF Corp	VFC	391.71	79.13	2.48	6.00	30,996.33	0.10%	0.24%	0.59%
Vornado Realty Trust	VNO	191.36	42.94	4.94	-20.00	8,216.78	0.03%	0.13%	-0.52%
Vulcan Materials Co	VMC	132.55	166.99	0.89	12.50	22,134.02	0.07%	0.06%	0.88%
Weyerhaeuser Co	WY	747.77	33.87	2.01	20.50	25,326.90	0.08%	0.16%	1.65%
Whirlpool Corp	WHR	62.98	190.08	2.63	5.00	11,971.24	0.04%	0.10%	0.19%
Williams Cos Inc/The	WMB	1213.79	22.84	7.18	12.00	27,722.96	0.09%	0.63%	1.05%
WEC Energy Group Inc	WEC	315.44	80.64	3.36	6.00	25,436.68	0.08%	0.27%	0.48%
Adobe Inc	ADBE	478.70	459.67	n/a	14.00	220,044.03	0.70%		9.77%
AES Corp/The	AES	665.48	26.56	2.27	24.00	17,675.15	0.06%	0.13%	1.34%
Amgen Inc	AMGN	577.57	224.92	3.13	6.00	129,906.14	0.41%	1.29%	2.47%
Apple Inc	AAPL	16788.10	121.26	0.68	16.00	2,035,724.52	6.45%	4.36%	103.26%
Autodesk Inc	ADSK	219.89	276.00	n/a		0.00	0.00%		
Cintas Corp	CTAS	105.03	324.34	0.92	13.50	34,065.43	0.11%	0.10%	1.46%

AbbVie Inc	ABBV	1765.88	107.74	4.83	10.50	190,256.13	0.60%	2.91%	6.33%
Walt Disney Co/The	DIS	1815.26	189.04	n/a	17.00	343,157.51	1.09%		18.49%
FleetCor Technologies Inc	FLT	83.67	277.31	n/a	12.50	23,201.42	0.07%		0.92%
Comcast Corp	CMCSA	4571.21	52.72	1.90	8.00	240,994.30	0.76%	1.45%	6.11%
Molson Coors Beverage Co	TAP	200.40	44.45	n/a	5.50	8,907.60	0.03%		0.16%
KLA Corp	KLAC	154.08	311.23	1.16	15.50	47,952.76	0.15%	0.18%	2.36%
Marriott International Inc/MD	MAR	324.41	148.07	n/a	17.50	48,035.98	0.15%		2.67%
McCormick & Co Inc/MD	MKC	248.94	84.28	1.61	6.50	20,981.00	0.07%	0.11%	0.43%
PACCAR Inc	PCAR	346.94	90.99	1.41	3.50	31,567.80	0.10%	0.14%	0.35%
Costco Wholesale Corp	COST	442.96	331.00	0.85	11.00	146,618.11	0.46%	0.39%	5.11%
First Republic Bank/CA	FRC	173.94	164.75	0.49	10.50	28,657.11	0.09%	0.04%	0.95%
Stryker Corp	SYK	376.20	242.69	1.04	11.00	91,300.22	0.29%	0.30%	3.18%
Tyson Foods Inc	TSN	294.72	67.67	2.63	6.50	19,943.84	0.06%	0.17%	0.41%
Lamb Weston Holdings Inc	LW	146.36	79.77	1.18	4.00	11,674.74	0.04%	0.04%	0.15%
Applied Materials Inc	AMAT	917.66	118.19	0.74	8.50	108,458.35	0.34%	0.26%	2.92%
American Airlines Group Inc	AAL	639.68	20.94	n/a	-6.50	13,394.82	0.04%		-0.28%
Cardinal Health Inc	CAH	293.67	51.52	3.77	11.00	15,129.78	0.05%	0.18%	0.53%
Cerner Corp	CERN	306.29	69.14	1.27	8.00	21,177.17	0.07%	0.09%	0.54%
Cincinnati Financial Corp	CINF	161.20	97.87	2.57	10.50	15,776.84	0.05%	0.13%	0.53%
ViacomCBS Inc	VIAC	567.54	64.49	1.49	8.00	36,600.65	0.12%	0.17%	0.93%
DR Horton Inc	DHI	363.70	76.87	1.04	12.00	27,957.77	0.09%	0.09%	1.06%
Flowerserve Corp	FHS	130.28	37.00	2.16	12.50	4,820.21	0.02%	0.03%	0.19%
Electronic Arts Inc	EA	287.63	133.97	0.51	9.50	38,533.26	0.12%	0.06%	1.16%
Expeditors International of Washington Inc	EXPD	169.37	91.84	1.13	5.50	15,555.03	0.05%	0.06%	0.27%
Fastenal Co	FAST	574.34	46.37	2.42	8.00	26,632.19	0.08%	0.20%	0.68%
M&T Bank Corp	MTB	128.64	150.94	2.92	4.00	19,416.47	0.06%	0.18%	0.25%
Xcel Energy Inc	XEL	537.65	58.59	3.12	6.00	31,500.85	0.10%	0.31%	0.60%
Fiserv Inc	FISV	669.46	115.37	n/a	14.00	77,235.60	0.24%		3.43%
Fifth Third Bancorp	FITB	712.76	34.69	3.11	4.00	24,725.64	0.08%	0.24%	0.31%
Gilead Sciences Inc	GILD	1256.69	61.40	4.63	3.50	77,154.81	0.24%	1.13%	0.86%
Hasbro Inc	HAS	137.35	93.71	2.90	9.00	12,871.26	0.04%	0.12%	0.37%
Huntington Bancshares Inc/OH	HBAN	1017.25	15.34	3.91	4.50	15,604.54	0.05%	0.19%	0.22%
Welltower Inc	WELL	417.38	67.90	3.59	3.50	28,340.31	0.09%	0.32%	0.31%
Biogen Inc	BIIB	152.34	272.88	n/a	7.00	41,569.45	0.13%		0.92%
Northern Trust Corp	NTRS	208.31	95.13	2.94	5.50	19,816.91	0.06%	0.18%	0.35%
Packaging Corp of America	PKG	94.83	132.02	3.03	4.00	12,519.19	0.04%	0.12%	0.16%
Paychex Inc	PAYX	360.63	91.07	2.72	6.50	32,842.67	0.10%	0.28%	0.68%
People's United Financial Inc	PBCT	425.53	17.94	4.01	2.50	7,633.92	0.02%	0.10%	0.06%
QUALCOMM Inc	QCOM	1136.00	136.19	1.91	15.50	154,711.84	0.49%	0.94%	7.60%
Roper Technologies Inc	ROP	104.94	377.62	0.60	10.00	39,627.44	0.13%	0.07%	1.26%
Ross Stores Inc	ROST	356.46	116.64	n/a	7.50	41,577.84	0.13%		0.99%
IDEXX Laboratories Inc	IDXX	85.43	520.17	n/a	14.00	44,436.04	0.14%		1.97%
Starbucks Corp	SBUX	1177.30	108.03	1.67	16.00	127,183.72	0.40%	0.67%	6.45%
KeyCorp	KEY	968.82	20.14	3.67	4.50	19,511.93	0.06%	0.23%	0.28%
Fox Corp	FOXA	334.35	33.31	1.38		0.00	0.00%	0.00%	
Fox Corp	FOX	256.19	31.93	1.44		0.00	0.00%	0.00%	
State Street Corp	STT	351.79	72.77	2.86	5.00	25,599.47	0.08%	0.23%	0.41%
Norwegian Cruise Line Holdings Ltd	NCLH	315.64	29.56	n/a	-4.50	9,330.20	0.03%		-0.13%
US Bancorp	USB	1502.14	50.00	3.36	3.00	75,106.80	0.24%	0.80%	0.71%
A O Smith Corp	AOS	135.75	59.37	1.75	5.00	8,059.36	0.03%	0.04%	0.13%
NortonLifeLock Inc	NLOK	581.90	19.51	2.56	6.50	11,352.89	0.04%	0.09%	0.23%
T Rowe Price Group Inc	TROW	227.95	162.14	2.66	8.00	36,959.16	0.12%	0.31%	0.94%
Waste Management Inc	WM	423.15	110.89	2.07	7.50	46,923.44	0.15%	0.31%	1.12%
Constellation Brands Inc	STZ	170.03	214.14	1.40	7.50	36,410.01	0.12%	0.16%	0.87%
Xilinx Inc	XLNX	245.28	130.30	n/a	7.50	31,959.59	0.10%		0.76%
DENTSPLY SIRONA Inc	XRAY	218.56	53.07	0.75	5.50	11,598.71	0.04%	0.03%	0.20%
Zions Bancorp NA	ZION	164.21	53.17	2.56	6.50	8,731.26	0.03%	0.07%	0.18%
Alaska Air Group Inc	ALK	124.23	65.02	n/a	0.50	8,077.17	0.03%		0.01%
Invesco Ltd	IVZ	459.07	22.42	2.77	2.50	10,292.39	0.03%	0.09%	0.08%
Linde PLC	LIN	522.92	244.27	1.74		0.00	0.00%	0.00%	
Intuit Inc	INTU	273.84	390.14	0.60	15.50	106,835.94	0.34%	0.20%	5.25%
Morgan Stanley	MS	1809.20	76.87	1.82	7.50	139,073.05	0.44%	0.80%	3.31%
Microchip Technology Inc	MCHP	269.26	152.63	1.02	9.00	41,097.46	0.13%	0.13%	1.17%
Chubb Ltd	CB	450.23	162.58	1.92	9.50	73,197.58	0.23%	0.45%	2.20%
Hologic Inc	HOLX	257.66	72.09	n/a	25.00	18,574.85	0.06%		1.47%
Citizens Financial Group Inc	CFG	425.11	43.44	3.59	12.00	18,466.60	0.06%	0.21%	0.70%
O'Reilly Automotive Inc	ORLY	70.21	447.33	n/a	14.00	31,405.70	0.10%		1.39%
Allstate Corp/The	ALL	302.87	106.60	3.04	8.50	32,286.26	0.10%	0.31%	0.87%
FLIR Systems Inc	FLIR	131.24	53.40	1.27	8.00	7,008.11	0.02%	0.03%	0.18%
Equity Residential	EQR	372.66	65.41	3.68	1.00	24,375.89	0.08%	0.28%	0.08%
BorgWarner Inc	BWA	239.02	45.00	1.51	4.00	10,755.95	0.03%	0.05%	0.14%
Host Hotels & Resorts Inc	HST	705.37	16.59	n/a	-9.00	11,702.01	0.04%		-0.33%
Incyte Corp	INCY	219.84	78.66	n/a		0.00	0.00%		
Simon Property Group Inc	SPG	328.49	112.92	4.61	-1.00	37,093.43	0.12%	0.54%	-0.12%
Eastman Chemical Co	EMN	135.86	109.26	2.53	5.00	14,844.28	0.05%	0.12%	0.24%
Twitter Inc	TWTR	798.15	77.06	n/a	29.00	61,505.59	0.19%		5.65%
AvalonBay Communities Inc	AVB	139.53	175.75	3.62	1.00	24,521.87	0.08%	0.28%	0.08%
Prudential Financial Inc	PRU	397.00	86.72	5.30	5.00	34,427.84	0.11%	0.58%	0.55%
United Parcel Service Inc	UPS	719.51	157.83	2.59	8.00	113,559.79	0.36%	0.93%	2.88%
Walgreens Boots Alliance Inc	WBA	864.04	47.93	3.90	6.00	41,413.53	0.13%	0.51%	0.79%
STERIS PLC	STE	85.35	174.80	0.92	10.00	14,919.70	0.05%	0.04%	0.47%
McKesson Corp	MCK	159.17	169.52	0.99	9.00	26,981.99	0.09%	0.08%	0.77%
Lockheed Martin Corp	LMT	280.10	330.25	3.15	7.50	92,504.02	0.29%	0.92%	2.20%
AmerisourceBergen Corp	ABC	204.71	101.22	1.74	7.00	20,720.34	0.07%	0.11%	0.46%
Capital One Financial Corp	COF	459.24	120.19	1.33	5.50	55,195.70	0.17%	0.23%	0.96%
Waters Corp	WAT	62.19	273.88	n/a	6.00	17,031.50	0.05%		0.32%
Dollar Tree Inc	DLTR	235.19	98.20	n/a	8.50	23,095.85	0.07%		0.62%
Darden Restaurants Inc	DRI	130.33	137.33	1.08	7.50	17,897.94	0.06%	0.06%	0.43%
Domino's Pizza Inc	DPZ	38.80	346.51	1.09	15.00	13,445.97	0.04%	0.05%	0.64%
NVR Inc	NVR	3.68	4500.84	n/a	9.50	16,567.59	0.05%		0.50%
NetApp Inc	NTAP	223.39	62.60	3.07	6.00	13,983.90	0.04%	0.14%	0.27%

AbbVie Inc	ABBV	1765.88	107.74	4.83	10.50	190,256.13	0.60%	2.91%	6.33%
Walt Disney Co/The	DIS	1815.26	189.04	n/a	17.00	343,157.51	1.09%		18.49%
FleetCor Technologies Inc	FLT	83.67	277.31	n/a	12.50	23,201.42	0.07%		0.92%
Citrix Systems Inc	CTXS	122.96	133.58	1.11	9.00	16,425.53	0.05%	0.06%	0.47%
DXC Technology Co	DXC	254.59	25.22	n/a	2.50	6,420.86	0.02%		0.05%
Old Dominion Freight Line Inc	ODFL	116.94	214.77	0.37	9.00	25,114.56	0.08%	0.03%	0.72%
DaVita Inc	DVA	109.40	102.13	n/a	15.00	11,173.02	0.04%		0.53%
Hartford Financial Services Group Inc/The	HIG	357.51	50.69	2.76	8.50	18,122.38	0.06%	0.16%	0.49%
Iron Mountain Inc	IRM	288.42	34.79	7.11	8.50	10,034.17	0.03%	0.23%	0.27%
Estee Lauder Cos Inc/The	EL	229.74	285.86	0.74	12.00	65,672.33	0.21%	0.15%	2.50%
Cadence Design Systems Inc	CDNS	278.97	141.09	n/a	13.00	39,360.44	0.12%		1.62%
Tyler Technologies Inc	TYL	40.58	463.42	n/a	10.50	18,804.19	0.06%		0.63%
Universal Health Services Inc	UHS	77.84	125.33	0.64	10.00	9,755.31	0.03%	0.02%	0.31%
Skyworks Solutions Inc	SKKS	164.90	177.82	1.12	11.50	29,322.52	0.09%	0.10%	1.07%
NOV Inc	NOV	388.21	15.10	n/a		0.00	0.00%		
Quest Diagnostics Inc	DGX	133.46	115.59	2.15	7.00	15,426.06	0.05%	0.10%	0.34%
Activision Blizzard Inc	ATVI	774.75	95.61	0.49	14.50	74,074.23	0.23%	0.12%	3.41%
Rockwell Automation Inc	ROK	116.16	243.28	1.76	7.00	28,258.19	0.09%	0.16%	0.63%
Kraft Heinz Co/The	KHC	1223.18	36.38	4.40	-0.50	44,499.14	0.14%	0.62%	-0.07%
American Tower Corp	AMT	444.38	216.13	2.24	10.00	96,044.71	0.30%	0.68%	3.04%
HollyFrontier Corp	HFC	162.42	37.88	3.70		0.00	0.00%	0.00%	
Regeneron Pharmaceuticals Inc	REGN	105.28	450.57	n/a	12.50	47,437.36	0.15%		1.88%
Amazon.com Inc	AMZN	503.57	3092.93	n/a	35.50	1,557,491.30	4.94%		175.29%
Jack Henry & Associates Inc	JKHY	76.08	148.44	1.24	10.50	11,292.87	0.04%	0.04%	0.38%
Ralph Lauren Corp	RL	48.24	117.08	n/a	6.50	5,647.59	0.02%		0.12%
Boston Properties Inc	BXP	155.81	99.13	3.95	4.00	15,445.05	0.05%	0.19%	0.20%
Amphenol Corp	APH	299.58	125.68	0.92	11.00	37,650.84	0.12%	0.11%	1.31%
Howmet Aerospace Inc	HWM	433.62	28.11	n/a	12.00	12,188.92	0.04%		0.46%
Pioneer Natural Resources Co	PXD	216.11	148.57	1.51	10.50	32,107.31	0.10%	0.15%	1.07%
Valero Energy Corp	VLO	408.56	76.98	5.09	2.50	31,451.18	0.10%	0.51%	0.25%
Synopsys Inc	SNPS	152.37	245.21	n/a	13.50	37,363.38	0.12%		1.60%
Western Union Co/The	WU	410.92	23.22	4.05	6.00	9,541.61	0.03%	0.12%	0.18%
Etsy Inc	ETSY	126.05	220.27	n/a	32.00	27,764.81	0.09%		2.82%
CH Robinson Worldwide Inc	CHRW	133.82	90.85	2.25	7.00	12,157.09	0.04%	0.09%	0.27%
Accenture PLC	ACN	661.14	250.90	1.40	8.00	165,878.77	0.53%	0.74%	4.21%
TransDigm Group Inc	TDG	54.69	576.67	n/a	9.50	31,537.51	0.10%		0.95%
Yum! Brands Inc	YUM	300.06	103.53	1.93	9.50	31,064.69	0.10%	0.19%	0.94%
Prologis Inc	PLD	738.58	99.07	2.54	6.00	73,171.32	0.23%	0.59%	1.39%
FirstEnergy Corp	FE	543.22	33.14	4.71	8.50	18,002.15	0.06%	0.27%	0.49%
VeriSign Inc	VRSN	113.10	194.03	n/a	9.50	21,943.82	0.07%		0.66%
Quanta Services Inc	PWR	138.86	83.85	0.29	12.50	11,643.49	0.04%	0.01%	0.46%
Henry Schein Inc	HSIC	142.46	61.85	n/a	4.50	8,811.40	0.03%		0.13%
Ameren Corp	AEE	247.20	70.27	3.13	6.00	17,370.67	0.06%	0.17%	0.33%
ANSYS Inc	ANSS	86.75	340.99	n/a	10.00	29,581.56	0.09%		0.94%
NVIDIA Corp	NVDA	619.00	548.58	0.12	13.50	339,571.02	1.08%	0.13%	14.53%
Sealed Air Corp	SEE	154.92	41.90	1.53	26.00	6,491.11	0.02%	0.03%	0.54%
Cognizant Technology Solutions Corp	CTSH	530.61	73.48	1.31	5.00	38,989.52	0.12%	0.16%	0.62%
SVB Financial Group	SIVB	51.89	505.36	n/a	19.50	26,222.12	0.08%		1.62%
Intuitive Surgical Inc	ISRG	117.72	736.80	n/a	13.00	86,734.62	0.27%		3.57%
Take-Two Interactive Software Inc	TTWO	115.18	184.46	n/a	16.50	21,245.73	0.07%		1.11%
Republic Services Inc	RSG	318.90	89.09	1.91	8.50	28,410.62	0.09%	0.17%	0.77%
eBay Inc	EBAY	680.45	56.42	1.28	18.50	38,390.76	0.12%	0.16%	2.25%
Goldman Sachs Group Inc/The	GS	345.79	319.48	1.57	6.50	110,474.27	0.35%	0.55%	2.28%
SBA Communications Corp	SBAC	109.32	255.13	0.91	30.50	27,891.83	0.09%	0.08%	2.70%
Sempra Energy	SRE	288.47	115.98	3.79	11.00	33,456.75	0.11%	0.40%	1.17%
Moody's Corp	MCO	187.10	274.89	0.90	9.00	51,431.92	0.16%	0.15%	1.47%
Booking Holdings Inc	BKNG	40.96	2328.51	n/a	7.00	95,380.43	0.30%		2.12%
F5 Networks Inc	FFIV	61.65	189.98	n/a	7.00	11,712.46	0.04%		0.26%
Akamai Technologies Inc	AKAM	163.22	94.50	n/a	15.00	15,424.29	0.05%		0.73%
MarketAxess Holdings Inc	MKTX	38.00	555.94	0.47	17.00	21,123.50	0.07%	0.03%	1.14%
Devon Energy Corp	DVN	673.10	21.54	2.04	5.50	14,498.57	0.05%	0.09%	0.25%
Alphabet Inc	GOOGL	300.74	2021.91	n/a		0.00	0.00%		
Teleflex Inc	TFX	46.69	398.12	0.34	15.00	18,588.22	0.06%	0.02%	0.88%
Alliegon plc	ALLE	90.73	108.78	1.32	9.00	9,869.83	0.03%	0.04%	0.28%
Netflix Inc	NFLX	442.90	538.85	n/a	24.00	238,653.97	0.76%		18.16%
Agilent Technologies Inc	A	305.39	122.07	0.64	10.50	37,278.84	0.12%	0.08%	1.24%
Trimble Inc	TRMB	250.18	74.14	n/a	14.50	18,548.05	0.06%		0.85%
Anthem Inc	ANTM	244.91	303.19	1.49	12.50	74,253.05	0.24%	0.35%	2.94%
CME Group Inc	CME	358.98	199.70	1.80	2.50	71,689.70	0.23%	0.41%	0.57%
Juniper Networks Inc	JNPR	328.17	23.28	3.44	5.50	7,639.84	0.02%	0.08%	0.13%
BlackRock Inc	BLK	152.63	694.50	2.38	9.50	106,004.31	0.34%	0.80%	3.19%
DTE Energy Co	DTE	192.11	117.72	3.69	6.00	22,614.60	0.07%	0.26%	0.43%
Celanese Corp	CE	114.17	138.91	1.96	5.50	15,859.77	0.05%	0.10%	0.28%
Nasdaq Inc	NDAQ	164.80	138.29	1.42	7.00	22,789.64	0.07%	0.10%	0.51%
Philip Morris International Inc	PM	1557.45	84.02	5.71	5.00	130,857.12	0.41%	2.37%	2.07%
Ingersoll Rand Inc	IR	417.66	46.34	n/a		0.00	0.00%		
salesforce.com Inc	CRM	917.73	216.50	n/a	46.50	198,689.41	0.63%		29.29%
Huntington Ingalls Industries Inc	HII	40.32	175.91	2.59	7.00	7,092.16	0.02%	0.06%	0.16%
MetLife Inc	MET	884.40	57.60	3.19	6.50	50,941.38	0.16%	0.52%	1.05%
Under Armour Inc	UA	231.98	18.20	n/a		0.00	0.00%		
Tapestry Inc	TPR	277.84	42.14	n/a	4.00	11,708.09	0.04%		0.15%
CSX Corp	CSX	762.51	91.55	1.22	8.50	69,807.33	0.22%	0.27%	1.88%
Edwards Lifesciences Corp	EW	624.52	83.10	n/a	13.00	51,897.53	0.16%		2.14%
Ameriprise Financial Inc	AMP	116.75	221.24	1.88	12.00	25,830.21	0.08%	0.15%	0.98%
Zebra Technologies Corp	ZBRA	53.47	499.43	n/a	10.00	26,703.02	0.08%		0.85%
Zimmer Biomet Holdings Inc	ZBH	207.86	163.06	0.59	6.00	33,893.00	0.11%	0.06%	0.64%
CBRE Group Inc	CBRE	335.60	75.77	n/a	6.50	25,428.18	0.08%		0.52%
Mastercard Inc	MA	985.15	353.85	0.50	12.00	348,594.27	1.11%	0.55%	13.26%
CarMax Inc	KMX	162.54	119.51	n/a	8.50	19,425.27	0.06%		0.52%
Intercontinental Exchange Inc	ICE	561.71	110.31	1.20	9.50	61,961.90	0.20%	0.24%	1.87%
Fidelity National Information Services Inc	FIS	621.13	138.00	1.13	28.00	85,715.80	0.27%	0.31%	7.61%

AbbVie Inc	ABBV	1765.88	107.74	4.83	10.50	190,256.13	0.60%	2.91%	6.33%
Walt Disney Co/The	DIS	1815.26	189.04	n/a	17.00	343,157.51	1.09%		18.49%
FleetCor Technologies Inc	FLT	83.67	277.31	n/a	12.50	23,201.42	0.07%		0.92%
Chipotle Mexican Grill Inc	CMG	28.14	1442.00	n/a	18.00	40,583.65	0.13%		2.32%
Wynn Resorts Ltd	WYNN	115.62	131.73	n/a	27.00	15,230.10	0.05%		1.30%
Live Nation Entertainment Inc	LYV	218.02	88.86	n/a		0.00	0.00%		
Assurant Inc	AIZ	57.90	123.22	2.14	11.50	7,134.81	0.02%	0.05%	0.26%
NRG Energy Inc	NRG	244.22	36.51	3.56	-1.50	8,916.51	0.03%	0.10%	-0.04%
Monster Beverage Corp	MNST	528.10	87.74	n/a	12.50	46,335.23	0.15%		1.84%
Regions Financial Corp	RF	960.67	20.63	3.01	8.50	19,818.70	0.06%	0.19%	0.53%
Mosaic Co/The	MOS	379.09	29.40	0.68	21.00	11,145.33	0.04%	0.02%	0.74%
Expedia Group Inc	EXPE	138.34	161.00	n/a	12.00	22,272.90	0.07%		0.85%
Eergy Inc	EVRG	226.66	53.63	3.99	7.50	12,155.72	0.04%	0.15%	0.29%
Discovery Inc	DISC	162.49	53.03	n/a	15.50	8,616.90	0.03%		0.42%
CF Industries Holdings Inc	CF	214.16	45.28	2.65	24.00	9,697.16	0.03%	0.08%	0.74%
Leidos Holdings Inc	LDOO	141.90	88.45	1.54	10.50	12,550.61	0.04%	0.06%	0.42%
Alphabet Inc	GOOG	327.56	2036.86	n/a	14.50	667,185.71	2.12%		30.67%
TE Connectivity Ltd	TEL	330.89	130.03	1.48	5.50	43,025.50	0.14%	0.20%	0.75%
Cooper Cos Inc/The	COO	49.14	386.13	0.02	14.50	18,975.59	0.06%	0.00%	0.87%
Discover Financial Services	DFS	306.69	94.07	1.87	5.50	28,850.52	0.09%	0.17%	0.50%
Visa Inc	V	1696.11	212.39	0.60	15.50	360,237.65	1.14%	0.69%	17.70%
Mid-America Apartment Communities Inc	MAA	114.39	134.73	3.04	1.00	15,411.63	0.05%	0.15%	0.05%
Xylem Inc/NY	XYL	180.23	99.56	1.12	8.50	17,943.90	0.06%	0.06%	0.48%
Marathon Petroleum Corp	MPC	650.65	54.62	4.25	3.50	35,538.56	0.11%	0.48%	0.39%
Advanced Micro Devices Inc	AMD	1211.28	84.51	n/a	27.00	102,365.27	0.32%		8.76%
Tractor Supply Co	TSCO	116.30	158.96	1.31	10.50	18,487.37	0.06%	0.08%	0.62%
ResMed Inc	RMD	145.51	192.78	0.81	8.50	28,051.23	0.09%	0.07%	0.76%
Mettler-Toledo International Inc	MTD	23.41	1116.05	n/a	11.00	26,124.50	0.08%		0.91%
Copart Inc	CPRT	236.32	109.16	n/a	12.00	25,796.36	0.08%		0.98%
Fortinet Inc	FTNT	163.19	168.85	n/a	21.00	27,554.80	0.09%		1.83%
Albemarle Corp	ALB	116.63	157.21	0.99	4.00	18,335.72	0.06%	0.06%	0.23%
Apache Corp	APA	377.86	19.73	0.51	8.50	7,455.20	0.02%	0.01%	0.20%
Essex Property Trust Inc	ESS	65.00	254.79	3.28	1.00	16,560.08	0.05%	0.17%	0.05%
Realty Income Corp	O	373.39	60.26	4.67	6.50	22,500.54	0.07%	0.33%	0.46%
Seagate Technology PLC	STX	236.68	73.23	3.66	4.00	17,332.22	0.05%	0.20%	0.22%
Westrock Co	WRK	263.52	43.59	1.84	6.50	11,486.71	0.04%	0.07%	0.24%
IHS Markit Ltd	INFO	396.59	90.16	0.89	12.00	35,756.73	0.11%	0.10%	1.36%
Westinghouse Air Brake Technologies Corp	WAB	188.90	72.43	0.66	10.50	13,681.74	0.04%	0.03%	0.46%
Pool Corp	POOL	40.23	334.77	0.69	17.50	13,467.46	0.04%	0.03%	0.75%
Western Digital Corp	WDC	306.10	68.53	n/a	1.00	20,976.83	0.07%		0.07%
PepsiCo Inc	PEP	1379.61	129.19	3.17	6.00	178,231.69	0.57%	1.79%	3.39%
Diamondback Energy Inc	FANG	158.02	69.28	2.31	0.50	10,947.35	0.03%	0.08%	0.02%
Maxim Integrated Products Inc	MXIM	268.04	93.17	n/a	7.00	24,973.38	0.08%		0.55%
ServiceNow Inc	NOW	196.10	533.46	n/a	46.00	104,611.51	0.33%		15.26%
Church & Dwight Co Inc	CHD	245.07	78.75	1.28	8.50	19,299.58	0.06%	0.08%	0.52%
Duke Realty Corp	DRE	373.77	39.25	2.60	-3.00	14,670.32	0.05%	0.12%	-0.14%
Federal Realty Investment Trust	FRT	76.75	101.17	4.19	-0.50	7,764.60	0.02%	0.10%	-0.01%
MGM Resorts International	MGM	494.70	37.79	0.03	25.00	18,694.60	0.06%	0.00%	1.48%
American Electric Power Co Inc	AEP	496.60	74.85	3.95	6.00	37,170.81	0.12%	0.47%	0.71%
Vontier Corp	VNT	168.55	31.40	n/a		0.00	0.00%		
JB Hunt Transport Services Inc	JBHT	105.71	146.87	0.76	6.50	15,524.89	0.05%	0.04%	0.32%
Lam Research Corp	LRGX	142.91	567.19	0.92	12.50	81,055.99	0.26%	0.24%	3.21%
Mohawk Industries Inc	MHK	70.23	174.99	n/a	-1.50	12,288.85	0.04%		-0.06%
Pentair PLC	PNR	166.06	55.93	1.43	5.50	9,287.96	0.03%	0.04%	0.16%
Vertex Pharmaceuticals Inc	VRTX	259.96	212.55	n/a	28.50	55,254.50	0.18%		4.99%
Amcor PLC	AMCR	1561.98	10.94	4.30		0.00	0.00%	0.00%	
Facebook Inc	FB	2405.45	257.62	n/a	15.50	619,691.51	1.96%		30.45%
T-Mobile US Inc	TMUS	1242.80	119.97	n/a	9.50	149,099.20	0.47%		4.49%
United Rentals Inc	URI	72.20	297.38	n/a	7.00	21,470.54	0.07%		0.48%
Alexandria Real Estate Equities Inc	ARE	136.69	159.69	2.73	14.50	21,828.51	0.07%	0.19%	1.00%
ABIOMED Inc	ABMD	45.23	324.55	n/a	10.00	14,679.72	0.05%		0.47%
Delta Air Lines Inc	DAL	638.15	47.94	n/a	5.00	30,592.77	0.10%		0.48%
United Airlines Holdings Inc	UAL	311.85	52.68	n/a	2.00	16,427.99	0.05%		0.10%
News Corp	NWS	199.63	22.92	0.87		0.00	0.00%	0.00%	
Centene Corp	CNC	581.59	58.54	n/a	11.00	34,046.45	0.11%		1.19%
Martin Marietta Materials Inc	MLM	62.29	336.87	0.68	8.50	20,982.62	0.07%	0.05%	0.57%
Teradyne Inc	TER	166.70	128.61	0.31	14.50	21,438.64	0.07%	0.02%	0.99%
PayPal Holdings Inc	PYPL	1171.18	259.85	n/a	19.00	304,330.08	0.96%		18.33%
Tesla Inc	TSLA	959.85	675.50	n/a		0.00	0.00%		
DISH Network Corp	DISH	287.74	31.51	n/a	3.00	9,066.53	0.03%		0.09%
Alexion Pharmaceuticals Inc	ALXN	219.71	152.75	n/a	19.50	33,561.01	0.11%		2.07%
Dow Inc	DOW	741.12	59.31	4.72		0.00	0.00%	0.00%	
Everest Re Group Ltd	RE	39.98	241.81	2.56	10.50	9,668.53	0.03%	0.08%	0.32%
Teledyne Technologies Inc	TDY	37.02	371.00	n/a	9.00	13,734.42	0.04%		0.39%
News Corp	NWSA	391.09	23.45	0.85		0.00	0.00%	0.00%	
Exelon Corp	EXC	973.93	38.60	3.96	4.00	37,593.70	0.12%	0.47%	0.48%
Global Payments Inc	GPN	295.24	197.99	0.39	11.50	58,455.16	0.19%	0.07%	2.13%
Crown Castle International Corp	CCI	431.31	155.75	3.42	11.50	67,176.84	0.21%	0.73%	2.45%
Aptiv PLC	APTIV	270.03	149.84	n/a	9.50	40,460.55	0.13%		1.22%
Advance Auto Parts Inc	AAP	65.52	160.35	0.62	11.00	10,506.77	0.03%	0.02%	0.37%
Align Technology Inc	ALGN	79.13	567.11	n/a	17.00	44,877.12	0.14%		2.42%
illumina Inc	ILMN	145.90	439.41	n/a	14.00	64,109.92	0.20%		2.85%
LKQ Corp	LKQ	303.31	39.39	n/a	10.00	11,947.46	0.04%		0.38%
Nielsen Holdings PLC	NLSN	357.79	22.41	1.07		0.00	0.00%	0.00%	
Garmin Ltd	GRMN	191.57	124.02	2.16	10.50	23,758.64	0.08%	0.16%	0.79%
Zoetis Inc	ZTS	475.17	155.24	0.64	12.00	73,764.77	0.23%	0.15%	2.81%
Digital Realty Trust Inc	DLR	280.29	134.73	3.44	7.00	37,763.47	0.12%	0.41%	0.84%
Equinix Inc	EQIX	89.29	648.34	1.77	14.50	57,888.98	0.18%	0.32%	2.66%
Las Vegas Sands Corp	LVS	763.84	62.60	n/a	5.50	47,816.57	0.15%		0.83%
Discovery Inc	DISCK	318.33	45.00	n/a		0.00	0.00%		

CAPITAL ASSET PRICING MODEL -- LONG-TERM PROJECTED RISK-FREE RATE & VL BETA  
 $K = R_f + \beta (R_m - R_f)$

		[1]	[2]	[3]	[4]	[5]
		Projected 30-year U.S. Treasury bond yield (2022 - 2026)	Beta ( $\beta$ )	Market Return ( $R_m$ )	Market Risk Premium ( $R_m - R_f$ )	ROE (K)
Company	Ticker					
ALLETE, Inc.	ALE	2.80%	0.85	15.75%	12.95%	13.80%
Alliant Energy Corporation	LNT	2.80%	0.85	15.75%	12.95%	13.80%
Ameren Corporation	AEE	2.80%	0.85	15.75%	12.95%	13.80%
American Electric Power Company, Inc	AEP	2.80%	0.75	15.75%	12.95%	12.51%
Duke Energy Corporation	DUK	2.80%	0.85	15.75%	12.95%	13.80%
Edison International	EIX	2.80%	0.95	15.75%	12.95%	15.10%
Entergy Corporation	ETR	2.80%	0.95	15.75%	12.95%	15.10%
Evergy, Inc.	EVRG	2.80%	1.00	15.75%	12.95%	15.75%
Hawaiian Electric Industries, Inc.	HE	2.80%	0.80	15.75%	12.95%	13.16%
IDACORP, Inc.	IDA	2.80%	0.80	15.75%	12.95%	13.16%
OGE Energy Corporation	OGE	2.80%	1.10	15.75%	12.95%	17.04%
Pinnacle West Capital Corporation	PNW	2.80%	0.90	15.75%	12.95%	14.45%
Portland General Electric Company	POR	2.80%	0.85	15.75%	12.95%	13.80%
Xcel Energy Inc.	XEL	2.80%	0.80	15.75%	12.95%	13.16%
Mean			0.879			14.17%

Notes:

- [1] Source: Blue Chip Financial Forecasts, Vol. 39, No. 12, December 1, 2020, at 14  
 [2] Source: Value Line, as of February 28, 2021  
 [3] Source: JMC-5.1 SP500 MRP 1, 2, & 3  
 [4] Equals [3] - [1]  
 [5] Equals [1] + [2] x [4]

CAPITAL ASSET PRICING MODEL -- LONG-TERM PROJECTED RISK-FREE RATE & BLOOMBERG BETA  
 $K = R_f + \beta (R_m - R_f)$

		[1]	[2]	[3]	[4]	[5]
		Projected 30-year U.S. Treasury bond yield (2022 - 2026)	Beta ( $\beta$ )	Market Return ( $R_m$ )	Market Risk Premium ( $R_m - R_f$ )	ROE (K)
Company	Ticker					
ALLETE, Inc.	ALE	2.80%	0.90	15.75%	12.95%	14.48%
Alliant Energy Corporation	LNT	2.80%	0.87	15.75%	12.95%	14.03%
Ameren Corporation	AEE	2.80%	0.80	15.75%	12.95%	13.15%
American Electric Power Company, Inc	AEP	2.80%	0.85	15.75%	12.95%	13.80%
Duke Energy Corporation	DUK	2.80%	0.82	15.75%	12.95%	13.43%
Edison International	EIX	2.80%	0.93	15.75%	12.95%	14.87%
Entergy Corporation	ETR	2.80%	0.97	15.75%	12.95%	15.32%
Evergy, Inc.	EVRG	2.80%	0.86	15.75%	12.95%	13.98%
Hawaiian Electric Industries, Inc.	HE	2.80%	0.72	15.75%	12.95%	12.09%
IDACORP, Inc.	IDA	2.80%	0.88	15.75%	12.95%	14.19%
OGE Energy Corporation	OGE	2.80%	1.05	15.75%	12.95%	16.36%
Pinnacle West Capital Corporation	PNW	2.80%	0.94	15.75%	12.95%	14.91%
Portland General Electric Company	POR	2.80%	0.87	15.75%	12.95%	14.10%
Xcel Energy Inc.	XEL	2.80%	0.83	15.75%	12.95%	13.56%
Mean			0.878			14.16%

Notes:

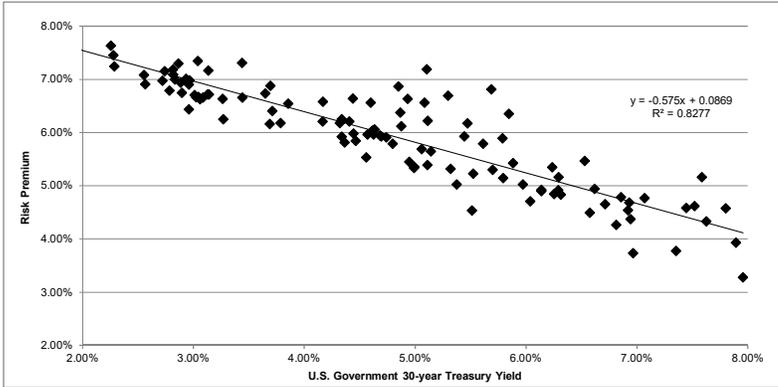
- [1] Source: Blue Chip Financial Forecasts, Vol. 39, No. 12, December 1, 2020, at 14  
 [2] Source: Bloomberg Professional, 5-Year Betas as of February 28, 2021  
 [3] Source: JMC-5.1 SP500 MRP 1, 2, & 3  
 [4] Equals [3] - [1]  
 [5] Equals [1] + [2] x [4]

Risk Premium -- Vertically Integrated Electric Utilities

	[1]	[2]	[3]
	Average Authorized Electric ROE	U.S. Govt. 30-year Treasury	Risk Premium
1992.1	12.38%	7.80%	4.58%
1992.2	11.83%	7.89%	3.93%
1992.3	12.03%	7.45%	4.59%
1992.4	12.14%	7.52%	4.62%
1993.1	11.84%	7.07%	4.77%
1993.2	11.64%	6.86%	4.79%
1993.3	11.15%	6.31%	4.84%
1993.4	11.04%	6.14%	4.90%
1994.1	11.07%	6.57%	4.49%
1994.2	11.13%	7.35%	3.78%
1994.3	12.75%	7.58%	5.17%
1994.4	11.24%	7.96%	3.28%
1995.1	11.96%	7.63%	4.34%
1995.2	11.32%	6.94%	4.37%
1995.3	11.37%	6.71%	4.66%
1995.4	11.58%	6.23%	5.35%
1996.1	11.46%	6.29%	5.17%
1996.2	11.46%	6.92%	4.54%
1996.3	10.70%	6.96%	3.74%
1996.4	11.56%	6.62%	4.94%
1997.1	11.08%	6.81%	4.27%
1997.2	11.62%	6.93%	4.68%
1997.3	12.00%	6.53%	5.47%
1997.4	11.06%	6.14%	4.92%
1998.1	11.31%	5.88%	5.43%
1998.2	12.20%	5.85%	6.35%
1998.3	11.65%	5.47%	6.18%
1998.4	12.30%	5.10%	7.20%
1999.1	10.40%	5.37%	5.03%
1999.2	10.94%	5.79%	5.15%
1999.3	10.75%	6.04%	4.71%
1999.4	11.10%	6.25%	4.85%
2000.1	11.21%	6.29%	4.92%
2000.2	11.00%	5.97%	5.03%
2000.3	11.68%	5.79%	5.89%
2000.4	12.50%	5.69%	6.81%
2001.1	11.38%	5.44%	5.93%
2001.2	11.00%	5.70%	5.30%
2001.3	10.76%	5.52%	5.23%
2001.4	11.99%	5.30%	6.70%
2002.1	10.05%	5.51%	4.54%
2002.2	11.41%	5.61%	5.79%
2002.3	11.65%	5.08%	6.57%
2002.4	11.57%	4.93%	6.64%
2003.1	11.72%	4.85%	6.87%
2003.2	11.16%	4.60%	6.56%
2003.3	10.50%	5.11%	5.39%
2003.4	11.34%	5.11%	6.23%
2004.1	11.00%	4.88%	6.12%
2004.2	10.64%	5.32%	5.32%
2004.3	10.75%	5.06%	5.69%
2004.4	11.24%	4.86%	6.38%
2005.1	10.63%	4.69%	5.93%
2005.2	10.31%	4.47%	5.85%
2005.3	11.08%	4.44%	6.65%
2005.4	10.63%	4.68%	5.95%
2006.1	10.70%	4.63%	6.06%
2006.2	10.79%	5.14%	5.65%
2006.3	10.35%	4.99%	5.35%
2006.4	10.65%	4.74%	5.91%
2007.1	10.59%	4.80%	5.80%
2007.2	10.33%	4.99%	5.34%

Risk Premium -- Vertically Integrated Electric Utilities

	[1]	[2]	[3]
	Average Authorized Electric ROE	U.S. Govt. 30-year Treasury	Risk Premium
2007.3	10.40%	4.95%	5.45%
2007.4	10.65%	4.61%	6.04%
2008.1	10.62%	4.41%	6.21%
2008.2	10.54%	4.57%	5.97%
2008.3	10.43%	4.44%	5.98%
2008.4	10.39%	3.65%	6.74%
2009.1	10.75%	3.44%	7.31%
2009.2	10.75%	4.17%	6.58%
2009.3	10.50%	4.32%	6.18%
2009.4	10.59%	4.34%	6.26%
2010.1	10.59%	4.62%	5.97%
2010.2	10.18%	4.36%	5.82%
2010.3	10.40%	3.86%	6.55%
2010.4	10.38%	4.17%	6.21%
2011.1	10.09%	4.56%	5.53%
2011.2	10.26%	4.34%	5.92%
2011.3	10.57%	3.69%	6.88%
2011.4	10.39%	3.04%	7.35%
2012.1	10.30%	3.14%	7.17%
2012.2	9.95%	2.93%	7.02%
2012.3	9.90%	2.74%	7.16%
2012.4	10.16%	2.86%	7.30%
2013.1	9.85%	3.13%	6.72%
2013.2	9.86%	3.14%	6.72%
2013.3	10.12%	3.71%	6.41%
2013.4	9.97%	3.79%	6.18%
2014.1	9.86%	3.69%	6.17%
2014.2	10.10%	3.44%	6.66%
2014.3	9.90%	3.26%	6.64%
2014.4	9.94%	2.96%	6.98%
2015.1	9.64%	2.55%	7.08%
2015.2	9.83%	2.88%	6.94%
2015.3	9.40%	2.96%	6.44%
2015.4	9.86%	2.96%	6.90%
2016.1	9.70%	2.72%	6.98%
2016.2	9.48%	2.57%	6.91%
2016.3	9.74%	2.28%	7.46%
2016.4	9.83%	2.83%	7.00%
2017.1	9.72%	3.04%	6.67%
2017.2	9.64%	2.90%	6.75%
2017.3	10.00%	2.82%	7.18%
2017.4	9.91%	2.82%	7.09%
2018.1	9.69%	3.02%	6.66%
2018.2	9.75%	3.09%	6.66%
2018.3	9.69%	3.06%	6.63%
2018.4	9.52%	3.27%	6.25%
2019.1	9.72%	3.01%	6.71%
2019.2	9.58%	2.78%	6.79%
2019.3	9.53%	2.29%	7.24%
2019.4	9.89%	2.25%	7.63%
2020.1	9.72%	1.89%	7.83%
2020.2	9.58%	1.38%	8.20%
2020.3	9.30%	1.37%	7.93%
2020.4	9.56%	1.62%	7.94%
AVERAGE	10.68%	4.69%	6.00%
MEDIAN	10.62%	4.69%	6.15%



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.90978
R Square	0.82769
Adjusted R Square	0.82618
Standard Error	0.00426
Observations	116

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	0.0099	0.0099	547.6022	0.0000
Residual	114	0.0021	0.0000		
Total	115	0.0120			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.0869	0.00122	71.34724	0.00000	0.08450	0.08932	0.08450	0.08932
X Variable 1	-0.5750	0.02457	-23.40090	0.00000	-0.62369	-0.52633	-0.62369	-0.52633

	[7]	[8]	[9]
	U.S. Govt. 30-year Treasury	Risk Premium	ROE
Current 30-day average of 30-year U.S. Treasury bond yield [4]	1.97%	7.56%	9.53%
Blue Chip Near-Term Projected Forecast (Q2 2021 - Q2 2022) [5]	2.28%	7.38%	9.66%
Blue Chip Long-Term Projected Forecast (2022-2026) [6]	2.80%	7.08%	9.88%
<b>AVERAGE</b>			<b>9.69%</b>

Notes:  
 [1] Source: Regulatory Research Associates, rate cases through February 28, 2021  
 [2] Source: Bloomberg Professional, quarterly bond yields are the average of each trading day in the quarter  
 [3] Equals Column [1] - Column [2]  
 [4] Source: Bloomberg Professional  
 [5] Source: Blue Chip Financial Forecasts, Vol. 40, No. 3, March 1, 2021, at 2  
 [6] Source: Blue Chip Financial Forecasts, Vol. 39, No. 12, December 1, 2020, at 14  
 [7] See notes [4] & [5]  
 [8] Equals 0.086910 + (-0.575009 x Column [6])  
 [9] Equals Column [6] + Column [7]

EXPECTED EARNINGS ANALYSIS

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
Company	Value Line ROE 2023-2025	Value Line Total Capital 2019	Value Line Common Equity Ratio 2019	Total Equity 2019	Value Line Total Capital 2023-2025	Value Line Common Equity Ratio 2023-2025	Total Equity 2023-2025	Compound Annual Growth Rate	Adjustment Factor	Adjusted Return on Common Equity
ALLETE, Inc.	8.50%	3632.80	61.40%	2,231	4725.00	59.00%	2,788	4.56%	1.022	8.69%
Alliant Energy Corporation	10.50%	10226.00	48.50%	4,960	12500.00	48.00%	6,000	3.88%	1.019	10.70%
Ameren Corporation	10.00%	17116.00	47.10%	8,062	24800.00	48.50%	12,028	8.33%	1.040	10.40%
American Electric Power Company, Inc AEP	10.50%	44759.00	43.90%	19,649	71900.00	39.50%	28,401	7.65%	1.037	10.89%
Duke Energy Corporation	8.50%	103825.00	44.50%	46,202	121600.00	43.50%	52,896	2.74%	1.014	8.61%
Edison International	11.00%	33360.00	39.90%	13,311	46500.00	37.50%	17,438	5.55%	1.027	11.30%
Energy Corporation	9.00%	27557.00	37.10%	10,224	35100.00	38.50%	13,514	5.74%	1.028	11.31%
Energy, Inc.	9.00%	17337.00	49.40%	8,564	20700.00	47.50%	9,833	2.80%	1.014	9.12%
Hawaiian Electric Industries, Inc.	8.50%	4176.90	54.60%	2,281	5375.00	52.50%	2,822	4.35%	1.021	8.68%
IDACORP, Inc.	9.50%	4201.30	58.70%	2,466	5375.00	55.50%	2,983	3.88%	1.019	9.68%
OGE Energy Corp.	12.50%	7334.70	56.40%	4,137	8100.00	51.00%	4,131	-0.03%	1.000	12.50%
Pinnacle West Capital Corporation	10.50%	10263.00	52.90%	5,429	16025.00	43.00%	6,891	4.88%	1.024	10.75%
Portland General Electric Company	9.50%	5323.00	48.70%	2,592	6475.00	46.00%	2,979	2.82%	1.014	9.63%
XcelEnergy Inc.	10.50%	30646.00	43.20%	13,239	41500.00	44.50%	18,468	6.88%	1.033	10.85%
Mean										10.22%
Median										10.55%

Notes:

- [1] Source: Value Line. Due to the timing of reports, certain companies may have projections for 2024-2026 instead of 2023-2025.
- [2] Source: Value Line. Due to the timing of reports, certain companies may have projections for 2024-2026 instead of 2023-2025.
- [3] Source: Value Line. Due to the timing of reports, certain companies may have projections for 2024-2026 instead of 2023-2025.
- [4] Equals [2] x [3]
- [5] Source: Value Line. Due to the timing of reports, certain companies may have projections for 2024-2026 instead of 2023-2025.
- [6] Source: Value Line. Due to the timing of reports, certain companies may have projections for 2024-2026 instead of 2023-2025.
- [7] Equals [5] x [6]
- [8] Equals  $([7] / [4]) ^ (1/5) - 1$
- [9] Equals  $2 \times (1 + [8]) / (2 + [8])$
- [10] Equals [1] x [9]

YEARS 2021-2024 CAPITAL EXPENDITURES AS A PERCENT OF 2019 NET UTILITY PLANT  
(\$ Millions)

		[1]	[2]	[3]	[4]	[5]	[6]
		2019	2021	2022	2023	2024	Years 4-6 Cap. Ex. / Year 0 Net Plant
ALLETE, Inc.	ALE						
Capital Spending per Share			\$9.45	\$7.10	\$4.75	\$4.75	
Common Shares Outstanding			52.50	53.38	54.25	54.25	
Capital Expenditures			\$496.1	\$379.0	\$257.7	\$257.7	31.77%
Net Plant		\$4,377.0					
Alliant Energy Corporation	LNT						
Capital Spending per Share			\$5.05	\$5.10	\$5.15	\$5.15	
Common Shares Outstanding			255.00	260.00	265.00	265.00	
Capital Expenditures			\$1,287.8	\$1,326.0	\$1,364.8	\$1,364.8	39.50%
Net Plant		\$13,527.0					
Ameren Corporation	AEE						
Capital Spending per Share			\$11.65	\$11.33	\$11.00	\$11.00	
Common Shares Outstanding			258.00	264.00	270.00	270.00	
Capital Expenditures			\$3,005.7	\$2,989.8	\$2,970.0	\$2,970.0	48.96%
Net Plant		\$24,376.0					
American Electric Power Company, Inc.	AEP						
Capital Spending per Share			\$15.35	\$14.30	\$13.25	\$13.25	
Common Shares Outstanding			504.00	522.00	540.00	540.00	
Capital Expenditures			\$7,736.4	\$7,464.6	\$7,155.0	\$7,155.0	49.07%
Net Plant		\$60,138.0					
Duke Energy Corporation	DUK						
Capital Spending per Share			\$14.60	\$14.30	\$14.00	\$14.00	
Common Shares Outstanding			764.00	764.00	764.00	764.00	
Capital Expenditures			\$11,154.4	\$10,925.2	\$10,696.0	\$10,696.0	42.57%
Net Plant		\$102,127.0					
Edison International	EIX						
Capital Spending per Share			\$13.65	\$13.70	\$13.75	\$13.75	
Common Shares Outstanding			395.00	395.00	395.00	395.00	
Capital Expenditures			\$5,391.8	\$5,411.5	\$5,431.3	\$5,431.3	48.92%
Net Plant		\$44,285.0					
Entergy Corporation	ETR						
Capital Spending per Share			\$18.70	\$18.85	\$19.00	\$19.00	
Common Shares Outstanding			204.00	207.00	210.00	210.00	
Capital Expenditures			\$3,814.8	\$3,902.0	\$3,990.0	\$3,990.0	44.61%
Net Plant		\$35,183.0					
Evergy, Inc.	EVRG						
Capital Spending per Share			\$7.60	\$7.05	\$6.50	\$6.50	
Common Shares Outstanding			227.00	227.00	227.00	227.00	
Capital Expenditures			\$1,725.2	\$1,600.4	\$1,475.5	\$1,475.5	32.44%
Net Plant		\$19,346.0					
Hawaiian Electric Industries, Inc.	HE						
Capital Spending per Share			\$3.40	\$3.95	\$4.50	\$4.50	
Common Shares Outstanding			111.00	112.50	114.00	114.00	
Capital Expenditures			\$377.4	\$444.4	\$513.0	\$513.0	36.16%
Net Plant		\$5,109.6					
IDACORP, Inc.	IDA						
Capital Spending per Share			\$6.95	\$6.98	\$7.00	\$7.00	
Common Shares Outstanding			50.45	50.45	50.45	50.45	
Capital Expenditures			\$350.6	\$351.9	\$353.2	\$353.2	31.09%
Net Plant		\$4,531.5					
OGE Energy Corporation	OGE						
Capital Spending per Share			\$3.65	\$3.70	\$3.75	\$3.75	
Common Shares Outstanding			200.00	200.00	200.00	200.00	
Capital Expenditures			\$730.0	\$740.0	\$750.0	\$750.0	32.84%
Net Plant		\$9,044.6					
Pinnacle West Capital Corporation	PNW						
Capital Spending per Share			\$15.20	\$13.48	\$11.75	\$11.75	
Common Shares Outstanding			113.00	115.50	118.00	118.00	
Capital Expenditures			\$1,717.6	\$1,556.4	\$1,386.5	\$1,386.5	41.64%
Net Plant		\$14,523.0					
Portland General Electric Company	POR						
Capital Spending per Share			\$7.45	\$6.73	\$6.00	\$6.00	
Common Shares Outstanding			89.65	89.83	90.00	90.00	
Capital Expenditures			\$667.9	\$604.1	\$540.0	\$540.0	32.84%
Net Plant		\$7,161.0					
Xcel Energy Inc.	XEL						
Capital Spending per Share			\$7.70	\$7.98	\$8.25	\$8.25	
Common Shares Outstanding			542.00	548.50	555.00	555.00	
Capital Expenditures			\$4,173.4	\$4,374.3	\$4,578.8	\$4,578.8	44.84%
Net Plant		\$39,483.0					
<b>Florida Power &amp; Light</b>	<b>FPL</b>						
Capital Spending per Share							
Common Shares Outstanding							
Capital Expenditures [7]			\$6,895.0	\$6,655.0	\$6,470.0	\$6,725.0	59.34%
Net Plant [8]		\$45,074.0					
FPL CapEx Total (Years 2 - 5)							\$26,745.0
FPL CapEx Annual Average							\$6,686.3
Proxy Group Median							40.57%
FPL / Proxy Group Median							1.46

Notes:

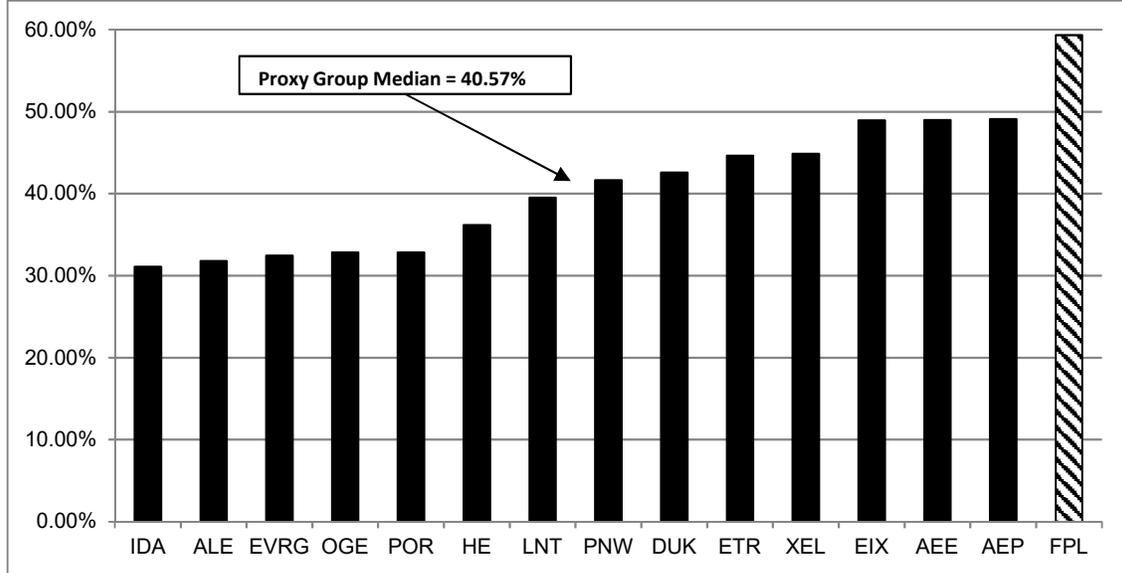
[1] - [6] Source: Value Line, dated December 11, 2020, January 22, 2021, and February 12, 2021

[6] Equals (Column [2] + [3] + [4] + [5]) / Column [1]

[7] Source: FPL SEC Form 10-Q, September 30, 2020, at 37.

[8] Source: FPL SEC Form 10-Q, September 30, 2020, at 14.

2021-2024 CAPITAL EXPENDITURES AS A PERCENT OF 2019 NET PLANT



**Projected CAPEX / 2019 Net Plant**

Company	2021-2024
1 IDACORP, Inc.	IDA 31.09%
2 ALLETE, Inc.	ALE 31.77%
3 Evergy, Inc.	EVRG 32.44%
4 OGE Energy Corporation	OGE 32.84%
5 Portland General Electric Company	POR 32.84%
6 Hawaiian Electric Industries, Inc.	HE 36.16%
7 Alliant Energy Corporation	LNT 39.50%
8 Pinnacle West Capital Corporation	PNW 41.64%
9 Duke Energy Corporation	DUK 42.57%
10 Entergy Corporation	ETR 44.61%
11 Xcel Energy Inc.	XEL 44.84%
12 Edison International	EIX 48.92%
13 Ameren Corporation	AEE 48.96%
14 American Electric Power Company, Inc.	AEP 49.07%
15 Florida Power & Light	FPL 59.34%
Proxy Group Median	40.57%
FPL/Proxy Group	1.46

Notes:

Source: JMC-8 CapEx 1

COMPARISON OF PROXY GROUP COMPANIES  
 REGULATORY FRAMEWORK - ADJUSTMENT CLAUSES

Proxy Group Company	Operation State	Operation	Test Year	Rate Base	Decoupling			New Capital		CWIP in Rate Base	
					Full	Partial	Generation Capacity	Generic Infrastructure			
ALLETE, Inc.	Minnesota	Electric	1	Fully Forecast	Average					Partial	
	Wisconsin [4]	Electric	1	Fully Forecast	Average					Rider	
Alliant Energy Corporation	Iowa	Electric	1	Historical	Average					No	
	Iowa	Gas	1	Historical	Average					No	
	Wisconsin	Electric	1	Fully Forecast	Average					Rider	
	Wisconsin	Gas	1	Fully Forecast	Average					Rider	
Ameren Corporation	Illinois	Electric	1	Fully Forecast	Average					Partial	
	Illinois	Gas	1	Fully Forecast	Average	x		x		Partial	
	Missouri	Electric	1	Partially Forecast	Year End	x		x		No	
	Missouri	Gas	1	Partially Forecast	Year End	x		x		No	
American Electric Power Company, Inc.	Arkansas	Electric	1	Partially Forecast	Year End	x		x		No	
	Indiana	Electric	1	Historical	Year End	x		x		Rider	
	Kentucky	Electric	1	Historical	Year End	x		x		Yes	
	Louisiana	Electric	1	Historical	Average	x				Partial	
	Michigan	Electric	1	Fully Forecast	Average					Large projects only	
	Ohio	Electric	1	Partially Forecast	Year End	x		x		Partial	
	Oklahoma	Electric	1	Historical	Year End	x		x		Yes	
	Tennessee	Electric	1	Fully Forecast	Average					Yes	
	Texas	Electric	1	Historical	Year End				x	No	
	Virginia	Electric	1	Historical	Year End			x		Rider	
	West Virginia	Electric	1	Historical	Average					Large projects only	
	Duke Energy Corporation	Florida	Electric	1	Fully Forecast	Average			x		Yes
		Indiana	Electric	1	Historical	Year End	x		x		Rider
		Kentucky	Electric	1	Fully Forecast	Average	x				Yes
Kentucky		Gas	1	Fully Forecast	Average	x				Yes	
North Carolina		Electric	1	Historical	Year End					Large projects only	
North Carolina		Gas	1	Historical	Year End	x				Large projects only	
Ohio		Electric	1	Partially Forecast	Year End		x		x	Partial	
Ohio		Gas	1	Partially Forecast	Year End				x	Partial	
South Carolina		Electric	1	Historical	N/A					Yes	
South Carolina		Gas	1	Historical	N/A					Yes	
Tennessee		Gas	1	Fully Forecast	Average				x	Yes	
Edison International	California	Electric	1	Fully Forecast	Average			x		Rider	

[1]

[2]

[3]

[4]

COMPARISON OF PROXY GROUP COMPANIES  
 REGULATORY FRAMEWORK - ADJUSTMENT CLAUSES

Proxy Group Company	Operation State	Operation	1	Test Year	Rate Base Average	Decoupling			New Capital		CWIP in Rate Base
						Electric	Full	Partial	Capacity	Generic Infrastructure	
ALLETE, Inc.	Minnesota	Electric	1	Fully Forecast	Average						Partial
Energy Corporation	Arkansas	Electric	1	Partially Forecast	Average		x	x			No
	Louisiana-NOCC	Electric	1	Fully Forecast	Average		x	x			Partial
	Louisiana-NOCC	Gas	1	Fully Forecast	Average						Partial
	Louisiana	Electric	1	Historical	Average		x	x			Partial
	Louisiana	Gas	1	Historical	Average		x	x			Partial
	Mississippi	Electric	1	Fully Forecast	Average		x	x			Partial
Evers, Inc.	Texas	Electric	1	Historical	Year End				x		No
	Kansas	Electric	1	Historical	Year End						Partial
Hawaiian Electric Industries Inc.	Missouri	Electric	1	Partially Forecast	Year End		x	x			No
	Hawaii	Electric	1	Fully Forecast	Average	x		x			No
IDACORP	Idaho	Electric	1	Partially Forecast	Average	x					Known & measurable
	Oregon	Electric	1	Fully Forecast	Average						No
OGE Energy Corporation	Arkansas	Electric	1	Partially Forecast	Year End			x			No
	Oklahoma	Electric	1	Historical	Year End			x			Yes
Pinnacle West Capital Corporation	Arizona	Electric	1	Historical	Year End			x			No
Portland General Electric Company	Oregon	Electric	1	Fully Forecast	Average		x	x			No
Xcel Energy Inc.	Colorado	Electric	1	Historical	Average				x		Partial
	Colorado	Gas	1	Historical	Average					x	Partial
	Minnesota	Electric	1	Fully Forecast	Average		x	x			Partial
	Minnesota	Gas	1	Fully Forecast	Average					x	Partial
New Mexico	Electric	1	Historical	Year End	Year End						Yes
	North Dakota	Electric	1	Fully Forecast	Average						Rider
North Dakota	Gas	1	Fully Forecast	Average	Average						No
	South Dakota	Electric	1	Historical	Average			x			No
Texas	Electric	1	Historical	Year End	Year End				x		No
	Wisconsin	Electric	1	Fully Forecast	Average						No
Wisconsin	Electric	1	Fully Forecast	Average	Average						Rider
	Gas	1	Fully Forecast	Average	Average						Rider
Proxy Company Totals				Historical: 25 Forecast: 35	Average: 36 Year End: 22	4	29	12	25	44	
Total Jurisdictions			60								
Percent of Jurisdictions				Forecast: 58%	Average: 62%	6.7%	48.3%	20.0%	41.7%	73.3%	
Florida Power & Light	Florida	Electric		Fully Forecast	Average						Yes

Notes:

- [1] Source: S&P Global Market Intelligence, Regulatory Focus: Adjustment Clauses, dated November 12, 2019. Operating subsidiaries not covered in this report were excluded from this exhibit.
- [2] Source: "Alternative Regulation for Evolving Utility Challenges," Prepared by Pacific Economics Group Research for Edison Electric Institute, Table 6, November 2015; S&P RRA Research; Company Investor Presentations
- [3] Source: S&P Global Market Intelligence, Regulatory Focus: Adjustment Clauses, dated November 12, 2019.
- [4] Source: S&P Global Market Intelligence, Regulatory Research Associates, Commission Profiles
- [5] This exhibit includes the adjustment mechanisms for the electric and gas distribution companies.

FLOTATION COST ADJUSTMENT

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	
Company	Date	Shares Issued (000)	Offering Price	Under-writing Discount	Offering Expense (000)	Net Proceeds Per Share	Total Flotation Costs (000)	Gross Equity Issue Before Costs (000)	Net Proceeds (000)	Flotation Cost Percentage
ALLETE, Inc.	2/26/2014	3,220	\$ 49.75	\$ 1.74	\$ 450	\$ 47.87	\$ 6,057	\$ 160,195	\$ 154,138	3.78%
ALLETE, Inc.	5/24/2001	6,600	\$ 23.68	\$ 0.95	\$ 350	\$ 22.68	\$ 6,602	\$ 156,288	\$ 149,686	4.22%
Alliant Energy Corporation	11/14/2019	3,718	\$ 52.63	\$ 0.40	\$ 500	\$ 52.10	\$ 1,968	\$ 195,652	\$ 193,684	1.01%
Alliant Energy Corporation	12/13/2018	7,269	\$ 44.85	\$ 0.52	\$ 1,000	\$ 44.19	\$ 4,780	\$ 326,000	\$ 321,220	1.47%
Ameren Corporation	8/5/2019	7,549	\$ 74.30	\$ 0.12	\$ 750	\$ 74.08	\$ 1,656	\$ 560,906	\$ 559,250	0.30%
Ameren Corporation	9/9/2009	21,850	\$ 25.25	\$ 0.76	\$ 450	\$ 24.47	\$ 17,001	\$ 551,713	\$ 534,711	3.08%
American Electric Power Company, Inc.	4/1/2009	69,000	\$ 24.50	\$ 0.74	\$ 400	\$ 23.76	\$ 51,115	\$ 1,690,500	\$ 1,639,385	3.02%
American Electric Power Company, Inc.	2/27/2003	56,000	\$ 20.95	\$ 0.63	\$ 550	\$ 20.31	\$ 35,746	\$ 1,173,200	\$ 1,137,454	3.05%
Duke Energy Corporation	3/1/2016	10,638	\$ 72.00	\$ 2.16	\$ 400	\$ 69.80	\$ 23,377	\$ 765,900	\$ 742,523	3.05%
Edison International	7/30/2019	32,200	\$ 68.50	\$ 1.63	\$ 725	\$ 66.85	\$ 53,110	\$ 2,205,700	\$ 2,152,590	2.41%
Entergy Corporation	6/6/2018	13,289	\$ 75.25	\$ 0.80	\$ 650	\$ 74.40	\$ 11,281	\$ 1,000,000	\$ 988,719	1.13%
Hawaiian Electric Industries, Inc.	3/10/2004	2,000	\$ 51.86	\$ 2.07	\$ 150	\$ 49.71	\$ 4,299	\$ 103,720	\$ 99,421	4.14%
IDACORP, Inc.	12/9/2004	4,025	\$ 30.00	\$ 1.20	\$ 300	\$ 28.73	\$ 5,130	\$ 120,750	\$ 115,620	4.25%
OGE Energy Corp.	8/21/2003	5,324	\$ 21.60	\$ 0.79	\$ 325	\$ 20.75	\$ 4,531	\$ 115,000	\$ 110,469	3.94%
Pinnacle West Capital Corporation	4/8/2010	6,900	\$ 38.00	\$ 1.33	\$ 190	\$ 36.64	\$ 9,367	\$ 262,200	\$ 252,833	3.57%
Pinnacle West Capital Corporation	4/27/2005	6,095	\$ 42.00	\$ 1.37	\$ 250	\$ 40.59	\$ 8,570	\$ 255,990	\$ 247,420	3.35%
Portland General Electric Company	6/11/2013	12,765	\$ 29.50	\$ 0.96	\$ 600	\$ 28.49	\$ 12,839	\$ 376,568	\$ 363,728	3.41%
Portland General Electric Company	3/5/2009	12,478	\$ 14.10	\$ 0.49	\$ 375	\$ 13.58	\$ 6,533	\$ 175,933	\$ 169,400	3.71%
Xcel Energy Inc.	8/3/2010	21,850	\$ 21.50	\$ 0.65	\$ 600	\$ 20.83	\$ 14,693	\$ 469,775	\$ 455,082	3.13%
Xcel Energy Inc.	2/25/2002	23,000	\$ 22.50	\$ 0.73	\$ 300	\$ 21.76	\$ 17,090	\$ 517,500	\$ 500,410	3.30%
							\$ 295,745	\$ 11,183,489	\$ 10,887,744	2.64%

Notes

[1] - [3] Source: SNL Financial; Two most recent equity issuances of each company in the proxy group, excluding issuances without gross underwriting discount

[4] Source: Company Prospectus Supplements

[5] Equals Col. [8] / Col. [1]

[6] Equals (Col. [1] x Col. [3]) + Col. [4]

[7] Equals Col. [1] x Col. [2]

[8] Equals Col. [7] - Col. [6]

[9] Equals Col. [6] / Col. [7]



CAPITAL STRUCTURE ANALYSIS

		COMMON EQUITY RATIO [1]								
Proxy Group Company	Ticker	2020Q3	2020Q2	2020Q1	2019Q4	2019Q3	2019Q2	2019Q1	2018Q4	Average
ALLETE, Inc.	ALE	54.37%	55.82%	58.34%	59.55%	59.30%	60.87%	60.78%	61.24%	58.78%
Alliant Energy Corporation	LNT	53.11%	51.97%	53.41%	52.49%	52.24%	51.46%	54.07%	54.06%	52.85%
Ameren Corporation	AEE	52.34%	53.14%	51.97%	52.58%	53.76%	53.11%	52.91%	52.84%	52.83%
American Electric Power Company, Inc.	AEP	46.65%	46.30%	46.59%	46.94%	47.81%	46.78%	47.17%	47.00%	46.91%
Duke Energy Corporation	DUK	52.03%	51.43%	50.98%	51.83%	51.72%	51.35%	50.74%	51.27%	51.42%
Edison International	EIX	51.34%	51.71%	51.04%	53.30%	53.05%	51.78%	49.02%	50.78%	51.50%
Entergy Corporation	ETR	47.12%	46.92%	46.61%	47.50%	47.16%	46.19%	46.41%	48.04%	46.99%
Evergy, Inc.	EVRG	58.64%	57.76%	59.49%	59.55%	59.52%	59.90%	57.57%	59.16%	58.95%
Hawaiian Electric Industries, Inc.	HE	48.79%	48.61%	48.66%	49.25%	49.31%	48.28%	48.85%	51.97%	49.22%
IDACORP, Inc.	IDA	54.03%	51.22%	55.15%	55.13%	54.90%	54.34%	54.17%	54.17%	54.14%
OGE Energy Corporation	OGE	52.20%	52.51%	54.64%	54.52%	54.33%	52.83%	54.37%	52.55%	53.50%
Pinnacle West Capital Corporation	PNW	51.38%	51.66%	53.40%	52.49%	53.87%	53.97%	54.03%	53.89%	53.09%
Portland General Electric Company	POR	47.71%	48.19%	49.94%	49.71%	51.64%	51.44%	50.47%	50.06%	49.89%
Xcel Energy Inc.	XEL	54.08%	52.65%	53.90%	54.05%	53.96%	54.87%	54.66%	54.27%	54.06%
MEAN		51.70%	51.42%	52.44%	52.78%	53.04%	52.65%	52.52%	52.95%	52.44%
LOW		46.65%	46.30%	46.59%	46.94%	47.16%	46.19%	46.41%	47.00%	46.91%
HIGH		58.64%	57.76%	59.49%	59.55%	59.52%	60.87%	60.78%	61.24%	58.95%

		COMMON EQUITY RATIO - UTILITY OPERATING COMPANIES [2]								
Company Name	Ticker	2020Q3	2020Q2	2020Q1	2019Q4	2019Q3	2019Q2	2019Q1	2018Q4	Average
ALLETE (Minnesota Power)	ALE	54.30%	55.80%	58.32%	59.59%	59.33%	60.94%	60.87%	61.39%	58.82%
Superior Water, Light and Power Company	ALE	57.22%	56.66%	59.14%	58.08%	58.03%	58.38%	57.40%	55.76%	57.58%
Interstate Power and Light Company	LNT	53.40%	51.70%	52.68%	51.71%	51.55%	53.29%	54.86%	55.09%	53.03%
Wisconsin Power and Light Company	LNT	52.67%	52.36%	54.52%	53.66%	53.29%	48.91%	52.91%	52.59%	52.62%
Ameren Illinois Company	AEE	56.11%	54.30%	53.02%	54.46%	54.07%	54.07%	53.67%	52.89%	54.07%
Union Electric Company	AEE	52.34%	50.35%	49.82%	52.17%	53.14%	52.25%	52.24%	52.80%	51.89%
AEP Texas, Inc.	AEP	42.06%	43.02%	43.75%	43.77%	46.42%	44.61%	45.46%	43.71%	44.10%
Appalachian Power Company	AEP	46.69%	46.23%	46.77%	46.97%	48.03%	47.56%	47.28%	47.78%	47.16%
Indiana Michigan Power Company	AEP	46.69%	45.91%	46.23%	45.45%	45.34%	44.73%	44.82%	44.30%	45.43%
Kentucky Power Company	AEP	42.96%	42.84%	43.58%	43.54%	43.81%	43.75%	44.62%	44.13%	43.65%
Kingsport Power Company	AEP	46.50%	46.28%	46.53%	47.71%	48.05%	41.71%	40.38%	42.65%	44.98%
Ohio Power Company	AEP	49.44%	49.70%	50.14%	52.21%	52.42%	51.90%	54.45%	54.68%	51.87%
Public Service Company of Oklahoma	AEP	49.63%	47.74%	47.27%	48.66%	48.85%	46.59%	45.23%	46.18%	47.52%
Southwestern Electric Power Company	AEP	49.27%	47.86%	46.98%	47.61%	48.00%	46.30%	46.26%	46.37%	47.33%
Wheeling Power Company	AEP	50.20%	49.44%	50.76%	49.54%	50.75%	51.86%	54.11%	54.46%	51.39%
Duke Energy Carolinas, LLC	DUK	51.68%	51.04%	50.00%	51.78%	51.42%	50.90%	50.40%	50.51%	50.97%
Duke Energy Florida, LLC	DUK	51.13%	49.57%	49.42%	49.15%	50.56%	48.85%	48.17%	48.77%	49.45%
Duke Energy Indiana, LLC	DUK	52.34%	49.87%	49.96%	52.37%	51.24%	53.45%	53.10%	51.89%	51.78%
Duke Energy Kentucky, Inc.	DUK	47.65%	48.14%	46.56%	46.09%	45.10%	49.02%	50.10%	49.83%	47.81%
Duke Energy Ohio, Inc.	DUK	61.39%	61.40%	61.89%	62.31%	62.53%	62.73%	58.94%	64.66%	61.98%
Duke Energy Progress, LLC	DUK	50.26%	51.11%	50.78%	50.69%	50.23%	49.33%	49.21%	49.71%	50.16%
Southern California Edison Company	EIX	51.34%	51.71%	51.04%	53.30%	53.05%	51.78%	49.02%	50.78%	51.50%
Entergy Arkansas, Inc.	ETR	43.83%	47.22%	46.75%	47.17%	46.98%	45.77%	46.32%	48.62%	46.58%
Entergy Louisiana, LLC	ETR	47.72%	46.13%	45.51%	46.94%	46.60%	45.79%	45.26%	46.79%	46.34%
Entergy Mississippi, Inc.	ETR	46.74%	45.93%	47.64%	47.32%	46.94%	43.67%	47.85%	47.57%	46.71%
Entergy New Orleans, LLC	ETR	44.59%	43.68%	43.42%	47.83%	51.96%	50.66%	49.95%	49.45%	47.69%
Entergy Texas, Inc.	ETR	52.18%	51.08%	50.46%	50.35%	48.58%	50.09%	49.42%	52.61%	50.60%
Evergy Metro	EVRG	48.73%	47.08%	49.92%	50.26%	50.38%	49.58%	46.00%	49.44%	48.92%
Evergy Kansas South	EVRG	82.40%	82.02%	81.87%	81.80%	81.68%	81.34%	75.01%	74.85%	80.12%
Evergy Missouri West, Inc.	EVRG	49.79%	50.27%	49.05%	48.99%	50.01%	50.87%	51.95%	54.07%	50.62%
Westar Energy (KPL)	EVRG	56.92%	55.76%	57.87%	57.91%	57.61%	59.13%	58.75%	59.04%	57.87%
Hawaiian Electric Industries, Inc.	HE	48.79%	48.61%	48.66%	49.25%	49.31%	48.28%	48.85%	51.97%	49.22%
Idaho Power Co.	IDA	54.03%	51.22%	55.15%	55.13%	54.90%	54.34%	54.17%	54.17%	54.14%
Oklahoma Gas and Electric Company	OGE	52.20%	52.51%	54.64%	54.52%	54.33%	52.83%	54.37%	52.55%	53.50%
Arizona Public Service Company	PNW	51.38%	51.66%	53.40%	52.49%	53.87%	53.97%	54.03%	53.89%	53.09%
Portland General Electric Company	POR	47.71%	48.19%	49.94%	49.71%	51.64%	51.44%	50.47%	50.06%	49.89%
Northern States Power Company - MN	XEL	52.07%	49.99%	52.37%	51.99%	51.56%	53.14%	53.41%	52.54%	52.13%
Northern States Power Company - WI	XEL	52.96%	52.45%	54.72%	54.00%	53.37%	53.31%	53.42%	53.43%	53.46%
Public Service Company of Colorado	XEL	56.15%	54.46%	55.55%	55.98%	56.19%	57.09%	56.48%	56.11%	56.00%
Southwestern Public Service Company	XEL	54.01%	54.17%	53.07%	54.08%	54.15%	54.07%	53.61%	54.09%	53.91%

Notes:

[1] Ratios are weighted by actual common capital, short-term debt, and long-term debt of Operating Subsidiaries.

[2] Natural Gas and Electric Operating Subsidiaries with data listed as N/A from SNL Financial have been excluded from the analysis.

CAPITAL STRUCTURE ANALYSIS

Proxy Group Company	Ticker	LONG-TERM DEBT RATIO [1]								
		2020Q3	2020Q2	2020Q1	2019Q4	2019Q3	2019Q2	2019Q1	2018Q4	Average
ALLETE, Inc.	ALE	45.56%	44.10%	41.66%	40.45%	40.70%	39.13%	39.19%	38.71%	41.19%
Alliant Energy Corporation	LNT	46.80%	47.95%	46.50%	47.42%	47.67%	48.45%	45.84%	45.85%	47.06%
Ameren Corporation	AEE	47.40%	46.01%	47.51%	46.91%	45.72%	46.34%	46.56%	46.62%	46.63%
American Electric Power Company, Inc.	AEP	50.84%	50.15%	50.20%	50.10%	50.11%	50.61%	49.65%	49.81%	50.18%
Duke Energy Corporation	DUK	46.70%	46.89%	47.01%	46.78%	46.56%	45.32%	46.54%	46.00%	46.48%
Edison International	EIX	47.93%	47.51%	48.12%	45.79%	46.04%	47.21%	49.91%	48.12%	47.58%
Entergy Corporation	ETR	51.56%	51.72%	52.01%	51.04%	51.34%	52.27%	52.02%	50.31%	51.53%
Energy, Inc.	EVRG	40.54%	41.80%	40.05%	40.02%	40.10%	39.78%	42.17%	40.60%	40.63%
Hawaiian Electric Industries, Inc.	HE	48.32%	48.61%	49.20%	46.74%	47.08%	47.09%	48.68%	46.26%	47.75%
IDACORP, Inc.	IDA	45.94%	48.72%	44.80%	44.84%	44.56%	45.22%	45.48%	45.69%	45.66%
OGE Energy Corporation	OGE	46.71%	46.40%	44.21%	44.34%	44.53%	45.98%	43.81%	46.23%	45.27%
Pinnacle West Capital Corporation	PNW	48.23%	47.91%	46.11%	46.93%	45.43%	45.23%	45.14%	45.24%	46.28%
Portland General Electric Company	POR	52.00%	51.52%	49.77%	50.01%	48.09%	48.32%	49.26%	49.68%	49.83%
Xcel Energy Inc.	XEL	45.48%	47.11%	44.89%	45.51%	45.72%	44.44%	44.86%	45.35%	45.42%
MEAN		47.43%	47.60%	46.57%	46.21%	45.97%	46.10%	46.37%	46.03%	46.53%
LOW		40.54%	41.80%	40.05%	40.02%	40.10%	39.13%	39.19%	38.71%	40.63%
HIGH		52.00%	51.72%	52.01%	51.04%	51.34%	52.27%	52.02%	50.31%	51.53%

Company Name	Ticker	LONG-TERM DEBT RATIO - UTILITY OPERATING COMPANIES [2]								
		2020Q3	2020Q2	2020Q1	2019Q4	2019Q3	2019Q2	2019Q1	2018Q4	Average
ALLETE (Minnesota Power)	ALE	45.70%	44.20%	41.68%	40.41%	40.67%	39.06%	39.13%	38.61%	41.18%
Superior Water, Light and Power Company	ALE	39.86%	39.90%	40.86%	41.92%	41.97%	41.62%	41.24%	42.31%	41.21%
Interstate Power and Light Company	LNT	46.60%	48.29%	47.31%	48.28%	48.43%	46.70%	45.13%	44.89%	46.95%
Wisconsin Power and Light Company	LNT	47.12%	47.44%	45.27%	46.13%	46.50%	50.89%	46.88%	47.21%	47.18%
Ameren Illinois Company	AEE	43.23%	45.03%	46.31%	44.84%	45.24%	45.63%	46.40%	45.24%	45.24%
Union Electric Company	AEE	47.40%	48.62%	49.79%	47.46%	46.50%	47.32%	47.38%	46.83%	47.66%
AEP Texas, Inc.	AEP	57.94%	52.50%	55.32%	56.23%	52.41%	51.71%	50.16%	52.63%	53.61%
Appalachian Power Company	AEP	52.44%	52.87%	48.37%	49.40%	50.52%	51.13%	51.70%	48.72%	50.64%
Indiana Michigan Power Company	AEP	49.88%	50.07%	51.25%	51.80%	52.15%	52.87%	53.83%	54.97%	52.10%
Kentucky Power Company	AEP	52.76%	53.28%	54.14%	48.43%	49.51%	50.34%	51.51%	52.38%	51.54%
Kingsport Power Company	AEP	37.40%	37.89%	38.01%	39.63%	40.53%	41.42%	37.96%	41.33%	39.27%
Ohio Power Company	AEP	45.46%	46.35%	47.83%	43.59%	45.33%	46.17%	38.05%	39.92%	44.09%
Public Service Company of Oklahoma	AEP	45.91%	46.67%	48.21%	49.26%	49.06%	50.44%	50.61%	47.75%	48.49%
Southwestern Electric Power Company	AEP	48.17%	48.42%	48.95%	49.95%	50.71%	51.28%	50.96%	52.34%	50.10%
Wheeling Power Company	AEP	43.00%	42.88%	43.43%	43.04%	43.82%	44.47%	45.59%	45.24%	43.93%
Duke Energy Carolinas, LLC	DUK	47.83%	47.95%	49.49%	47.59%	47.85%	45.24%	45.93%	47.04%	47.36%
Duke Energy Florida, LLC	DUK	47.01%	47.39%	46.91%	49.33%	45.16%	45.91%	47.11%	48.70%	47.19%
Duke Energy Indiana, LLC	DUK	46.26%	49.63%	49.52%	46.73%	48.22%	44.04%	44.70%	45.54%	46.83%
Duke Energy Kentucky, Inc.	DUK	49.04%	45.60%	46.43%	47.27%	54.16%	43.41%	44.78%	46.09%	47.10%
Duke Energy Ohio, Inc.	DUK	37.38%	38.06%	32.45%	33.23%	33.82%	34.59%	40.48%	30.30%	35.04%
Duke Energy Progress, LLC	DUK	48.09%	46.75%	47.21%	48.15%	48.54%	49.16%	49.99%	47.75%	48.21%
Southern California Edison Company	EIX	47.93%	47.51%	48.12%	45.79%	46.04%	47.21%	49.91%	48.12%	47.58%
Entergy Arkansas, Inc.	ETR	54.85%	51.29%	51.75%	51.30%	51.48%	52.68%	52.16%	49.77%	51.91%
Entergy Louisiana, LLC	ETR	52.90%	53.78%	53.98%	49.26%	44.82%	46.02%	46.68%	47.15%	49.32%
Entergy Mississippi, Inc.	ETR	50.81%	51.60%	49.74%	50.05%	50.14%	53.51%	49.00%	49.30%	50.52%
Entergy New Orleans, LLC	ETR	55.86%	56.77%	57.21%	53.31%	49.67%	50.98%	52.00%	52.09%	53.49%
Entergy Texas, Inc.	ETR	46.87%	47.93%	48.54%	48.53%	50.25%	48.53%	49.18%	45.79%	48.20%
Energy Metro	EVRG	51.19%	52.83%	49.98%	49.65%	49.53%	50.33%	53.92%	50.46%	50.99%
Energy Kansas South	EVRG	17.42%	17.79%	17.93%	18.00%	18.12%	18.48%	24.84%	25.00%	19.70%
Energy Missouri West, Inc.	EVRG	44.32%	46.89%	48.03%	48.33%	47.70%	47.45%	46.66%	44.75%	46.77%
Westar Energy (KPL)	EVRG	42.99%	44.15%	42.04%	41.99%	42.30%	40.78%	41.17%	40.88%	42.04%
Hawaiian Electric Industries, Inc.	HE	48.32%	48.61%	49.20%	46.74%	47.08%	47.09%	48.68%	46.26%	47.75%
Idaho Power Co.	IDA	45.94%	48.72%	44.80%	44.84%	44.56%	45.22%	45.48%	45.69%	45.66%
Oklahoma Gas and Electric Company	OGE	46.71%	46.40%	44.21%	44.34%	44.53%	45.98%	43.81%	46.23%	45.27%
Arizona Public Service Company	PNW	48.23%	47.91%	46.11%	46.93%	45.43%	45.23%	45.14%	45.24%	46.28%
Portland General Electric Company	POR	52.00%	51.52%	49.77%	50.01%	48.09%	48.32%	49.26%	49.68%	49.83%
Northern States Power Company - MN	XEL	47.68%	49.73%	47.29%	47.60%	48.00%	45.88%	46.16%	46.94%	47.41%
Northern States Power Company - WI	XEL	46.73%	47.25%	44.95%	45.58%	46.28%	46.35%	46.25%	46.25%	46.20%
Public Service Company of Colorado	XEL	43.13%	45.28%	42.63%	43.42%	43.52%	42.16%	43.17%	43.53%	43.35%
Southwestern Public Service Company	XEL	45.73%	45.73%	44.96%	45.81%	45.74%	45.80%	45.43%	45.77%	45.62%

Notes:

[1] Ratios are weighted by actual common capital, short-term debt, and long-term debt of Operating Subsidiaries.

[2] Natural Gas and Electric Operating Subsidiaries with data listed as N/A from SNL Financial have been excluded from the analysis.

CAPITAL STRUCTURE ANALYSIS

Company Name	Ticker	SHORT-TERM DEBT RATIO [1]								
		2020Q3	2020Q2	2020Q1	2019Q4	2019Q3	2019Q2	2019Q1	2018Q4	Average
Proxy Group Company	ALE	0.07%	0.08%	0.00%	0.00%	0.00%	0.00%	0.04%	0.05%	0.03%
ALLETE, Inc.	LNT	0.08%	0.08%	0.09%	0.09%	0.09%	0.09%	0.10%	0.10%	0.09%
Alliant Energy Corporation	AEE	0.26%	0.85%	0.52%	0.52%	0.52%	0.55%	0.53%	0.53%	0.54%
Ameren Corporation	AEP	2.52%	3.55%	3.21%	2.95%	2.08%	2.61%	3.18%	3.18%	2.91%
American Electric Power Company, Inc.	DUK	1.27%	1.67%	2.01%	1.39%	1.72%	3.33%	2.73%	2.73%	2.11%
Duke Energy Corporation	EIX	0.73%	0.77%	0.84%	0.90%	0.91%	1.01%	1.07%	1.10%	0.92%
Edison International	ETR	1.32%	1.36%	1.38%	1.46%	1.49%	1.54%	1.56%	1.65%	1.47%
Entergy Corporation	EVRG	0.82%	0.44%	0.46%	0.43%	0.38%	0.31%	0.26%	0.24%	0.42%
Eergy, Inc.	HE	2.89%	2.78%	2.14%	4.01%	3.60%	4.63%	2.47%	1.78%	3.04%
Hawaiian Electric Industries, Inc.	IDA	0.03%	0.06%	0.05%	0.03%	0.54%	0.45%	0.35%	0.15%	0.21%
IDACORP, Inc.	OGE	1.09%	1.09%	1.14%	1.14%	1.14%	1.19%	1.82%	1.22%	1.23%
OGE Energy Corporation	PNW	0.39%	0.43%	0.50%	0.58%	0.70%	0.80%	0.83%	0.87%	0.64%
Pinnacle West Capital Corporation	POR	0.29%	0.29%	0.29%	0.28%	0.28%	0.25%	0.27%	0.25%	0.28%
Portland General Electric Company	XEL	0.44%	0.24%	1.21%	0.44%	0.32%	0.69%	0.48%	0.38%	0.53%
Xcel Energy Inc.	MEAN	0.87%	0.98%	0.99%	1.02%	0.99%	1.25%	1.12%	1.02%	1.03%
	LOW	0.03%	0.06%	0.00%	0.00%	0.00%	0.00%	0.04%	0.05%	0.03%
	HIGH	2.89%	3.55%	3.21%	4.01%	3.60%	4.63%	3.18%	3.18%	3.04%

Company Name	Ticker	SHORT-TERM DEBT RATIO - UTILITY OPERATING COMPANIES [2]								
		2020Q3	2020Q2	2020Q1	2019Q4	2019Q3	2019Q2	2019Q1	2018Q4	Average
ALLETE (Minnesota Power)	ALE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Superior Water, Light and Power Company	ALE	2.93%	3.43%	0.00%	0.00%	0.00%	0.00%	1.36%	1.93%	1.21%
Interstate Power and Light Company	LNT	0.00%	0.01%	0.01%	0.02%	0.02%	0.02%	0.02%	0.02%	0.01%
Wisconsin Power and Light Company	LNT	0.20%	0.20%	0.21%	0.21%	0.21%	0.20%	0.21%	0.21%	0.21%
Ameren Illinois Company	AEE	0.66%	0.66%	0.67%	0.67%	0.70%	0.69%	0.70%	0.71%	0.69%
Union Electric Company	AEE	0.26%	1.03%	0.39%	0.37%	0.36%	0.43%	0.37%	0.38%	0.45%
AEP Texas, Inc.	AEP	0.00%	4.48%	0.93%	0.00%	1.17%	3.68%	4.38%	3.66%	2.29%
Appalachian Power Company	AEP	0.86%	0.89%	4.86%	3.63%	1.44%	1.32%	1.02%	3.51%	2.19%
Indiana Michigan Power Company	AEP	3.43%	4.03%	2.52%	2.75%	2.50%	2.41%	1.35%	0.73%	2.46%
Kentucky Power Company	AEP	4.28%	3.88%	2.28%	8.02%	6.68%	5.91%	3.87%	3.49%	4.80%
Kingsport Power Company	AEP	16.10%	15.84%	15.46%	12.66%	11.41%	16.87%	21.66%	16.02%	15.75%
Ohio Power Company	AEP	5.10%	3.95%	2.02%	4.20%	2.26%	1.92%	7.50%	5.41%	4.05%
Public Service Company of Oklahoma	AEP	4.47%	5.60%	4.51%	2.09%	2.08%	2.97%	4.16%	6.07%	3.99%
Southwestern Electric Power Company	AEP	2.56%	3.71%	4.07%	2.44%	1.29%	2.42%	2.78%	1.29%	2.57%
Wheeling Power Company	AEP	6.80%	7.68%	5.80%	7.42%	5.42%	3.66%	0.31%	0.30%	4.67%
Duke Energy Carolinas, LLC	DUK	0.50%	1.01%	0.50%	0.64%	0.73%	3.87%	3.67%	2.44%	1.67%
Duke Energy Florida, LLC	DUK	1.85%	3.04%	3.67%	1.51%	4.28%	5.24%	4.72%	2.53%	3.36%
Duke Energy Indiana, LLC	DUK	1.40%	0.50%	0.52%	0.90%	0.54%	2.51%	2.20%	2.57%	1.39%
Duke Energy Kentucky, Inc.	DUK	3.31%	6.26%	7.01%	6.64%	0.74%	7.56%	5.12%	4.08%	5.09%
Duke Energy Ohio, Inc.	DUK	1.23%	0.54%	5.66%	4.46%	3.65%	2.68%	0.58%	5.04%	2.98%
Duke Energy Progress, LLC	DUK	1.65%	2.14%	2.02%	1.16%	1.23%	1.51%	0.80%	2.54%	1.63%
Southern California Edison Company	EIX	0.73%	0.77%	0.84%	0.90%	0.91%	1.01%	1.07%	1.10%	0.92%
Entergy Arkansas, Inc.	ETR	1.32%	1.49%	1.49%	1.53%	1.54%	1.55%	1.53%	1.62%	1.51%
Entergy Louisiana, LLC	ETR	2.50%	2.54%	2.60%	2.92%	3.22%	3.32%	3.37%	3.41%	2.99%
Entergy Mississippi, Inc.	ETR	2.44%	2.47%	2.62%	2.64%	2.91%	2.82%	3.14%	3.13%	2.77%
Entergy New Orleans, LLC	ETR	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Entergy Texas, Inc.	ETR	0.94%	0.99%	1.00%	1.13%	1.17%	1.37%	1.40%	1.60%	1.20%
Eergy Metro	EVRG	0.08%	0.08%	0.10%	0.09%	0.09%	0.09%	0.09%	0.10%	0.09%
Eergy Kansas South	EVRG	0.19%	0.20%	0.20%	0.20%	0.20%	0.18%	0.16%	0.15%	0.18%
Eergy Missouri West, Inc.	EVRG	5.89%	2.84%	2.92%	2.69%	2.29%	1.68%	1.39%	1.19%	2.61%
Westar Energy (KPL)	EVRG	0.09%	0.09%	0.10%	0.09%	0.09%	0.09%	0.08%	0.08%	0.09%
Hawaiian Electric Industries, Inc.	HE	2.89%	2.78%	2.14%	4.01%	3.60%	4.63%	2.47%	1.78%	3.04%
Idaho Power Co.	IDA	0.03%	0.06%	0.05%	0.03%	0.54%	0.45%	0.35%	0.15%	0.21%
Oklahoma Gas and Electric Company	OGE	1.09%	1.09%	1.14%	1.14%	1.14%	1.19%	1.82%	1.22%	1.23%
Arizona Public Service Company	PNW	0.39%	0.43%	0.50%	0.58%	0.70%	0.80%	0.83%	0.87%	0.64%
Portland General Electric Company	POR	0.29%	0.29%	0.29%	0.28%	0.28%	0.25%	0.27%	0.25%	0.28%
Northern States Power Company - MN	XEL	0.25%	0.29%	0.34%	0.41%	0.44%	0.97%	0.42%	0.52%	0.45%
Northern States Power Company - WI	XEL	0.31%	0.31%	0.33%	0.42%	0.35%	0.33%	0.33%	0.32%	0.34%
Public Service Company of Colorado	XEL	0.72%	0.26%	1.82%	0.60%	0.29%	0.75%	0.35%	0.36%	0.64%
Southwestern Public Service Company	XEL	0.26%	0.10%	1.96%	0.11%	0.12%	0.12%	0.96%	0.15%	0.47%

Notes:

[1] Ratios are weighted by actual common capital, short-term debt, and long-term debt of Operating Subsidiaries.

[2] Natural Gas and Electric Operating Subsidiaries with data listed as N/A from SNL Financial have been excluded from the analysis.