

**Attachment JRW-1**  
**Educational Background, Research, and Related Business Experience**  
**J. Randall Woolridge**

J. Randall Woolridge is a Professor of Finance and the Goldman, Sachs & Co. and Frank P. Smeal Endowed Faculty Fellow in Business Administration in the College of Business Administration of the Pennsylvania State University in University Park, PA. In addition, Professor Woolridge is Director of the Smeal College Trading Room and President and CEO of the Nittany Lion Fund, LLC.

Professor Woolridge received a Bachelor of Arts degree in Economics from the University of North Carolina, a Master of Business Administration degree from the Pennsylvania State University, and a Doctor of Philosophy degree in Business Administration (major area-finance, minor area-statistics) from the University of Iowa. He has taught Finance courses including corporation finance, commercial and investment banking, and investments at the undergraduate, graduate, and executive MBA levels.

Professor Woolridge's research has centered on empirical issues in corporation finance and financial markets. He has published over 35 articles in the best academic and professional journals in the field, including the *Journal of Finance*, the *Journal of Financial Economics*, and the *Harvard Business Review*. His research has been cited extensively in the business press. His work has been featured in the *New York Times*, *Forbes*, *Fortune*, *The Economist*, *Barron's*, *Wall Street Journal*, *Business Week*, *Investors' Business Daily*, *USA Today*, and other publications. In addition, Dr. Woolridge has appeared as a guest to discuss the implications of his research on CNN's *Money Line*, CNBC's *Morning Call* and *Business Today*, and Bloomberg's *Morning Call*.

Professor Woolridge's co-authored stock valuation book, *The StreetSmart Guide to Valuing a Stock* (McGraw-Hill, 2003), was released in its second edition. He has also co-authored *Spinoffs and Equity Carve-Outs: Achieving Faster Growth and Better Performance* (Financial Executives Research Foundation, 1999), as well as a textbook entitled *Basic Principles of Finance* (Kendall Hunt, 2011).

Professor Woolridge has also consulted with corporations, financial institutions, and government agencies. In addition, he has directed and participated in university- and company- sponsored professional development programs for executives in 25 countries in North and South America, Europe, Asia, and Africa.

Over the past 35 years Dr. Woolridge has prepared testimony and/or provided consultation services in regulatory rate cases in the rate of return area in following states: Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Hawaii, Indiana, Kansas, Kentucky, Maine, Maryland, Massachusetts, Missouri, Montana, Nebraska, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, South Carolina, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Washington, D.C. He has also testified before the Federal Energy Regulatory Commission.

**J. Randall Woolridge**

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**Academic Experience**

**Professor of Finance**, the Smeal College of Business Administration, the Pennsylvania State University (July 1, 1990 to the present).

**President, Nittany Lion Fund LLC**, (January 1, 2005 to the present)

**Director, the Smeal College Trading Room** (January 1, 2001 to the present)

**Goldman, Sachs & Co. and Frank P. Smeal Endowed University Fellow in Business Administration** (July 1, 1987 to the present).

**Associate Professor of Finance**, College of Business Administration, the Pennsylvania State University (July 1, 1984 to June 30, 1990).

**Assistant Professor of Finance**, College of Business Administration, the Pennsylvania State University (September, 1979 to June 30, 1984).

**Education**

**Doctor of Philosophy in Business Administration**, the University of Iowa. Major field: Finance.

**Master of Business Administration**, the Pennsylvania State University.

**Bachelor of Arts**, the University of North Carolina. Major field: Economics.

**Books**

James A. Miles and J. Randall Woolridge, *Spinoffs and Equity Carve-Outs: Achieving Faster Growth and Better Performance* (Financial Executives Research Foundation), 1999

Patrick Cusatis, Gary Gray, and J. Randall Woolridge, *The StreetSmart Guide to Valuing a Stock* (2<sup>nd</sup> Edition, McGraw-Hill), 2003.

J. Randall Woolridge and Gary Gray, *The New Corporate Finance, Capital Markets, and Valuation: An Introductory Text* (Kendall Hunt, 2003).

**Research**

Dr. Woolridge has published over 35 articles in the best academic and professional journals in the field, including the *Journal of Finance*, the *Journal of Financial Economics*, and the *Harvard Business Review*.

Attachment JRW-2

Public Service Company of New Hampshire

Cost of Capital

|                      | Capitalization<br>Ratio | Cost<br>Rate  | Weighted<br>Cost Rate |
|----------------------|-------------------------|---------------|-----------------------|
| Long-Term Debt       | 50.00%                  | 4.100%        | 2.05%                 |
| <u>Common Equity</u> | <u>50.00%</u>           | <u>9.500%</u> | <u>4.75%</u>          |
| Total                | 100.00%                 |               | 6.80%                 |

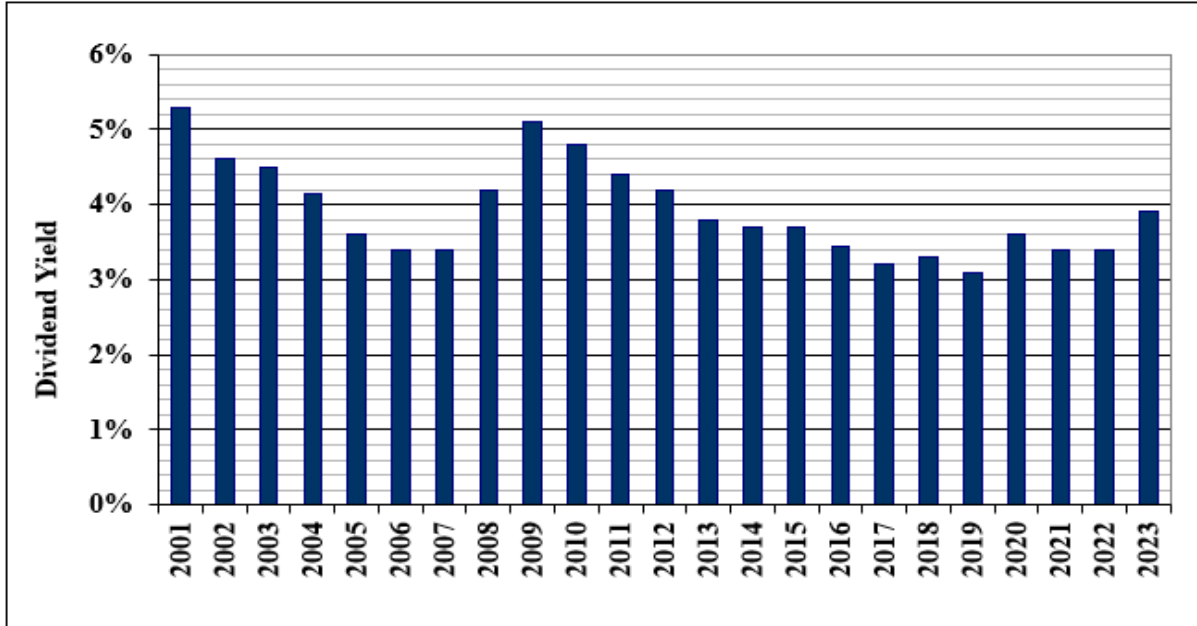
Attachment JRW-3  
Long-Term 'A' Rated Public Utility Bonds



Data Source: Mergent Bond Record

Attachment JRW-3

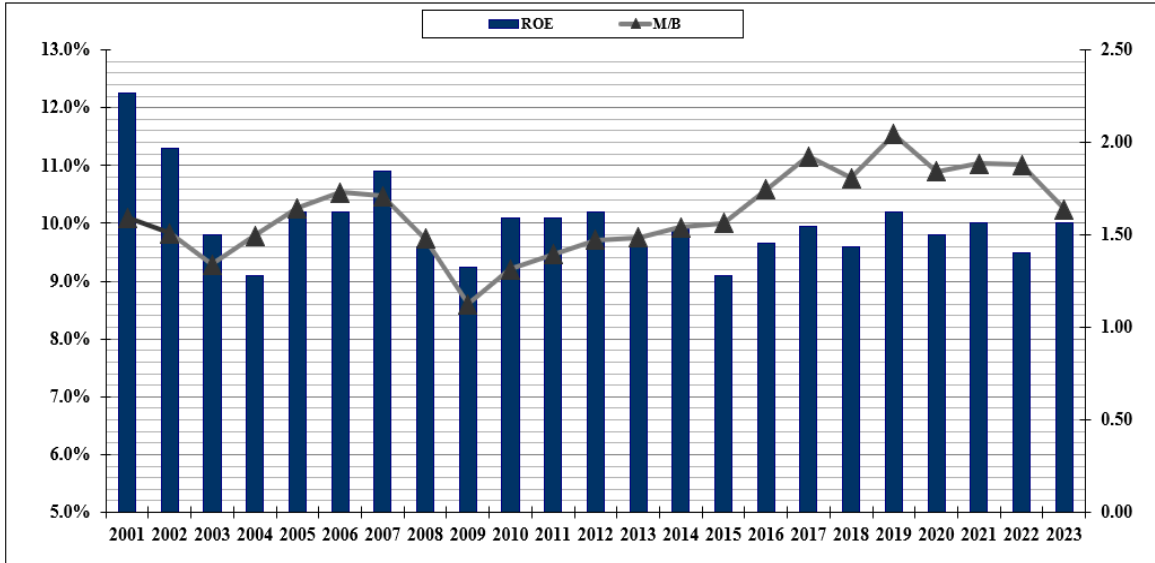
Electric Group Average Dividend Yield



Data Source: Value Line Investment Survey.

Data Source: Value Line Investment Survey.

Attachment JRW-3  
 Electric Utility Group Average Return on Equity and Market-to-Book Ratios



Data Source: Value Line Investment Survey.

Attachment JRW-4  
Public Service Company of New Hampshire  
Summary Financial Statistics for Proxy Group

Panel A

| Electric Proxy Group                                      |      |                           |                  |                         |                   |                    |                          |                          |                   |                      |                     |                  |                      |                    |
|-----------------------------------------------------------|------|---------------------------|------------------|-------------------------|-------------------|--------------------|--------------------------|--------------------------|-------------------|----------------------|---------------------|------------------|----------------------|--------------------|
| Company                                                   |      | Operating Revenue (\$bil) | Reg Elec Revenue | Percent Reg Gas Revenue | Net Plant (\$bil) | Market Cap (\$bil) | S&P Issuer Credit Rating | Moody's Long Term Rating | Interest Coverage | Primary Service Area | Common Equity Ratio | Return on Equity | Market to Book Ratio | Last Filing Period |
| Alliant Energy Corporation (NYSE-LNT)                     | LNT  | \$4.03                    | 83%              | 13%                     | \$17.16           | 12.22              | A-                       | Baa2                     | 2.33              | WI,IA,IL,MN          | 41.1%               | 10.77            | 1.80                 | 12/31/2023         |
| Ameren Corporation (NYSE-AEE)                             | AEE  | \$7.27                    | 74%              | 17%                     | \$33.78           | 18.99              | BBB+                     | Baa1                     | 3.48              | IL,MO                | 40.7%               | 10.46            | 1.67                 | 12/31/2023         |
| American Electric Power Co. (NYSE-AEP)                    | AEP  | \$18.52                   | 90%              | 0%                      | \$77.31           | 44.72              | A-                       | Baa2                     | 2.19              | 10 States            | 36.6%               | 8.96             | 1.77                 | 12/31/2023         |
| Avista Corporation (NYSE-AVA)                             | AVA  | \$1.75                    | 70%              | 30%                     | \$5.84            | 2.60               | BBB                      | Baa2                     | 2.07              | NY,CT,ME             | 44.8%               | 7.10             | 1.05                 | 12/31/2023         |
| CMS Energy Corporation (NYSE-CMS)                         | CMS  | \$7.46                    | 64%              | 32%                     | \$25.10           | 17.12              | BBB+                     | Baa2                     | 2.32              | MI                   | 31.8%               | 10.27            | 2.34                 | 12/31/2023         |
| Consolidated Edison, Inc. (NYSE-ED)                       | ED   | \$14.66                   | 74%              | 21%                     | \$50.14           | 30.06              | A-                       | Baa2                     | 3.04              | NY,PA                | 45.8%               | 11.97            | 1.42                 | 12/31/2023         |
| Duke Energy Corporation (NYSE-DUK)                        | DUK  | \$28.60                   | 93%              | 8%                      | \$114.90          | 70.04              | BBB+                     | Baa2                     | 2.41              | NC,OH,FL,SC,KY       | 36.9%               | 8.48             | 1.49                 | 12/31/2023         |
| Edison International (NYSE-EIX)                           | EIX  | \$16.34                   | 100%             | 0%                      | \$57.18           | 25.59              | BBB                      | Baa2                     | 1.98              | CA                   | 28.1%               | 6.75             | 1.85                 | 12/31/2023         |
| Entergy Corporation (NYSE-ETR)                            | ETR  | \$12.02                   | 97%              | 1%                      | \$44.25           | 21.42              | BBB+                     | Baa2                     | 2.99              | LA,AR,MSTX           | 35.5%               | 16.69            | 1.46                 | 12/31/2023         |
| Evergy, Inc. (NYSE-EVRG)                                  | EVRG | \$5.51                    | 100%             | 0%                      | \$23.60           | 11.28              | BBB+                     | Baa2                     | 2.48              | KS,MO                | 42.1%               | 7.75             | 1.17                 | 12/31/2023         |
| Eversource Energy (NYSE-ES)                               | ES   | \$11.91                   | 91%              | 19%                     | \$39.55           | 20.43              | A-                       | Baa1                     | 3.33              | CT,NH,MA             | 34.5%               | -2.90            | 1.44                 | 12/31/2023         |
| Exelon Corporation (NDW-EXC)                              | EXC  | \$21.73                   | 89%              | 8%                      | \$73.85           | 35.47              | BBB+                     | Baa2                     | 2.33              | PA,IL,MD,DE,NJ       | 36.7%               | 9.22             | 1.38                 | 12/31/2023         |
| IDACORP, Inc. (NYSE-IDA)                                  | IDA  | \$1.76                    | 100%             | 0%                      | \$5.75            | 4.41               | BBB                      | Baa2                     | 2.53              | ID                   | 50.7%               | 9.14             | 1.52                 | 12/31/2023         |
| MGE Energy, Inc. (NYSE-MGEE)                              | MGEE | \$0.67                    | 65%              | 29%                     | \$2.14            | 2.29               | AA-                      | A1                       | 5.00              | WI                   | 59.1%               | 10.60            | 2.00                 | 12/31/2023         |
| NextEra Energy, Inc. (NYSE-NEE)                           | NEE  | \$28.11                   | 100%             | 0%                      | \$126.61          | 113.31             | A-                       | Baa1                     | 3.03              | FL                   | 39.1%               | 11.58            | 2.39                 | 12/31/2023         |
| NorthWestern Corporation (NYSE-NWE)                       | NWE  | \$1.42                    | 75%              | 25%                     | \$6.04            | 2.95               | BBB                      | Baa2                     | 2.59              | MT,SD,NE             | 49.9%               | 7.12             | 1.06                 | 12/31/2023         |
| OGE Energy Corp. (NYSE-OGE)                               | OGE  | \$2.61                    | 100%             | 0%                      | \$10.95           | 6.58               | BBB+                     | Baa1                     | 2.87              | OK,AR                | 48.1%               | 9.34             | 1.46                 | 12/31/2023         |
| Pinnacle West Capital Corp. (NYSE-PNW)                    | PNW  | \$4.70                    | 95%              | 0%                      | \$18.92           | 7.72               | BBB+                     | Baa1                     | 2.49              | AZ                   | 37.5%               | 8.34             | 1.25                 | 12/31/2023         |
| Portland General Electric Company (NYSE-POR)              | POR  | \$2.92                    | 100%             | 0%                      | \$9.19            | 4.06               | BBB+                     | A3                       | 2.21              | OR                   | 42.5%               | 7.48             | 1.22                 | 12/31/2023         |
| PPL Corporation (NYSE-PPL)                                | PPL  | \$8.31                    | 90%              | 10%                     | \$31.49           | 19.28              | A-                       | Baa1                     | 2.84              | PA,KY,MA             | 46.9%               | 5.31             | 1.38                 | 12/31/2023         |
| Public Service Enterprise Group Incorporated (NYSE - PEG) | PEG  | \$11.24                   | 63%              | 19%                     | \$38.21           | 31.03              | BBB+                     | Baa2                     | 5.54              | NJ                   | 43.1%               | 17.55            | 2.00                 | 12/31/2023         |
| Southern Company (NYSE-SO)                                | SO   | \$24.30                   | 75%              | 16%                     | \$101.08          | 72.95              | BBB+                     | Baa2                     | 2.63              | GA,FL,NJ,IL,VA,TN,MS | 33.1%               | 11.04            | 2.32                 | 12/31/2023         |
| WEC Energy Group (NYSE-WEC)                               | WEC  | \$8.89                    | 73%              | 26%                     | \$31.61           | 24.74              | A-                       | Baa1                     | 3.00              | WI,IL,MN,MI          | 38.4%               | 11.23            | 2.11                 | 12/31/2023         |
| Xcel Energy Inc. (NYSE-XEL)                               | XEL  | \$14.09                   | 81%              | 19%                     | \$52.51           | 27.52              | A-                       | Baa1                     | 2.48              | MN,WI,ND,SD,MI       | 39.0%               | 10.33            | 1.56                 | 12/31/2023         |
| Mean                                                      |      | \$10.78                   | 85%              | 12%                     | \$41.55           | \$26.12            | BBB+                     | Baa2                     | 2.84              |                      | 40.9%               | 9.36             | 1.63                 |                    |
| Median                                                    |      | \$8.60                    | 89%              | 12%                     | \$32.69           | \$19.85            | BBB+                     | Baa2                     | 2.56              |                      | 39.9%               | 9.28             | 1.50                 |                    |

Data Source: Company 2023 SEC 10-K filings, S&P Capital IQ; Value Line Investment Survey, 2024.

Panel B

| Rea Proxy Group                              |     |                           |                          |                         |                   |                    |                          |                          |                           |                      |                     |                  |                      |                    |
|----------------------------------------------|-----|---------------------------|--------------------------|-------------------------|-------------------|--------------------|--------------------------|--------------------------|---------------------------|----------------------|---------------------|------------------|----------------------|--------------------|
| Company                                      |     | Operating Revenue (\$bil) | Percent Reg Elec Revenue | Percent Reg Gas Revenue | Net Plant (\$bil) | Market Cap (\$bil) | S&P Issuer Credit Rating | Moody's Long Term Rating | Pre-Tax Interest Coverage | Primary Service Area | Common Equity Ratio | Return on Equity | Market to Book Ratio | Last Filing Period |
| Alliant Energy Corporation (NYSE-LNT)        | LNT | \$4.03                    | 83%                      | 13%                     | \$17.16           | 12.22              | A-                       | Baa2                     | 2.33                      | WI,IA,IL,MN          | 41.1%               | 10.77            | 1.80                 | 12/31/2023         |
| Avista Corporation (NYSE-AVA)                | AVA | \$1.75                    | 70%                      | 30%                     | \$5.84            | 2.60               | BBB                      | Baa2                     | 2.07                      | NY,CT,ME             | 44.8%               | 7.10             | 1.05                 | 12/31/2023         |
| CMS Energy Corporation (NYSE-CMS)            | CMS | \$7.46                    | 64%                      | 32%                     | \$25.10           | 17.12              | BBB+                     | Baa2                     | 2.32                      | MI                   | 31.8%               | 10.27            | 2.34                 | 12/31/2023         |
| Consolidated Edison, Inc. (NYSE-ED)          | ED  | \$14.66                   | 74%                      | 21%                     | \$50.14           | 30.06              | A-                       | Baa2                     | 3.04                      | NY,PA                | 45.8%               | 11.97            | 1.42                 | 12/31/2023         |
| IDACORP, Inc. (NYSE-IDA)                     | IDA | \$1.76                    | 100%                     | 0%                      | \$5.75            | 4.41               | BBB                      | Baa2                     | 2.53                      | ID                   | 50.7%               | 9.14             | 1.52                 | 12/31/2023         |
| NorthWestern Corporation (NYSE-NWE)          | NWE | \$1.42                    | 75%                      | 25%                     | \$6.04            | 2.95               | BBB                      | Baa2                     | 2.59                      | MT,SD,NE             | 49.9%               | 7.12             | 1.06                 | 12/31/2023         |
| OGE Energy Corp. (NYSE-OGE)                  | OGE | \$2.61                    | 100%                     | 0%                      | \$10.95           | 6.58               | BBB+                     | Baa1                     | 2.87                      | OK,AR                | 48.1%               | 9.34             | 1.46                 | 12/31/2023         |
| Portland General Electric Company (NYSE-POR) | POR | \$2.92                    | 100%                     | 0%                      | \$9.19            | 4.06               | BBB+                     | A3                       | 2.21                      | OR                   | 42.5%               | 7.48             | 1.22                 | 12/31/2023         |
| Sempra Energy (NYSE-SRE)                     | SRE | \$16.72                   | 26%                      | 58%                     | \$55.68           | 44.17              | BBB+                     | Baa2                     | 3.16                      | CA,TX                | 46.4%               | 11.50            | 1.59                 | 12/31/2023         |
| WEC Energy Group (NYSE-WEC)                  | WEC | \$8.89                    | 73%                      | 26%                     | \$31.61           | 24.74              | A-                       | Baa1                     | 3.00                      | WI,IL,MN,MI          | 38.4%               | 11.23            | 2.11                 | 12/31/2023         |
| Mean                                         |     | \$6.22                    | 76%                      | 21%                     | \$21.75           | \$14.89            | BBB+                     | Baa2                     | 2.61                      |                      | 44.0%               | 9.59             | 1.56                 | 12/31/2023         |
| Median                                       |     | \$3.48                    | 75%                      | 23%                     | \$14.05           | \$9.40             | BBB+                     | Baa2                     | 2.56                      |                      | 45.3%               | 9.80             | 1.49                 |                    |

Data Source: Company 2023 SEC 10-K filings, S&P Capital IQ; Value Line Investment Survey, 2024.

## Attachment JRW-4

## Public Service Company of New Hampshire

## Value Line Risk Metrics

Panel A  
Electric Proxy Group

| Company                                                 | Beta | Financial Strength | Safety | Earnings Predictability | Stock Price Stability |
|---------------------------------------------------------|------|--------------------|--------|-------------------------|-----------------------|
| Alliant Energy Corporation (NYSE-LNT)                   | 0.95 | A                  | 3      | 70                      | 70                    |
| Ameren Corporation (NYSE-AEE)                           | 0.90 | A+                 | 1      | 100                     | 95                    |
| American Electric Power Co. (NYSE-AEP)                  | 0.85 | A                  | 1      | 90                      | 95                    |
| Avista Corporation (NYSE-AVA)                           | 0.95 | B++                | 3      | 70                      | 70                    |
| CMS Energy Corporation (NYSE-CMS)                       | 0.85 | B++                | 2      | 90                      | 95                    |
| Consolidated Edison, Inc. (NYSE-ED)                     | 0.75 | A+                 | 1      | 100                     | 90                    |
| Duke Energy Corporation (NYSE-DUK)                      | 0.90 | A                  | 2      | 100                     | 95                    |
| Edison International (NYSE-EIX)                         | 1.05 | A                  | 2      | 15                      | 90                    |
| Entergy Corporation (NYSE-ETR)                          | 1.00 | A+                 | 1      | 70                      | 90                    |
| Evergy, Inc. (NYSE-EVRG)                                | 0.95 | B++                | 2      | 85                      | 90                    |
| Eversource Energy (NYSE-ES)                             | 0.95 | A                  | 2      | 100                     | 80                    |
| Exelon Corporation (NDW-EXC)                            | NMF  | B++                | 2      | NMF                     | NMF                   |
| IDACORP, Inc. (NYSE-IDA)                                | 0.85 | A                  | 1      | 100                     | 95                    |
| MGE Energy, Inc. (NYSE-MGEE)                            | 0.80 | B++                | 3      | 100                     | 95                    |
| NextEra Energy, Inc. (NYSE-NEE)                         | 1.05 | A                  | 3      | 95                      | 70                    |
| NorthWestern Corporation (NYSE-NWE)                     | 1.00 | B++                | 2      | 95                      | 90                    |
| OGE Energy Corp. (NYSE-OGE)                             | 1.05 | B++                | 3      | 95                      | 80                    |
| Pinnacle West Capital Corp. (NYSE-PNW)                  | 0.95 | A                  | 2      | 85                      | 85                    |
| Portland General Electric Company (NYSE-POR)            | 0.95 | A                  | 2      | 90                      | 90                    |
| PPL Corporation (NYSE-PPL)                              | 1.15 | A+                 | 2      | 45                      | 75                    |
| Public Service Enterprise Group Incorporated (NYSE-PEG) | 0.95 | A                  | 1      | 100                     | 95                    |
| Southern Company (NYSE-SO)                              | 0.95 | A                  | 2      | 95                      | 90                    |
| WEC Energy Group (NYSE-WEC)                             | 0.85 | A+                 | 1      | 100                     | 90                    |
| Xcel Energy Inc. (NYSE-XEL)                             | 0.85 | A                  | 2      | 100                     | 95                    |
| Mean                                                    | 0.93 | A                  | 1.9    | 87                      | 87                    |

Data Source: Value Line Investment Survey, 2024.

Panel B  
Rea Proxy Group

| Company                                      | Beta | Financial Strength | Safety | Earnings Predictability | Stock Price Stability |
|----------------------------------------------|------|--------------------|--------|-------------------------|-----------------------|
| Alliant Energy Corporation (NYSE-LNT)        | 0.90 | A+                 | 1      | 100                     | 95                    |
| Avista Corporation (NYSE-AVA)                | 0.95 | A                  | 3      | 70                      | 70                    |
| CMS Energy Corporation (NYSE-CMS)            | 0.85 | B++                | 2      | 90                      | 95                    |
| IDACORP, Inc. (NYSE-IDA)                     | 0.85 | A                  | 1      | 100                     | 95                    |
| NorthWestern Corporation (NYSE-NWE)          | 1.00 | B++                | 2      | 95                      | 90                    |
| OGE Energy Corp. (NYSE-OGE)                  | 1.05 | B++                | 3      | 95                      | 80                    |
| Portland General Electric Company (NYSE-POR) | 0.95 | A                  | 2      | 90                      | 90                    |
| Sempra Energy (NYSE-SRE)                     | 1.00 | A                  | 2      | 95                      | 90                    |
| WEC Energy Group (NYSE-WEC)                  | 0.85 | A+                 | 1      | 100                     | 90                    |
| Mean                                         | 0.93 | A                  | 1.9    | 93                      | 88                    |

Data Source: Value Line Investment Survey, 2024.



### ***Value Line* Risk Metrics**

#### **Beta**

A relative measure of the historical sensitivity of a stock's price to overall fluctuations in the New York Stock Exchange Composite Index. A beta of 1.50 indicates a stock tends to rise (or fall) 50% more than the New York Stock Exchange Composite Index. The "coefficient" is derived from a regression analysis of the relationship between weekly percentage changes in the price of a stock and weekly percentage changes in the NYSE Index over a period of five years. In the case of shorter price histories, a smaller time period is used, but two years is the minimum. Betas are adjusted for their long-term tendency to converge toward 1.00.

#### **Financial Strength**

A relative measure of the companies reviewed by *Value Line*. The relative ratings range from A++ (strongest) down to C (weakest).

#### **Safety Rank**

A measurement of potential risk associated with individual common stocks. The Safety Rank is computed by averaging two other *Value Line* indexes the Price Stability Index and the Financial strength Rating. Safety Ranks range from 1 (Highest) to 5 (Lowest). Conservative investors should try to limit their purchases to equities ranked 1 (Highest) and 2 (Above Average) for Safety.

#### **Earnings Predictability**

A measure of the reliability of an earnings forecast. Earnings Predictability is based upon the stability of year-to-year comparisons, with recent years being weighted more heavily than earlier ones. The most reliable forecasts tend to be those with the highest rating (100); the least reliable, the lowest (5). The earnings stability is derived from the standard deviation of percentage changes in quarterly earnings over an eight-year period. Special adjustments are made for comparisons around zero and from plus to minus.

#### **Stock Price Stability**

A measure of the stability of a stock's price. It includes sensitivity to the market (see Beta as well as the stock's inherent volatility. *Value Line's* Stability ratings range from 1 (highest) to 5 (lowest).

Source: *Value Line Investment Analyzer*.

Attachment JRW-5  
Public Service Company of New Hampshire

Panel A  
PSCNH's Proposed Capital Structure and Debt Cost Rate

| Capital Source       | Capitalization Ratio | Cost Rate |
|----------------------|----------------------|-----------|
| Long-Term Debt       | 46.15%               | 4.10%     |
| <u>Common Equity</u> | <u>53.85%</u>        |           |
| Total                | 100.00%              |           |

Panel B  
Staff's Proposed Capital Structure and Debt Cost Rates

| Capital Source       | Capitalization Ratio | Cost Rate |
|----------------------|----------------------|-----------|
| Long-Term Debt       | 50.00%               | 4.10%     |
| <u>Common Equity</u> | <u>50.00%</u>        |           |
| Total                | 100.00%              |           |

Attachment JRW-6

Public Service Company of New Hampshire  
Discounted Cash Flow Analysis

Panel A  
Electric Proxy Group

|                         |               |
|-------------------------|---------------|
| Dividend Yield*         | 3.70%         |
| Adjustment Factor       | <u>1.0295</u> |
| Adjusted Dividend Yield | 3.81%         |
| Growth Rate**           | <u>5.90%</u>  |
| Equity Cost Rate        | 9.70%         |

\* Page 2 of Attachment JRW-6

\*\* Based on data provided on pages 3, 4, 5, and  
6 of Attachment JRW-6

\*\*\* DCF ROE rounded to nearest 0.05%.

Panel B  
Rea Proxy Group

|                         |              |
|-------------------------|--------------|
| Dividend Yield*         | 3.70%        |
| Adjustment Factor       | <u>1.031</u> |
| Adjusted Dividend Yield | 3.81%        |
| Growth Rate**           | <u>6.20%</u> |
| Equity Cost Rate        | 10.00%       |

\* Page 2 of Attachment JRW-6

\*\* Based on data provided on pages 3, 4, 5, and  
6 of Attachment JRW-6

\*\*\* DCF ROE rounded to nearest 0.05%.

## Attachment JRW-6

Public Service Company of New Hampshire  
Monthly Dividend YieldsPanel A  
Electric Proxy Group

| Company                                                 |      | Annual Dividend | Dividend Yield 30 Day | Dividend Yield 90 Day | Dividend Yield 180 Day |
|---------------------------------------------------------|------|-----------------|-----------------------|-----------------------|------------------------|
| Alliant Energy Corporation (NYSE-LNT)                   | LNT  | \$1.92          | 3.2%                  | 3.2%                  | 3.4%                   |
| Ameren Corporation (NYSE-AEE)                           | AEE  | \$2.68          | 3.0%                  | 3.0%                  | 3.3%                   |
| American Electric Power Co. (NYSE-AEP)                  | AEP  | \$3.72          | 4.0%                  | 3.8%                  | 3.9%                   |
| Avista Corporation (NYSE-AVA)                           | AVA  | \$1.90          | 5.2%                  | 5.1%                  | 5.1%                   |
| CMS Energy Corporation (NYSE-CMS)                       | CMS  | \$2.06          | 3.1%                  | 3.0%                  | 3.1%                   |
| Consolidated Edison, Inc. (NYSE-ED)                     | ED   | \$3.32          | 3.7%                  | 3.4%                  | 3.4%                   |
| Duke Energy Corporation (NYSE-DUK)                      | DUK  | \$4.18          | 3.9%                  | 3.7%                  | 3.8%                   |
| Edison International (NYSE-EIX)                         | EIX  | \$3.31          | 4.3%                  | 4.0%                  | 4.2%                   |
| Entergy Corporation (NYSE-ETR)                          | ETR  | \$2.40          | 3.2%                  | 3.4%                  | 3.8%                   |
| Evergy, Inc. (NYSE-EVRG)                                | EVRG | \$2.67          | 4.3%                  | 4.3%                  | 4.5%                   |
| Eversource Energy (NYSE-ES)                             | ES   | \$2.86          | 4.9%                  | 4.6%                  | 4.6%                   |
| Exelon Corporation (NDW-EXC)                            | EXC  | \$1.52          | 4.0%                  | 3.9%                  | 4.0%                   |
| IDACORP, Inc. (NYSE-IDA)                                | IDA  | \$3.44          | 3.1%                  | 3.2%                  | 3.3%                   |
| MGE Energy, Inc. (NYSE-MGEE)                            | MGEE | \$1.80          | 1.9%                  | 1.9%                  | 2.0%                   |
| NextEra Energy, Inc. (NYSE-NEE)                         | NEE  | \$2.06          | 2.9%                  | 2.6%                  | 2.7%                   |
| NorthWestern Corporation (NYSE-NWE)                     | NWE  | \$2.60          | 4.9%                  | 4.8%                  | 4.9%                   |
| OGE Energy Corp. (NYSE-OGE)                             | OGE  | \$1.69          | 4.1%                  | 4.1%                  | 4.3%                   |
| Pinnacle West Capital Corp. (NYSE-PNW)                  | PNW  | \$3.58          | 4.2%                  | 4.1%                  | 4.2%                   |
| Portland General Electric Company (NYSE-POR)            | POR  | \$2.00          | 4.6%                  | 4.3%                  | 4.4%                   |
| PPL Corporation (NYSE-PPL)                              | PPL  | \$1.03          | 3.2%                  | 3.1%                  | 3.3%                   |
| Public Service Enterprise Group Incorporated (NYSE-PEG) | PEG  | \$2.40          | 2.8%                  | 2.7%                  | 2.9%                   |
| Southern Company (NYSE-SO)                              | SO   | \$2.88          | 3.5%                  | 3.3%                  | 3.4%                   |
| WEC Energy Group (NYSE-WEC)                             | WEC  | \$3.57          | 3.8%                  | 3.7%                  | 4.0%                   |
| Xcel Energy Inc. (NYSE-XEL)                             | XEL  | \$2.19          | 3.3%                  | 3.3%                  | 3.6%                   |
| Mean                                                    |      |                 | 3.7%                  | 3.6%                  | 3.8%                   |
| Median                                                  |      |                 | 3.7%                  | 3.5%                  | 3.8%                   |

Data Sources: S&amp;P Cap IQ., January 17, 2025.

Panel B  
Rea Proxy Group

| Company                                      |     | Annual Dividend | Dividend Yield 30 Day | Dividend Yield 90 Day | Dividend Yield 180 Day |
|----------------------------------------------|-----|-----------------|-----------------------|-----------------------|------------------------|
| Alliant Energy Corporation (NYSE-LNT)        | LNT | \$1.92          | 3.2%                  | 3.2%                  | 3.4%                   |
| Avista Corporation (NYSE-AVA)                | AVA | \$1.90          | 5.2%                  | 5.1%                  | 5.1%                   |
| CMS Energy Corporation (NYSE-CMS)            | CMS | \$2.06          | 3.1%                  | 3.0%                  | 3.1%                   |
| Consolidated Edison, Inc. (NYSE-ED)          | ED  | \$3.32          | 3.7%                  | 3.4%                  | 3.4%                   |
| IDACORP, Inc. (NYSE-IDA)                     | IDA | \$3.44          | 3.1%                  | 3.2%                  | 3.3%                   |
| NorthWestern Corporation (NYSE-NWE)          | NWE | \$2.60          | 4.9%                  | 4.8%                  | 4.9%                   |
| OGE Energy Corp. (NYSE-OGE)                  | OGE | \$1.69          | 4.1%                  | 4.1%                  | 4.3%                   |
| Portland General Electric Company (NYSE-POR) | POR | \$2.00          | 4.6%                  | 4.3%                  | 4.4%                   |
| Sempra Energy (NYSE-SRE)                     | SRE | \$2.48          | 2.9%                  | 2.9%                  | 3.0%                   |
| WEC Energy Group (NYSE-WEC)                  | WEC | \$3.57          | 3.8%                  | 3.7%                  | 4.0%                   |
| Mean                                         |     |                 | 3.9%                  | 3.8%                  | 3.9%                   |
| Median                                       |     |                 | 3.7%                  | 3.5%                  | 3.7%                   |

Data Sources: S&amp;P Cap IQ., January 17, 2025.

## Attachment JRW-6

Public Service Company of New Hampshire  
DCF Equity Cost Growth Rate Measures  
*Value Line* Historic Growth Rates

Panel A  
Electric Proxy Group

| Company                                                   | <i>Value Line</i> Historic Growth |           |            |                                 |           |            |
|-----------------------------------------------------------|-----------------------------------|-----------|------------|---------------------------------|-----------|------------|
|                                                           | Past 10 Years                     |           |            | Past 5 Years                    |           |            |
|                                                           | Earnings                          | Dividends | Book Value | Earnings                        | Dividends | Book Value |
| Alliant Energy Corporation (NYSE-LNT)                     | 6.0                               | 6.5       | 6.0        | 7.0                             | 6.5       | 6.5        |
| Ameren Corporation (NYSE-AEE)                             | 4.5                               | 5.5       | 4.0        | 4.5                             | 6.0       | 4.5        |
| American Electric Power Co. (NYSE-AEP)                    | 6.0                               | 4.0       | 3.5        | 7.0                             | 6.0       | 6.0        |
| Avista Corporation (NYSE-AVA)                             | 3.0                               | 4.5       | 4.0        | 1.0                             | 4.5       | 3.5        |
| CMS Energy Corporation (NYSE-CMS)                         | 6.0                               | 7.0       | 6.5        | 5.5                             | 6.5       | 8.0        |
| Consolidated Edison, Inc. (NYSE-ED)                       | 2.0                               | 2.5       | 4.0        | 2.0                             | 2.5       | 3.5        |
| Duke Energy Corporation (NYSE-DUK)                        | 3.0                               | 3.0       | 1.0        | 4.5                             | 2.5       | 0.5        |
| Edison International (NYSE-EIX)                           | 2.0                               | 8.0       | 2.0        | 14.0                            | 5.0       | 0.5        |
| Entergy Corporation (NYSE-ETR)                            | 2.5                               | 2.0       | 2.0        | 5.5                             | 3.0       | 6.5        |
| Evergy, Inc. (NYSE-EVRG)                                  |                                   |           |            | 6.5                             | 6.0       | 1.0        |
| Eversource Energy (NYSE-ES)                               | 6.5                               | 7.0       | 4.5        | 5.5                             | 6.0       | 4.0        |
| Exelon Corporation (NDW-EXC)                              | -0.5                              | -2.5      | 1.5        | -2.5                            | 2.0       | -1.0       |
| IDACORP, Inc. (NYSE-IDA)                                  | 4.0                               | 8.0       | 4.5        | 3.5                             | 6.5       | 4.5        |
| MGE Energy, Inc. (NYSE-MGEE)                              | 5.0                               | 4.5       | 6.0        | 6.5                             | 4.5       | 6.0        |
| Nextera Energy, Inc. (NYSE-NEE)                           | 9.5                               | 11.0      | 8.0        | 12.5                            | 11.5      | 6.0        |
| NorthWestern Corporation (NYSE-NWE)                       | 3.5                               | 5.5       | 6.0        |                                 | 3.5       | 4.0        |
| OGE Energy Corp. (NYSE-OGE)                               | 2.0                               | 7.5       | 4.5        | 3.0                             | 5.0       | 3.0        |
| Pinnacle West Capital Corp. (NYSE-PNW)                    | 3.5                               | 4.0       | 4.0        | 2.0                             | 5.0       | 3.5        |
| Portland General Electric Company (NYSE-POR)              | 3.5                               | 5.0       | 3.5        | 3.0                             | 6.0       | 3.0        |
| PPL Corporation (NYSE-PPL)                                | -7.5                              | -2.0      |            | -14.0                           | -6.0      | 4.0        |
| Public Service Enterprise Group Incorporated (NYSE - PEG) | 3.0                               | 4.5       | 3.0        | 4.0                             | 4.5       | 1.5        |
| Southern Company (NYSE-SO)                                | 3.0                               | 3.5       | 3.0        | 3.5                             | 3.0       | 2.5        |
| WEC Energy Group (NYSE-WEC)                               | 6.0                               | 9.0       | 7.0        | 6.0                             | 7.0       | 4.0        |
| Xcel Energy Inc. (NYSE-XEL)                               | 5.5                               | 6.0       | 5.0        | 6.5                             | 6.5       | 6.0        |
| Mean                                                      | 3.6                               | 5.0       | 4.3        | 4.2                             | 4.7       | 3.8        |
| Median                                                    | 3.5                               | 5.0       | 4.0        | 4.5                             | 5.0       | 4.0        |
| Data Source: <i>Value Line</i> Investment Survey.         |                                   |           |            | Average of Median Figures = 4.3 |           |            |

Panel B  
Rea Proxy Group

| Company                                           | <i>Value Line</i> Historic Growth |           |            |                                 |           |            |
|---------------------------------------------------|-----------------------------------|-----------|------------|---------------------------------|-----------|------------|
|                                                   | Past 10 Years                     |           |            | Past 5 Years                    |           |            |
|                                                   | Earnings                          | Dividends | Book Value | Earnings                        | Dividends | Book Value |
| Alliant Energy Corporation (NYSE-LNT)             | 6                                 | 6.5       | 6          | 7                               | 6.5       | 6.5        |
| Avista Corporation (NYSE-AVA)                     | 3                                 | 4.5       | 4          | 1                               | 4.5       | 3.5        |
| CMS Energy Corporation (NYSE-CMS)                 | 6                                 | 7         | 6.5        | 5.5                             | 6.5       | 8          |
| Consolidated Edison, Inc. (NYSE-ED)               | 2.0                               | 2.5       | 4.0        | 2.0                             | 2.5       | 3.5        |
| IDACORP, Inc. (NYSE-IDA)                          | 4                                 | 8         | 4.5        | 3.5                             | 6.5       | 4.5        |
| NorthWestern Corporation (NYSE-NWE)               | 3.5                               | 5.5       | 6          |                                 | 3.5       | 4          |
| OGE Energy Corp. (NYSE-OGE)                       | 2                                 | 7.5       | 4.5        | 3                               | 5         | 3          |
| Portland General Electric Company (NYSE-POR)      | 3.5                               | 5         | 3.5        | 3                               | 6         | 3          |
| Sempra Energy (NYSE-SRE)                          | 7.5                               | 7.0       | 7.0        | 13.5                            | 7.0       | 10.0       |
| WEC Energy Group (NYSE-WEC)                       | 6.0                               | 9.0       | 7.0        | 6.0                             | 7.0       | 4.0        |
| Mean                                              | 4.4                               | 6.3       | 5.3        | 4.9                             | 5.5       | 5.0        |
| Median                                            | 3.8                               | 6.8       | 5.3        | 3.5                             | 6.3       | 4.0        |
| Data Source: <i>Value Line</i> Investment Survey. |                                   |           |            | Average of Median Figures = 4.9 |           |            |

Attachment JRW-6

Public Service Company of New Hampshire  
DCF Equity Cost Growth Rate Measures  
Value Line Projected Growth Rates

Panel A  
Electric Proxy Group

| Company                                                 | Value Line                |           |            | Value Line         |           |          |
|---------------------------------------------------------|---------------------------|-----------|------------|--------------------|-----------|----------|
|                                                         | Projected Growth          |           |            | Sustainable Growth |           |          |
|                                                         | Est'd. '20-'22 to '26-'28 |           |            | Return on          | Retention | Internal |
|                                                         | Earnings                  | Dividends | Book Value | Equity             | Rate      | Growth   |
| Alliant Energy Corporation (NYSE-LNT)                   | 6.0                       | 6.0       | 4.0        | 12.0%              | 38.0%     | 4.6%     |
| Ameren Corporation (NYSE-AEE)                           | 6.5                       | 4.5       | 5.0        | 10.0%              | 40.0%     | 4.0%     |
| American Electric Power Co. (NYSE-AEP)                  | 6.0                       | 5.5       | 4.5        | 11.0%              | 39.0%     | 4.3%     |
| Avista Corporation (NYSE-AVA)                           | 5.5                       | 4.0       | 2.0        | 8.5%               | 26.0%     | 2.2%     |
| CMS Energy Corporation (NYSE-CMS)                       | 6.0                       | 5.0       | 5.0        | 12.5%              | 38.0%     | 4.8%     |
| Consolidated Edison, Inc. (NYSE-ED)                     | 6.0                       | 4.0       | 4.0        | 9.0%               | 40.0%     | 3.6%     |
| Duke Energy Corporation (NYSE-DUK)                      | 6.5                       | 1.5       | 2.0        | 9.0%               | 32.0%     | 2.9%     |
| Edison International (NYSE-EIX)                         | 6.5                       | 6.0       | 5.0        | 14.0%              | 38.0%     | 5.3%     |
| Entergy Corporation (NYSE-ETR)                          | 0.5                       | 3.5       | 5.0        | 9.5%               | 38.0%     | 3.6%     |
| Evergy, Inc. (NYSE-EVRG)                                | 5.5                       | 4.5       | 2.5        | 10.0%              | 37.0%     | 3.7%     |
| Eversource Energy (NYSE-ES)                             | 6.0                       | 6.0       | 3.5        | 11.0%              | 38.0%     | 4.2%     |
| Exelon Corporation (NDW-EXC)                            | 3.5                       | 5.0       | 0.5        | 10.0%              | 40.0%     | 4.0%     |
| IDACORP, Inc. (NYSE-IDA)                                | 6.0                       | 5.5       | 4.5        | 9.0%               | 41.0%     | 3.7%     |
| MGE Energy, Inc. (NYSE-MGEE)                            | 7.0                       | 6.5       | 5.5        | 11.5%              | 49.0%     | 5.6%     |
| Nextera Energy, Inc. (NYSE-NEE)                         | 8.0                       | 9.0       | 9.0        | 13.5%              | 38.0%     | 5.1%     |
| NorthWestern Corporation (NYSE-NWE)                     | 4.5                       | 1.5       | 3.0        | 8.0%               | 35.0%     | 2.8%     |
| OGE Energy Corp. (NYSE-OGE)                             | 3.5                       | 2.0       | 3.5        | 13.0%              | 43.0%     | 5.6%     |
| Pinnacle West Capital Corp. (NYSE-PNW)                  | 4.5                       | 1.5       | 4.5        | 8.5%               | 37.0%     | 3.1%     |
| Portland General Electric Company (NYSE-POR)            | 5.5                       | 5.5       | 4.0        | 9.5%               | 39.0%     | 3.7%     |
| PPL Corporation (NYSE-PPL)                              | 11.5                      | 2.5       | 3.5        | 9.5%               | 40.0%     | 3.8%     |
| Public Service Enterprise Group Incorporated (NYSE-PEG) | 4.5                       | 5.0       | 5.0        | 12.0%              | 38.0%     | 4.6%     |
| Southern Company (NYSE-SO)                              | 6.0                       | 2.5       | 2.5        | 14.5%              | 33.0%     | 4.8%     |
| WEC Energy Group (NYSE-WEC)                             | 7.0                       | 4.5       | 2.5        | 13.0%              | 36.0%     | 4.7%     |
| Xcel Energy Inc. (NYSE-XEL)                             | 6.5                       | 6.0       | 5.5        | 11.0%              | 40.0%     | 4.4%     |
| Mean                                                    | 5.8                       | 4.5       | 4.0        | 10.8%              | 38.0%     | 4.1%     |
| Median                                                  | 6.0                       | 4.8       | 4.0        | 10.5%              | 38.0%     | 4.1%     |
| Average of Median Figures =                             |                           | 4.9       |            |                    | Median =  | 4.1%     |

\* 'Est'd. '21-'23 to '27-'29 is the estimated growth rate from the base period 2021 to 2023 until the future period 2027 to 2029.

Data Source: Value Line Investment Survey.

Panel B  
Rea Proxy Group

| Company                                      | Value Line                |           |            | Value Line         |           |          |
|----------------------------------------------|---------------------------|-----------|------------|--------------------|-----------|----------|
|                                              | Projected Growth          |           |            | Sustainable Growth |           |          |
|                                              | Est'd. '20-'22 to '26-'28 |           |            | Return on          | Retention | Internal |
|                                              | Earnings                  | Dividends | Book Value | Equity             | Rate      | Growth   |
| Alliant Energy Corporation (NYSE-LNT)        | 6.0                       | 6.0       | 4.0        | 12.0%              | 38.0%     | 4.6%     |
| Avista Corporation (NYSE-AVA)                | 5.5                       | 4.0       | 2.0        | 8.5%               | 26.0%     | 2.2%     |
| CMS Energy Corporation (NYSE-CMS)            | 6.0                       | 5.0       | 5.0        | 12.5%              | 38.0%     | 4.8%     |
| Consolidated Edison, Inc. (NYSE-ED)          | 6.0                       | 4.0       | 4.5        | 9.0%               | 39.0%     | 3.5%     |
| IDACORP, Inc. (NYSE-IDA)                     | 6.0                       | 5.5       | 4.5        | 9.0%               | 41.0%     | 3.7%     |
| NorthWestern Corporation (NYSE-NWE)          | 4.5                       | 1.5       | 3.0        | 8.0%               | 35.0%     | 2.8%     |
| OGE Energy Corp. (NYSE-OGE)                  | 6.5                       | 3.0       | 5.5        | 13.0%              | 43.0%     | 5.6%     |
| Portland General Electric Company (NYSE-POR) | 5.5                       | 5.5       | 4.0        | 9.5%               | 39.0%     | 3.7%     |
| Sempra Energy (NYSE-SRE)                     | 6.0                       | 6.0       | 6.0        | 10.5%              | 48.0%     | 5.0%     |
| WEC Energy Group (NYSE-WEC)                  | 7.0                       | 4.5       | 2.5        | 13.0%              | 36.0%     | 4.7%     |
| Mean                                         | 5.9                       | 4.5       | 4.1        | 10.5%              | 38.3%     | 4.1%     |
| Median                                       | 6.0                       | 4.8       | 4.3        | 10.0%              | 38.5%     | 4.1%     |
| Average of Median Figures =                  |                           | 5.0       |            |                    | Median =  | 4.1%     |

\* 'Est'd. '21-'23 to '27-'29 is the estimated growth rate from the base period 2021 to 2023 until the future period 2027 to 2029.

Data Source: Value Line Investment Survey.

## Attachment JRW-6

Public Service Company of New Hampshire  
DCF Equity Cost Growth Rate Measures  
Analysts Projected EPS Growth Rate Estimates

Panel A  
Electric Proxy Group

| Company                                                 |      | Yahoo | Zacks | S&P  | Mean  |
|---------------------------------------------------------|------|-------|-------|------|-------|
| Alliant Energy Corporation (NYSE-LNT)                   | LNT  | 7.8%  | 6.6%  | 6.9% | 7.1%  |
| Ameren Corporation (NYSE-AEE)                           | AEE  | 6.4%  | 6.6%  | 6.5% | 6.5%  |
| American Electric Power Co. (NYSE-AEP)                  | AEP  | 10.5% | 6.0%  | 6.5% | 7.7%  |
| Avista Corporation (NYSE-AVA)                           | AVA  | 5.5%  | 5.4%  | 5.3% | 5.4%  |
| CMS Energy Corporation (NYSE-CMS)                       | CMS  | 7.8%  | 7.5%  | 7.4% | 7.6%  |
| Consolidated Edison, Inc. (NYSE-ED)                     | ED   | 1.9%  | 5.6%  | 5.6% | 4.4%  |
| Duke Energy Corporation (NYSE-DUK)                      | DUK  | 6.3%  | 6.3%  | 6.5% | 6.4%  |
| Edison International (NYSE-EIX)                         | EIX  | 10.8% | 8.5%  | 7.2% | 8.8%  |
| Entergy Corporation (NYSE-ETR)                          | ETR  | 2.4%  | 8.4%  | 7.6% | 6.1%  |
| Evergy, Inc. (NYSE-EVRG)                                | EVRG | 9.2%  | 5.7%  | 5.5% | 6.8%  |
| Eversource Energy (NYSE-ES)                             | ES   | 6.0%  | 5.5%  | 5.6% | 5.7%  |
| Exelon Corporation (NDW-EXC)                            | EXC  | 6.4%  | 5.7%  | 5.9% | 6.0%  |
| IDACORP, Inc. (NYSE-IDA)                                | IDA  | 9.0%  | 8.3%  | 7.1% | 8.1%  |
| MGE Energy, Inc. (NYSE-MGEE)                            | MGEE | NA    | NA    | 0.0% | 0.0%  |
| Nextera Energy, Inc. (NYSE-NEE)                         | NEE  | 6.7%  | 8.1%  | 8.3% | 7.7%  |
| NorthWestern Corporation (NYSE-NWE)                     | NWE  | 5.5%  | 6.1%  | 5.4% | 5.7%  |
| OGE Energy Corp. (NYSE-OGE)                             | OGE  | 4.6%  | 5.2%  | 6.0% | 5.3%  |
| Pinnacle West Capital Corp. (NYSE-PNW)                  | PNW  | 6.1%  | 5.6%  | 6.2% | 5.9%  |
| Portland General Electric Company (NYSE-POR)            | POR  | 9.1%  | 12.3% | 8.7% | 10.0% |
| PPL Corporation (NYSE-PPL)                              | PPL  | 16.8% | 6.8%  | 7.2% | 10.2% |
| Public Service Enterprise Group Incorporated (NYSE-PEG) | PEG  | 2.6%  | 7.4%  | 6.6% | 5.5%  |
| Southern Company (NYSE-SO)                              | SO   | 6.7%  | 6.8%  | 6.5% | 6.7%  |
| WEC Energy Group (NYSE-WEC)                             | WEC  | 7.3%  | 7.6%  | 7.2% | 7.3%  |
| Xcel Energy Inc. (NYSE-XEL)                             | XEL  | 8.1%  | 6.9%  | 7.2% | 7.4%  |
| Mean                                                    |      | 7.1%  | 6.9%  | 6.4% | 6.6%  |
| Median                                                  |      | 6.7%  | 6.6%  | 6.5% | 6.6%  |

Data Sources: www.zacks.com, <http://quote.yahoo.com>, S&P Cap IQ, January 17, 2025.

Panel B  
Rea Proxy Group

| Company                                      |     | Yahoo | Zacks | S&P  | Mean  |
|----------------------------------------------|-----|-------|-------|------|-------|
| Alliant Energy Corporation (NYSE-LNT)        | LNT | 7.8%  | 6.6%  | 6.9% | 7.1%  |
| Avista Corporation (NYSE-AVA)                | AVA | 5.5%  | 5.4%  | 5.3% | 5.4%  |
| CMS Energy Corporation (NYSE-CMS)            | CMS | 7.8%  | 7.5%  | 7.4% | 7.6%  |
| Consolidated Edison, Inc. (NYSE-ED)          | ED  | 1.9%  | 5.6%  | 5.6% | 4.4%  |
| IDACORP, Inc. (NYSE-IDA)                     | IDA | 9.0%  | 8.3%  | 7.1% | 8.1%  |
| NorthWestern Corporation (NYSE-NWE)          | NWE | 5.5%  | 6.1%  | 5.4% | 5.7%  |
| OGE Energy Corp. (NYSE-OGE)                  | OGE | 4.6%  | 5.2%  | 6.0% | 5.3%  |
| Portland General Electric Company (NYSE-POR) | POR | 9.1%  | 12.3% | 8.7% | 10.0% |
| Sempra Energy (NYSE-SRE)                     | SRE | 8.1%  | 7.7%  | 6.6% | 7.5%  |
| WEC Energy Group (NYSE-WEC)                  | WEC | 7.3%  | 7.6%  | 7.2% | 7.3%  |
| Mean                                         |     | 6.7%  | 7.2%  | 6.6% | 6.8%  |
| Median                                       |     | 7.6%  | 7.1%  | 6.7% | 7.2%  |

Data Sources: www.zacks.com, <http://quote.yahoo.com>, S&P Cap IQ, January 17, 2025.

Attachment JRW-6

Public Service Company of New Hampshire  
DCF Growth Rate Indicators

| Growth Rate Indicator                                                   | Electric Proxy Group | Rea Proxy Group |
|-------------------------------------------------------------------------|----------------------|-----------------|
| Historic <i>Value Line</i> Growth<br>in EPS, DPS, and BVPS              | 4.3%                 | 4.9%            |
| Projected <i>Value Line</i> Growth<br>in EPS, DPS, and BVPS             | 4.9%                 | 5.0%            |
| Sustainable Growth<br>ROE * Retention Rate                              | 4.1%                 | 4.1%            |
| Projected EPS Growth from Yahoo, Zacks,<br>and S&P Cap IQ - Mean/Median | 6.6%/6.6%            | 6.8%/7.2%       |
| DCF Growth Rate                                                         | 5.90%                | 6.20%           |



Attachment JRW-7

Public Service Company of New Hampshire  
Capital Asset Pricing Model

Panel A  
Electric Proxy Group\*\*\*

|                                      |              |
|--------------------------------------|--------------|
| Risk-Free Interest Rate              | 4.80%        |
| Beta*                                | 0.82         |
| <u>Ex Ante Market Risk Premium**</u> | <u>5.00%</u> |
| CAPM Cost of Equity                  | 8.91%        |

\* See page 3 of Attachment JRW-6

\*\* See pages 5 and 6 of Attachment JRW-6

\*\*\* CAPM ROE rounded to nearest 0.05%.

Panel B  
Rea Proxy Group\*\*\*

|                                      |              |
|--------------------------------------|--------------|
| Risk-Free Interest Rate              | 4.80%        |
| Beta*                                | 0.81         |
| <u>Ex Ante Market Risk Premium**</u> | <u>5.00%</u> |
| CAPM Cost of Equity                  | 8.83%        |

\* See page 3 of Attachment JRW-6

\*\* See pages 5 and 6 of Attachment JRW-6

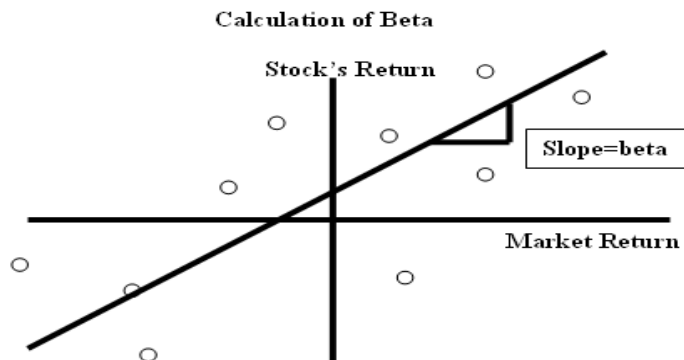
\*\*\* CAPM ROE rounded to nearest 0.05%.

Attachment JRW-7

Thirty-Year U.S. Treasury Yields  
2010-2024



Source: Federal Reserve Bank of St. Louis, FRED Database.



**Panel A**

**Electric Proxy Group**

|                                                         | V-Line | Cap IQ | Average |
|---------------------------------------------------------|--------|--------|---------|
| Company                                                 | Beta   | Beta   | Beta    |
| Alliant Energy Corporation (NYSE-LNT)                   | 0.95   | 0.73   | 0.84    |
| Ameren Corporation (NYSE-AEE)                           | 0.90   | 0.66   | 0.78    |
| American Electric Power Co. (NYSE-AEP)                  | 0.85   | 0.70   | 0.77    |
| Avista Corporation (NYSE-AVA)                           | 0.95   | 0.65   | 0.80    |
| CMS Energy Corporation (NYSE-CMS)                       | 0.85   | 0.61   | 0.73    |
| Consolidated Edison, Inc. (NYSE-ED)                     | 0.75   | 0.58   | 0.67    |
| Duke Energy Corporation (NYSE-DUK)                      | 0.90   | 0.65   | 0.78    |
| Edison International (NYSE-EIX)                         | 1.05   | 0.96   | 1.00    |
| Entergy Corporation (NYSE-ETR)                          | 1.00   | 0.80   | 0.90    |
| Evergy, Inc. (NYSE-EVRG)                                | 0.95   | 0.75   | 0.85    |
| Eversource Energy (NYSE-ES)                             | 0.95   | 0.75   | 0.85    |
| Exelon Corporation (NDW-EXC)                            | NMF    | 0.74   | 0.74    |
| IDACORP, Inc. (NYSE-IDA)                                | 0.85   | 0.76   | 0.81    |
| MGE Energy, Inc. (NYSE-MGEE)                            | 0.80   | 0.84   | 0.82    |
| NextEra Energy, Inc. (NYSE-NEE)                         | 1.05   | 0.71   | 0.88    |
| NorthWestern Corporation (NYSE-NWE)                     | 1.00   | 0.66   | 0.83    |
| OGE Energy Corp. (NYSE-OGE)                             | 1.05   | 0.84   | 0.95    |
| Pinnacle West Capital Corp. (NYSE-PNW)                  | 0.95   | 0.70   | 0.83    |
| Portland General Electric Company (NYSE-POR)            | 0.95   | 0.75   | 0.85    |
| PPL Corporation (NYSE-PPL)                              | 1.15   | 0.90   | 1.02    |
| Public Service Enterprise Group Incorporated (NYSE-PEG) | 0.95   | 0.78   | 0.86    |
| Southern Company (NYSE-SO)                              | 0.95   | 0.67   | 0.81    |
| WEC Energy Group (NYSE-WEC)                             | 0.85   | 0.64   | 0.75    |
| Xcel Energy Inc. (NYSE-XEL)                             | 0.85   | 0.62   | 0.73    |
| Mean                                                    | 0.94   | 0.74   | 0.84    |
| Median                                                  | 0.95   | 0.74   | 0.82    |

Data Source: Value Line Investment Survey, 2025; S&P Cap IQ, 2025.

**Panel B**

**Rea Proxy Group**

|                                              | V-Line | Cap IQ | Average |
|----------------------------------------------|--------|--------|---------|
| Company                                      | Beta   | Beta   | Beta    |
| Avista Corporation (NYSE-AVA)                | 0.95   | 0.65   | 0.80    |
| CMS Energy Corporation (NYSE-CMS)            | 0.85   | 0.61   | 0.73    |
| Consolidated Edison, Inc. (NYSE-ED)          | 0.75   | 0.58   | 0.67    |
| IDACORP, Inc. (NYSE-IDA)                     | 0.85   | 0.76   | 0.81    |
| NorthWestern Corporation (NYSE-NWE)          | 1.00   | 0.66   | 0.83    |
| OGE Energy Corp. (NYSE-OGE)                  | 1.05   | 0.84   | 0.95    |
| Portland General Electric Company (NYSE-POR) | 0.95   | 0.75   | 0.85    |
| Sempra Energy (NYSE-SRE)                     | 1.00   | 0.86   | 0.93    |
| WEC Energy Group (NYSE-WEC)                  | 0.85   | 0.64   | 0.75    |
| Mean                                         | 0.92   | 0.70   | 0.81    |
| Median                                       | 0.95   | 0.70   | 0.81    |

Data Source: Value Line Investment Survey, 2024; S&P Cap IQ, 2024.

**Attachment JRW-7  
 Risk Premium Approaches**

|                                                   | <b>Historical Ex Post Returns</b>                                                                                               | <b>Surveys</b>                                                                                                                         | <b>Expected Return Models and Market Data</b>                                                                         |
|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| <b>Means of Assessing The Market Risk Premium</b> | Historical Average Stock Minus Bond Returns                                                                                     | Surveys of CFOs, Financial Forecasters, Companies, Analysts on Expected Returns and Market Risk Premiums                               | Use Market Prices and Market Fundamentals (such as Growth Rates) to Compute Expected Returns and Market Risk Premiums |
| <b>Problems/Debated Issues</b>                    | Time Variation in Required Returns, Measurement and Time Period Issues, and Biases such as Market and Company Survivorship Bias | Questions Regarding Survey Histories, Responses, and Representativeness<br><br>Surveys may be Subject to Biases, such as Extrapolation | Assumptions Regarding Expectations, Especially Growth                                                                 |

Source: Adapted from Antti Ilmanen, "Expected Returns on Stocks and Bonds," *Journal of Portfolio Management*, (Winter 2003).

CAPM Study

Market Risk Premium - 2000-2024

| Category        | Category                         | Study Authors                                              | Publication Date       | Time Period Of Study | Methodology                                                                               | Return Measure | Range Low | Range High | Midpoint of Range | Mean  | Median |
|-----------------|----------------------------------|------------------------------------------------------------|------------------------|----------------------|-------------------------------------------------------------------------------------------|----------------|-----------|------------|-------------------|-------|--------|
| Historical Risk | Historical Risk Premium          | Ibbotson                                                   | 2016                   | 1928-2015            | Historical Stock Returns - Bond Returns                                                   | Arithmetic     |           |            |                   | 6.00% |        |
|                 |                                  |                                                            |                        |                      |                                                                                           | Geometric      |           |            |                   | 4.40% |        |
|                 |                                  | Damodaran                                                  | 2024                   | 1928-2023            | Historical Stock Returns - Bond Returns                                                   | Arithmetic     |           |            |                   | 6.80% |        |
|                 |                                  |                                                            |                        |                      |                                                                                           | Geometric      |           |            |                   | 5.23% |        |
|                 |                                  | Dimson, Marsh, Staunton_Credit Suisse Report               | 2023                   | 1900-2022            | Historical Stock Returns - Bond Returns                                                   | Arithmetic     |           |            |                   | 6.40% |        |
|                 |                                  |                                                            |                        |                      |                                                                                           | Geometric      |           |            |                   | 4.60% |        |
|                 |                                  | Bate                                                       | 2008                   | 1900-2007            | Historical Stock Returns - Bond Returns                                                   | Geometric      |           |            |                   | 4.50% |        |
|                 |                                  | Shiller                                                    | 2006                   | 1926-2005            | Historical Stock Returns - Bond Returns                                                   | Arithmetic     |           |            |                   | 7.00% |        |
|                 |                                  |                                                            |                        |                      |                                                                                           | Geometric      |           |            |                   | 5.50% |        |
|                 |                                  | Siegel                                                     | 2005                   | 1926-2005            | Historical Stock Returns - Bond Returns                                                   | Arithmetic     |           |            |                   | 6.10% |        |
|                 |                                  |                                                            |                        | Geometric            |                                                                                           |                |           | 4.60%      |                   |       |        |
|                 |                                  | Dimson, Marsh, and Staunton                                | 2006                   | 1900-2005            | Historical Stock Returns - Bond Returns                                                   | Arithmetic     |           |            | 5.50%             |       |        |
|                 |                                  | Goyal & Welch                                              | 2006                   | 1872-2004            | Historical Stock Returns - Bond Returns                                                   | Geometric      |           |            | 4.77%             |       |        |
|                 |                                  | Median                                                     |                        |                      |                                                                                           |                |           |            |                   | 5.05% |        |
| Ex Ante Models  | Ex Ante Models (Puzzle Research) | Claus Thomas                                               | 2001                   | 1985-1998            | Abnormal Earnings Model                                                                   |                |           |            |                   | 3.00% |        |
|                 |                                  | Arnott and Bernstein                                       | 2002                   | 1810-2001            | Fundamentals - Div Yld + Growth                                                           |                |           |            |                   | 2.40% |        |
|                 |                                  | Constantinides                                             | 2002                   | 1872-2000            | Historical Returns & Fundamentals - P/D & P/E                                             |                |           |            |                   | 6.90% |        |
|                 |                                  | Cornell                                                    | 1999                   | 1926-1997            | Historical Returns & Fundamental GDP/Earnings                                             |                | 3.50%     | 5.50%      | 4.50%             | 4.50% |        |
|                 |                                  | Easton, Taylor, et al                                      | 2002                   | 1981-1998            | Residual Income Model                                                                     |                |           |            |                   | 5.30% |        |
|                 |                                  | Fama French                                                | 2002                   | 1951-2000            | Fundamental DCF with EPS and DPS Growth                                                   |                | 2.55%     | 4.32%      |                   | 3.44% |        |
|                 |                                  | Harris & Marston                                           | 2001                   | 1982-1998            | Fundamental DCF with Analysts' EPS Growth                                                 |                |           |            |                   | 7.14% |        |
|                 |                                  | McKinsey                                                   | 2002                   | 1962-2002            | Fundamental (P/E, D/P, & Earnings Growth)                                                 |                | 3.50%     | 4.00%      |                   | 3.75% |        |
|                 |                                  | Siegel                                                     | 2005                   | 1802-2001            | Historical Earnings Yield                                                                 |                |           |            |                   | 2.50% |        |
|                 |                                  | Grabowski                                                  | 2006                   | 1926-2005            | Historical and Projected                                                                  |                | 3.50%     | 6.00%      | 4.75%             | 4.75% |        |
|                 |                                  | Maheu & McCurdy                                            | 2006                   | 1885-2003            | Historical Excess Returns, Structural Breaks,                                             |                | 4.02%     | 5.10%      | 4.56%             | 4.56% |        |
|                 |                                  | Bostock                                                    | 2004                   | 1960-2002            | Bond Yields, Credit Risk, and Income Volatility                                           |                | 3.90%     | 1.30%      | 2.60%             | 2.60% |        |
|                 |                                  | Bakshi & Chen                                              | 2005                   | 1982-1998            | Fundamentals - Interest Rates                                                             |                |           |            |                   | 7.31% |        |
|                 |                                  | Donaldson, Kamstra, & Kramer                               | 2006                   | 1952-2004            | Fundamental, Dividend yld., Returns,, & Volatility                                        |                | 3.00%     | 4.00%      | 3.50%             | 3.50% |        |
|                 |                                  | Campbell                                                   | 2008                   | 1982-2007            | Historical & Projections (D/P & Earnings Growth)                                          |                | 4.10%     | 5.40%      |                   | 4.75% |        |
|                 |                                  | Best & Byrne                                               | 2001                   | Projection           | Fundamentals - Div Yld + Growth                                                           |                |           |            |                   | 2.00% |        |
|                 |                                  | Fernandez                                                  | 2007                   | Projection           | Required Equity Risk Premium                                                              |                |           |            |                   | 4.00% |        |
|                 |                                  | DeLong & Magin                                             | 2008                   | Projection           | Earnings Yield - TIPS                                                                     |                |           |            |                   | 3.22% |        |
|                 |                                  | Siegel - Rethink ERP                                       | 2011                   | Projection           | Real Stock Returns and Components                                                         |                |           |            |                   | 5.50% |        |
|                 |                                  | Kroll (Duff & Phelps)                                      | 2024                   | Projection           | Normalized with 3.5% Long-Term Treasury Yield                                             |                |           |            |                   | 5.00% |        |
|                 |                                  | Mschchowski - VL - 2014                                    | 2014                   | Projection           | Fundamentals - Expected Return Minus 10-Year Treasury Rate                                |                |           |            |                   | 5.50% |        |
|                 |                                  | American Appraisal Quarterly ERP                           | 2015                   | Projection           | Fundamental Economic and Market Factors                                                   |                |           |            |                   | 6.00% |        |
|                 |                                  | JP Morgan Asset Management                                 | 2023                   | Projection           | Equity Return of 7.90% and Long-Term Bond of 3.50%                                        |                |           |            |                   | 4.40% |        |
|                 |                                  | Market Risk Premia - 9-1-24                                | 2024                   | Projection           | Fundamental Economic and Market Factors                                                   |                |           |            |                   | 2.51% |        |
|                 |                                  | KPMG                                                       | 2024                   | Projection           | Fundamental Economic and Market Factors                                                   |                |           |            |                   | 5.00% |        |
|                 |                                  | Damodaran 10-1-24                                          | 2024                   | Projection           | Fundamentals - Implied from FCF to Equity Model (Trailing 12 month, with adjusted payout) |                |           |            |                   | 3.96% |        |
|                 |                                  | John Campbell                                              | 2001                   | 1860-2000            | Historical & Projections (D/P & Earnings Growth)                                          | Arithmetic     | 3.00%     | 4.00%      | 3.50%             | 3.50% |        |
|                 |                                  |                                                            | Projected for 75 Years | Geometric            | 1.50%                                                                                     | 2.50%          | 2.00%     | 2.00%      |                   |       |        |
| Peter Diamond   | 2001                             | Projected for 75 Year: Fundamentals (D/P, GDP Growth)      |                        |                      | 3.00%                                                                                     | 4.80%          | 3.90%     | 3.90%      |                   |       |        |
| John Shoven     | 2001                             | Projected for 75 Year: Fundamentals (D/P, P/E, GDP Growth) |                        |                      | 3.00%                                                                                     | 3.50%          | 3.25%     | 3.25%      |                   |       |        |
|                 |                                  | Median                                                     |                        |                      |                                                                                           |                |           |            | 3.98%             |       |        |
| Surveys         | Surveys                          | New York Fed                                               | 2015                   | Five-Year            | Survey of Wall Street Firms                                                               |                |           |            |                   | 5.70% |        |
|                 |                                  | Survey of Financial Forecasters                            | 2024                   | 10-Year Projection   | Equity Return of 7.00% and Long-Term Bond of 3.60%                                        |                |           |            |                   | 3.40% |        |
|                 |                                  | Duke - CFO Magazine Survey                                 | 2024                   | 10-Year Projection   | Approximately 300 CFOs Expected S&P 500 Return of 9.1% and Risk-Free Rate of 5.5%         |                |           |            |                   | 4.60% |        |
|                 |                                  | Fernandez - Academics, Analysts, and Companies             | 2024                   | Long-Term            | Survey of Academics, Analysts, and Companies                                              |                |           |            |                   | 5.50% |        |
|                 |                                  | Median                                                     |                        |                      |                                                                                           |                |           |            |                   |       | 5.05%  |
| Building Block  | Building Block                   | Ibbotson and Chen                                          | 2015                   | Projection           | Historical Supply Model (D/P & Earnings Growth)                                           | Arithmetic     |           |            | 6.22%             | 5.21% |        |
|                 |                                  |                                                            |                        |                      |                                                                                           | Geometric      |           |            | 4.20%             |       |        |
|                 |                                  | Chen - Rethink ERP                                         | 2010                   | 20-Year Projection   | Combination Supply Model (Historic and Projection)                                        | Geometric      |           |            |                   | 4.00% |        |
|                 |                                  | Ilmanen - Rethink ERP                                      | 2010                   | Projection           | Current Supply Model (D/P & Earnings Growth)                                              | Geometric      |           |            |                   | 3.00% |        |
|                 |                                  | Grinold, Kroner, Siegel - Rethink ERP                      | 2011                   | Projection           | Current Supply Model (D/P & Earnings Growth)                                              | Arithmetic     |           |            | 4.63%             | 4.12% |        |
|                 |                                  |                                                            |                        | Geometric            |                                                                                           |                | 3.60%     |            |                   |       |        |
|                 |                                  | Median                                                     |                        |                      |                                                                                           |                |           |            |                   | 4.06% |        |
| Mean            | Mean                             |                                                            |                        |                      |                                                                                           |                |           |            |                   | 4.65% |        |
| Median          | Median                           |                                                            |                        |                      |                                                                                           |                |           |            |                   | 4.55% |        |

CAPM Study

Market Risk Premium Results - 2010-2024

| Category                                | Study Authors                                  | Publication Date | Time Period Of Study | Methodology                                                                               | Return Measure | Range |      | Midpoint of Range | Mean  | Median       |
|-----------------------------------------|------------------------------------------------|------------------|----------------------|-------------------------------------------------------------------------------------------|----------------|-------|------|-------------------|-------|--------------|
|                                         |                                                |                  |                      |                                                                                           |                | Low   | High |                   |       |              |
| <b>Historical Risk Premium</b>          |                                                |                  |                      |                                                                                           |                |       |      |                   |       |              |
|                                         | Ibbotson                                       | 2016             | 1928-2015            | Historical Stock Returns - Bond Returns                                                   | Arithmetic     |       |      |                   | 6.00% |              |
|                                         |                                                |                  |                      |                                                                                           | Geometric      |       |      |                   | 4.40% |              |
|                                         | Damodaran                                      | 2024             | 1928-2023            | Historical Stock Returns - Bond Returns                                                   | Arithmetic     |       |      |                   | 6.80% |              |
|                                         |                                                |                  |                      |                                                                                           | Geometric      |       |      |                   | 5.23% |              |
|                                         | Dimson, Marsh, Staunton_Credit Suisse Report   | 2023             | 1900-2022            | Historical Stock Returns - Bond Returns                                                   | Arithmetic     |       |      |                   | 6.40% |              |
|                                         |                                                |                  |                      |                                                                                           | Geometric      |       |      |                   | 4.60% |              |
|                                         | Median                                         |                  |                      |                                                                                           |                |       |      |                   |       | 5.57%        |
| <b>Ex Ante Models (Puzzle Research)</b> |                                                |                  |                      |                                                                                           |                |       |      |                   |       |              |
|                                         | Siegel - Rethink ERP                           | 2011             | Projection           | Real Stock Returns and Components                                                         |                |       |      |                   | 5.50% |              |
|                                         | Kroll (Duff & Phelps)                          | 2024             | Projection           | Normalized with 3.5% Long-Term Treasury Yield                                             |                |       |      |                   | 5.00% |              |
|                                         | Mshechowski - VL - 2014                        | 2014             | Projection           | Fundamentals - Expected Return Minus 10-Year Treasury Rate                                |                |       |      |                   | 5.50% |              |
|                                         | American Appraisal Quarterly ERP               | 2015             | Projection           | Fundamental Economic and Market Factors                                                   |                |       |      |                   | 6.00% |              |
|                                         | JP Morgan Asset Management                     | 2023             | Projection           | Equity Return of 7.90% and Long-Term Bond of 3.50%                                        |                |       |      |                   | 4.40% |              |
|                                         | Market Risk Premia - 9-1-24                    | 2024             | Projection           | Fundamental Economic and Market Factors                                                   |                |       |      |                   | 2.51% |              |
|                                         | KPMG                                           | 2024             | Projection           | Fundamental Economic and Market Factors                                                   |                |       |      |                   | 5.00% |              |
|                                         | Damodaran 1-1-25                               | 2024             | Projection           | Fundamentals - Implied from FCF to Equity Model (Trailing 12 month, with adjusted payout) |                |       |      |                   | 4.00% |              |
|                                         | Median                                         |                  |                      |                                                                                           |                |       |      |                   |       | 5.00%        |
| <b>Surveys</b>                          |                                                |                  |                      |                                                                                           |                |       |      |                   |       |              |
|                                         | New York Fed                                   | 2015             | Five-Year            | Survey of Wall Street Firms                                                               |                |       |      |                   | 5.70% |              |
|                                         | Survey of Financial Forecasters                | 2024             | 10-Year Projection   | Equity Return of 7.00% and Long-Term Bond of 3.60%                                        |                |       |      |                   | 3.40% |              |
|                                         | Duke - CFO Magazine Survey                     | 2024             | 10-Year Projection   | Approximately 300 CFOs Expected S&P 500 Return of 9.1% and Risk-Free Rate of 5.5%         |                |       |      |                   | 4.60% |              |
|                                         | Fernandez - Academics, Analysts, and Companies | 2024             | Long-Term            | Survey of Academics, Analysts, and Companies                                              |                |       |      |                   | 5.50% |              |
|                                         | Median                                         |                  |                      |                                                                                           |                |       |      |                   |       | 5.05%        |
| <b>Building Block</b>                   |                                                |                  |                      |                                                                                           |                |       |      |                   |       |              |
|                                         | Ibbotson and Chen                              | 2015             | Projection           | Historical Supply Model (D/P & Earnings Growth)                                           | Arithmetic     |       |      | 6.22%             | 5.21% |              |
|                                         |                                                |                  |                      |                                                                                           | Geometric      |       |      | 4.20%             |       |              |
|                                         | Chen - Rethink ERP                             | 2010             | 20-Year Projection   | Combination Supply Model (Historic and Projection)                                        | Geometric      |       |      |                   | 4.00% |              |
|                                         | Ilmanen - Rethink ERP                          | 2010             | Projection           | Current Supply Model (D/P & Earnings Growth)                                              | Geometric      |       |      |                   | 3.00% |              |
|                                         | Grinold, Kroner, Siegel - Rethink ERP          | 2011             | Projection           | Current Supply Model (D/P & Earnings Growth)                                              | Arithmetic     |       |      | 4.63%             | 4.12% |              |
|                                         |                                                |                  |                      |                                                                                           | Geometric      |       |      | 3.60%             |       |              |
|                                         | Median                                         |                  |                      |                                                                                           |                |       |      |                   |       | 4.06%        |
| <b>Mean</b>                             |                                                |                  |                      |                                                                                           |                |       |      |                   |       | <b>4.92%</b> |
| <b>Median</b>                           |                                                |                  |                      |                                                                                           |                |       |      |                   |       | <b>5.03%</b> |

CAPM Study  
 Kroll (Duff & Phelps) and KPMG Equity Risk Premium Estimates



**Kroll Recommended  
 U.S. Equity Risk Premium (ERP) and  
 Corresponding Risk-free Rates ( $R_f$ );  
 January 2008–Present**

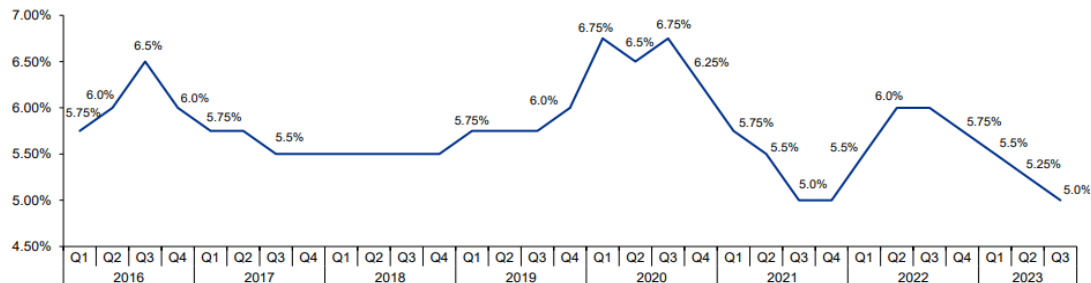
For additional information, please visit  
[kroll.com/cost-of-capital-resource-center](https://kroll.com/cost-of-capital-resource-center)

| Date                                   | Risk-free Rate ( $R_f$ )                | $R_f$ (%) | Kroll Recommended U.S. ERP (%) | What Changed |
|----------------------------------------|-----------------------------------------|-----------|--------------------------------|--------------|
| <b>Current Guidance:</b>               |                                         |           |                                |              |
| June 5, 2024 – UNTIL FURTHER NOTICE*   | Normalized 20-year U.S. Treasury yield* | 3.50*     | 5.00                           | ERP          |
| June 8, 2023 – June 4, 2024*           | Normalized 20-year U.S. Treasury yield* | 3.50*     | 5.50                           | ERP          |
| October 18, 2022 – June 7, 2023*       | Normalized 20-year U.S. Treasury yield* | 3.50*     | 6.00                           | ERP          |
| June 16, 2022 – October 17, 2022*      | Normalized 20-year U.S. Treasury yield* | 3.50*     | 5.50                           | $R_f$        |
| April 7, 2022 – June 15, 2022          | Normalized 20-year U.S. Treasury yield  | 3.00      | 5.50                           | $R_f$        |
| December 7, 2020 – April 6, 2022       | Normalized 20-year U.S. Treasury yield  | 2.50      | 5.50                           | ERP          |
| June 30, 2020 – December 6, 2020       | Normalized 20-year U.S. Treasury yield  | 2.50      | 6.00                           | $R_f$        |
| March 25, 2020 – June 29, 2020         | Normalized 20-year U.S. Treasury yield  | 3.00      | 6.00                           | ERP          |
| December 19, 2019 – March 24, 2020     | Normalized 20-year U.S. Treasury yield  | 3.00      | 5.00                           | ERP          |
| September 30, 2019 – December 18, 2019 | Normalized 20-year U.S. Treasury yield  | 3.00      | 5.50                           | $R_f$        |
| December 31, 2018 – September 29, 2019 | Normalized 20-year U.S. Treasury yield  | 3.50      | 5.50                           | ERP          |
| September 5, 2017 – December 30, 2018  | Normalized 20-year U.S. Treasury yield  | 3.50      | 5.00                           | ERP          |
| November 15, 2016 – September 4, 2017  | Normalized 20-year U.S. Treasury yield  | 3.50      | 5.50                           | $R_f$        |
| January 31, 2016 – November 14, 2016   | Normalized 20-year U.S. Treasury yield  | 4.00      | 5.50                           | ERP          |
| December 31, 2015                      | Normalized 20-year U.S. Treasury yield  | 4.00      | 5.00                           |              |
| December 31, 2014                      | Normalized 20-year U.S. Treasury yield  | 4.00      | 5.00                           |              |
| December 31, 2013                      | Normalized 20-year U.S. Treasury yield  | 4.00      | 5.00                           |              |
| February 28, 2013 – January 30, 2016   | Normalized 20-year U.S. Treasury yield  | 4.00      | 5.00                           | ERP          |
| December 31, 2012                      | Normalized 20-year U.S. Treasury yield  | 4.00      | 5.50                           |              |
| January 15, 2012 – February 27, 2013   | Normalized 20-year U.S. Treasury yield  | 4.00      | 5.50                           | ERP          |
| December 31, 2011                      | Normalized 20-year U.S. Treasury yield  | 4.00      | 6.00                           |              |
| September 30, 2011 – January 14, 2012  | Normalized 20-year U.S. Treasury yield  | 4.00      | 6.00                           | ERP          |
| July 1 2011 – September 29, 2011       | Normalized 20-year U.S. Treasury yield  | 4.00      | 5.50                           | $R_f$        |
| June 1, 2011 – June 30, 2011           | Spot 20-year U.S. Treasury yield        | Spot      | 5.50                           | $R_f$        |
| May 1, 2011 – May 31, 2011             | Normalized 20-year U.S. Treasury yield  | 4.00      | 5.50                           | $R_f$        |
| December 31, 2010                      | Spot 20-year U.S. Treasury yield        | Spot      | 5.50                           |              |
| December 1, 2010 – April 30, 2011      | Spot 20-year U.S. Treasury yield        | Spot      | 5.50                           | $R_f$        |
| June 1, 2010 – November 30, 2010       | Normalized 20-year U.S. Treasury yield  | 4.00      | 5.50                           | $R_f$        |
| December 31, 2009                      | Spot 20-year U.S. Treasury yield        | Spot      | 5.50                           |              |
| December 1, 2009 – May 31, 2010        | Spot 20-year U.S. Treasury yield        | Spot      | 5.50                           | ERP          |
| June 1, 2009 – November 30, 2009       | Spot 20-year U.S. Treasury yield        | Spot      | 6.00                           | $R_f$        |
| December 31, 2008                      | Normalized 20-year U.S. Treasury yield  | 4.50      | 6.00                           |              |
| November 1, 2008 – May 31, 2009        | Normalized 20-year U.S. Treasury yield  | 4.50      | 6.00                           | $R_f$        |
| October 27, 2008 – October 31, 2008    | Spot 20-year U.S. Treasury yield        | Spot      | 6.00                           | ERP          |
| January 1, 2008 – October 26, 2008     | Spot 20-year U.S. Treasury yield        | Spot      | 5.00                           | Initialized  |

\* We recommend using the spot 20-year U.S. Treasury yield as the proxy for the risk-free rate, if the prevailing yield as of the valuation date is higher than our recommended U.S. normalized risk-free rate of 3.5%. This guidance is effective when developing USD-denominated discount rates as of June 16, 2022 and thereafter.

Source: <https://www.kroll.com/-/media/cost-of-capital/kroll-us-erp-rf-table-2023.pdf>

**KPMG Equity Risk Premium**



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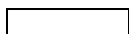
Document Classification: KPMG Public | E

Source: <https://indialogue.io/clients/reports/public/5d9da61986db2894649a7ef2/5d9da63386db2894649a7ef5>

Attachment JRW-8

Public Service Company of New Hampshire's Rate of Return Recommendation

| Capital Source  | Capitalization Ratio | Cost Rate | Weighted Cost Rate |
|-----------------|----------------------|-----------|--------------------|
| Short-Term Debt | 0.00%                | 0.00%     | 0.00%              |
| Long-Term Debt  | 46.15%               | 4.10%     | 1.89%              |
| Common Equity   | 53.85%               | 10.30%    | 5.55%              |
| Total           | 100.00%              |           | 7.44%              |





**Docket No. DE 24-035-04**  
**Attachment JRW-8**  
**Public Service Company of New Hampshire's ROE Results**  
**Page 2 of 2**

**Rea ROE Results**

| <b>Indicated Cost of Equity for the Proxy Groups</b> |                       |                      |                            |
|------------------------------------------------------|-----------------------|----------------------|----------------------------|
| <b>Method/Model</b>                                  | <b>Electric Group</b> | <b>Gas LDC Group</b> | <b>Non-Regulated Group</b> |
| DCF Method                                           | 10.79%                | 10.44%               | 10.90%                     |
| Traditional CAPM                                     | 10.67%                | 10.47%               | 10.61%                     |
| CAPM (w/size adj.)                                   | 11.28%                | 11.11%               | 10.55%                     |
| ECAPM                                                | 10.83%                | 10.68%               | 10.79%                     |
| Risk Premium Method                                  | 10.93%                | 10.74%               | 11.11%                     |

**Investment Firms' Expected U.S. Large Cap Equity Market Annual Returns  
12/31/2022**

| <b>Investment Firm</b> | <b>AUM (\$ in Bn)<br/>12/31/2022</b> | <b>Duration of Forecast<br/>5-, 10-,20- Year</b> | <b>Expected Return<br/>US Large Cap Equities</b> |
|------------------------|--------------------------------------|--------------------------------------------------|--------------------------------------------------|
| AQR                    | \$100.00                             | 5-10 Years                                       | 5.70%                                            |
| Allianz                | \$1,782.64                           | 10 Years                                         | 7.50%                                            |
| Bar's                  | \$468.22                             | 10 Years                                         | 7.80%                                            |
| BlackRock              | \$8,600.00                           | 10 Years                                         | 7.90%                                            |
| BNY Mellon             | \$1,800.00                           | 10 Years                                         | 6.40%                                            |
| Callan                 | \$15.42                              | 10 Years                                         | 7.25%                                            |
| Capital Group          | \$2,300.00                           | 20 Years                                         | 7.20%                                            |
| Citi                   | \$250.00                             | 10 Years                                         | 9.50%                                            |
| Cresset                | \$30.00                              | 10 Years                                         | 7.00%                                            |
| Fidelity               | \$3,876.00                           | 20 Years                                         | 4.00%                                            |
| Franklin Templeton     | \$1,300.00                           | 10 Years                                         | 7.90%                                            |
| Invesco                | \$1,409.20                           | 10 Years                                         | 7.70%                                            |
| Janney Montgomery      | \$2.90                               | 10 Years                                         | 7.50%                                            |
| JPMorgan               | \$2,760.00                           | 10 - 15 Years                                    | 7.90%                                            |
| Mackenzie              | \$192.20                             | 10 Years                                         | 8.20%                                            |
| Morgan Stanley         | \$1,300.00                           | 7 Years                                          | 4.60%                                            |
| Morningstar            | \$253.60                             | -                                                | 7.40%                                            |
| Neuberger Bergman      | \$427.00                             | 20 Years                                         | 5.79%                                            |
| Northern Trust         | \$1,000.00                           | 5 Years                                          | 6.00%                                            |
| Nuveen                 | \$1,100.00                           | 10 Years                                         | 6.96%                                            |
| PGIM                   | \$1,200.00                           | 10 Years                                         | 7.76%                                            |
| PIMCO                  | \$1,740.00                           | 5 Years                                          | 6.80%                                            |
| RBC                    | \$389.00                             | 10 Years                                         | 7.85%                                            |
| RVK                    | \$1.30                               | 20 Years                                         | 6.75%                                            |
| Schroeder              | \$915.53                             | 10 Years                                         | 9.10%                                            |
| Schwab                 | \$755.00                             | 10 Years                                         | 6.10%                                            |
| State Street           | \$3,500.00                           | 10 Years                                         | 6.60%                                            |
| T-Rowe Price           | \$1,275.00                           | 5 Years                                          | 4.90%                                            |
| UBS                    | \$3,960.00                           | 5 Years                                          | 4.90%                                            |
| Vanguard               | \$7,200.00                           | 10 Years                                         | 5.30%                                            |
| Voya                   | \$321.00                             | 10 Years                                         | 6.75%                                            |
| <b>Total</b>           | <b>\$50,224.01</b>                   | <b>10 Years</b>                                  | <b>6.87%</b>                                     |

Data Source: Company websites. Source documents provided in work papers.

GDP and S&P 500 Growth Rates

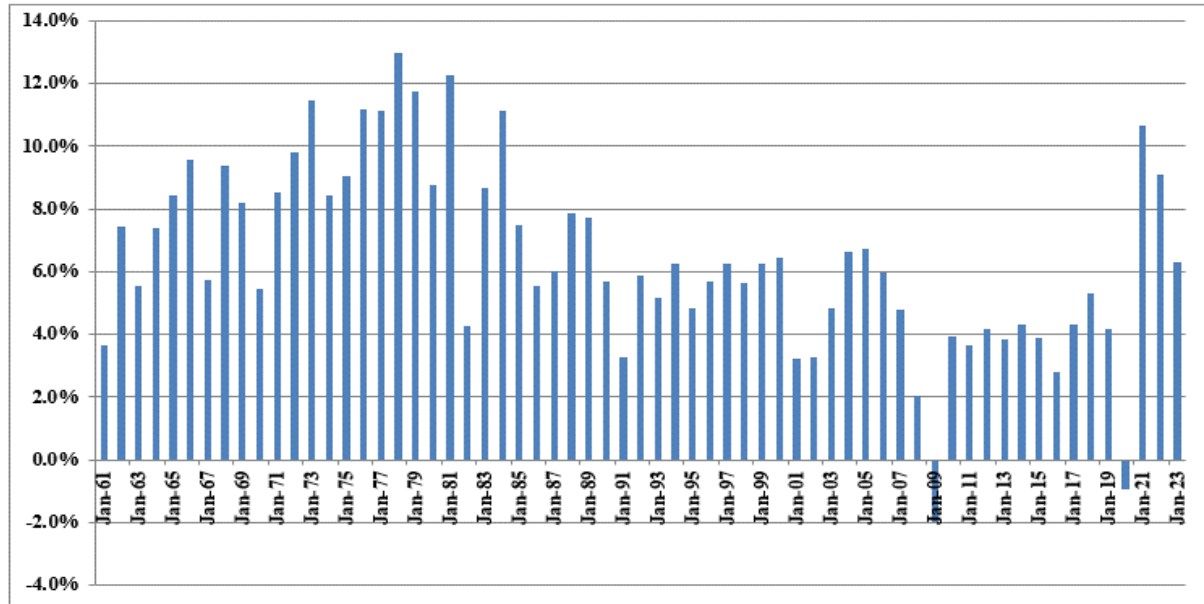
| Growth Rates                     |             |             |             |             |             |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|
| GDP, S&P 500 Price, EPS, and DPS |             |             |             |             |             |
|                                  | GDP         | S&P 500     | S&P 500 EPS | S&P 500 DPS |             |
| 1960                             | 542.38      | 58.11       | 3.10        | 1.98        |             |
| 1961                             | 562.21      | 71.55       | 3.37        | 2.04        |             |
| 1962                             | 603.92      | 63.10       | 3.67        | 2.15        |             |
| 1963                             | 637.45      | 75.02       | 4.13        | 2.35        |             |
| 1964                             | 684.46      | 84.75       | 4.76        | 2.58        |             |
| 1965                             | 742.29      | 92.43       | 5.30        | 2.83        |             |
| 1966                             | 813.41      | 80.33       | 5.41        | 2.88        |             |
| 1967                             | 859.96      | 96.47       | 5.46        | 2.98        |             |
| 1968                             | 940.65      | 103.86      | 5.72        | 3.04        |             |
| 1969                             | 1,017.62    | 92.06       | 6.10        | 3.24        |             |
| 1970                             | 1,073.30    | 92.15       | 5.51        | 3.19        |             |
| 1971                             | 1,164.85    | 102.09      | 5.57        | 3.16        |             |
| 1972                             | 1,279.11    | 118.05      | 6.17        | 3.19        |             |
| 1973                             | 1,425.38    | 97.55       | 7.96        | 3.61        |             |
| 1974                             | 1,545.24    | 68.56       | 9.35        | 3.72        |             |
| 1975                             | 1,684.90    | 90.19       | 7.71        | 3.73        |             |
| 1976                             | 1,873.41    | 107.46      | 9.75        | 4.22        |             |
| 1977                             | 2,081.83    | 95.10       | 10.87       | 4.86        |             |
| 1978                             | 2,351.60    | 96.11       | 11.64       | 5.18        |             |
| 1979                             | 2,627.33    | 107.94      | 14.55       | 5.97        |             |
| 1980                             | 2,857.31    | 135.76      | 14.99       | 6.44        |             |
| 1981                             | 3,207.04    | 122.55      | 15.18       | 6.83        |             |
| 1982                             | 3,343.79    | 140.64      | 13.82       | 6.93        |             |
| 1983                             | 3,634.04    | 164.93      | 13.29       | 7.12        |             |
| 1984                             | 4,037.61    | 167.24      | 16.84       | 7.83        |             |
| 1985                             | 4,338.98    | 211.28      | 15.68       | 8.20        |             |
| 1986                             | 4,579.63    | 242.17      | 14.43       | 8.19        |             |
| 1987                             | 4,855.22    | 247.08      | 16.04       | 9.17        |             |
| 1988                             | 5,236.44    | 277.72      | 24.12       | 10.22       |             |
| 1989                             | 5,641.58    | 353.40      | 24.32       | 11.73       |             |
| 1990                             | 5,963.14    | 330.22      | 22.65       | 12.35       |             |
| 1991                             | 6,158.13    | 417.09      | 19.30       | 12.97       |             |
| 1992                             | 6,520.33    | 435.71      | 20.87       | 12.64       |             |
| 1993                             | 6,858.56    | 466.45      | 26.90       | 12.69       |             |
| 1994                             | 7,287.24    | 459.27      | 31.75       | 13.36       |             |
| 1995                             | 7,639.75    | 615.93      | 37.70       | 14.17       |             |
| 1996                             | 8,073.12    | 740.74      | 40.63       | 14.89       |             |
| 1997                             | 8,577.55    | 970.43      | 44.09       | 15.52       |             |
| 1998                             | 9,062.82    | 1,229.23    | 44.27       | 16.20       |             |
| 1999                             | 9,631.17    | 1,469.25    | 51.68       | 16.71       |             |
| 2000                             | 10,250.95   | 1,320.28    | 56.13       | 16.27       |             |
| 2001                             | 10,581.93   | 1,148.09    | 38.85       | 15.74       |             |
| 2002                             | 10,929.11   | 879.82      | 46.04       | 16.08       |             |
| 2003                             | 11,456.45   | 1,111.91    | 54.69       | 17.88       |             |
| 2004                             | 12,217.20   | 1,211.92    | 67.68       | 19.407      |             |
| 2005                             | 13,039.20   | 1,248.29    | 76.45       | 22.38       |             |
| 2006                             | 13,815.58   | 1,418.30    | 87.72       | 25.05       |             |
| 2007                             | 14,474.23   | 1,468.36    | 82.54       | 27.73       |             |
| 2008                             | 14,769.86   | 903.25      | 65.39       | 28.05       |             |
| 2009                             | 14,478.07   | 1,115.10    | 59.65       | 22.31       |             |
| 2010                             | 15,048.97   | 1,257.64    | 83.66       | 23.12       |             |
| 2011                             | 15,599.73   | 1,257.60    | 97.05       | 26.02       |             |
| 2012                             | 16,253.97   | 1,426.19    | 102.47      | 30.44       |             |
| 2013                             | 16,843.20   | 1,848.36    | 107.45      | 36.28       |             |
| 2014                             | 17,550.69   | 2,058.90    | 113.01      | 39.44       |             |
| 2015                             | 18,206.02   | 2,043.94    | 106.32      | 43.16       |             |
| 2016                             | 18,695.11   | 2,238.83    | 108.86      | 45.03       |             |
| 2017                             | 19,479.62   | 2,673.61    | 124.94      | 49.73       |             |
| 2018                             | 20,527.16   | 2,506.85    | 148.34      | 53.61       |             |
| 2019                             | 21,372.58   | 3,230.78    | 162.35      | 58.80       |             |
| 2020                             | 20,893.75   | 3,756.07    | 139.76      | 56.70       |             |
| 2021                             | 22,997.50   | 4,766.18    | 206.38      | 59.20       |             |
| 2022                             | 25,461.34   | 3,839.50    | 219.49      | 68.34       |             |
| 2023                             | 27,750.00   | 4769.83     | 219.70      | 69.69       | Average     |
| <b>Growth Rates</b>              | <b>6.45</b> | <b>7.25</b> | <b>7.00</b> | <b>5.81</b> | <b>6.63</b> |

Data Sources: GDPA - <http://research.stlouisfed.org/fred2/series/GDPA/downloaddata>

DPS - <http://pages.stern.nyu.edu/~adamodar/>

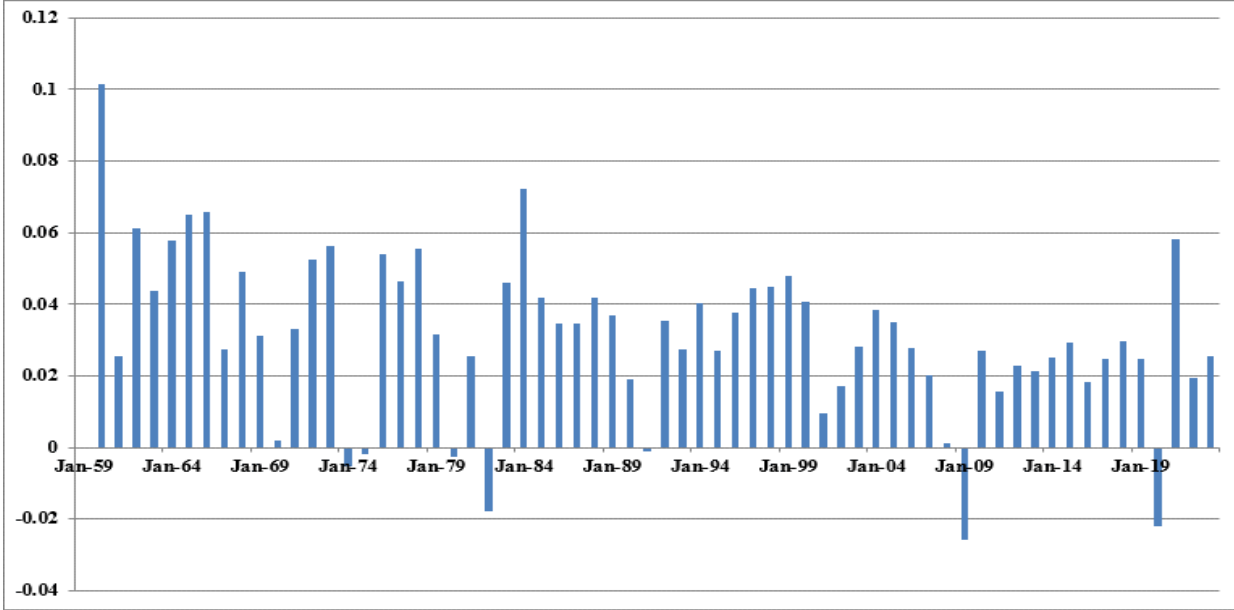
Annual Nominal GDP Growth Rates

Annual Growth Rates - 1961-2023



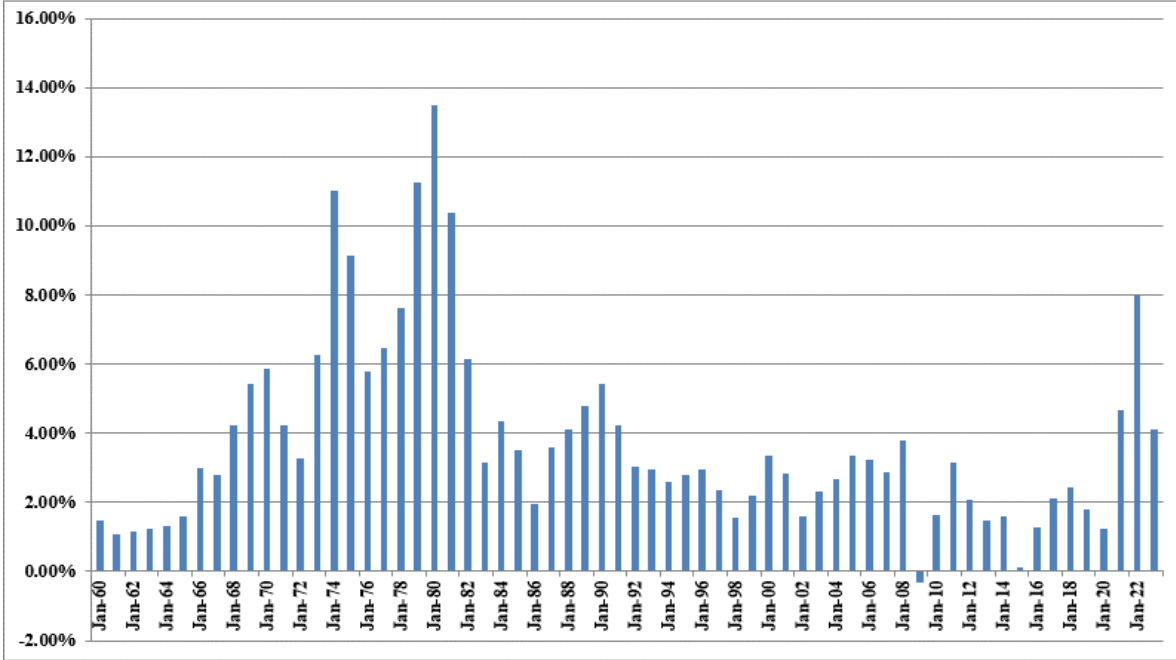
Data Sources: GDPA -<https://fred.stlouisfed.org/series/GDPA>

Real GDP Growth Rates  
Annual Average Real GDP Growth Rates  
1961-2023



Data Sources: GDPC1 - <https://fred.stlouisfed.org/series/GDPCA>

**Inflation Rates**  
**Annual CPI Inflation Rates**  
**1961-2023**



Data Sources: CPIAUCSL - <https://fred.stlouisfed.org/series/CPIAUCSL>

**Historical and Projected Nominal GDP Growth Rates**

**Panel A**

**Historic GDP Growth Rates**

|                        |              |
|------------------------|--------------|
| <b>10-Year Average</b> | <b>4.59%</b> |
| <b>20-Year Average</b> | <b>4.32%</b> |
| <b>30-Year Average</b> | <b>4.65%</b> |
| <b>40-Year Average</b> | <b>5.21%</b> |
| <b>50-Year Average</b> | <b>6.16%</b> |

Calculated using GDP data on Page 1 of Attachment JRW-10

**Panel B**

**Projected GDP Growth Rates**

|                                          | <b>Time Frame</b> | <b>Projected<br/>Nominal GDP<br/>Growth Rate</b> |
|------------------------------------------|-------------------|--------------------------------------------------|
| <b>Congressional Budget Office</b>       | <b>2023-2053</b>  | <b>3.8%</b>                                      |
| <b>Survey of Financial Forecasters</b>   | <b>Ten Year</b>   | <b>4.4%</b>                                      |
| <b>Social Security Administration</b>    | <b>2023-2100</b>  | <b>4.1%</b>                                      |
| <b>Energy Information Administration</b> | <b>2023-2050</b>  | <b>4.3%</b>                                      |
| <b>Sources:</b>                          | <b>Average</b>    | <b>4.15%</b>                                     |

Congressional Budget Office, *The 2023 Long-Term Budget Outlook*, July 15, 2023.

U.S. Energy Information Administration, *Annual Energy Outlook 2023*, Table: Macroeconomic Indicators,

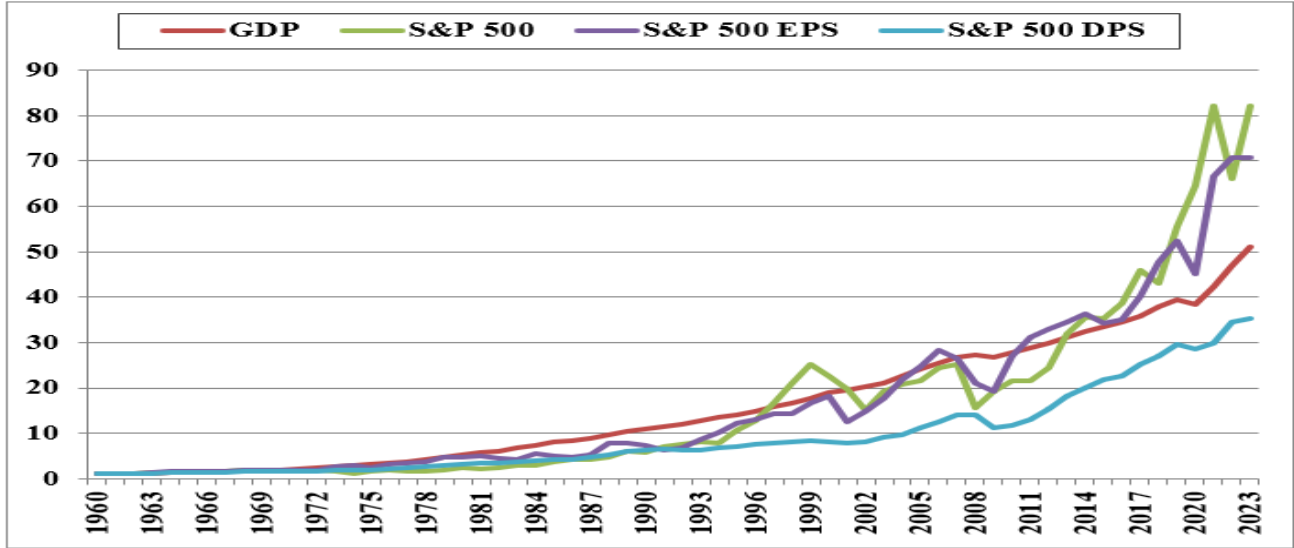
Social Security Administration, 2023 Annual Report of the Board of Trustees of the Old-Age, Survivors, and Disability Insurance (OASDI) Program, Table VI.G4,

The 4.1% growth rate is the growth in projected GDP from 26 trillion in 2023 to \$582 trillion in 2100.

<https://www.philadelphiafed.org/research-and-data/real-time-center/survey-of-professional-forecasters/>

GDP and S&P 500 Growth

Cumulative Long-Term Growth of GDP, S&P 500, S&P 500 EPS, S&P 500 DPS



|                     | <b>GDP</b>  | <b>S&amp;P 500</b> | <b>S&amp;P 500 EPS</b> | <b>S&amp;P 500 DPS</b> |
|---------------------|-------------|--------------------|------------------------|------------------------|
| <b>Growth Rates</b> | <b>6.45</b> | <b>7.25</b>        | <b>7.00</b>            | <b>5.81</b>            |

Data Sources: GDPA - <http://research.stlouisfed.org/fred2/series/GDPA/downloaddata>  
 S&P 500, EPS and DPS - <http://pages.stern.nyu.edu/~adamodar/>