

# Exhibit No. 16

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on Equity  
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Sponsoring Party: Evergy Missouri Metro and Evergy  
Missouri West  
File No.: ER-2022-0129 / 0130  
Date: August 16, 2022

**MISSOURI PUBLIC SERVICE COMMISSION**

**FILE NO. ER-2022-0129 / 0130**

**SURREBUTTAL TESTIMONY**

**OF**

**ANN E. BULKLEY**

**ON BEHALF OF**

**EVERGY MISSOURI METRO and EVERGY MISSOURI WEST**

**Kansas City, Missouri**

**August 2022**

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**SURREBUTTAL TESTIMONY**  
**OF**  
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**File No. ER-2022-0129 / 0130**

1           **I.       INTRODUCTION**

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

3           A.       My name is Ann E. Bulkley. I am a Principal at The Brattle Group (“Brattle”). My  
4           business address is One Beacon Street, Suite 2600, Boston, MA 02108.

5           **Q.       On whose behalf are you submitting this Prepared Surrebuttal Testimony?**

6           A.       I am submitting this testimony before the Missouri Public Service Commission  
7           (“Commission”) on behalf of Evergy Metro, Inc., d/b/a Evergy Missouri Metro (“Evergy  
8           Missouri Metro”) and Evergy Missouri West, Inc. d/b/a Evergy Missouri West (“Evergy  
9           Missouri West”) (collectively the “Companies”) both wholly-owned subsidiaries of  
10          Evergy, Inc. (“Evergy”).

11          **Q.       Did you previously provide Direct Testimony and Rebuttal Testimony in this**  
12          **proceeding?**

13          A.       Yes. I submitted Direct Testimony regarding the appropriate Return on Equity (“ROE”)<sup>1</sup>  
14          and overall rate of return to be used for ratemaking purpose for Evergy Missouri Metro and  
15          Evergy Missouri West in this proceeding on January 7, 2022. I also addressed the  
16          appropriateness of the Company’s proposed capital structure, as supported by Company

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<sup>1</sup> Throughout my Direct Testimony, I interchangeably use the terms “ROE” and “cost of equity”.

1 witness Kirkland B. Andrews. I also submitted Rebuttal Testimony on the same topics on  
2 July 13, 2022.

3 **Q. Please describe the purpose of your testimony.**

4 A. The purpose of my Surrebuttal Testimony is to respond to the Rebuttal Testimony of the  
5 Missouri Public Service Commission Staff (“Staff”) witness Dr. Seoung Joun Won relating  
6 to the authorized ROE and capital structure, the Rebuttal Testimonies of Staff Witnesses  
7 Francisco Del Pozo and Sarah L. K. Lange as they relate to the Companies business risk,  
8 and the Rebuttal Testimony of David Murray on behalf of the Office of the Public Counsel  
9 (“OPC”).

10 **II. SUMMARY AND OVERVIEW**

11 **Q. Please briefly summarize your Surrebuttal Testimony and your key conclusions and**  
12 **recommendations regarding the appropriate ROE and capital structure for Evergy**  
13 **Missouri Metro and Evergy Missouri West in this proceeding.**

14 A. My key conclusions are as follows:

- 15 1. The objective in this proceeding is to provide the Commission with market-  
16 based estimates of the ROE that should be considered for the Companies in this  
17 proceeding. While the analyses that I have prepared provide the Commission  
18 with ROE estimates, both Dr. Won and Mr. Murray have testified that their  
19 analyses do not reflect the ROE. Rather than developing market-based analyses  
20 to estimate the ROE, these witnesses have developed subjective estimates of the  
21 cost of equity (“COE”) and have provide the Commission with no meaningful  
22 link between the COE and the ROE.

1 a. In lieu of any relationship between the COE and the ROE Mr. Murray  
2 simply provides the Commission with his judgment as to the ROE that is  
3 appropriate for the Companies.

4 b. Dr. Won uses his COE estimates to develop an adjustment to an ROE  
5 established in the 2019 Empire case. We know that the Commission did  
6 not rely on either of the “market-based” analyses prepared by Dr. Won to  
7 develop his adjustment factor because neither was filed in the Empire case.  
8 Dr. Won developed both ROE analyses in this case; the first based on  
9 current market data and the second as a retrospective view of the ROE at  
10 the time of the Empire Case. Dr. Won’s reliance on this benchmarking  
11 approach, based on market data that was not considered in the determination  
12 of the ROE for the 2019 Empire case is fundamentally undermined by Dr.  
13 Won’s criticism of the use of previous ROE determinations in the Bond  
14 Yield Risk Premium (“BYRP”) analysis. Dr. Won states that the  
15 Commission should not rely on the BYRP approach because it ‘is likely to  
16 provide less accurate current COE estimate... because it relies on previous  
17 ROE determinations, whose resulting ROE may not necessarily be directly  
18 determined by a market-based methodology.’<sup>2</sup>

19 2. Staff’s recommended ROE of 9.62 percent is 38 basis points below the Company  
20 request of 10.00 percent. Staff has recognized that interest rates have increased

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<sup>2</sup> Rebuttal Testimony of Seoung Joun Won, PhD, at 19.

1 and that the cost of equity has increased as compared with the market conditions  
2 that prevailed at the time of the Empire decision.

3 3. Since the date of Staff’s analysis, additional information further demonstrates  
4 that the rising interest rate environment makes the Company’s requested ROE  
5 reasonable.

6 a. Staff’s analysis was prepared as of the end of the first quarter of this year.  
7 The 3-month average of the 30-year Treasury bond used in Staff’s analysis  
8 was 2.25 percent. Since that time, the 3-month average yield on the 30-year  
9 Treasury bond has increased to 3.14 percent, an increase of 89 basis points.

10 b. Inflation continues to escalate, increasing from 8.5 percent in March 2022  
11 to 9.1 percent as of July 2022.

12 c. The Federal Reserve has increased the Federal Funds rate three times since  
13 the end of the first quarter of this year; a total of 200 basis points. Further,  
14 in its July meeting, the Federal Reserve indicated further increases would  
15 be necessary to address persistent inflationary pressures. The June and July  
16 increases, of 75 basis points each, were of significance. The last increase  
17 of this magnitude in one month has not been seen since November 1994,  
18 when it moved the Federal Funds rate from 4.75 percent to 5.50 percent.<sup>3</sup>  
19 Therefore, it is reasonable to expect that the COE and the ROE are  
20 increasing – even during the pendency of this proceeding. Current market  
21 conditions and the results of the ROE estimation methodologies

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<sup>3</sup> CNBC “Fed hikes its benchmark interest rate by 0.75 percentage point, the biggest increase since 1994,” June 15, 2022.

1 demonstrate that the Companies' requested ROE of 10.00 percent is  
2 reasonable.

3 4. Dr. Won uses a review of authorized ROEs to suggest that my ROE  
4 recommendation is above the average of recently authorized ROEs in 2022. This  
5 criticism lacks credibility, as the same is true of Dr. Won's recommendation. As  
6 discussed in my testimony, it is reasonable to expect that the recommended  
7 ROEs in this proceeding would be higher than recently authorized ROEs.  
8 Recently authorized ROEs rely on data reflecting historical market conditions.  
9 Over the pendency of this case, market conditions have been changing rapidly,  
10 with the Federal Reserve increasing interest rates four times (by 225 basis points  
11 in aggregate) since the data used in my Direct Testimony. Therefore, it is  
12 reasonable and appropriate that both Dr. Won's recommendation and the  
13 Company's request be higher than recently authorized ROEs, which were set  
14 based on lower interest rate environments.

15 5. In contrast, as noted by Dr. Won, Mr. Murray's recommendation of 9.00 percent  
16 is 47 basis points lower than the average authorized ROE for vertically integrated  
17 electric utilities completed in the first half of 2022,<sup>4</sup> is unsupported by any of  
18 the analyses he has presented in this case, and ignores the rising cost of capital  
19 that his own research supports.<sup>5</sup>

20 6. Both Dr. Won and Mr. Murray spend many pages of their respective Rebuttal  
21 Testimonies disputing my selection of Discounted Cash Flow ("DCF") models

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<sup>4</sup> Rebuttal Testimony of Seoung Joun Won, PhD at 26.

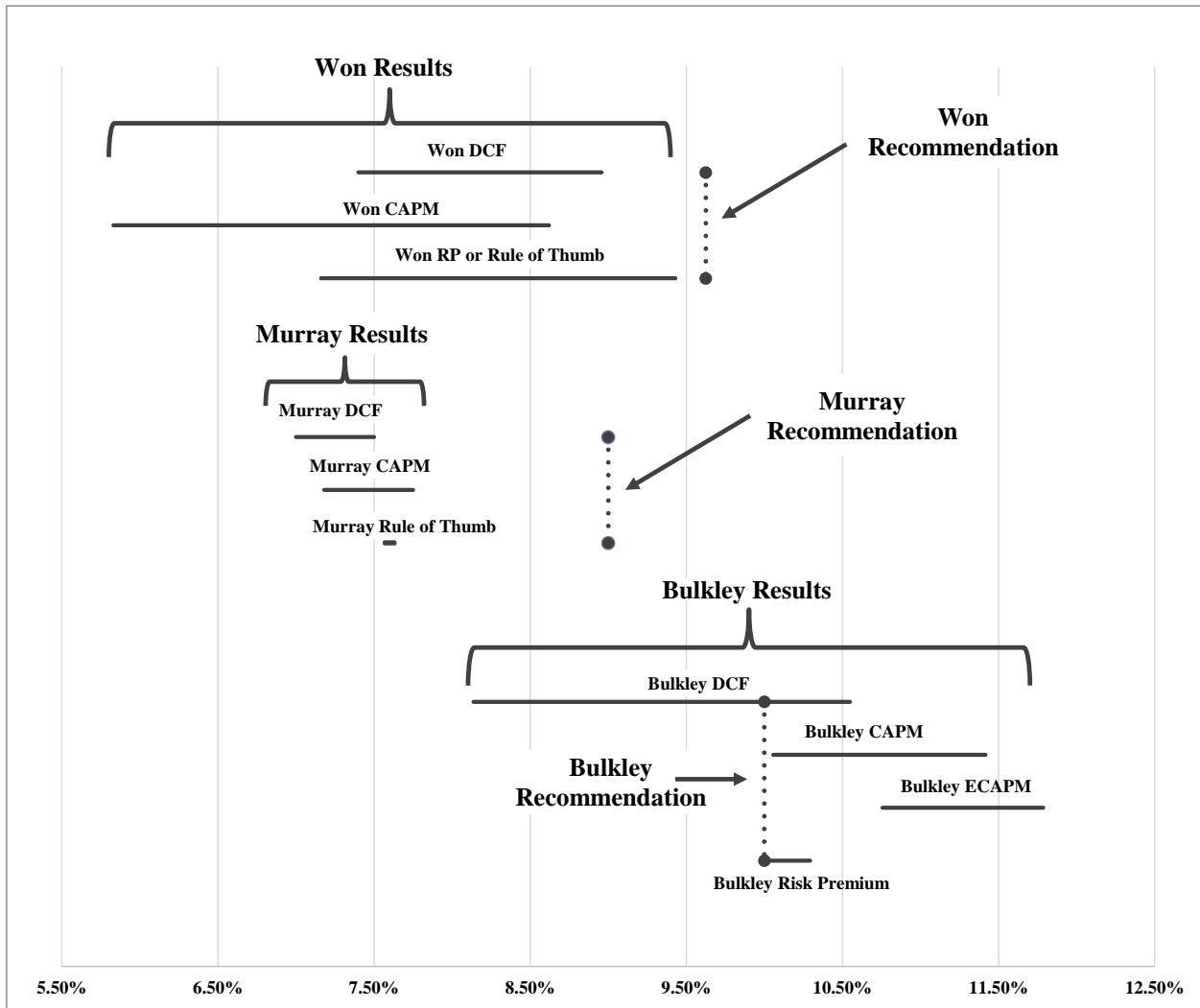
<sup>5</sup> Ibid at 27-28.



1 and the assumptions used in the DCF and Capital Asset Pricing Model  
2 (“CAPM”) analyses. Their criticisms should be viewed, however, in the context  
3 that both Dr. Won and Mr. Murray acknowledge that their models do not produce  
4 estimates of the ROE, but rather a COE and that neither Dr. Won nor Mr. Murray  
5 have provided the Commission any way to bridge the gap between their model  
6 results and their ultimate ROE recommendations. Their respective 9.62 percent  
7 and 9.00 percent recommendations are not based on any of the assumptions they  
8 used to establish their ROE analyses. Rather, each of these witnesses comes to  
9 their recommendations by relying completely on subjective analyses. By  
10 contrast, my recommended ROE is supported on the results of my ROE  
11 estimation methodologies, as shown in Figure 1 below.

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**Figure 1: Results Comparisons<sup>6</sup>**



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7. Both Dr. Won and Mr. Murray suggest that the model results estimate the COE, which they do not recommend the Commission adopt in this proceeding. By developing models that cannot be relied upon, and suggesting that the results of my models (which are within the range of recommended results in this proceeding) are overstated, both witnesses in this proceeding appear to be asking the Commission to reject all analytical bases for estimating the ROE and simply rely on Dr. Won and Mr. Murray's subjective judgment as to the appropriate

<sup>6</sup> AEB-SR7 Results Range

1 ROE for the Companies. In contrast, my results demonstrate that when relying  
2 on reasonable assumptions, the ROE estimation methodologies produce results  
3 that are within the range established by Dr. Won's recommendation and my  
4 recommendation. Dr. Won's criticism of my ROE recommendation and range  
5 are inconsistent with his own recommendations and therefore should be rejected.

6 8. Dr. Won's suggestion that he agrees with most of Mr. Murray's COE<sup>7</sup> analysis  
7 is irreconcilable with his conclusion that Mr. Murray's recommended ROE is  
8 too low and is unsupported by Dr. Won's view of current market conditions and  
9 Mr. Murray's own analysis of current market conditions. The results of Mr.  
10 Murray's Multi-Stage DCF results are 40 to 146 basis points below the results  
11 presented by Dr. Won and would suggest that the appropriate ROE for the  
12 Companies is lower than in the Empire case. This conclusion contradicts Dr.  
13 Won's results, conclusions and final recommendation. Therefore, it is unclear  
14 how Dr. Won could support Mr. Murray's analytical framework in any context.  
15 Further, the explanation that the COE and the ROE differ by hundreds of basis  
16 points is unrealistic and ignores the obvious conclusion that the ROE estimation  
17 models that produce results in the 7.00 percent to 7.75 percent range do not rely  
18 on reasonable assumptions. In contrast, the ROE estimation methodologies that  
19 I have specified, using reasonable assumptions that would be considered by  
20 investors, result in a reasonable range of returns that are consistent with the range  
21 of recently authorized ROEs across state regulatory jurisdictions.

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<sup>7</sup> Rebuttal Testimony of Seung Joun Won, PhD at 30.

1           9. The suggestion that my specification of the Constant Growth DCF model is  
2           biased when it produces results within the range established by Staff and OPC's  
3           own ROE recommendations lacks credibility. The Staff and OPC witnesses in  
4           this proceeding have not provided the Commission with any analytical tools that  
5           they themselves deem credible for providing an estimate of the ROE. These  
6           witnesses have discarded the results of their own analyses and have instead relied  
7           on judgment and baseless comparisons that do not reflect the comparable return  
8           standard and do not provide a reasonable ROE given current market conditions.  
9           It is disingenuous to suggest that I should have relied on the assumptions used  
10          by these witnesses in their DCF and CAPM estimation models when the fact is  
11          that each of these witnesses has abandoned the results of their models that rely  
12          on these assumptions. Further, Mr. Murray's suggestion that the Multi-Stage  
13          model should be preferred over the Constant Growth DCF model, when he  
14          rejects the results of that model in developing the ROE recommendation, lacks  
15          credibility.

16 **Q. How is the remainder of your Surrebuttal Testimony organized?**

17 A. The remainder of my Surrebuttal Testimony is organized as follows:

- 18           • In Section III, I discuss the changing capital markets conditions that Dr. Won and  
19           Mr. Murray fail to discern.
- 20           • In Section IV, I discuss my proxy group.
- 21           • In Section V, I respond to Staff witness Dr. Won's DCF analyses and  
22           recommendations and OPC witness Mr. Murray's DCF analyses and  
23           recommendations.

- 1           • In Section VI, I respond to Staff witness Dr. Won’s CAPM analyses and  
2           recommendations and OPC witness Mr. Murray’s CAPM analyses and  
3           recommendations.
- 4           • In Section VII, I respond to Staff witness Dr. Won’s risk premium and rule of  
5           thumb analyses and recommendations and OPC witness Mr. Murray’s rule of  
6           thumb analyses and recommendations.
- 7           • In Section VIII, I discuss authorized returns in other jurisdictions.
- 8           • In Section IX, I respond to Staff witness Dr. Won’s capital structure analyses and  
9           recommendations and OPC witness Mr. Murray’s capital structure analyses and  
10          recommendations.
- 11          • In Section X, I discuss the Companies’ business risk factors.
- 12          • Finally, in Section XI, I summarize my conclusions and recommendations.

13           **III. CAPITAL MARKETS**

14   **Q. Do the Staff and OPC witnesses in this proceeding agree as to recent capital market**  
15   **conditions?**

16   A: Yes. All of the witnesses in this proceeding recognize the recent changes in capital market  
17   conditions based on the time period used for their testimony. Dr. Won recognizes a rising  
18   interest rate environment and reflects that in his analysis, though not to the degree that is  
19   warranted given the continued escalation in interest rates during this case. Mr. Murray’s  
20   research regarding market conditions demonstrates that the cost of capital is increasing.  
21   However the conclusions from his research cannot be reconciled with his recommendation  
22   that the Commission authorize an ROE in this case that is lower than this Commission, and

1 other commissions across the country have authorized in recent lower interest rate  
2 environments.<sup>8</sup>

3 **Q. Why do you believe that Staff’s ROE recommendation is insufficient given current**  
4 **market conditions?**

5 Staff’s recommendation of 9.62 percent is based on data through the first quarter of 2022.  
6 Since the date of Staff’s analysis, capital market conditions have changed considerably, as  
7 shown in the figure below. For example, interest rates have increased by approximately 89  
8 basis points. Inflation has increased from 8.5 percent in March 2022 to 9.1 percent as of  
9 July 2022. The Federal Reserve has increased the Federal Funds rate 200 basis points since  
10 March 2022 (the most recent date in Dr. Won’s analysis). The June and July increases of  
11 75 basis points each are notable in that an increase of this magnitude in one month has not  
12 been seen since November 1994, when it moved the Federal Funds rate from 4.75 percent  
13 to 5.50 percent.<sup>9</sup>

14 Further, at his July 27, 2022 press conference, Federal Reserve Chairman Powell  
15 indicated that it is critical to address rising inflation in order to stabilize economic  
16 conditions. Therefore, the COE and the ROE have increased – even during the pendency  
17 of this proceeding and should be expected to increase over the period when the rates that  
18 are decided in this case will be in effect. Given that Dr. Won’s analysis of changes in the  
19 COE is based solely on a comparative DCF analysis from the time of the Empire 2019  
20 Case and the first quarter of 2022. A DCF analysis alone may not capture the dynamics of  
21 the considerable changes in capital market conditions, therefore Dr. Won’s analysis of

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<sup>8</sup> Rebuttal Testimony of Seoung Joun Won, PhD at 27-28.

<sup>9</sup> CNBC “Fed hikes its benchmark interest rate by 0.75 percentage point, the biggest increase since 1994,” June 15, 2022.

1 changes in the COE may be oversimplified. As discussed in my Rebuttal Testimony,  
 2 reasonable changes to Staff’s analysis resulted in a range of ROEs from 51 basis points to  
 3 226 basis points above Empire’s 2019 authorized ROE of 9.25 percent, rather than Dr.  
 4 Won’s estimate of 37 basis points. Current market conditions and the results of the ROE  
 5 estimation methodologies demonstrate that the Companies’ requested ROE of 10.00  
 6 percent is reasonable.

7 **Figure 2: Comparison of Current Capital Markets to Capital Markets during the Empire**  
 8 **2019 Case**

| Methodology   | 2019 Empire Case   | March 2022  | Current Evergy Missouri Metro and Evergy Missouri West Case (July 2022)     |
|---|--|---|---|
| 30-day Average yield on 30-year Treasury Bond                 | 2.21% (3-month ending November 2019)<br>2.25% (30-day ending January 31, 2020) <sup>10</sup>                                       | 2.25% (3-month ending March 31, 2022) <sup>11</sup><br>2.37% (30-day ending March 31, 2022) <sup>12</sup> | 3.14% (3-month ending July 31, 2022)<br>3.16% (30-day ending July 31, 2022) |
| Inflation (as measured by Y-o-Y change in CPI <sup>13</sup> ) | 2.5% (as of January 2020)  | 8.5% (as of March 31, 2022)   | 9.1% (as of July 31, 2022)  |
| Long-term Growth Rate Assumption                              | N/A<br>Won GDP interpretation: 3.90% (as of May 2022)<br>Dividend-based: 4.2%-5.0% <sup>14</sup><br>GDP: 4.10%-4.40% <sup>15</sup> | GDP: 3.90% <sup>16</sup><br>GDP: 6.22% <sup>17</sup>  |   |
| Federal Funds Rate <sup>18</sup>                              | 1.50%-1.75% (as of November 30, 2019)  | 0.25-0.50% (as of March 31, 2022)   | 2.25%-2.50 percent as of July 29, 2022                                      |

<sup>10</sup> Bloomberg Professional as of March 31, 2022.

<sup>11</sup> Schedule SJW-d14.

<sup>12</sup> Bloomberg Professional as of March 31, 2022.

<sup>13</sup> Consumer Price Index for All Urban Consumers: All Items in U.S. City Average (12-month percent change). Available [here](#).

<sup>14</sup> Empire District Case No. ER-2019-0374, Amended Report and Order at 29.

<sup>15</sup> Empire District Case No. ER-2019-0374. Chari Rebuttal at 7 and Staff Direct Report at 16.

<sup>16</sup> Empire District Case No. ER-2019-0374, Staff Direct Testimony Appendix 2, Schedule PC-10-1.

<sup>17</sup> Schedule AEB-R10 GDP Growth

<sup>18</sup> Federal Reserve Bank of St. Louis. Federal Reserve Economic Data: Federal Funds Effective Rate, Percent, Daily, Not Seasonally Adjusted.

1           **IV.    PROXY GROUP**

2   **Q.    Please summarize Dr. Won’s position with respect to the proxy group that you relied**  
3           **on for Evergy Missouri.**

4   A:    Dr. Won suggests that my analysis of the Pinnacle West Capital Corporations (“Pinnacle  
5           West”) stock price is incorrect and that as a result I have inappropriately excluded this  
6           company from the proxy group.

7   **Q.    Do you agree with their conclusions?**

8   A.    No, I do not. Dr. Won’s critique of my Pinnacle West analysis misrepresents my Rebuttal  
9           Testimony. Despite requesting and being provided the analysis that supports Figure 4 of  
10          my Rebuttal Testimony<sup>19</sup>, Dr. Won incorrectly suggests that my testimony examines the  
11          prices of the stock over the period from October to November 2021. In fact, my testimony  
12          correctly examines the period from the initial Administrative Law Judge (“ALJ”) decision  
13          in August 2021 through November 4, 2021, when the final decision was issued in the  
14          Arizona Public Service (“APS”) case. As shown in Figure 4 of my Rebuttal Testimony,  
15          and provided as Figure 3 below, the decline in stock price over this period was 24 percent.

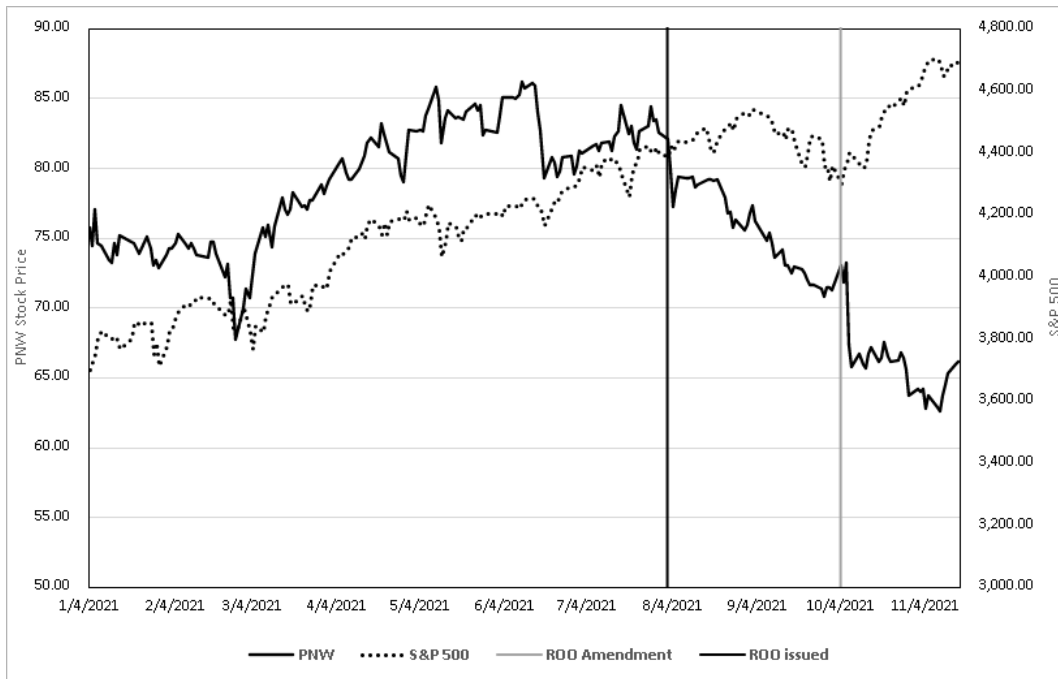
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<sup>19</sup> MPSC 0514-Response Attachment 1.



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**Figure 3: Pinnacle West Stock Price Analysis**



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Further, the growth rates for Pinnacle West declined substantially following the ALJ decision in the APS case in August 2021. On August 1, 2021, the IBES projected growth rate for Pinnacle West was 3 percent. The ALJ decision was issued on August 4, 2021. The September IBES growth rates for Pinnacle West declined to 0.01 percent where it has remained since. Based on the changes in stock price and expected growth rates for Pinnacle West over this period, it is entirely unreasonable to consider Pinnacle West a risk-comparable proxy group company for Evergy Missouri West and Evergy Missouri Metro.

10 **Q. Do you agree with Dr. Won that your 7 percent low end screening criterion resulted**  
11 **in “inflated” COE estimates from your DCF model?**

12 A. No, I do not. This is another mischaracterization of my testimony. As discussed in my  
13 Rebuttal Testimony, I developed *two* estimates of the return resulting from my DCF  
14 analysis. I included both the median result, which includes *all* observations, and a mean  
15 result that excludes results below 7.00 percent. As shown in Schedule AEB-3 in my Direct

1 testimony, the median result using 30-day average stock prices and mean growth rates was  
2 9.58 percent. The median results using the high growth rate estimates over the same time  
3 period was 10.03 percent. In my Rebuttal Testimony, the median and median high results  
4 for 30-day average price scenario were 9.29 percent and 9.83 percent, respectively. Dr.  
5 Won has failed to acknowledge these results in my analyses.

6 **Q. Why did you consider a 7 percent risk premium screen when determining your proxy**  
7 **group?**

8 A. An equity investment is considered riskier than a bond or debt investment due to the fact  
9 that equity investors are the residual claimants on a utility's cash flows. Therefore, the  
10 return on an equity investment must be greater than the return on a bond/debt investment  
11 to compensate investors for the additional risk. The risk premium (i.e., the incremental  
12 return of an equity investment over the return on utility bonds) must be sufficient to  
13 compensate investors for the additional risk of an equity investment otherwise a utility's  
14 ability to attract capital could be affected. I determined that a 7.00 percent equity return  
15 would not provide equity investors a sufficient return increment above the yield on A-rated  
16 utility bonds. While Dr. Won indicates that a typical risk premium is in the range of 3.50  
17 to 5.50 percent, this risk premium range is inconsistent with the historical risk premium  
18 from 1926-2021 of 7.46 percent as reported by Duff and Phelps and the inverse relationship  
19 between interest rates and the market risk premium which indicates that as interest rates  
20 decline, the risk premium increases.<sup>20</sup> For example, since current interest rates are below  
21 the historical income-only return on government bonds of 4.87 percent used to calculate  
22 the historical risk premium, the inverse relationship would imply that the current risk

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<sup>20</sup> Source: Duff & Phelps, Valuation Handbook: Guide to Cost of Capital, 2022.

1 premium should be well above the historical risk premium of 7.46 percent.<sup>21</sup> As a result,  
2 my conclusion that investors would not view a risk premium of 217 basis points above the  
3 yield on the Moody's A-rated utility bond as a sufficient return increment is reasonable.

#### 4 **V. DCF ANALYSES**

5 **Q. Please summarize Dr. Won's and Mr. Murray's criticism of your DCF results.**

6 A: Dr. Won and Mr. Murray both criticize the use of projected earnings growth rates in the  
7 DCF model and suggest that the use of 3–5-year earnings growth rates in the Constant  
8 Growth DCF model overstate the COE.<sup>22</sup> Dr. Won suggests that it would be more  
9 appropriate to rely on a long-term growth rate that approximates the level of long-term  
10 GDP growth.<sup>23</sup> Mr. Murray suggests, without any support, that the use of projected EPS  
11 growth rates in the DCF analysis “is not how equity analysts determine fair prices to pay  
12 for utility stocks”.<sup>24</sup>

13 **Q. Do you agree with this assessment?**

14 A. No, I do not. First, it is important to recognize that while each of these witnesses essentially  
15 suggests that I should have relied on the multi-stage DCF model using their assumptions,  
16 neither of the witnesses actually rely on the output of their models. Since each of these  
17 witnesses essentially abandons their COE estimates (including models and assumptions),  
18 it is unreasonable to suggest that their assumptions or the methodologies they relied on are  
19 superior to the analyses I have presented in my testimonies. Further, as shown in Figure  
20 4, below the results of my Constant Growth DCF model are the only results that are within

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<sup>21</sup> Source: Duff & Phelps, Valuation Handbook: Guide to Cost of Capital, 2022.

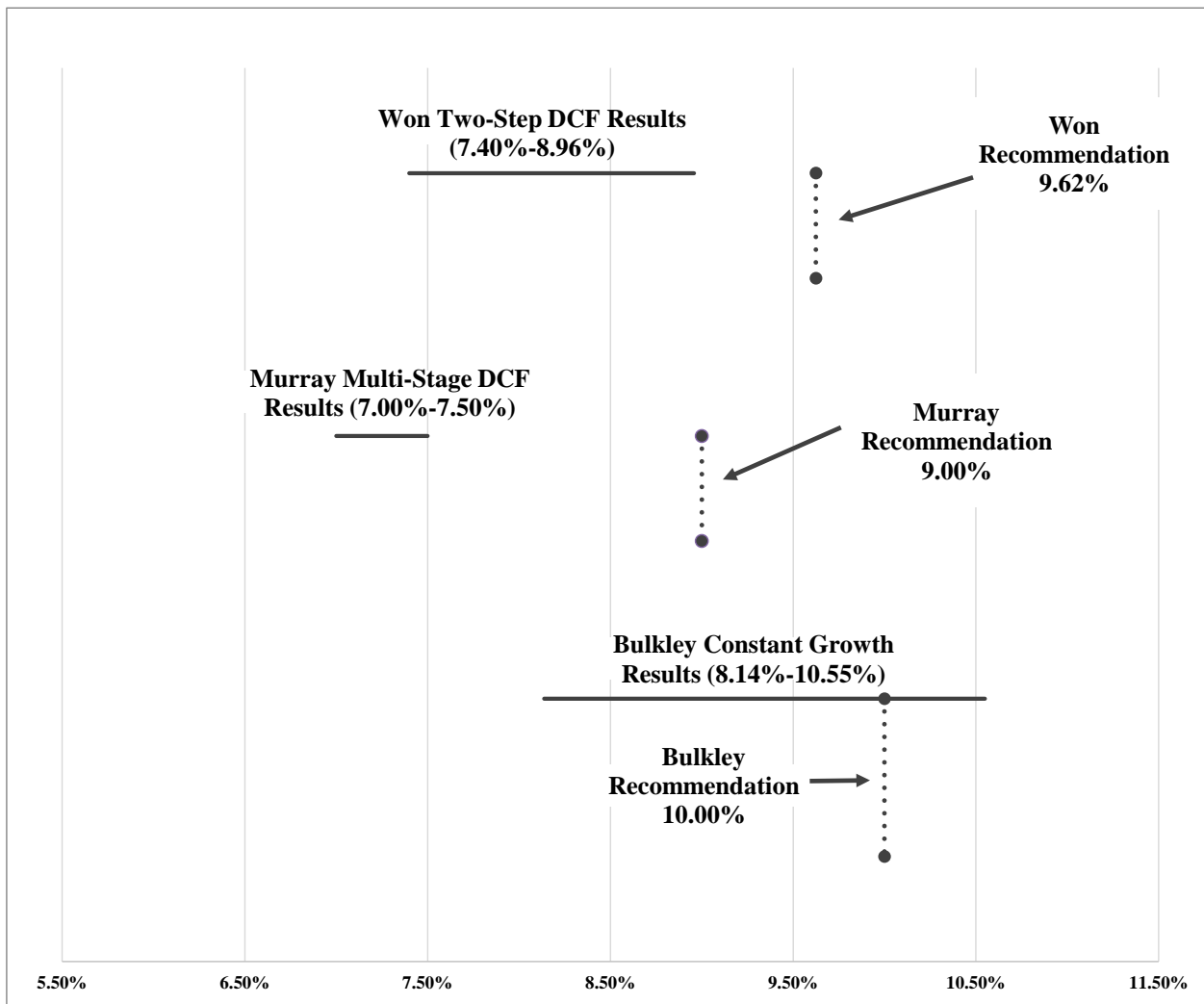
<sup>22</sup> Rebuttal Testimony of Seoung Joun Won, PhD at 8-9.

<sup>23</sup> Ibid.

<sup>24</sup> Rebuttal Testimony of David Murray at 16.

1 the range of the recommendations offered by all witnesses in this proceeding. Therefore,  
2 it is reasonable to conclude that the results of my model demonstrate that the ROE  
3 estimation methodologies, when properly specified, can produce reasonable results. Mr.  
4 Murray's opinion that the DCF model, as I have specified it, is not relied upon by equity  
5 analysts is unsupported and should be rejected. Further, it seems less reasonable to suggest,  
6 as Mr. Murray does, that equity analysts develop model results consistent with his DCF  
7 estimates and then abandon those results, as Mr. Murray does, to set their required return.

8 **Figure 4: Comparison of DCF Results**



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1 **Q. What is the difference between the COE and the ROE?**

2 A. The Cost of Equity is the investor-required return on equity. The estimation  
3 methodologies, which use market data for a proxy group of companies estimate the COE.  
4 The ROE is the return that is authorized (or earned) on the equity invested in the utility.  
5 Dr. Won and Mr. Murray suggest that the model results, which estimate the COE are  
6 entirely different than the ROEs that have been determined by regulatory commissions  
7 across the country. The model results relate to the assumptions used to specify the models.  
8 As shown in my analyses in my Direct, Rebuttal and Surrebuttal testimonies, these models  
9 can be used to provide regulatory commissions with COE estimates that can be relied upon  
10 to determine the appropriate ROE for the utility operating companies they regulate.

11 **Q. How do you respond to these witnesses regarding the use of projected EPS growth  
12 rate in the Constant Growth DCF model?**

13 A. Earnings growth rates are the fundamental driver of dividend growth rates and therefore  
14 are appropriately relied upon in the DCF model. As discussed in my Rebuttal Testimony  
15 at 52, Brigham and Houston note:

16 Growth in dividends occurs primarily as a result of growth in earnings per  
17 share (EPS). Earnings growth, in turn, results from a number of factors,  
18 including (1) inflation, (2) the amount of earnings the company retains and  
19 invests, and (3) the rate of return the company earns on its equity (ROE).<sup>25</sup>

20 Thus, as explained in my Rebuttal Testimony at 52-53, use of the Constant Growth DCF  
21 is reasonable given that utilities are a mature industry.

22 Further, as discussed in my Direct and Rebuttal Testimonies, I have not relied  
23 exclusively on the results of the Constant Growth DCF model. Rather, I have considered

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<sup>25</sup> Eugene F. Brigham and Joel F. Houston, *Fundamentals of Financial Management*, at 317 (Concise Fourth Edition, Thomson South-Western, 2004).

1 the results of multiple ROE estimation models in determining the range of ROEs that are  
2 appropriate to consider for the Companies. Furthermore, while each of these witnesses  
3 criticizes the use of analysts' projected EPS growth rates in the Constant Growth DCF  
4 model, their preferred specification of the DCF model produced ROE estimates that were  
5 below any recently authorized ROE for a vertically-integrated electric utility and well  
6 below their own recommendations.

7 **Q. Please explain what you mean when you say that Dr. Won is not relying on the results**  
8 **of his Two-Stage DCF model.**

9 A. Dr. Won does not rely on the absolute results of his Two-Stage DCF model using current  
10 market data. Rather, he uses this model and a retrospective estimation of the Two-Stage  
11 DCF model using market data as of 2019 to reflect the COE at the time of Empire District's  
12 rate case –to estimate a change in the cost of equity from 2019 to the current market. Dr.  
13 Won applies that change to the Commission's authorized ROE of 9.25 percent established  
14 in the 2019 rate case for Empire District. Therefore, Dr. Won has not used the results of  
15 his models in either time period. He has used only the change in these model results to  
16 estimate an adjustment to a Commission authorized ROE in the Empire case.

17 **Q. Why is this methodology inappropriate to use to set the ROE for the Companies?**

18 A. Dr. Won's approach has several flaws that render it inappropriate as the basis for setting  
19 the ROE in this proceeding.

- 20 1. The Commission never considered the retrospective analysis that Dr. Won uses  
21 to set the "market" in the Empire 2019 Case. Therefore, it cannot have been  
22 considered as a factor in the Commission's determination of the ROE for Empire.

- 1           2. Adjusting the Empire ROE assumes that Empire and the Companies have similar  
2           risk profiles, however Dr. Won presents no analysis to demonstrate that he has  
3           considered the risk differentials between Empire District and the Companies.
- 4           3. Dr. Won’s actual Two-Stage DCF model results using current market data are  
5           7.40 to 8.96 percent. He specifically criticizes Mr. Murray’s ROE  
6           recommendation of 9.00 percent indicating that it is too low and does not  
7           directionally reflect changes in market conditions since the Empire case. Dr. Won  
8           recommends an ROE of 9.62 percent, which is approximately 66 to 222 basis  
9           points above the results of his model. Based on these facts, it is reasonable to  
10          conclude that Dr. Won himself does not believe that the results of his models.  
11          Therefore, it is disingenuous to suggest that the assumptions Dr. Won has used in  
12          these models are more reasonable and appropriate than my choice of DCF model  
13          or assumptions.
- 14          4. Dr. Won’s use of this comparative approach is in direct conflict with his criticism  
15          of my Bond Yield Risk Premium analysis. Dr. Won suggest that the Bond Yield  
16          Risk Premium approach should not be used because he has found no theoretical  
17          conclusions that the relationship between the 30-year Treasury yield and  
18          authorized ROEs is constant over time. Further, he states that “These stale  
19          authorized ROEs might not provide a proper up to date COE estimate”.<sup>26</sup> Dr.  
20          Won’s adjustments to the authorized ROE for Empire are in direct contradiction  
21          to his stated concerns about the Bond Yield Risk Premium analysis. Even if Dr.  
22          Won was directly comparing the results of models that were used to set the ROE

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<sup>26</sup> Rebuttal Testimony of Seoung Joun Won, PD. at 18.

1 for Empire, which as discussed previously, he is not, comparing the model results  
2 between the two time periods and making an adjustment for the difference in  
3 those results implies a constant relationship over time- which he suggests is a  
4 flaw in the Bond Yield Risk Premium approach.

5 **Q. How do you respond to Dr. Won's criticism of your 7-percent threshold for mean**  
6 **DCF estimates?**

7 A. Dr. Won has mischaracterized my testimony, only referencing the cases where the low-end  
8 outliers are removed from the mean results. However, as discussed in my Rebuttal  
9 Testimony, I included two measures of central tendency; the median, which includes *all*  
10 observations, and the mean results excluding outliers. As shown in my Rebuttal Testimony,  
11 at pages 9 and 35, the median result were 9.29 percent and the median results using the  
12 high growth rates was 10.02 percent, including *all* observations.

13 **Q. What is your response to Dr. Won's assessment of Mr. Murray's analysis and**  
14 **recommendation?**

15 A. It is surprising that Dr. Won can offer support for the analytical results that Mr. Murray  
16 develops when they differ substantially from the results upon which he bases his  
17 recommendation and, in fact, they suggest exactly the opposite from the conclusions he  
18 reached. Comparing against Dr. Won's Two-step model results (which is a comparative  
19 analysis of the Empire case and the current market conditions) of 7.40 percent to 8.96  
20 percent, Mr. Murray's results are 40 to 146 basis points below Dr. Won's and would  
21 suggest that the ROE for the Companies was lower than in the Empire case. This  
22 conclusion contradicts Dr. Won's results, conclusions and final recommendation.



1 Therefore, it is unclear how Dr. Won could support Mr. Murray's analytical framework in  
2 any context.

3 **Q. What are your conclusions regarding Dr. Won and Mr. Murray's criticisms of your**  
4 **DCF analyses?**

5 A. These criticisms lack merit and should be rejected. While Dr. Won and Mr. Murray argue  
6 theoretical reasons why I should have relied on a different DCF methodology with different  
7 assumptions, the fact remains that neither Dr. Won nor Mr. Murray use the results based  
8 on the methodologies and assumptions that they recommend. Further, Mr. Murray's  
9 opinion regarding the methodology that analysts use is unsupported.

10 By developing models that cannot be relied upon, and suggesting that the results of  
11 my models (which are within the range of all recommended ROEs in this proceeding) are  
12 overstated, both witnesses appear to be asking the Commission to reject all analytical bases  
13 for estimating the ROE and simply rely on their judgment as to the appropriate ROE for  
14 the Companies.

15 Dr. Won does this by suggesting that the Commission simply benchmark against  
16 the Empire ROE, without consideration of any differences in business risk between the  
17 companies and through the use of a retrospective comparison of two DCF models, one  
18 back-dated to the Empire 2019 case as compared to Staff's current analyses. It is clear that  
19 the Commission could not have relied upon the Staff's Two-Stage DCF in the Empire case,  
20 because it was never introduced in that case. Dr. Won has simply created that model today  
21 as a point of comparison with a past case. Therefore, the benchmarking Staff performs has  
22 nothing to do with the Commission's prior determination in Empire's rate case and cannot  
23 be relied upon to represent the change in market from then to now.

1 Mr. Murray's results range from 7.00 percent to 7.50 percent which he discards.  
2 He then proposes a range of 8.5 percent to 9.5 percent, with an ROE recommendation of  
3 9.0 percent, which based on nothing more than his subjective personal opinion.

4 In contrast, the results developed in the analyses presented in my Direct, Rebuttal  
5 and Surrebuttal testimony consistently include a range of recommendations which I have  
6 not abandoned. These ROE estimation methodologies produce results that the Commission  
7 can rely on in determining the appropriate ROE in these cases. As shown in Figure 4  
8 above, my updated DCF analyses as of July 29, 2022 result in a median ROE (including  
9 *all* observations) of 9.36 percent and a median high result of 9.93 percent. This range,  
10 taken together with the remainder of my updated ROE estimation methodologies, supports  
11 the Company's requested ROE.

## 12 VI. CAPM ANALYSES

13 **Q. Please summarize Dr. Won's and Mr. Murray's criticisms of your CAPM results.**

14 A. Dr. Won's primary concern with my the CAPM methodology is the calculation of the  
15 projected market return.<sup>27</sup> Dr. Won suggests that the market risk return should not include  
16 companies that do not pay dividends and should not rely on "short-term" growth rates. Dr.  
17 Won suggests that the market return should be 9.57 percent. Mr. Murray also suggests that

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<sup>27</sup> Rebuttal Testimony of Seoung Joun Won, PhD at 8-9.

1 the market return is not sustainable and suggests that GDP growth be used for the purposes  
2 of determining the long-term expected return for the S&P 500.<sup>28</sup>

3 **Q. How do you respond to Dr. Won's criticism?**

4 A. Dr. Won's recommended changes to my CAPM model would render the results of this  
5 model unusable as an estimate of the ROE, by his own account. As noted in his testimony,  
6 his suggested use of an MRP of 5.50 percent would result in a CAPM COE estimate of  
7 6.22 percent. Dr. Won has suggested that Mr. Murray's recommended ROE of 9.00 percent  
8 is too low. Therefore, Dr. Won's "correction" to my CAPM would render this result  
9 unreasonable as an estimate of the ROE and would further reduce the analytical tools  
10 available to the Commission to set the ROE for the Companies.

11 **Q. How do you respond to Mr. Murray's position regarding the growth in the S&P 500?**

12 A. Mr. Murray's views are based on his own interpretation of a formula used in the 2010 CFA  
13 Institute curriculum. Mr. Murray's cite to that curriculum is quite narrow, only providing  
14 the definition of earnings growth. The conclusion that the growth rate that I have relied  
15 upon is excessive is not the conclusion of the CFA Institute, but simply Mr. Murray's  
16 opinion.<sup>29</sup>

17 In contrast, US State Court of Appeals for the District of Columbia recently  
18 addressed this issue in its review of the MISO Transmission Owners case and FERC  
19 Opinion No. 569B. In that decision, the Court acknowledged that the FERC has relied on  
20 the use of EPS growth rates in the calculation of the return on the S&P 500 because the  
21 S&P 500 is regularly updated to include companies with high market capitalization and it  
22 includes companies at all stages of growth, including lower and higher growth potential.

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<sup>28</sup> Rebuttal Testimony of David Murray at 17.

<sup>29</sup> Rebuttal Testimony of David Murray at 17.

1           The Court determined that FERC’s rationale for using projected EPS growth rates was  
2           sufficient and did not accept the Customers’ challenge to this assumption.<sup>30</sup>

3                     Further, the Court did not accept the Customers’ challenge to the FERC placing  
4           much less weight on the GDP growth used in the DCF model. On this point, the Court

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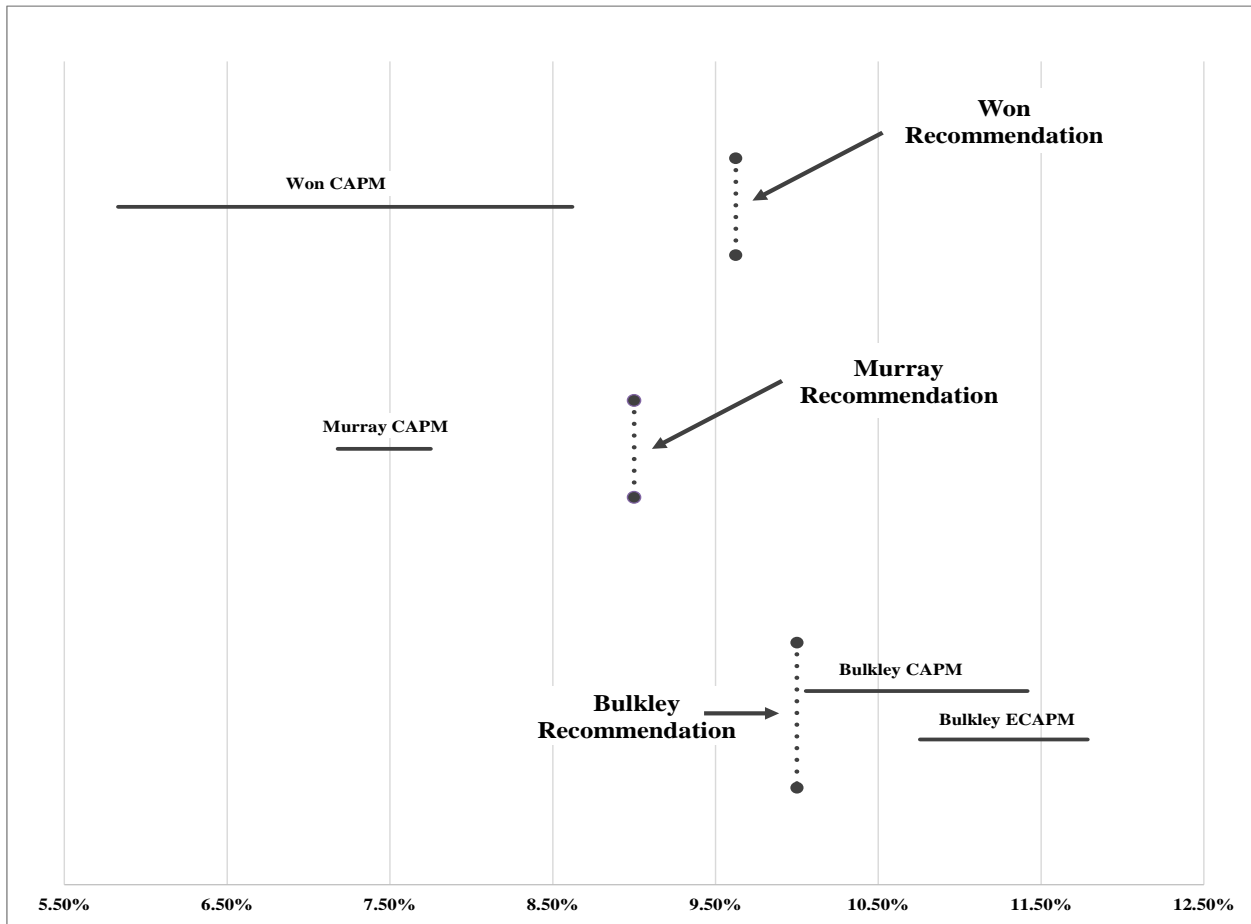
<sup>30</sup> United States Court of Appeals Case No. 16-1325, Decision No. 16-1325, August 9, 2022 at 19.

1 concluded that “recently, the normalizing value of long-term growth rates has declined as  
2 short and long-term projections have converged”.<sup>31</sup>

3 **Q. How to the results of Dr. Won’s and Mr. Murray’s CAPM results compare with their  
4 recommendations?**

5 A. As shown in Figure 5, the results of their CAPM results are between 100 and 379 basis  
6 points below their recommendations - once again falling back on the argument that the  
7 models produce a COE that is substantially lower than the ROEs they recommend.

8 **Figure 5: Comparison of CAPM Results**



9  
10 Despite their criticisms of the assumptions used in my models, in favor of their own  
11 assumptions, neither Dr. Won nor Mr. Murray rely on the results of their CAPM models.

1 In contrast, my results demonstrate that when relying on reasonable assumptions, the ROE  
2 estimation methodologies produce results that are within the range established by Dr.  
3 Won's recommendation and my recommendation. In summary, Dr. Won's criticism of my  
4 ROE recommendation and range are inconsistent with his own recommendations and  
5 should be rejected.

## 6 VII. RISK PREMIUM AND RULE OF THUMB ANALYSES

7 **Q. Please summarize Dr. Won's and Mr. Murray's criticisms regarding the Bond Yield  
8 Plus Risk Premium analysis.**

9 A. Dr. Won's primary concerns with the Bond Yield Plus Risk Premium analysis are that (1)  
10 the analysis relies on projected interest rates, (2) the analysis is determined based on the  
11 yield on the 30-year Treasury bond yield, and (3) he is concerned that the relationship  
12 between the 30-year Treasury bond yield and the ROE is not constant over time. Dr. Won  
13 suggests that he agrees with the FERC that the BYRP is likely to provide a less accurate  
14 current ROE estimate than the DCF or CAPM models because it relies on previous ROE  
15 determinations that may not be directly determined by a market-based methodology<sup>32</sup>. Mr.  
16 Murray suggests that the Bond Yield Plus Risk Premium analysis does not allow sufficient  
17 compression of allowed ROEs versus the utility industry COE.<sup>33</sup>

18 **Q. How do you respond to Dr. Won's criticism of the use of projected interest rates?**

19 A. I have addressed Dr. Won's concerns about the use of projected interest rates in my review  
20 of the changes in market conditions that have occurred since the filing of his Direct  
21 Testimony at the end of the first quarter of this year. As discussed previously, interest rates

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<sup>31</sup> *Ibid.*, at 16.

<sup>32</sup> Rebuttal Testimony of Seoung Joun Won, PhD at 18.

<sup>33</sup> Rebuttal Testimony of David Murray at 19.

1 increased 89 basis points since the 3-month average relied on by Dr. Won as of March  
2 2022. The current 30-day average yield on the 30-year Treasury bond is approximately  
3 3.16 percent (which is approximately equal to the 3-month average as of the end of July  
4 2022). This current yield is higher than the projected yield that I relied upon in my Direct  
5 Testimony of 2.50 percent.<sup>34</sup> Therefore, the use of the projected Treasury bond yield in  
6 my Direct Testimony actually understated the ROE under current market conditions.

7 Further, Dr. Won recognized at page 18 of his Rebuttal Testimony, that the Federal  
8 Reserve began increasing interest rates with “unusual speed” “to combat the highest  
9 inflation in four decades.” Interest rate projections are not keeping pace with the actual  
10 increases in interest rates. In an environment where interest rates are rising rapidly and the  
11 Fed has indicated its intention to continue to increase interest rates - at the fastest pace  
12 since November 1994, as discussed in Section III - it would be irresponsible and likely  
13 violate the *Hope* and *Bluefield* principles to rely on analyses that do not consider rising  
14 interest rates.

15 **Q. Do you agree with Dr. Won’s conclusion that the BYRP is unreliable because it**  
16 **considers only the yield on the 30-year Treasury bond?**

17 A. No. Dr. Won’s characterization of the Bond Yield Risk Premium analysis is inaccurate.  
18 The risk premium analysis considers the relationship between interest rates and historical  
19 ROEs using quarterly historical data from 1992 through 2022. As shown in Schedule AEB-  
20 SR6, the regression statistics for the Bond Yield Risk Premium analysis demonstrate that  
21 the coefficients are significant and the R<sup>2</sup> shows that there is a reasonable fit to the data.

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<sup>34</sup> Schedule AEB-7 of my Direct Testimony, the Blue Chip Financial Forecast projected 30-year average Treasury Bond yield for the period through Q1 2023 was 2.50 percent.

1 Therefore, the Bond Yield Risk Premium analysis is a reasonable methodology to be  
2 considered in estimating the ROE.

3 **Q. Has the FERC relied on this methodology as one of the approaches used to set the**  
4 **ROE for electric utilities?**

5 A. Yes. Through a series of proceedings, the FERC recognized that sole reliance on the results  
6 of the DCF model was not producing reliable results. In FERC Opinion No. 569-A the  
7 FERC established the equal weighting of three methodologies for setting the ROE, the  
8 DCF the CAPM, and the Bond Yield Plus Risk Premium. In affording this methodology  
9 a one-third weighting, the FERC has considered the results of the Risk-Premium analysis  
10 as meaningful as the other ROE estimation methodologies.<sup>35</sup>

11 **Q. How do you respond to Dr. Won’s concern that the BYRP is likely to be less accurate**  
12 **because it relies on previous ROE determinations that may not be directly determined**  
13 **by a market-based methodology?**

14 A. Dr. Won’s concern is that ROE determinations may be made without respect to market-  
15 based methodologies and therefore cannot be used to inform the current ROE. This  
16 suggestion directly contradicts his comparative analysis of the Empire case. If Dr, Won  
17 has concerns with the use of previous ROE determinations to establish any relationship  
18 between the ROEs over differing time periods because the ROE determination may not  
19 have been based on market data, then the entire basis of his own recommendation in this  
20 proceeding is without merit. In the current case, Dr. Won assumes a linear relationship  
21 between the model results from one period to the next. This analysis relies on two models  
22 – neither of which could have been used by the Commission in the Empire case, because

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<sup>35</sup> As discussed in Section VI, I am aware that on August 9, 2022 the U.S. Court of Appeals vacated the FERC Order 569 decisions that related to its risk premium model and remanded the case to FERC to reopen proceedings.



1 Dr. Won developed both models in the current case. Therefore, the ROE that was set in the  
2 Empire case could not be based on the “market data” that he uses for comparison to develop  
3 his adjustment to the ROE that was determined by the Commission for Empire. Dr. Won’s  
4 proposed ROE is, in fact, based on the suggestion that there would be a linear relationship  
5 between his two models, the 2019 model that the Commission never considered, and his  
6 2022 ROE model. Dr. Won relies on a consistent relationship between two models, neither  
7 of which has been considered by this Commission, to develop an adjustment to the Empire  
8 ROE. Dr. Won’s suggestion that the Commission should rely on that “relationship” to  
9 adjust the Empire ROE and reject a statistical model such as the Bond Yield Risk Premium  
10 lacks credibility and should be rejected.

11 **Q. What is your response to Mr. Murray’s criticism of your Bond Yield Risk Premium**  
12 **analysis?**

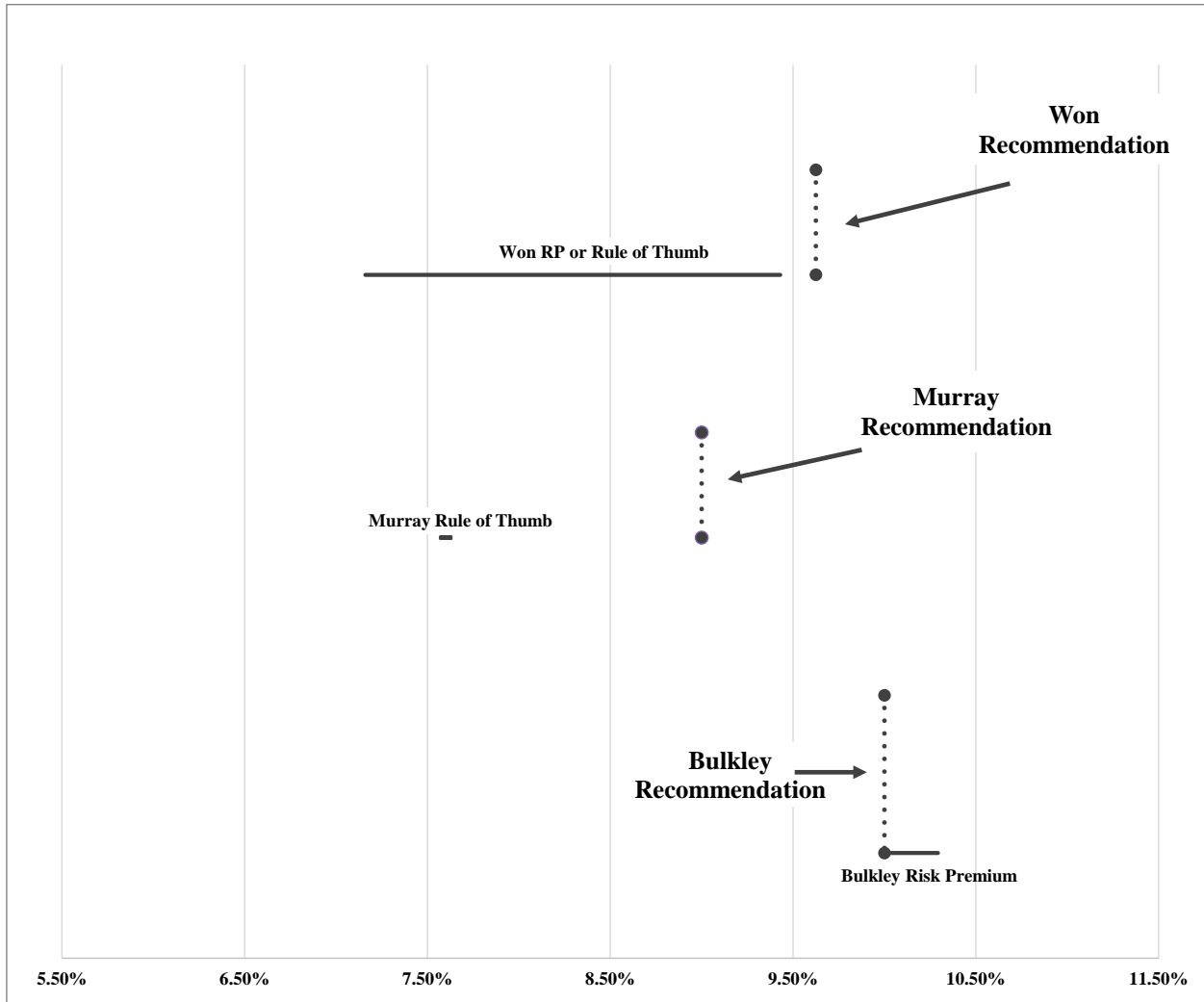
13 A. Mr. Murray’s criticism of my analysis ignores the well documented inverse relationship  
14 between interest rates and the utility risk premium. Further, while Mr. Murray uses a rule  
15 of thumb BYRP analysis to estimate the COE, his result from this analysis is 7.6 percent.  
16 Mr. Murray only leaves the Commission with the explanation that his analysis has nothing  
17 to do with the ROE that should be set in this proceeding. He has estimated a COE and has  
18 developed no meaningful relationship between this COE estimate and the ROE for the  
19 Companies.

1 **Q. Please summarize the results of your updated Bond Yield Risk Premium analysis.**

2 A. As shown in Schedule AEB-SR6, and Figure 6 below, my updated bond yield risk premium  
3 results range from 10.02 percent to 10.29 percent.

4 **Figure 6: Comparison of Risk Premium and Rule of Thumb Results**

5



1 **VIII. AUTHORIZED RETURNS**

2 **Q. Please summarize Dr. Won’s review of authorized ROEs for electric utilities.**

3 A. Dr. Won suggests that the Commission’s last determined ROE of 9.25 percent in 2020 for  
4 Empire was not at the low end of the returns authorized in 2020.<sup>36</sup> Further, Dr Won reviews  
5 2022 authorized ROEs and suggests that Mr. Murray’s ROE recommendation is  
6 unreasonably low<sup>37</sup>and that my ROE is above the average authorized ROE for 2022.<sup>38</sup>

7 **Q. Do you agree with Dr. Won’s calculation of the average authorized ROE for electric**  
8 **utilities in 2020?**

9 A. No, I do not. Dr. Won suggests that in 2020 of the 55 electric cases, 20 authorized ROEs  
10 were less than or equal to 9.25 percent. However, data from S&P Global, as shown in  
11 Figure 7, below indicates vertically-integrated (“VI”) and distribution electric cases with  
12 publicly available ROEs total 42 that completed in 2020. When removing distribution-only  
13 electric utility cases, only 27 cases remain, five of which were at or below 9.25 percent.  
14 When removing Vermont cases, which uses formula rates, and thus, are not an appropriate  
15 comparison of returns for the Companies, the number of cases decided was 26, resulting in  
16 an ROE average of 9.60 percent. Further, when removing Vermont, just four cases are at  
17 or below 9.25 percent, rather than the 20 authorized ROEs that Dr. Won indicates.

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<sup>36</sup> Rebuttal Testimony of Seoung Joun Won, PhD at 23..

<sup>37</sup> Rebuttal Testimony of Seoung Joun Won, PhD at 26.

<sup>38</sup> Rebuttal Testimony of Seoung Joun Won, PhD at 19.

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**Figure 7: 2020 Electric Case Findings**

| 2020 Cases                      | Cases (No.) | ROE (%) | ROE ≤ 9.25% (No.) | Proportion Below 9.25% ROE (%) |
|---------------------------------|-------------|---------|-------------------|--------------------------------|
| VI and Distribution Total       | 53          |         |                   |                                |
| VI and Distribution (with ROE)  | 42          | 9.39%   | 12                | 28.6%                          |
| VI Only Cases Total             | 36          |         |                   |                                |
| VI Only Cases (with ROE)        | 27          | 9.55%   | 5                 | 18.5%                          |
| VI Only Cases w/ ROE (excl. VT) | 26          | 9.60%   | 4                 | 15.4%                          |

2

**IX. CAPITAL STRUCTURE ANALYSES**

3

**Q. Please summarize OPC’s position with respect to the appropriate capital structure for the Companies.**

4

5

A. OPC witness Murray continues to propose that Evergy Missouri Metro’s and Evergy Missouri West’s capital structures be composed of 48 percent common equity and 52 percent long-term debt.<sup>39</sup> In support of his position, Mr. Murray points to Evergy’s short-term borrowing capacity and claims that Evergy’s use of short-term debt has been used to make equity infusions into its subsidiaries. He asserts that the use of “short-term borrowings allows for nimbleness in managing subsidiary capital structures to ratios desired for ratemaking.”<sup>40</sup> However, Mr. Murray’s contention is inconsistent with corporate financing principles, which hold that it is the use of funds, not the source of funds, that determine the capital structure and the cost of capital for subsidiaries. Specifically, Mr. Murray’s claim is inconsistent with the financing principle of duration matching, where financing sources are matched in duration to the service lives of the underlying assets. While Mr. Murray claims that Evergy’s short-term debt is being used to make equity infusions into its subsidiaries, it is not practical to trace one source of

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<sup>39</sup> Rebuttal Testimony of David Murray at 30.

<sup>40</sup> Rebuttal Testimony of David Murray at 3.

1 financing to individual assets. Short-term debt may be used as a temporary source of  
2 funding, but consistent with corporate financing principles, such borrowing will be  
3 financed with long-term financing as market circumstances allow. As noted by Brigham  
4 and Houston:

5 In practice, firms don't finance each specific asset with a type of capital that  
6 has a maturity equal to the asset's life. However, academic studies do show  
7 that most firms tend to finance short-term assets from short-term sources  
8 and long-term assets from long-term sources.<sup>41</sup>

9 Overall, the combined company, Evergy, must provide a return reflecting the risks  
10 of the company's constituent parts as external investors view the combined company on a  
11 sum-of-the-part basis. Each segment must provide an appropriate risk-adjusted return.  
12 Therefore, the Companies' operating risk will define the capital structure and the cost of  
13 capital. The Evergy Missouri West capitalization which includes 51.81 percent equity and  
14 48.19 percent long-term debt and the Evergy Missouri Metro capital structure which  
15 includes 51.19 percent equity and 48.81 percent long-term debt are consistent with the  
16 Commission's long-standing use of the "stand-alone" operating company capital structure  
17 that I discussed in my Rebuttal Testimony.<sup>42</sup>

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<sup>41</sup> Brigham, Eugene F. and Joel F. Houston, *Fundamentals of Financial Management, Concise 4th Ed.*, Thomson South-Western, 2004, at 574.

<sup>42</sup> Rebuttal Testimony of Ann E. Bulkley at 15-16.

1           **X.       BUSINESS RISK FACTORS**

2   **Q.       Please summarize the testimonies of Staff Witness Lange and Staff Witness Del Pozo**  
3           **as they relate to your review of the regulatory risk posed by the Companies’ rate**  
4           **design.**

5   A.       Staff witness Del Pozo suggests that I have not provided enough information to assess the  
6           relative risk of the Companies and the proxy group related to residential rate design.”<sup>43</sup>  
7           Mr. Del Pozo provides an analysis of the annual sales per customer for the proxy group  
8           companies and suggests that this sales data demonstrates that EMW is in the top of the  
9           middle tier of sales per customer. Mr. Del Pozo concludes that this sales data demonstrates  
10          that “EMM” and EMW” are relatively stable as compared with the proxy group.<sup>44</sup> Staff  
11          witness Lange testifies that she is not an expert on ROE, but provides an analysis of  
12          Evergy’s exposure to volumetric risk associated with the existing and proposed inclining  
13          block designs. Ms. Lange concludes that the exposure that is being proposed by the change  
14          in the inclining block rate is less than 1 percent.<sup>45</sup>

15   **Q.       What is your response to these staff witnesses?**

16   A.       First, Ms. Lange’s analysis of the relative change in Evergy’s revenues resulting from  
17          Staff’s proposal is not a relevant comparison in setting the ROE. The use of data for a  
18          proxy group of companies sets a range of market-based ROE estimates. The relative  
19          position of the Company’s ROE within that range should be based on a comparison of the  
20          risks of the Company and the proxy group. Therefore Ms. Lange’s comparison of the risk

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<sup>43</sup> Rebuttal Testimony of Francisco Del Pozo at 2.

<sup>44</sup> *Ibid.* at 4.

<sup>45</sup> Rebuttal Testimony of Sarah L.K. Lange at 76-77.

1 of the Staff's proposal with status quo is not necessary or useful in the determination of the  
2 ROE.

3 Mr. Del Pozo's analysis provides some information about the volumetric sales of  
4 the companies in the proxy group, but nothing about the recovery of those costs. As noted  
5 in my Direct Testimony at pages 63-64, an inclining block rate design would create greater  
6 recovery risk for companies than a flat or declining block rate structure. Further, companies  
7 with higher fixed charges have less recovery risk than companies that recover costs through  
8 variable charges. Neither Ms. Lange nor Mr. Del Pozo dispute these facts. Evergy's Class  
9 Cost of Service (CCOS) study filed in this case confirms that 90% of residential customer  
10 costs are recovered through the energy charge.<sup>46</sup> It is my understanding that adjustments  
11 to further sharpen the existing incline will only serve to exacerbate Evergy's recovery risk.  
12 I compared Evergy Missouri Metro's rate design to the proxy group and found that  
13 approximately 78.48 percent of the proxy group had flat or declining block rate structures,  
14 which have less risk than an inclining block structure. I also compared the fixed charges  
15 implemented by the proxy group companies to the Companies and concluded that the  
16 Evergy Missouri Metro's fixed customer charge was slightly below the average customer  
17 charge. Therefore, Evergy Missouri Metro's recovery mechanisms have the potential for  
18 greater risk than the proxy group companies.

## 19 **XI. CONCLUSIONS AND RECOMMENDATION**

20 **Q. What is your conclusion regarding a fair ROE for the Companies?**

21 A: Figure 8 below provides a summary of my analytical results. Based on these results and  
22 the qualitative analyses presented in my Direct Testimony, a reasonable range of ROE

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<sup>46</sup> Surrebuttal testimony, Craig Brown, pg. 23.

1 results for the Companies is from 9.90 percent to 10.50 percent and the Company's  
2 requested rate of return on common equity of 10.00 percent is reasonable taking into  
3 consideration company-specific risks relative to the proxy group, as discussed in my Direct  
4 Testimony. This ROE would enable the company to maintain its financial integrity and  
5 therefore its ability to attract capital at reasonable terms under a variety of economic and  
6 financial market conditions, while continuing to provide safe, reliable and affordable  
7 electric service to customers in Missouri.



**Figure 8: Summary of Analytical Results**

| <i>Constant Growth DCF - Median</i>                             |  |                                       |                                       |
|---|--|---------------------------------------|---------------------------------------|
|   | Median Low                                       | Median                                | Median High                           |
| 30-Day Average  | 8.17%  | 9.38%                                 | 9.98%                                 |
| 90-Day Average  | 8.07%  | 9.33%                                 | 9.86%                                 |
| 180-Day Average   | 8.17%  | 9.38%                                 | 9.95%                                 |
| Constant Growth Average   | 8.14%  | 9.36%                                 | 9.93%                                 |
| <i>Constant Growth DCF - Average w/ exclusions<sup>47</sup></i> |  |                                       |                                       |
|   | Mean Low   | Mean                                  | Mean High                             |
| 30-Day Average  | 8.78%  | 9.70%                                 | 10.60%                                |
| 90-Day Average  | 8.83%  | 9.59%                                 | 10.50%                                |
| 180-Day Average   | 8.89%  | 9.65%                                 | 10.55%                                |
| Constant Growth Average   | 8.83%  | 9.65%                                 | 10.55%                                |
| <i>CAPM</i>   |  |                                       |                                       |
|   | Current 30-day<br>Average Treasury<br>Bond Yield | Near-Term Blue Chip<br>Forecast Yield | Long-Term Blue Chip<br>Forecast Yield |
| Value Line Beta   | 11.31%   | 11.36%                                | 11.42%                                |
| Bloomberg Beta  | 10.86%   | 10.92%                                | 10.99%                                |
| Long-term Avg. Beta   | 10.06%   | 10.18%                                | 10.27%                                |
| <i>ECAPM</i>  |  |                                       |                                       |
|   | Current 30-day<br>Average Treasury<br>Bond Yield | Near-Term Blue Chip<br>Forecast Yield | Long-Term Blue Chip<br>Forecast Yield |
| Value Line Beta   | 11.71%   | 11.75%                                | 11.79%                                |
| Bloomberg Beta  | 11.36%   | 11.42%                                | 11.47%                                |
| Long-term Avg. Beta   | 10.76%   | 10.86%                                | 10.93%                                |
| <i>Treasury Yield Plus Risk Premium</i>                         |  |                                       |                                       |
|   | Current 30-day<br>Average Treasury<br>Bond Yield | Near-Term Blue Chip<br>Forecast Yield | Long-Term Blue Chip<br>Forecast Yield |
| Risk Premium Results  | 10.02%   | 10.15%                                | 10.29%                                |

2 **Q. What is your conclusion with respect to the Companies' proposed capital structures?**

3 A. I conclude that the Companies proposed capital structures are reasonable. Every Missouri  
4 West's proposal consists of 51.81 percent common equity, and 48.19 percent long-term

<sup>47</sup> Constant Growth DCF analysis - Average w/ Exclusions represents the DCF results excluding the results for individual companies that did not meet the minimum threshold of 7 percent.

1 debt. Evergy Missouri Metro's proposed capitalization is 51.19 percent common equity  
2 and 48.81 percent long-term debt. Both of these recommendations are reasonable. This  
3 conclusion is supported by comparing this proposal to the capital structures of the  
4 companies in the proxy group and taking in consideration the changes in coverage ratios  
5 resulting from the permanent effects of the TCJA, as well as the effect of increased capital  
6 expenditures and COVID-19 on cash flows and therefore should be adopted.

7 Further, I recommend that the Commission dismiss Mr. Murray's recommendation to rely  
8 on the parent company capitalization, including short-term debt as the capitalization for the  
9 Companies. As noted in my Rebuttal Testimony, the Commission has well established  
10 precedent for relying on the utility-specific capitalization rather than the consolidated  
11 capital structure when a holding company has more than one subsidiary operating  
12 company.<sup>48</sup> Evergy, Inc. has multiple operating subsidiaries. In addition, both Evergy  
13 Missouri West and Evergy Missouri Metro issue debt. Therefore, Mr. Murray's proposal  
14 to rely on the parent company capitalization is inconsistent with Commission past  
15 precedent and should be rejected.

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

17 A. Yes, it does.

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<sup>48</sup> Bulkley Rebuttal Testimony at 15 citing to Commission decision in GR-2021-0180.



SUMMARY OF ROE ANALYSES RESULTS<sup>1</sup>

| <b>Constant Growth DCF - Median</b>                |  |                                    |                                    |
|--|--|------------------------------------|------------------------------------|
|  | Median Low                                 | Median                             | Median High                        |
| 30-Day Average                                     | 8.17%                                      | 9.38%                              | 9.98%                              |
| 90-Day Average                                     | 8.07%                                      | 9.33%                              | 9.86%                              |
| 180-Day Average                                    | 8.17%                                      | 9.38%                              | 9.95%                              |
| Constant Growth Average                            | 8.14%                                      | 9.36%                              | 9.93%                              |
| <b>Constant Growth DCF - Average w/ exclusions</b> |  |                                    |                                    |
|  | Mean Low                                   | Mean                               | Mean High                          |
| 30-Day Average                                     | 8.78%                                      | 9.70%                              | 10.60%                             |
| 90-Day Average                                     | 8.83%                                      | 9.59%                              | 10.50%                             |
| 180-Day Average                                    | 8.89%                                      | 9.65%                              | 10.55%                             |
| Constant Growth Average                            | 8.83%                                      | 9.65%                              | 10.55%                             |
| <b>CAPM</b>  |  |                                    |                                    |
|  | Current 30-day Average Treasury Bond Yield | Near-Term Blue Chip Forecast Yield | Long-Term Blue Chip Forecast Yield |
| Value Line Beta                                    | 11.31%                                     | 11.36%                             | 11.42%                             |
| Bloomberg Beta                                     | 10.86%                                     | 10.92%                             | 10.99%                             |
| Long-Term Avg. Beta                                | 10.06%                                     | 10.18%                             | 10.27%                             |
| <b>ECAPM</b>                                       |  |                                    |                                    |
|  | Current 30-day Average Treasury Bond Yield | Near-Term Blue Chip Forecast Yield | Long-Term Blue Chip Forecast Yield |
| Value Line Beta                                    | 11.71%                                     | 11.75%                             | 11.79%                             |
| Bloomberg Beta                                     | 11.36%                                     | 11.42%                             | 11.47%                             |
| Long-Term Avg. Beta                                | 10.76%                                     | 10.86%                             | 10.93%                             |
| <b>Treasury Yield Plus Risk Premium</b>            |  |                                    |                                    |
|  | Current 30-day Average Treasury Bond Yield | Near-Term Blue Chip Forecast Yield | Long-Term Blue Chip Forecast Yield |
| Risk Premium Analysis                              | 10.02%                                     | 10.15%                             | 10.29%                             |
| Risk Premium Mean Result                           | 10.15%                                     |                                    |                                    |

**Notes:**

[1] Constant Growth DCF analysis - Average w/ Exclusions represents the DCF results excluding the results for individual companies that did not meet the minimum threshold of 7 percent.

30-DAY CONSTANT GROWTH DCF -- EVERGY

| Company                               | Ticker | [1]                 | [2]         | [3]            | [4]                     | [5]                        | [6]                            | [7]                   | [8]                 | All Proxy Group |          |          | With Exclusions |          |          |
|---------------------------------------|--------|---------------------|-------------|----------------|-------------------------|----------------------------|--------------------------------|-----------------------|---------------------|-----------------|----------|----------|-----------------|----------|----------|
|                                       |        | Annualized Dividend | Stock Price | Dividend Yield | Expected Dividend Yield | Value Line Earnings Growth | Yahoo! Finance Earnings Growth | Zacks Earnings Growth | Average Growth Rate | Low ROE         | Mean ROE | High ROE | Low ROE         | Mean ROE | High ROE |
| ALLETE, Inc.                          | ALE    | \$2.60              | \$58.61     | 4.44%          | 4.61%                   | 6.00%                      | 8.70%                          | 8.70%                 | 7.80%               | 10.57%          | 12.41%   | 13.33%   | 10.57%          | 12.41%   | 13.33%   |
| Alliant Energy Corporation            | LNT    | \$1.71              | \$57.62     | 2.97%          | 3.05%                   | 6.00%                      | 5.40%                          | 5.70%                 | 5.70%               | 8.45%           | 8.75%    | 9.06%    | 8.45%           | 8.75%    | 9.06%    |
| Ameren Corporation                    | AEE    | \$2.36              | \$87.59     | 2.69%          | 2.78%                   | 6.50%                      | 6.46%                          | 7.20%                 | 6.72%               | 9.24%           | 9.50%    | 9.99%    | 9.24%           | 9.50%    | 9.99%    |
| American Electric Power Company, Inc. | AEP    | \$3.12              | \$94.16     | 3.31%          | 3.42%                   | 6.50%                      | 6.35%                          | 6.20%                 | 6.35%               | 9.62%           | 9.77%    | 9.92%    | 9.62%           | 9.77%    | 9.92%    |
| Avista Corporation                    | AVA    | \$1.76              | \$41.86     | 4.20%          | 4.31%                   | 3.00%                      | 5.90%                          | 5.90%                 | 4.93%               | 7.27%           | 9.24%    | 10.23%   | 7.27%           | 9.24%    | 10.23%   |
| CMS Energy Corporation                | CMS    | \$1.84              | \$65.59     | 2.81%          | 2.91%                   | 6.50%                      | 8.48%                          | 8.10%                 | 7.69%               | 9.40%           | 10.61%   | 11.40%   | 9.40%           | 10.61%   | 11.40%   |
| Duke Energy Corporation               | DUK    | \$3.94              | \$105.44    | 3.74%          | 3.85%                   | 6.00%                      | 5.82%                          | 6.00%                 | 5.94%               | 9.67%           | 9.79%    | 9.85%    | 9.67%           | 9.79%    | 9.85%    |
| Entergy Corporation                   | ETR    | \$4.04              | \$109.93    | 3.68%          | 3.78%                   | 4.00%                      | 6.04%                          | 6.70%                 | 5.58%               | 7.75%           | 9.36%    | 10.50%   | 7.75%           | 9.36%    | 10.50%   |
| IDACORP, Inc.                         | IDA    | \$3.00              | \$105.05    | 2.86%          | 2.90%                   | 4.00%                      | 2.80%                          | 2.80%                 | 3.20%               | 5.70%           | 6.10%    | 6.91%    |                 |          |          |
| MGE Energy, Inc.                      | MGEE   | \$1.55              | \$76.89     | 2.02%          | 2.06%                   | n/a                        | 4.20%                          | 4.20%                 | 4.20%               | 6.26%           | 6.26%    | 6.26%    |                 |          |          |
| NextEra Energy, Inc.                  | NEE    | \$1.70              | \$78.53     | 2.16%          | 2.28%                   | 12.50%                     | 9.07%                          | 9.30%                 | 10.29%              | 11.33%          | 12.57%   | 14.80%   | 11.33%          | 12.57%   | 14.80%   |
| NorthWestern Corporation              | NWE    | \$2.52              | \$56.70     | 4.44%          | 4.52%                   | 3.00%                      | 4.50%                          | 2.30%                 | 3.27%               | 6.80%           | 7.78%    | 9.04%    |                 | 7.78%    | 9.04%    |
| Otter Tail Corporation                | OTTR   | \$1.65              | \$66.18     | 2.49%          | 2.58%                   | 4.50%                      | 9.00%                          | n/a                   | 6.75%               | 7.05%           | 9.33%    | 11.61%   | 7.05%           | 9.33%    | 11.61%   |
| Portland General Electric Company     | POR    | \$1.81              | \$48.76     | 3.71%          | 3.79%                   | 4.50%                      | 3.23%                          | 4.40%                 | 4.04%               | 7.00%           | 7.83%    | 8.30%    | 7.00%           | 7.83%    | 8.30%    |
| Southern Company                      | SO     | \$2.72              | \$71.17     | 3.82%          | 3.93%                   | 6.50%                      | 6.12%                          | 4.00%                 | 5.54%               | 7.90%           | 9.47%    | 10.45%   | 7.90%           | 9.47%    | 10.45%   |
| Xcel Energy Inc.                      | XEL    | \$1.95              | \$69.09     | 2.82%          | 2.91%                   | 6.00%                      | 7.04%                          | 6.40%                 | 6.48%               | 8.91%           | 9.39%    | 9.96%    | 8.91%           | 9.39%    | 9.96%    |
| Mean                                  |        |                     |             | 3.26%          | 3.35%                   | 5.70%                      | 6.19%                          | 5.86%                 | 5.91%               | 8.31%           | 9.26%    | 10.10%   | 8.78%           | 9.70%    | 10.60%   |
| Median                                |        |                     |             | 3.14%          | 3.24%                   | 6.00%                      | 6.08%                          | 6.00%                 | 5.82%               | 8.17%           | 9.38%    | 9.98%    |                 |          |          |

Notes:

- [1] Source: Bloomberg Professional
- [2] Source: Bloomberg Professional, equals 30-day average as of July 29, 2022
- [3] Equals [1] / [2]
- [4] Equals [3] x (1 + 0.50 x [8])
- [5] Source: Value Line
- [6] Source: Yahoo! Finance
- [7] Source: Zacks
- [8] Equals Average ([5], [6], [7])
- [9] Equals [3] x (1 + 0.50 x Minimum ([5], [6], [7]) + Minimum ([5], [6], [7]))
- [10] Equals [4] + [8]
- [11] Equals [3] x (1 + 0.50 x Maximum ([5], [6], [7]) + Maximum ([5], [6], [7]))
- [12] - [14] Excludes companies with ROEs less than 7.00%.

90-DAY CONSTANT GROWTH DCF -- EVERGY

| Company                               |      | [1]                 | [2]         | [3]            | [4]                     | [5]                        | [6]                            | [7]                   | [8]                 | [9]     | [10]     | [11]     | With Exclusions |          |          |
|---------------------------------------|------|---------------------|-------------|----------------|-------------------------|----------------------------|--------------------------------|-----------------------|---------------------|---------|----------|----------|-----------------|----------|----------|
|                                       |      | Annualized Dividend | Stock Price | Dividend Yield | Expected Dividend Yield | Value Line Earnings Growth | Yahoo! Finance Earnings Growth | Zacks Earnings Growth | Average Growth Rate | Low ROE | Mean ROE | High ROE | Low ROE         | Mean ROE | High ROE |
| ALLETE, Inc.                          | ALE  | \$2.60              | \$61.08     | 4.26%          | 4.42%                   | 6.00%                      | 8.70%                          | 8.70%                 | 7.80%               | 10.38%  | 12.22%   | 13.14%   | 10.38%          | 12.22%   | 13.14%   |
| Alliant Energy Corporation            | LNT  | \$1.71              | \$59.96     | 2.85%          | 2.93%                   | 6.00%                      | 5.40%                          | 5.70%                 | 5.70%               | 8.33%   | 8.63%    | 8.94%    | 8.33%           | 8.63%    | 8.94%    |
| Ameren Corporation                    | AEE  | \$2.36              | \$91.50     | 2.58%          | 2.67%                   | 6.50%                      | 6.46%                          | 7.20%                 | 6.72%               | 9.12%   | 9.39%    | 9.87%    | 9.12%           | 9.39%    | 9.87%    |
| American Electric Power Company, Inc. | AEP  | \$3.12              | \$98.05     | 3.18%          | 3.28%                   | 6.50%                      | 6.35%                          | 6.20%                 | 6.35%               | 9.48%   | 9.63%    | 9.79%    | 9.48%           | 9.63%    | 9.79%    |
| Avista Corporation                    | AVA  | \$1.76              | \$42.95     | 4.10%          | 4.20%                   | 3.00%                      | 5.90%                          | 5.90%                 | 4.93%               | 7.16%   | 9.13%    | 10.12%   | 7.16%           | 9.13%    | 10.12%   |
| CMS Energy Corporation                | CMS  | \$1.84              | \$68.40     | 2.69%          | 2.79%                   | 6.50%                      | 8.48%                          | 8.10%                 | 7.69%               | 9.28%   | 10.49%   | 11.28%   | 9.28%           | 10.49%   | 11.28%   |
| Duke Energy Corporation               | DUK  | \$3.94              | \$109.18    | 3.61%          | 3.72%                   | 6.00%                      | 5.82%                          | 6.00%                 | 5.94%               | 9.53%   | 9.66%    | 9.72%    | 9.53%           | 9.66%    | 9.72%    |
| Entergy Corporation                   | ETR  | \$4.04              | \$115.79    | 3.49%          | 3.59%                   | 4.00%                      | 6.04%                          | 6.70%                 | 5.58%               | 7.56%   | 9.17%    | 10.31%   | 7.56%           | 9.17%    | 10.31%   |
| IDACORP, Inc.                         | IDA  | \$3.00              | \$108.18    | 2.77%          | 2.82%                   | 4.00%                      | 2.80%                          | 2.80%                 | 3.20%               | 5.61%   | 6.02%    | 6.83%    |                 |          |          |
| MGE Energy, Inc.                      | MGEE | \$1.55              | \$79.09     | 1.96%          | 2.00%                   | n/a                        | 4.20%                          | 4.20%                 | 4.20%               | 6.20%   | 6.20%    | 6.20%    |                 |          |          |
| NextEra Energy, Inc.                  | NEE  | \$1.70              | \$77.74     | 2.19%          | 2.30%                   | 12.50%                     | 9.07%                          | 9.30%                 | 10.29%              | 11.36%  | 12.59%   | 14.82%   | 11.36%          | 12.59%   | 14.82%   |
| NorthWestern Corporation              | NWE  | \$2.52              | \$58.81     | 4.29%          | 4.36%                   | 3.00%                      | 4.50%                          | 2.30%                 | 3.27%               | 6.63%   | 7.62%    | 8.88%    |                 | 7.62%    | 8.88%    |
| Otter Tail Corporation                | OTTR | \$1.65              | \$64.28     | 2.57%          | 2.65%                   | 4.50%                      | 9.00%                          | n/a                   | 6.75%               | 7.12%   | 9.40%    | 11.68%   | 7.12%           | 9.40%    | 11.68%   |
| Portland General Electric Company     | POR  | \$1.81              | \$50.16     | 3.61%          | 3.68%                   | 4.50%                      | 3.23%                          | 4.40%                 | 4.04%               | 6.90%   | 7.72%    | 8.19%    |                 | 7.72%    | 8.19%    |
| Southern Company                      | SO   | \$2.72              | \$72.94     | 3.73%          | 3.83%                   | 6.50%                      | 6.12%                          | 4.00%                 | 5.54%               | 7.80%   | 9.37%    | 10.35%   | 7.80%           | 9.37%    | 10.35%   |
| Xcel Energy Inc.                      | XEL  | \$1.95              | \$71.94     | 2.71%          | 2.80%                   | 6.00%                      | 7.04%                          | 6.40%                 | 6.48%               | 8.79%   | 9.28%    | 9.85%    | 8.79%           | 9.28%    | 9.85%    |
| Mean                                  |      |                     |             | 3.16%          | 3.25%                   | 5.70%                      | 6.19%                          | 5.86%                 | 5.91%               | 8.20%   | 9.16%    | 10.00%   | 8.83%           | 9.59%    | 10.50%   |
| Median                                |      |                     |             | 3.02%          | 3.11%                   | 6.00%                      | 6.08%                          | 6.00%                 | 5.82%               | 8.07%   | 9.33%    | 9.86%    |                 |          |          |

Notes:

- [1] Source: Bloomberg Professional
- [2] Source: Bloomberg Professional, equals 90-day average as of July 29, 2022
- [3] Equals [1] / [2]
- [4] Equals [3] x (1 + 0.50 x [8])
- [5] Source: Value Line
- [6] Source: Yahoo! Finance
- [7] Source: Zacks
- [8] Equals Average ([5], [6], [7])
- [9] Equals [3] x (1 + 0.50 x Minimum ([5], [6], [7]) + Minimum ([5], [6], [7]))
- [10] Equals [4] + [8]
- [11] Equals [3] x (1 + 0.50 x Maximum ([5], [6], [7]) + Maximum ([5], [6], [7]))
- [12] - [14] Excludes companies with ROEs less than 7.00%.

180-DAY CONSTANT GROWTH DCF -- EVERGY

| Company                               |      | [1]                 | [2]         | [3]            | [4]                     | [5]                        | [6]                            | [7]                   | [8]                 | [9]     | [10]     | [11]     | With Exclusions |          |          |
|---------------------------------------|------|---------------------|-------------|----------------|-------------------------|----------------------------|--------------------------------|-----------------------|---------------------|---------|----------|----------|-----------------|----------|----------|
|                                       |      | Annualized Dividend | Stock Price | Dividend Yield | Expected Dividend Yield | Value Line Earnings Growth | Yahoo! Finance Earnings Growth | Zacks Earnings Growth | Average Growth Rate | Low ROE | Mean ROE | High ROE | Low ROE         | Mean ROE | High ROE |
| ALLETE, Inc.                          | ALE  | \$2.60              | \$62.41     | 4.17%          | 4.33%                   | 6.00%                      | 8.70%                          | 8.70%                 | 7.80%               | 10.29%  | 12.13%   | 13.05%   | 10.29%          | 12.13%   | 13.05%   |
| Alliant Energy Corporation            | LNT  | \$1.71              | \$59.37     | 2.88%          | 2.96%                   | 6.00%                      | 5.40%                          | 5.70%                 | 5.70%               | 8.36%   | 8.66%    | 8.97%    | 8.36%           | 8.66%    | 8.97%    |
| Ameren Corporation                    | AEE  | \$2.36              | \$89.09     | 2.65%          | 2.74%                   | 6.50%                      | 6.46%                          | 7.20%                 | 6.72%               | 9.19%   | 9.46%    | 9.94%    | 9.19%           | 9.46%    | 9.94%    |
| American Electric Power Company, Inc. | AEP  | \$3.12              | \$93.08     | 3.35%          | 3.46%                   | 6.50%                      | 6.35%                          | 6.20%                 | 6.35%               | 9.66%   | 9.81%    | 9.96%    | 9.66%           | 9.81%    | 9.96%    |
| Avista Corporation                    | AVA  | \$1.76              | \$42.74     | 4.12%          | 4.22%                   | 3.00%                      | 5.90%                          | 5.90%                 | 4.93%               | 7.18%   | 9.15%    | 10.14%   | 7.18%           | 9.15%    | 10.14%   |
| CMS Energy Corporation                | CMS  | \$1.84              | \$65.92     | 2.79%          | 2.90%                   | 6.50%                      | 8.48%                          | 8.10%                 | 7.69%               | 9.38%   | 10.59%   | 11.39%   | 9.38%           | 10.59%   | 11.39%   |
| Duke Energy Corporation               | DUK  | \$3.94              | \$105.77    | 3.73%          | 3.84%                   | 6.00%                      | 5.82%                          | 6.00%                 | 5.94%               | 9.65%   | 9.78%    | 9.84%    | 9.65%           | 9.78%    | 9.84%    |
| Entergy Corporation                   | ETR  | \$4.04              | \$111.89    | 3.61%          | 3.71%                   | 4.00%                      | 6.04%                          | 6.70%                 | 5.58%               | 7.68%   | 9.29%    | 10.43%   | 7.68%           | 9.29%    | 10.43%   |
| IDACORP, Inc.                         | IDA  | \$3.00              | \$108.23    | 2.77%          | 2.82%                   | 4.00%                      | 2.80%                          | 2.80%                 | 3.20%               | 5.61%   | 6.02%    | 6.83%    |                 |          |          |
| MGE Energy, Inc.                      | MGEE | \$1.55              | \$77.74     | 1.99%          | 2.04%                   | n/a                        | 4.20%                          | 4.20%                 | 4.20%               | 6.24%   | 6.24%    | 6.24%    |                 |          |          |
| NextEra Energy, Inc.                  | NEE  | \$1.70              | \$80.59     | 2.11%          | 2.22%                   | 12.50%                     | 9.07%                          | 9.30%                 | 10.29%              | 11.28%  | 12.51%   | 14.74%   | 11.28%          | 12.51%   | 14.74%   |
| NorthWestern Corporation              | NWE  | \$2.52              | \$58.17     | 4.33%          | 4.40%                   | 3.00%                      | 4.50%                          | 2.30%                 | 3.27%               | 6.68%   | 7.67%    | 8.93%    |                 | 7.67%    | 8.93%    |
| Otter Tail Corporation                | OTTR | \$1.65              | \$64.54     | 2.56%          | 2.64%                   | 4.50%                      | 9.00%                          | n/a                   | 6.75%               | 7.11%   | 9.39%    | 11.67%   | 7.11%           | 9.39%    | 11.67%   |
| Portland General Electric Company     | POR  | \$1.81              | \$50.93     | 3.55%          | 3.63%                   | 4.50%                      | 3.23%                          | 4.40%                 | 4.04%               | 6.84%   | 7.67%    | 8.13%    |                 | 7.67%    | 8.13%    |
| Southern Company                      | SO   | \$2.72              | \$69.56     | 3.91%          | 4.02%                   | 6.50%                      | 6.12%                          | 4.00%                 | 5.54%               | 7.99%   | 9.56%    | 10.54%   | 7.99%           | 9.56%    | 10.54%   |
| Xcel Energy Inc.                      | XEL  | \$1.95              | \$69.69     | 2.80%          | 2.89%                   | 6.00%                      | 7.04%                          | 6.40%                 | 6.48%               | 8.88%   | 9.37%    | 9.94%    | 8.88%           | 9.37%    | 9.94%    |
| Mean                                  |      |                     |             | 3.21%          | 3.30%                   | 5.70%                      | 6.19%                          | 5.86%                 | 5.91%               | 8.25%   | 9.21%    | 10.05%   | 8.89%           | 9.65%    | 10.55%   |
| Median                                |      |                     |             | 3.12%          | 3.21%                   | 6.00%                      | 6.08%                          | 6.00%                 | 5.82%               | 8.17%   | 9.38%    | 9.95%    |                 |          |          |

Notes:

- [1] Source: Bloomberg Professional
- [2] Source: Bloomberg Professional, equals 180-day average as of July 29, 2022
- [3] Equals [1] / [2]
- [4] Equals [3] x (1 + 0.50 x [8])
- [5] Source: Value Line
- [6] Source: Yahoo! Finance
- [7] Source: Zacks
- [8] Equals Average ([5], [6], [7])
- [9] Equals [3] x (1 + 0.50 x Minimum ([5], [6], [7]) + Minimum ([5], [6], [7]))
- [10] Equals [4] + [8]
- [11] Equals [3] x (1 + 0.50 x Maximum ([5], [6], [7]) + Maximum ([5], [6], [7]))
- [12] - [14] Excludes companies with ROEs less than 7.00%.

CAPITAL ASSET PRICING MODEL -- CURRENT RISK-FREE RATE & VL BETA

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

$$K = R_f + 0.25 \times (R_m - R_f) + 0.75 \times \beta \times (R_m - R_f)$$

|                                       |        | [1]  | [2]              | [3]                | [4]                           | [5]     | [6]           |
|---------------------------------------|--------|--|------------------|--------------------|-------------------------------|---------|---------------|
| Company                               | Ticker | Current 30-day average of 30-year U.S. Treasury bond yield | Beta ( $\beta$ ) | Market Return (Rm) | Market Risk Premium (Rm - Rf) | ROE (K) | ECAPM ROE (K) |
| ALLETE, Inc.                          | ALE    | 3.16%  | 0.90             | 12.89%             | 9.73%                         | 11.92%  | 12.16%        |
| Alliant Energy Corporation            | LNT    | 3.16%  | 0.80             | 12.89%             | 9.73%                         | 10.95%  | 11.43%        |
| Ameren Corporation                    | AEE    | 3.16%  | 0.80             | 12.89%             | 9.73%                         | 10.95%  | 11.43%        |
| American Electric Power Company, Inc. | AEP    | 3.16%  | 0.75             | 12.89%             | 9.73%                         | 10.46%  | 11.07%        |
| Avista Corporation                    | AVA    | 3.16%  | 0.90             | 12.89%             | 9.73%                         | 11.92%  | 12.16%        |
| CMS Energy Corporation                | CMS    | 3.16%  | 0.75             | 12.89%             | 9.73%                         | 10.46%  | 11.07%        |
| Duke Energy Corporation               | DUK    | 3.16%  | 0.85             | 12.89%             | 9.73%                         | 11.43%  | 11.80%        |
| Entergy Corporation                   | ETR    | 3.16%  | 0.90             | 12.89%             | 9.73%                         | 11.92%  | 12.16%        |
| IDACORP, Inc.                         | IDA    | 3.16%  | 0.80             | 12.89%             | 9.73%                         | 10.95%  | 11.43%        |
| MGE Energy, Inc.                      | MGEE   | 3.16%  | 0.70             | 12.89%             | 9.73%                         | 9.97%   | 10.70%        |
| NextEra Energy, Inc.                  | NEE    | 3.16%  | 0.90             | 12.89%             | 9.73%                         | 11.92%  | 12.16%        |
| NorthWestern Corporation              | NWE    | 3.16%  | 0.95             | 12.89%             | 9.73%                         | 12.41%  | 12.53%        |
| Otter Tail Corporation                | OTTR   | 3.16%  | 0.85             | 12.89%             | 9.73%                         | 11.43%  | 11.80%        |
| Portland General Electric Company     | POR    | 3.16%  | 0.85             | 12.89%             | 9.73%                         | 11.43%  | 11.80%        |
| Southern Company                      | SO     | 3.16%  | 0.90             | 12.89%             | 9.73%                         | 11.92%  | 12.16%        |
| Xcel Energy Inc.                      | XEL    | 3.16%  | 0.80             | 12.89%             | 9.73%                         | 10.95%  | 11.43%        |
| Mean                                  |        |  |                  |                    |                               | 11.31%  | 11.71%        |

Notes:

[1] Source: Bloomberg Professional, as of July 29, 2022

[2] Source: Value Line

[3] Source: Schedule AEB-6

[4] Equals [3] - [1]

[5] Equals [1] + [2] x [4]

[6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

CAPITAL ASSET PRICING MODEL -- NEAR-TERM PROJECTED RISK-FREE RATE & VL BETA

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

$$K = R_f + 0.25 \times (R_m - R_f) + 0.75 \times \beta \times (R_m - R_f)$$

|                                       |        | [1]  | [2]              | [3]                | [4]                           | [5]     | [6]           |
|---------------------------------------|--------|--|------------------|--------------------|-------------------------------|---------|---------------|
| Company                               | Ticker | Near-term projected 30-year U.S. Treasury bond yield (Q4 2022 - Q4 2023) | Beta ( $\beta$ ) | Market Return (Rm) | Market Risk Premium (Rm - Rf) | ROE (K) | ECAPM ROE (K) |
| ALLETE, Inc.                          | ALE    | 3.48%  | 0.90             | 12.89%             | 9.41%                         | 11.95%  | 12.19%        |
| Alliant Energy Corporation            | LNT    | 3.48%  | 0.80             | 12.89%             | 9.41%                         | 11.01%  | 11.48%        |
| Ameren Corporation                    | AEE    | 3.48%  | 0.80             | 12.89%             | 9.41%                         | 11.01%  | 11.48%        |
| American Electric Power Company, Inc. | AEP    | 3.48%  | 0.75             | 12.89%             | 9.41%                         | 10.54%  | 11.13%        |
| Avista Corporation                    | AVA    | 3.48%  | 0.90             | 12.89%             | 9.41%                         | 11.95%  | 12.19%        |
| CMS Energy Corporation                | CMS    | 3.48%  | 0.75             | 12.89%             | 9.41%                         | 10.54%  | 11.13%        |
| Duke Energy Corporation               | DUK    | 3.48%  | 0.85             | 12.89%             | 9.41%                         | 11.48%  | 11.84%        |
| Entergy Corporation                   | ETR    | 3.48%  | 0.90             | 12.89%             | 9.41%                         | 11.95%  | 12.19%        |
| IDACORP, Inc.                         | IDA    | 3.48%  | 0.80             | 12.89%             | 9.41%                         | 11.01%  | 11.48%        |
| MGE Energy, Inc.                      | MGEE   | 3.48%  | 0.70             | 12.89%             | 9.41%                         | 10.07%  | 10.78%        |
| NextEra Energy, Inc.                  | NEE    | 3.48%  | 0.90             | 12.89%             | 9.41%                         | 11.95%  | 12.19%        |
| NorthWestern Corporation              | NWE    | 3.48%  | 0.95             | 12.89%             | 9.41%                         | 12.42%  | 12.54%        |
| Otter Tail Corporation                | OTTR   | 3.48%  | 0.85             | 12.89%             | 9.41%                         | 11.48%  | 11.84%        |
| Portland General Electric Company     | POR    | 3.48%  | 0.85             | 12.89%             | 9.41%                         | 11.48%  | 11.84%        |
| Southern Company                      | SO     | 3.48%  | 0.90             | 12.89%             | 9.41%                         | 11.95%  | 12.19%        |
| Xcel Energy Inc.                      | XEL    | 3.48%  | 0.80             | 12.89%             | 9.41%                         | 11.01%  | 11.48%        |
| Mean                                  |        |  |                  |                    |                               | 11.36%  | 11.75%        |

Notes:

[1] Source: Blue Chip Financial Forecasts, Vol. 41, No. 8, August 1, 2022 at 2

[2] Source: Value Line

[3] Source: Schedule AEB-6

[4] Equals [3] - [1]

[5] Equals [1] + [2] x [4]

[6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])



CAPITAL ASSET PRICING MODEL -- LONG-TERM PROJECTED RISK-FREE RATE & VL BETA

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

$$K = R_f + 0.25 \times (R_m - R_f) + 0.75 \times \beta \times (R_m - R_f)$$

|                                       |        | [1]  | [2]              | [3]                | [4]                           | [5]     | [6]           |
|---------------------------------------|--------|--|------------------|--------------------|-------------------------------|---------|---------------|
| Company                               | Ticker | Projected 30-year U.S. Treasury bond yield (2024 - 2028) | Beta ( $\beta$ ) | Market Return (Rm) | Market Risk Premium (Rm - Rf) | ROE (K) | ECAPM ROE (K) |
| ALLETE, Inc.                          | ALE    | 3.80%  | 0.90             | 12.89%             | 9.09%                         | 11.98%  | 12.21%        |
| Alliant Energy Corporation            | LNT    | 3.80%  | 0.80             | 12.89%             | 9.09%                         | 11.08%  | 11.53%        |
| Ameren Corporation                    | AEE    | 3.80%  | 0.80             | 12.89%             | 9.09%                         | 11.08%  | 11.53%        |
| American Electric Power Company, Inc. | AEP    | 3.80%  | 0.75             | 12.89%             | 9.09%                         | 10.62%  | 11.19%        |
| Avista Corporation                    | AVA    | 3.80%  | 0.90             | 12.89%             | 9.09%                         | 11.98%  | 12.21%        |
| CMS Energy Corporation                | CMS    | 3.80%  | 0.75             | 12.89%             | 9.09%                         | 10.62%  | 11.19%        |
| Duke Energy Corporation               | DUK    | 3.80%  | 0.85             | 12.89%             | 9.09%                         | 11.53%  | 11.87%        |
| Entergy Corporation                   | ETR    | 3.80%  | 0.90             | 12.89%             | 9.09%                         | 11.98%  | 12.21%        |
| IDACORP, Inc.                         | IDA    | 3.80%  | 0.80             | 12.89%             | 9.09%                         | 11.08%  | 11.53%        |
| MGE Energy, Inc.                      | MGEE   | 3.80%  | 0.70             | 12.89%             | 9.09%                         | 10.17%  | 10.85%        |
| NextEra Energy, Inc.                  | NEE    | 3.80%  | 0.90             | 12.89%             | 9.09%                         | 11.98%  | 12.21%        |
| NorthWestern Corporation              | NWE    | 3.80%  | 0.95             | 12.89%             | 9.09%                         | 12.44%  | 12.55%        |
| Otter Tail Corporation                | OTTR   | 3.80%  | 0.85             | 12.89%             | 9.09%                         | 11.53%  | 11.87%        |
| Portland General Electric Company     | POR    | 3.80%  | 0.85             | 12.89%             | 9.09%                         | 11.53%  | 11.87%        |
| Southern Company                      | SO     | 3.80%  | 0.90             | 12.89%             | 9.09%                         | 11.98%  | 12.21%        |
| Xcel Energy Inc.                      | XEL    | 3.80%  | 0.80             | 12.89%             | 9.09%                         | 11.08%  | 11.53%        |
| Mean                                  |        |  |                  |                    |                               | 11.42%  | 11.79%        |

Notes:

[1] Source: Blue Chip Financial Forecasts, Vol. 41, No. 6, June 1, 2022, at 14

[2] Source: Value Line

[3] Source: Schedule AEB-6

[4] Equals [3] - [1]

[5] Equals [1] + [2] x [4]

[6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

CAPITAL ASSET PRICING MODEL -- CURRENT RISK-FREE RATE & BLOOMBERG BETA

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

$$K = R_f + 0.25 \times (R_m - R_f) + 0.75 \times \beta \times (R_m - R_f)$$

|                                       |        | [1]  | [2]              | [3]                | [4]                           | [5]     | [6]           |
|---------------------------------------|--------|--|------------------|--------------------|-------------------------------|---------|---------------|
| Company                               | Ticker | Current 30-day average of 30-year U.S. Treasury bond yield | Beta ( $\beta$ ) | Market Return (Rm) | Market Risk Premium (Rm - Rf) | ROE (K) | ECAPM ROE (K) |
| ALLETE, Inc.                          | ALE    | 3.16%  | 0.81             | 12.89%             | 9.73%                         | 11.09%  | 11.54%        |
| Alliant Energy Corporation            | LNT    | 3.16%  | 0.80             | 12.89%             | 9.73%                         | 10.98%  | 11.46%        |
| Ameren Corporation                    | AEE    | 3.16%  | 0.76             | 12.89%             | 9.73%                         | 10.58%  | 11.16%        |
| American Electric Power Company, Inc. | AEP    | 3.16%  | 0.77             | 12.89%             | 9.73%                         | 10.66%  | 11.22%        |
| Avista Corporation                    | AVA    | 3.16%  | 0.75             | 12.89%             | 9.73%                         | 10.50%  | 11.10%        |
| CMS Energy Corporation                | CMS    | 3.16%  | 0.75             | 12.89%             | 9.73%                         | 10.50%  | 11.10%        |
| Duke Energy Corporation               | DUK    | 3.16%  | 0.72             | 12.89%             | 9.73%                         | 10.22%  | 10.89%        |
| Entergy Corporation                   | ETR    | 3.16%  | 0.87             | 12.89%             | 9.73%                         | 11.61%  | 11.93%        |
| IDACORP, Inc.                         | IDA    | 3.16%  | 0.82             | 12.89%             | 9.73%                         | 11.11%  | 11.56%        |
| MGE Energy, Inc.                      | MGEE   | 3.16%  | 0.69             | 12.89%             | 9.73%                         | 9.83%   | 10.60%        |
| NextEra Energy, Inc.                  | NEE    | 3.16%  | 0.81             | 12.89%             | 9.73%                         | 11.09%  | 11.54%        |
| NorthWestern Corporation              | NWE    | 3.16%  | 0.88             | 12.89%             | 9.73%                         | 11.77%  | 12.05%        |
| Otter Tail Corporation                | OTTR   | 3.16%  | 0.86             | 12.89%             | 9.73%                         | 11.56%  | 11.90%        |
| Portland General Electric Company     | POR    | 3.16%  | 0.79             | 12.89%             | 9.73%                         | 10.85%  | 11.36%        |
| Southern Company                      | SO     | 3.16%  | 0.79             | 12.89%             | 9.73%                         | 10.88%  | 11.39%        |
| Xcel Energy Inc.                      | XEL    | 3.16%  | 0.75             | 12.89%             | 9.73%                         | 10.43%  | 11.05%        |
| Mean                                  |        |  |                  |                    |                               | 10.86%  | 11.36%        |

Notes:

[1] Source: Bloomberg Professional, as of July 29, 2022

[2] Source: Bloomberg Professional, based on 10-year weekly returns

[3] Source: Schedule AEB-6

[4] Equals [3] - [1]

[5] Equals [1] + [2] x [4]

[6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

CAPITAL ASSET PRICING MODEL -- NEAR-TERM PROJECTED RISK-FREE RATE & BLOOMBERG BETA

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

$$K = R_f + 0.25 \times (R_m - R_f) + 0.75 \times \beta \times (R_m - R_f)$$

|                                       |        | [1]  | [2]              | [3]                | [4]                           | [5]     | [6]           |
|---------------------------------------|--------|--|------------------|--------------------|-------------------------------|---------|---------------|
| Company                               | Ticker | Near-term projected 30-year U.S. Treasury bond yield (Q4 2022 - Q4 2023) | Beta ( $\beta$ ) | Market Return (Rm) | Market Risk Premium (Rm - Rf) | ROE (K) | ECAPM ROE (K) |
| ALLETE, Inc.                          | ALE    | 3.48%  | 0.81             | 12.89%             | 9.41%                         | 11.15%  | 11.59%        |
| Alliant Energy Corporation            | LNT    | 3.48%  | 0.80             | 12.89%             | 9.41%                         | 11.05%  | 11.51%        |
| Ameren Corporation                    | AEE    | 3.48%  | 0.76             | 12.89%             | 9.41%                         | 10.66%  | 11.22%        |
| American Electric Power Company, Inc. | AEP    | 3.48%  | 0.77             | 12.89%             | 9.41%                         | 10.73%  | 11.27%        |
| Avista Corporation                    | AVA    | 3.48%  | 0.75             | 12.89%             | 9.41%                         | 10.58%  | 11.16%        |
| CMS Energy Corporation                | CMS    | 3.48%  | 0.75             | 12.89%             | 9.41%                         | 10.58%  | 11.16%        |
| Duke Energy Corporation               | DUK    | 3.48%  | 0.72             | 12.89%             | 9.41%                         | 10.30%  | 10.95%        |
| Entergy Corporation                   | ETR    | 3.48%  | 0.87             | 12.89%             | 9.41%                         | 11.65%  | 11.96%        |
| IDACORP, Inc.                         | IDA    | 3.48%  | 0.82             | 12.89%             | 9.41%                         | 11.17%  | 11.60%        |
| MGE Energy, Inc.                      | MGEE   | 3.48%  | 0.69             | 12.89%             | 9.41%                         | 9.94%   | 10.68%        |
| NextEra Energy, Inc.                  | NEE    | 3.48%  | 0.81             | 12.89%             | 9.41%                         | 11.15%  | 11.59%        |
| NorthWestern Corporation              | NWE    | 3.48%  | 0.88             | 12.89%             | 9.41%                         | 11.81%  | 12.08%        |
| Otter Tail Corporation                | OTTR   | 3.48%  | 0.86             | 12.89%             | 9.41%                         | 11.61%  | 11.93%        |
| Portland General Electric Company     | POR    | 3.48%  | 0.79             | 12.89%             | 9.41%                         | 10.91%  | 11.41%        |
| Southern Company                      | SO     | 3.48%  | 0.79             | 12.89%             | 9.41%                         | 10.95%  | 11.44%        |
| Xcel Energy Inc.                      | XEL    | 3.48%  | 0.75             | 12.89%             | 9.41%                         | 10.51%  | 11.11%        |
| Mean                                  |        |  |                  |                    |                               | 10.92%  | 11.42%        |

Notes:

[1] Source: Blue Chip Financial Forecasts, Vol. 41, No. 8, August 1, 2022 at 2

[2] Source: Bloomberg Professional, based on 10-year weekly returns

[3] Source: Schedule AEB-6

[4] Equals [3] - [1]

[5] Equals [1] + [2] x [4]

[6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

CAPITAL ASSET PRICING MODEL -- LONG-TERM PROJECTED RISK-FREE RATE & BLOOMBERG BETA

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

$$K = R_f + 0.25 \times (R_m - R_f) + 0.75 \times \beta \times (R_m - R_f)$$

|                                       |        | [1]  | [2]              | [3]                | [4]                           | [5]     | [6]           |
|---------------------------------------|--------|--|------------------|--------------------|-------------------------------|---------|---------------|
| Company                               | Ticker | Projected 30-year U.S. Treasury bond yield (2024 - 2028) | Beta ( $\beta$ ) | Market Return (Rm) | Market Risk Premium (Rm - Rf) | ROE (K) | ECAPM ROE (K) |
| ALLETE, Inc.                          | ALE    | 3.80%  | 0.81             | 12.89%             | 9.09%                         | 11.21%  | 11.63%        |
| Alliant Energy Corporation            | LNT    | 3.80%  | 0.80             | 12.89%             | 9.09%                         | 11.11%  | 11.55%        |
| Ameren Corporation                    | AEE    | 3.80%  | 0.76             | 12.89%             | 9.09%                         | 10.74%  | 11.28%        |
| American Electric Power Company, Inc. | AEP    | 3.80%  | 0.77             | 12.89%             | 9.09%                         | 10.80%  | 11.33%        |
| Avista Corporation                    | AVA    | 3.80%  | 0.75             | 12.89%             | 9.09%                         | 10.66%  | 11.22%        |
| CMS Energy Corporation                | CMS    | 3.80%  | 0.75             | 12.89%             | 9.09%                         | 10.66%  | 11.22%        |
| Duke Energy Corporation               | DUK    | 3.80%  | 0.72             | 12.89%             | 9.09%                         | 10.39%  | 11.02%        |
| Entergy Corporation                   | ETR    | 3.80%  | 0.87             | 12.89%             | 9.09%                         | 11.70%  | 12.00%        |
| IDACORP, Inc.                         | IDA    | 3.80%  | 0.82             | 12.89%             | 9.09%                         | 11.23%  | 11.65%        |
| MGE Energy, Inc.                      | MGEE   | 3.80%  | 0.69             | 12.89%             | 9.09%                         | 10.04%  | 10.75%        |
| NextEra Energy, Inc.                  | NEE    | 3.80%  | 0.81             | 12.89%             | 9.09%                         | 11.21%  | 11.63%        |
| NorthWestern Corporation              | NWE    | 3.80%  | 0.88             | 12.89%             | 9.09%                         | 11.84%  | 12.11%        |
| Otter Tail Corporation                | OTTR   | 3.80%  | 0.86             | 12.89%             | 9.09%                         | 11.65%  | 11.96%        |
| Portland General Electric Company     | POR    | 3.80%  | 0.79             | 12.89%             | 9.09%                         | 10.98%  | 11.46%        |
| Southern Company                      | SO     | 3.80%  | 0.79             | 12.89%             | 9.09%                         | 11.02%  | 11.49%        |
| Xcel Energy Inc.                      | XEL    | 3.80%  | 0.75             | 12.89%             | 9.09%                         | 10.59%  | 11.17%        |
| Mean                                  |        |  |                  |                    |                               | 10.99%  | 11.47%        |

Notes:

[1] Source: Blue Chip Financial Forecasts, Vol. 41, No. 6, June 1, 2022, at 14

[2] Source: Bloomberg Professional, based on 10-year weekly returns

[3] Source: Schedule AEB-6

[4] Equals [3] - [1]

[5] Equals [1] + [2] x [4]

[6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

CAPITAL ASSET PRICING MODEL -- CURRENT RISK-FREE RATE & VALUE LINE LT AVERAGE BETA

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

$$K = R_f + 0.25 \times (R_m - R_f) + 0.75 \times \beta \times (R_m - R_f)$$

|                                       |        | [1]  | [2]              | [3]                | [4]                           | [5]     | [6]           |
|---------------------------------------|--------|--|------------------|--------------------|-------------------------------|---------|---------------|
| Company                               | Ticker | Current 30-day average of 30-year U.S. Treasury bond yield | Beta ( $\beta$ ) | Market Return (Rm) | Market Risk Premium (Rm - Rf) | ROE (K) | ECAPM ROE (K) |
| ALLETE, Inc.                          | ALE    | 3.16%  | 0.77             | 12.89%             | 9.73%                         | 10.61%  | 11.18%        |
| Alliant Energy Corporation            | LNT    | 3.16%  | 0.74             | 12.89%             | 9.73%                         | 10.31%  | 10.96%        |
| Ameren Corporation                    | AEE    | 3.16%  | 0.72             | 12.89%             | 9.73%                         | 10.17%  | 10.85%        |
| American Electric Power Company, Inc. | AEP    | 3.16%  | 0.67             | 12.30%             | 9.28%                         | 9.15%   | 9.94%         |
| Avista Corporation                    | AVA    | 3.16%  | 0.76             | 12.89%             | 9.73%                         | 10.51%  | 11.11%        |
| CMS Energy Corporation                | CMS    | 3.16%  | 0.69             | 12.89%             | 9.73%                         | 9.83%   | 10.59%        |
| Duke Energy Corporation               | DUK    | 3.16%  | 0.64             | 12.89%             | 9.73%                         | 9.39%   | 10.27%        |
| Entergy Corporation                   | ETR    | 3.16%  | 0.72             | 12.89%             | 9.73%                         | 10.17%  | 10.85%        |
| IDACORP, Inc.                         | IDA    | 3.16%  | 0.73             | 12.89%             | 9.73%                         | 10.22%  | 10.89%        |
| MGE Energy, Inc.                      | MGEE   | 3.16%  | 0.68             | 12.89%             | 9.73%                         | 9.73%   | 10.52%        |
| NextEra Energy, Inc.                  | NEE    | 3.16%  | 0.71             | 12.89%             | 9.73%                         | 10.02%  | 10.74%        |
| NorthWestern Corporation              | NWE    | 3.16%  | 0.73             | 12.89%             | 9.73%                         | 10.22%  | 10.89%        |
| Otter Tail Corporation                | OTTR   | 3.16%  | 0.86             | 12.89%             | 9.73%                         | 11.48%  | 11.84%        |
| Portland General Electric Company     | POR    | 3.16%  | 0.75             | 12.89%             | 9.73%                         | 10.41%  | 11.03%        |
| Southern Company                      | SO     | 3.16%  | 0.62             | 12.89%             | 9.73%                         | 9.19%   | 10.12%        |
| Xcel Energy Inc.                      | XEL    | 3.16%  | 0.65             | 12.89%             | 9.73%                         | 9.49%   | 10.34%        |
| Mean                                  |        |  |                  |                    |                               | 10.06%  | 10.76%        |

Notes:

[1] Source: Bloomberg Professional, as of July 29, 2022

[2] Source: Schedule AEB-5

[3] Source: Schedule AEB-6

[4] Equals [3] - [1]

[5] Equals [1] + [2] x [4]

[6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

CAPITAL ASSET PRICING MODEL -- NEAR-TERM PROJECTED RISK-FREE RATE & VALUE LINE LT AVERAGE BETA

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

$$K = R_f + 0.25 \times (R_m - R_f) + 0.75 \times \beta \times (R_m - R_f)$$

|                                       |        | [1]  | [2]              | [3]                | [4]                           | [5]     | [6]           |
|---------------------------------------|--------|--|------------------|--------------------|-------------------------------|---------|---------------|
| Company                               | Ticker | Near-term projected 30-year U.S. Treasury bond yield (Q4 2022 - Q4 2023) | Beta ( $\beta$ ) | Market Return (Rm) | Market Risk Premium (Rm - Rf) | ROE (K) | ECAPM ROE (K) |
| ALLETE, Inc.                          | ALE    | 3.48%  | 0.77             | 12.89%             | 9.41%                         | 10.68%  | 11.23%        |
| Alliant Energy Corporation            | LNT    | 3.48%  | 0.74             | 12.89%             | 9.41%                         | 10.40%  | 11.02%        |
| Ameren Corporation                    | AEE    | 3.48%  | 0.72             | 12.89%             | 9.41%                         | 10.26%  | 10.92%        |
| American Electric Power Company, Inc. | AEP    | 3.48%  | 0.67             | 12.89%             | 9.41%                         | 9.74%   | 10.53%        |
| Avista Corporation                    | AVA    | 3.48%  | 0.76             | 12.89%             | 9.41%                         | 10.59%  | 11.16%        |
| CMS Energy Corporation                | CMS    | 3.48%  | 0.69             | 12.89%             | 9.41%                         | 9.93%   | 10.67%        |
| Duke Energy Corporation               | DUK    | 3.48%  | 0.64             | 12.89%             | 9.41%                         | 9.51%   | 10.35%        |
| Entergy Corporation                   | ETR    | 3.48%  | 0.72             | 12.89%             | 9.41%                         | 10.26%  | 10.92%        |
| IDACORP, Inc.                         | IDA    | 3.48%  | 0.73             | 12.89%             | 9.41%                         | 10.31%  | 10.95%        |
| MGE Energy, Inc.                      | MGEE   | 3.48%  | 0.68             | 12.89%             | 9.41%                         | 9.83%   | 10.60%        |
| NextEra Energy, Inc.                  | NEE    | 3.48%  | 0.71             | 12.89%             | 9.41%                         | 10.12%  | 10.81%        |
| NorthWestern Corporation              | NWE    | 3.48%  | 0.73             | 12.89%             | 9.41%                         | 10.31%  | 10.95%        |
| Otter Tail Corporation                | OTTR   | 3.48%  | 0.86             | 12.89%             | 9.41%                         | 11.53%  | 11.87%        |
| Portland General Electric Company     | POR    | 3.48%  | 0.75             | 12.89%             | 9.41%                         | 10.49%  | 11.09%        |
| Southern Company                      | SO     | 3.48%  | 0.62             | 12.89%             | 9.41%                         | 9.32%   | 10.21%        |
| Xcel Energy Inc.                      | XEL    | 3.48%  | 0.65             | 12.89%             | 9.41%                         | 9.60%   | 10.42%        |
| Mean                                  |        |  |                  |                    |                               | 10.18%  | 10.86%        |

Notes:

[1] Source: Blue Chip Financial Forecasts, Vol. 41, No. 8, August 1, 2022 at 2

[2] Source: Schedule AEB-5

[3] Source: Schedule AEB-6

[4] Equals [3] - [1]

[5] Equals [1] + [2] x [4]

[6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

CAPITAL ASSET PRICING MODEL -- LONG-TERM PROJECTED RISK-FREE RATE & VALUE LINE LT BETA

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

$$K = R_f + 0.25 \times (R_m - R_f) + 0.75 \times \beta \times (R_m - R_f)$$

|                                       |        | [1]  | [2]              | [3]                | [4]                           | [5]     | [6]           |
|---------------------------------------|--------|--|------------------|--------------------|-------------------------------|---------|---------------|
| Company                               | Ticker | Projected 30-year U.S. Treasury bond yield (2024 - 2028) | Beta ( $\beta$ ) | Market Return (Rm) | Market Risk Premium (Rm - Rf) | ROE (K) | ECAPM ROE (K) |
| ALLETE, Inc.                          | ALE    | 3.80%  | 0.77             | 12.89%             | 9.09%                         | 10.76%  | 11.29%        |
| Alliant Energy Corporation            | LNT    | 3.80%  | 0.74             | 12.89%             | 9.09%                         | 10.48%  | 11.09%        |
| Ameren Corporation                    | AEE    | 3.80%  | 0.72             | 12.89%             | 9.09%                         | 10.35%  | 10.98%        |
| American Electric Power Company, Inc. | AEP    | 3.80%  | 0.67             | 12.89%             | 9.09%                         | 9.85%   | 10.61%        |
| Avista Corporation                    | AVA    | 3.80%  | 0.76             | 12.89%             | 9.09%                         | 10.67%  | 11.22%        |
| CMS Energy Corporation                | CMS    | 3.80%  | 0.69             | 12.89%             | 9.09%                         | 10.03%  | 10.75%        |
| Duke Energy Corporation               | DUK    | 3.80%  | 0.64             | 12.89%             | 9.09%                         | 9.62%   | 10.44%        |
| Entergy Corporation                   | ETR    | 3.80%  | 0.72             | 12.89%             | 9.09%                         | 10.35%  | 10.98%        |
| IDACORP, Inc.                         | IDA    | 3.80%  | 0.73             | 12.89%             | 9.09%                         | 10.39%  | 11.02%        |
| MGE Energy, Inc.                      | MGEE   | 3.80%  | 0.68             | 12.89%             | 9.09%                         | 9.94%   | 10.68%        |
| NextEra Energy, Inc.                  | NEE    | 3.80%  | 0.71             | 12.89%             | 9.09%                         | 10.21%  | 10.88%        |
| NorthWestern Corporation              | NWE    | 3.80%  | 0.73             | 12.89%             | 9.09%                         | 10.39%  | 11.02%        |
| Otter Tail Corporation                | OTTR   | 3.80%  | 0.86             | 12.89%             | 9.09%                         | 11.58%  | 11.91%        |
| Portland General Electric Company     | POR    | 3.80%  | 0.75             | 12.89%             | 9.09%                         | 10.58%  | 11.15%        |
| Southern Company                      | SO     | 3.80%  | 0.62             | 12.89%             | 9.09%                         | 9.44%   | 10.30%        |
| Xcel Energy Inc.                      | XEL    | 3.80%  | 0.65             | 12.89%             | 9.09%                         | 9.71%   | 10.51%        |
| Mean                                  |        |  |                  |                    |                               | 10.27%  | 10.93%        |

Notes:

[1] Source: Blue Chip Financial Forecasts, Vol. 41, No. 6, June 1, 2022, at 14

[2] Source: Schedule AEB-5

[3] Source: Schedule AEB-6

[4] Equals [3] - [1]

[5] Equals [1] + [2] x [4]

[6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

HISTORICAL BETA - 2012 - 2021

|                                      |        | [1]        | [2]        | [3]        | [4]        | [5]        | [6]        | [7]        | [8]        | [9]        | [10]       | [11]    |
|--------------------------------------|--------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|---------|
| Company                              | Ticker | 12/31/2012 | 12/31/2013 | 12/31/2014 | 12/31/2015 | 12/31/2016 | 12/31/2017 | 12/31/2018 | 12/31/2019 | 12/31/2020 | 12/31/2021 | Average |
| ALLETE, Inc.                         | ALE    | 0.70       | 0.75       | 0.80       | 0.80       | 0.75       | 0.80       | 0.65       | 0.65       | 0.85       | 0.90       | 0.77    |
| Alliant Energy Corporation           | LNT    | 0.70       | 0.75       | 0.80       | 0.80       | 0.70       | 0.70       | 0.60       | 0.60       | 0.85       | 0.85       | 0.74    |
| Ameren Corporation                   | AEE    | 0.80       | 0.80       | 0.75       | 0.75       | 0.65       | 0.70       | 0.55       | 0.55       | 0.85       | 0.80       | 0.72    |
| American Electric Power Company, Inc | AEP    | 0.65       | 0.70       | 0.70       | 0.70       | 0.65       | 0.65       | 0.55       | 0.55       | 0.75       | 0.75       | 0.67    |
| Avista Corporation                   | AVA    | 0.70       | 0.70       | 0.80       | 0.80       | 0.70       | 0.75       | 0.65       | 0.60       | 0.90       | 0.95       | 0.76    |
| CMS Energy Corporation               | CMS    | 0.75       | 0.70       | 0.70       | 0.75       | 0.65       | 0.65       | 0.55       | 0.50       | 0.80       | 0.80       | 0.69    |
| Duke Energy Corporation              | DUK    | 0.60       | 0.65       | 0.60       | 0.65       | 0.60       | 0.60       | 0.50       | 0.50       | 0.85       | 0.85       | 0.64    |
| Entergy Corporation                  | ETR    | 0.70       | 0.70       | 0.70       | 0.70       | 0.65       | 0.65       | 0.60       | 0.60       | 0.95       | 0.95       | 0.72    |
| IDACORP, Inc.                        | IDA    | 0.70       | 0.70       | 0.80       | 0.80       | 0.75       | 0.70       | 0.60       | 0.55       | 0.80       | 0.85       | 0.73    |
| MGE Energy, Inc.                     | MGEE   | 0.60       | 0.65       | 0.70       | 0.75       | 0.70       | 0.75       | 0.60       | 0.55       | 0.70       | 0.75       | 0.68    |
| NextEra Energy, Inc.                 | NEE    | 0.70       | 0.70       | 0.70       | 0.75       | 0.65       | 0.65       | 0.55       | 0.55       | 0.90       | 0.90       | 0.71    |
| NorthWestern Corporation             | NWE    | 0.70       | 0.70       | 0.70       | 0.70       | 0.70       | 0.70       | 0.60       | 0.60       | 0.90       | 0.95       | 0.73    |
| Otter Tail Corporation               | OTTR   | 0.90       | 0.95       | 0.90       | 0.85       | 0.85       | 0.90       | 0.75       | 0.70       | 0.85       | 0.90       | 0.86    |
| Portland General Electric Company    | POR    | 0.75       | 0.75       | 0.80       | 0.80       | 0.70       | 0.70       | 0.60       | 0.60       | 0.85       | 0.90       | 0.75    |
| Southern Company                     | SO     | 0.55       | 0.55       | 0.55       | 0.60       | 0.55       | 0.55       | 0.50       | 0.50       | 0.90       | 0.95       | 0.62    |
| Xcel Energy Inc.                     | XEL    | 0.65       | 0.65       | 0.70       | 0.65       | 0.60       | 0.60       | 0.55       | 0.50       | 0.80       | 0.80       | 0.65    |
| Mean                                 |        | 0.70       | 0.71       | 0.73       | 0.74       | 0.68       | 0.69       | 0.59       | 0.57       | 0.84       | 0.87       | 0.71    |

Notes:

[1] Value Line, dated November 2, 2012, November 23, 2012, and December 21, 2012.

[2] Value Line, dated November 1, 2013, November 22, 2013, and December 20, 2013.

[3] Value Line, dated October 31, 2014, November 21, 2014, and December 19, 2014.

[4] Value Line, dated October 30, 2015, November 20, 2015, and December 18, 2015.

[5] Value Line, dated October 28, 2016, November 18, 2016, and December 16, 2016.

[6] Value Line, dated October 27, 2017, November 17, 2017, and December 15, 2017.

[7] Value Line, dated October 18, 2018, November 16, 2018, and December 14, 2018.

[8] Value Line, dated October 25, 2019, November 15, 2019, and December 13, 2019.

[9] Value Line, dated October 23, 2020, November 13, 2020, and December 11, 2020.

[10] Value Line, dated October 22, 2021, November 12, 2021, and December 10, 2021

[11] Average ([1] - [10])

MARKET RISK PREMIUM DERIVED FROM ANALYSTS' LONG-TERM GROWTH ESTIMATES

|  |        |
|--|--------|
| [1] Estimated Weighted Average Dividend Yield        | 1.71%  |
| [2] Estimated Weighted Average Long-Term Growth Rate | 11.09% |
| [3] S&P 500 Estimated Required Market Return         | 12.89% |

STANDARD AND POOR'S 500 INDEX

| Name                                 | Ticker | [4]<br>Shares<br>Outst'g | [5]<br>Price | [6]<br>Market<br>Capitalization | [7]<br>Weight in<br>Index | [8]<br>Estimated<br>Dividend Yield | [9]<br>Cap-Weighted<br>Dividend Yield | [10]<br>Value Line<br>Long-Term<br>Growth Est. | [11]<br>Cap-Weighted<br>Long-Term<br>Growth Est. |
|--------------------------------------|--------|--------------------------|--------------|---------------------------------|---------------------------|------------------------------------|---------------------------------------|--|--|
| LyondellBasell Industries NV         | LYB    | 326.21                   | 89.12        | 29,071.48                       | 0.10%                     | 5.34%                              | 0.01%                                 | 3.50%  | 0.00%  |
| Signature Bank/New York NY           | SBNY   | 62.93                    | 185.57       | 11,677.73                       |                           | 1.21%                              |                                       | 21.50%   |  |
| American Express Co                  | AXP    | 749.75                   | 154.02       | 115,476.19                      | 0.40%                     | 1.35%                              | 0.01%                                 | 10.00%   | 0.04%  |
| Verizon Communications Inc           | VZ     | 4,199.72                 | 46.19        | 193,984.84                      | 0.68%                     | 5.54%                              | 0.04%                                 | 3.00%  | 0.02%  |
| Broadcom Inc                         | AVGO   | 403.82                   | 535.48       | 216,236.46                      |                           | 3.06%                              |                                       | 23.00%   |  |
| Boeing Co/The                        | BA     | 593.81                   | 159.31       | 94,600.03                       |                           | n/a                                |                                       |  |  |
| Caterpillar Inc                      | CAT    | 533.37                   | 198.25       | 105,741.40                      | 0.37%                     | 2.42%                              | 0.01%                                 | 8.00%  | 0.03%  |
| JPMorgan Chase & Co                  | JPM    | 2,937.05                 | 115.36       | 338,818.09                      | 1.18%                     | 3.47%                              | 0.04%                                 | 5.00%  | 0.06%  |
| Chevron Corp                         | CVX    | 1,964.81                 | 163.78       | 321,797.07                      |                           | 3.47%                              |                                       | 26.00%   |  |
| Coca-Cola Co/The                     | KO     | 4,324.63                 | 64.17        | 277,511.44                      | 0.97%                     | 2.74%                              | 0.03%                                 | 7.50%  | 0.07%  |
| AbbVie Inc                           | ABBV   | 1,767.11                 | 143.51       | 253,597.96                      | 0.89%                     | 3.93%                              | 0.03%                                 | 4.50%  | 0.04%  |
| Walt Disney Co/The                   | DIS    | 1,821.48                 | 106.10       | 193,259.45                      |                           | n/a                                |                                       | 30.50%   |  |
| FleetCor Technologies Inc            | FLT    | 77.34                    | 220.09       | 17,021.98                       | 0.06%                     | n/a                                |                                       | 10.50%   | 0.01%  |
| Extra Space Storage Inc              | EXR    | 134.28                   | 189.52       | 25,448.75                       | 0.09%                     | 3.17%                              | 0.00%                                 | 4.00%  | 0.00%  |
| Exxon Mobil Corp                     | XOM    | 4,212.54                 | 96.93        | 408,321.79                      |                           | 3.63%                              |                                       |  |  |
| Phillips 66                          | PSX    | 481.05                   | 89.00        | 42,813.54                       |                           | 4.36%                              |                                       | 85.00%   |  |
| General Electric Co                  | GE     | 1,096.55                 | 73.91        | 81,046.23                       | 0.28%                     | 0.43%                              | 0.00%                                 | 14.00%   | 0.04%  |
| HP Inc                               | HPQ    | 1,034.14                 | 33.39        | 34,529.87                       | 0.12%                     | 2.99%                              | 0.00%                                 | 12.50%   | 0.02%  |
| Home Depot Inc/The                   | HD     | 1,027.76                 | 300.94       | 309,292.59                      | 1.08%                     | 2.53%                              | 0.03%                                 | 9.00%  | 0.10%  |
| Monolithic Power Systems Inc         | MPWR   | 46.64                    | 464.72       | 21,675.93                       | 0.08%                     | 0.65%                              | 0.00%                                 | 18.00%   | 0.01%  |
| International Business Machines Corp | IBM    | 903.18                   | 130.79       | 118,126.91                      | 0.41%                     | 5.05%                              | 0.02%                                 | 3.00%  | 0.01%  |
| Johnson & Johnson                    | JNJ    | 2,629.18                 | 174.52       | 458,844.49                      | 1.60%                     | 2.59%                              | 0.04%                                 | 8.00%  | 0.13%  |
| McDonald's Corp                      | MCD    | 739.55                   | 263.37       | 194,774.49                      | 0.68%                     | 2.10%                              | 0.01%                                 | 10.50%   | 0.07%  |
| Merck & Co Inc                       | MRK    | 2,528.81                 | 89.34        | 225,923.44                      | 0.79%                     | 3.09%                              | 0.02%                                 | 8.00%  | 0.06%  |
| 3M Co                                | MMM    | 569.60                   | 143.24       | 81,590.08                       | 0.29%                     | 4.16%                              | 0.01%                                 | 6.50%  | 0.02%  |
| American Water Works Co Inc          | AWK    | 181.79                   | 155.44       | 28,256.82                       | 0.10%                     | 1.69%                              | 0.00%                                 | 3.00%  | 0.00%  |
| Bank of America Corp                 | BAC    | 8,035.24                 | 33.81        | 271,671.43                      | 0.95%                     | 2.60%                              | 0.02%                                 | 8.50%  | 0.08%  |
| Pfizer Inc                           | PFE    | 5,610.90                 | 50.51        | 283,406.36                      | 0.99%                     | 3.17%                              | 0.03%                                 | 6.50%  | 0.06%  |
| Procter & Gamble Co/The              | PG     | 2,399.30                 | 138.91       | 333,286.35                      | 1.17%                     | 2.63%                              | 0.03%                                 | 6.50%  | 0.08%  |
| AT&T Inc                             | T      | 7,126.00                 | 18.78        | 133,826.28                      | 0.47%                     | 5.91%                              | 0.03%                                 | 0.50%  | 0.00%  |
| Travelers Cos Inc/The                | TRV    | 237.31                   | 158.70       | 37,661.57                       | 0.13%                     | 2.34%                              | 0.00%                                 | 8.00%  | 0.01%  |
| Raytheon Technologies Corp           | RTX    | 1,476.51                 | 93.21        | 137,625.87                      | 0.48%                     | 2.36%                              | 0.01%                                 | 7.50%  | 0.04%  |
| Analog Devices Inc                   | ADI    | 519.81                   | 171.96       | 89,385.84                       | 0.31%                     | 1.77%                              | 0.01%                                 | 14.00%   | 0.04%  |
| Walmart Inc                          | WMT    | 2,741.15                 | 132.05       | 361,968.86                      | 1.27%                     | 1.70%                              | 0.02%                                 | 7.50%  | 0.09%  |
| Cisco Systems Inc                    | CSCO   | 4,140.96                 | 45.37        | 187,875.54                      | 0.66%                     | 3.35%                              | 0.02%                                 | 8.00%  | 0.05%  |
| Intel Corp                           | INTC   | 4,106.00                 | 36.31        | 149,088.86                      | 0.52%                     | 4.02%                              | 0.02%                                 | 6.00%  | 0.03%  |
| General Motors Co                    | GM     | 1,458.05                 | 36.26        | 52,868.86                       | 0.18%                     | n/a                                |                                       | 11.00%   | 0.02%  |
| Microsoft Corp                       | MSFT   | 7,457.89                 | 280.74       | 2,093,728.60                    | 7.32%                     | 0.88%                              | 0.06%                                 | 16.50%   | 1.21%  |
| Dollar General Corp                  | DG     | 227.00                   | 248.43       | 56,392.86                       | 0.20%                     | 0.89%                              | 0.00%                                 | 10.00%   | 0.02%  |
| Cigna Corp                           | CI     | 317.27                   | 275.36       | 87,364.29                       | 0.31%                     | 1.63%                              | 0.00%                                 | 10.00%   | 0.03%  |
| Kinder Morgan Inc                    | KMI    | 2,253.00                 | 17.99        | 40,531.49                       | 0.14%                     | 6.17%                              | 0.01%                                 | 19.00%   | 0.03%  |
| Citigroup Inc                        | C      | 1,937.00                 | 51.90        | 100,530.30                      | 0.35%                     | 3.93%                              | 0.01%                                 | 5.50%  | 0.02%  |
| American International Group Inc     | AIG    | 792.19                   | 51.77        | 41,011.78                       |                           | 2.47%                              |                                       |  |  |
| Altria Group Inc                     | MO     | 1,800.82                 | 43.86        | 78,984.10                       | 0.28%                     | 8.21%                              | 0.02%                                 | 5.50%  | 0.02%  |
| HCA Healthcare Inc                   | HCA    | 295.48                   | 212.42       | 62,766.71                       | 0.22%                     | 1.05%                              | 0.00%                                 | 12.50%   | 0.03%  |
| International Paper Co               | IP     | 362.02                   | 42.77        | 15,483.47                       | 0.05%                     | 4.33%                              | 0.00%                                 | 12.50%   | 0.01%  |
| Hewlett Packard Enterprise Co        | HPE    | 1,299.33                 | 14.24        | 18,502.46                       | 0.06%                     | 3.37%                              | 0.00%                                 | 7.50%  | 0.00%  |
| Abbott Laboratories                  | ABT    | 1,750.94                 | 108.84       | 190,572.53                      | 0.67%                     | 1.73%                              | 0.01%                                 | 8.00%  | 0.05%  |
| Aflac Inc                            | AFL    | 644.17                   | 57.30        | 36,910.65                       | 0.13%                     | 2.79%                              | 0.00%                                 | 9.00%  | 0.01%  |
| Air Products and Chemicals Inc       | APD    | 221.77                   | 248.23       | 55,050.71                       | 0.19%                     | 2.61%                              | 0.01%                                 | 12.00%   | 0.02%  |
| Royal Caribbean Cruises Ltd          | RCL    | 255.06                   | 38.71        | 9,873.33                        |                           | n/a                                |                                       |  |  |
| Hess Corp                            | HES    | 311.26                   | 112.47       | 35,007.75                       |                           | 1.33%                              |                                       |  |  |
| Archer-Daniels-Midland Co            | ADM    | 560.56                   | 82.77        | 46,397.72                       | 0.16%                     | 1.93%                              | 0.00%                                 | 13.00%   | 0.02%  |
| Automatic Data Processing Inc        | ADP    | 416.10                   | 241.12       | 100,330.03                      | 0.35%                     | 1.73%                              | 0.01%                                 | 10.00%   | 0.04%  |
| Verisk Analytics Inc                 | VRSK   | 157.90                   | 190.25       | 30,040.86                       | 0.11%                     | 0.65%                              | 0.00%                                 | 10.50%   | 0.01%  |
| AutoZone Inc                         | AZO    | 19.49                    | 2,137.39     | 41,653.46                       | 0.15%                     | n/a                                |                                       | 14.00%   | 0.02%  |
| Avery Dennison Corp                  | AVY    | 81.71                    | 190.46       | 15,563.25                       | 0.05%                     | 1.58%                              | 0.00%                                 | 12.00%   | 0.01%  |
| Enphase Energy Inc                   | ENPH   | 135.46                   | 284.18       | 38,494.17                       |                           | n/a                                |                                       | 26.50%   |  |
| MSCI Inc                             | MSCI   | 80.50                    | 481.34       | 38,749.31                       | 0.14%                     | 1.04%                              | 0.00%                                 | 14.50%   | 0.02%  |
| Ball Corp                            | BALL   | 319.79                   | 73.42        | 23,478.91                       |                           | 1.09%                              |                                       | 21.50%   |  |
| Ceridian HCM Holding Inc             | CDAY   | 152.65                   | 54.77        | 8,360.37                        |                           | n/a                                |                                       |  |  |
| Carrier Global Corp                  | CARR   | 841.58                   | 40.53        | 34,109.36                       |                           | 1.48%                              |                                       |  |  |
| Bank of New York Mellon Corp/The     | BK     | 808.10                   | 43.46        | 35,120.16                       | 0.12%                     | 3.41%                              | 0.00%                                 | 6.00%  | 0.01%  |
| Otis Worldwide Corp                  | OTIS   | 420.23                   | 78.17        | 32,849.54                       |                           | 1.48%                              |                                       |  |  |
| Baxter International Inc             | BAX    | 503.61                   | 58.66        | 29,541.82                       | 0.10%                     | 1.98%                              | 0.00%                                 | 10.00%   | 0.01%  |
| Becton Dickinson and Co              | BDX    | 285.07                   | 244.31       | 69,644.23                       | 0.24%                     | 1.42%                              | 0.00%                                 | 5.50%  | 0.01%  |
| Berkshire Hathaway Inc               | BRK/B  | 1,285.75                 | 300.60       | 386,496.75                      | 1.35%                     | n/a                                |                                       | 6.00%  | 0.08%  |
| Best Buy Co Inc                      | BBY    | 225.17                   | 76.99        | 17,335.68                       | 0.06%                     | 4.57%                              | 0.00%                                 | 9.50%  | 0.01%  |
| Boston Scientific Corp               | BSX    | 1,429.57                 | 41.05        | 58,683.89                       | 0.21%                     | n/a                                |                                       | 16.00%   | 0.03%  |
| Bristol-Myers Squibb Co              | BMY    | 2,135.26                 | 73.78        | 157,539.11                      |                           | 2.93%                              |                                       |  |  |
| Fortune Brands Home & Security Inc   | FBHS   | 129.32                   | 69.68        | 9,010.81                        | 0.03%                     | 1.61%                              | 0.00%                                 | 10.00%   | 0.00%  |
| Brown-Forman Corp                    | BF/B   | 309.90                   | 74.22        | 23,000.78                       | 0.08%                     | 1.02%                              | 0.00%                                 | 14.00%   | 0.01%  |
| Coterra Energy Inc                   | CTRA   | 805.81                   | 30.59        | 24,649.57                       |                           | 1.96%                              |                                       |  |  |
| Campbell Soup Co                     | CPB    | 300.58                   | 49.35        | 14,833.43                       | 0.05%                     | 3.00%                              | 0.00%                                 | 5.00%  | 0.00%  |
| Hilton Worldwide Holdings Inc        | HLT    | 274.29                   | 128.07       | 35,127.94                       |                           | 0.47%                              |                                       |  |  |
| Carnival Corp                        | CCL    | 1,096.76                 | 9.06         | 9,936.61                        |                           | n/a                                |                                       |  |  |
| Qorvo Inc                            | QRVO   | 103.73                   | 104.07       | 10,794.87                       | 0.04%                     | n/a                                |                                       | 14.50%   | 0.01%  |
| Lumen Technologies Inc               | LUMN   | 1,033.06                 | 10.89        | 11,249.97                       | 0.04%                     | 9.18%                              | 0.00%                                 | 3.50%  | 0.00%  |
| UDR Inc                              | UDR    | 324.92                   | 48.40        | 15,726.27                       | 0.05%                     | 3.14%                              | 0.00%                                 | 10.50%   | 0.01%  |
| Clorox Co/The                        | CLX    | 123.08                   | 141.84       | 17,457.67                       | 0.06%                     | 3.33%                              | 0.00%                                 | 4.50%  | 0.00%  |

## STANDARD AND POOR'S 500 INDEX

| Name                                   | Ticker | [4]               | [5]    | [6]                      | [7]                | [8]                         | [9]                            | [10]                                   | [11]                                     |
|--|--------|-------------------|--------|--------------------------|--------------------|-----------------------------|--------------------------------|--|--|
|  |        | Shares<br>Outst'g | Price  | Market<br>Capitalization | Weight in<br>Index | Estimated<br>Dividend Yield | Cap-Weighted<br>Dividend Yield | Value Line<br>Long-Term<br>Growth Est. | Cap-Weighted<br>Long-Term<br>Growth Est. |
| Paycom Software Inc                    | PAYC   | 60.25             | 330.49 | 19,913.34                |                    | n/a                         |                                | 21.00%                                 |  |
| CMS Energy Corp                        | CMS    | 290.20            | 68.73  | 19,945.17                | 0.07%              | 2.68%                       | 0.00%                          | 6.50%                                  | 0.00%                                    |
| Newell Brands Inc                      | NWL    | 413.50            | 20.21  | 8,356.84                 |                    | 4.55%                       |                                |  |  |
| Colgate-Palmolive Co                   | CL     | 834.12            | 78.74  | 65,678.61                | 0.23%              | 2.39%                       | 0.01%                          | 6.50%                                  | 0.01%                                    |
| EPAM Systems Inc                       | EPAM   | 57.15             | 349.25 | 19,959.99                |                    | n/a                         |                                | 20.50%                                 |  |
| Comerica Inc                           | CMA    | 130.82            | 77.77  | 10,173.87                | 0.04%              | 3.50%                       | 0.00%                          | 6.00%                                  | 0.00%                                    |
| Conagra Brands Inc                     | CAG    | 480.09            | 34.21  | 16,423.95                | 0.06%              | 3.86%                       | 0.00%                          | 4.00%                                  | 0.00%                                    |
| Consolidated Edison Inc                | ED     | 354.30            | 99.27  | 35,170.86                | 0.12%              | 3.18%                       | 0.00%                          | 4.50%                                  | 0.01%                                    |
| Corning Inc                            | GLW    | 845.32            | 36.76  | 31,073.89                | 0.11%              | 2.94%                       | 0.00%                          | 17.50%                                 | 0.02%                                    |
| Cummins Inc                            | CMI    | 141.10            | 221.31 | 31,226.40                | 0.11%              | 2.84%                       | 0.00%                          | 8.00%                                  | 0.01%                                    |
| Caesars Entertainment Inc              | CZR    | 214.37            | 45.69  | 9,794.38                 |                    | n/a                         |                                |  |  |
| Danaher Corp                           | DHR    | 727.45            | 291.47 | 212,028.39               | 0.74%              | 0.34%                       | 0.00%                          | 17.00%                                 | 0.13%                                    |
| Target Corp                            | TGT    | 463.70            | 163.38 | 75,758.65                | 0.26%              | 2.64%                       | 0.01%                          | 13.00%                                 | 0.03%                                    |
| Deere & Co                             | DE     | 305.64            | 343.18 | 104,888.16               | 0.37%              | 1.32%                       | 0.00%                          | 15.00%                                 | 0.05%                                    |
| Dominion Energy Inc                    | D      | 811.27            | 81.98  | 66,507.91                | 0.23%              | 3.26%                       | 0.01%                          | 14.00%                                 | 0.03%                                    |
| Dover Corp                             | DOV    | 143.55            | 133.68 | 19,189.63                | 0.07%              | 1.50%                       | 0.00%                          | 9.00%                                  | 0.01%                                    |
| Alliant Energy Corp                    | LNT    | 250.81            | 60.93  | 15,282.10                | 0.05%              | 2.81%                       | 0.00%                          | 6.00%                                  | 0.00%                                    |
| Duke Energy Corp                       | DUK    | 770.00            | 109.93 | 84,646.10                | 0.30%              | 3.66%                       | 0.01%                          | 6.00%                                  | 0.02%                                    |
| Regency Centers Corp                   | REG    | 172.36            | 64.43  | 11,105.28                | 0.04%              | 3.88%                       | 0.00%                          | 12.50%                                 | 0.00%                                    |
| Eaton Corp PLC                         | ETN    | 399.00            | 148.39 | 59,207.61                | 0.21%              | 2.18%                       | 0.00%                          | 12.00%                                 | 0.02%                                    |
| Ecolab Inc                             | ECL    | 285.66            | 165.17 | 47,181.64                | 0.16%              | 1.24%                       | 0.00%                          | 10.50%                                 | 0.02%                                    |
| PerkinElmer Inc                        | PKI    | 126.15            | 153.17 | 19,322.09                | 0.07%              | 0.18%                       | 0.00%                          | 5.00%                                  | 0.00%                                    |
| Emerson Electric Co                    | EMR    | 594.00            | 90.07  | 53,501.58                | 0.19%              | 2.29%                       | 0.00%                          | 10.00%                                 | 0.02%                                    |
| EOG Resources Inc                      | EOG    | 585.71            | 111.22 | 65,143.00                | 0.23%              | 2.70%                       | 0.01%                          | 18.00%                                 | 0.04%                                    |
| Aon PLC                                | AON    | 210.93            | 291.04 | 61,387.90                | 0.21%              | 0.77%                       | 0.00%                          | 6.50%                                  | 0.01%                                    |
| Entergy Corp                           | ETR    | 203.37            | 115.13 | 23,414.45                | 0.08%              | 3.51%                       | 0.00%                          | 4.00%                                  | 0.00%                                    |
| Equifax Inc                            | EFX    | 122.40            | 208.91 | 25,570.58                | 0.09%              | 0.75%                       | 0.00%                          | 10.00%                                 | 0.01%                                    |
| IQVIA Holdings Inc                     | IQV    | 186.51            | 240.27 | 44,812.28                | 0.16%              | n/a                         |                                | 14.50%                                 | 0.02%                                    |
| Gartner Inc                            | IT     | 80.54             | 265.48 | 21,381.49                | 0.07%              | n/a                         |                                | 15.50%                                 | 0.01%                                    |
| FedEx Corp                             | FDX    | 259.85            | 233.09 | 60,567.50                | 0.21%              | 1.97%                       | 0.00%                          | 13.00%                                 | 0.03%                                    |
| FMC Corp                               | FMC    | 125.94            | 111.10 | 13,991.82                | 0.05%              | 1.91%                       | 0.00%                          | 11.00%                                 | 0.01%                                    |
| Brown & Brown Inc                      | BRO    | 282.45            | 65.10  | 18,387.76                | 0.06%              | 0.63%                       | 0.00%                          | 8.00%                                  | 0.01%                                    |
| Ford Motor Co                          | F      | 3,949.39          | 14.69  | 58,016.47                |                    | 4.08%                       |                                | 33.50%                                 |  |
| NextEra Energy Inc                     | NEE    | 1,964.78          | 84.49  | 166,004.18               | 0.58%              | 2.01%                       | 0.01%                          | 12.50%                                 | 0.07%                                    |
| Franklin Resources Inc                 | BEN    | 498.36            | 27.45  | 13,679.90                | 0.05%              | 4.23%                       | 0.00%                          | 9.00%                                  | 0.00%                                    |
| Garmin Ltd                             | GRMN   | 192.86            | 97.62  | 18,826.51                | 0.07%              | 2.99%                       | 0.00%                          | 8.00%                                  | 0.01%                                    |
| Freeport-McMoRan Inc                   | FCX    | 1,449.26          | 31.55  | 45,724.22                |                    | 1.90%                       |                                | 29.00%                                 |  |
| Dexcom Inc                             | DXCM   | 392.58            | 82.08  | 32,223.13                |                    | n/a                         |                                |  |  |
| General Dynamics Corp                  | GD     | 274.25            | 226.67 | 62,163.34                | 0.22%              | 2.22%                       | 0.00%                          | 8.00%                                  | 0.02%                                    |
| General Mills Inc                      | GIS    | 597.16            | 74.79  | 44,661.45                | 0.16%              | 2.89%                       | 0.00%                          | 3.50%                                  | 0.01%                                    |
| Genuine Parts Co                       | GPC    | 141.43            | 152.87 | 21,620.56                | 0.08%              | 2.34%                       | 0.00%                          | 8.50%                                  | 0.01%                                    |
| Atmos Energy Corp                      | ATO    | 139.02            | 121.39 | 16,875.03                | 0.06%              | 2.24%                       | 0.00%                          | 7.50%                                  | 0.00%                                    |
| WW Grainger Inc                        | AWW    | 50.87             | 543.53 | 27,649.91                | 0.10%              | 1.27%                       | 0.00%                          | 7.00%                                  | 0.01%                                    |
| Halliburton Co                         | HAL    | 906.94            | 29.30  | 26,573.46                |                    | 1.64%                       |                                | 31.00%                                 |  |
| L3Harris Technologies Inc              | LHX    | 191.35            | 239.97 | 45,918.98                | 0.16%              | 1.87%                       | 0.00%                          | 18.50%                                 | 0.03%                                    |
| Healthpeak Properties Inc              | PEAK   | 539.56            | 27.63  | 14,907.96                | 0.05%              | 4.34%                       | 0.00%                          | 17.00%                                 | 0.01%                                    |
| Catalent Inc                           | CTLT   | 179.21            | 113.10 | 20,268.99                |                    | n/a                         |                                | 21.00%                                 |  |
| Fortive Corp                           | FTV    | 355.70            | 64.45  | 22,924.67                | 0.08%              | 0.43%                       | 0.00%                          | 12.00%                                 | 0.01%                                    |
| Hershey Co/The                         | HSY    | 146.87            | 227.96 | 33,480.49                | 0.12%              | 1.82%                       | 0.00%                          | 6.50%                                  | 0.01%                                    |
| Synchrony Financial                    | SYF    | 481.76            | 33.48  | 16,129.29                | 0.06%              | 2.75%                       | 0.00%                          | 9.50%                                  | 0.01%                                    |
| Hormel Foods Corp                      | HRL    | 546.06            | 49.34  | 26,942.40                | 0.09%              | 2.11%                       | 0.00%                          | 6.00%                                  | 0.01%                                    |
| Arthur J Gallagher & Co                | AJG    | 210.30            | 178.99 | 37,641.60                | 0.13%              | 1.14%                       | 0.00%                          | 17.50%                                 | 0.02%                                    |
| Mondelez International Inc             | MDLZ   | 1,370.57          | 64.04  | 87,771.05                | 0.31%              | 2.40%                       | 0.01%                          | 9.50%                                  | 0.03%                                    |
| CenterPoint Energy Inc                 | CNP    | 629.43            | 31.69  | 19,946.70                | 0.07%              | 2.27%                       | 0.00%                          | 6.50%                                  | 0.00%                                    |
| Humana Inc                             | HUM    | 126.55            | 482.00 | 60,999.03                | 0.21%              | 0.65%                       | 0.00%                          | 11.00%                                 | 0.02%                                    |
| Willis Towers Watson PLC               | WTW    | 109.97            | 206.94 | 22,756.36                | 0.08%              | 1.59%                       | 0.00%                          | 8.50%                                  | 0.01%                                    |
| Illinois Tool Works Inc                | ITW    | 311.44            | 207.76 | 64,705.40                | 0.23%              | 2.35%                       | 0.01%                          | 11.00%                                 | 0.02%                                    |
| CDW Corp/DE                            | CDW    | 135.12            | 181.53 | 24,527.61                | 0.09%              | 1.10%                       | 0.00%                          | 8.50%                                  | 0.01%                                    |
| Trane Technologies PLC                 | TT     | 233.86            | 146.99 | 34,375.08                |                    | 1.82%                       |                                |  |  |
| Interpublic Group of Cos Inc/The       | IPG    | 391.03            | 29.87  | 11,680.01                | 0.04%              | 3.88%                       | 0.00%                          | 10.00%                                 | 0.00%                                    |
| International Flavors & Fragrances Inc | IFF    | 254.84            | 124.05 | 31,612.65                | 0.11%              | 2.55%                       | 0.00%                          | 7.50%                                  | 0.01%                                    |
| Jacobs Engineering Group Inc           | J      | 128.63            | 137.30 | 17,660.49                | 0.06%              | 0.67%                       | 0.00%                          | 15.00%                                 | 0.01%                                    |
| Generac Holdings Inc                   | GNRC   | 63.83             | 268.30 | 17,125.59                |                    | n/a                         |                                | 23.50%                                 |  |
| NXP Semiconductors NV                  | NXPI   | 262.60            | 183.88 | 48,286.52                | 0.17%              | 1.84%                       | 0.00%                          | 12.00%                                 | 0.02%                                    |
| Kellogg Co                             | K      | 337.87            | 73.92  | 24,975.57                | 0.09%              | 3.19%                       | 0.00%                          | 3.50%                                  | 0.00%                                    |
| Broadridge Financial Solutions Inc     | BR     | 117.23            | 160.55 | 18,820.79                | 0.07%              | 1.59%                       | 0.00%                          | 9.00%                                  | 0.01%                                    |
| Kimberly-Clark Corp                    | KMB    | 337.62            | 131.79 | 44,495.20                | 0.16%              | 3.52%                       | 0.01%                          | 5.50%                                  | 0.01%                                    |
| Kimco Realty Corp                      | KIM    | 618.48            | 22.11  | 13,674.64                | 0.05%              | 3.98%                       | 0.00%                          | 8.50%                                  | 0.00%                                    |
| Oracle Corp                            | ORCL   | 2,664.93          | 77.84  | 207,437.84               | 0.73%              | 1.64%                       | 0.01%                          | 9.00%                                  | 0.07%                                    |
| Kroger Co/The                          | KR     | 715.56            | 46.44  | 33,230.61                | 0.12%              | 2.24%                       | 0.00%                          | 5.50%                                  | 0.01%                                    |
| Lennar Corp                            | LEN    | 254.99            | 85.00  | 21,673.90                | 0.08%              | 1.76%                       | 0.00%                          | 9.00%                                  | 0.01%                                    |
| Eli Lilly & Co                         | LLY    | 950.16            | 329.69 | 313,258.25               | 1.10%              | 1.19%                       | 0.01%                          | 11.50%                                 | 0.13%                                    |
| Bath & Body Works Inc                  | BBWI   | 228.74            | 35.54  | 8,129.28                 |                    | 2.25%                       |                                | 26.50%                                 |  |
| Charter Communications Inc             | CHTR   | 160.66            | 432.10 | 69,419.03                |                    | n/a                         |                                | 21.50%                                 |  |
| Lincoln National Corp                  | LNC    | 171.95            | 51.34  | 8,827.76                 | 0.03%              | 3.51%                       | 0.00%                          | 11.50%                                 | 0.00%                                    |
| Loews Corp                             | L      | 246.11            | 58.25  | 14,335.79                | 0.05%              | 0.43%                       | 0.00%                          | 18.50%                                 | 0.01%                                    |
| Lowe's Cos Inc                         | LOW    | 639.13            | 191.53 | 122,412.38               | 0.43%              | 2.19%                       | 0.01%                          | 12.50%                                 | 0.05%                                    |
| IDEX Corp                              | IEX    | 75.48             | 208.75 | 15,755.62                | 0.06%              | 1.15%                       | 0.00%                          | 11.00%                                 | 0.01%                                    |
| Marsh & McLennan Cos Inc               | MMC    | 499.02            | 163.96 | 81,818.99                | 0.29%              | 1.44%                       | 0.00%                          | 12.00%                                 | 0.03%                                    |
| Masco Corp                             | MAS    | 225.52            | 55.38  | 12,489.30                | 0.04%              | 2.02%                       | 0.00%                          | 8.50%                                  | 0.00%                                    |
| S&P Global Inc                         | SPGI   | 339.90            | 376.93 | 128,118.51               | 0.45%              | 0.90%                       | 0.00%                          | 9.50%                                  | 0.04%                                    |
| Medtronic PLC                          | MDT    | 1,328.71          | 92.52  | 122,932.16               | 0.43%              | 2.94%                       | 0.01%                          | 8.50%                                  | 0.04%                                    |
| Viatis Inc                             | VTRS   | 1,212.33          | 9.69   | 11,747.45                |                    | 4.95%                       |                                |  |  |
| CVS Health Corp                        | CVS    | 1,311.31          | 95.68  | 125,466.05               | 0.44%              | 2.30%                       | 0.01%                          | 6.00%                                  | 0.03%                                    |
| DuPont de Nemours Inc                  | DD     | 508.53            | 61.23  | 31,137.11                | 0.11%              | 2.16%                       | 0.00%                          | 10.00%                                 | 0.01%                                    |
| Micron Technology Inc                  | MU     | 1,103.15          | 61.86  | 68,240.55                |                    | 0.74%                       |                                | 24.00%                                 |  |
| Motorola Solutions Inc                 | MSI    | 167.30            | 238.59 | 39,915.39                | 0.14%              | 1.32%                       | 0.00%                          | 8.00%                                  | 0.01%                                    |
| Cboe Global Markets Inc                | CBOE   | 106.06            | 123.38 | 13,085.93                |                    | 1.56%                       |                                |  |  |
| Laboratory Corp of America Holdings    | LH     | 93.18             | 262.19 | 24,429.82                | 0.09%              | 1.10%                       | 0.00%                          | 6.00%                                  | 0.01%                                    |
| Newmont Corp                           | NEM    | 793.68            | 45.28  | 35,937.83                | 0.13%              | 4.86%                       | 0.01%                          | 9.50%                                  | 0.01%                                    |
| NIKE Inc                               | NKE    | 1,263.65          | 114.92 | 145,219.00               |                    | 1.06%                       |                                | 24.00%                                 |  |

## STANDARD AND POOR'S 500 INDEX

| Name                                       | Ticker | [4]               | [5]    | [6]                      | [7]                | [8]                         | [9]                            | [10]                                   | [11]                                     |
|--|--------|-------------------|--------|--------------------------|--------------------|-----------------------------|--------------------------------|--|--|
|  |        | Shares<br>Outst'g | Price  | Market<br>Capitalization | Weight in<br>Index | Estimated<br>Dividend Yield | Cap-Weighted<br>Dividend Yield | Value Line<br>Long-Term<br>Growth Est. | Cap-Weighted<br>Long-Term<br>Growth Est. |
| NiSource Inc                               | NI     | 405.80            | 30.40  | 12,336.26                | 0.04%              | 3.09%                       | 0.00%                          | 9.50%                                  | 0.00%                                    |
| Norfolk Southern Corp                      | NSC    | 234.87            | 251.17 | 58,993.30                | 0.21%              | 1.97%                       | 0.00%                          | 10.00%                                 | 0.02%                                    |
| Principal Financial Group Inc              | PFG    | 252.68            | 66.94  | 16,914.67                | 0.06%              | 3.82%                       | 0.00%                          | 6.00%                                  | 0.00%                                    |
| Eversource Energy                          | ES     | 344.88            | 88.22  | 30,425.14                | 0.11%              | 2.89%                       | 0.00%                          | 6.00%                                  | 0.01%                                    |
| Northrop Grumman Corp                      | NOC    | 154.71            | 478.90 | 74,091.10                | 0.26%              | 1.44%                       | 0.00%                          | 7.50%                                  | 0.02%                                    |
| Wells Fargo & Co                           | WFC    | 3,790.35          | 43.87  | 166,282.74               | 0.58%              | 2.74%                       | 0.02%                          | 11.50%                                 | 0.07%                                    |
| Nucor Corp                                 | NUE    | 266.00            | 135.80 | 36,122.80                | 0.13%              | 1.47%                       | 0.00%                          | 10.00%                                 | 0.01%                                    |
| PVH Corp                                   | PVH    | 66.96             | 61.92  | 4,146.23                 | 0.01%              | 0.24%                       | 0.00%                          | 13.50%                                 | 0.00%                                    |
| Occidental Petroleum Corp                  | OXY    | 937.19            | 65.75  | 61,620.31                |                    | 0.79%                       |                                |  |  |
| Omnicom Group Inc                          | OMC    | 204.84            | 69.84  | 14,306.24                | 0.05%              | 4.01%                       | 0.00%                          | 6.50%                                  | 0.00%                                    |
| ONEOK Inc                                  | OKE    | 446.62            | 59.74  | 26,680.84                | 0.09%              | 6.26%                       | 0.01%                          | 11.00%                                 | 0.01%                                    |
| Raymond James Financial Inc                | RJF    | 215.50            | 98.47  | 21,220.29                | 0.07%              | 1.38%                       | 0.00%                          | 10.50%                                 | 0.01%                                    |
| Parker-Hannifin Corp                       | PH     | 128.37            | 289.09 | 37,111.06                | 0.13%              | 1.84%                       | 0.00%                          | 13.50%                                 | 0.02%                                    |
| Rollins Inc                                | ROL    | 492.42            | 38.57  | 18,992.52                | 0.07%              | 1.04%                       | 0.00%                          | 10.50%                                 | 0.01%                                    |
| PPL Corp                                   | PPL    | 735.90            | 29.08  | 21,400.06                |                    | 3.09%                       |                                |  |  |
| ConocoPhillips                             | COP    | 1,293.45          | 97.43  | 126,020.83               | 0.44%              | 1.89%                       | 0.01%                          | 20.00%                                 | 0.09%                                    |
| PulteGroup Inc                             | PHM    | 231.50            | 43.62  | 10,097.94                | 0.04%              | 1.38%                       | 0.00%                          | 11.00%                                 | 0.00%                                    |
| Pinnacle West Capital Corp                 | PNW    | 113.00            | 73.47  | 8,302.18                 | 0.03%              | 4.63%                       | 0.00%                          | 0.50%                                  | 0.00%                                    |
| PNC Financial Services Group Inc/The       | PNC    | 413.58            | 165.94 | 68,629.63                | 0.24%              | 3.62%                       | 0.01%                          | 12.00%                                 | 0.03%                                    |
| PPG Industries Inc                         | PPG    | 235.00            | 129.29 | 30,382.76                | 0.11%              | 1.92%                       | 0.00%                          | 4.00%                                  | 0.00%                                    |
| Progressive Corp/The                       | PGR    | 584.90            | 115.06 | 67,298.59                | 0.24%              | 0.35%                       | 0.00%                          | 4.50%                                  | 0.01%                                    |
| Public Service Enterprise Group Inc        | PEG    | 499.26            | 65.67  | 32,786.34                | 0.11%              | 3.29%                       | 0.00%                          | 4.00%                                  | 0.00%                                    |
| Robert Half International Inc              | RHI    | 110.51            | 79.14  | 8,746.08                 | 0.03%              | 2.17%                       | 0.00%                          | 7.50%                                  | 0.00%                                    |
| Edison International                       | EIX    | 381.43            | 67.77  | 25,849.65                |                    | 4.13%                       |                                |  |  |
| Schlumberger NV                            | SLB    | 1,414.39          | 37.03  | 52,374.79                |                    | 1.89%                       |                                | 23.00%                                 |  |
| Charles Schwab Corp/The                    | SCHW   | 1,817.06          | 69.05  | 125,467.79               | 0.44%              | 1.27%                       | 0.01%                          | 9.00%                                  | 0.04%                                    |
| Sherwin-Williams Co/The                    | SHW    | 259.18            | 241.94 | 62,706.74                | 0.22%              | 0.99%                       | 0.00%                          | 11.50%                                 | 0.03%                                    |
| West Pharmaceutical Services Inc           | WST    | 74.05             | 343.56 | 25,439.93                | 0.09%              | 0.21%                       | 0.00%                          | 17.00%                                 | 0.02%                                    |
| J M Smucker Co/The                         | SJM    | 106.56            | 132.32 | 14,099.75                | 0.05%              | 3.08%                       | 0.00%                          | 4.00%                                  | 0.00%                                    |
| Snap-on Inc                                | SNA    | 53.27             | 224.05 | 11,934.70                | 0.04%              | 2.54%                       | 0.00%                          | 4.50%                                  | 0.00%                                    |
| AMETEK Inc                                 | AME    | 230.91            | 123.50 | 28,517.39                | 0.10%              | 0.71%                       | 0.00%                          | 10.00%                                 | 0.01%                                    |
| Southern Co/The                            | SO     | 1,062.53          | 76.89  | 81,697.55                | 0.29%              | 3.54%                       | 0.01%                          | 6.50%                                  | 0.02%                                    |
| Truist Financial Corp                      | TFC    | 1,331.41          | 50.47  | 67,196.46                | 0.23%              | 4.12%                       | 0.01%                          | 6.50%                                  | 0.02%                                    |
| Southwest Airlines Co                      | LUV    | 592.96            | 38.12  | 22,603.48                |                    | n/a                         |                                | 29.50%                                 |  |
| W R Berkley Corp                           | WRB    | 265.27            | 62.53  | 16,587.52                | 0.06%              | 0.64%                       | 0.00%                          | 15.50%                                 | 0.01%                                    |
| Stanley Black & Decker Inc                 | SWK    | 147.82            | 97.33  | 14,386.93                | 0.05%              | 3.29%                       | 0.00%                          | 6.00%                                  | 0.00%                                    |
| Public Storage                             | PSA    | 175.53            | 326.41 | 57,294.42                | 0.20%              | 2.45%                       | 0.00%                          | 8.00%                                  | 0.02%                                    |
| Arista Networks Inc                        | ANET   | 308.26            | 116.63 | 35,952.83                | 0.13%              | n/a                         |                                | 8.50%                                  | 0.01%                                    |
| Sysco Corp                                 | SY     | 509.48            | 84.90  | 43,254.51                | 0.15%              | 2.31%                       | 0.00%                          | 16.50%                                 | 0.02%                                    |
| Corteva Inc                                | CTVA   | 725.32            | 57.55  | 41,742.17                | 0.15%              | 1.04%                       | 0.00%                          | 16.50%                                 | 0.02%                                    |
| Texas Instruments Inc                      | TXN    | 913.71            | 178.89 | 163,453.05               | 0.57%              | 2.57%                       | 0.01%                          | 9.00%                                  | 0.05%                                    |
| Textron Inc                                | TXT    | 211.53            | 65.64  | 13,884.96                | 0.05%              | 0.12%                       | 0.00%                          | 8.50%                                  | 0.00%                                    |
| Thermo Fisher Scientific Inc               | TMO    | 391.46            | 598.41 | 234,254.78               | 0.82%              | 0.20%                       | 0.00%                          | 15.50%                                 | 0.13%                                    |
| TJX Cos Inc/The                            | TJX    | 1,171.64          | 61.16  | 71,657.26                | 0.25%              | 1.93%                       | 0.00%                          | 20.00%                                 | 0.05%                                    |
| Globe Life Inc                             | GL     | 98.60             | 100.73 | 9,931.98                 | 0.03%              | 0.82%                       | 0.00%                          | 8.00%                                  | 0.00%                                    |
| Johnson Controls International plc         | JCI    | 695.67            | 53.91  | 37,503.52                | 0.13%              | 2.60%                       | 0.00%                          | 12.50%                                 | 0.02%                                    |
| Ulta Beauty Inc                            | ULTA   | 51.82             | 388.91 | 20,152.54                | 0.07%              | n/a                         |                                | 15.00%                                 | 0.01%                                    |
| Union Pacific Corp                         | UNP    | 624.48            | 227.30 | 141,944.08               | 0.50%              | 2.29%                       | 0.01%                          | 9.50%                                  | 0.05%                                    |
| Keysight Technologies Inc                  | KEYS   | 179.95            | 162.60 | 29,259.22                | 0.10%              | n/a                         |                                | 13.00%                                 | 0.01%                                    |
| UnitedHealth Group Inc                     | UNH    | 938.17            | 542.34 | 508,808.20               | 1.78%              | 1.22%                       | 0.02%                          | 12.00%                                 | 0.21%                                    |
| Marathon Oil Corp                          | MRO    | 707.69            | 24.80  | 17,550.74                |                    | 1.29%                       |                                |  |  |
| Bio-Rad Laboratories Inc                   | BIO    | 24.63             | 563.26 | 13,875.35                | 0.05%              | n/a                         |                                | 11.50%                                 | 0.01%                                    |
| Ventas Inc                                 | VTR    | 399.70            | 53.78  | 21,495.65                | 0.08%              | 3.35%                       | 0.00%                          | 10.50%                                 | 0.01%                                    |
| VF Corp                                    | VFC    | 388.48            | 44.68  | 17,357.29                | 0.06%              | 4.48%                       | 0.00%                          | 9.50%                                  | 0.01%                                    |
| Vornado Realty Trust                       | VNO    | 191.74            | 30.39  | 5,827.07                 |                    | 6.98%                       |                                | -20.50%                                |  |
| Vulcan Materials Co                        | VMC    | 132.90            | 165.33 | 21,971.70                | 0.08%              | 0.97%                       | 0.00%                          | 8.50%                                  | 0.01%                                    |
| Weyerhaeuser Co                            | WY     | 744.50            | 36.32  | 27,040.17                | 0.09%              | 1.98%                       | 0.00%                          | 6.00%                                  | 0.01%                                    |
| Whirlpool Corp                             | WHR    | 54.51             | 172.87 | 9,422.80                 | 0.03%              | 4.05%                       | 0.00%                          | 6.00%                                  | 0.00%                                    |
| Williams Cos Inc/The                       | WMB    | 1,218.01          | 34.09  | 41,522.03                | 0.15%              | 4.99%                       | 0.01%                          | 8.50%                                  | 0.01%                                    |
| Constellation Energy Corp                  | CEG    | 326.66            | 66.10  | 21,592.49                |                    | 0.85%                       |                                |  |  |
| WEC Energy Group Inc                       | WEC    | 315.44            | 103.81 | 32,745.31                | 0.11%              | 2.80%                       | 0.00%                          | 6.00%                                  | 0.01%                                    |
| Adobe Inc                                  | ADBE   | 468.00            | 410.12 | 191,936.16               | 0.67%              | n/a                         |                                | 14.50%                                 | 0.10%                                    |
| AES Corp/The                               | AES    | 667.86            | 22.22  | 14,839.85                | 0.05%              | 2.84%                       | 0.00%                          | 14.00%                                 | 0.01%                                    |
| Amgen Inc                                  | AMGN   | 534.20            | 247.47 | 132,198.47               | 0.46%              | 3.14%                       | 0.01%                          | 5.50%                                  | 0.03%                                    |
| Apple Inc                                  | AAPL   | 16,070.75         | 162.51 | 2,611,657.91             | 9.13%              | 0.57%                       | 0.05%                          | 14.00%                                 | 1.28%                                    |
| Autodesk Inc                               | ADSK   | 217.27            | 216.32 | 47,000.28                | 0.16%              | n/a                         |                                | 14.00%                                 | 0.02%                                    |
| Cintas Corp                                | CTAS   | 101.19            | 425.49 | 43,054.48                | 0.15%              | 1.08%                       | 0.00%                          | 13.50%                                 | 0.02%                                    |
| Comcast Corp                               | CMCSA  | 4,403.79          | 37.52  | 165,230.35               | 0.58%              | 2.88%                       | 0.02%                          | 9.50%                                  | 0.05%                                    |
| Molson Coors Beverage Co                   | TAP    | 200.53            | 59.75  | 11,981.49                |                    | 2.54%                       |                                | 49.50%                                 |  |
| KLA Corp                                   | KLAC   | 149.24            | 383.54 | 57,237.59                |                    | 1.10%                       |                                | 21.00%                                 |  |
| Marriott International Inc/MD              | MAR    | 327.30            | 158.82 | 51,981.47                | 0.18%              | 0.76%                       | 0.00%                          | 17.50%                                 | 0.03%                                    |
| McCormick & Co Inc/MD                      | MKC    | 250.47            | 87.35  | 21,878.73                | 0.08%              | 1.69%                       | 0.00%                          | 5.50%                                  | 0.00%                                    |
| PACCAR Inc                                 | PCAR   | 347.70            | 91.52  | 31,821.50                | 0.11%              | 1.49%                       | 0.00%                          | 5.00%                                  | 0.01%                                    |
| Costco Wholesale Corp                      | COST   | 442.96            | 541.30 | 239,775.87               | 0.84%              | 0.67%                       | 0.01%                          | 10.50%                                 | 0.09%                                    |
| First Republic Bank/CA                     | FRC    | 179.68            | 162.71 | 29,236.38                | 0.10%              | 0.66%                       | 0.00%                          | 11.50%                                 | 0.01%                                    |
| Stryker Corp                               | SYK    | 378.32            | 214.75 | 81,244.43                | 0.28%              | 1.29%                       | 0.00%                          | 8.50%                                  | 0.02%                                    |
| Tyson Foods Inc                            | TSN    | 291.54            | 88.01  | 25,658.35                | 0.09%              | 2.09%                       | 0.00%                          | 6.00%                                  | 0.01%                                    |
| Lamb Weston Holdings Inc                   | LW     | 143.75            | 79.66  | 11,450.97                | 0.04%              | 1.23%                       | 0.00%                          | 5.00%                                  | 0.00%                                    |
| Applied Materials Inc                      | AMAT   | 869.95            | 105.98 | 92,196.98                | 0.32%              | 0.98%                       | 0.00%                          | 14.50%                                 | 0.05%                                    |
| American Airlines Group Inc                | AAL    | 649.85            | 13.71  | 8,909.39                 |                    | n/a                         |                                |  |  |
| Cardinal Health Inc                        | CAH    | 272.43            | 59.56  | 16,225.75                | 0.06%              | 3.33%                       | 0.00%                          | 5.00%                                  | 0.00%                                    |
| Cincinnati Financial Corp                  | CINF   | 159.20            | 97.34  | 15,496.43                | 0.05%              | 2.84%                       | 0.00%                          | 7.00%                                  | 0.00%                                    |
| Paramount Global                           | PARA   | 608.40            | 23.65  | 14,388.54                | 0.05%              | 4.06%                       | 0.00%                          | 4.50%                                  | 0.00%                                    |
| DR Horton Inc                              | DHI    | 347.48            | 78.03  | 27,113.94                | 0.09%              | 1.15%                       | 0.00%                          | 13.00%                                 | 0.01%                                    |
| Electronic Arts Inc                        | EA     | 279.31            | 131.23 | 36,653.33                | 0.13%              | 0.58%                       | 0.00%                          | 11.50%                                 | 0.01%                                    |
| Expeditors International of Washington Inc | EXPD   | 167.75            | 106.25 | 17,823.86                | 0.06%              | 1.26%                       | 0.00%                          | 10.00%                                 | 0.01%                                    |
| Fastenal Co                                | FAST   | 574.68            | 51.36  | 29,515.51                | 0.10%              | 2.41%                       | 0.00%                          | 8.50%                                  | 0.01%                                    |
| M&T Bank Corp                              | MTB    | 175.97            | 177.45 | 31,225.70                | 0.11%              | 2.70%                       | 0.00%                          | 8.00%                                  | 0.01%                                    |
| Xcel Energy Inc                            | XEL    | 546.99            | 73.18  | 40,028.80                | 0.14%              | 2.66%                       | 0.00%                          | 6.00%                                  | 0.01%                                    |
| Fiserv Inc                                 | FISV   | 639.58            | 105.68 | 67,591.24                | 0.24%              | n/a                         |                                | 11.00%                                 | 0.03%                                    |
| Fifth Third Bancorp                        | FITB   | 686.15            | 34.12  | 23,411.51                | 0.08%              | 3.52%                       | 0.00%                          | 11.00%                                 | 0.01%                                    |



## STANDARD AND POOR'S 500 INDEX

| Name                                      | Ticker | [4]               | [5]      | [6]                      | [7]                | [8]                         | [9]                            | [10]                                   | [11]                                     |
|---|--------|-------------------|----------|--------------------------|--------------------|-----------------------------|--------------------------------|--|--|
|   |        | Shares<br>Outst'g | Price    | Market<br>Capitalization | Weight in<br>Index | Estimated<br>Dividend Yield | Cap-Weighted<br>Dividend Yield | Value Line<br>Long-Term<br>Growth Est. | Cap-Weighted<br>Long-Term<br>Growth Est. |
| Gilead Sciences Inc                       | GILD   | 1,254.31          | 59.75    | 74,945.20                | 0.26%              | 4.89%                       | 0.01%                          | 13.50%                                 | 0.04%                                    |
| Hasbro Inc                                | HAS    | 138.09            | 78.72    | 10,870.52                | 0.04%              | 3.56%                       | 0.00%                          | 11.50%                                 | 0.00%                                    |
| Huntington Bancshares Inc/OH              | HBAN   | 1,442.19          | 13.29    | 19,166.76                | 0.07%              | 4.67%                       | 0.00%                          | 12.50%                                 | 0.01%                                    |
| Welltower Inc                             | WELL   | 453.97            | 86.34    | 39,195.60                | 0.14%              | 2.83%                       | 0.00%                          | 3.50%                                  | 0.00%                                    |
| Biogen Inc                                | BIIB   | 145.11            | 215.06   | 31,208.00                |                    | n/a                         |                                | -10.50%                                |  |
| Northern Trust Corp                       | NTRS   | 208.39            | 99.78    | 20,792.85                | 0.07%              | 3.01%                       | 0.00%                          | 8.00%                                  | 0.01%                                    |
| Packaging Corp of America                 | PKG    | 93.70             | 140.61   | 13,175.30                | 0.05%              | 3.56%                       | 0.00%                          | 11.00%                                 | 0.01%                                    |
| Paychex Inc                               | PAYX   | 359.91            | 128.28   | 46,168.87                | 0.16%              | 2.46%                       | 0.00%                          | 10.00%                                 | 0.02%                                    |
| QUALCOMM Inc                              | QCOM   | 1,123.00          | 145.06   | 162,902.38               | 0.57%              | 2.07%                       | 0.01%                          | 19.00%                                 | 0.11%                                    |
| Roper Technologies Inc                    | ROP    | 105.91            | 436.67   | 46,249.03                | 0.16%              | 0.57%                       | 0.00%                          | 8.50%                                  | 0.01%                                    |
| Ross Stores Inc                           | ROST   | 349.93            | 81.26    | 28,434.99                | 0.10%              | 1.53%                       | 0.00%                          | 14.00%                                 | 0.01%                                    |
| IDEXX Laboratories Inc                    | IDXX   | 84.01             | 399.18   | 33,533.91                | 0.12%              | n/a                         |                                | 12.00%                                 | 0.01%                                    |
| Starbucks Corp                            | SBUX   | 1,146.90          | 84.78    | 97,234.18                | 0.34%              | 2.31%                       | 0.01%                          | 16.50%                                 | 0.06%                                    |
| KeyCorp                                   | KEY    | 932.40            | 18.30    | 17,062.88                | 0.06%              | 4.26%                       | 0.00%                          | 9.00%                                  | 0.01%                                    |
| Fox Corp                                  | FOXA   | 311.68            | 33.11    | 10,319.86                | 0.04%              | 1.45%                       | 0.00%                          | 11.00%                                 | 0.00%                                    |
| Fox Corp                                  | FOX    | 245.07            | 30.90    | 7,572.51                 |                    | 1.55%                       |                                |  |  |
| State Street Corp                         | STT    | 367.62            | 71.04    | 26,115.65                | 0.09%              | 3.55%                       | 0.00%                          | 9.50%                                  | 0.01%                                    |
| Norwegian Cruise Line Holdings Ltd        | NCLH   | 419.10            | 12.15    | 5,092.08                 |                    | n/a                         |                                |  |  |
| US Bancorp                                | USB    | 1,486.00          | 47.20    | 70,139.20                | 0.25%              | 3.90%                       | 0.01%                          | 6.00%                                  | 0.01%                                    |
| A O Smith Corp                            | AOS    | 128.48            | 63.27    | 8,128.74                 | 0.03%              | 1.77%                       | 0.00%                          | 11.50%                                 | 0.00%                                    |
| NortonLifeLock Inc                        | NLOK   | 571.37            | 24.53    | 14,015.68                | 0.05%              | 2.04%                       | 0.00%                          | 9.50%                                  | 0.00%                                    |
| T Rowe Price Group Inc                    | TROW   | 225.69            | 123.47   | 27,866.19                | 0.10%              | 3.89%                       | 0.00%                          | 9.50%                                  | 0.01%                                    |
| Waste Management Inc                      | WM     | 413.34            | 164.56   | 68,018.57                | 0.24%              | 1.58%                       | 0.00%                          | 6.50%                                  | 0.02%                                    |
| Constellation Brands Inc                  | STZ    | 159.34            | 246.31   | 39,245.80                | 0.14%              | 1.30%                       | 0.00%                          | 5.00%                                  | 0.01%                                    |
| DENTSPLY SIRONA Inc                       | XRAY   | 215.45            | 36.16    | 7,790.74                 | 0.03%              | 1.38%                       | 0.00%                          | 12.00%                                 | 0.00%                                    |
| Zions Bancorp NA                          | ZION   | 150.47            | 54.55    | 8,208.19                 | 0.03%              | 3.01%                       | 0.00%                          | 6.50%                                  | 0.00%                                    |
| Alaska Air Group Inc                      | ALK    | 126.76            | 44.33    | 5,619.27                 |                    | n/a                         |                                |  |  |
| Invesco Ltd                               | IVZ    | 454.90            | 17.74    | 8,069.93                 | 0.03%              | 4.23%                       | 0.00%                          | 14.00%                                 | 0.00%                                    |
| Linde PLC                                 | LIN    | 498.37            | 302.00   | 150,506.53               | 0.53%              | 1.55%                       | 0.01%                          | 12.00%                                 | 0.06%                                    |
| Intuit Inc                                | INTU   | 282.08            | 456.17   | 128,675.07               | 0.45%              | 0.60%                       | 0.00%                          | 17.50%                                 | 0.08%                                    |
| Morgan Stanley                            | MS     | 1,749.28          | 84.30    | 147,464.64               | 0.52%              | 3.68%                       | 0.02%                          | 10.50%                                 | 0.05%                                    |
| Microchip Technology Inc                  | MCHP   | 552.48            | 68.86    | 38,044.05                | 0.13%              | 1.60%                       | 0.00%                          | 10.00%                                 | 0.01%                                    |
| Chubb Ltd                                 | CB     | 417.64            | 188.64   | 78,783.80                | 0.28%              | 1.76%                       | 0.00%                          | 11.00%                                 | 0.03%                                    |
| Hologic Inc                               | HOLX   | 249.65            | 71.38    | 17,820.23                |                    | n/a                         |                                | 25.00%                                 |  |
| Citizens Financial Group Inc              | CFG    | 495.45            | 37.97    | 18,812.08                | 0.07%              | 4.42%                       | 0.00%                          | 9.00%                                  | 0.01%                                    |
| O'Reilly Automotive Inc                   | ORLY   | 63.75             | 703.59   | 44,855.97                | 0.16%              | n/a                         |                                | 13.00%                                 | 0.02%                                    |
| Allstate Corp/The                         | ALL    | 274.98            | 116.97   | 32,164.76                | 0.11%              | 2.91%                       | 0.00%                          | 4.50%                                  | 0.01%                                    |
| Equity Residential                        | EQR    | 376.12            | 78.39    | 29,483.89                |                    | 3.19%                       |                                | -6.00%                                 |  |
| BorgWarner Inc                            | BWA    | 239.58            | 38.46    | 9,214.05                 | 0.03%              | 1.77%                       | 0.00%                          | 9.50%                                  | 0.00%                                    |
| Keurig Dr Pepper Inc                      | KDP    | 1,416.07          | 38.74    | 54,858.55                | 0.19%              | 1.94%                       | 0.00%                          | 11.50%                                 | 0.02%                                    |
| Organon & Co                              | OGN    | 253.64            | 31.72    | 8,045.37                 |                    | 3.53%                       |                                |  |  |
| Host Hotels & Resorts Inc                 | HST    | 714.78            | 17.81    | 12,730.18                |                    | 1.35%                       |                                | 57.00%                                 |  |
| Incyte Corp                               | INCY   | 221.51            | 77.68    | 17,206.51                |                    | n/a                         |                                | 25.50%                                 |  |
| Simon Property Group Inc                  | SPG    | 328.64            | 108.64   | 35,703.34                | 0.12%              | 6.26%                       | 0.01%                          | 3.00%                                  | 0.00%                                    |
| Eastman Chemical Co                       | EMN    | 128.95            | 95.93    | 12,370.17                | 0.04%              | 3.17%                       | 0.00%                          | 9.50%                                  | 0.00%                                    |
| Twitter Inc                               | TWTR   | 765.25            | 41.61    | 31,841.89                |                    | n/a                         |                                |  |  |
| AvalonBay Communities Inc                 | AVB    | 139.82            | 213.94   | 29,912.66                | 0.10%              | 2.97%                       | 0.00%                          | 6.50%                                  | 0.01%                                    |
| Prudential Financial Inc                  | PRU    | 375.00            | 99.99    | 37,496.25                | 0.13%              | 4.80%                       | 0.01%                          | 5.50%                                  | 0.01%                                    |
| United Parcel Service Inc                 | UPS    | 734.44            | 194.89   | 143,134.62               | 0.50%              | 3.12%                       | 0.02%                          | 11.50%                                 | 0.06%                                    |
| Walgreens Boots Alliance Inc              | WBA    | 864.26            | 39.62    | 34,241.86                | 0.12%              | 4.85%                       | 0.01%                          | 7.50%                                  | 0.01%                                    |
| STERIS PLC                                | STE    | 100.08            | 225.65   | 22,583.05                | 0.08%              | 0.83%                       | 0.00%                          | 11.50%                                 | 0.01%                                    |
| McKesson Corp                             | MCK    | 143.58            | 341.58   | 49,044.40                | 0.17%              | 0.63%                       | 0.00%                          | 10.00%                                 | 0.02%                                    |
| Lockheed Martin Corp                      | LMT    | 265.15            | 413.81   | 109,722.55               | 0.38%              | 2.71%                       | 0.01%                          | 7.00%                                  | 0.03%                                    |
| AmerisourceBergen Corp                    | ABC    | 209.46            | 145.93   | 30,567.08                | 0.11%              | 1.26%                       | 0.00%                          | 8.50%                                  | 0.01%                                    |
| Capital One Financial Corp                | COF    | 383.82            | 109.83   | 42,154.73                |                    | 2.19%                       |                                |  |  |
| Waters Corp                               | WAT    | 60.24             | 364.03   | 21,927.35                | 0.08%              | n/a                         |                                | 6.00%                                  | 0.00%                                    |
| Nordson Corp                              | NDSN   | 57.51             | 230.99   | 13,284.70                | 0.05%              | 0.88%                       | 0.00%                          | 12.00%                                 | 0.01%                                    |
| Dollar Tree Inc                           | DLTR   | 224.56            | 165.36   | 37,132.58                | 0.13%              | n/a                         |                                | 12.00%                                 | 0.02%                                    |
| Darden Restaurants Inc                    | DRI    | 123.95            | 124.49   | 15,430.04                | 0.05%              | 3.89%                       | 0.00%                          | 19.50%                                 | 0.01%                                    |
| Match Group Inc                           | MTCH   | 285.59            | 73.31    | 20,936.82                |                    | n/a                         |                                | 21.00%                                 |  |
| Dominos Pizza Inc                         | DPZ    | 35.89             | 392.11   | 14,070.87                | 0.05%              | 1.12%                       | 0.00%                          | 15.50%                                 | 0.01%                                    |
| NVR Inc                                   | NVR    | 3.28              | 4,393.10 | 14,426.94                | 0.05%              | n/a                         |                                | 5.50%                                  | 0.00%                                    |
| NetApp Inc                                | NTAP   | 219.74            | 71.33    | 15,673.70                | 0.05%              | 2.80%                       | 0.00%                          | 8.00%                                  | 0.00%                                    |
| Citrix Systems Inc                        | CTXS   | 126.89            | 101.41   | 12,867.41                | 0.04%              | n/a                         |                                | 9.00%                                  | 0.00%                                    |
| DXC Technology Co                         | DXC    | 229.66            | 31.60    | 7,257.10                 | 0.03%              | n/a                         |                                | 12.00%                                 | 0.00%                                    |
| Old Dominion Freight Line Inc             | ODFL   | 113.35            | 303.51   | 34,404.07                | 0.12%              | 0.40%                       | 0.00%                          | 12.00%                                 | 0.01%                                    |
| DaVita Inc                                | DVA    | 94.60             | 84.16    | 7,961.54                 | 0.03%              | n/a                         |                                | 12.00%                                 | 0.00%                                    |
| Hartford Financial Services Group Inc/The | HIG    | 323.14            | 64.47    | 20,832.96                | 0.07%              | 2.39%                       | 0.00%                          | 6.50%                                  | 0.00%                                    |
| Iron Mountain Inc                         | IRM    | 290.56            | 48.49    | 14,089.35                | 0.05%              | 5.10%                       | 0.00%                          | 11.00%                                 | 0.01%                                    |
| Estee Lauder Cos Inc/The                  | EL     | 231.81            | 273.10   | 63,305.95                | 0.22%              | 0.88%                       | 0.00%                          | 14.00%                                 | 0.03%                                    |
| Cadence Design Systems Inc                | CDNS   | 273.87            | 186.08   | 50,961.73                | 0.18%              | n/a                         |                                | 12.00%                                 | 0.02%                                    |
| Tyler Technologies Inc                    | TYL    | 41.58             | 399.00   | 16,590.82                | 0.06%              | n/a                         |                                | 12.00%                                 | 0.01%                                    |
| Universal Health Services Inc             | UHS    | 67.13             | 112.47   | 7,549.89                 | 0.03%              | 0.71%                       | 0.00%                          | 9.00%                                  | 0.00%                                    |
| Skyworks Solutions Inc                    | SKKS   | 160.93            | 108.88   | 17,521.62                | 0.06%              | 2.06%                       | 0.00%                          | 15.50%                                 | 0.01%                                    |
| Quest Diagnostics Inc                     | DGX    | 116.61            | 136.57   | 15,924.88                | 0.06%              | 1.93%                       | 0.00%                          | 7.00%                                  | 0.00%                                    |
| Activision Blizzard Inc                   | ATVI   | 781.88            | 79.95    | 62,511.39                | 0.22%              | 0.59%                       | 0.00%                          | 14.00%                                 | 0.03%                                    |
| Rockwell Automation Inc                   | ROK    | 115.44            | 255.28   | 29,468.25                | 0.10%              | 1.75%                       | 0.00%                          | 9.50%                                  | 0.01%                                    |
| Kraft Heinz Co/The                        | KHC    | 1,225.44          | 36.83    | 45,132.96                | 0.16%              | 4.34%                       | 0.01%                          | 5.50%                                  | 0.01%                                    |
| American Tower Corp                       | AMT    | 465.59            | 270.83   | 126,094.93               | 0.44%              | 2.11%                       | 0.01%                          | 9.00%                                  | 0.04%                                    |
| Regeneron Pharmaceuticals Inc             | REGN   | 108.03            | 581.69   | 62,838.81                | 0.22%              | n/a                         |                                | 3.00%                                  | 0.01%                                    |
| Amazon.com Inc                            | AMZN   | 10,187.56         | 134.95   | 1,374,810.55             |                    | n/a                         |                                | 26.50%                                 |  |
| Jack Henry & Associates Inc               | JKHY   | 72.86             | 207.77   | 15,138.54                | 0.05%              | 0.94%                       | 0.00%                          | 9.00%                                  | 0.00%                                    |
| Ralph Lauren Corp                         | RL     | 44.83             | 98.63    | 4,421.39                 | 0.02%              | 3.04%                       | 0.00%                          | 12.50%                                 | 0.00%                                    |
| Boston Properties Inc                     | BXP    | 156.73            | 91.16    | 14,287.14                |                    | 4.30%                       |                                | -1.00%                                 |  |
| Amphenol Corp                             | APH    | 594.83            | 77.13    | 45,879.08                | 0.16%              | 1.04%                       | 0.00%                          | 12.50%                                 | 0.02%                                    |
| Howmet Aerospace Inc                      | HWMT   | 417.91            | 37.13    | 15,517.15                | 0.05%              | 0.22%                       | 0.00%                          | 12.00%                                 | 0.01%                                    |
| Pioneer Natural Resources Co              | PXD    | 241.96            | 236.95   | 57,332.19                |                    | 12.46%                      |                                | 21.00%                                 |  |
| Valero Energy Corp                        | VLO    | 393.97            | 110.77   | 43,640.06                | 0.15%              | 3.54%                       | 0.01%                          | 11.00%                                 | 0.02%                                    |
| Synopsys Inc                              | SNPS   | 152.97            | 367.50   | 56,216.48                | 0.20%              | n/a                         |                                | 12.50%                                 | 0.02%                                    |
| Etsy Inc                                  | ETSY   | 126.61            | 103.72   | 13,131.89                |                    | n/a                         |                                | 24.50%                                 |  |
| CH Robinson Worldwide Inc                 | CHRW   | 123.88            | 110.70   | 13,713.85                | 0.05%              | 1.99%                       | 0.00%                          | 8.00%                                  | 0.00%                                    |

## STANDARD AND POOR'S 500 INDEX

| Name   | Ticker | [4]               | [5]      | [6]                      | [7]                | [8]                         | [9]                            | [10]                                   | [11]                                     |
|--|--------|-------------------|----------|--------------------------|--------------------|-----------------------------|--------------------------------|--|--|
|  |        | Shares<br>Outst'g | Price    | Market<br>Capitalization | Weight in<br>Index | Estimated<br>Dividend Yield | Cap-Weighted<br>Dividend Yield | Value Line<br>Long-Term<br>Growth Est. | Cap-Weighted<br>Long-Term<br>Growth Est. |
| Accenture PLC                                | ACN    | 664.19            | 306.26   | 203,414.22               | 0.71%              | 1.27%                       | 0.01%                          | 12.50%                                 | 0.09%                                    |
| TransDigm Group Inc                          | TDG    | 54.61             | 622.34   | 33,983.50                | 0.12%              | n/a                         |                                | 18.00%                                 | 0.02%                                    |
| Yum! Brands Inc                              | YUM    | 285.16            | 122.54   | 34,944.00                | 0.12%              | 1.86%                       | 0.00%                          | 10.50%                                 | 0.01%                                    |
| Prologis Inc                                 | PLD    | 739.75            | 132.56   | 98,060.60                | 0.34%              | 2.38%                       | 0.01%                          | 6.00%                                  | 0.02%                                    |
| FirstEnergy Corp                             | FE     | 571.40            | 41.10    | 23,484.33                | 0.08%              | 3.80%                       | 0.00%                          | 7.50%                                  | 0.01%                                    |
| VeriSign Inc                                 | VRSN   | 107.28            | 189.16   | 20,293.65                | 0.07%              | n/a                         |                                | 11.00%                                 | 0.01%                                    |
| Quanta Services Inc                          | PWR    | 143.71            | 138.73   | 19,936.75                | 0.07%              | 0.20%                       | 0.00%                          | 12.50%                                 | 0.01%                                    |
| Henry Schein Inc                             | HSIC   | 138.05            | 78.83    | 10,882.56                | 0.04%              | n/a                         |                                | 7.00%                                  | 0.00%                                    |
| Ameren Corp                                  | AEE    | 258.09            | 93.12    | 24,033.53                | 0.08%              | 2.53%                       | 0.00%                          | 6.50%                                  | 0.01%                                    |
| ANSYS Inc                                    | ANSS   | 86.99             | 278.99   | 24,269.34                | 0.08%              | n/a                         |                                | 8.50%                                  | 0.01%                                    |
| FactSet Research Systems Inc                 | FDS    | 37.98             | 429.68   | 16,319.25                | 0.06%              | 0.83%                       | 0.00%                          | 10.50%                                 | 0.01%                                    |
| NVIDIA Corp                                  | NVDA   | 2,500.00          | 181.63   | 454,075.00               |                    | 0.09%                       |                                | 23.00%                                 |  |
| Sealed Air Corp                              | SEE    | 146.08            | 61.12    | 8,928.65                 | 0.03%              | 1.31%                       | 0.00%                          | 10.00%                                 | 0.00%                                    |
| Cognizant Technology Solutions Corp          | CTSH   | 517.79            | 67.96    | 35,188.67                | 0.12%              | 1.59%                       | 0.00%                          | 7.50%                                  | 0.01%                                    |
| SVB Financial Group                          | SIVB   | 59.08             | 403.55   | 23,842.14                | 0.08%              | n/a                         |                                | 6.50%                                  | 0.01%                                    |
| Intuitive Surgical Inc                       | ISRG   | 357.11            | 230.17   | 82,196.24                | 0.29%              | n/a                         |                                | 12.50%                                 | 0.04%                                    |
| Take-Two Interactive Software Inc            | TTWO   | 166.49            | 132.73   | 22,098.08                | 0.08%              | n/a                         |                                | 10.50%                                 | 0.01%                                    |
| Republic Services Inc                        | RSG    | 315.89            | 138.66   | 43,801.45                | 0.15%              | 1.43%                       | 0.00%                          | 12.50%                                 | 0.02%                                    |
| eBay Inc                                     | EBAY   | 559.84            | 48.63    | 27,225.12                | 0.10%              | 1.81%                       | 0.00%                          | 15.50%                                 | 0.01%                                    |
| Goldman Sachs Group Inc/The                  | GS     | 343.45            | 333.39   | 114,501.80               | 0.40%              | 3.00%                       | 0.01%                          | 5.00%                                  | 0.02%                                    |
| SBA Communications Corp                      | SBAC   | 107.83            | 335.79   | 36,207.90                |                    | 0.85%                       |                                | 35.50%                                 |  |
| Sempra Energy                                | SRE    | 314.31            | 165.80   | 52,111.77                | 0.18%              | 2.76%                       | 0.01%                          | 7.50%                                  | 0.01%                                    |
| Moody's Corp                                 | MCO    | 183.50            | 310.25   | 56,930.88                | 0.20%              | 0.90%                       | 0.00%                          | 8.00%                                  | 0.02%                                    |
| ON Semiconductor Corp                        | ON     | 434.51            | 66.78    | 29,016.31                |                    | n/a                         |                                | 23.00%                                 |  |
| Booking Holdings Inc                         | BKNG   | 40.62             | 1,935.69 | 78,633.53                |                    | n/a                         |                                | 22.00%                                 |  |
| F5 Inc                                       | FFIV   | 59.56             | 167.36   | 9,967.29                 | 0.03%              | n/a                         |                                | 10.00%                                 | 0.00%                                    |
| Akamai Technologies Inc                      | AKAM   | 160.31            | 96.22    | 15,424.55                | 0.05%              | n/a                         |                                | 5.50%                                  | 0.00%                                    |
| Charles River Laboratories International Inc | CRL    | 50.81             | 250.54   | 12,728.68                | 0.04%              | n/a                         |                                | 12.00%                                 | 0.01%                                    |
| MarketAxess Holdings Inc                     | MKTX   | 37.64             | 270.78   | 10,192.16                | 0.04%              | 1.03%                       | 0.00%                          | 10.50%                                 | 0.00%                                    |
| Devon Energy Corp                            | DVN    | 660.00            | 62.85    | 41,481.00                |                    | 8.08%                       |                                | 30.00%                                 |  |
| Bio-Techne Corp                              | TECH   | 39.23             | 385.28   | 15,116.08                | 0.05%              | 0.33%                       | 0.00%                          | 17.50%                                 | 0.01%                                    |
| Alphabet Inc                                 | GOOGL  | 5,996.00          | 116.32   | 697,454.72               |                    | n/a                         |                                |  |  |
| Teleflex Inc                                 | TFX    | 46.91             | 240.46   | 11,278.78                | 0.04%              | 0.57%                       | 0.00%                          | 13.50%                                 | 0.01%                                    |
| Netflix Inc                                  | NFLX   | 444.71            | 224.90   | 100,014.38               | 0.35%              | n/a                         |                                | 10.50%                                 | 0.04%                                    |
| Allegion plc                                 | ALLE   | 87.84             | 105.70   | 9,284.48                 | 0.03%              | 1.55%                       | 0.00%                          | 14.50%                                 | 0.00%                                    |
| Agilent Technologies Inc                     | A      | 298.71            | 134.10   | 40,056.74                |                    | 0.63%                       |                                |  |  |
| Warner Bros Discovery Inc                    | WBD    | 2,426.84          | 15.00    | 36,402.66                | 0.13%              | n/a                         |                                | 11.50%                                 | 0.01%                                    |
| Elevance Health Inc                          | ELV    | 240.00            | 477.10   | 114,504.48               | 0.40%              | 1.07%                       | 0.00%                          | 10.00%                                 | 0.04%                                    |
| Trimble Inc                                  | TRMB   | 250.14            | 69.43    | 17,367.36                | 0.06%              | n/a                         |                                | 12.50%                                 | 0.01%                                    |
| CME Group Inc                                | CME    | 359.42            | 199.48   | 71,696.70                | 0.25%              | 2.01%                       | 0.01%                          | 8.50%                                  | 0.02%                                    |
| Juniper Networks Inc                         | JNPR   | 322.61            | 28.03    | 9,042.73                 | 0.03%              | 3.00%                       | 0.00%                          | 9.00%                                  | 0.00%                                    |
| BlackRock Inc                                | BLK    | 151.50            | 669.18   | 101,382.78               | 0.35%              | 2.92%                       | 0.01%                          | 10.00%                                 | 0.04%                                    |
| DTE Energy Co                                | DTE    | 193.74            | 130.30   | 25,244.58                | 0.09%              | 2.72%                       | 0.00%                          | 4.50%                                  | 0.00%                                    |
| Nasdaq Inc                                   | NDAQ   | 164.68            | 180.90   | 29,790.25                | 0.10%              | 0.44%                       | 0.00%                          | 7.50%                                  | 0.01%                                    |
| Celanese Corp                                | CE     | 108.35            | 117.51   | 12,732.09                | 0.04%              | 2.31%                       | 0.00%                          | 6.00%                                  | 0.00%                                    |
| Philip Morris International Inc              | PM     | 1,550.16          | 97.15    | 150,598.34               | 0.53%              | 5.15%                       | 0.03%                          | 7.00%                                  | 0.04%                                    |
| Salesforce Inc                               | CRM    | 995.00            | 184.02   | 183,099.90               |                    | n/a                         |                                |  |  |
| Ingersoll Rand Inc                           | IR     | 405.93            | 49.80    | 20,215.31                | 0.07%              | 0.16%                       | 0.00%                          | 16.50%                                 | 0.01%                                    |
| Huntington Ingalls Industries Inc            | HII    | 40.05             | 216.84   | 8,683.79                 | 0.03%              | 2.18%                       | 0.00%                          | 10.00%                                 | 0.00%                                    |
| MetLife Inc                                  | MET    | 813.21            | 63.25    | 51,435.28                | 0.18%              | 3.16%                       | 0.01%                          | 7.50%                                  | 0.01%                                    |
| Tapestry Inc                                 | TPR    | 251.80            | 33.63    | 8,468.10                 | 0.03%              | 2.97%                       | 0.00%                          | 10.00%                                 | 0.00%                                    |
| CSX Corp                                     | CSX    | 2,141.24          | 32.33    | 69,226.32                | 0.24%              | 1.24%                       | 0.00%                          | 10.00%                                 | 0.02%                                    |
| Edwards Lifesciences Corp                    | EW     | 619.94            | 100.54   | 62,329.07                | 0.22%              | n/a                         |                                | 12.50%                                 | 0.03%                                    |
| Ameriprise Financial Inc                     | AMP    | 109.90            | 269.92   | 29,665.29                | 0.10%              | 1.85%                       | 0.00%                          | 12.50%                                 | 0.01%                                    |
| Zebra Technologies Corp                      | ZBRA   | 52.51             | 357.69   | 18,783.73                | 0.07%              | n/a                         |                                | 11.50%                                 | 0.01%                                    |
| Zimmer Biomet Holdings Inc                   | ZBH    | 209.58            | 110.39   | 23,135.21                | 0.08%              | 0.87%                       | 0.00%                          | 7.00%                                  | 0.01%                                    |
| CBRE Group Inc                               | CBRE   | 326.86            | 85.62    | 27,985.84                | 0.10%              | n/a                         |                                | 2.50%                                  | 0.00%                                    |
| Camden Property Trust                        | CPT    | 106.53            | 141.10   | 15,031.10                | 0.05%              | 2.66%                       | 0.00%                          | 8.50%                                  | 0.00%                                    |
| Mastercard Inc                               | MA     | 958.68            | 353.79   | 339,169.98               | 1.19%              | 0.55%                       | 0.01%                          | 18.50%                                 | 0.22%                                    |
| CarMax Inc                                   | KMX    | 159.17            | 99.54    | 15,843.38                | 0.06%              | n/a                         |                                | 13.00%                                 | 0.01%                                    |
| Intercontinental Exchange Inc                | ICE    | 558.27            | 101.99   | 56,937.55                | 0.20%              | 1.49%                       | 0.00%                          | 6.50%                                  | 0.01%                                    |
| Fidelity National Information Services Inc   | FIS    | 607.95            | 102.16   | 62,107.76                |                    | 1.84%                       |                                | 52.00%                                 |  |
| Chipotle Mexican Grill Inc                   | CMG    | 27.77             | 1,564.22 | 43,430.57                | 0.15%              | n/a                         |                                | 16.50%                                 | 0.03%                                    |
| Wynn Resorts Ltd                             | WYNN   | 115.97            | 63.48    | 7,361.46                 |                    | n/a                         |                                | 27.00%                                 |  |
| Live Nation Entertainment Inc                | LYV    | 228.06            | 93.99    | 21,435.74                |                    | n/a                         |                                |  |  |
| Assurant Inc                                 | AIZ    | 54.09             | 175.78   | 9,507.06                 | 0.03%              | 1.55%                       | 0.00%                          | 15.50%                                 | 0.01%                                    |
| NRG Energy Inc                               | NRG    | 237.28            | 37.75    | 8,957.47                 |                    | 3.71%                       |                                | -10.50%                                |  |
| Regions Financial Corp                       | RF     | 934.50            | 21.18    | 19,792.71                | 0.07%              | 3.78%                       | 0.00%                          | 11.50%                                 | 0.01%                                    |
| Monster Beverage Corp                        | MNST   | 529.67            | 99.62    | 52,765.83                | 0.18%              | n/a                         |                                | 11.50%                                 | 0.02%                                    |
| Mosaic Co/The                                | MOS    | 361.99            | 52.66    | 19,062.55                |                    | 1.14%                       |                                |  |  |
| Baker Hughes Co                              | BKR    | 1,011.75          | 25.69    | 25,991.96                |                    | 2.80%                       |                                | 33.00%                                 |  |
| Expedia Group Inc                            | EXPE   | 151.57            | 106.05   | 16,074.42                |                    | n/a                         |                                |  |  |
| Evergy Inc                                   | EVRG   | 229.48            | 68.26    | 15,664.17                | 0.05%              | 3.35%                       | 0.00%                          | 7.50%                                  | 0.00%                                    |
| CF Industries Holdings Inc                   | CF     | 208.60            | 95.49    | 19,919.40                |                    | 1.68%                       |                                | 26.50%                                 |  |
| Leidos Holdings Inc                          | LDOS   | 136.66            | 107.00   | 14,622.83                |                    | 1.35%                       |                                |  |  |
| APA Corp                                     | APA    | 338.23            | 37.17    | 12,572.08                | 0.04%              | 1.35%                       | 0.00%                          | 9.00%                                  | 0.00%                                    |
| Alphabet Inc                                 | GOOG   | 6,163.00          | 116.64   | 718,852.32               | 2.51%              | n/a                         |                                | 18.50%                                 | 0.46%                                    |
| TE Connectivity Ltd                          | TEL    | 319.84            | 133.73   | 42,772.07                | 0.15%              | 1.68%                       | 0.00%                          | 16.00%                                 | 0.02%                                    |
| Cooper Cos Inc/The                           | COO    | 49.34             | 327.00   | 16,132.87                | 0.06%              | 0.02%                       | 0.00%                          | 10.50%                                 | 0.01%                                    |
| Discover Financial Services                  | DFS    | 273.17            | 101.00   | 27,590.27                | 0.10%              | 2.38%                       | 0.00%                          | 16.00%                                 | 0.02%                                    |
| Visa Inc                                     | V      | 1,635.02          | 212.11   | 346,803.03               | 1.21%              | 0.71%                       | 0.01%                          | 13.50%                                 | 0.16%                                    |
| Mid-America Apartment Communities Inc        | MAA    | 115.44            | 185.73   | 21,440.49                | 0.07%              | 2.69%                       | 0.00%                          | 4.50%                                  | 0.00%                                    |
| Xylem Inc/NY                                 | XYL    | 180.09            | 92.03    | 16,573.96                | 0.06%              | 1.30%                       | 0.00%                          | 6.50%                                  | 0.00%                                    |
| Marathon Petroleum Corp                      | MPC    | 541.00            | 91.66    | 49,587.60                |                    | 2.53%                       |                                |  |  |
| Tractor Supply Co                            | TSCO   | 111.88            | 191.48   | 21,423.17                |                    | 1.92%                       |                                | 25.50%                                 |  |
| Advanced Micro Devices Inc                   | AMD    | 1,620.51          | 94.47    | 153,089.39               | 0.54%              | n/a                         |                                | 12.50%                                 | 0.07%                                    |
| ResMed Inc                                   | RMD    | 146.29            | 240.52   | 35,184.47                | 0.12%              | 0.70%                       | 0.00%                          | 8.50%                                  | 0.01%                                    |
| Mettler-Toledo International Inc             | MTD    | 22.51             | 1,349.73 | 30,378.37                | 0.11%              | n/a                         |                                | 13.50%                                 | 0.01%                                    |
| VICI Properties Inc                          | VICI   | 963.09            | 34.19    | 32,928.15                | 0.12%              | 4.21%                       | 0.00%                          | 12.00%                                 | 0.01%                                    |
| Copart Inc                                   | CPRT   | 237.67            | 128.10   | 30,445.91                | 0.11%              | n/a                         |                                | 8.50%                                  | 0.01%                                    |
| Albemarle Corp                               | ALB    | 117.11            | 244.31   | 28,611.88                |                    | 0.65%                       |                                | 21.50%                                 |  |

## STANDARD AND POOR'S 500 INDEX

| Name                                     | Ticker | [4]               | [5]    | [6]                      | [7]                | [8]                         | [9]                            | [10]                                   | [11]                                     |
|--|--------|-------------------|--------|--------------------------|--------------------|-----------------------------|--------------------------------|--|--|
|  |        | Shares<br>Outst'g | Price  | Market<br>Capitalization | Weight in<br>Index | Estimated<br>Dividend Yield | Cap-Weighted<br>Dividend Yield | Value Line<br>Long-Term<br>Growth Est. | Cap-Weighted<br>Long-Term<br>Growth Est. |
| Fortinet Inc                             | FTNT   | 802.64            | 59.65  | 47,877.24                | 0.17%              | n/a                         |                                | 15.00%                                 | 0.03%                                    |
| Moderna Inc                              | MRNA   | 397.76            | 164.09 | 65,268.44                |                    | n/a                         |                                | -2.50%                                 |  |
| Essex Property Trust Inc                 | ESS    | 65.12             | 286.53 | 18,659.98                |                    | 3.07%                       |                                | -4.00%                                 |  |
| Realty Income Corp                       | O      | 601.60            | 73.99  | 44,512.24                | 0.16%              | 4.01%                       | 0.01%                          | 6.00%                                  | 0.01%                                    |
| Westrock Co                              | WRK    | 254.85            | 42.36  | 10,795.53                | 0.04%              | 2.36%                       | 0.00%                          | 20.00%                                 | 0.01%                                    |
| Westinghouse Air Brake Technologies Corp | WAB    | 182.65            | 93.47  | 17,072.11                | 0.06%              | 0.64%                       | 0.00%                          | 9.00%                                  | 0.01%                                    |
| Pool Corp                                | POOL   | 39.59             | 357.70 | 14,161.70                | 0.05%              | 1.12%                       | 0.00%                          | 14.00%                                 | 0.01%                                    |
| Western Digital Corp                     | WDC    | 313.17            | 49.10  | 15,376.55                | 0.05%              | n/a                         |                                | 20.00%                                 | 0.01%                                    |
| PepsiCo Inc                              | PEP    | 1,380.09          | 174.96 | 241,459.67               | 0.84%              | 2.63%                       | 0.02%                          | 6.00%                                  | 0.05%                                    |
| Diamondback Energy Inc                   | FANG   | 173.63            | 128.02 | 22,227.60                |                    | 9.53%                       |                                |  |  |
| ServiceNow Inc                           | NOW    | 202.00            | 446.66 | 90,225.32                |                    | n/a                         |                                | 45.50%                                 |  |
| Church & Dwight Co Inc                   | CHD    | 242.91            | 87.97  | 21,368.70                | 0.07%              | 1.19%                       | 0.00%                          | 6.00%                                  | 0.00%                                    |
| Duke Realty Corp                         | DRE    | 384.82            | 62.56  | 24,074.34                |                    | 1.79%                       |                                | -2.50%                                 |  |
| Federal Realty OP LP                     | FRT    | 79.42             | 105.61 | 8,387.55                 | 0.03%              | 4.05%                       | 0.00%                          | 2.50%                                  | 0.00%                                    |
| MGM Resorts International                | MGM    | 426.05            | 32.73  | 13,944.68                |                    | 0.03%                       |                                | 25.00%                                 |  |
| American Electric Power Co Inc           | AEP    | 513.73            | 98.56  | 50,633.62                | 0.18%              | 3.17%                       | 0.01%                          | 6.50%                                  | 0.01%                                    |
| SolarEdge Technologies Inc               | SEDG   | 55.39             | 360.13 | 19,946.52                |                    | n/a                         |                                | 22.00%                                 |  |
| PTC Inc                                  | PTC    | 116.98            | 123.38 | 14,432.50                |                    | n/a                         |                                | 29.00%                                 |  |
| JB Hunt Transport Services Inc           | JBHT   | 103.81            | 183.27 | 19,025.81                | 0.07%              | 0.87%                       | 0.00%                          | 11.50%                                 | 0.01%                                    |
| Lam Research Corp                        | LRCX   | 136.98            | 500.51 | 68,557.36                |                    | 1.20%                       |                                | 21.50%                                 |  |
| Mohawk Industries Inc                    | MHK    | 63.53             | 128.48 | 8,162.85                 | 0.03%              | n/a                         |                                | 10.50%                                 | 0.00%                                    |
| Pentair PLC                              | PNR    | 164.46            | 48.89  | 8,040.45                 | 0.03%              | 1.72%                       | 0.00%                          | 13.00%                                 | 0.00%                                    |
| Vertex Pharmaceuticals Inc               | VRTX   | 255.76            | 280.41 | 71,716.54                | 0.25%              | n/a                         |                                | 18.50%                                 | 0.05%                                    |
| Amcor PLC                                | AMCR   | 1,502.77          | 12.95  | 19,460.83                | 0.07%              | 3.71%                       | 0.00%                          | 15.00%                                 | 0.01%                                    |
| Meta Platforms Inc                       | META   | 2,280.67          | 159.10 | 362,854.92               | 1.27%              | n/a                         |                                | 16.00%                                 | 0.20%                                    |
| T-Mobile US Inc                          | TMUS   | 1,254.04          | 143.06 | 179,403.11               | 0.63%              | n/a                         |                                | 9.50%                                  | 0.06%                                    |
| United Rentals Inc                       | URI    | 69.99             | 322.67 | 22,582.06                | 0.08%              | n/a                         |                                | 18.00%                                 | 0.01%                                    |
| ABIOMED Inc                              | ABMD   | 45.63             | 293.01 | 13,368.87                | 0.05%              | n/a                         |                                | 10.00%                                 | 0.00%                                    |
| Honeywell International Inc              | HON    | 673.69            | 192.46 | 129,658.76               | 0.45%              | 2.04%                       | 0.01%                          | 11.00%                                 | 0.05%                                    |
| Alexandria Real Estate Equities Inc      | ARE    | 163.17            | 165.78 | 27,049.99                | 0.09%              | 2.85%                       | 0.00%                          | 7.50%                                  | 0.01%                                    |
| Delta Air Lines Inc                      | DAL    | 641.20            | 31.80  | 20,390.10                |                    | n/a                         |                                |  |  |
| Seagate Technology Holdings PLC          | STX    | 214.84            | 79.98  | 17,183.22                |                    | 3.50%                       |                                |  |  |
| United Airlines Holdings Inc             | UAL    | 326.73            | 36.75  | 12,007.29                | 0.04%              | n/a                         |                                | 15.00%                                 | 0.01%                                    |
| News Corp                                | NWS    | 197.27            | 17.28  | 3,408.88                 |                    | 1.16%                       |                                |  |  |
| Centene Corp                             | CNC    | 580.07            | 92.97  | 53,929.20                | 0.19%              | n/a                         |                                | 10.00%                                 | 0.02%                                    |
| Martin Marietta Materials Inc            | MLM    | 62.37             | 352.08 | 21,960.64                | 0.08%              | 0.69%                       | 0.00%                          | 5.50%                                  | 0.00%                                    |
| Teradyne Inc                             | TER    | 160.20            | 100.89 | 16,162.88                | 0.06%              | 0.44%                       | 0.00%                          | 8.50%                                  | 0.00%                                    |
| PayPal Holdings Inc                      | PYPL   | 1,158.04          | 86.53  | 100,205.20               | 0.35%              | n/a                         |                                | 12.00%                                 | 0.04%                                    |
| Tesla Inc                                | TSLA   | 1,044.49          | 891.45 | 931,110.61               |                    | n/a                         |                                | 50.50%                                 |  |
| DISH Network Corp                        | DISH   | 291.56            | 17.37  | 5,064.40                 | 0.02%              | n/a                         |                                | 2.50%                                  | 0.00%                                    |
| Dow Inc                                  | DOW    | 718.17            | 53.21  | 38,213.67                | 0.13%              | 5.26%                       | 0.01%                          | 19.50%                                 | 0.03%                                    |
| Penn National Gaming Inc                 | PENN   | 166.80            | 34.55  | 5,763.04                 | 0.02%              | n/a                         |                                | 15.00%                                 | 0.00%                                    |
| Everest Re Group Ltd                     | RE     | 39.20             | 261.35 | 10,244.92                | 0.04%              | 2.53%                       | 0.00%                          | 17.50%                                 | 0.01%                                    |
| Teledyne Technologies Inc                | TDY    | 46.84             | 391.40 | 18,334.35                | 0.06%              | n/a                         |                                | 11.50%                                 | 0.01%                                    |
| News Corp                                | NWSA   | 388.47            | 17.14  | 6,658.36                 |                    | 1.17%                       |                                |  |  |
| Exelon Corp                              | EXC    | 980.14            | 46.49  | 45,566.57                |                    | 2.90%                       |                                |  |  |
| Global Payments Inc                      | GPN    | 281.54            | 122.32 | 34,437.97                | 0.12%              | 0.82%                       | 0.00%                          | 17.00%                                 | 0.02%                                    |
| Crown Castle International Corp          | CCI    | 433.00            | 180.66 | 78,225.78                | 0.27%              | 3.25%                       | 0.01%                          | 12.00%                                 | 0.03%                                    |
| Aptiv PLC                                | APTIV  | 270.93            | 104.89 | 28,417.95                |                    | n/a                         |                                | 27.50%                                 |  |
| Advance Auto Parts Inc                   | AAP    | 60.64             | 193.62 | 11,741.12                | 0.04%              | 3.10%                       | 0.00%                          | 16.00%                                 | 0.01%                                    |
| Align Technology Inc                     | ALGN   | 78.81             | 280.97 | 22,142.12                | 0.08%              | n/a                         |                                | 17.00%                                 | 0.01%                                    |
| Illumina Inc                             | ILMN   | 157.10            | 216.68 | 34,040.43                | 0.12%              | n/a                         |                                | 6.50%                                  | 0.01%                                    |
| LKQ Corp                                 | LKQ    | 276.60            | 54.84  | 15,168.74                | 0.05%              | 1.82%                       | 0.00%                          | 13.00%                                 | 0.01%                                    |
| Nielsen Holdings PLC                     | NLSN   | 359.83            | 23.95  | 8,618.02                 |                    | 1.00%                       |                                |  |  |
| Zoetis Inc                               | ZTS    | 470.63            | 182.55 | 85,913.32                | 0.30%              | 0.71%                       | 0.00%                          | 11.00%                                 | 0.03%                                    |
| Equinix Inc                              | EQIX   | 91.08             | 703.74 | 64,093.12                |                    | 1.76%                       |                                | -3.50%                                 |  |
| Digital Realty Trust Inc                 | DLR    | 284.73            | 132.45 | 37,713.02                | 0.13%              | 3.68%                       | 0.00%                          | 15.00%                                 | 0.02%                                    |
| Las Vegas Sands Corp                     | LVS    | 764.16            | 37.69  | 28,801.04                | 0.10%              | n/a                         |                                | 11.00%                                 | 0.01%                                    |
| Molina Healthcare Inc                    | MOH    | 58.10             | 327.72 | 19,040.53                | 0.07%              | n/a                         |                                | 13.50%                                 | 0.01%                                    |

## Notes:

[1] Equals sum of Col. [9]

[2] Equals sum of Col. [11]

[3] Equals  $([1] \times (1 + (0.5 \times [2]))) + [2]$ 

[4] Source: Bloomberg Professional as of June 15, 2022

[5] Source: Bloomberg Professional as of June 15, 2022

[6] Equals [4] x [5]

[7] Equals weight in S&amp;P 500 based on market capitalization [6] if Growth Rate &gt;0% and ≤20%

[8] Source: Bloomberg Professional, as of June 15, 2022

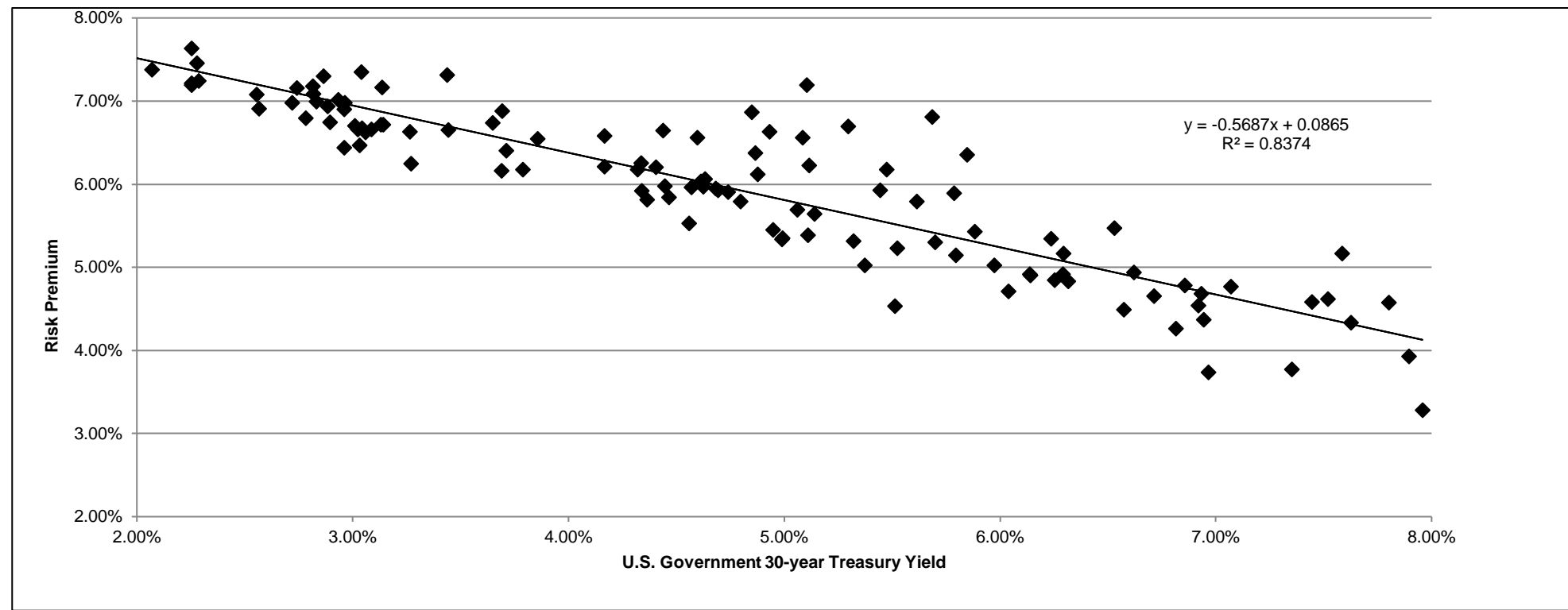
[9] Equals [7] x [8]

[10] Source: Value Line, as of June 15, 2022

[11] Equals [7] x [10]

Risk Premium -- Vertically Integrated Electric Utilities (US)

|        | [1]                                | [2]                         | [3]          |
|--------|------------------------------------|-----------------------------|--------------|
|        | Average Authorized VI Electric ROE | U.S. Govt. 30-year Treasury | Risk Premium |
| 1992.1 | 12.38%                             | 7.80%                       | 4.58%        |
| 1992.2 | 11.83%                             | 7.89%                       | 3.93%        |
| 1992.3 | 12.03%                             | 7.45%                       | 4.59%        |
| 1992.4 | 12.14%                             | 7.52%                       | 4.62%        |
| 1993.1 | 11.84%                             | 7.07%                       | 4.77%        |
| 1993.2 | 11.64%                             | 6.86%                       | 4.79%        |
| 1993.3 | 11.15%                             | 6.31%                       | 4.84%        |
| 1993.4 | 11.04%                             | 6.14%                       | 4.90%        |
| 1994.1 | 11.07%                             | 6.57%                       | 4.49%        |
| 1994.2 | 11.13%                             | 7.35%                       | 3.78%        |
| 1994.3 | 12.75%                             | 7.58%                       | 5.17%        |
| 1994.4 | 11.24%                             | 7.96%                       | 3.28%        |
| 1995.1 | 11.96%                             | 7.63%                       | 4.34%        |
| 1995.2 | 11.32%                             | 6.94%                       | 4.37%        |
| 1995.3 | 11.37%                             | 6.71%                       | 4.66%        |
| 1995.4 | 11.58%                             | 6.23%                       | 5.35%        |
| 1996.1 | 11.46%                             | 6.29%                       | 5.17%        |
| 1996.2 | 11.46%                             | 6.92%                       | 4.54%        |
| 1996.3 | 10.70%                             | 6.96%                       | 3.74%        |
| 1996.4 | 11.56%                             | 6.62%                       | 4.94%        |
| 1997.1 | 11.08%                             | 6.81%                       | 4.27%        |
| 1997.2 | 11.62%                             | 6.93%                       | 4.68%        |
| 1997.3 | 12.00%                             | 6.53%                       | 5.47%        |
| 1997.4 | 11.06%                             | 6.14%                       | 4.92%        |
| 1998.1 | 11.31%                             | 5.88%                       | 5.43%        |
| 1998.2 | 12.20%                             | 5.85%                       | 6.35%        |
| 1998.3 | 11.65%                             | 5.47%                       | 6.18%        |
| 1998.4 | 12.30%                             | 5.10%                       | 7.20%        |
| 1999.1 | 10.40%                             | 5.37%                       | 5.03%        |
| 1999.2 | 10.94%                             | 5.79%                       | 5.15%        |
| 1999.3 | 10.75%                             | 6.04%                       | 4.71%        |
| 1999.4 | 11.10%                             | 6.25%                       | 4.85%        |
| 2000.1 | 11.21%                             | 6.29%                       | 4.92%        |
| 2000.2 | 11.00%                             | 5.97%                       | 5.03%        |
| 2000.3 | 11.68%                             | 5.79%                       | 5.89%        |
| 2000.4 | 12.50%                             | 5.69%                       | 6.81%        |
| 2001.1 | 11.38%                             | 5.44%                       | 5.93%        |
| 2001.2 | 11.00%                             | 5.70%                       | 5.30%        |
| 2001.3 | 10.76%                             | 5.52%                       | 5.23%        |
| 2001.4 | 11.99%                             | 5.30%                       | 6.70%        |
| 2002.1 | 10.05%                             | 5.51%                       | 4.54%        |
| 2002.2 | 11.41%                             | 5.61%                       | 5.79%        |
| 2002.3 | 11.65%                             | 5.08%                       | 6.57%        |
| 2002.4 | 11.57%                             | 4.93%                       | 6.64%        |
| 2003.1 | 11.72%                             | 4.85%                       | 6.87%        |
| 2003.2 | 11.16%                             | 4.60%                       | 6.56%        |
| 2003.3 | 10.50%                             | 5.11%                       | 5.39%        |
| 2003.4 | 11.34%                             | 5.11%                       | 6.23%        |
| 2004.1 | 11.00%                             | 4.88%                       | 6.12%        |
| 2004.2 | 10.64%                             | 5.32%                       | 5.32%        |
| 2004.3 | 10.75%                             | 5.06%                       | 5.69%        |
| 2004.4 | 11.24%                             | 4.86%                       | 6.38%        |
| 2005.1 | 10.63%                             | 4.69%                       | 5.93%        |
| 2005.2 | 10.31%                             | 4.47%                       | 5.85%        |
| 2005.3 | 11.08%                             | 4.44%                       | 6.65%        |
| 2005.4 | 10.63%                             | 4.68%                       | 5.95%        |
| 2006.1 | 10.70%                             | 4.63%                       | 6.06%        |
| 2006.2 | 10.79%                             | 5.14%                       | 5.65%        |
| 2006.3 | 10.35%                             | 4.99%                       | 5.35%        |
| 2006.4 | 10.65%                             | 4.74%                       | 5.91%        |
| 2007.1 | 10.59%                             | 4.80%                       | 5.80%        |
| 2007.2 | 10.33%                             | 4.99%                       | 5.34%        |
| 2007.3 | 10.40%                             | 4.95%                       | 5.45%        |
| 2007.4 | 10.65%                             | 4.61%                       | 6.04%        |
| 2008.1 | 10.62%                             | 4.41%                       | 6.21%        |
| 2008.2 | 10.54%                             | 4.57%                       | 5.97%        |
| 2008.3 | 10.43%                             | 4.44%                       | 5.98%        |
| 2008.4 | 10.39%                             | 3.65%                       | 6.74%        |
| 2009.1 | 10.75%                             | 3.44%                       | 7.31%        |
| 2009.2 | 10.75%                             | 4.17%                       | 6.58%        |
| 2009.3 | 10.50%                             | 4.32%                       | 6.18%        |



SUMMARY OUTPUT

| Regression Statistics |             |
|-----------------------|-------------|
| Multiple R            | 0.915080777 |
| R Square              | 0.8374      |
| Adjusted R Square     | 0.836017602 |
| Standard Error        | 0.0041915   |
| Observations          | 122         |

| ANOVA      |     |             |             |             |                |
|------------|-----|-------------|-------------|-------------|----------------|
|            | df  | SS          | MS          | F           | Significance F |
| Regression | 1   | 0.0108554   | 0.0108554   | 617.8840756 | 3.72291E-49    |
| Residual   | 120 | 0.00210824  | 1.75687E-05 |             |                |
| Total      | 121 | 0.012963641 |             |             |                |

|              | Coefficients | Standard Error | t Stat      | P-value     | Lower 95%   | Upper 95%  | Lower 95.0% | Upper 95.0%  |
|--------------|--------------|----------------|-------------|-------------|-------------|------------|-------------|--------------|
| Intercept    | 0.086532673  | 0.001111877    | 77.82578507 | 1.4807E-104 | 0.084331234 | 0.08873411 | 0.084331234 | 0.08873411   |
| X Variable 1 | -0.568661677 | 0.022877073    | -24.8572741 | 3.72291E-49 | -0.61395669 | -0.5233667 | -0.61395669 | -0.523366664 |

|  | [7]                         | [8]          | [9]           |
|--|-----------------------------|--------------|---------------|
|  | U.S. Govt. 30-year Treasury | Risk Premium | ROE           |
| Current 30-day average of 30-year U.S. Treasury bond yield [4] | 3.16%                       | 6.86%        | 10.02%        |
| Blue Chip Near-Term Projected Forecast (Q4 2022 - Q4 2023) [5] | 3.48%                       | 6.67%        | 10.15%        |
| Blue Chip Long-Term Projected Forecast (2024-2028) [6]         | 3.80%                       | 6.49%        | 10.29%        |
| <b>AVERAGE</b>   |                             |              | <b>10.15%</b> |

Notes:

- [1] Source: Regulatory Research Associates, rate cases through July 31, 2022
- [2] Source: Bloomberg Professional, quarterly bond yields are the average of each trading day in the quarter
- [3] Equals Column [1] - Column [2]
- [4] Source: Bloomberg Professional, 30-day average as of July 31, 2022
- [5] Source: Blue Chip Financial Forecasts, Vol. 41, No. 8, August 1, 2022 at 2
- [6] Source: Blue Chip Financial Forecasts, Vol. 41, No. 6, June 1, 2022 at 14
- [7] See notes [4], [5] & [6]
- [8] Equals  $0.086533 + (-0.568662 \times \text{Column [7]})$
- [9] Equals Column [7] + Column [8]

Risk Premium -- Vertically Integrated Electric Utilities (US)

|         | [1]   | [2]                               | [3]             |
|---------|---|-----------------------------------|-----------------|
|         | Average<br>Authorized<br>VI Electric<br>ROE | U.S. Govt.<br>30-year<br>Treasury | Risk<br>Premium |
| 2009.4  | 10.59%                                      | 4.34%                             | 6.26%           |
| 2010.1  | 10.59%                                      | 4.62%                             | 5.97%           |
| 2010.2  | 10.18%                                      | 4.36%                             | 5.82%           |
| 2010.3  | 10.40%                                      | 3.86%                             | 6.55%           |
| 2010.4  | 10.38%                                      | 4.17%                             | 6.21%           |
| 2011.1  | 10.09%                                      | 4.56%                             | 5.53%           |
| 2011.2  | 10.26%                                      | 4.34%                             | 5.92%           |
| 2011.3  | 10.57%                                      | 3.69%                             | 6.88%           |
| 2011.4  | 10.39%                                      | 3.04%                             | 7.35%           |
| 2012.1  | 10.30%                                      | 3.14%                             | 7.17%           |
| 2012.2  | 9.95%                                       | 2.93%                             | 7.02%           |
| 2012.3  | 9.90%                                       | 2.74%                             | 7.16%           |
| 2012.4  | 10.16%                                      | 2.86%                             | 7.30%           |
| 2013.1  | 9.85%                                       | 3.13%                             | 6.72%           |
| 2013.2  | 9.86%                                       | 3.14%                             | 6.72%           |
| 2013.3  | 10.12%                                      | 3.71%                             | 6.41%           |
| 2013.4  | 9.97%                                       | 3.79%                             | 6.18%           |
| 2014.1  | 9.86%                                       | 3.69%                             | 6.17%           |
| 2014.2  | 10.10%                                      | 3.44%                             | 6.66%           |
| 2014.3  | 9.90%                                       | 3.26%                             | 6.64%           |
| 2014.4  | 9.94%                                       | 2.96%                             | 6.98%           |
| 2015.1  | 9.64%                                       | 2.55%                             | 7.08%           |
| 2015.2  | 9.83%                                       | 2.88%                             | 6.94%           |
| 2015.3  | 9.40%                                       | 2.96%                             | 6.44%           |
| 2015.4  | 9.86%                                       | 2.96%                             | 6.90%           |
| 2016.1  | 9.70%                                       | 2.72%                             | 6.98%           |
| 2016.2  | 9.48%                                       | 2.57%                             | 6.91%           |
| 2016.3  | 9.74%                                       | 2.28%                             | 7.46%           |
| 2016.4  | 9.83%                                       | 2.83%                             | 7.00%           |
| 2017.1  | 9.72%                                       | 3.04%                             | 6.67%           |
| 2017.2  | 9.64%                                       | 2.90%                             | 6.75%           |
| 2017.3  | 10.00%                                      | 2.82%                             | 7.18%           |
| 2017.4  | 9.91%                                       | 2.82%                             | 7.09%           |
| 2018.1  | 9.69%                                       | 3.02%                             | 6.66%           |
| 2018.2  | 9.75%                                       | 3.09%                             | 6.66%           |
| 2018.3  | 9.69%                                       | 3.06%                             | 6.63%           |
| 2018.4  | 9.52%                                       | 3.27%                             | 6.25%           |
| 2019.1  | 9.72%                                       | 3.01%                             | 6.71%           |
| 2019.2  | 9.58%                                       | 2.78%                             | 6.79%           |
| 2019.3  | 9.53%                                       | 2.29%                             | 7.24%           |
| 2019.4  | 9.89%                                       | 2.25%                             | 7.63%           |
| 2020.1  | 9.72%                                       | 1.89%                             | 7.83%           |
| 2020.2  | 9.58%                                       | 1.38%                             | 8.20%           |
| 2020.3  | 9.30%                                       | 1.37%                             | 7.93%           |
| 2020.4  | 9.56%                                       | 1.62%                             | 7.94%           |
| 2021.1  | 9.45%                                       | 2.07%                             | 7.38%           |
| 2021.2  | 9.47%                                       | 2.25%                             | 7.21%           |
| 2021.3  | 9.27%                                       | 1.93%                             | 7.34%           |
| 2021.4  | 9.67%                                       | 1.94%                             | 7.73%           |
| 2022.1  | 9.45%                                       | 2.25%                             | 7.20%           |
| 2022.2  | 9.50%                                       | 3.03%                             | 6.47%           |
| AVERAGE | 10.62%                                      | 4.57%                             | 6.06%           |
| MEDIAN  | 10.59%                                      | 4.62%                             | 6.18%           |

