

**BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION**

IN THE MATTER OF THE APPLICATION )  
OF PUBLIC SERVICE COMPANY OF NEW )  
MEXICO FOR REVISION OF ITS RETAIL )  
ELECTRIC RATES PURSUANT TO ADVICE )  
NOTICE NO. 533 )

Case No. 16-00276-UT

PUBLIC SERVICE COMPANY OF NEW )  
MEXICO, )

Applicant )  
\_\_\_\_\_ )

**DIRECT TESTIMONY**

**OF**

**ROBERT B. HEVERT**

**December 7, 2016**

**NMPRC CASE NO. 16-00276-UT**  
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**WITNESS FOR**  
**PUBLIC SERVICE COMPANY OF NEW MEXICO**

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**I. INTRODUCTION AND PURPOSE**

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**Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

**A.** My name is Robert B. Hevert and my business address is 1900 West Park Drive,  
Suite 250, Westborough, Massachusetts 01581.

**Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT POSITION?**

**A.** I am employed by ScottMadden, Inc. ("ScottMadden") as Partner. ScottMadden  
is a management consulting firm that delivers a broad array of consulting services  
across its Energy, Clean Tech & Sustainability, Corporate & Shared Services, and  
Grid Transformation practice areas.

**Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS DOCKET?**

**A.** I am submitting this testimony before the New Mexico Public Regulation  
Commission ("Commission") on behalf of Public Service Company of New  
Mexico ("PNM" or the "Company").

**Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.**

**A.** I hold a Bachelor's degree in Business and Economics from the University of  
Delaware, and an MBA with a concentration in Finance from the University of  
Massachusetts. I also hold the Chartered Financial Analyst designation.

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1   **Q.   PLEASE DESCRIBE YOUR EXPERIENCE IN THE ENERGY AND**  
2       **UTILITY INDUSTRIES.**

3   **A.**   I have worked in regulated industries for over twenty-five years, having served as  
4       an executive and manager with consulting firms, a financial officer of a publicly  
5       traded natural gas utility (at the time, Bay State Gas Company), and an analyst at  
6       a telecommunications utility. In my role as a consultant, I have advised numerous  
7       energy and utility clients on a wide range of financial and economic issues  
8       including corporate and asset-based transactions, asset and enterprise valuation,  
9       transaction due diligence, and strategic matters. As an expert witness, I have  
10      provided testimony in over 150 proceedings regarding various financial and  
11      regulatory matters before numerous state utility regulatory agencies, the Federal  
12      Energy Regulatory Commission (“FERC”), and the Province of Alberta, Canada.  
13      A summary of my professional and educational background, including a list of  
14      my testimony in prior proceedings, is included in PNM Exhibit RBH-1.

15

16   **Q.   WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?**

17   **A.**   The purpose of my Direct Testimony is to present evidence and provide a  
18       recommendation regarding PNM’s return on common equity (“ROE”), and to  
19       provide an assessment of PNM’s capital structure to be used for ratemaking  
20       purposes, as proposed in the Direct Testimony of PNM Witness Eden. My  
21       analyses and recommendations are supported by the models detailed in Appendix  
22       A and presented in PNM Exhibit RBH-2 through PNM Exhibit RBH-12.

23

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**II. SUMMARY OF KEY CONCLUSIONS**

**Q. WHAT ARE YOUR CONCLUSIONS REGARDING THE APPROPRIATE  
COST OF EQUITY AND CAPITAL STRUCTURE FOR PNM?**

**A.** My analyses indicate that the Company's Cost of Equity currently is in the range of 9.80 percent to 10.75 percent. As discussed in Section III, because not all models used to estimate the Cost of Equity adequately reflect changing market dynamics, it is important to give appropriate weight to each of the methods and to their results. In developing my range, I believe that Constant Growth DCF-based results should be viewed very carefully, and that somewhat more weight should be afforded to the Risk Premium-based methods. Based on the quantitative and qualitative analyses discussed throughout my Direct Testimony, I conclude that an ROE of 10.125 percent is reasonable and appropriate. As described in greater detail later in my testimony, that recommendation is based on the use of four widely accepted methodologies and reflects the results of several analyses that I have undertaken to estimate the effect of PNM's financial profile on its Cost of Equity.<sup>1</sup> In light of those analyses, including the current capital market environment and the financial market's expectations of increasing interest rates, I believe that my 10.125 percent recommendation is a reasonable estimate of the Company's Cost of Equity. Lastly, I conclude that PNM's recommended capital

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<sup>1</sup> Throughout my testimony, I interchangeably use the terms "ROE" and "Cost of Equity". As discussed later in my testimony, my ROE range and recommendation reflect points raised in prior Commission decisions. Absent those considerations, it is likely that my recommendations would be somewhat higher.

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1 structure, which includes 49.61 percent common equity, 0.39 percent preferred  
2 equity, and 50.00 percent long-term debt, is reasonable and appropriate.

3  
4 **Q. PLEASE PROVIDE A BRIEF OVERVIEW OF THE ANALYSES THAT**  
5 **LED TO YOUR CONCLUSIONS.**

6 **A.** As discussed in more detail in Section III, considering recent market conditions,  
7 and given the fact that no one model is more reliable than the others under all  
8 market conditions, it is extremely important to consider the results of several  
9 analytical approaches. Likewise, equity analysts and investors tend to use  
10 multiple methodologies to develop their return requirements. For these reasons, I  
11 believe it is both prudent and appropriate to consider multiple methodologies to  
12 estimate the Company's Cost of Equity. I therefore applied four widely accepted  
13 methods to develop my ROE recommendation: The Constant Growth Discounted  
14 Cash Flow ("DCF") model; the Multi-Stage DCF model; the Capital Asset  
15 Pricing Model ("CAPM"); and the Bond Yield Plus Risk Premium approach.

16  
17 **Q. DO YOU BELIEVE THAT THE CONSTANT GROWTH DCF MODEL**  
18 **PROVIDES AN ACCURATE ESTIMATE OF PNM'S RETURN ON**  
19 **EQUITY?**

20 **A.** No, I do not. I recognize that in prior orders, including its most recent Order  
21 entered September 28, 2016 in Case No. 15-00261-UT, the Commission has  
22 relied exclusively on a specific form of the Constant Growth DCF approach. I  
23 have found, however, that the period over which my analyses were performed

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1 included market data that were inconsistent with that model's fundamental  
2 assumptions and produced results counterintuitive with current capital market  
3 conditions.

4  
5 Additionally, I do not believe that the current level of utility equity valuation  
6 levels is due to lower levels of perceived risk. Rather, it is my view that the  
7 valuation levels are related to the "reach for yield" that sometimes occurs during  
8 periods of low Treasury yields. As discussed later in my testimony, when utility  
9 valuation ratios historically had become "stretched", they subsequently moved  
10 back toward their long-term average.

11  
12 Regardless of the method employed, however, an authorized ROE that is well  
13 below returns authorized for other utilities (1) runs counter to the *Hope* and  
14 *Bluefield* "comparable risk" standard, (2) would place the Company at a  
15 comparative disadvantage, and (3) makes it difficult for PNM to compete for  
16 capital at reasonable terms.

17  
18 Although I have followed the Commission's precedent and have included the  
19 Constant Growth DCF model in my analyses, I do not believe those results should  
20 be relied upon exclusively to develop PNM's Cost of Equity. Rather, other  
21 methods, including Risk Premium-based approaches, also should be considered.



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1   **Q.   PLEASE SUMMARIZE THE REASONS YOU BELIEVE THE DCF**  
2       **MODEL SHOULD NOT BE RELIED UPON EXCLUSIVELY IN THIS**  
3       **PROCEEDING.**

4   **A.**   As explained more fully in Section III, market data is becoming increasingly  
5       disjointed, with relatively low Treasury yields, increasing equity market volatility,  
6       and more volatile credit spreads. Given the varied nature of such fundamental  
7       market measures, the current market is one in which it is very important to  
8       consider a broad range of data and models when determining the Cost of Equity.

9

10       Although the recent interest rate environment may lead some analysts to conclude  
11       that current capital costs (including the Cost of Equity) are low and will remain as  
12       such, the primary driver of the current low interest rate environment has been  
13       central bank monetary policy, including the Federal Reserve's initiatives  
14       specifically "designed to put downward pressure on longer-term interest rates."<sup>2</sup>

15       As explained in Section III, the Federal Reserve's policy actions, including  
16       maintaining an expanded balance sheet and keeping the Federal Funds rate low,  
17       have affected capital markets and led to utility valuations that are elevated relative  
18       to historical levels, and to the overall market. Consequently, monetary policy  
19       actions have had a significant effect on market prices of both bonds and stocks.

20       In that respect, the Federal Reserve has become a "market-mover" that has  
21       singularly affected the market; this runs counter to the Perfectly Competitive

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<sup>2</sup> Federal Reserve Bank of New York, Domestic Open Market Operations During 2012, p. 29 (Apr. 2013).

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1 Capital Markets (“PCCM”) hypothesis that underlies traditional Cost of Equity  
2 models.

3  
4 In summary, we cannot conclude that the recent levels of utility valuations are due  
5 to a fundamental change in the risk perceptions of utility investors. As explained  
6 in more detail in Section III, it is not clear that investors believe that utilities’ risk  
7 level has fallen relative to historical levels such that they have reduced their return  
8 requirement for utilities to the levels estimated by the Constant Growth DCF  
9 model.

10  
11 **Q. PLEASE EXPLAIN THE TREND OF DCF-BASED COST OF EQUITY**  
12 **RESULTS RECENTLY.**

13 **A.** Constant Growth DCF-based results have fallen sharply over at least the last two  
14 years. As shown in Table RBH-1, the Proxy Group’s average Constant Growth  
15 DCF results have fallen as much as 80 basis points (using the Commission’s  
16 preferred 360-day average stock prices and full year dividend growth rate  
17 methodology).

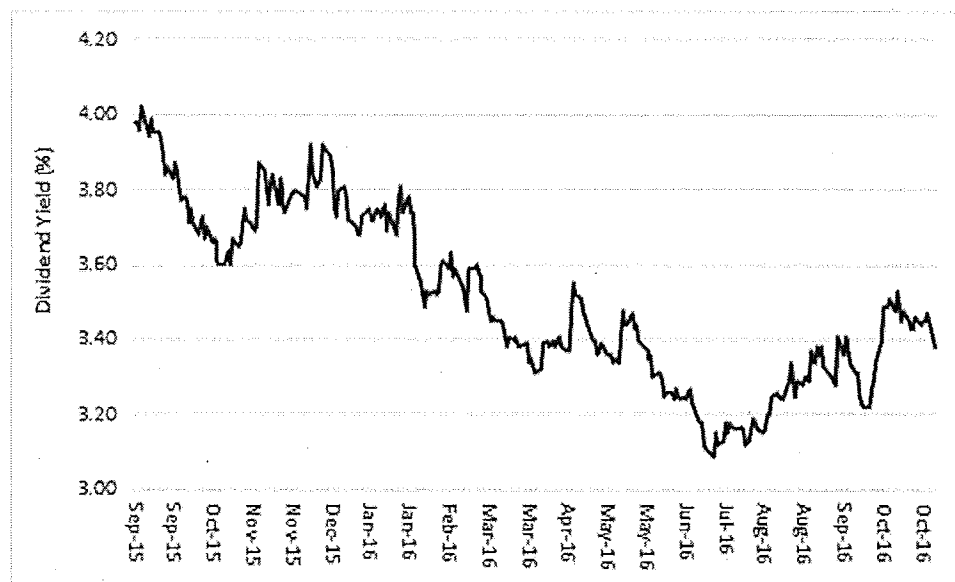
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**Table RBH-1: Trend of Proxy Group Constant Growth DCF Results**

	<i>Mean Low</i>	<i>Mean</i>	<i>Mean High</i>
As of October 31, 2016	8.50%	9.13%	9.75%
As of October 31, 2015	8.42%	9.30%	10.10%
As of October 31, 2014	8.66%	9.63%	10.55%
Basis Point Change 2015-2016	8	(17)	(35)
Basis Point Change 2014-2016	(16)	(50)	(80)

Over the past year, a run up in utility stock prices has caused the dividend yield component of the DCF model to fall. As shown in Chart RBH-1 below, since the beginning of September 2015, the dividend yield for the Proxy Group fell from approximately 4.00 percent to 3.00 percent in July 2016.

**Chart RBH-1: Proxy Group Dividend Yield<sup>3</sup>**



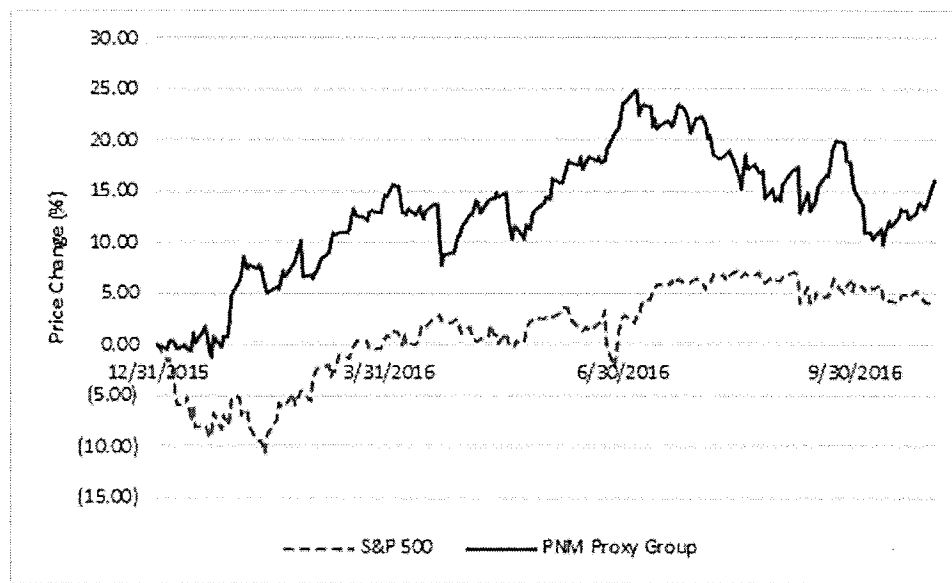
In fact, the Proxy Group's stock prices have increased at a greater pace than the S&P 500 since the beginning of the year (see Chart RBH-2 below). Under more

<sup>3</sup> Source: SNL Financial. Proxy Group calculated as an index.

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normal conditions, an increase in utility stock prices would be based on investors' expectations of greater future growth. As discussed in Section III, higher Price/Earnings ("P/E") ratios are not based necessarily on utilities' fundamentals, but rather are associated with the Federal Reserve's monetary policy actions and the "reach for yield" that sometimes occurs during periods of low Treasury yields.

**Chart RBH-2: Stock Price Performance: Proxy Group vs. S&P 500<sup>4</sup>**



The phenomenon of utility valuations outpacing the overall market is unusual because over time, utilities typically have traded at a discount to the market (on a Price/Earnings basis). Given that historical relationship, it is unlikely they would trade at a premium to the market in perpetuity, as the Constant Growth DCF model assumes. All else remaining equal, the result is a set of unreasonably low DCF estimates that do not necessarily reflect the ongoing, intrinsic value of the subject utility (or the proxy group companies) in question, or comport with the expected capital market environment.

<sup>4</sup> Source: SNL Financial. Proxy Group calculated as an index.

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1   **Q.   DO YOU AGREE WITH THE COMMISSION’S FINDING THAT**  
2       **REDUCED RISK IN THE UTILITY INDUSTRY HAS LED TO**  
3       **ELEVATED P/E RATIOS?**

4   **A.**   No, I respectfully disagree with that conclusion. In the Recommended Decision  
5       in Case No. 15-00261-UT, the Hearing Examiner adopted the New Mexico  
6       Attorney General’s (“NMAG”) argument that “cost recovery mechanisms have  
7       reduced the risk of the utility industry which has led to higher P/E multiples.”<sup>5</sup>  
8       The basis of that finding was an article by Moody’s Investors Service  
9       (“Moody’s”), which reads in part:

10               As utilities increasingly secure more up-front assurance for  
11               cost recovery in their rate proceedings, we think regulators will  
12               increasingly view the sector as less risky. The combination of  
13               low capital costs, high equity market valuation multiples  
14               (which are better than or on par with the broader market  
15               despite the regulated utilities’ low risk profile), and a  
16               transparent assurance of cost recovery tend to support the case  
17               for lower authorized returns, although because utilities will  
18               argue they should rise, or at least stay unchanged.<sup>6</sup>

19  
20       I respectfully disagree with the NMAG’s interpretation of this passage, and  
21       therefore, with the Hearing Examiner’s finding that cost recovery mechanisms are  
22       the cause of higher P/E multiples. Moody’s does not say that higher P/E  
23       multiples *are the result* of cost recovery mechanisms (and an implied lower risk)  
24       as the NMAG and Hearing Examiner state. Rather, Moody’s states that cost  
25       recovery mechanisms are one of three possible factors that “tend to support the  
26       case for lower authorized returns”. Moody’s believes that high equity market

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<sup>5</sup>       See Recommended Decision, Case No. 15-00261-UT, at 36.

<sup>6</sup>       Moody’s Investors Service, *Lower Authorized Equity Returns Will Not Hurt Near-Term Credit Profiles* (3-10-15).

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1 valuation multiples (i.e., P/E ratios) are another factor. However, Moody's goes  
2 on to say that "for now, utilities can enjoy their (historically) high equity  
3 valuations."<sup>7</sup> That is, Moody's observed that the then-current valuations were  
4 unusual, and that some degree of reversion toward long-term means was likely.  
5 Moody's further observed that although interest rates remained at relatively low  
6 levels, they "will go up, eventually." When they do, Moody's warns, "this could  
7 spell trouble for utilities."<sup>8</sup>

8  
9 **Q. ARE UTILITY P/E LEVELS EXPECTED TO FALL IN THE FUTURE?**

10 **A.** Yes, they are. Value Line projects P/E ratios for all nineteen of the proxy  
11 companies to decline in the next three to five years, as shown in Table RBH-2:

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<sup>7</sup> Moody's Investors Service, *Lower Authorized Returns Will Not Hurt Near-Term Credit Profiles*, March 10, 2015, at 5.

<sup>8</sup> Moody's Investors Service, *Lower Authorized Returns Will Not Hurt Near-Term Credit Profiles*, March 10, 2015, at 5.

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1

**Table RBH-2: Projected P/E Ratios for the Proxy Group<sup>9</sup>**

<b>Company</b>	<b>Trailing 12-Month P/E Ratio</b>	<b>Avg. Annual P/E (2019- 2021)</b>
ALLETE, Inc.	17.6	15.0
Alliant Energy Corporation	22.1	15.0
Ameren Corporation	19.4	15.0
American Electric Power Company, Inc.	18.7	15.5
Avista Corporation	19.5	15.0
CenterPoint Energy, Inc.	24.0	18.0
CMS Energy Corporation	21.9	15.0
DTE Energy Company	20.8	14.0
El Paso Electric Company	23.9	17.0
Eversource Energy	20.9	16.0
IDACORP, Inc.	20.4	15.0
NorthWestern Corporation	16.6	14.0
OGE Energy Corp.	21.1	18.0
Otter Tail Corporation	21.8	18.0
Pinnacle West Capital Corporation	19.8	15.5
Portland General Electric Company	20.2	14.0
SCANA Corporation	19.7	14.5
Wisconsin Energy Corporation	21.9	16.5
Xcel Energy Inc.	19.2	15.5

2    **Q.    HAS NEW MEXICO NOTED THE IMPORTANCE OF REVIEWING**  
3    **MULTIPLE METHODS IN PRIOR UTILITY PROCEEDINGS?**

4    **A.**    Yes. Although I am not an attorney, I understand that in prior cases, the Supreme  
5    Court of New Mexico found that the Commission is not bound to a single method,  
6    noting (consistent with *Hope* and *Bluefield*), that the end result is the principal  
7    consideration. As the Court noted in *Hobbs Gas*:

<sup>9</sup> Source: Value Line as of October 31, 2016.

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Neither New Mexico case law nor the Public Utility Act imposes any one particular method of valuation upon the Commission in ascertaining the rate base of a utility. *Mountain States Tel. v. New Mexico State Corp.*, 90 N.M. 325, 563 P.2d 588 (1977). Nor does the spirit of the statute tie the Commission down to the consideration of a single factor in establishing rates.<sup>10</sup>

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

The Commission was not bound to the use of any single formula or combination of formulae in determining rates. The rate-making function involves the making of pragmatic adjustments. It is the result reached, not the method employed, which is controlling. (Citations omitted.)<sup>11</sup>

In *PNM Gas Services*, the Court likewise found that because of the complexity and number of variables at issue in rate proceedings, the Commission is not bound to a single formula. Again, the Court found that "...the rate-making function involves a number of pragmatic adjustments", and that in the end, "[i]t is the result reached, not the method employed, which is controlling."<sup>12</sup>

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

[t]his Court can see no reason why it should adopt as the law of this state any single formula which has been evolved out of this history of litigation.... [T]he regulatory authorities seek a formula which will adjust rates to the *immediate economic situation*" (emphasis added).<sup>13</sup>

My plain reading of those decisions suggests that although the Commission historically has put emphasis on the Constant Growth DCF approach, it is not

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<sup>10</sup> *Hobbs Gas Co. v. New Mexico Public Service Commission*, 94 N.M. 731 (1980), at 4.

<sup>11</sup> *Hobbs Gas Co. v. New Mexico Public Service Commission*, 94 N.M. 731 (1980), at 4.

<sup>12</sup> *In re Petition of PNM Gas Services*, 129 N.M. 1 (2000), at 11.

<sup>13</sup> *In re Zia Natural Gas Co.*, 128 N.M. 728 (2000), at 8.



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1 bound to do so. Equally important, the Court found that the immediate economic  
2 situation may call for “pragmatic adjustments” to the method used to establish the  
3 Return on Equity, and that it is the reasonableness of the ROE itself, rather than  
4 the approach used in its determination, that controls.

5  
6 **Q. HAVE OTHER REGULATORY JURISDICTIONS NOTED THE DCF**  
7 **MODEL’S ANOMALOUS RESULTS, AND THE NEED TO TAKE THE**  
8 **NATURE OF THOSE RESULTS INTO CONSIDERATION IN**  
9 **DETERMINING THE RETURN ON EQUITY?**

10 **A.** Yes. For example, in Opinion 531, *Martha Coakley v. Bangor Hydro-Electric*  
11 *Company*, Opinion No. 531,<sup>14</sup> 147 FERC ¶ 61,234 (2014), *Order on paper*  
12 *hearing* Opinion No. 531-A, 149 FERC ¶ 61,032 (2014), and *Order on rehearing*  
13 Opinion No. 531-B, 150 FERC ¶ 61,165 (2015) (collectively, “*Coakley*”), the  
14 FERC stated “[w]e are concerned that capital market conditions in the record are  
15 anomalous, thereby making it more difficult to determine the return necessary for  
16 public utilities to attract capital.” FERC then stated that it was

17 ...necessary and reasonable to consider additional record  
18 evidence, including evidence of alternative benchmark  
19 methodologies and state commission-approved ROEs, to gain  
20 insight into the potential impacts of these unusual capital  
21 market conditions.<sup>15</sup>

---

<sup>14</sup> I note that the Hearing Examiner cited to Opinion 531 in discussing the appropriate proxy group selection in PNM’s most recent decision in Case No.15-00261-UT. *See, In the Matter of the Application of Public Service Company of New Mexico for Revision of its Retail Electric Rates Pursuant to Advice Notice No. 513*, Case No. 15-00261-UT, Recommended Decision, August 4, 2016, at 40, 42.

<sup>15</sup> *Coakley*, Opinion No. 531, at P 145.

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1 Further, the FERC recognized the effect of anomalous economic conditions on  
2 estimating the Cost of Equity, stating that:

3 ...a mechanical application of the DCF methodology with the  
4 use of the midpoint here would result in an ROE that does not  
5 satisfy the requirements of *Hope* and *Bluefield*. Therefore,  
6 based on the record in this case, including the unusual capital  
7 market conditions present, we conclude that the just and  
8 reasonable base ROE for the NETOs should be set halfway  
9 between the midpoint of the zone of reasonableness and the top  
10 of the zone of reasonableness.<sup>16</sup>

11 FERC therefore has recognized that the current anomalous capital market  
12 environment (1) has contributed, in part, to unreasonably low DCF-based results  
13 that do not satisfy *Hope* and *Bluefield*; (2) renders it necessary and reasonable to  
14 consider alternative estimation methodologies; and (3) calls for a just and  
15 reasonable ROE set in the upper end of the “zone of reasonableness.”

16  
17 In a like fashion, the Massachusetts Department of Public Utilities noted that the  
18 model’s assumptions are “responsible for DCF cost of equity anomalies” and that  
19 because of those limitations “it is appropriate to consider all of the DCF estimates  
20 when evaluating the [c]ompany’s ROE.”<sup>17</sup> Similarly, the Public Service  
21 Commission of the District of Columbia noted that the DCF model produced Cost  
22 of Equity estimates that were “substantially lower”, and authorized an ROE for  
23 Washington Gas Light (“WGL”) that was as much as 122 basis points above the

---

<sup>16</sup> Coakley, Opinion No. 531, at P.142.

<sup>17</sup> Massachusetts Department of Public Utilities, D.P.U. 13-90, *Petition of Fitchburg Gas and Electric Light Company (Electric Division) d/b/a Unitil*, May 30, 2014, at 219. [clarification added]

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1 DCF-based estimates.<sup>18</sup> Even in jurisdictions in which the DCF model is given  
2 primary weight, regulatory commissions have routinely authorized ROEs above  
3 the mean DCF result. It is clear, therefore, that state regulatory commissions are  
4 finding that DCF-based estimates are too low to be reasonable.

5  
6 Lastly, an article recently published by Bloomberg notes that the ultra-low interest  
7 rate environment has “wrought havoc” on the DCF model. The article quotes a  
8 Bernstein analyst who states that “[i]n a world where the risk free rate is close to  
9 zero, then the errors in such models explode.”<sup>19</sup>

10  
11 For the reasons discussed throughout my Direct Testimony, I agree that the  
12 assumptions underlying the Constant Growth DCF model may produce  
13 anomalous results, and that those results should be viewed with caution,  
14 particularly considering the capital market conditions discussed in Section III  
15 (below). My recommendation therefore considers the full range of DCF results,  
16 along with the range of results from the additional methods discussed in the  
17 following sections of my Direct Testimony.

18  

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<sup>18</sup> *Formal Case No. 1093, In the Matter of the Investigation into the Reasonableness of Washington Gas Light Company's Existing Rates and Charges for Gas Service*, Before the Public Service Commission of the District of Columbia, Order No. 17132, May 15, 2013, at 17-18, 20.

<sup>19</sup> Kawa, Luke, “A Critical Idea in Valuing Stocks Is Being Made Obsolete by Low Rates,” Bloomberg Business, October 13, 2016. <http://www.bloomberg.com/news/articles/2016-10-13/a-critical-idea-in-valuing-stocks-is-being-made-obsolete-by-low-rates>

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1   **Q.   DO OTHER JURISDICTIONS CONSIDER ALTERNATIVE ROE**  
2       **ESTIMATION MODELS BESIDES THE DCF MODEL?**

3   **A.**   Yes. In my experience testifying in more than 150 proceedings before Federal,  
4       State, and Canadian Provincial regulatory bodies, although some may place  
5       greater weight on the DCF model, most regulatory jurisdictions consider results  
6       from other models (such as the Risk Premium model, Capital Asset Pricing  
7       Model, and Comparable Earnings model) when arriving at ROE determinations.  
8       Also in my experience, state regulatory commission staff witnesses (including  
9       New Mexico) often present the analytical results of multiple methodologies. That  
10      approach is consistent with both academic theory and investor practice.<sup>20</sup> New  
11      Mexico is somewhat unique, in that it has relied almost exclusively on a specific  
12      form of the Constant Growth DCF model (that is, the 360-day, full dividend yield  
13      growth DCF model).

14

15      As discussed throughout the balance of my testimony, no one financial model is  
16      more reliable than others at all times and under all market conditions. As Dr.

17      Roger Morin notes:

18               If a regulatory commission relies on a single cost of equity  
19               estimate or on a single methodology, that commission greatly  
20               limits its flexibility and increases the risk of authorizing  
21               unreasonable rates of return. The results from one methodology  
22               or from a one-company sample are likely to contain a high

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<sup>20</sup> See for example, Roger A. Morin, New Regulatory Finance, Public Utilities Report, Inc., 2006, at 428-436.; Eugene F. Brigham and Michael C. Ehrhardt Financial Management Theory and Practice, at 366-367 (2005), Stewart C. Myers, The Application of Finance Theory to Public Utility Rate Cases, The Bell Journal of Economics and Management Science, Vol. 3, No. 1 (Spring, 1972), James C. Bonbright, et. al., Principles of Public Utility Rates, at 312-332, (1988).

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1 degree of measurement error and may be distorted by short-  
2 term aberrations. A commission's hands should not be bound  
3 to one single company-specific estimate of equity costs, nor  
4 should the commission ignore relevant evidence and back itself  
5 into a corner.<sup>21</sup>

6 Given the changing and disjointed market data discussed below, it is difficult to  
7 rely on a single model to estimate the Company's Cost of Equity. Consequently, I  
8 believe it is both prudent and reasonable to consider multiple methodologies when  
9 estimating the Company's ROE.

10  
11 **Q. DOES YOUR RECOMMENDATION BALANCE THE INTERESTS OF**  
12 **INVESTORS AND RATEPAYERS?**

13 **A.** Yes, I believe so. The New Mexico Public Utility Act states:

14 It is the declared policy of the state that the public interest, the  
15 interest of consumers and the interest of investors require the  
16 regulation and supervision of such public utilities to the end  
17 that reasonable and proper services shall be available at fair,  
18 just and reasonable rates, and to the end that capital and  
19 investment may be encouraged and attracted so as to provide  
20 for the construction, development and extension, without  
21 unnecessary duplication and economic waste, of proper plants  
22 and facilities for the rendition of service to the general public  
23 and to industry.<sup>22</sup>

24 Investors have many options available to them and will only invest in a firm if the  
25 expected return justifies the risks taken on in making that investment. Ratepayers  
26 have an interest in safe, reliable, and efficient service, which depends on  
27 investors' willingness to commit the capital needed to maintain and improve the  
28 utility system. In that important sense, investors and ratepayers have a common

---

<sup>21</sup> Roger A. Morin, New Regulatory Finance, Public Utilities Report, Inc., 2006, at 429-430.  
<sup>22</sup> NMSA 1978, §62-3-1

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1 interest in a financially strong utility that is able to access low-cost capital when  
2 and as needed. Therefore, to the extent the ROE is (1) adequate to attract capital  
3 at reasonable terms; (2) sufficient to ensure the utility's financial integrity; and (3)  
4 commensurate with returns on investments of comparable risk, the interests of  
5 investors and ratepayers will be aligned. I believe my recommendation meets that  
6 objective, consistent with the New Mexico Public Utility Act.

7  
8 **Q. WHAT IS YOUR CONCLUSION REGARDING THE**  
9 **APPROPRIATENESS OF THE CONSTANT GROWTH DCF MODEL**  
10 **RESULTS IN THIS PROCEEDING?**

11 **A.** As discussed later in my testimony, it is highly improbable that utility companies  
12 would trade at a premium to the market in perpetuity, yet that is what the Constant  
13 Growth Discounted Cash Flow model results assume. As a consequence, the  
14 mean Constant Growth DCF results are well below any reasonable estimate of the  
15 Company's Cost of Equity.

16  
17 To put the model's results in perspective, from January 1, 2014 through October  
18 31, 2016, the average authorized ROE for vertically-integrated electric utilities<sup>23</sup>  
19 was 9.82 percent,<sup>24</sup> 70 basis points above the mean Constant Growth DCF  
20 estimate.<sup>25</sup> From that perspective, it appears that regulatory commissions have not  
21 relied entirely on the Constant Growth DCF approach. That perspective also is

---

<sup>23</sup> That is, electric utilities that provide generation and distribution functions.

<sup>24</sup> PNM Exhibit RBH-9

<sup>25</sup> Based on 360-day averaging period with the full-year growth adjustment to the dividend yield. *See*, PNM Exhibit RBH-2.

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1 consistent with guiding case law from the United States Supreme Court and the  
2 New Mexico Supreme Court that it is the reasonableness of the result, rather than  
3 the method employed, that controls in arriving at ROE determinations. In light of  
4 that data, I believe that it is appropriate to consider the additional methods noted  
5 above, and give less weight to the Constant Growth DCF model results. To the  
6 extent weight is given to the DCF estimates, the full range of results, in particular  
7 the mean high and Multi-Stage estimates, also should be considered.

8  
9 Lastly, in assessing the full range of my analytical results, I considered several  
10 specific factors as they relate to the Company's Cost of Equity, including: (1) the  
11 effect of PNM's substantial capital expenditure plan; (2) PNM's small size  
12 relative to its peers; (3) the regulatory environment in which PNM operates; and  
13 (4) the effect of its rate mechanisms, if any. Although my ROE recommendation  
14 does not include an explicit adjustment for those factors, I did consider them,  
15 together with other aspects of PNM's risk profile, when determining where the  
16 Company's ROE falls within the range of reasonable estimates.

17  
18 **Q. HOW IS THE REMAINDER OF YOUR DIRECT TESTIMONY**  
19 **ORGANIZED?**

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

- 21 • Section III – Highlights the current capital market conditions and their  
22 effect on the Company's Cost of Equity;

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- 1           • Section IV – Explains the determination of the ROE, and provides my  
2           analytical results;
- 3           • Section V – Provides a discussion of specific business risks and other  
4           considerations that have a direct bearing on the Company's Cost of  
5           Equity;
- 6           • Section VI – Provides my analyses of the Company's capital structure;  
7           and
- 8           • Section VII – Summarizes my conclusions and recommendations.

**III. CAPITAL MARKET ENVIRONMENT**

11   **Q. DO ECONOMIC CONDITIONS INFLUENCE THE REQUIRED COST OF**  
12   **CAPITAL AND REQUIRED RETURN ON COMMON EQUITY?**

13   **A.** Yes. As discussed in Section IV, the models used to estimate the Cost of Equity  
14   are meant to reflect, and therefore are influenced by, current and expected capital  
15   market conditions. As such, it is important to assess the reasonableness of any  
16   financial model's results in the context of observable market data. To the extent  
17   that certain ROE estimates are incompatible with such data or inconsistent with  
18   basic financial principles, it is appropriate to consider whether alternative  
19   estimation techniques are likely to provide more meaningful and reliable results.



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1   **Q.   DO YOU HAVE ANY GENERAL OBSERVATIONS REGARDING THE**  
2       **RELATIONSHIP BETWEEN CURRENT CAPITAL MARKET**  
3       **CONDITIONS AND THE COMPANY’S COST OF EQUITY?**

4   **A.**   Yes, I do. Much has been reported about the Federal Reserve’s market  
5       intervention since 2007, and its effect on interest rates. Although the Federal  
6       Reserve completed its Quantitative Easing initiative in October 2014, it was not  
7       until December 2015 that it raised the Federal Funds rate, and began the process  
8       of rate normalization.<sup>26</sup> A significant issue, then, is how investors will react as  
9       that process continues, and eventually is completed. A viable outcome is that  
10      investors will perceive greater chances for economic growth, which will increase  
11      the growth rates included in the Constant Growth DCF model. At the same time,  
12      higher growth and the absence of Federal market intervention could provide the  
13      opportunity for interest rates to increase, thereby increasing the dividend yield  
14      portion of the DCF model. In that case, both terms of the Constant Growth DCF  
15      model would increase, producing increased ROE estimates.

16

17      At this time, market data is becoming increasingly disjointed, with relatively low  
18      Treasury yields, and increasing equity market volatility and more volatile credit  
19      spreads. As a consequence, it is difficult to rely on a single model to estimate the  
20      Company’s Cost of Equity. A more reasoned approach is to understand the  
21      relationships among Federal Reserve policies, interest rates, and measures of  
22      market risk, and to assess how those factors may affect different models and their

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<sup>26</sup>       *Federal Reserve Press Release* dated December 16, 2015.

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1 results. As discussed throughout my Direct Testimony, the current market is one  
2 in which it is very important to consider a broad range of data and models when  
3 determining the Cost of Equity.

4  
5 **Q. PLEASE SUMMARIZE THE EFFECT OF RECENT FEDERAL**  
6 **RESERVE POLICIES ON INTEREST RATES AND THE COST OF**  
7 **CAPITAL.**

8 **A.** Beginning in 2008, the Federal Reserve proceeded on a steady path of initiatives  
9 intended to lower short-term and long-term Treasury yields.<sup>27</sup> The Federal  
10 Reserve's policy actions "were designed to put downward pressure on longer-  
11 term interest rates by having the Federal Reserve take onto its balance sheet some  
12 of the duration and prepayment risks that would otherwise have been borne by  
13 private investors."<sup>28</sup> Under that policy, "Securities Held Outright" on the Federal  
14 Reserve's balance sheet increased from approximately \$489 billion at the  
15 beginning of October 2008 to approximately \$4.23 trillion by the end of October  
16 2016.<sup>29</sup> To put that increase in context, the securities held by the Federal Reserve  
17 represented approximately 3.29 percent of GDP at the end of September 2008,  
18 and had risen to approximately 23.00 percent of GDP by the end of October  
19 2016.<sup>30</sup> As such, the Federal Reserve policy actions have represented a

---

<sup>27</sup> See Federal Reserve Press Release (June 19, 2013).

<sup>28</sup> Federal Reserve Bank of New York, Domestic Open Market Operations During 2012, p. 29 (Apr. 2013).

<sup>29</sup> Source: Federal Reserve Board Schedule H.4.1. "Securities held outright" include U.S. Treasury securities, Federal agency debt securities, and mortgage-backed securities.

<sup>30</sup> Source: Federal Reserve Board Schedule H.4.1; Bureau of Economic Analysis. 2016 GDP data as of the third calendar quarter.

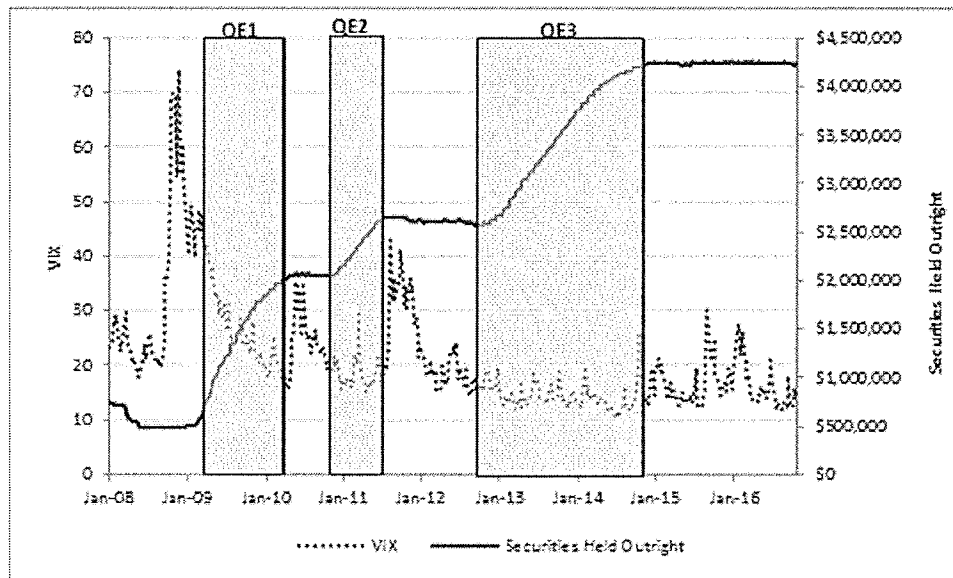
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1       significant source of liquidity, and have had a substantial effect on capital  
2       markets.

3  
4       Just as market intervention by the Federal Reserve has reduced interest rates, it  
5       also had the effect of reducing market volatility. As shown in Chart RBH-3  
6       (below), each time the Federal Reserve began to purchase bonds (as evidenced by  
7       the increase in “Securities Held Outright” on its balance sheet), volatility  
8       subsequently declined. In fact, in September 2012, when the Federal Reserve  
9       began to purchase long-term securities at a pace of \$85 billion per month,  
10      volatility (as measured by the CBOE Volatility Index, known as the “VIX”) fell,  
11      and through October 2014 remained in a relatively narrow range. The reason is  
12      quite straight-forward: Investors became confident that the Federal Reserve would  
13      intervene if markets were to become unstable.

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1                   **Chart RBH-3: VIX and Federal Reserve Asset Purchases<sup>31</sup>**



2                   The important analytical issue is whether we can infer that risk aversion among  
3                   investors is at a historically low level, implying a Cost of Equity that is well  
4                   below recently authorized returns. Given the negative correlation between the  
5                   expansion of the Federal Reserve's balance sheet and the VIX, it is difficult to  
6                   conclude that fundamental risk aversion and investor return requirements have  
7                   fallen. If it were the case that investors believe that volatility will remain at low  
8                   levels (that is, that market risk and uncertainty will remain low), it is not clear  
9                   why they would decrease their return requirements for defensive sectors such as  
10                  utilities. In that respect, it appears that the Constant Growth DCF results are at  
11                  odds with market conditions.

<sup>31</sup> Source: Federal Reserve Economic Data (FRED), Federal Reserve Bank of St. Louis; Federal Reserve Statistical Release H.4.1, Factors Affecting Reserve Balances.

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1   **Q.   HAS THE FEDERAL RESERVE’S QUANTITATIVE EASING POLICY**  
2       **BEEN ASSOCIATED WITH CHANGES IN THE PROXY COMPANIES’**  
3       **TRADING LEVELS?**

4   **A.**   Yes, that appears to be the case. From January 2000 through the end of August  
5       2012 (that is, immediately prior to the third round of Quantitative Easing), the  
6       proxy group’s average P/E ratio traded at a nearly 14.00 percent discount to the  
7       market. From September 2012 through May 2013, when the Federal Reserve  
8       announced it would begin to taper its asset purchases, the proxy group traded at a  
9       20.00 percent premium to the market. In fact, between September 2012 and  
10      October 31, 2016, the proxy group P/E ratio traded at a 5.00 percent premium to  
11      the market.

12  
13      The Federal Reserve’s monetary policy actions, including maintaining an  
14      expanded balance sheet and keeping the Federal Funds rate low, have affected  
15      capital markets and led to utility valuations that are elevated relative to historical  
16      levels, and to the overall market. With Federal Reserve monetary policy now  
17      uncertain, the sustainability of current utility valuation levels is likewise  
18      uncertain.

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1   **Q.    HAVE THERE BEEN OTHER RECENT PERIODS WHEN UTILITY**  
2       **VALUATION LEVELS WERE HIGH RELATIVE TO BOTH THEIR**  
3       **LONG-TERM AVERAGE AND THE MARKET?**

4   **A.**    Yes. In early 2015, the utility sector (as measured by the S&P Electric Utility  
5       Index) traded at a P/E ratio of approximately 18.00. During the same period, the  
6       overall market (as measured by the S&P 500) traded at a P/E of approximately  
7       18.00. Those levels were quite similar to the current market. In late January  
8       2015, the utility sector's P/E ratio began to lose value compared with the market  
9       P/E, and by June 2015 it was trading at a P/E ratio below the market. The point  
10      simply is that as investors see an increasing likelihood of higher interest rates,  
11      they move out of sectors that provided relatively high current yields. As they do,  
12      valuations and P/E ratios fall. As discussed elsewhere in my Direct Testimony,  
13      that degree of instability in P/E ratios are incompatible with the assumptions  
14      underlying the Constant Growth DCF model, rendering estimates from that model  
15      highly questionable.

16

17   **Q.    DOES YOUR RECOMMENDATION ALSO CONSIDER THE INTEREST**  
18       **RATE ENVIRONMENT?**

19   **A.**    Yes, it does. The low interest rate environment associated with central bank  
20       intervention may lead some analysts to conclude that current capital costs,  
21       including the Cost of Equity, are low and will remain as such. Putting aside the  
22       increases in volatility discussed above, that conclusion only holds true under the  
23       hypothesis of Perfectly Competitive Capital Markets ("PCCM") and the classical

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1 valuation framework which, under normal economic and capital market  
2 conditions, underpin the traditional Cost of Equity models. PCCMs are those in  
3 which no single trader, or “market-mover”, would have the power to change the  
4 prices of goods or services, including bond and common stock securities.<sup>32</sup> In  
5 other words, under the PCCM hypothesis, no single trader would have a  
6 significant effect on market prices.

7  
8 Classic valuation theory assumes that investors trade securities rationally, with  
9 prices reflecting their perceptions of value.<sup>33</sup> Although central banks have the  
10 ability to set benchmark interest rates, they have been maintaining below-normal  
11 rates to stimulate continued economic and capital market recovery. It therefore is  
12 reasonable to conclude that the Federal Reserve and other central banks have been  
13 acting as market-movers, thereby having a significant effect on the market prices  
14 of both bonds and stocks. The presence of market-movers, such as the Federal  
15 Reserve, runs counter to the PCCM hypothesis, which underlies traditional Cost  
16 of Equity models. Consequently, the results of those models should be considered  
17 in the context of both quantitative and qualitative information.

---

<sup>32</sup> See Myron J. Gordon, *The Cost of Capital to a Public Utility*, 1974, at 15. See also <http://www.nasdaq.com/investing/glossary/p/perfectly-competitive-financial-markets>.

<sup>33</sup> I.e., the traditional efficient markets formulation. See Stowe et al., *Equity Asset Valuation*, 2007, at 18.

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1   **Q.   ARE INTEREST RATES EXPECTED TO INCREASE GOING**  
2       **FORWARD?**

3   **A.**   Yes, they are. For example, the approximately 50 economists surveyed by Blue  
4       Chip Financial Forecast see the 30-year Treasury yield as increasing to 3.90  
5       percent by 2018,<sup>34</sup> consistent with the Company's future test year. Those  
6       projections are supported by the fact that investors currently are willing to pay  
7       about twice the premium for the option to sell long-term Government bonds in  
8       January 2018 (with an exercise price equal to the current price) than they are  
9       willing to pay for the option to buy those bonds.<sup>35</sup> Because the prices of bonds  
10      move inversely to interest rates,<sup>36</sup> those option prices indicate that investors  
11      believe it is considerably more likely that interest rates will increase over the  
12      coming year, than it is likely that they will decrease.

13  
14   **Q.   HAVE CREDIT SPREADS CHANGED RECENTLY?**

15   **A.**   Yes, they have. Because credit spreads, which represent the difference between  
16      the yields on debt and Treasury yields, can be directly observed, we can review  
17      the change in spreads over time and relative to other market sectors. Although  
18      credit spreads are not a full measure of equity risk, they reasonably can be seen to  
19      reflect, to some extent, investors' assessment of risk at a given point in time. As  
20      Chart RBH-4 below indicates, current credit spreads (for A-rated utilities) are  
21      near their highest level since the financial crisis during 2008 and 2009.

---

<sup>34</sup> See Blue Chip Financial Forecast, Vol. 35 No. 6, June 1, 2016, at 14.

<sup>35</sup> Source: <http://www.nasdaq.com/symbol/tlt/option-chain?dateindex=7>.

<sup>36</sup> That is, as interest rates move up (down), bond prices move down (up).



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**Chart RBH-4: A-Rated Utility Credit Spreads<sup>37</sup>**



Even considering the 2008 – 2009 market dislocation, the current utility credit spread (on a spot basis) is in the top 56th percentile of spreads since January 2006; the thirty-day average is in the top 60th percentile. Looking to the period subsequent to the financial crisis, the 30-day average credit spread is in the top 71<sup>st</sup> percentile. Taken from that perspective, it is apparent that investors currently see the utility sector as relatively risky, and require higher returns as compensation for that risk.

As to the relationship between the level of Treasury yields and credit spreads, the level of explanatory value is essentially zero; Treasury yields explain virtually none of the change in credit spreads. Equity market volatility (as measured by the VIX), on the other hand, explains about 61.00 percent of the change in credit

<sup>37</sup>

Source: Bloomberg Professional.

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1       spreads. That is, investors are concerned with market uncertainty, and require  
2       higher returns as uncertainty increases.

3  
4   **Q.   HAVE YOU ALSO REVIEWED THE RELATIONSHIP BETWEEN**  
5       **CREDIT SPREADS FOR A-RATED UTILITY DEBT RELATIVE TO A-**  
6       **RATED CORPORATE DEBT?**

7   **A.**   Yes, I have. Given the historical volatility in the spread between corporate and  
8       utility A-rated debt, there is no reason to conclude that utility yields are different  
9       than those of their corporate counterparts. That conclusion is consistent with the  
10      finding that over time, there has been a nearly one-to-one relationship between  
11      credit spreads on A-rated corporate and utility bonds. In fact, a regression  
12      analysis in which corporate credit spreads are the explanatory variable and utility  
13      credit spreads are the dependent variable shows that slope is approximately 1.00  
14      and highly significant (see Chart RBH-5, below). Because the intercept term is  
15      statistically insignificant, we can conclude that there has been no material  
16      difference between the two, and there certainly is no meaningful difference in the  
17      current market.

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1                   **Chart RBH-5: Corporate and Utility Credit Spreads (A-Rated)**<sup>38</sup>



2    **Q.     WHAT DO YOU CONCLUDE FROM THOSE ANALYSES?**

3    **A.**    First, it is clear that A-rated utility credit spreads are at historically elevated  
4           levels, and that they are strongly related to equity market volatility. Second, the  
5           utility credit spreads are not measurably different than their corporate  
6           counterparts. Those two observations suggest that investors see utility risk as  
7           stable, if not somewhat high relative to recent levels. Because those measures  
8           suggest increased risk, it is reasonable to conclude that recently high utility stock  
9           valuations are related to a “reach for yield”, as opposed to a reduction in  
10          perceived equity risk.

<sup>38</sup>       Source: Bloomberg Professional. Please note that for a univariate regression, the correlation coefficient equals the square root of the R-square. In this case, the square root of 0.9915 is approximately 0.996 (99.60 percent).

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**Q. WHAT CONCLUSIONS DO YOU DRAW FROM THOSE ANALYSES,  
AND HOW DO THOSE CONCLUSIONS AFFECT YOUR ROE  
RECOMMENDATION?**

**A.** In my view, we cannot conclude that the recent levels of utility valuations are due to a fundamental change in the risk perceptions of utility investors. Utility credit spreads are at historically elevated levels, and there is no measurable difference between credit spreads of A-rated utility debt, and A-rated corporate debt. Based on those two observations, we can conclude that investors do not consider utilities to be less risky than historical levels, nor are they requiring lower returns for utilities relative to similarly rated corporate bonds. Rather, it is my view that the valuation levels are related to the “reach for yield” that sometimes occurs during periods of low Treasury yields.

From an analytical perspective, it is important that the inputs and assumptions used to arrive at an ROE determination, including assessments of capital market conditions, are consistent with the conclusion itself. Although I appreciate that all analyses require an element of judgment, the application of that judgment must be made in the context of the quantitative and qualitative information available to the analyst and the capital market environment in which the analyses were undertaken. Because the application of financial models and interpretation of their results often is the subject of differences among analysts in regulatory proceedings, I believe that it is important to review and consider a variety of data

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1 points; doing so enables us to put in context both quantitative analyses and the  
2 associated recommendations.

3  
4 Because not all models used to estimate the Cost of Equity adequately reflect  
5 those changing market dynamics, it is important to give appropriate weight to the  
6 methods and to their results. Moreover, because those models produce a range of  
7 results, it is important to consider the type of data discussed above in determining  
8 where the Company's ROE falls within that range. On balance, I continue to  
9 believe that Constant Growth DCF-based results should be viewed very carefully,  
10 and that somewhat more weight should be afforded the Risk Premium-based  
11 methods. I believe that doing so supports my recommended range of 9.80 percent  
12 to 10.75 percent, and my ROE recommendation of 10.125 percent.

13  
14 **IV. DETERMINATION OF THE APPROPRIATE COST OF EQUITY**

15 **Q. PLEASE PROVIDE AN OVERVIEW OF THE ISSUES SURROUNDING**  
16 **THE COST OF EQUITY IN REGULATORY PROCEEDINGS,**  
17 **GENERALLY.**

18 **A.** The Cost of Capital (including the costs of both debt and equity) is based on the  
19 economic principle of "opportunity costs." Investing in any asset, whether debt or  
20 equity securities, implies a forgone opportunity to invest in alternative assets. For  
21 any investment to be sensible, its expected return must be at least equal to the  
22 return expected on alternative, comparable investment opportunities. Because

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1 investments with like risks should offer similar returns, the opportunity cost of an  
2 investment should equal the return available on an investment of comparable risk.

3  
4 The “Cost of Debt” and the “Cost of Equity” often are analyzed separately;  
5 together, they are referred to as the “Cost of Capital” or the overall “Rate of  
6 Return”. From the firm’s perspective, the required return, whether to debt or  
7 equity investors, has a cost. Although both debt and equity have required costs,  
8 they differ in certain fundamental ways. Most noticeably, the Cost of Debt is  
9 contractually defined, and can be directly observed as the interest rate or yield on  
10 debt securities.<sup>39</sup> The Cost of Equity, on the other hand, is neither observable nor  
11 a contractual obligation. Rather, equity investors have a claim on cash flows only  
12 after debt holders are paid; the uncertainty (or risk) associated with those residual  
13 cash flows determines the Cost of Equity. Because equity investors bear the  
14 “residual risk,” they take greater risks and require higher returns than debt holders  
15 require. In that basic sense, equity and debt investors differ: they invest in  
16 different securities, face different risks, and require different returns.

17  
18 The Cost of Equity is the return that investors require to take on the risks  
19 associated with equity investment. That is, investors will only provide equity to a  
20 firm if the return that they expect is equal to, or greater than, the return that they  
21 require. Whereas the Cost of Debt can be directly observed, the Cost of Equity  
22 must be estimated based on market data and various financial models. Because

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<sup>39</sup> The observed interest rate may be adjusted to reflect issuance or other directly observable costs.

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1 the Cost of Equity is premised on opportunity costs, those models typically are  
2 applied to a group of “comparable”, or “proxy”, companies. The choice of  
3 models (including their inputs), the selection of proxy companies, and the  
4 interpretation of model results all require the application of reasoned judgment.  
5 That judgment should consider data and information that is not necessarily  
6 included in the models themselves. In the end, the estimated Cost of Equity  
7 should reflect the return that investors require in light of the subject company’s  
8 risks, and the returns available on comparable investments.

9  
10 **Q. HOW IS THE COST OF EQUITY ESTIMATED IN REGULATORY**  
11 **PROCEEDINGS?**

12 **A.** As discussed in more detail throughout my Direct Testimony, the Cost of Equity  
13 is estimated by the use of various financial models. By their very nature, those  
14 models produce a range of results from which the ROE must be estimated. That  
15 estimate, which should be based on a comprehensive review of relevant data and  
16 information, does not necessarily lend itself to a strict mathematical solution. The  
17 key consideration in determining the ROE is to ensure that the overall analysis  
18 reasonably reflects investors’ view of the financial markets in general and the  
19 subject company (in the context of the proxy companies) in particular.

20  
21 Practitioners and academics recognize that financial models simply are tools to be  
22 used in the ROE estimation process, and that strict adherence to any single  
23 approach, or to the specific results of any single approach, can lead to flawed or

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misleading conclusions. That recognition is consistent with the *Hope* and *Bluefield* principle that it is the analytical result, as opposed to the methodology employed, that is controlling in arriving at ROE determinations. A reasonable ROE estimate therefore appropriately considers alternative methodologies, and the reasonableness of their individual and collective results in the context of observable, relevant market information.

**A. Regulatory Guidelines and Financial Considerations**

**Q. PLEASE PROVIDE A BRIEF SUMMARY OF THE REGULATORY GUIDELINES ESTABLISHED FOR THE PURPOSE OF DETERMINING THE ROE.**

**A.** The U.S. Supreme Court established the guiding principles for establishing a fair return for capital in two cases: (1) *Bluefield Water Works and Improvement Co. v. Public Service Comm'n* ("*Bluefield*");<sup>40</sup> and (2) *Federal Power Comm'n v. Hope Natural Gas Co.* ("*Hope*").<sup>41</sup> In *Bluefield*, the Court stated:

A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding, risks and uncertainties; but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and

---

<sup>40</sup> *Bluefield Waterworks & Improvement Co. v. Public Service Commission of West Virginia*, 262 U.S. 679, 692-93 (1923).

<sup>41</sup> *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591, 603 (1944).



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1 support its credit and enable it to raise the money necessary for  
2 the proper discharge of its public duties.<sup>42</sup>

3 The Court therefore recognized that: (1) a regulated company cannot remain  
4 financially sound unless the return it is allowed to earn on its invested capital is at  
5 least equal to the cost of capital (the principle relating to the demand for capital);  
6 and (2) a regulated company will not be able to attract capital if it does not offer  
7 investors an opportunity to earn a return on their investment equal to the return  
8 they expect to earn on other investments of the same risk (the principle relating to  
9 the supply of capital).

10  
11 The allowed ROE therefore should enable PNM to finance capital expenditures  
12 on favorable terms and optimize its financial flexibility over the period during  
13 which rates are expected to remain in effect.

14  
15 **Q. DOES NEW MEXICO PRECEDENT PROVIDE SIMILAR GUIDANCE?**

16 **A.** Yes. The New Mexico Supreme Court has long followed the *Hope* and *Bluefield*  
17 principle that utility investors are entitled to a fair and reasonable return:

18 From the investor or company point of view it is important that  
19 there be enough revenue not only for operating expenses but also  
20 for the capital costs of the business. These include service on the  
21 debt and dividends on the stock. By that standard the return to the  
22 equity owner should be commensurate with returns on  
23 investments in other enterprises having corresponding risks. That  
24 return, moreover, should be sufficient to assure confidence in the

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<sup>42</sup> *Bluefield Waterworks & Improvement Co. v. Public Service Commission of West Virginia*, 262 U.S. 679, 692-93 (1923).

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1 financial integrity of the enterprise, so as to maintain its credit and  
2 to attract capital.<sup>43</sup>

3  
4 **Q. WHY IS IT IMPORTANT FOR A UTILITY TO BE ALLOWED THE**  
5 **OPPORTUNITY TO EARN A RETURN THAT IS ADEQUATE TO**  
6 **ATTRACT CAPITAL ON FAVORABLE TERMS?**

7 **A.** A return that is adequate to attract capital at reasonable terms enables the utility to  
8 provide service while maintaining its financial integrity. As discussed below, and  
9 in keeping with the *Hope* and *Bluefield* standards, that return should be  
10 commensurate with the returns expected elsewhere in the market for investments  
11 of equivalent risk. The consequence of the Commission's order in this case,  
12 therefore, should be to provide PNM with the opportunity to earn a return on  
13 equity that is: (1) adequate to attract capital at reasonable terms; (2) sufficient to  
14 ensure its financial integrity; and (3) commensurate with returns on investments  
15 in enterprises having corresponding risks. To the extent the Company is provided  
16 a reasonable opportunity to earn its market-based Cost of Equity, neither  
17 customers nor shareholders should be disadvantaged.

18  

---

<sup>43</sup> *State v. Mountain States Tel. & Tel. Co.*, 54 N.M. 315, 336, 224 P.2d 155, 169 (1950); see also *PNM Gas Servs. v. New Mexico Public Util. Comm'n*, 129 N.M. 1, 15, 1 P.3d 383, 397 (2000) (quoting *Hope* and citing to *Mountain States* to support the proposition that utilities must be allowed to recover costs and achieve a fair return); *Mountain States Tel. & Tel. Co. v. New Mexico State Corp. Comm'n*, 102 N.M. 409, 410-11, 696 P.2d 1002, 1003-04 (1985) (relying on the *Bluefield* principle that a utility return "should be reasonably sufficient to assure confidence in the public utility company's financial soundness, adequate to support and maintain its credit, and enable it to raise funds necessary to discharge its public duties").

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**B.     *Proxy Group Selection***

**Q.     AS A PRELIMINARY MATTER, WHY IS IT NECESSARY TO SELECT  
A GROUP OF PROXY COMPANIES TO DETERMINE THE COST OF  
EQUITY FOR PNM?**

**A.**     Because the Cost of Equity is a market-based concept, and PNM is not a publicly traded entity, it is necessary to establish a group of comparable, publicly traded companies to serve as its “proxy.”<sup>44</sup> Even if the Company were publicly traded, short-term events could bias its market value during a given period of time. A significant benefit of using a proxy group is that it moderates the effects of anomalous, temporary events associated with any one company.

Although the proxy group selection process is designed to mitigate the effects of anomalous company-specific events, it cannot mitigate the effects of anomalous market conditions. Rather, because the proxy group will contain companies of comparable risk profiles, it is quite likely that they would be similarly affected by market events that deviate from historical or expected conditions. As discussed in Section III, that recently has been the case.

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<sup>44</sup> PNM’s parent company PNM Resources, Inc. (“PNMR”) is listed on the New York Stock Exchange and is publicly traded.

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1   **Q.    DOES THE SELECTION OF A PROXY GROUP SUGGEST THAT**  
2           **ANALYTICAL RESULTS WILL BE TIGHTLY CLUSTERED AROUND**  
3           **AVERAGE (I.E., MEAN) RESULTS?**

4   **A.**   No. For example, the Constant Growth DCF approach defines the Cost of Equity  
5           as the sum of the expected dividend yield and projected long-term growth.  
6           Despite the care taken to ensure risk comparability, market expectations with  
7           respect to future risks and growth opportunities will vary from company to  
8           company. Therefore, even within a group of similarly-situated companies, it is  
9           common for analytical results to reflect a seemingly wide range. Consequently, at  
10          issue is how to estimate the Cost of Equity from within that range. Such a  
11          determination necessarily must consider a wide range of both quantitative and  
12          qualitative information.

13  
14   **Q.    PLEASE PROVIDE A SUMMARY PROFILE OF PNM.**

15   **A.**   PNM, which is a wholly owned subsidiary of PNMR, provides electric service to  
16          approximately 517,000 customers in New Mexico.<sup>45</sup> PNM's electric revenue  
17          accounted for approximately 78.60 percent of PNMR's total revenue in 2015.<sup>46</sup>  
18          PNM's current long-term issuer credit rating issued by Standard and Poor's  
19          ("S&P") is BBB+ (outlook: stable); Moody's Investor Services ("Moody's") rates  
20          PNM Baa3 (outlook: stable).<sup>47</sup> These are investment grade ratings.

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<sup>45</sup> See, PNMR, SEC Form 10-K, For the Fiscal Year December 31, 2015, at A29.

<sup>46</sup> *Ibid.*, at A-25 to A-26.

<sup>47</sup> Source: SNL Financial.

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**Q. WHICH COMPANIES ARE INCLUDED IN YOUR PROXY GROUP?**

**A.** Table RBH-3 (below) identifies the 19 companies included in the proxy group.<sup>48</sup>

**Table RBH-3: Proxy Group Screening Results**

<b>Company</b>	<b>Ticker</b>
ALLETE, Inc.	ALE
Alliant Energy Corporation	LNT
Ameren Corporation	AEE
American Electric Power Company, Inc.	AEP
Avista Corporation	AVA
CenterPoint Energy, Inc.	CNP
CMS Energy Corporation	CMS
DTE Energy Company	DTE
El Paso Electric Company	EE
Eversource Energy	ES
IDACORP, Inc.	IDA
NorthWestern Corporation	NWE
OGE Energy Corp.	OGE
Otter Tail Corporation	OTTR
Pinnacle West Capital Corporation	PNW
Portland General Electric Company	POR
SCANA Corporation	SCG
Wisconsin Energy Corporation	WEC
Xcel Energy Inc.	XEL

**C. Cost of Equity Estimation**

**Q. PLEASE BRIEFLY DISCUSS THE ROE IN THE CONTEXT OF THE  
REGULATED RATE OF RETURN.**

**A.** Regulated utilities primarily use common stock and long-term debt to finance their permanent property, plant, and equipment. The rate of return (“ROR”) for a regulated utility is based on its weighted average cost of capital, in which the costs of the individual sources of capital are weighted by their respective book

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<sup>48</sup> My proxy group selection criteria are described in more detail in Appendix A.

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1 values. As noted below, the Cost of Equity is market-based and, therefore, must  
2 be estimated based on observable market information.

3  
4 **Q. HOW IS THE REQUIRED ROE DETERMINED?**

5 **A.** As discussed above, the required ROE is estimated by using one or more  
6 analytical techniques that rely on market-based data to quantify investor  
7 expectations regarding required equity returns, adjusted for certain incremental  
8 costs and risks. By their very nature, quantitative models produce a range of  
9 results from which the market required ROE must be selected. The key  
10 consideration in determining the Cost of Equity is to ensure that the  
11 methodologies employed reasonably reflect investors' view of the financial  
12 markets in general, and the subject company (in the context of the proxy group) in  
13 particular.

14  
15 In my view, it is both prudent and reasonable to use multiple methodologies in  
16 order to mitigate the effects of assumptions and inputs associated with relying  
17 exclusively on any single approach. Such use, however, must be tempered with  
18 due caution as to the results generated by each individual approach. As such, I  
19 have considered the results of the Constant Growth and Multi-Stage forms of the  
20 DCF model, the CAPM, and the Risk Premium approach, each of which is  
21 detailed more fully in Appendix A.

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1   **Q.   PLEASE BRIEFLY DESCRIBE THE CONSTANT GROWTH DCF**  
2       **MODEL.**

3   **A.**   The Constant Growth DCF approach defines the Cost of Equity as the sum of (1)  
4       the expected dividend yield, and (2) expected long-term growth. The expected  
5       dividend yield generally equals the expected annual dividend divided by the  
6       current stock price, and the growth rate is based on analysts' expectations of  
7       earnings growth.

8  
9   **Q.   WHAT ASSUMPTIONS ARE INHERENT IN THE CONSTANT**  
10       **GROWTH DCF MODEL?**

11   **A.**   The Constant Growth DCF model assumes: (1) a constant average annual growth  
12       rate for earnings and dividends; (2) a stable dividend payout ratio; (3) a constant  
13       Price to Earnings multiple; and (4) a discount rate greater than the expected  
14       growth rate. Those assumptions, and their implications for the model's results,  
15       should be considered in the context of prevailing and expected market conditions.

16  
17       Under the model's strict assumptions, the growth rate equals the rate of capital  
18       appreciation (that is, the growth in the stock price).<sup>49</sup> In that regard, it does not  
19       matter whether investors hold the stock in perpetuity, or whether they hold the  
20       stock for some finite period of time, collect the dividends, then sell at the

---

<sup>49</sup> As discussed in Appendix A, the model assumes that earnings, dividends, book value, and the stock price all grow at the same constant rate in perpetuity.

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prevailing market price. Under the model's assumptions, the result is the same regardless of the holding period.

**Q. PLEASE BRIEFLY DESCRIBE THE MULTI-STAGE DCF MODEL.**

**A.** The Multi-Stage DCF model, which is an extension of the Constant Growth DCF model, enables the analyst to specify growth rates over multiple "stages". That is, whereas the Constant Growth DCF model assumes one growth rate in perpetuity, the Multi-Stage DCF model assumes varying growth rates over multiple stages. The stages specified in my Multi-Stage DCF model are described below:

**Table RBH-4: Multi-Stage DCF Growth Rates**

Stage	Years	Growth Rate
Stage 1	Years 1 through 5	Near-Term Growth Rate
Stage 2	Years 6 through 10	Interim Growth Rate
Stage 3	Year 11 and beyond in perpetuity	Long-Term Growth Rate

In the Multi-Stage DCF model I have used in this proceeding, the Cost of Equity equals the discount rate that sets the present value of expected cash flows equal to the current stock price. The model defines "cash flows" as dividends received by the investor, and the price at which the stock is eventually sold. Because the amount of earnings paid out in dividends can change over time (for example, it may fall when companies are undergoing large capital investment programs), the Multi-Stage DCF model is more flexible than the Constant Growth DCF model.

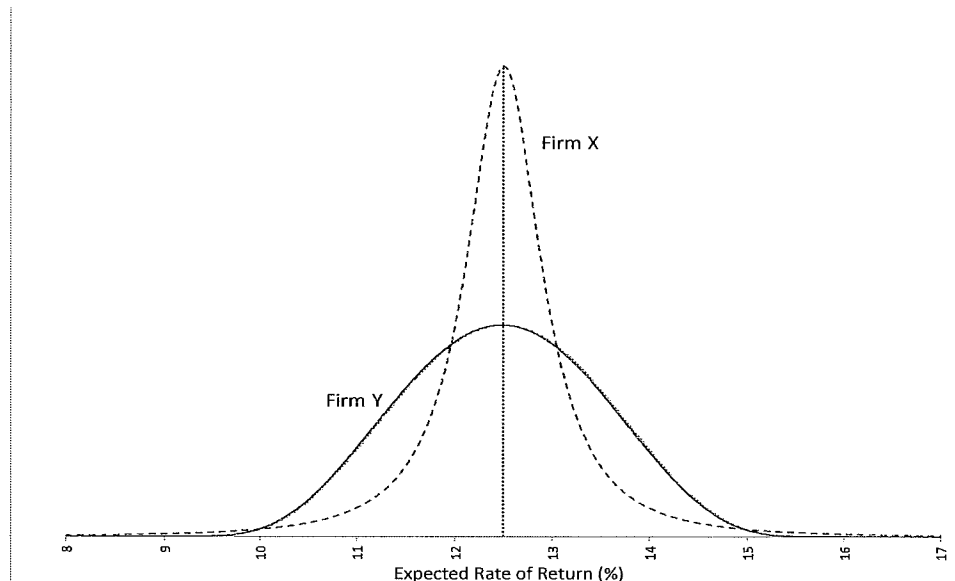


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**Q. PLEASE BRIEFLY DESCRIBE THE CAPITAL ASSET PRICING MODEL.**

**A.** Whereas Discounted Cash Flow models focus on expected cash flows, Risk Premium-based models such as the CAPM focus on the additional return that investors require for taking on additional risk. In finance, “risk” generally refers to the variation in expected returns, rather than the expected return, itself. Consider two firms, X and Y, with expected returns, and the expected variation in returns noted in Chart RBH-6, below. Although the two have the same expected return (12.50 percent), Firm Y’s are far more variable. From that perspective, Firm Y would be considered the riskier investment.

**Chart RBH-6: Expected Return and Risk**

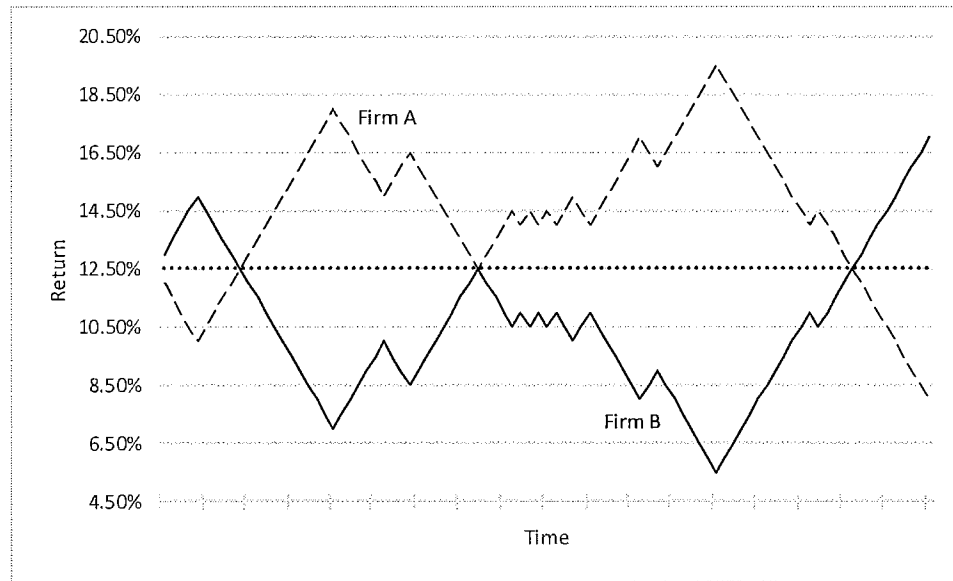


Now consider two other firms, Firm A and Firm B. Both have expected returns of 12.50 percent, and both are equally risky as measured by their volatility. But as

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Firm A's returns go up, Firm B's returns go down, as indicated in Chart RBH-7.  
That is, the returns are negatively correlated.

**Chart RBH-7: Relative Risk**



If we were to combine Firms A and B into a portfolio, we would expect a 12.50 percent return with no uncertainty because of the opposing symmetry of their risk profiles (that is, the two are perfectly *negatively* correlated). That is, we can diversify the risk away. As long as two stocks are not perfectly *positively* correlated, we can achieve diversification benefits by combining them into a portfolio. That is the essence of the Capital Asset Pricing Model: Because we can combine firms into a portfolio, the only risk that matters is the risk that remains after diversification, i.e., the “non-diversifiable” risk.

The CAPM defines the Cost of Equity as the sum of the “risk-free” rate, and a premium to reflect the additional non-diversifiable risk associated with equity

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1 investments. The “risk-free” rate is the yield on a security viewed as having no  
2 default risk, such as long-term Treasury bonds. The risk-free rate essentially sets  
3 the baseline of the CAPM. That is, an investor would expect a higher return than  
4 the risk-free rate to purchase an asset that carries risk. The difference between  
5 that higher return (*i.e.*, the required return) and the risk-free rate is the risk  
6 premium.

7 
$$\text{Risk-Free Rate} + \text{Risk Premium} = \text{Required Return} \quad \text{Equation [1]}$$

8 The risk premium is defined as a security’s Beta coefficient multiplied by the risk  
9 premium of the overall market (the “Market Risk Premium” or “MRP”). The  
10 Beta coefficient is a measure of the subject company’s risk relative to the overall  
11 market, *i.e.*, the “non-diversifiable” risk. A Beta coefficient of 1.00 means that  
12 the security is equally as risky as the overall market; a value below 1.00  
13 represents a security with less risk than the overall market, and a value over 1.00  
14 represents a security with more risk than the overall market.

15  
16 
$$\text{Risk-Free Rate} + (\text{Beta coefficient} \times \text{Market Risk Premium}) = \text{Required Return}$$

17 
$$\text{Equation [2]}$$

18  
19 **Q. PLEASE BRIEFLY DESCRIBE THE BOND YIELD PLUS RISK**  
20 **PREMIUM.**

21 **A.** This approach is based on the basic financial principle that equity investors bear  
22 the risk associated with ownership and therefore require a premium over the  
23 return they would have earned as a bondholder. That is, because returns to equity

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holders are riskier than returns to bondholders, equity investors must be compensated for bearing that additional risk (that difference often is referred to as the “Equity Risk Premium”). Risk premium approaches therefore estimate the Cost of Equity as the sum of the Equity Risk Premium and the yield on a particular class of bonds.

$$\text{Bond Yield} + \text{Equity Risk Premium} = \text{Required Return} \quad \text{Equation [3]}$$

At issue when applying this approach is whether the Equity Risk Premium is static or whether it changes over time and with market conditions. Prior research has shown that the Equity Risk Premium is inversely related to the level of interest rates;<sup>50</sup> that finding is particularly relevant given the historically low level of current Treasury yields.

**Q. WHAT ARE THE RESULTS OF YOUR DISCOUNTED CASH FLOW-BASED ANALYSES?**

**A.** The results of the models described above are provided in Table RBH-5, below.<sup>51</sup>

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<sup>50</sup> See, e.g., Robert S. Harris and Felicia C. Marston, *The Market Risk Premium: Expectational Estimates Using Analysts' Forecasts*, Journal of Applied Finance, Vol. 11, No. 1, 2001, at 11-12; Eugene F. Brigham, Dilip K. Shome, and Steve R. Vinson, *The Risk Premium Approach to Measuring a Utility's Cost of Equity*, Financial Management, Spring 1985, at 33-45; and Farris M. Maddox, Donna T. Pippert, and Rodney N. Sullivan, *An Empirical Study of Ex Ante Risk Premiums for the Electric Utility Industry*, Financial Management, Autumn 1995, at 89-95.

<sup>51</sup> See Appendix A for a more detailed description of the models, assumptions, and inputs described in Section IV.

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1

**Table RBH-5: Summary of DCF Results**

<b><i>CGDCF Half-Year Dividend Growth</i></b>	<b><i>Mean Low</i></b>	<b><i>Mean</i></b>	<b><i>Mean High</i></b>
30-Day Average	8.11%	8.73%	9.34%
90-Day Average	8.03%	8.65%	9.26%
180-Day Average	8.12%	8.74%	9.35%
360-Day Average	8.41%	9.03%	9.64%
<b><i>CGDCF Full-Year Dividend Growth</i></b>	<b><i>Mean Low</i></b>	<b><i>Mean</i></b>	<b><i>Mean High</i></b>
30-Day Average	8.19%	8.82%	9.44%
90-Day Average	8.10%	8.74%	9.35%
180-Day Average	8.20%	8.83%	9.45%
360-Day Average	8.50%	9.13%	9.75%
<b><i>Multi-Stage DCF - Terminal P/E</i></b>	<b><i>Mean Low</i></b>	<b><i>Mean</i></b>	<b><i>Mean High</i></b>
30-Day Average	9.02%	9.40%	9.77%
90-Day Average	8.80%	9.17%	9.54%
180-Day Average	9.05%	9.43%	9.79%
360-Day Average	9.81%	10.19%	10.56%

2

It is important to note that the Constant Growth DCF model is subject to several assumptions that are likely inconsistent with current market conditions. For example, the model assumes that the current payout ratio will remain constant in perpetuity, even though (on average, across the proxy companies) it has fallen below long-term levels. Further, the model assumes that the return estimated today will be the same return required in the future, even though the Federal Reserve only recently has begun its move toward monetary policy normalization. That process of normalization, together with the uncertainty surrounding the “unwinding” of the assets put on the Federal Reserve’s balance sheet during its “Quantitative Easing” initiatives introduce a degree of risk, and a likelihood of

11

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1 increasing interest rates not present in the current market. As also discussed in  
2 my testimony, other methods more directly reflect the risk premium required by  
3 investors in response to such risks. On balance, it is my view that the Constant  
4 Growth DCF method should be given less weight than other methods in  
5 establishing the Company's ROE.

6  
7 **Q. WITH THOSE POINTS IN MIND, HOW DID YOU REFLECT THE**  
8 **CONSTANT GROWTH DCF RESULTS IN YOUR ROE RANGE AND**  
9 **RECOMMENDATION?**

10 **A.** I first recognized that the model's mean and mean low results are well below a  
11 reasonable estimate of the Company's Cost of Equity. For example, of the 1,483  
12 electric utility rate cases provided by Regulatory Research Associates that  
13 disclosed the awarded ROE since 1980, only three included an authorized ROE  
14 below 9.00 percent.<sup>52</sup> On that basis alone, the mean and mean low results are  
15 highly improbable.

16  
17 I then considered why the Constant Growth model is producing such low  
18 estimates of the Company's Cost of Equity. In one sense, relatively low dividend  
19 yields should be associated with relatively high growth rates. That is, low  
20 dividend yields are the result of relatively high stock prices which, in turn, should  
21 be associated with relatively high growth rates. If those relationships do not hold,

---

<sup>52</sup> Two of those cases were Illinois formula rate plans that were subsequently increased to 9.14 percent. The third was the case of Maui Electric Company in which the Hawaii PUC ordered a 50 basis point reduction based on management performance.

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1       the model's results should be viewed with some caution. Further (and as noted  
2       above), the relatively low payout ratios recently observed are not likely to remain  
3       constant; as capital requirements fall in the future, it is quite likely that payout  
4       ratios would increase. Although the Constant Growth DCF model cannot  
5       accommodate changing payout ratios, the Multi-Stage model can.

6  
7       I also recognize that whereas the Constant Growth DCF model essentially  
8       assumes that existing capital market conditions will remain constant, Risk  
9       Premium-based methods (discussed later in this Section) directly reflect the  
10      changing capital market environment. Because it is important to reflect the  
11      results of different models, and the mean and mean low Constant Growth DCF  
12      results are far-removed from recently authorized returns, I concluded that they  
13      should be given less weight than other methods in determining the Company's  
14      ROE.

15  
16   **Q.   PLEASE NOW SUMMARIZE YOUR REMAINING ANALYTICAL**  
17   **RESULTS.**

18   **A.**   The Risk Premium-based results, including the CAPM and Bond Yield Plus Risk  
19   Premium methods, are provided below.

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**Table RBH-6: Summary of Risk Premium Results**

	<i><b>Bloomberg Derived Market Risk Premium</b></i>	<i><b>Value Line Derived Market Risk Premium</b></i>
<b><i>CAPM Results</i></b>		
<i>Average Bloomberg Beta Coefficient</i>		
Current 30-Year Treasury (2.45%)	9.04%	9.68%
Near Term Projected 30-Year Treasury (2.80%)	9.39%	10.03%
<i>Average Value Line Beta Coefficient</i>		
Current 30-Year Treasury (2.45%)	10.12%	10.87%
Near Term Projected 30-Year Treasury (2.80%)	10.47%	11.22%
<b><i>Bond Yield Plus Risk Premium Approach</i></b>		
Current 30-Year Treasury (2.45%)	10.03%	
Near Term Projected 30-Year Treasury (2.80%)	10.01%	
Long-Term Projected 30-Year Treasury (4.45%)	10.38%	

**V. BUSINESS RISKS AND OTHER CONSIDERATIONS**

**Q. DO THE MEAN DCF, CAPM, AND RISK PREMIUM RESULTS FOR THE PROXY GROUP PROVIDE AN APPROPRIATE ESTIMATE OF THE COST OF EQUITY FOR PNM?**

**A.** No, there are several additional factors that must be considered to develop a meaningful and reasonable recommendation. These factors are associated with the business risks faced by PNM.



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1   **Q.   WHAT ARE THE PRIMARY BUSINESS RISKS THAT PNM**  
2       **CURRENTLY FACES?**

3   **A.**   The principal business risks facing PNM are: (1) the effect of PNM's substantial  
4       capital expenditure plan; (2) PNM's small size relative to its peers; (3) the  
5       regulatory environment in which PNM operates; and (4) the effect of its rate  
6       mechanisms, if any.

7  
8       **A.     *Planned Capital Expenditures***

9   **Q.   PLEASE BRIEFLY SUMMARIZE THE COMPANY'S CAPITAL**  
10       **INVESTMENT PLANS.**

11   **A.**   In its October 2016 Investor Meeting presentation, the Company projects  
12       approximately \$1.20 billion in planned capital expenditures over the 2016 to 2019  
13       timeframe; those amounts relate to investments in the Company's generation and  
14       transmission and distribution assets.<sup>53</sup> PNM Witnesses Olson, Mechenbier, and  
15       Mendez's testimonies describe the Company's capital expenditure plans in more  
16       detail.<sup>54</sup> Because the Company will continue to make substantial investments in  
17       its utility operations, it will require efficient access to capital markets during the  
18       period that rates established in this proceeding will be in effect.

19

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<sup>53</sup> See, PNM Resources, Investor Meeting, October 6, 2016, at 7. Excludes capital investment projected for Texas New Mexico Power and Corporate.

<sup>54</sup> I note that the Company's testimony covers planned capital expenditures through the Test Period.

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1    **Q.    DO CREDIT RATING AGENCIES RECOGNIZE RISK ASSOCIATED**  
2           **WITH INCREASED CAPITAL EXPENDITURES?**

3    **A.**    Yes, they do. From the perspective of debt investors, the additional pressure on  
4           cash flows associated with high levels of capital expenditures exerts  
5           corresponding pressure on credit metrics and, therefore, credit ratings. S&P has  
6           noted that:

7                   The real challenge for the industry is the combination of slow  
8                   growth and huge investment needs. We believe that for the  
9                   remainder of 2012 and beyond, state regulation will continue to be  
10                  the single most influential factor for the sector's credit quality. Cost  
11                  increases, construction projects, environmental compliance, and  
12                  other public policy directives, together with lackluster growth, will  
13                  necessitate continued reliance on rate relief requests.<sup>55</sup>

14          The rating agency views noted above also are consistent with certain observations  
15          discussed earlier in my testimony: (1) the benefits of maintaining a strong  
16          financial profile are significant when capital access is required, and become  
17          particularly acute during periods of market instability; and (2) the Commission's  
18          decision in this proceeding will have a direct bearing on the Company's credit  
19          profile, and its ability to access the capital needed to fund its investments.

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<sup>55</sup> S&P Ratings Direct, Industry Economic and Ratings Outlook: U.S. Regulated Utilities Will Likely Stay On A Stable Trajectory For The Rest Of 2012 And Into 2013, at 6 (July 17, 2012).

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1   **Q.   HAVE YOU ALSO CONSIDERED THE RELATIONSHIP BETWEEN**  
2       **CAPITAL EXPENDITURES AND THE EARNED RETURN ON**  
3       **COMMON EQUITY?**

4   **A.**   Yes, I have. The “DuPont” formula decomposes the Return on Common Equity  
5       into three components: (1) the Profit Margin (net income/revenues); (2) Asset  
6       Turnover (revenues/net plant); and (3) the Equity Multiplier (net plant/equity).<sup>56</sup>  
7       As PNM Exhibit RBH-10 demonstrates, based on the proxy companies, the Asset  
8       Turnover rate declined from 2008 through 2015 (the historical period covered by  
9       Value Line) and is expected to decline further through Value Line’s 2019 – 2021  
10      projection period. Over that same period, according to Value Line data, average  
11      Net Plant is expected to experience a cumulative increase of approximately  
12      128.03 percent. Since, as noted above, the utility industry is going through a  
13      period of increased capital investment, the lag between the addition of net plant  
14      and revenue generated by those investments dilute the Asset Turnover ratio, at  
15      least in the near term.

16  
17      To gain an additional perspective on the relationship between plant additions and  
18      Asset Turnover, I performed a regression analysis in which the annual change in  
19      the Asset Turnover rate was the dependent variable, and the annual change in Net  
20      Plant was the independent variable. As shown in PNM Exhibit RBH-10, that

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<sup>56</sup> The DuPont formula is commonly used by financial analysts to monitor specific operational and financial drivers of a company’s earned ROE. The formula expands the calculation of the ROE into the product of three financial metrics: Profit Margin, Asset Turnover and the Equity Multiplier. That is,  $ROE = (\text{earnings} / \text{revenue}) \times (\text{revenue} / \text{assets}) \times (\text{assets} / \text{equity})$ . See, e.g., Eugene Brigham, Michael Ehrhardt, Financial Management: Theory and Practice, 12th Ed., 2008, at 140-141.

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1 analysis indicates a statistically significant negative relationship between the two  
2 variables, such that as annual net plant increases, the Asset Turnover ratio  
3 decreases. This, in turn, suggests that an increase in capital expenditures also  
4 negatively affects the Return on Common Equity, causing greater financial stress  
5 to the utility. To the extent investors value a company based on earnings and cash  
6 flow, this additional financial strain is a key concern.

7  
8 **Q. WHAT ARE YOUR CONCLUSIONS REGARDING THE EFFECT OF**  
9 **THE COMPANY'S CAPITAL SPENDING PLANS ON ITS RISK**  
10 **PROFILE?**

11 **A.** It is clear that PNM's capital expenditure program is significant. The financial  
12 community recognizes the additional risks associated with substantial capital  
13 expenditures and the financing, regulatory and operating risks associated with  
14 those plans. The Company must have access to the capital markets on a timely  
15 basis and at reasonable cost rates in order to fund those investments. In my view,  
16 the Company's capital investment plan remains an important consideration in  
17 establishing its ROE and overall rate of return.

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**B.     *Small Size***

**Q.     PLEASE EXPLAIN THE RISK ASSOCIATED WITH SMALL SIZE.**

**A.**     Both the financial and academic communities have long accepted the proposition that the Cost of Equity for small firms is subject to a “size effect”.<sup>57</sup> Although empirical evidence of the size effect often is based on studies of industries beyond regulated utilities, utility analysts also have noted the risks associated with small market capitalizations. Specifically, Ibbotson Associates noted:

For small utilities, investors face additional obstacles, such as smaller customer base, limited financial resources, and a lack of diversification across customers, energy sources, and geography. These obstacles imply a higher investor return.<sup>58</sup>

Small size, therefore, leads to two categories of increased risk for investors: (1) liquidity risk (*i.e.*, the risk of not being able to sell one’s shares in a timely manner due to the relatively thin market for the securities); and (2) fundamental business risks.

**Q.     HOW DOES PNM COMPARE IN SIZE TO THE PROXY COMPANIES?**

**A.**     PNM is somewhat smaller than the average for the proxy group companies both in terms of numbers of customers and annual revenues. PNM Exhibit RBH-11 estimates the implied market capitalization for PNM (*i.e.*, the implied market capitalization if PNM were a stand-alone, publicly traded entity). That is, since PNM is a wholly owned subsidiary of PNMR, an estimated stand-alone market

---

<sup>57</sup> See, Mario Levis, The record on small companies: A review of the evidence, Journal of Asset Management 2, March 2002, at 368-397, for a review of literature relating to the size effect.

<sup>58</sup> Michael Annin, Equity and the Small-Stock Effect, Public Utilities Fortnightly, October 15, 1995.

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1 capitalization for PNM must be calculated. This is done by applying the median  
2 market to book ratio for the proxy group of 1.83 to the product of PNM's  
3 proposed rate base and equity ratio.<sup>59</sup> The implied market capitalization based on  
4 that calculation is \$2.16 billion, which is below 17 of the 19 members of the  
5 proxy group and well below the proxy group median of \$8.60 billion.  
6

7 **Q. HOW DOES THE SMALLER SIZE OF PNM AFFECT ITS BUSINESS**  
8 **RISKS RELATIVE TO THE PROXY GROUP OF COMPANIES?**

9 **A.** In general, smaller companies are less able to withstand adverse events that affect  
10 their revenues and expenses. The effect of weather variability, the loss of large  
11 customers to bypass opportunities, or the destruction of demand as a result of  
12 general macroeconomic conditions or fuel price volatility will have a  
13 proportionately greater impact on the earnings and cash flow volatility of smaller  
14 utilities. Similarly, capital expenditures for non-revenue producing investments  
15 such as system maintenance and replacements will put proportionately greater  
16 pressure on customer costs, potentially leading to customer attrition or demand  
17 reduction. Taken together, these risks affect the return required by investors for  
18 smaller companies.  
19

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<sup>59</sup> See, Direct Testimony of PNM Witnesses Henry Monroy and Elisabeth A. Eden.

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1   **Q.    HAVE YOU CONSIDERED THE SMALLER SIZE OF PNM IN YOUR**  
2       **RECOMMENDED RETURN ON EQUITY FOR THIS COMPANY?**

3   **A.**    Yes.  Although I have quantified the small size effect, rather than proposing a  
4       specific premium, I have considered the small size of PNM in my assessment of  
5       business risks in order to determine where, within a reasonable range of returns,  
6       PNM's required ROE appropriately falls.

7  
8   **Q.    HOW DID YOU ESTIMATE THE SIZE PREMIUM FOR PNM?**

9   **A.**    In its *2016 Valuation Handbook*, Duff & Phelps calculates the size premium for  
10       deciles of market capitalizations relative to the S&P 500 Index.  As shown on  
11       PNM Exhibit RBH-11, based on recent market data, the average market  
12       capitalization of the proxy group is approximately \$10.02 billion, and the median  
13       market capitalization of the proxy group is \$8.60 billion, which correspond to the  
14       second and third decile, respectively, of market capitalization data.  Based on the  
15       median, the proxy group has a size premium of 0.86 percent.  The implied market  
16       capitalization for PNM is approximately \$2.16 billion, which falls within the fifth  
17       decile and corresponds to a size premium of 1.49 percent (or 149 basis points).  
18       The difference between those size premiums is 63 basis points (1.49 percent –  
19       0.86 percent).  However, rather than propose a specific adjustment, I considered  
20       the effect of small size in determining where the Company's ROE falls within the  
21       range of results.

22

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1   **Q.    ARE THERE OTHER FACTORS THAT OFFSET THE EFFECT OF**  
2       **SMALLER SIZE ON PNM?**

3   **A.**   No, I do not believe so. I considered that possibility, but concluded that in light  
4       of the risks discussed in this section, PNM does not have advantages on balance  
5       over the proxy group that would offset the added risk of smaller size.

6  
7       **C.    Regulatory Environment**

8   **Q.    HOW DOES THE REGULATORY ENVIRONMENT IN WHICH A**  
9       **UTILITY OPERATES AFFECT ITS ACCESS TO AND COST OF**  
10      **CAPITAL?**

11   **A.**   The regulatory environment can affect both the access to and cost of capital in  
12       several ways. There is little question that rating agencies consider the regulatory  
13       environment, including the extent to which the presiding regulatory commission  
14       is supportive of issues addressing credit quality, to be an important determinant of  
15       the subject company's credit profile. As noted by Moody's, "[a]n over-arching  
16       consideration for regulated utilities is the regulatory environment in which they  
17       operate."<sup>60</sup> Moody's further noted that:

18           A utility operating in a regulatory framework that is characterized  
19           by legislation that is credit supportive of utilities and eliminates  
20           doubt by prescribing many of the procedures that the regulators  
21           will use in determining fair rates (which legislation may show  
22           evidence of being responsive to the needs of the utility in general  
23           or specific ways), a long history of transparent rate-setting, and a  
24           judiciary that has provided ample precedent by impartially

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<sup>60</sup> Moody's Investors Service, Rating Methodology: Regulated Electric and Gas Utilities, December 23, 2013, at 4.



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1 adjudicating disagreements in a manner that addresses ambiguities  
2 in the laws and rules will receive higher scores in the Legislative  
3 and Judicial Underpinnings sub-factor. A utility operating in a  
4 regulatory framework that, by statute or practice, allows the  
5 regulator to arbitrarily prevent the utility from recovering its costs  
6 or earning a reasonable return on prudently incurred investments,  
7 or where regulatory decisions may be reversed by politicians  
8 seeking to enhance their populist appeal will receive a much lower  
9 score.<sup>61</sup>

10 In fact, fully 50.00 percent of Moody's credit rating determinations (for regulated  
11 utilities) are made based on regulatory factors. Moody's notes that its assessment  
12 of the subject company's regulatory framework reflects 25.00 percent of the  
13 rating, while the remaining 25.00 percent is determined by the utility's "ability to  
14 recover costs and earn returns."<sup>62</sup>

15  
16 In arriving at its rating determinations, Standard & Poor's ("S&P") includes an  
17 assessment of "capital support during construction to alleviate funding and cash  
18 flow pressure during periods of heavy investments".<sup>63</sup> Moody's agrees that  
19 timely cost recovery is an important determinant of credit quality: mechanisms  
20 that provide "full and highly timely recovery of all operating costs and essentially  
21 contemporaneous return on all incremental capital investments" allow for stronger  
22 credit ratings.<sup>64</sup>

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<sup>61</sup> *Ibid.*, at 10.

<sup>62</sup> Moody's Investors Service, Rating Methodology: Regulated Electric and Gas Utilities, December 23, 2013, at 6.

<sup>63</sup> Standard and Poor's, Utilities: Key Credit Factors For The Regulated Utilities Industry, November 19, 2013, at 6.

<sup>64</sup> Moody's Investors Service, Rating Methodology: Regulated Electric and Gas Utilities, December 23, 2013, at 17.

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1       It also is important to recognize that regulatory decisions regarding the ROE and  
2       capital structure have direct consequences for the subject utility's internal cash  
3       flow generation (sometimes referred to as "Funds from Operations," or "FFO").  
4       Because credit ratings are intended to reflect the utility's ability to meet financial  
5       obligations as they come due, the ability to generate the cash flows required to  
6       meet those obligations (and to provide an additional amount for unexpected  
7       events) is of critical importance to debt investors. Two of the most important  
8       metrics used to assess that ability are the ratios of FFO to debt and FFO to interest  
9       expense, both of which are directly affected by regulatory decisions regarding the  
10      appropriate rate of return, and capital structure.

11  
12      Investors recognize, however, that an authorized ROE that is reasonable, but  
13      subject to earnings attrition due to unfavorable regulatory or economic factors  
14      does not provide any assurance that the utility will have a reasonable opportunity  
15      to recover its costs, or to earn a reasonable return. The authorized ROE affects  
16      not only the cash flow-related metrics that measure financial strength, but also  
17      provides an indication of the degree of regulatory support, and risk, associated  
18      with a given utility and jurisdiction. It is, therefore, an important measure of  
19      regulatory support and financial integrity from several perspectives.

20  
21      Similarly, ratings agencies also recognize the importance of the regulatory  
22      environment when assessing a utility's business risk profile. S&P, for example,  
23      states that "[o]ne significant aspect of regulatory risk that influences credit quality

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1 is the regulatory environment in the jurisdictions where a utility operates.”<sup>65</sup> S&P  
2 explains that “[w]hen we evaluate U.S utility regulatory environments, we  
3 consider financial stability to be of substantial importance. Cash takes precedence  
4 in credit analysis. A regulatory jurisdiction that recognizes the significance of  
5 cash flow in its decision-making is one that will appeal to creditors.”<sup>66</sup>

6  
7 **Q. HOW WOULD A CHANGE IN INVESTORS’ PERCEPTION OF THE**  
8 **NEW MEXICO REGULATORY ENVIRONMENT AFFECT THE COST**  
9 **OF CAPITAL?**

10 **A.** As PNM Witness Eden notes, the regulatory framework in New Mexico is viewed  
11 by the rating agencies as being less predictable and transparent compared to other  
12 U.S. jurisdictions (see PNM Exhibit EAE-2). Timely and positive regulatory  
13 outcomes are generally viewed by the rating agencies and providers of debt and  
14 equity capital as evidence of lower risk and uncertainty. From that perspective,  
15 New Mexico is viewed as a riskier regulatory environment, relative to other U.S.  
16 jurisdictions.<sup>67</sup> Additionally, Regulatory Research Associates (“RRA”) rates the  
17 Commission as having a “Below Average / 1” regulatory environment from an  
18 investor viewpoint.<sup>68</sup> In fact, only Maryland and Connecticut’s regulatory bodies  
19 have lower ratings from RRA.<sup>69</sup> Any further decrease in the perception of

---

<sup>65</sup> S&P Global Ratings, RatingsDirect, “Assessing U.S. Investor-Owned Utility Regulatory Environments,” August 10, 2016, at 2.

<sup>66</sup> *Ibid.*, at 6.

<sup>67</sup> See Direct Testimony of Elisabeth A. Eden.

<sup>68</sup> Source: Regulatory Research Associates, *Regulatory Focus*, “State Regulatory Evaluations Including an Overview of RRA’s Ranking Process,” October 18, 2016, at 2.

<sup>69</sup> *Ibid.* Five other jurisdictions share the “Below Average / 1” ranking from RRA.

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1 regulatory supportiveness may increase investors' assessment of PNM's  
2 regulatory risk (and therefore its business risk and Business Risk rating), further  
3 increasing PNM's overall cost of capital.

4  
5 **Q. WHAT ARE YOUR CONCLUSIONS REGARDING THE REGULATORY**  
6 **ENVIRONMENT AND THE COMPANY'S RISK PROFILE?**

7 **A.** The regulatory environment is one of the most important issues considered by  
8 both debt and equity investors in assessing the risks and prospects of utility  
9 companies. From the perspective of debt investors, the authorized return should  
10 enable the Company to generate the cash flow needed to meet its near-term  
11 financial obligations, make the capital investments needed to maintain and expand  
12 its system, and maintain sufficient levels of liquidity to fund unexpected events.  
13 This financial liquidity must be derived not only from internally generated funds,  
14 but also by efficient access to capital markets. Moreover, because investors have  
15 many investment alternatives, even within a given market sector, the Company's  
16 financial profile must be adequate on a relative basis to ensure its ability to attract  
17 capital under a variety of economic and financial market conditions.

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**D. Rate Mechanisms**

**Q. PLEASE DESCRIBE THE COMPANY'S LOST FIXED REVENUE  
ADJUSTMENT MECHANISM PROPOSAL.**

**A.** PNM is proposing a lost contribution to fixed costs ("LCFC") mechanism to allow PNM to recover the lost fixed costs associated with the sales reductions directly attributable to PNM's energy efficiency programs. The total amount of lost fixed costs, calculated as the product of the conserved kWh and a Commission approved per-kWh fixed cost rate, would be recovered through customer rates in the following year.<sup>70</sup>

**Q. HOW COMMON ARE REVENUE STABILIZATION AND COST  
RECOVERY MECHANISMS?**

**A.** There is little question that revenue stabilization and cost recovery structures are becoming increasingly common. The increased interest in such mechanisms has generally resulted from the growing cost of maintaining system reliability, coupled with the flat or declining sales volume brought on by energy efficiency and relatively slow economic growth. Adjustment mechanisms to recover fuel costs, purchased power expenses, energy efficiency and demand-side program costs, new plant investment, and other expenses are common.<sup>71</sup> In addition, decoupling has been implemented by electric utilities in 25 jurisdictions.<sup>72</sup>

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<sup>70</sup> See, Direct Testimony of Gerard Ortiz.

<sup>71</sup> See Exhibit RBH-12.

<sup>72</sup> See, Regulatory Research Associates, *Adjustment Clauses: A State-by-State Overview*, August 22, 2016, at 3-13.

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1           Consequently, the implementation of alternative regulation mechanisms has  
2           become an increasingly visible issue to investors.

3  
4   **Q.   DO THE COMPANY'S COST RECOVERY MECHANISMS REDUCE ITS**  
5   **COST OF EQUITY?**

6   **A.**   No, they do not. As a preliminary matter, the Company's proposed LCFC  
7           mechanism is much more narrow than traditional decoupling mechanisms, and as  
8           such does not completely insulate the Company from lost revenues. That point  
9           aside, the principal analytical issue is whether the Company is so less risky than  
10          its peers as a direct result of its recovery mechanisms that investors would  
11          specifically and measurably reduce their return requirements. The fact that the  
12          Company's existing recovery mechanisms may, in this case quite narrowly,  
13          stabilize the Company's revenues will not affect its Cost of Equity unless it can be  
14          demonstrated that (1) the Company is materially less risky than the proxy group  
15          by virtue of those mechanisms; and (2) investors are likely to react to the  
16          incremental effect of those mechanisms. PNM Exhibit RBH-12 provides a  
17          summary of revenue stabilization mechanisms and cost trackers currently in effect  
18          at each electric utility subsidiary of the proxy group companies. As PNM Exhibit  
19          RBH-12 demonstrates, there are a substantial number of such mechanisms in  
20          place at the proxy companies. PNM Exhibit RBH-12 also includes a summary of  
21          the alternative regulation and incentive plans currently in effect at the proxy  
22          companies. Those regulatory constructs include formula-based rate plans, which

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1 provide comprehensive adjustment mechanisms that automatically adjust rates in  
2 the event that earned return is above or below an authorized range.

3  
4 Because revenue stabilization and cost recovery mechanisms are common among  
5 the proxy companies, there is no reason to assume that PNM would be materially  
6 less risky, and that its Cost of Equity would be lower than its peers' as a result of  
7 its recovery mechanisms. Consequently, I do not believe a reduction in the  
8 recommended ROE is warranted to account for the Company's recovery  
9 mechanisms.

**VI. CAPITAL STRUCTURE**

12 **Q. WHAT IS PNM'S RECOMMENDED CAPITAL STRUCTURE?**

13 **A.** As described in more detail in PNM Witness Eden's testimony, PNM's  
14 recommended capital structure consists of 50.00 percent long-term debt, 0.39  
15 percent preferred equity, and 49.61 percent common equity.

16  
17 **Q. DOES PNM HAVE A SEPARATE CAPITAL STRUCTURE THAT IS**  
18 **RECOGNIZED BY INVESTORS?**

19 **A.** Yes. PNM is a separate corporate entity that has its own capital structure and  
20 issues its own debt. PNM's capital structure is reflected in registrations of its debt  
21 with the Securities Exchange Commission. It therefore is clear that PNM  
22 maintains a capital structure that is reported separately from its parent, PNMR,

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1 and that is recognized by the investor community. In addition (and as discussed  
2 in more detail below), PNM's proposed capital structure is consistent with those  
3 in place at the utility operating companies held within the proxy group, and is  
4 within the range of rating agency criteria for the Company's current credit rating.  
5 I therefore conclude that the Company's proposed capital structure is consistent  
6 with industry practice and appropriate to determine its overall Rate of Return.

7  
8 **Q. HOW DOES THE CAPITAL STRUCTURE AFFECT THE COST OF**  
9 **EQUITY?**

10 **A.** In the practice of finance, we often speak of two general categories of risk:  
11 business risk and financial risk. Business risk generally includes operating,  
12 market, regulatory, and competitive uncertainties, whereas financial risk is  
13 associated with additional levels of debt in the capital structure (often referred to  
14 as "financial leverage"). As the degree of financial leverage increases, the risk of  
15 financial distress (*i.e.*, the risk of not meeting financial obligations as they become  
16 due) also increases. Even if two firms face the same business risks, the company  
17 with higher levels of debt in its capital structure is likely to have higher total risk  
18 and, therefore, higher costs of both debt and equity.

19  
20 Business and financial risk are related in that financial leverage has the effect of  
21 concentrating business risk on equity investors. By way of example, if a firm  
22 were capitalized with 100.00 percent common equity, there would be no financial  
23 risk and individual equity holders would hold *pro rata* shares of business risk. If



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1       the firm were capitalized with 50.00 percent equity and 50.00 percent debt, the  
2       equity investors would continue to bear residual business risk, even though they  
3       represent only one-half of the capital structure. As Brigham and Gapenski point  
4       out, "...the use of debt, or financial leverage, concentrates the firm's business risk  
5       on its stockholders."<sup>73</sup>

6  
7       It is also important to recognize both the complexity and the dynamic nature of  
8       the relationship between capital structure, financial integrity, cost of capital and  
9       maintaining ongoing access to capital at reasonable costs. Financing costs go  
10      beyond coupon rates, and any measure of an "optimal" capital structure must  
11      consider the numerous objectives and constraints associated with financing  
12      decisions. In my practical experience raising capital for a publicly traded utility, I  
13      can say firsthand that capital structure optimization is an extremely complex  
14      process, and very difficult to quantify. Although the capital structures in place at  
15      peer companies provide a broad measure of industry practice, without considering  
16      differences in situations, constraints, or objectives we cannot fully determine  
17      whether a given level of debt or equity is optimal.

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<sup>73</sup> Eugene F. Brigham, Louis C. Gapenski, Financial Management, Theory and Practice, 1994, The Dryden Press, at 528.

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1    **Q.     PLEASE DISCUSS YOUR REVIEW OF THE CAPITAL STRUCTURES**  
2       **IN PLACE WITHIN THE PROXY GROUP.**

3    **A.**    I reviewed the last eight quarters of long-term debt, preferred equity and common  
4           equity ratios of the operating utilities owned by each of my proxy companies. As  
5           shown in PNM Exhibit RBH-8, PNM's projected equity ratio of 49.61 percent is  
6           well within the range of equity ratios for that group, and is below the mean equity  
7           ratio of approximately 51.31 percent. Similarly, although some of the proxy  
8           companies have included slightly higher amounts of preferred equity and slightly  
9           less long-term debt than PNM proposes, PNM's projected long-term debt and  
10          preferred equity ratios of 50.00 percent and 0.39 percent, respectively, are well  
11          within the range of its peers (as measured by the proxy group). Although that  
12          comparison is not specific to PNM, it does recognize that utility operating  
13          companies must finance long-lived assets, and must access external capital  
14          regardless of market conditions. In that sense, the Company's proposed capital  
15          structure is quite consistent with those in place among its peers.

16  
17   **Q.     HAVE YOU ALSO REVIEWED THE COMPANY'S PROPOSED**  
18       **CAPITAL STRUCTURE RELATIVE TO RATING AGENCY CRITERIA?**

19   **A.**    Yes, I have. Moody's, for example notes that for vertically integrated utilities,  
20           equity ratios of 45.00 percent to 55.00 percent generally support ratings in the Baa  
21           category. That ratio, however, accounts for only 7.50 percent of the weight that  
22           Moody's applies to the various factors that it considers in arriving at a ratings  
23           determination. The ratio of Cash Flow from Operations to Debt, which is directly

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1       affected by the authorized ROE, accounts for 15.00 percent of Moody's rating  
2       (that is, twice the weight afforded the equity ratio).<sup>74</sup> Similar to operating company  
3       capital structures, we can look at the range of equity ratios associated with ratings  
4       criteria, but should keep in mind the other factors considered by rating agencies,  
5       and the interactions among variables such as capital structure, authorized ROEs,  
6       and cash flow in assessing the Company's proposed capital structure.

7  
8   **Q.    WHAT IS YOUR CONCLUSION REGARDING PNM'S PROPOSED**  
9   **CAPITAL STRUCTURE?**

10  **A.**   The question of whether a given capital structure is "optimal", or not, is extremely  
11       complex and depends on many company-specific issues. We can, however, view  
12       PNM's proposed capital structure in the context of those in place at similarly  
13       situated utility operating companies, and relative to rating agency criteria.  
14       Because the Company's proposal is consistent with both, it is consistent with  
15       industry practice. It is my view, therefore, that the capital structure proposed by  
16       PNM Witness Eden is reasonable and appropriate for the purposes of determining  
17       the Company's overall Rate of Return.

18  

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<sup>74</sup>       Moody's Investors Service, *Rating Methodology; Regulated Electric and Gas Utilities*, December 23, 2013, at 24.

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**VII. CONCLUSIONS**

**Q. PLEASE SUMMARIZE YOUR CALCULATED COST OF EQUITY, TAKING INTO CONSIDERATION THE ISSUES DISCUSSED ABOVE.**

**A.** As discussed throughout my testimony, it is important to consider a variety of empirical and qualitative information in reviewing analytical results and arriving at ROE recommendations. Here, we have a situation in which the proxy companies have traded at Price/Earnings ratios well in excess of their historical average and for a time, in excess of the market. Because that condition is unlikely to persist, it violates a principal assumption of the Constant Growth DCF model, *i.e.*, that the P/E ratio will not change, ever. Furthermore, elevated utility valuations are primarily the result of Federal monetary policy actions and a “reach for yield”, rather than the underlying fundamentals of the proxy group companies. Because expectations of higher utility company growth are not behind the increase in utility valuations, the DCF model’s results are counterintuitive. As a practical matter, the Constant Growth DCF results are well below a highly observable and relevant benchmark: the returns authorized for vertically-integrated electric utilities. A more balanced approach therefore would be to consider multiple methods, including the Multi-Stage DCF model, the CAPM approach, and the Bond Yield Plus Risk Premium model. Those results, along with the Constant Growth DCF model results, are summarized below in Tables RBH-7A through RBH-7C.

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1       Reviewing those results, and taking into consideration the Company's capital  
2       investment needs, its relatively small size, and the 2018 forecast test year used in  
3       this proceeding indicates that the Company's Cost of Equity falls within a range  
4       of 9.80 percent to 10.75 percent. Because several data points suggest that interest  
5       rates are likely to increase into 2018, it would be reasonable to set the Company's  
6       ROE at the upper end of that range. In that regard, I believe my 10.125 percent  
7       ROE recommendation is a reasonable, if not somewhat conservative estimate of  
8       the Company's Cost of Equity.

**Table RBH-7A. Summary of Constant Growth DCF Results**

<i>Half-Year Dividend Growth</i>	<i>Mean Low</i>	<i>Mean</i>	<i>Mean High</i>
30-Day Average	8.11%	8.73%	9.34%
90-Day Average	8.03%	8.65%	9.26%
180-Day Average	8.12%	8.74%	9.35%
360-Day Average	8.41%	9.03%	9.64%
<i>Full-Year Dividend Growth</i>	<i>Mean Low</i>	<i>Mean</i>	<i>Mean High</i>
30-Day Average	8.19%	8.82%	9.44%
90-Day Average	8.10%	8.74%	9.35%
180-Day Average	8.20%	8.83%	9.45%
360-Day Average	8.50%	9.13%	9.75%

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1                   **Table RBH-7B: Summary of Multi-Stage DCF Results**

<i><b>Gordon Terminal Price Method</b></i>	<i><b>Mean Low</b></i>	<i><b>Mean</b></i>	<i><b>Mean High</b></i>
30-Day Average	9.10%	9.25%	9.40%
90-Day Average	9.02%	9.16%	9.31%
180-Day Average	9.12%	9.26%	9.41%
360-Day Average	9.42%	9.57%	9.73%
<i><b>Terminal P/E Method</b></i>	<i><b>Mean Low</b></i>	<i><b>Mean</b></i>	<i><b>Mean High</b></i>
30-Day Average	9.02%	9.40%	9.77%
90-Day Average	8.80%	9.17%	9.54%
180-Day Average	9.05%	9.43%	9.79%
360-Day Average	9.81%	10.19%	10.56%

2                   **Table RBH-7C: Summary of Risk Premium and Other Analytical Results**

<b>CAPM Results</b>	<i><b>Bloomberg Derived Market Risk Premium</b></i>	<i><b>Value Line Derived Market Risk Premium</b></i>
<i><b>Average Bloomberg Beta Coefficient</b></i>		
Current 30-Year Treasury (2.45%)	9.04%	9.68%
Near Term Projected 30-Year Treasury (2.80%)	9.39%	10.03%
<i><b>Average Value Line Beta Coefficient</b></i>		
Current 30-Year Treasury (2.45%)	10.12%	10.87%
Near Term Projected 30-Year Treasury (2.80%)	10.47%	11.22%
	<i><b>Low</b></i>	<i><b>Mid</b></i>
<b>Bond Yield Plus Risk Premium</b>	10.03%	10.01%
		<i><b>High</b></i>
		10.38%

3     **Q.     DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

4     **A.     Yes.**

GCG#522589

Detailed Discussion of Mr. Hevert's Analyses

# Appendix A

Is contained in the following 27 pages

1 APPENDIX A

2 *A. Proxy Group Selection*

3 **Q. HOW DID YOU SELECT THE COMPANIES INCLUDED IN YOUR**  
4 **PROXY GROUP?**

5 **A.** Consistent with the Commission's Order in 15-00261-UT,<sup>1</sup> I selected my proxy  
6 group on the following basis:

- 7 • I began with the Value Line's universe of 41 Electric Utilities;
- 8 • I excluded companies that do not consistently pay quarterly cash  
9 dividends;
- 10 • I excluded companies that were not covered by at least two utility industry  
11 equity analysts;
- 12 • I excluded companies that do not have investment grade senior unsecured  
13 bond and/or corporate credit ratings from S&P;
- 14 • I excluded any companies whose regulated operating income over the  
15 three most recently reported fiscal years comprised less than 60.00 percent  
16 of the respective totals for that company;
- 17 • I excluded any companies whose regulated electric operating income over  
18 the three most recently reported fiscal years represented less than 60.00  
19 percent of total regulated operating income; and

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<sup>1</sup> My screening criteria are the same as those I used in 15-00261-UT, which were found "most appropriate" by the Hearing Examiner in her Recommended Decision, and upheld by the Commission in its Final Order. *See, In the Matter of the Application of Public Service Company of New Mexico for Revision of its Retail Electric Rates Pursuant to Advice Notice No. 513*, Case No. 15-00261-UT, Recommended Decision, August 4, 2016, at 42; *See also In the Matter of the Application of Public Service Company of New Mexico for Revision of its Retail Electric Rates Pursuant to Advice Notice No. 513*, Case No. 15-00261, Final Order Partially Adopting Corrected Recommended Decision, September 28, 2016, at 15-16.



- I eliminated companies that are currently known to be party to a merger, or other significant transaction.

**Q. DID YOU INCLUDE PNMR IN YOUR PROXY GROUP?**

**A.** No. In order to avoid the circular logic that would otherwise occur, it has been my consistent practice to exclude the subject company (or its parent) from the proxy group.

**B. *Constant Growth Discounted Cash Flow Model***

**Q. ARE DCF MODELS WIDELY USED TO DETERMINE THE ROE FOR REGULATED UTILITIES?**

**A.** Yes, DCF models are widely used in regulatory proceedings, although neither the Constant Growth DCF model nor any other method should be applied without considerable judgment in the selection of inputs and the interpretation of results. In its simplest form, the DCF model expresses the Cost of Equity as the sum of the expected dividend yield and long-term growth rate.

**Q. PLEASE MORE FULLY DESCRIBE THE CONSTANT GROWTH DCF APPROACH.**

**A.** The Constant Growth DCF approach is based on the theory that a stock's current price represents the present value of all expected future cash flows. In its simplest form, the Constant Growth DCF model expresses the Cost of Equity as the discount rate that sets the current price equal to expected cash flows:

$$P = \frac{D_1}{(1+k)} + \frac{D_2}{(1+k)^2} + \dots + \frac{D_\infty}{(1+k)^\infty} \quad \text{Equation [1]}$$

where  $P$  represents the current stock price,  $D_1 \dots D_\infty$  represent expected future dividends, and  $k$  is the discount rate, or required ROE. Equation [1] is a standard present value calculation that can be simplified and rearranged into the familiar form:

$$k = \frac{D_0 (1+g)}{P} + g \quad \text{Equation [2]}$$

Equation [2] often is referred to as the “Constant Growth DCF” model, in which the first term ( $\frac{D_0 (1+g)}{P}$ ) is the expected dividend yield and the second term is the expected long-term annual growth rate (“g”).

**Q. WHAT ASSUMPTIONS ARE INHERENT IN THE CONSTANT GROWTH DCF MODEL?**

**A.** The Constant Growth DCF model assumes: (1) a constant average annual growth rate for earnings and dividends; (2) a stable dividend payout ratio; (3) a constant Price to Earnings multiple; and (4) a discount rate greater than the expected growth rate.

**Q. WHAT MARKET DATA DID YOU USE TO CALCULATE THE DIVIDEND YIELD IN YOUR CONSTANT GROWTH DCF MODEL?**

**A.** The dividend yield is based on the proxy companies’ current annualized dividend, and average closing stock prices over the 30, 90, 180, and 360-trading day periods as of October 31, 2016.

1   **Q.     WHY DID YOU USE FOUR AVERAGING PERIODS TO CALCULATE**  
2   **AN AVERAGE STOCK PRICE?**

3   **A.**   My practice has been to include 30, 90, and 180-trading day average stock prices  
4       to ensure that the model's results are not skewed by anomalous events that may  
5       affect stock prices on any given trading day. I also am aware that in the  
6       Recommended Decision in Case No. 07-00319-UT, the Hearing Examiner chose  
7       to rely exclusively on a 360-trading day averaging period to arrive at his ROE  
8       result, a position that the Commission affirmed in its final order in that case.<sup>2</sup>  
9       That practice was upheld by the Commission in the Company's most recent  
10      proceeding in Case No. 15-00261-UT.<sup>3</sup> As such, I have included the 360-trading  
11      day averaging period in my DCF analyses. As discussed later in my testimony,  
12      however, it is important to reflect the current and expected capital market  
13      environment and their effect on PNM's Cost of Equity.

14

15   **Q.     DID YOU MAKE ANY ADJUSTMENTS TO THE DIVIDEND YIELD TO**  
16   **ACCOUNT FOR PERIODIC GROWTH IN DIVIDENDS?**

17   **A.**   Yes, I did. Since utility companies tend to increase their quarterly dividends at  
18       different times throughout the year, it is reasonable to assume that dividend  
19       increases will be evenly distributed over calendar quarters. Given that  
20       assumption, it is appropriate to calculate the expected dividend yield by applying  
21       one-half of the long-term growth rate to the current dividend yield. That  
22       adjustment ensures that the expected dividend yield is, on average, representative

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<sup>2</sup> See, also, Recommended Decision of the Hearing Examiner, Case No. 12-00350-UT, January 23, 2014, at 64.

<sup>3</sup> Recommended Decision of the Hearing Examiner, Case No. 15-00261-UT, August 4, 2016, at 37, 45.

1 of the coming twelve-month period, and does not overstate the dividends to be  
2 paid during that time. Consequently, this convention yields more conservative  
3 DCF results.

4  
5 **Q. ARE YOU AWARE THAT IN PRIOR CASES, THE COMMISSION HAS**  
6 **USED A FULL YEAR GROWTH RATE TO CALCULATE THE**  
7 **EXPECTED DIVIDEND YIELD?**

8 **A.** Yes, I am. It is my understanding that in Case Nos. 06-00210-UT, 07-00319-UT,  
9 07-00077-UT, and more recently in Case No. 12-00350-UT and 15-00261-UT<sup>4</sup>  
10 the Commission adopted the use of the full year growth rate in calculating the  
11 expected dividend yield component of the DCF model. For the reasons noted  
12 above, however, my practice has been to use the one-half year adjustment. For  
13 the purposes of this proceeding, therefore, I have presented my results using both  
14 the one-half and full year growth rate adjustments.

15  
16 **Q. IS IT IMPORTANT TO SELECT APPROPRIATE MEASURES OF**  
17 **LONG-TERM GROWTH IN APPLYING THE DCF MODEL?**

18 **A.** Yes. In its Constant Growth form, the DCF model (*i.e.*, as presented in Equation  
19 [2] above) assumes a single growth estimate in perpetuity. Accordingly, to reduce  
20 the long-term growth rate to a single measure, one must assume a fixed payout

---

<sup>4</sup> New Mexico Public Regulation Commission, Final Order Partially Adopting Recommended Decision, Case No. 07-00319-UT, para. 35, at 13. *See also*, Final Order Partially Adopting Recommended Decision, Case No. 07-00077-UT, para. 26, at 10. *See also* the PNM Gas Recommended Decision, New Mexico Public Regulation Commission Case No. 06-00210-UT, at 22-23. This recommendation was adopted by the New Mexico Public Regulation Commission in its Final Order Partially Adopting the Recommended Decision, June 29, 2007, para. 19, at 9. *See also* Final Order Partially Adopting Recommended Decision, Case No. 12-00350-UT, para. 8, at 3-4.

ratio, and the same constant growth rate for earnings per share (“EPS”), dividends per share, and book value per share. Since dividend growth can only be sustained by earnings growth, the model should incorporate a variety of measures of long-term earnings growth. That can be accomplished by averaging those measures of long-term growth that tend to be least influenced by capital allocation decisions that companies may make in response to near-term changes in the business environment. Because such decisions may directly affect near-term dividend payout ratios, estimates of earnings growth are more indicative of long-term investor expectations than are dividend growth estimates. For the purposes of the Constant Growth DCF model, therefore, growth in EPS represents the appropriate measure of long-term growth.

**Q. PLEASE SUMMARIZE THE FINDINGS OF ACADEMIC RESEARCH ON THE APPROPRIATE MEASURE FOR ESTIMATING EQUITY RETURNS USING THE DCF MODEL.**

**A.** The relationship between various growth rates and stock valuation metrics has been the subject of much academic research.<sup>5</sup> As noted over 40 years ago by Charles Phillips in The Economics of Regulation:

For many years, it was thought that investors bought utility stocks largely on the basis of dividends. More recently, however, studies indicate that the market is valuing utility stocks with reference to total per share earnings, so that the earnings-price ratio has assumed increased emphasis in rate cases.<sup>6</sup>

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<sup>5</sup> See Harris, Robert, Using Analysts’ Growth Forecasts to Estimate Shareholder Required Rate of Return, Financial Management (Spring 1986).

<sup>6</sup> Charles F. Phillips, Jr., The Economics of Regulation, at 285 (Rev. ed. 1969).

1 Phillips' conclusion continues to hold true. Subsequent academic research has  
2 clearly and consistently indicated that measures of earnings and cash flow are  
3 strongly related to returns, and that analysts' forecasts of growth are superior to  
4 other measures of growth in predicting stock prices.<sup>7</sup> For example, Vander Weide  
5 and Carleton state that, "[our] results ... are consistent with the hypothesis that  
6 investors use analysts' forecasts, rather than historically oriented growth  
7 calculations, in making stock buy-and-sell decisions."<sup>8</sup> Other research  
8 specifically notes the importance of analysts' growth estimates in determining the  
9 Cost of Equity, and in the valuation of equity securities. Dr. Robert Harris noted  
10 that "a growing body of knowledge shows that analysts' earnings forecast are  
11 indeed reflected in stock prices." Citing Cragg and Malkiel, Dr. Harris notes that  
12 those authors "found that the evaluations of companies that analysts make are the  
13 sorts of ones on which market valuation is based."<sup>9</sup> Similarly, Brigham, Shome  
14 and Vinson noted that "evidence in the current literature indicates that (i)  
15 analysts' forecasts are superior to forecasts based solely on time series data; and  
16 (ii) investors do rely on analysts' forecasts."<sup>10</sup>

---

<sup>7</sup> See, e.g., Christofi, Christofi, Lori and Moliver, Evaluating Common Stocks Using Value Line's Projected Cash Flows and Implied Growth Rate, Journal of Investing (Spring 1999); Harris and Marston, Estimating Shareholder Risk Premia Using Analysts' Growth Forecasts, Financial Management, 21 (Summer 1992); and Vander Weide and Carleton, Investor Growth Expectations: Analysts vs. History, The Journal of Portfolio Management (Spring 1988).

<sup>8</sup> Vander Weide and Carleton, Investor Growth Expectations: Analysts vs. History, The Journal of Portfolio Management (Spring 1988).

<sup>9</sup> Robert S. Harris, Using Analysts' Growth Forecasts to Estimate Shareholder Required Rate of Return, Financial Management (Spring 1986).

<sup>10</sup> Eugene F. Brigham, Dilip K. Shome, and Steve R. Vinson, The Risk Premium Approach to Measuring a Utility's Cost of Equity, Financial Management (Spring 1985).

1 To that point, the research of Carleton and Vander Weide demonstrates that  
2 earnings growth projections have a statistically significant relationship to stock  
3 valuation levels, while dividend growth rates do not.<sup>11</sup> Those findings suggest  
4 that investors make their investment decisions based on expectations of growth in  
5 earnings, not dividends. Consequently, earnings growth, not dividend growth, is  
6 the appropriate estimate for the purpose of the Constant Growth DCF model.

7  
8 **Q. PLEASE SUMMARIZE YOUR INPUTS TO THE CONSTANT GROWTH**  
9 **DCF MODEL.**

10 **A.** I applied the DCF model to the proxy group of integrated electric utility  
11 companies using the following inputs for the price and dividend terms:

- 12 • The average daily closing prices for the 30-, 90-, 180-, and 360-trading  
13 day periods ended October 31, 2016, for the term  $P_0$ ; and
- 14 • The annualized dividend per share as of October 31, 2016, for the term  $D_0$ .

15 I then calculated my DCF results using each of the following growth terms:

- 16 • The Zacks consensus long-term earnings growth estimates;
- 17 • The First Call consensus long-term earnings growth estimates; and
- 18 • The Value Line long-term earnings growth estimates.<sup>12</sup>

19  
20 **Q. HOW DID YOU CALCULATE THE DCF RESULTS?**

21 **A.** For each proxy company, I calculated the mean, mean high, and mean low results.  
22 For the mean result, I combined the average of the EPS growth rate estimates

---

<sup>11</sup> See, Vander Weide and Carleton, Investor Growth Expectations: Analysts vs. History, The Journal of Portfolio Management (Spring 1988).

<sup>12</sup> See, PNM Exhibit RBH-2.

1 reported by Value Line, Zacks, and First Call with the subject company's  
2 dividend yield for each proxy company and then calculated the average result for  
3 those estimates. I calculated the high DCF result by combining the maximum  
4 EPS growth rate estimate as reported by Value Line, Zacks, and First Call with  
5 the subject company's dividend yield. The mean high result simply is the average  
6 of those estimates. I used the same approach to calculate the low DCF result,  
7 using instead the minimum of the Value Line, Zacks, and First Call estimate for  
8 each proxy company, and calculating the average result for those estimates.

9  
10 **Q. WHAT ARE THE RESULTS OF YOUR CONSTANT GROWTH DCF**  
11 **ANALYSIS?**

12 **A.** My Constant Growth DCF results are summarized in Table RBH-5, in Section IV  
13 (see also PNM Exhibit RBH-2).

14  
15 **C. *Multi-Stage DCF Model***

16 **Q. WHAT OTHER FORMS OF THE DCF MODEL HAVE YOU USED?**

17 **A.** In order to address certain limiting assumptions underlying the Constant Growth  
18 form of the DCF model, I also considered the Multi-Stage (three-stage) DCF  
19 Model. The Multi-Stage model, which is an extension of the Constant Growth  
20 form, enables the analyst to specify growth rates over three distinct stages. As  
21 with the Constant Growth form of the DCF model, the Multi-Stage form defines  
22 the Cost of Equity as the discount rate that sets the current price equal to the



discounted value of future cash flows. Unlike the Constant Growth form, however, the Multi-Stage model must be solved in an iterative fashion.

**Q. WHY HAVE YOU USED A MULTI-STAGE DCF APPROACH IN ADDITION TO THE CONSTANT GROWTH DCF IN THIS CASE?**

**A.** First, as noted earlier, it is both prudent and appropriate to use multiple methodologies in order to mitigate the effects of assumptions and inputs associated with any single approach. Second, the Constant Growth DCF model assumes that earnings, dividends and book value will grow at the same constant rate in perpetuity; that the dividend payout ratio will remain constant in perpetuity; and that the P/E ratio will remain constant. Consequently, the model assumes that the return required today will be the same return required every year in the future.

As discussed below, those assumptions are not likely to hold. In particular, given near-term capital expenditures associated with infrastructure replacement and growth needs, it is likely that dividend payout ratios will increase from their current levels.<sup>13</sup> In addition, to the extent that long-term interest rates increase over the next few years, it is likely that the Cost of Equity also will increase. In my view, the Multi-Stage DCF model enables analysts to consider those issues, and to address the limiting assumptions underlying the Constant Growth form of the model.

---

<sup>13</sup> See, for example, SNL Energy, *Financial Focus Special Report: Capital Expenditure Update*, November 5, 2015.

1   **Q.     PLEASE DESCRIBE THE STRUCTURE OF YOUR MULTI-STAGE DCF**  
2       **MODEL.**

3   **A.**   The Multi-Stage DCF model sets the subject company's stock price equal to the  
4       present value of future cash flows received over three "stages." In the first two  
5       stages, "cash flows" are defined as projected dividends. In the third stage, "cash  
6       flows" equal both dividends and the expected price at which the stock will be sold  
7       at the end of the period (*i.e.*, the "terminal price"). I calculated the terminal price  
8       based on the Gordon model,<sup>14</sup> which defines the price as the expected dividend  
9       divided by the difference between the Cost of Equity (*i.e.*, the discount rate) and  
10      the long-term expected growth rate. In essence, the terminal price is defined by  
11      the present value of the remaining "cash flows" in perpetuity. In each of the three  
12      stages, the dividend is the product of the projected earnings per share and the  
13      expected dividend payout ratio. A summary description of the model is provided  
14      in Table RBH-A1 (below).

---

<sup>14</sup> See, Morningstar, Inc., 2013 Ibbotson Stocks, Bonds, Bills and Inflation Valuation Yearbook, at 48-50.

1

**Table RBH-A1: Multi-Stage DCF Structure**

Stage	0	1	2	3
Cash Flow Component	Initial Stock Price	Expected Dividend	Expected Dividend	Expected Dividend + Terminal Value
Inputs	Stock Price; Earnings Per Share (EPS); Dividends Per Share (DPS)	Expected EPS; Expected DPS	Expected EPS; Expected DPS	Expected EPS; Expected DPS; Terminal Value
Assumptions	30-, 90-, 180- and 360-day average stock price	EPS Growth Rate; Payout Ratio	Growth Rate Change; Payout Ratio Change	Long-term Growth Rate; Long-term Payout Ratio

2 **Q. WHAT ARE THE ANALYTICAL BENEFITS OF YOUR THREE-STAGE**  
3 **DCF MODEL?**

4 **A.** The principal benefits relate to the flexibility provided by the model's  
5 formulation. Since the model provides the ability to specify near, intermediate  
6 and long-term growth rates, for example, it avoids the sometimes limiting  
7 assumption that the subject company will grow at the same, constant rate in  
8 perpetuity. In addition, by calculating the dividend as the product of earnings per  
9 share and the dividend payout ratio, the model enables analysts to reflect  
10 assumptions regarding the timing and extent of changes in the payout ratio to  
11 reflect, for example, increases or decreases in expected capital spending, or  
12 transition from current payout levels to long-term expected levels. In that regard,  
13 because the model relies on multiple sources of earnings growth rate assumptions,

1 it is not limited to a single source, such as Value Line, for all inputs, and mitigates  
2 the potential bias associated with relying on a single source of growth estimates.<sup>15</sup>  
3

4 The model also enables the analyst to assess the reasonableness of the inputs and  
5 results by reference to certain market-based metrics. For example, the stock price  
6 estimate can be divided by the expected earnings per share in the final year to  
7 calculate an average P/E ratio. Similarly, the terminal P/E ratio can be divided by  
8 the terminal growth rate to develop a Price to Earnings Growth (“PEG”) ratio. To  
9 the extent that either the projected P/E or PEG ratios are inconsistent with either  
10 historical or expected levels, it may indicate incorrect or inconsistent assumptions  
11 within the balance of the model.  
12

13 **Q. PLEASE SUMMARIZE YOUR INPUTS TO THE MULTI-STAGE DCF**  
14 **MODEL.**

15 **A.** I applied the Multi-Stage model to the proxy group described earlier in my Direct  
16 Testimony. My assumptions with respect to the various model inputs are  
17 described in Table RBH-A2 (below).

---

<sup>15</sup> See Harris and Marston, Estimating Shareholder Risk Premia Using Analysts’ Growth Forecasts, Financial Management 21 (Summer 1992).

**Table RBH-A2: Multi-Stage DCF Model Assumptions**

<b>Stage</b>	<b>Initial</b>	<b>First</b>	<b>Transition</b>	<b>Terminal</b>
Stock Price	30-, 90-, 180- and 360-day average stock price as of October 31, 2016			
Earnings Growth	2015 actual EPS escalated by Period 1 growth rate	EPS growth as average of (1) Value Line; (2) Zacks; and (3) First Call	Transition to Long-term growth	Long-term growth
Payout Ratio	Value Line company-specific	Value Line company-specific	Transition to long-term industry payout ratio	Long-term expected payout ratio
Terminal Value				Expected dividend in final year divided by solved Cost of Equity less long-term growth rate

2    **Q.     HOW DID YOU CALCULATE THE TERMINAL GROWTH RATE?**

3    **A.**     Although it has generally been my practice to rely on expected Gross Domestic  
4            Product (“GDP”) growth as the long-term growth rate, I recognize that in prior  
5            proceedings the Commission has expressed some concern with that approach;  
6            specifically, whether investors expect the growth of utilities to be the same as the  
7            overall economy.<sup>16</sup> For this proceeding I therefore developed the terminal growth

<sup>16</sup> See, for example Recommended Decision of the Hearing Examiner, Case No. 12-00350-UT, January 23, 2014, at 103-104. Recommended Decision of the Hearing Examiner, Case No. 07-00077-UT, March 6, 2008, at 60, 65-66.

1 rate by averaging a range of estimates of expected long-term growth, including:  
2 (1) the proxy group average of analysts' long-term earnings growth projections;  
3 (2) the long-term growth rate implied by recently authorized ROEs; and (3) an  
4 estimate of GDP growth.

5  
6 The first growth rate estimate simply relies on the Zacks, First Call and Value  
7 Line growth rates used in the Constant Growth DCF analyses. As shown in PNM  
8 Exhibit RBH-3, the mean of the proxy group's analysts' long-term earnings  
9 growth projections is 5.25 percent.

10  
11 The second growth rate estimate was derived from recently authorized returns for  
12 vertically integrated electric utilities from January 1, 2014 through October 31,  
13 2016. In the context of the Constant Growth DCF model, returns include income  
14 from dividends (*i.e.*, the dividend yield) and expected growth (*i.e.*, capital  
15 appreciation). Assuming the SNL electric universe's average dividend yield since  
16 the beginning of 2014 of 3.43 percent,<sup>17</sup> the average reported authorized ROE of  
17 9.83 percent provided in PNM Exhibit RBH-9 implies an expected long-term  
18 growth rate of 6.19 percent (assuming the Commission's full-year growth rate  
19 adjustment to the dividend yield portion of the Constant Growth DCF model).<sup>18</sup>

20  
21 The third growth rate estimate, 5.28 percent, is based on the real GDP growth rate  
22 of 3.24 percent from 1929 through 2015, and a projected inflation rate of 1.98

---

<sup>17</sup> Source: SNL Financial, SNL Electric Company Index.

<sup>18</sup> Average dividend yield calculated on a weighted index basis.  $0.0983 = (.0343 \times 1.0619) + .0619$ .

1 percent. The GDP growth rate is calculated as the compound growth rate in the  
2 chain-weighted GDP for the period from 1929 through 2015. The rate of inflation  
3 of 1.98 percent is an average of two components: the compound annual forward  
4 rate starting in ten years (i.e., 2026, which is the beginning of the terminal period)  
5 based on the 180-day average spread between yields on long-term nominal  
6 Treasury Securities and long-term Treasury Inflation Protected Securities, known  
7 as the “TIPS spread” of 1.76 percent; and the projected Blue Chip Financial  
8 Forecast of CPI for 2023 – 2027 of 2.20 percent. I averaged these two measures  
9 of inflation because nominal Treasury yields are related to inflation, and given  
10 commodities’ (such as oil) effect on inflation, the current TIPS spread may  
11 somewhat understate long-term expected inflation.

12  
13 I have used the average of those three estimates, 5.58 percent, as the terminal rate  
14 of my Multi-Stage DCF analyses.

15  
16 **Q. IS IT REASONABLE TO CONSIDER EXPECTED LONG-TERM GDP**  
17 **GROWTH WHEN ESTIMATING THE TERMINAL GROWTH STAGE**  
18 **OF THE DCF MODEL?**

19 **A.** Yes, I believe so. The use of expected long-term GDP growth in the terminal  
20 period is consistent with practice and financial literature.<sup>19</sup> Morningstar, a well-  
21 known source commonly relied upon by investors, describes an approach to

---

<sup>19</sup> Dr. Roger Morin, for example, writes “[i]t is useful to remember that eventually all company growth rates, especially utility services growth rates, converge to a level consistent with the growth rate of the aggregate economy.” See, Roger A. Morin, New Regulatory Finance, Public Utilities Report, Inc., 2006, at 308.

1 calculating the long-term growth estimate that is similar to that which is included  
2 in my model.<sup>20</sup> As with my approach, Morningstar's method combines the  
3 historical average real GDP growth rate with a measure of inflation calculated  
4 using the TIPS spread.<sup>21</sup> In fact, Morningstar's long-term growth estimate of real  
5 GDP growth (3.22 percent) is only two basis points different than the 3.24 percent  
6 growth rate assumed in my analyses.

7  
8 In essence, the real GDP growth rate projection is based on the assumption that  
9 absent specific knowledge to the contrary, it is reasonable to assume that over  
10 time real GDP growth will revert to its long-term mean. Moreover, since  
11 estimating the Cost of Equity is a market-based exercise, it is important to reflect  
12 the sentiments and expectations of investors to the extent possible. In that  
13 important respect, the TIPS spread represents the collective views of investors  
14 regarding long-term inflation expectations. Equally important, by using forward  
15 yields we are able to infer the level of long-term inflation expected by investors as  
16 of the terminal period of the Multi-Stage model (that is, ten years in the future).

17  
18 Nonetheless, in light of the Commission's concerns I have given long-term GDP  
19 growth only a one-third weight in developing my long-term growth estimate.

---

<sup>20</sup> See, Ibbotson SBBI 2013 Valuation Yearbook, Morningstar, Inc., at 50-52.

<sup>21</sup>  $\text{Implied Expected Nominal GDP} = ((1 + \text{Historical Real GDP Growth}) \times (1 + \text{Implied Forward Inflation})) - 1$ , or 5.27 percent =  $((1 + 3.24 \text{ percent}) \times (1 + 1.97 \text{ percent})) - 1$ .



1 **Q. WHAT WERE YOUR SPECIFIC ASSUMPTIONS WITH RESPECT TO**  
2 **THE PAYOUT RATIO?**

3 **A.** As noted in Table RBH-A2, for the first two periods, I relied on the first year and  
4 long-term projected payout ratios reported by Value Line<sup>22</sup> for each of the proxy  
5 companies. I then assumed that by the end of the second period (*i.e.*, the end of  
6 year 10), the payout ratio will converge to the historical industry average ratio of  
7 66.88 percent.<sup>23</sup>

8  
9 **Q. WHAT WAS YOUR PRINCIPAL ASSUMPTION REGARDING THE**  
10 **TERMINAL VALUE?**

11 **A.** Although I performed a series of analyses in which the terminal value is  
12 calculated based on the average of the three growth rates described above (*i.e.*,  
13 5.58%),<sup>24</sup> I also performed a series of analyses in which the terminal value is  
14 based on the current P/E ratio (*see* PNM Exhibit RBH-3).<sup>25</sup>

15  
16 **D. *Capital Asset Pricing Model***

17 **Q. PLEASE BRIEFLY DESCRIBE THE GENERAL FORM OF THE CAPM.**

18 **A.** The CAPM is a risk premium method that estimates the Cost of Equity for a given  
19 security as a function of a risk-free return plus a risk premium (to compensate  
20 investors for the non-diversifiable or “systematic” risk of that security). As

---

<sup>22</sup> As reported in the Value Line Investment Survey company reports as “All Div’ds to Net Prof.” Value Line did not report a projected payout ratio for 2016; therefore, I have used the 2017 projected payout ratio instead.

<sup>23</sup> Source: Bloomberg Professional.

<sup>24</sup> See PNM Exhibit RBH-3, pages 1-12.

<sup>25</sup> Defined as the 30-day average of the proxy group P/E ratio, calculated as an Index. See PNM Exhibit RBH-3, pages 14-25.

1 shown in Equation [3], the CAPM is defined by four components, each of which  
2 theoretically must be a forward-looking estimate:

$$k = r_f + \beta(r_m - r_f) \text{ Equation [3]}$$

4 where:

5  $k$  = the required market ROE for a security;

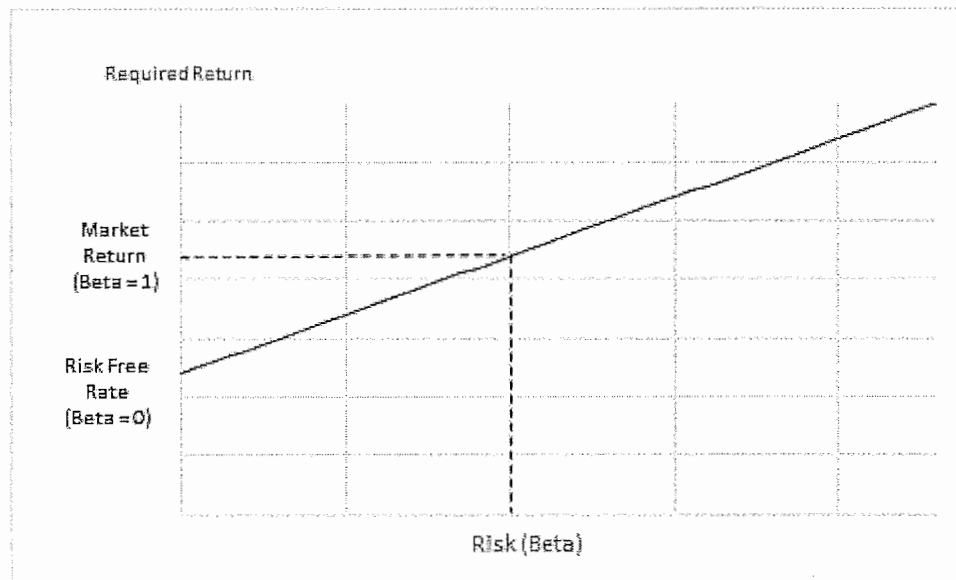
6  $\beta$  = the Beta coefficient of that security;

7  $r_f$  = the risk-free rate of return; and

8  $r_m$  = the required return on the market as a whole.

9 Equation [3] describes the Security Market Line (“SML”), or the CAPM risk-  
10 return relationship, which is graphically depicted in Chart RBH-A1 below. The  
11 intercept is the risk-free rate ( $r_f$ ) which has a beta of zero, the slope is the expected  
12 market risk premium ( $r_m - r_f$ ). By definition,  $r_m$ , the return on the market has a  
13 beta of 1.0. CAPM states that in well-behaving capital markets, the expected  
14 equity risk premium on a given security is proportional to its Beta coefficient.

1

**Chart RBH-A1: Security Market Line**

2 Intuitively, higher Beta coefficients indicate that the subject company's returns  
 3 have been relatively volatile, and have moved in tandem with the overall market.  
 4 Consequently, if a company has a Beta coefficient of 1.00, it is as risky as the  
 5 market and does not provide any diversification benefit.

6

7 In Equation [3], the term  $(r_m - r_f)$  represents the Market Risk Premium.<sup>26</sup>

8 According to the theory underlying the CAPM, since unsystematic risk can be  
 9 diversified away by adding securities to investment portfolios, the market will not  
 10 compensate investors for bearing that risk. Therefore, investors should be  
 11 concerned only with systematic or non-diversifiable risk. Non-diversifiable risk  
 12 is measured by the Beta coefficient, which is defined as:

13 
$$\beta_j = \frac{\sigma_j}{\sigma_m} \times \rho_{j,m} \quad \text{Equation [4]}$$

<sup>26</sup> The Market Risk Premium is defined as the incremental return of the market portfolio over the risk-free rate.

1 where  $\sigma_j$  is the standard deviation of returns for company “j,”  $\sigma_m$  is the standard  
2 deviation of returns for the broad market (as measured, for example, by the S&P  
3 500 Index), and  $\rho_{j,m}$  is the correlation of returns in between company j and the  
4 broad market.

5  
6 The Beta coefficient therefore represents both relative volatility (*i.e.*, the standard  
7 deviation) of returns, and the correlation in returns between the subject company  
8 and the overall market.

9  
10 **Q. WHAT ASSUMPTIONS DID YOU INCLUDE IN YOUR CAPM**  
11 **ANALYSIS?**

12 **A.** Since utility equity is a long-duration investment, I used two different measures of  
13 the risk-free rate: (1) the current 30-day average yield on 30-year Treasury bonds  
14 (*i.e.*, 2.45 percent)<sup>27</sup>; and (2) the projected 30-year Treasury yield (*i.e.*, 2.80  
15 percent).<sup>28</sup>

16  
17 **Q. WHY HAVE YOU RELIED UPON THE 30-YEAR TREASURY YIELD**  
18 **FOR YOUR CAPM ANALYSIS?**

19 **A.** In determining the security most relevant to the application of the CAPM, it is  
20 important to select the term (or maturity) that best matches the life of the  
21 underlying investment. Electric utilities typically are long-duration investments

---

<sup>27</sup> Source: Bloomberg Professional.

<sup>28</sup> Blue Chip Financial Forecast, Vol. 35, No. 10, October 1, 2016, at 2.

1 and, as such, the 30-year Treasury yield is more suitable for the purpose of  
2 calculating the Cost of Equity.

3  
4 **Q. PLEASE DESCRIBE YOUR *EX-ANTE* APPROACH TO ESTIMATING**  
5 **THE MARKET RISK PREMIUM.**

6 **A.** The approach is based on the market required return, less the current 30-year  
7 Treasury yield. To estimate the market required return, I calculated the market  
8 capitalization weighted average ROE based on the Constant Growth DCF model.  
9 To do so, I relied on data from two sources: (1) Bloomberg; and (2) Value Line.<sup>29</sup>  
10 With respect to Bloomberg-derived growth estimates, I calculated the expected  
11 dividend yield (using the same one-half growth rate assumption described earlier),  
12 and combined that amount with the projected earnings growth rate to arrive at the  
13 market capitalization weighted average DCF result. I performed that calculation  
14 for each of the S&P 500 companies for which Bloomberg provided consensus  
15 growth rates. I then subtracted the current 30-year Treasury yield from that  
16 amount to arrive at the market DCF-derived *ex-ante* market risk premium  
17 estimate. In the case of Value Line, I performed the same calculation, again using  
18 all companies for which five-year earnings growth rates were available. The  
19 results of those calculations are provided in PNM Exhibit RBH-4.

20  

---

<sup>29</sup> See, PNM Exhibit RBH-4.

1   **Q.    HOW DID YOU APPLY YOUR EXPECTED MARKET RISK PREMIUM**  
2       **AND RISK-FREE RATE ESTIMATES?**

3   **A.**    I relied on the *ex-ante* Market Risk Premium discussed above, together with the  
4       current and near-term projected 30-year Treasury yields as inputs to my CAPM  
5       analyses.

6  
7   **Q.    WHAT BETA COEFFICIENT DID YOU USE IN YOUR CAPM MODEL?**

8   **A.**    As shown in PNM Exhibit RBH-5, I considered the Beta coefficients for the  
9       proxy group reported by two sources: Bloomberg and Value Line. While both of  
10      those services adjust their calculated (or “raw”) Beta coefficients to reflect the  
11      tendency of the Beta coefficient to regress to the market mean of 1.00, Value Line  
12      calculates the Beta coefficient over a five-year period, while Bloomberg’s  
13      calculation is based on two years of data.

14  
15   **Q.    WHAT ARE THE RESULTS OF YOUR CAPM ANALYSIS?**

16   **A.**    The CAPM analyses suggest an ROE range of 9.11 percent to 11.30 percent (*see*  
17       PNM Exhibit RBH-6).

1        ***E.      Bond Yield Plus Risk Premium Approach***

2    **Q.    PLEASE GENERALLY DESCRIBE THE BOND YIELD PLUS RISK**  
3        **PREMIUM APPROACH.**

4    **A.**    This approach is based on the basic financial tenet that equity investors bear the  
5        residual risk associated with ownership and therefore require a premium over the  
6        return they would have earned as a bondholder. That is, since returns to equity  
7        holders are more risky than returns to bondholders, equity investors must be  
8        compensated for bearing that additional risk. Risk premium approaches, therefore,  
9        estimate the Cost of Equity as the sum of the equity risk premium and the yield on  
10       a particular class of bonds. As noted in my discussion of the CAPM, since the  
11       equity risk premium is not directly observable, it typically is estimated using a  
12       variety of approaches, some of which incorporate *ex-ante*, or forward-looking  
13       estimates of the Cost of Equity, and others that consider historical, or *ex-post*,  
14       estimates. An alternative approach is to use actual authorized returns for electric  
15       utilities to estimate the Equity Risk Premium.

16  
17   **Q.    PLEASE EXPLAIN HOW YOU PERFORMED YOUR BOND YIELD**  
18        **PLUS RISK PREMIUM ANALYSIS.**

19   **A.**    As suggested above, I first defined the Risk Premium as the difference between  
20        the authorized ROE and the then-prevailing level of the long-term (*i.e.*, 30-year)  
21        Treasury yield. I then gathered data for 1,483 electric utility rate proceedings  
22        between January 1980 and October 31, 2016. In addition to the authorized ROE,  
23        I also calculated the average period between the filing of the case and the date of

1 the final order (the “lag period”). In order to reflect the prevailing level of interest  
2 rates during the pendency of the proceedings, I calculated the average 30-year  
3 Treasury yield over the average lag period (approximately 201 days).

4  
5 Because the data cover a number of economic cycles, the analysis also may be  
6 used to assess the stability of the Equity Risk Premium. Prior research, for  
7 example, has shown that the Equity Risk Premium is inversely related to the level  
8 of interest rates. That analysis is particularly relevant given the relatively low, but  
9 increasing level of current Treasury yields.

10  
11 **Q. HOW DID YOU ANALYZE THE RELATIONSHIP BETWEEN**  
12 **INTEREST RATES AND THE EQUITY RISK PREMIUM?**

13 **A.** The basic method used was regression analysis, in which the observed Equity  
14 Risk Premium is the dependent variable, and the average 30-year Treasury yield  
15 is the independent variable. Relative to the long-term historical average, the  
16 analytical period includes interest rates and authorized ROEs that are quite high  
17 during one period (*i.e.*, the 1980s) and that are quite low during another (*i.e.*, the  
18 post-Lehman Brothers bankruptcy period). To account for that variability, I used  
19 the semi-log regression, in which the Equity Risk Premium is expressed as a  
20 function of the natural log of the 30-year Treasury yield:

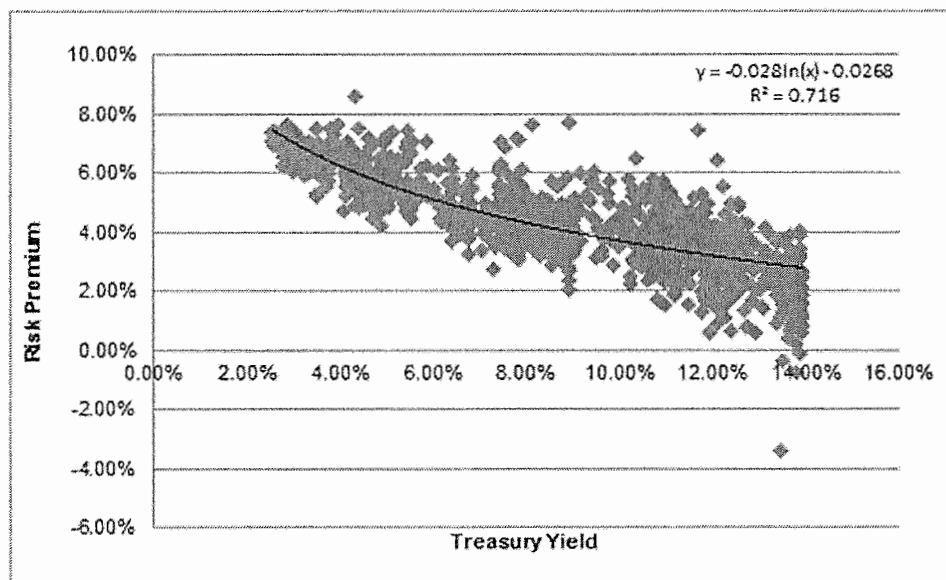
$$21 \quad RP = \alpha + \beta(\text{LN}(T_{30})) \quad \text{Equation [5]}$$

22 As shown in Chart RBH-A2 (below), the semi-log form is useful when measuring  
23 an absolute change in the dependent variable (in this case, the Risk Premium)



relative to a proportional change in the independent variable (the 30-year Treasury yield).

**Chart RBH-A2: Equity Risk Premium**



As Chart RBH-A2 demonstrates, over time there has been a statistically significant, negative relationship between the 30-year Treasury yield and the Equity Risk Premium. That is, the Equity Risk Premium increases as interest rates fall. This inverse relationship between interest rates and the Equity Risk Premium is supported by published research. For example, Dr. Roger Morin notes that: "... [p]ublished studies by Brigham, Shome, and Vinson (1985), Harris (1986), Harris and Marston (1992, 1993), Carleton, Chambers, and Lakonishok (1983), Morin (2005), and McShane (2005), and others demonstrate that, beginning in 1980, risk premiums varied inversely with the level of interest rates - rising when rates fell and declining when interest rates rose."<sup>30</sup> Consequently, simply applying the long-term average Equity Risk Premium of 4.52 percent

<sup>30</sup> Roger A. Morin, New Regulatory Finance, Public Utilities Reports, Inc. 2006, at 128 [clarification added]

1 would significantly understate the Cost of Equity and produce results well below  
2 any reasonable estimate. Based on the regression coefficients in Chart RBH-A2,  
3 however, the implied ROE is between 10.01 percent and 10.38 percent (*see* PNM  
4 Exhibit RBH-7).  
5

Résumé and Testimony Listing of Robert B. Hevert

# PNM Exhibit RBH-1

Is contained in the following 14 pages

### *Summary*

Bob Hevert is a financial and economic consultant with more than 30 years of broad experience in the energy and utility industries. He has an extensive background in the areas of corporate finance, mergers and acquisitions, project finance, asset and business unit valuation, rate and regulatory matters, energy market assessment, and corporate strategic planning. He has provided expert testimony on a wide range of financial, strategic, and economic matters on more than 100 occasions at the state, provincial, and federal levels.

Prior to joining ScottMadden, Bob served as managing partner at Sussex Economic Advisors, LLC. Throughout the course of his career, he has worked with numerous leading energy companies and financial institutions throughout North America. He has provided expert testimony and support of litigation in various regulatory proceedings on a variety of energy and economic issues. Bob earned a B.S. in business and economics from the University of Delaware and an M.B.A. with a concentration in finance from the University of Massachusetts at Amherst. Bob also holds the Chartered Financial Analyst designation.

### *Areas of Specialization*

- Regulation and rates
- Utilities
- Fossil/hydro generation
- Markets and RTOs
- Nuclear generation
- Mergers and acquisitions
- Regulatory strategy and rate case support
- Capital project planning
- Strategic and business planning

### *Recent Expert Testimony Submission/Appearence*

- Federal Energy Regulatory Commission – Return on Equity
- New Jersey Board of Public Utilities – Merger Approval
- New Mexico Public Regulation Commission – Cost of Capital and Financial Integrity
- United States District Court – PURPA and FERC Regulations
- Alberta Utilities Commission – Return on Equity and Capital Structure

### *Recent Assignments*

- Provided expert testimony on the cost of capital for ratemaking purposes before numerous state utility regulatory agencies, the Alberta Utilities Commission, and the Federal Energy Regulatory Commission
- For an independent electric transmission provider in Texas, prepared an expert report on the economic damages with respect to failure to meet guaranteed completion dates. The report was filed as part of an arbitration proceeding and included a review of the ratemaking implications of economic damages
- Advised the board of directors of a publicly traded electric and natural gas combination utility on dividend policy issues, earnings payout trends and related capital market considerations
- Assisted a publicly traded utility with a strategic buy-side evaluation of a gas utility with more than \$1 billion in assets. The assignment included operational performance benchmarking, calculation of merger synergies, risk analysis, and review of the regulatory implications of the transaction
- Provided testimony before the Arkansas Public Service Commission in support of the acquisition of SourceGas LLC by Black Hills Corporation. The testimony addressed certain balance sheet capitalization and credit rating issues
- For the State of Maine Public Utility Commission, prepared a report that summarized the Northeast and Atlantic Canada natural gas power markets and analyzed the potential benefits and costs associated with natural gas pipeline expansions. The independent report was filed at the Maine Public Utility Commission

Sponsor	Date	Case/Applicant	Docket No.	Subject
<b>Alaska Regulatory Commission</b>				
ENSTAR Natural Gas Company	06/16	ENSTAR Natural Gas Company	Matter No. TA 285-4	Return on Equity
ENSTAR Natural Gas Company	08/14	ENSTAR Natural Gas Company	Matter No. TA 262-4	Return on Equity
<b>Arizona Corporation Commission</b>				
Southwest Gas Corporation	11/10	Southwest Gas Corporation	Docket No. G-01551A-10-0458	Return on Equity
<b>Arkansas Public Service Commission</b>				
Oklahoma Gas and Electric Company	08/16	Oklahoma Gas and Electric Company	Docket No. 16-052-U	Return on Equity
CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Arkansas Gas	11/15	CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Arkansas Gas	Docket No. 15-098-U	Return on Equity
SourceGas Arkansas, Inc.	03/15	SourceGas Arkansas, Inc.	Docket No. 15-011-U	Return on Equity
<b>California Public Utilities Commission</b>				
Southwest Gas Corporation	12/12	Southwest Gas Corporation	Docket No. A-12-12-024	Return on Equity
<b>Colorado Public Utilities Commission</b>				
Xcel Energy, Inc.	03/15	Public Service Company of Colorado	Docket No. 15AL-0135G	Return on Equity (gas)
Xcel Energy, Inc.	06/14	Public Service Company of Colorado	Docket No. 14AL-0660E	Return on Equity (electric)
Xcel Energy, Inc.	12/12	Public Service Company of Colorado	Docket No. 12AL-1268G	Return on Equity (gas)
Xcel Energy, Inc.	11/11	Public Service Company of Colorado	Docket No. 11AL-947E	Return on Equity (electric)

Sponsor	Date	Case/Applicant	Docket No.	Subject
Xcel Energy, Inc.	12/10	Public Service Company of Colorado	Docket No. D-10AL-963G	Return on Equity (gas)
<b>Connecticut Public Utilities Regulatory Authority</b>				
Connecticut Light and Power Company	06/14	Connecticut Light and Power Company	Docket No. 14-05-06	Return on Equity
<b>Delaware Public Service Commission</b>				
Potomac Electric Power Company	05/16	Potomac Electric Power Company	Case No. 16-649 (Electric)	Return on Equity
Potomac Electric Power Company	05/16	Potomac Electric Power Company	Case No. 16-650 (Gas)	Return on Equity
Delmarva Power & Light Company	03/13	Delmarva Power & Light Company	Case No. 13-115	Return on Equity (electric)
Delmarva Power & Light Company	12/12	Delmarva Power & Light Company	Case No. 12-546	Return on Equity (gas)
Delmarva Power & Light Company	03/12	Delmarva Power & Light Company	Case No. 11-528	Return on Equity (electric)
<b>District of Columbia Public Service Commission</b>				
Potomac Electric Power Company	07/16	Potomac Electric Power Company	Formal Case No. FC1139	Return on Equity
Washington Gas Light Company	02/16	Washington Gas Light Company	Formal Case No. FC1137	Return on Equity
Potomac Electric Power Company	03/13	Potomac Electric Power Company	FC-1103-2013-E	Return on Equity
Potomac Electric Power Company	07/11	Potomac Electric Power Company	FC-1087	Return on Equity
<b>Federal Energy Regulatory Commission</b>				
Sabine Pipeline, LLC	09/15	Sabine Pipeline, LLC	Docket No. RP15-1322-000	Return on Equity
Nextera Energy Transmission West, LLC	07/15	Nextera Energy Transmission West, LLC	Docket No. ER15-2239-000	Return on Equity

Sponsor	Date	Case/Applicant	Docket No.	Subject
Maritimes & Northeast Pipeline, LLC	05/15	Maritimes & Northeast Pipeline, LLC	Docket No. RP15-1026-000	Return on Equity
Public Service Company of New Mexico	12/12	Public Service Company of New Mexico	Docket No. ER13-685-000	Return on Equity
Public Service Company of New Mexico	10/10	Public Service Company of New Mexico	Docket No. ER11-1915-000	Return on Equity
Portland Natural Gas Transmission System	05/10	Portland Natural Gas Transmission System	Docket No. RP10-729-000	Return on Equity
<b>Florida Public Service Commission</b>				
Florida Power & Light Company	03/16	Florida Power & Light Company	Docket No. 160021-EI	Return on Equity
Tampa Electric Company	04/13	Tampa Electric Company	Docket No. 130040-EI	Return on Equity
<b>Georgia Public Service Commission</b>				
Atlanta Gas Light Company	05/10	Atlanta Gas Light Company	Docket No. 31647-U	Return on Equity
<b>Hawaii Public Utilities Commission</b>				
Hawai'i Electric Light Company, Inc.	09/16	Hawai'i Electric Light Company, Inc.	Docket No. 2015-0170	Return on Equity
Maui Electric Company, Limited	12/14	Maui Electric Company, Limited	Docket No. 2014-0318	Return on Equity
Hawaiian Electric Company, Inc.	06/14	Hawaiian Electric Company, Inc.	Docket No. 2013-0373	Return on Equity

Sponsor	Date	Case/Applicant	Docket No.	Subject
Hawaii Electric Light Company, Inc.	08/12	Hawaii Electric Light Company, Inc.	Docket No. 2012-0099	Return on Equity
<b>Illinois Commerce Commission</b>				
Ameren Illinois Company d/b/a Ameren Illinois	01/15	Ameren Illinois Company d/b/a Ameren Illinois	Docket No. 15-0142	Return on Equity
Liberty Utilities (Midstates Natural Gas) Corp. d/b/a Liberty Utilities	03/14	Liberty Utilities (Midstates Natural Gas) Corp. d/b/a Liberty Utilities	Docket No. 14-0371	Return on Equity
Ameren Illinois Company d/b/a Ameren Illinois	01/13	Ameren Illinois Company d/b/a Ameren Illinois	Docket No. 13-0192	Return on Equity
Ameren Illinois Company d/b/a Ameren Illinois	02/11	Ameren Illinois Company d/b/a Ameren Illinois	Docket No. 11-0279	Return on Equity
Ameren Illinois Company d/b/a Ameren Illinois	02/11	Ameren Illinois Company d/b/a Ameren Illinois	Docket No. 11-0282	Return on Equity
<b>Indiana Utility Regulatory Commission</b>				
Duke Energy Indiana, Inc.	12/15	Duke Energy Indiana, Inc.	Cause No. 44720	Return on Equity
Duke Energy Indiana, Inc.	12/14	Duke Energy Indiana, Inc.	Cause No. 44526	Return on Equity
<b>Kansas Corporation Commission</b>				
Kansas City Power & Light Company	01/15	Kansas City Power & Light Company	Docket No. 15-KCPE-116-RTS	Return on Equity
<b>Maryland Public Service Commission</b>				
Potomac Electric Power Company	06/16	Potomac Electric Power Company	Case No. 9418	Return on Equity
Potomac Electric Power Company	12/13	Potomac Electric Power Company	Case No. 9336	Return on Equity



Sponsor	Date	Case/Applicant	Docket No.	Subject
Delmarva Power & Light Company	03/13	Delmarva Power & Light Company	Case No. 9317	Return on Equity
Potomac Electric Power Company	11/12	Potomac Electric Power Company	Case No. 9311	Return on Equity
Delmarva Power & Light Company	12/11	Delmarva Power & Light Company	Case No. 9285	Return on Equity
Potomac Electric Power Company	12/11	Potomac Electric Power Company	Case No. 9286	Return on Equity
Delmarva Power & Light	12/10	Delmarva Power & Light	Case No. 9249	Return on Equity
<b>Massachusetts Department of Public Utilities</b>				
National Grid	11/15	Massachusetts Electric Company and Nantucket Electric Company d/b/a National Grid	DPU 15-155	Return on Equity
Fitchburg Gas and Electric Light Company d/b/a Unitil	06/15	Fitchburg Gas and Electric Light Company d/b/a Unitil	DPU 15-80/15-81	Return on Equity (gas and electric)
NSTAR Gas Company	12/14	NSTAR Gas Company	DPU 14-150	Return on Equity
Fitchburg Gas and Electric Light Company d/b/a Unitil	07/13	Fitchburg Gas and Electric Light Company d/b/a Unitil	DPU 13-90	Return on Equity (electric)
Bay State Gas Company d/b/a Columbia Gas of Massachusetts	04/12	Bay State Gas Company d/b/a Columbia Gas of Massachusetts	Docket No. 12-25	Capital Cost Recovery
<b>Minnesota Public Utilities Commission</b>				
Otter Tail Power Corporation	02/16	Otter Tail Power Company	Docket No. E017/GR-15-1033	Return on Equity
Minnesota Energy Resources Corporation	09/15	Minnesota Energy Resources Corporation	Docket No. G-011/GR-15-736	Return on Equity

Sponsor	Date	Case/Applicant	Docket No.	Subject
CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Minnesota Gas	08/15	CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Minnesota Gas	Docket No. G-008/GR-15-424	Return on Equity
Xcel Energy, Inc.	11/13	Northern States Power Company	Docket No. E-002/GR-13-868	Return on Equity
CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Minnesota Gas	08/13	CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Minnesota Gas	Docket No. G-008/GR-13-316	Return on Equity
Xcel Energy, Inc.	11/12	Northern States Power Company- Minnesota	Docket No. E-002/GR-12-961	Return on Equity (electric)
Otter Tail Power Corporation	04/10	Otter Tail Power Company	Docket No. E-017/GR-10-239	Return on Equity
<b>Missouri Public Service Commission</b>				
Union Electric Company d/b/a Ameren Missouri	07/16	Union Electric Company d/b/a Ameren Missouri	Case No. ER-2016-0179	Return on Equity (electric)
Kansas City Power & Light Company	07/16	Kansas City Power & Light Company	Case No. ER-2016-0285	Return on Equity (electric)
Kansas City Power & Light Company	02/16	Kansas City Power & Light Company	Case No. ER-2016-0156	Return on Equity (electric)
Kansas City Power & Light Company	10/14	Kansas City Power & Light Company	Case No. ER-2014-0370	Return on Equity
Union Electric Company d/b/a Ameren Missouri	07/14	Union Electric Company d/b/a Ameren Missouri	Case No. ER-2014-0258	Return on Equity (electric)
Union Electric Company d/b/a Ameren Missouri	06/14	Union Electric Company d/b/a Ameren Missouri	Case No. EC-2014-0223	Return on Equity (electric)

Sponsor	Date	Case/Applicant	Docket No.	Subject
Liberty Utilities (Midstates Natural Gas) Corp. d/b/a Liberty Utilities	02/14	Liberty Utilities (Midstates Natural Gas) Corp. d/b/a Liberty Utilities	Case No. GR-2014-0152	Return on Equity
Laclede Gas Company	12/12	Laclede Gas Company	Case No. GR-2013-0171	Return on Equity
Union Electric Company d/b/a Ameren Missouri	02/12	Union Electric Company d/b/a Ameren Missouri	Case No. ER-2012-0166	Return on Equity (electric)
Union Electric Company	09/10	Ameren Missouri d/b/a AmerenUE	Case No. ER-2011-0028	Return on Equity (electric)
Union Electric Company	06/10	Union Electric Company d/b/a AmerenUE	Case No. GR-2010-0363	Return on Equity (gas)
<b>Montana Public Service Commission</b>				
Northwestern Corporation d/b/a Northwestern Energy	09/12	Northwestern Corporation d/b/a Northwestern Energy	Docket No. D2012.9.94	Return on Equity (gas)
<b>Nevada Public Utilities Commission</b>				
Southwest Gas Corporation	04/12	Southwest Gas Corporation	Docket No. 12-04005	Return on Equity (gas)
Nevada Power Company	06/11	Nevada Power Company	Docket No. 11-06006	Return on Equity
<b>New Hampshire Public Utilities Commission</b>				
Unitil Energy Systems, Inc.	04/16	Unitil Energy Systems, Inc.	Docket No. DE 16-384	Return on Equity
Liberty Utilities d/b/a EnergyNorth Natural Gas	08/14	Liberty Utilities d/b/a EnergyNorth Natural Gas	Docket No. DG 14-180	Return on Equity
Liberty Utilities d/b/a Granite State Electric Company	03/13	Liberty Utilities d/b/a Granite State Electric Company	Docket No. DE 13-063	Return on Equity
EnergyNorth Natural Gas d/b/a National Grid NH	02/10	EnergyNorth Natural Gas d/b/a National Grid NH	Docket No. DG 10-017	Return on Equity

Sponsor	Date	Case/Applicant	Docket No.	Subject
<b>New Jersey Board of Public Utilities</b>				
Pivotal Utility Holdings, Inc.	8/16	Elizabethtown Gas	Docket No. GR16090826	Return on Equity
Atlantic City Electric Company	03/16	Atlantic City Electric Company	Docket No. ER16030252	Return on Equity
Pepco Holdings, Inc.	04/14	Atlantic City Electric Company	Docket No. ER14030245	Return on Equity
Orange and Rockland Utilities	11/13	Rockland Electric Company	Docket No. ER13111135	Return on Equity
Atlantic City Electric Company	12/12	Atlantic City Electric Company	Docket No. ER12121071	Return on Equity
Atlantic City Electric Company	08/11	Atlantic City Electric Company	Docket No. ER11080469	Return on Equity
<b>New Mexico Public Regulation Commission</b>				
Public Service Company of New Mexico	08/15	Public Service Company of New Mexico	Case No. 15-00261-UT	Return on Equity (electric)
Public Service Company of New Mexico	12/14	Public Service Company of New Mexico	Case No. 14-00332-UT	Return on Equity (electric)
Southwestern Public Service Company	02/11	Southwestern Public Service Company	Case No. 10-00395-UT	Return on Equity (electric)
Public Service Company of New Mexico	06/10	Public Service Company of New Mexico	Case No. 10-00086-UT	Return on Equity (electric)
<b>New York State Public Service Commission</b>				
Consolidated Edison Company of New York, Inc.	01/15	Consolidated Edison Company of New York, Inc.	Case No. 15-E-0050	Return on Equity (electric)

Sponsor	Date	Case/Applicant	Docket No.	Subject
Orange and Rockland Utilities, Inc.	11/14	Orange and Rockland Utilities, Inc.	Case Nos. 14-E-0493 and 14-G-0494	Return on Equity (electric and gas)
Consolidated Edison Company of New York, Inc.	01/13	Consolidated Edison Company of New York, Inc.	Case No. 13-E-0030	Return on Equity (electric)
Niagara Mohawk Corporation d/b/a National Grid for Electric Service	04/12	Niagara Mohawk Corporation d/b/a National Grid for Electric Service	Case No. 12-E-0201	Return on Equity
Niagara Mohawk Corporation d/b/a National Grid for Gas Service	04/12	Niagara Mohawk Corporation d/b/a National Grid for Gas Service	Case No. 12-G-0202	Return on Equity
Orange and Rockland Utilities, Inc.	07/11	Orange and Rockland Utilities, Inc.	Case No. 11-E-0408	Return on Equity (electric)
Orange and Rockland Utilities, Inc.	07/10	Orange and Rockland Utilities, Inc.	Case No. 10-E-0362	Return on Equity (electric)
<b>North Carolina Utilities Commission</b>				
Public Service Company of North Carolina, Inc.	03/16	Public Service Company of North Carolina, Inc.	Docket No. G-5, Sub 565	Return on Equity
Dominion North Carolina Power	03/16	Dominion North Carolina Power	Docket No. E-22, Sub 532	Return on Equity
Duke Energy Carolinas, LLC	02/13	Duke Energy Carolinas, LLC	Docket No. D-E-7, Sub 1026	Return on Equity
Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc.	10/12	Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc.	Docket No. D-E-2, Sub 1023	Return on Equity
Virginia Electric and Power Company d/b/a Dominion North Carolina Power	03/12	Virginia Electric and Power Company d/b/a Dominion North Carolina Power	Docket No. E-22, Sub 479	Return on Equity (electric)

Sponsor	Date	Case/Applicant	Docket No.	Subject
Duke Energy Carolinas, LLC	07/11	Duke Energy Carolinas, LLC	Docket No. E-7, Sub 989	Return on Equity (electric)
<b>Oklahoma Corporation Commission</b>				
CenterPoint Energy Resources Corp., d/b/a CenterPoint Energy Oklahoma Gas	03/16	CenterPoint Energy Resources Corp., d/b/a CenterPoint Energy Oklahoma Gas	Cause No. PUD201600094	Return on Equity
Oklahoma Gas & Electric Company	12/15	Oklahoma Gas & Electric Company	Cause No. PUD201500273	Return on Equity
Public Service Company of Oklahoma	07/15	Public Service Company of Oklahoma	Cause No. PUD201500208	Return on Equity
Oklahoma Gas & Electric Company	07/11	Oklahoma Gas & Electric Company	Cause No. PUD201100087	Return on Equity
<b>Pennsylvania Public Utility Commission</b>				
Pike County Light & Power Company	01/14	Pike County Light & Power Company	Docket No. R-2013-2397237	Return on Equity (electric & gas)
Veolia Energy Philadelphia, Inc.	12/13	Veolia Energy Philadelphia, Inc.	Docket No. R-2013-2386293	Return on Equity (steam)
<b>Rhode Island Public Utilities Commission</b>				
The Narragansett Electric Company d/b/a National Grid	04/12	The Narragansett Electric Company d/b/a National Grid	Docket No. 4323	Return on Equity (gas and electric)
<b>South Carolina Public Service Commission</b>				
Duke Energy Progress, LLC	07/16	Duke Energy Progress, LLC	Docket No. 2016-227-E	Return on Equity
Duke Energy Carolinas, LLC	03/13	Duke Energy Carolinas, LLC	Docket No. 2013-59-E	Return on Equity
South Carolina Electric & Gas	06/12	South Carolina Electric & Gas	Docket No. 2012-218-E	Return on Equity

Sponsor	Date	Case/Applicant	Docket No.	Subject
Duke Energy Carolinas, LLC	08/11	Duke Energy Carolinas, LLC	Docket No. 2011-271-E	Return on Equity (electric)
South Carolina Electric & Gas Company	03/10	South Carolina Electric & Gas Company	Docket No. 2009-489-E	Return on Equity
<b>South Dakota Public Utilities Commission</b>				
Otter Tail Power Company	08/10	Otter Tail Power Company	Docket No. EL10-011	Return on Equity (electric)
<b>Texas Public Utility Commission</b>				
Southwestern Public Service Company	02/16	Southwestern Public Service Company	Docket No. 44524	Return on Equity (electric)
Wind Energy Transmission Texas, LLC	05/15	Wind Energy Transmission Texas, LLC	Docket No. 44746	Return on Equity
Cross Texas Transmission	12/14	Cross Texas Transmission	Docket No. 43950	Return on Equity
Southwestern Public Service Company	12/14	Southwestern Public Service Company	Docket No. 43695	Return on Equity (electric)
Sharyland Utilities, L.P.	05/13	Sharyland Utilities, L.P.	Docket No. 41474	Return on Equity
Wind Energy Transmission Texas, LLC	08/12	Wind Energy Transmission Texas, LLC	Docket No. 40606	Return on Equity
Southwestern Electric Power Company	07/12	Southwestern Electric Power Company	Docket No. 40443	Return on Equity
Oncor Electric Delivery Company, LLC	01/11	Oncor Electric Delivery Company, LLC	Docket No. 38929	Return on Equity
Texas-New Mexico Power Company	08/10	Texas-New Mexico Power Company	Docket No. 38480	Return on Equity (electric)

Sponsor	Date	Case/Applicant	Docket No.	Subject
CenterPoint Energy Houston Electric, LLC	06/10	CenterPoint Energy Houston Electric, LLC	Docket No. 38339	Return on Equity (electric)
Southwestern Public Service Company	05/10	Southwestern Public Service Company	Docket No. 38147	Return on Equity (electric)
<b>Texas Railroad Commission</b>				
Centerpoint Energy Resources Corp. d/b/a Centerpoint Energy Entex and Centerpoint Energy Texas Gas	03/15	Centerpoint Energy Resources Corp. d/b/a Centerpoint Energy Entex and Centerpoint Energy Texas Gas	GUD 10432	Return on Equity
CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Entex and CenterPoint Energy Texas Gas	07/12	CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Entex and CenterPoint Energy Texas Gas	GUD 10182	Return on Equity
Atmos Energy Corporation – West Texas Division	06/12	Atmos Energy Corporation – West Texas Division	GUD 10174	Return on Equity
Atmos Energy Corporation – Mid-Texas Division	06/12	Atmos Energy Corporation – Mid-Texas Division	GUD 10170	Return on Equity
Centerpoint Energy Resources Corp. d/b/a Centerpoint Energy Entex and Centerpoint Energy Texas Gas	12/10	Centerpoint Energy Resources Corp. d/b/a Centerpoint Energy Entex and Centerpoint Energy Texas Gas	GUD 10038	Return on Equity
Atmos Pipeline – Texas	09/10	Atmos Pipeline – Texas	GUD 10000	Return on Equity
<b>Vermont Public Service Board</b>				
Central Vermont Public Service Corporation	12/10	Central Vermont Public Service Corporation	Docket No. 7627	Return on Equity
<b>Virginia State Corporation Commission</b>				



Sponsor	Date	Case/Applicant	Docket No.	Subject
Virginia Electric and Power Company	12/15	Virginia Electric and Power Company	Case Nos. PUE-2016-00063; PUE-2015-0058; PUE-2015-0059; PUE-2015-0060; PUE-2015-0061; PUE-2015-0075; PUE-2015-0089; PUE-2015-0102; PUE-2015-0104	Return on Equity
Virginia Electric and Power Company	03/15	Virginia Electric and Power Company	Case No. PUE-2015-00027	Return on Equity
Virginia Electric and Power Company	03/13	Virginia Electric and Power Company	Case No. PUE-2013-00020	Return on Equity

**Expert Report**

United States District Court, Western District of Texas, Austin Division				
Southwestern Public Service Company	02/12	Southwestern Public Service Company	C.A. No. A-09-CA-917-SS	PURPA and FERC regulations

Constant Growth DCF Analysis

# PNM Exhibit RBH-2

Is contained in the following 8 pages

Constant Growth Discounted Cash Flow Model with Half Year Growth Adjustment  
30 Day Average Stock Price

Line No			[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
	Company	Ticker	Annualized Dividend	Average Stock Price	Dividend Yield	Expected Dividend Yield	Zacks Earnings Growth	First Call Earnings Growth	Value Line Earnings Growth	Average Earnings Growth	Low ROE	Mean ROE	High ROE
1													
2	ALLETE, Inc.	ALE	\$2.08	\$59.36	3.50%	3.59%	5.50%	5.00%	4.00%	4.83%	7.57%	8.42%	9.10%
3	Alliant Energy Corporation	LNT	\$1.18	\$37.83	3.11%	3.20%	6.10%	6.60%	6.00%	6.23%	9.20%	9.44%	9.81%
4	Ameren Corporation	AEE	\$1.76	\$48.99	3.59%	3.70%	6.10%	5.60%	6.00%	5.90%	9.29%	9.60%	9.80%
5	American Electric Power Company, Inc.	AEP	\$2.36	\$63.64	3.71%	3.78%	5.20%	2.75%	4.00%	3.98%	6.51%	7.77%	9.01%
6	Avista Corporation	AVA	\$1.37	\$40.83	3.36%	3.44%	5.30%	5.00%	5.00%	5.10%	8.44%	8.54%	8.74%
7	CenterPoint Energy, Inc.	CNP	\$1.03	\$22.87	4.50%	4.60%	5.50%	5.11%	2.00%	4.20%	6.55%	8.80%	10.13%
8	CMS Energy Corporation	CMS	\$1.24	\$41.66	2.98%	3.07%	6.60%	7.27%	6.00%	6.62%	9.07%	9.70%	10.35%
9	DTE Energy Company	DTE	\$3.08	\$93.50	3.29%	3.39%	5.80%	5.63%	6.00%	5.81%	9.02%	9.20%	9.39%
10	El Paso Electric Company	EE	\$1.24	\$45.17	2.75%	2.82%	4.40%	7.00%	4.00%	5.13%	6.80%	7.95%	9.84%
11	Eversource Energy	ES	\$1.78	\$54.04	3.29%	3.39%	6.10%	5.39%	6.00%	5.83%	8.77%	9.22%	9.49%
12	IDACORP, Inc.	IDA	\$2.20	\$76.67	2.87%	2.92%	4.30%	4.10%	3.00%	3.80%	5.91%	6.72%	7.23%
13	NorthWestern Corporation	NWE	\$2.00	\$56.70	3.53%	3.62%	5.00%	4.50%	6.50%	5.33%	8.11%	8.95%	10.14%
14	OGE Energy Corp.	OGE	\$1.21	\$31.09	3.89%	3.97%	5.20%	4.30%	3.00%	4.17%	6.95%	8.14%	9.19%
15	Otter Tail Corporation	OTTR	\$1.25	\$34.69	3.60%	3.71%	NA	6.00%	6.00%	6.00%	9.71%	9.71%	9.71%
16	Pinnacle West Capital Corporation	PNW	\$2.62	\$75.36	3.48%	3.55%	4.30%	3.95%	4.00%	4.08%	7.50%	7.63%	7.85%
17	Portland General Electric Company	POR	\$1.28	\$42.12	3.04%	3.13%	6.00%	5.55%	5.50%	5.68%	8.62%	8.81%	9.13%
18	SCANA Corporation	SCG	\$2.30	\$71.34	3.22%	3.31%	5.50%	6.00%	4.50%	5.33%	7.80%	8.64%	9.32%
19	Wisconsin Energy Corporation	WEC	\$1.98	\$59.09	3.35%	3.46%	6.20%	6.77%	6.00%	6.32%	9.45%	9.78%	10.23%
20	Xcel Energy Inc.	XEL	\$1.36	\$40.82	3.33%	3.42%	5.40%	5.36%	5.50%	5.42%	8.78%	8.84%	8.92%
21	Proxy Group Mean				3.39%	3.48%	5.47%	5.36%	4.89%	5.25%	8.11%	8.73%	9.34%
22	Proxy Group Median				3.35%	3.44%	5.50%	5.39%	5.50%	5.33%	8.44%	8.81%	9.39%

## 23 Notes:

24 [1] Source: Bloomberg Professional

25 [2] Source: Bloomberg Professional, equals indicated number of trading day average as of October 31, 2016

26 [3] Equals [1] / [2]

27 [4] Equals [3] x (1 + 0.5 x [8])

28 [5] Source: Zacks

29 [6] Source: Yahoo! Finance

30 [7] Source: Value Line

31 [8] Equals Average([5], [6], [7])

32 [9] Equals [3] x (1 + 0.5 x Minimum([5], [6], [7])) + Minimum([5], [6], [7])

33 [10] Equals [4] + [8]

34 [11] Equals [3] x (1 + 0.5 x Maximum([5], [6], [7])) + Maximum([5], [6], [7])

Constant Growth Discounted Cash Flow Model with Half Year Growth Adjustment  
90 Day Average Stock Price

Line No			[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
	Company	Ticker	Annualized Dividend	Average Stock Price	Dividend Yield	Expected Dividend Yield	Zacks Earnings Growth	First Call Earnings Growth	Value Line Earnings Growth	Average Earnings Growth	Low ROE	Mean ROE	High ROE
1													
2	ALLETE, Inc.	ALE	\$2.08	\$61.07	3.41%	3.49%	5.50%	5.00%	4.00%	4.83%	7.47%	8.32%	9.00%
3	Alliant Energy Corporation	LNT	\$1.18	\$38.77	3.03%	3.13%	6.10%	6.60%	6.00%	6.23%	9.12%	9.36%	9.73%
4	Ameren Corporation	AEE	\$1.76	\$50.47	3.49%	3.59%	6.10%	5.60%	6.00%	5.90%	9.18%	9.49%	9.69%
5	American Electric Power Company, Inc.	AEP	\$2.36	\$66.29	3.56%	3.63%	5.20%	2.75%	4.00%	3.98%	6.36%	7.61%	8.85%
6	Avista Corporation	AVA	\$1.37	\$41.98	3.26%	3.35%	5.30%	5.00%	5.00%	5.10%	8.34%	8.45%	8.65%
7	CenterPoint Energy, Inc.	CNP	\$1.03	\$23.14	4.45%	4.54%	5.50%	5.11%	2.00%	4.20%	6.50%	8.75%	10.07%
8	CMS Energy Corporation	CMS	\$1.24	\$43.12	2.88%	2.97%	6.60%	7.27%	6.00%	6.62%	8.96%	9.59%	10.25%
9	DTE Energy Company	DTE	\$3.08	\$95.13	3.24%	3.33%	5.80%	5.63%	6.00%	5.81%	8.96%	9.14%	9.33%
10	El Paso Electric Company	EE	\$1.24	\$46.04	2.69%	2.76%	4.40%	7.00%	4.00%	5.13%	6.75%	7.90%	9.79%
11	Eversource Energy	ES	\$1.78	\$55.87	3.19%	3.28%	6.10%	5.39%	6.00%	5.83%	8.66%	9.11%	9.38%
12	IDACORP, Inc.	IDA	\$2.20	\$78.03	2.82%	2.87%	4.30%	4.10%	3.00%	3.80%	5.86%	6.67%	7.18%
13	NorthWestern Corporation	NWE	\$2.00	\$58.85	3.40%	3.49%	5.00%	4.50%	6.50%	5.33%	7.97%	8.82%	10.01%
14	OGE Energy Corp.	OGE	\$1.21	\$31.39	3.85%	3.93%	5.20%	4.30%	3.00%	4.17%	6.91%	8.10%	9.15%
15	Otter Tail Corporation	OTTR	\$1.25	\$34.41	3.63%	3.74%	NA	6.00%	6.00%	6.00%	9.74%	9.74%	9.74%
16	Pinnacle West Capital Corporation	PNW	\$2.62	\$77.09	3.40%	3.47%	4.30%	3.95%	4.00%	4.08%	7.42%	7.55%	7.77%
17	Portland General Electric Company	POR	\$1.28	\$42.89	2.98%	3.07%	6.00%	5.55%	5.50%	5.68%	8.57%	8.75%	9.07%
18	SCANA Corporation	SCG	\$2.30	\$72.46	3.17%	3.26%	5.50%	6.00%	4.50%	5.33%	7.75%	8.59%	9.27%
19	Wisconsin Energy Corporation	WEC	\$1.98	\$61.49	3.22%	3.32%	6.20%	6.77%	6.00%	6.32%	9.32%	9.65%	10.10%
20	Xcel Energy Inc.	XEL	\$1.36	\$42.22	3.22%	3.31%	5.40%	5.36%	5.50%	5.42%	8.67%	8.73%	8.81%
21	Proxy Group Mean				3.31%	3.40%	5.47%	5.36%	4.89%	5.25%	8.03%	8.65%	9.26%
22	Proxy Group Median				3.24%	3.33%	5.50%	5.39%	5.50%	5.33%	8.34%	8.75%	9.33%

23 Notes:

- 24 [1] Source: Bloomberg Professional
- 25 [2] Source: Bloomberg Professional, equals indicated number of trading day average as of October 31, 2016
- 26 [3] Equals [1] / [2]
- 27 [4] Equals [3] x (1 + 0.5 x [8])
- 28 [5] Source: Zacks
- 29 [6] Source: Yahoo! Finance
- 30 [7] Source: Value Line
- 31 [8] Equals Average([5], [6], [7])
- 32 [9] Equals [3] x (1 + 0.5 x Minimum([5], [6], [7])) + Minimum([5], [6], [7])
- 33 [10] Equals [4] + [8]
- 34 [11] Equals [3] x (1 + 0.5 x Maximum([5], [6], [7])) + Maximum([5], [6], [7])

Constant Growth Discounted Cash Flow Model with Half Year Growth Adjustment  
180 Day Average Stock Price

Line No			[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
	Company	Ticker	Annualized Dividend	Average Stock Price	Dividend Yield	Expected Dividend Yield	Zacks Earnings Growth	First Call Earnings Growth	Value Line Earnings Growth	Average Earnings Growth	Low ROE	Mean ROE	High ROE
2	ALLETE, Inc.	ALE	\$2.08	\$58.79	3.54%	3.62%	5.50%	5.00%	4.00%	4.83%	7.61%	8.46%	9.14%
3	Alliant Energy Corporation	LNT	\$1.18	\$37.54	3.13%	3.23%	6.10%	6.60%	6.00%	6.23%	9.22%	9.46%	9.83%
4	Ameren Corporation	AEE	\$1.76	\$49.50	3.56%	3.66%	6.10%	5.60%	6.00%	5.90%	9.25%	9.56%	9.76%
5	American Electric Power Company, Inc.	AEP	\$2.36	\$65.48	3.60%	3.68%	5.20%	2.75%	4.00%	3.98%	6.40%	7.66%	8.90%
6	Avista Corporation	AVA	\$1.37	\$41.07	3.34%	3.42%	5.30%	5.00%	5.00%	5.10%	8.42%	8.52%	8.72%
7	CenterPoint Energy, Inc.	CNP	\$1.03	\$22.18	4.64%	4.74%	5.50%	5.11%	2.00%	4.20%	6.69%	8.95%	10.27%
8	CMS Energy Corporation	CMS	\$1.24	\$42.26	2.93%	3.03%	6.60%	7.27%	6.00%	6.62%	9.02%	9.66%	10.31%
9	DTE Energy Company	DTE	\$3.08	\$92.20	3.34%	3.44%	5.80%	5.63%	6.00%	5.81%	9.06%	9.25%	9.44%
10	El Paso Electric Company	EE	\$1.24	\$45.14	2.75%	2.82%	4.40%	7.00%	4.00%	5.13%	6.80%	7.95%	9.84%
11	Eversource Energy	ES	\$1.78	\$56.12	3.17%	3.26%	6.10%	5.39%	6.00%	5.83%	8.65%	9.09%	9.37%
12	IDACORP, Inc.	IDA	\$2.20	\$75.62	2.91%	2.96%	4.30%	4.10%	3.00%	3.80%	5.95%	6.76%	7.27%
13	NorthWestern Corporation	NWE	\$2.00	\$59.12	3.38%	3.47%	5.00%	4.50%	6.50%	5.33%	7.96%	8.81%	9.99%
14	OGE Energy Corp.	OGE	\$1.21	\$30.12	4.02%	4.10%	5.20%	4.30%	3.00%	4.17%	7.08%	8.27%	9.32%
15	Otter Tail Corporation	OTTR	\$1.25	\$31.77	3.93%	4.05%	NA	6.00%	6.00%	6.00%	10.05%	10.05%	10.05%
16	Pinnacle West Capital Corporation	PNW	\$2.62	\$75.07	3.49%	3.56%	4.30%	3.95%	4.00%	4.08%	7.51%	7.64%	7.87%
17	Portland General Electric Company	POR	\$1.28	\$41.42	3.09%	3.18%	6.00%	5.55%	5.50%	5.68%	8.67%	8.86%	9.18%
18	SCANA Corporation	SCG	\$2.30	\$70.61	3.26%	3.34%	5.50%	6.00%	4.50%	5.33%	7.83%	8.68%	9.36%
19	Wisconsin Energy Corporation	WEC	\$1.98	\$60.30	3.28%	3.39%	6.20%	6.77%	6.00%	6.32%	9.38%	9.71%	10.17%
20	Xcel Energy Inc.	XEL	\$1.36	\$41.56	3.27%	3.36%	5.40%	5.36%	5.50%	5.42%	8.72%	8.78%	8.86%
21	Proxy Group Mean				3.40%	3.49%	5.47%	5.36%	4.89%	5.25%	8.12%	8.74%	9.35%
22	Proxy Group Median				3.34%	3.42%	5.50%	5.39%	5.50%	5.33%	8.42%	8.81%	9.37%

23 Notes:

- 24 [1] Source: Bloomberg Professional
- 25 [2] Source: Bloomberg Professional, equals indicated number of trading day average as of October 31, 2016
- 26 [3] Equals [1] / [2]
- 27 [4] Equals [3] x (1 + 0.5 x [8])
- 28 [5] Source: Zacks
- 29 [6] Source: Yahoo! Finance
- 30 [7] Source: Value Line
- 31 [8] Equals Average([5], [6], [7])
- 32 [9] Equals [3] x (1 + 0.5 x Minimum([5], [6], [7])) + Minimum([5], [6], [7])
- 33 [10] Equals [4] + [8]
- 34 [11] Equals [3] x (1 + 0.5 x Maximum([5], [6], [7])) + Maximum([5], [6], [7])

Constant Growth Discounted Cash Flow Model with Half Year Growth Adjustment  
360 Day Average Stock Price

Line No			[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
	Company	Ticker	Annualized Dividend	Average Stock Price	Dividend Yield	Expected Dividend Yield	Zacks Earnings Growth	First Call Earnings Growth	Value Line Earnings Growth	Average Earnings Growth	Low ROE	Mean ROE	High ROE
1													
2	ALLETE, Inc.	ALE	\$2.08	\$54.29	3.83%	3.92%	5.50%	5.00%	4.00%	4.83%	7.91%	8.76%	9.44%
3	Alliant Energy Corporation	LNT	\$1.18	\$33.81	3.47%	3.58%	6.10%	6.60%	6.00%	6.23%	9.58%	9.82%	10.19%
4	Ameren Corporation	AEE	\$1.76	\$45.65	3.86%	3.97%	6.10%	5.60%	6.00%	5.90%	9.56%	9.87%	10.07%
5	American Electric Power Company, Inc.	AEP	\$2.36	\$60.96	3.87%	3.95%	5.20%	2.75%	4.00%	3.98%	6.67%	7.93%	9.17%
6	Avista Corporation	AVA	\$1.37	\$37.22	3.68%	3.77%	5.30%	5.00%	5.00%	5.10%	8.77%	8.87%	9.08%
7	CenterPoint Energy, Inc.	CNP	\$1.03	\$20.24	5.09%	5.19%	5.50%	5.11%	2.00%	4.20%	7.14%	9.40%	10.73%
8	CMS Energy Corporation	CMS	\$1.24	\$38.56	3.22%	3.32%	6.60%	7.27%	6.00%	6.62%	9.31%	9.95%	10.60%
9	DTE Energy Company	DTE	\$3.08	\$85.92	3.58%	3.69%	5.80%	5.63%	6.00%	5.81%	9.32%	9.50%	9.69%
10	El Paso Electric Company	EE	\$1.24	\$41.17	3.01%	3.09%	4.40%	7.00%	4.00%	5.13%	7.07%	8.22%	10.12%
11	Eversource Energy	ES	\$1.78	\$52.91	3.36%	3.46%	6.10%	5.39%	6.00%	5.83%	8.84%	9.29%	9.57%
12	IDACORP, Inc.	IDA	\$2.20	\$69.66	3.16%	3.22%	4.30%	4.10%	3.00%	3.80%	6.21%	7.02%	7.53%
13	NorthWestern Corporation	NWE	\$2.00	\$56.15	3.56%	3.66%	5.00%	4.50%	6.50%	5.33%	8.14%	8.99%	10.18%
14	OGE Energy Corp.	OGE	\$1.21	\$28.83	4.20%	4.28%	5.20%	4.30%	3.00%	4.17%	7.26%	8.45%	9.51%
15	Otter Tail Corporation	OTTR	\$1.25	\$29.25	4.27%	4.40%	NA	6.00%	6.00%	6.00%	10.40%	10.40%	10.40%
16	Pinnacle West Capital Corporation	PNW	\$2.62	\$68.71	3.81%	3.89%	4.30%	3.95%	4.00%	4.08%	7.84%	7.97%	8.20%
17	Portland General Electric Company	POR	\$1.28	\$38.75	3.30%	3.40%	6.00%	5.55%	5.50%	5.68%	8.89%	9.08%	9.40%
18	SCANA Corporation	SCG	\$2.30	\$63.57	3.62%	3.71%	5.50%	6.00%	4.50%	5.33%	8.20%	9.05%	9.73%
19	Wisconsin Energy Corporation	WEC	\$1.98	\$55.19	3.59%	3.70%	6.20%	6.77%	6.00%	6.32%	9.69%	10.02%	10.48%
20	Xcel Energy Inc.	XEL	\$1.36	\$38.29	3.55%	3.65%	5.40%	5.36%	5.50%	5.42%	9.01%	9.07%	9.15%
21	Proxy Group Mean				3.69%	3.78%	5.47%	5.36%	4.89%	5.25%	8.41%	9.03%	9.64%
22	Proxy Group Median				3.59%	3.70%	5.50%	5.39%	5.50%	5.33%	8.77%	9.07%	9.69%

23 Notes:

24 [1] Source: Bloomberg Professional

25 [2] Source: Bloomberg Professional, equals indicated number of trading day average as of October 31, 2016

26 [3] Equals [1] / [2]

27 [4] Equals [3] x (1 + 0.5 x [8])

28 [5] Source: Zacks

29 [6] Source: Yahoo! Finance

30 [7] Source: Value Line

31 [8] Equals Average([5], [6], [7])

32 [9] Equals [3] x (1 + 0.5 x Minimum([5], [6], [7])) + Minimum([5], [6], [7])

33 [10] Equals [4] + [8]

34 [11] Equals [3] x (1 + 0.5 x Maximum([5], [6], [7])) + Maximum([5], [6], [7])

Constant Growth Discounted Cash Flow Model with Full Year Growth Adjustment  
30 Day Average Stock Price

Line No			[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
	Company	Ticker	Annualized Dividend	Average Stock Price	Dividend Yield	Expected Dividend Yield	Zacks Earnings Growth	First Call Earnings Growth	Value Line Earnings Growth	Average Earnings Growth	Low ROE	Mean ROE	High ROE
1													
2	ALLETE, Inc.	ALE	\$2.08	\$59.36	3.50%	3.67%	5.50%	5.00%	4.00%	4.83%	7.64%	8.51%	9.20%
3	Alliant Energy Corporation	LNT	\$1.18	\$37.83	3.11%	3.30%	6.10%	6.60%	6.00%	6.23%	9.29%	9.53%	9.91%
4	Ameren Corporation	AEE	\$1.76	\$48.99	3.59%	3.80%	6.10%	5.60%	6.00%	5.90%	9.39%	9.70%	9.91%
5	American Electric Power Company, Inc.	AEP	\$2.36	\$63.64	3.71%	3.86%	5.20%	2.75%	4.00%	3.98%	6.56%	7.84%	9.10%
6	Avista Corporation	AVA	\$1.37	\$40.83	3.36%	3.53%	5.30%	5.00%	5.00%	5.10%	8.52%	8.63%	8.83%
7	CenterPoint Energy, Inc.	CNP	\$1.03	\$22.87	4.50%	4.69%	5.50%	5.11%	2.00%	4.20%	6.59%	8.90%	10.25%
8	CMS Energy Corporation	CMS	\$1.24	\$41.66	2.98%	3.17%	6.60%	7.27%	6.00%	6.62%	9.15%	9.80%	10.46%
9	DTE Energy Company	DTE	\$3.08	\$93.50	3.29%	3.49%	5.80%	5.63%	6.00%	5.81%	9.11%	9.30%	9.49%
10	El Paso Electric Company	EE	\$1.24	\$45.17	2.75%	2.89%	4.40%	7.00%	4.00%	5.13%	6.85%	8.02%	9.94%
11	Eversource Energy	ES	\$1.78	\$54.04	3.29%	3.49%	6.10%	5.39%	6.00%	5.83%	8.86%	9.32%	9.59%
12	IDACORP, Inc.	IDA	\$2.20	\$76.67	2.87%	2.98%	4.30%	4.10%	3.00%	3.80%	5.96%	6.78%	7.29%
13	NorthWestern Corporation	NWE	\$2.00	\$56.70	3.53%	3.72%	5.00%	4.50%	6.50%	5.33%	8.19%	9.05%	10.26%
14	OGE Energy Corp.	OGE	\$1.21	\$31.09	3.89%	4.05%	5.20%	4.30%	3.00%	4.17%	7.01%	8.22%	9.29%
15	Otter Tail Corporation	OTTR	\$1.25	\$34.69	3.60%	3.82%	NA	6.00%	6.00%	6.00%	9.82%	9.82%	9.82%
16	Pinnacle West Capital Corporation	PNW	\$2.62	\$75.36	3.48%	3.62%	4.30%	3.95%	4.00%	4.08%	7.56%	7.70%	7.93%
17	Portland General Electric Company	POR	\$1.28	\$42.12	3.04%	3.21%	6.00%	5.55%	5.50%	5.68%	8.71%	8.90%	9.22%
18	SCANA Corporation	SCG	\$2.30	\$71.34	3.22%	3.40%	5.50%	6.00%	4.50%	5.33%	7.87%	8.73%	9.42%
19	Wisconsin Energy Corporation	WEC	\$1.98	\$59.09	3.35%	3.56%	6.20%	6.77%	6.00%	6.32%	9.55%	9.89%	10.35%
20	Xcel Energy Inc.	XEL	\$1.36	\$40.82	3.33%	3.51%	5.40%	5.36%	5.50%	5.42%	8.87%	8.93%	9.02%
21	Proxy Group Mean				3.39%	3.57%	5.47%	5.36%	4.89%	5.25%	8.19%	8.82%	9.44%
22	Proxy Group Median				3.35%	3.53%	5.50%	5.39%	5.50%	5.33%	8.52%	8.90%	9.49%

## Notes:

[1] Source: Bloomberg Professional

[2] Source: Bloomberg Professional, equals indicated number of trading day average as of October 31, 2016

[3] Equals [1] / [2]

[4] Equals [3] x (1 + [8])

[5] Source: Zacks

[6] Source: Yahoo! Finance

[7] Source: Value Line

[8] Equals Average([5], [6], [7])

[9] Equals [3] x (1 + Minimum([5], [6], [7])) + Minimum([5], [6], [7])

[10] Equals [4] + [8]

[11] Equals [3] x (1 + Maximum([5], [6], [7])) + Maximum([5], [6], [7])

Constant Growth Discounted Cash Flow Model with Full Year Growth Adjustment  
90 Day Average Stock Price

Line No			[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
	Company	Ticker	Annualized Dividend	Average Stock Price	Dividend Yield	Expected Dividend Yield	Zacks Earnings Growth	First Call Earnings Growth	Value Line Earnings Growth	Average Earnings Growth	Low ROE	Mean ROE	High ROE
1													
2	ALLETE, Inc.	ALE	\$2.08	\$61.07	3.41%	3.57%	5.50%	5.00%	4.00%	4.83%	7.54%	8.40%	9.09%
3	Alliant Energy Corporation	LNT	\$1.18	\$38.77	3.03%	3.22%	6.10%	6.60%	6.00%	6.23%	9.21%	9.45%	9.83%
4	Ameren Corporation	AEE	\$1.76	\$50.47	3.49%	3.69%	6.10%	5.60%	6.00%	5.90%	9.28%	9.59%	9.80%
5	American Electric Power Company, Inc.	AEP	\$2.36	\$66.29	3.56%	3.70%	5.20%	2.75%	4.00%	3.98%	6.41%	7.69%	8.95%
6	Avista Corporation	AVA	\$1.37	\$41.98	3.26%	3.43%	5.30%	5.00%	5.00%	5.10%	8.43%	8.53%	8.74%
7	CenterPoint Energy, Inc.	CNP	\$1.03	\$23.14	4.45%	4.64%	5.50%	5.11%	2.00%	4.20%	6.54%	8.84%	10.20%
8	CMS Energy Corporation	CMS	\$1.24	\$43.12	2.88%	3.07%	6.60%	7.27%	6.00%	6.62%	9.05%	9.69%	10.35%
9	DTE Energy Company	DTE	\$3.08	\$95.13	3.24%	3.43%	5.80%	5.63%	6.00%	5.81%	9.05%	9.24%	9.43%
10	El Paso Electric Company	EE	\$1.24	\$46.04	2.69%	2.83%	4.40%	7.00%	4.00%	5.13%	6.80%	7.96%	9.88%
11	Eversource Energy	ES	\$1.78	\$55.87	3.19%	3.37%	6.10%	5.39%	6.00%	5.83%	8.75%	9.20%	9.48%
12	IDACORP, Inc.	IDA	\$2.20	\$78.03	2.82%	2.93%	4.30%	4.10%	3.00%	3.80%	5.90%	6.73%	7.24%
13	NorthWestern Corporation	NWE	\$2.00	\$58.85	3.40%	3.58%	5.00%	4.50%	6.50%	5.33%	8.05%	8.91%	10.12%
14	OGE Energy Corp.	OGE	\$1.21	\$31.39	3.85%	4.02%	5.20%	4.30%	3.00%	4.17%	6.97%	8.18%	9.26%
15	Otter Tail Corporation	OTTR	\$1.25	\$34.41	3.63%	3.85%	NA	6.00%	6.00%	6.00%	9.85%	9.85%	9.85%
16	Pinnacle West Capital Corporation	PNW	\$2.62	\$77.09	3.40%	3.54%	4.30%	3.95%	4.00%	4.08%	7.48%	7.62%	7.84%
17	Portland General Electric Company	POR	\$1.28	\$42.89	2.98%	3.15%	6.00%	5.55%	5.50%	5.68%	8.65%	8.84%	9.16%
18	SCANA Corporation	SCG	\$2.30	\$72.46	3.17%	3.34%	5.50%	6.00%	4.50%	5.33%	7.82%	8.68%	9.36%
19	Wisconsin Energy Corporation	WEC	\$1.98	\$61.49	3.22%	3.42%	6.20%	6.77%	6.00%	6.32%	9.41%	9.75%	10.21%
20	Xcel Energy Inc.	XEL	\$1.36	\$42.22	3.22%	3.40%	5.40%	5.36%	5.50%	5.42%	8.75%	8.82%	8.90%
21	Proxy Group Mean				3.31%	3.48%	5.47%	5.36%	4.89%	5.25%	8.10%	8.74%	9.35%
22	Proxy Group Median				3.24%	3.43%	5.50%	5.39%	5.50%	5.33%	8.43%	8.84%	9.43%

23 Notes:

- 24 [1] Source: Bloomberg Professional
- 25 [2] Source: Bloomberg Professional, equals indicated number of trading day average as of October 31, 2016
- 26 [3] Equals [1] / [2]
- 27 [4] Equals [3] x (1 + [8])
- 28 [5] Source: Zacks
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- 30 [7] Source: Value Line
- 31 [8] Equals Average([5], [6], [7])
- 32 [9] Equals [3] x (1 + Minimum([5], [6], [7])) + Minimum([5], [6], [7])
- 33 [10] Equals [4] + [8]
- 34 [11] Equals [3] x (1 + Maximum([5], [6], [7])) + Maximum([5], [6], [7])



Constant Growth Discounted Cash Flow Model with Full Year Growth Adjustment  
180 Day Average Stock Price

Line No			[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
	Company	Ticker	Annualized Dividend	Average Stock Price	Dividend Yield	Expected Dividend Yield	Zacks Earnings Growth	First Call Earnings Growth	Value Line Earnings Growth	Average Earnings Growth	Low ROE	Mean ROE	High ROE
1													
2	ALLETE, Inc.	ALE	\$2.08	\$58.79	3.54%	3.71%	5.50%	5.00%	4.00%	4.83%	7.68%	8.54%	9.23%
3	Alliant Energy Corporation	LNT	\$1.18	\$37.54	3.13%	3.33%	6.10%	6.60%	6.00%	6.23%	9.32%	9.56%	9.94%
4	Ameren Corporation	AEE	\$1.76	\$49.50	3.56%	3.77%	6.10%	5.60%	6.00%	5.90%	9.35%	9.67%	9.87%
5	American Electric Power Company, Inc.	AEP	\$2.36	\$65.48	3.60%	3.75%	5.20%	2.75%	4.00%	3.98%	6.45%	7.73%	8.99%
6	Avista Corporation	AVA	\$1.37	\$41.07	3.34%	3.51%	5.30%	5.00%	5.00%	5.10%	8.50%	8.61%	8.81%
7	CenterPoint Energy, Inc.	CNP	\$1.03	\$22.18	4.64%	4.84%	5.50%	5.11%	2.00%	4.20%	6.74%	9.04%	10.40%
8	CMS Energy Corporation	CMS	\$1.24	\$42.26	2.93%	3.13%	6.60%	7.27%	6.00%	6.62%	9.11%	9.75%	10.42%
9	DTE Energy Company	DTE	\$3.08	\$92.20	3.34%	3.53%	5.80%	5.63%	6.00%	5.81%	9.16%	9.34%	9.54%
10	El Paso Electric Company	EE	\$1.24	\$45.14	2.75%	2.89%	4.40%	7.00%	4.00%	5.13%	6.86%	8.02%	9.94%
11	Eversource Energy	ES	\$1.78	\$56.12	3.17%	3.36%	6.10%	5.39%	6.00%	5.83%	8.73%	9.19%	9.47%
12	IDACORP, Inc.	IDA	\$2.20	\$75.62	2.91%	3.02%	4.30%	4.10%	3.00%	3.80%	6.00%	6.82%	7.33%
13	NorthWestern Corporation	NWE	\$2.00	\$59.12	3.38%	3.56%	5.00%	4.50%	6.50%	5.33%	8.04%	8.90%	10.10%
14	OGE Energy Corp.	OGE	\$1.21	\$30.12	4.02%	4.19%	5.20%	4.30%	3.00%	4.17%	7.14%	8.35%	9.43%
15	Otter Tail Corporation	OTTR	\$1.25	\$31.77	3.93%	4.17%	NA	6.00%	6.00%	6.00%	10.17%	10.17%	10.17%
16	Pinnacle West Capital Corporation	PNW	\$2.62	\$75.07	3.49%	3.63%	4.30%	3.95%	4.00%	4.08%	7.58%	7.72%	7.94%
17	Portland General Electric Company	POR	\$1.28	\$41.42	3.09%	3.27%	6.00%	5.55%	5.50%	5.68%	8.76%	8.95%	9.28%
18	SCANA Corporation	SCG	\$2.30	\$70.61	3.26%	3.43%	5.50%	6.00%	4.50%	5.33%	7.90%	8.76%	9.45%
19	Wisconsin Energy Corporation	WEC	\$1.98	\$60.30	3.28%	3.49%	6.20%	6.77%	6.00%	6.32%	9.48%	9.81%	10.28%
20	Xcel Energy Inc.	XEL	\$1.36	\$41.56	3.27%	3.45%	5.40%	5.36%	5.50%	5.42%	8.81%	8.87%	8.95%
21	Proxy Group Mean				3.40%	3.58%	5.47%	5.36%	4.89%	5.25%	8.20%	8.83%	9.45%
22	Proxy Group Median				3.34%	3.51%	5.50%	5.39%	5.50%	5.33%	8.50%	8.90%	9.47%

23 Notes:

24 [1] Source: Bloomberg Professional

25 [2] Source: Bloomberg Professional, equals indicated number of trading day average as of October 31, 2016

26 [3] Equals [1] / [2]

27 [4] Equals [3] x (1 + [8])

28 [5] Source: Zacks

29 [6] Source: Yahoo! Finance

30 [7] Source: Value Line

31 [8] Equals Average([5], [6], [7])

32 [9] Equals [3] x (1 + Minimum([5], [6], [7])) + Minimum([5], [6], [7])

33 [10] Equals [4] + [8]

34 [11] Equals [3] x (1 + Maximum([5], [6], [7])) + Maximum([5], [6], [7])

Constant Growth Discounted Cash Flow Model with Full Year Growth Adjustment  
360 Day Average Stock Price

Line No			[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
	Company	Ticker	Annualized Dividend	Average Stock Price	Dividend Yield	Expected Dividend Yield	Zacks Earnings Growth	First Call Earnings Growth	Value Line Earnings Growth	Average Earnings Growth	Low ROE	Mean ROE	High ROE
1													
2	ALLETE, Inc.	ALE	\$2.08	\$54.29	3.83%	4.02%	5.50%	5.00%	4.00%	4.83%	7.98%	8.85%	9.54%
3	Alliant Energy Corporation	LNT	\$1.18	\$33.81	3.47%	3.69%	6.10%	6.60%	6.00%	6.23%	9.68%	9.92%	10.30%
4	Ameren Corporation	AEE	\$1.76	\$45.65	3.86%	4.08%	6.10%	5.60%	6.00%	5.90%	9.67%	9.98%	10.19%
5	American Electric Power Company, Inc.	AEP	\$2.36	\$60.96	3.87%	4.03%	5.20%	2.75%	4.00%	3.98%	6.73%	8.01%	9.27%
6	Avista Corporation	AVA	\$1.37	\$37.22	3.68%	3.87%	5.30%	5.00%	5.00%	5.10%	8.87%	8.97%	9.18%
7	CenterPoint Energy, Inc.	CNP	\$1.03	\$20.24	5.09%	5.30%	5.50%	5.11%	2.00%	4.20%	7.19%	9.50%	10.87%
8	CMS Energy Corporation	CMS	\$1.24	\$38.56	3.22%	3.43%	6.60%	7.27%	6.00%	6.62%	9.41%	10.05%	10.72%
9	DTE Energy Company	DTE	\$3.08	\$85.92	3.58%	3.79%	5.80%	5.63%	6.00%	5.81%	9.42%	9.60%	9.80%
10	El Paso Electric Company	EE	\$1.24	\$41.17	3.01%	3.17%	4.40%	7.00%	4.00%	5.13%	7.13%	8.30%	10.22%
11	Eversource Energy	ES	\$1.78	\$52.91	3.36%	3.56%	6.10%	5.39%	6.00%	5.83%	8.94%	9.39%	9.67%
12	IDACORP, Inc.	IDA	\$2.20	\$69.66	3.16%	3.28%	4.30%	4.10%	3.00%	3.80%	6.25%	7.08%	7.59%
13	NorthWestern Corporation	NWE	\$2.00	\$56.15	3.56%	3.75%	5.00%	4.50%	6.50%	5.33%	8.22%	9.09%	10.29%
14	OGE Energy Corp.	OGE	\$1.21	\$28.83	4.20%	4.37%	5.20%	4.30%	3.00%	4.17%	7.32%	8.54%	9.61%
15	Otter Tail Corporation	OTTR	\$1.25	\$29.25	4.27%	4.53%	NA	6.00%	6.00%	6.00%	10.53%	10.53%	10.53%
16	Pinnacle West Capital Corporation	PNW	\$2.62	\$68.71	3.81%	3.97%	4.30%	3.95%	4.00%	4.08%	7.91%	8.05%	8.28%
17	Portland General Electric Company	POR	\$1.28	\$38.75	3.30%	3.49%	6.00%	5.55%	5.50%	5.68%	8.99%	9.17%	9.50%
18	SCANA Corporation	SCG	\$2.30	\$63.57	3.62%	3.81%	5.50%	6.00%	4.50%	5.33%	8.28%	9.14%	9.84%
19	Wisconsin Energy Corporation	WEC	\$1.98	\$55.19	3.59%	3.81%	6.20%	6.77%	6.00%	6.32%	9.80%	10.14%	10.60%
20	Xcel Energy Inc.	XEL	\$1.36	\$38.29	3.55%	3.74%	5.40%	5.36%	5.50%	5.42%	9.10%	9.16%	9.25%
21	Proxy Group Mean				3.69%	3.88%	5.47%	5.36%	4.89%	5.25%	8.50%	9.13%	9.75%
22	Proxy Group Median				3.59%	3.81%	5.50%	5.39%	5.50%	5.33%	8.87%	9.16%	9.80%

23 Notes:

24 [1] Source: Bloomberg Professional

25 [2] Source: Bloomberg Professional, equals indicated number of trading day average as of October 31, 2016

26 [3] Equals [1] / [2]

27 [4] Equals [3] x (1 + [8])

28 [5] Source: Zacks

29 [6] Source: Yahoo! Finance

30 [7] Source: Value Line

31 [8] Equals Average([5], [6], [7])

32 [9] Equals [3] x (1 + Minimum([5], [6], [7])) + Minimum([5], [6], [7])

33 [10] Equals [4] + [8]

34 [11] Equals [3] x (1 + Maximum([5], [6], [7])) + Maximum([5], [6], [7])

Multi-Stage DCF Analysis

# PNM Exhibit RBH-3

Is contained in the following 74 pages

Multi-Stage Growth Discounted Cash Flow Model  
30 Day Average Stock Price  
Average EPS Growth Rate Estimate in First Stage

Line No	Inputs	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]					
1		Stock	EPS Growth Rate Estimates					Payout Ratio			Iterative Solution		Terminal	Terminal					
					Value		Long-Term						P/E	PEG					
2	Company	Ticker	Price	Zacks	First Call	Line	Average	Growth	2016	2020	2026	Proof	IRR	Ratio	Ratio				
3	ALLETE, Inc.	ALE	\$59.36	5.50%	5.00%	4.00%	4.83%	5.58%	66.00%	65.00%	66.88%	(\$0.00)	9.75%	16.92	3.03				
4	Alliant Energy Corporation	LNT	\$37.83	6.10%	6.60%	6.00%	6.23%	5.58%	62.00%	61.00%	66.88%	(\$0.00)	9.11%	19.97	3.58				
5	Ameren Corporation	AEE	\$48.99	6.10%	5.60%	6.00%	5.90%	5.58%	66.00%	63.00%	66.88%	(\$0.00)	9.37%	18.62	3.34				
6	American Electric Power Company, Inc.	AEP	\$63.64	5.20%	2.75%	4.00%	3.98%	5.58%	61.00%	67.00%	66.88%	(\$0.00)	9.48%	18.08	3.24				
7	Avista Corporation	AVA	\$40.83	5.30%	5.00%	5.00%	5.10%	5.58%	67.00%	64.00%	66.88%	(\$0.00)	9.01%	20.54	3.68				
8	CenterPoint Energy, Inc.	CNP	\$22.87	5.50%	5.11%	2.00%	4.20%	5.58%	86.00%	85.00%	66.88%	(\$0.00)	9.09%	20.12	3.61				
9	CMS Energy Corporation	CMS	\$41.66	6.60%	7.27%	6.00%	6.62%	5.58%	64.00%	62.00%	66.88%	(\$0.00)	9.27%	19.11	3.43				
10	DTE Energy Company	DTE	\$93.50	5.80%	5.63%	6.00%	5.81%	5.58%	62.00%	60.00%	66.88%	(\$0.01)	9.23%	19.31	3.46				
11	El Paso Electric Company	EE	\$45.17	4.40%	7.00%	4.00%	5.13%	5.58%	54.00%	59.00%	66.88%	(\$0.00)	8.85%	21.57	3.87				
12	Eversource Energy	ES	\$54.04	6.10%	5.39%	6.00%	5.83%	5.58%	61.00%	58.00%	66.88%	(\$0.00)	9.48%	18.08	3.24				
13	IDACORP, Inc.	IDA	\$76.67	4.30%	4.10%	3.00%	3.80%	5.58%	53.00%	60.00%	66.88%	(\$0.01)	8.94%	20.97	3.76				
14	NorthWestern Corporation	NWE	\$56.70	5.00%	4.50%	6.50%	5.33%	5.58%	59.00%	58.00%	66.88%	(\$0.00)	9.36%	18.68	3.35				
15	OGE Energy Corp.	OGE	\$31.09	5.20%	4.30%	3.00%	4.17%	5.58%	66.00%	74.00%	66.88%	(\$0.00)	9.46%	18.16	3.26				
16	Otter Tail Corporation	OTTR	\$34.69	NA	6.00%	6.00%	6.00%	5.58%	82.00%	64.00%	66.88%	(\$0.00)	9.17%	19.67	3.53				
17	Pinnacle West Capital Corporation	PNW	\$75.36	4.30%	3.95%	4.00%	4.08%	5.58%	64.00%	64.00%	66.88%	(\$0.01)	9.18%	19.58	3.51				
18	Portland General Electric Company	POR	\$42.12	6.00%	5.55%	5.50%	5.68%	5.58%	58.00%	59.00%	66.88%	(\$0.00)	9.24%	19.25	3.45				
19	SCANA Corporation	SCG	\$71.34	5.50%	6.00%	4.50%	5.33%	5.58%	58.00%	59.00%	66.88%	(\$0.01)	9.53%	17.87	3.20				
20	Wisconsin Energy Corporation	WEC	\$59.09	6.20%	6.77%	6.00%	6.32%	5.58%	67.00%	67.00%	66.88%	(\$0.00)	8.78%	22.06	3.96				
21	Xcel Energy Inc.	XEL	\$40.82	5.40%	5.36%	5.50%	5.42%	5.58%	62.00%	62.00%	66.88%	(\$0.00)	9.45%	18.25	3.27				
22							5.25%					Mean	9.25%	19.36					
23												Max	9.75%						
24												Min	8.78%						
25	Projected Annual																		
26	Earnings per Share		[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]
27	Company	Ticker	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
28	ALLETE, Inc.	ALE	\$3.38	\$3.54	\$3.71	\$3.89	\$4.08	\$4.28	\$4.49	\$4.72	\$4.97	\$5.23	\$5.52	\$5.82	\$6.15	\$6.49	\$6.85	\$7.23	\$7.64
29	Alliant Energy Corporation	LNT	\$1.69	\$1.80	\$1.91	\$2.03	\$2.15	\$2.29	\$2.43	\$2.57	\$2.72	\$2.88	\$3.05	\$3.22	\$3.40	\$3.58	\$3.78	\$4.00	\$4.22
30	Ameren Corporation	AEE	\$2.38	\$2.52	\$2.67	\$2.83	\$2.99	\$3.17	\$3.36	\$3.55	\$3.75	\$3.97	\$4.19	\$4.42	\$4.67	\$4.93	\$5.21	\$5.50	\$5.80
31	American Electric Power Company, Inc.	AEP	\$3.59	\$3.73	\$3.88	\$4.04	\$4.20	\$4.36	\$4.55	\$4.76	\$4.98	\$5.23	\$5.51	\$5.82	\$6.14	\$6.49	\$6.85	\$7.23	\$7.63
32	Avista Corporation	AVA	\$1.89	\$1.99	\$2.09	\$2.19	\$2.31	\$2.42	\$2.55	\$2.68	\$2.83	\$2.98	\$3.14	\$3.32	\$3.50	\$3.70	\$3.91	\$4.12	\$4.35
33	CenterPoint Energy, Inc.	CNP	\$1.08	\$1.13	\$1.17	\$1.22	\$1.27	\$1.33	\$1.39	\$1.45	\$1.52	\$1.60	\$1.68	\$1.78	\$1.88	\$1.98	\$2.09	\$2.21	\$2.33
34	CMS Energy Corporation	CMS	\$1.89	\$2.02	\$2.15	\$2.29	\$2.44	\$2.60	\$2.77	\$2.95	\$3.13	\$3.31	\$3.50	\$3.70	\$3.90	\$4.12	\$4.35	\$4.59	\$4.85
35	DTE Energy Company	DTE	\$4.45	\$4.71	\$4.98	\$5.27	\$5.58	\$5.90	\$6.24	\$6.60	\$6.98	\$7.37	\$7.78	\$8.22	\$8.68	\$9.16	\$9.67	\$10.21	\$10.78
36	El Paso Electric Company	EE	\$2.03	\$2.13	\$2.24	\$2.36	\$2.48	\$2.61	\$2.74	\$2.89	\$3.04	\$3.21	\$3.38	\$3.57	\$3.77	\$3.98	\$4.20	\$4.44	\$4.69
37	Eversource Energy	ES	\$2.76	\$2.92	\$3.09	\$3.27	\$3.46	\$3.66	\$3.88	\$4.10	\$4.33	\$4.58	\$4.83	\$5.10	\$5.39	\$5.69	\$6.01	\$6.34	\$6.70
38	IDACORP, Inc.	IDA	\$3.87	\$4.02	\$4.17	\$4.33	\$4.49	\$4.66	\$4.85	\$5.07	\$5.31	\$5.57	\$5.86	\$6.19	\$6.54	\$6.90	\$7.28	\$7.69	\$8.12
39	NorthWestern Corporation	NWE	\$2.90	\$3.05	\$3.22	\$3.39	\$3.57	\$3.76	\$3.96	\$4.18	\$4.40	\$4.65	\$4.90	\$5.18	\$5.47	\$5.77	\$6.09	\$6.43	\$6.79
40	OGE Energy Corp.	OGE	\$1.69	\$1.76	\$1.83	\$1.91	\$1.99	\$2.07	\$2.16	\$2.26	\$2.37	\$2.50	\$2.63	\$2.78	\$2.93	\$3.09	\$3.27	\$3.45	\$3.64
41	Otter Tail Corporation	OTTR	\$1.56	\$1.65	\$1.75	\$1.86	\$1.97	\$2.09	\$2.21	\$2.34	\$2.48	\$2.62	\$2.77	\$2.92	\$3.08	\$3.25	\$3.44	\$3.63	\$3.83
42	Pinnacle West Capital Corporation	PNW	\$3.92	\$4.08	\$4.25	\$4.42	\$4.60	\$4.79	\$5.00	\$5.22	\$5.48	\$5.76	\$6.06	\$6.40	\$6.76	\$7.13	\$7.53	\$7.95	\$8.39
43	Portland General Electric Company	POR	\$2.04	\$2.16	\$2.28	\$2.41	\$2.54	\$2.69	\$2.84	\$3.00	\$3.17	\$3.35	\$3.54	\$3.73	\$3.94	\$4.16	\$4.39	\$4.64	\$4.90
44	SCANA Corporation	SCG	\$3.81	\$4.01	\$4.23	\$4.45	\$4.69	\$4.94	\$5.21	\$5.49	\$5.79	\$6.10	\$6.44	\$6.80	\$7.18	\$7.58	\$8.00	\$8.45	\$8.92
45	Wisconsin Energy Corporation	WEC	\$2.34	\$2.49	\$2.65	\$2.81	\$2.99	\$3.18	\$3.38	\$3.58	\$3.79	\$4.02	\$4.24	\$4.48	\$4.73	\$5.00	\$5.27	\$5.57	\$5.88
46	Xcel Energy Inc.	XEL	\$2.10	\$2.21	\$2.33	\$2.46	\$2.59	\$2.73	\$2.88	\$3.04	\$3.21	\$3.39	\$3.57	\$3.77	\$3.98	\$4.20	\$4.44	\$4.69	\$4.95

Multi-Stage Growth Discounted Cash Flow Model  
30 Day Average Stock Price  
Average EPS Growth Rate Estimate in First Stage

1	Projected Annual																	
2	Dividend Payout Ratio		[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]
3	Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
4	ALLETE, Inc.	ALE	66.00%	65.75%	65.50%	65.25%	65.00%	65.31%	65.63%	65.94%	66.26%	66.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
5	Alliant Energy Corporation	LNT	62.00%	61.75%	61.50%	61.25%	61.00%	61.98%	62.96%	63.94%	64.92%	65.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
6	Ameren Corporation	AEE	66.00%	65.25%	64.50%	63.75%	63.00%	63.65%	64.29%	64.94%	65.59%	66.24%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
7	American Electric Power Company, Inc.	AEP	61.00%	62.50%	64.00%	65.50%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
8	Avista Corporation	AVA	67.00%	66.25%	65.50%	64.75%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
9	CenterPoint Energy, Inc.	CNP	86.00%	85.75%	85.50%	85.25%	85.00%	81.98%	78.96%	75.94%	72.92%	69.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
10	CMS Energy Corporation	CMS	64.00%	63.50%	63.00%	62.50%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
11	DTE Energy Company	DTE	62.00%	61.50%	61.00%	60.50%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
12	El Paso Electric Company	EE	54.00%	55.25%	56.50%	57.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
13	Eversource Energy	ES	61.00%	60.25%	59.50%	58.75%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
14	IDACORP, Inc.	IDA	53.00%	54.75%	56.50%	58.25%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
15	NorthWestern Corporation	NWE	59.00%	58.75%	58.50%	58.25%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
16	OGE Energy Corp.	OGE	66.00%	68.00%	70.00%	72.00%	74.00%	72.81%	71.63%	70.44%	69.26%	68.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
17	Otter Tail Corporation	OTTR	82.00%	77.50%	73.00%	68.50%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
18	Pinnacle West Capital Corporation	PNW	64.00%	64.00%	64.00%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
19	Portland General Electric Company	POR	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
20	SCANA Corporation	SCG	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
21	Wisconsin Energy Corporation	WEC	67.00%	67.00%	67.00%	67.00%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
22	Xcel Energy Inc.	XEL	62.00%	62.00%	62.00%	62.00%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%

23	Projected Annual																		
24	Cash Flows		[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	[63]
25	Company	Ticker	2015	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Terminal Value
26	ALLETE, Inc.	ALE	\$2.34	\$2.44	\$2.55	\$2.66	\$2.78	\$2.93	\$3.10	\$3.27	\$3.47	\$3.67	\$3.89	\$4.11	\$4.34	\$4.58	\$4.84	\$5.11	\$129.25
27	Alliant Energy Corporation	LNT	\$1.11	\$1.18	\$1.25	\$1.32	\$1.39	\$1.50	\$1.62	\$1.74	\$1.87	\$2.01	\$2.15	\$2.27	\$2.40	\$2.53	\$2.67	\$2.82	\$84.26
28	Ameren Corporation	AEE	\$1.66	\$1.74	\$1.82	\$1.91	\$2.00	\$2.14	\$2.28	\$2.44	\$2.60	\$2.78	\$2.96	\$3.12	\$3.30	\$3.48	\$3.68	\$3.88	\$108.03
29	American Electric Power Company, Inc.	AEP	\$2.28	\$2.43	\$2.58	\$2.75	\$2.92	\$3.05	\$3.18	\$3.34	\$3.50	\$3.69	\$3.89	\$4.11	\$4.34	\$4.58	\$4.84	\$5.11	\$138.02
30	Avista Corporation	AVA	\$1.33	\$1.38	\$1.44	\$1.49	\$1.55	\$1.64	\$1.74	\$1.85	\$1.96	\$2.09	\$2.22	\$2.34	\$2.47	\$2.61	\$2.76	\$2.91	\$89.43
31	CenterPoint Energy, Inc.	CNP	\$0.97	\$1.01	\$1.04	\$1.09	\$1.13	\$1.14	\$1.15	\$1.16	\$1.17	\$1.18	\$1.19	\$1.26	\$1.33	\$1.40	\$1.48	\$1.56	\$46.93
32	CMS Energy Corporation	CMS	\$1.29	\$1.36	\$1.44	\$1.53	\$1.61	\$1.74	\$1.87	\$2.01	\$2.16	\$2.31	\$2.47	\$2.61	\$2.76	\$2.91	\$3.07	\$3.24	\$92.65
33	DTE Energy Company	DTE	\$2.92	\$3.06	\$3.22	\$3.37	\$3.54	\$3.82	\$4.11	\$4.43	\$4.76	\$5.12	\$5.50	\$5.80	\$6.13	\$6.47	\$6.83	\$7.21	\$208.19
34	El Paso Electric Company	EE	\$1.15	\$1.24	\$1.33	\$1.43	\$1.54	\$1.65	\$1.78	\$1.92	\$2.06	\$2.22	\$2.39	\$2.52	\$2.66	\$2.81	\$2.97	\$3.13	\$101.10
35	Eversource Energy	ES	\$1.78	\$1.86	\$1.95	\$2.03	\$2.13	\$2.31	\$2.50	\$2.71	\$2.93	\$3.16	\$3.41	\$3.60	\$3.81	\$4.02	\$4.24	\$4.48	\$121.03
36	IDACORP, Inc.	IDA	\$2.13	\$2.28	\$2.45	\$2.62	\$2.80	\$2.97	\$3.16	\$3.37	\$3.60	\$3.85	\$4.14	\$4.37	\$4.62	\$4.87	\$5.14	\$5.43	\$170.25
37	NorthWestern Corporation	NWE	\$1.80	\$1.89	\$1.98	\$2.08	\$2.18	\$2.36	\$2.55	\$2.75	\$2.97	\$3.21	\$3.46	\$3.66	\$3.86	\$4.08	\$4.30	\$4.54	\$126.83
38	OGE Energy Corp.	OGE	\$1.16	\$1.25	\$1.34	\$1.43	\$1.53	\$1.58	\$1.62	\$1.67	\$1.73	\$1.79	\$1.86	\$1.96	\$2.07	\$2.18	\$2.31	\$2.44	\$66.13
39	Otter Tail Corporation	OTTR	\$1.36	\$1.36	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$2.56	\$75.33
40	Pinnacle West Capital Corporation	PNW	\$2.61	\$2.72	\$2.83	\$2.94	\$3.06	\$3.22	\$3.39	\$3.58	\$3.79	\$4.03	\$4.28	\$4.52	\$4.77	\$5.04	\$5.32	\$5.61	\$164.37
41	Portland General Electric Company	POR	\$1.25	\$1.33	\$1.41	\$1.50	\$1.59	\$1.71	\$1.85	\$2.00	\$2.15	\$2.32	\$2.50	\$2.64	\$2.78	\$2.94	\$3.10	\$3.28	\$94.27
42	SCANA Corporation	SCG	\$2.33	\$2.46	\$2.60	\$2.76	\$2.91	\$3.14	\$3.38	\$3.64	\$3.92	\$4.22	\$4.55	\$4.80	\$5.07	\$5.35	\$5.65	\$5.97	\$159.42
43	Wisconsin Energy Corporation	WEC	\$1.67	\$1.77	\$1.88	\$2.00	\$2.13	\$2.26	\$2.40	\$2.54	\$2.69	\$2.84	\$3.00	\$3.16	\$3.34	\$3.53	\$3.72	\$3.93	\$129.65
44	Xcel Energy Inc.	XEL	\$1.37	\$1.45	\$1.53	\$1.61	\$1.70	\$1.81	\$1.93	\$2.07	\$2.21	\$2.36	\$2.52	\$2.66	\$2.81	\$2.97	\$3.13	\$3.31	\$90.28

Multi-Stage Growth Discounted Cash Flow Model  
30 Day Average Stock Price  
Average EPS Growth Rate Estimate in First Stage

1	Projected Annual Data																			
2	Investor Cash Flows		[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]	[80]	[81]
3	Company	Ticker	Initial Outflow	10/31/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30	6/30/31
4	ALLETE, Inc.	ALE	(\$59.37)	\$0.00	\$0.39	\$2.40	\$2.55	\$2.66	\$2.78	\$2.93	\$3.10	\$3.27	\$3.47	\$3.67	\$3.89	\$4.11	\$4.34	\$4.58	\$4.84	\$134.36
5	Alliant Energy Corporation	LNT	(\$37.84)	\$0.00	\$0.19	\$1.15	\$1.25	\$1.32	\$1.39	\$1.50	\$1.62	\$1.74	\$1.87	\$2.01	\$2.15	\$2.27	\$2.40	\$2.53	\$2.67	\$87.09
6	Ameren Corporation	AEE	(\$48.99)	\$0.00	\$0.28	\$1.71	\$1.82	\$1.91	\$2.00	\$2.14	\$2.28	\$2.44	\$2.60	\$2.78	\$2.96	\$3.12	\$3.30	\$3.48	\$3.68	\$111.92
7	American Electric Power Company, Inc.	AEP	(\$63.64)	\$0.00	\$0.38	\$2.32	\$2.58	\$2.75	\$2.92	\$3.05	\$3.18	\$3.34	\$3.50	\$3.69	\$3.89	\$4.11	\$4.34	\$4.58	\$4.84	\$143.13
8	Avista Corporation	AVA	(\$40.84)	\$0.00	\$0.22	\$1.36	\$1.44	\$1.49	\$1.55	\$1.64	\$1.74	\$1.85	\$1.96	\$2.09	\$2.22	\$2.34	\$2.47	\$2.61	\$2.76	\$92.34
9	CenterPoint Energy, Inc.	CNP	(\$22.88)	\$0.00	\$0.16	\$0.99	\$1.04	\$1.09	\$1.13	\$1.14	\$1.15	\$1.16	\$1.17	\$1.18	\$1.19	\$1.26	\$1.33	\$1.40	\$1.48	\$48.49
10	CMS Energy Corporation	CMS	(\$41.67)	\$0.00	\$0.22	\$1.33	\$1.44	\$1.53	\$1.61	\$1.74	\$1.87	\$2.01	\$2.16	\$2.31	\$2.47	\$2.61	\$2.76	\$2.91	\$3.07	\$95.89
11	DTE Energy Company	DTE	(\$93.50)	\$0.00	\$0.49	\$3.00	\$3.22	\$3.37	\$3.54	\$3.82	\$4.11	\$4.43	\$4.76	\$5.12	\$5.50	\$5.80	\$6.13	\$6.47	\$6.83	\$215.40
12	El Paso Electric Company	EE	(\$45.17)	\$0.00	\$0.19	\$1.18	\$1.33	\$1.43	\$1.54	\$1.65	\$1.78	\$1.92	\$2.06	\$2.22	\$2.39	\$2.52	\$2.66	\$2.81	\$2.97	\$104.23
13	Eversource Energy	ES	(\$54.05)	\$0.00	\$0.30	\$1.83	\$1.95	\$2.03	\$2.13	\$2.31	\$2.50	\$2.71	\$2.93	\$3.16	\$3.41	\$3.60	\$3.81	\$4.02	\$4.24	\$125.51
14	IDACORP, Inc.	IDA	(\$76.68)	\$0.00	\$0.36	\$2.17	\$2.45	\$2.62	\$2.80	\$2.97	\$3.16	\$3.37	\$3.60	\$3.85	\$4.14	\$4.37	\$4.62	\$4.87	\$5.14	\$175.68
15	NorthWestern Corporation	NWE	(\$56.70)	\$0.00	\$0.30	\$1.85	\$1.98	\$2.08	\$2.18	\$2.36	\$2.55	\$2.75	\$2.97	\$3.21	\$3.46	\$3.66	\$3.86	\$4.08	\$4.30	\$131.37
16	OGE Energy Corp.	OGE	(\$31.09)	\$0.00	\$0.19	\$1.19	\$1.34	\$1.43	\$1.53	\$1.58	\$1.62	\$1.67	\$1.73	\$1.79	\$1.86	\$1.96	\$2.07	\$2.18	\$2.31	\$68.56
17	Otter Tail Corporation	OTTR	(\$34.69)	\$0.00	\$0.23	\$1.40	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$77.89
18	Pinnacle West Capital Corporation	PNW	(\$75.36)	\$0.00	\$0.44	\$2.66	\$2.83	\$2.94	\$3.06	\$3.22	\$3.39	\$3.58	\$3.79	\$4.03	\$4.28	\$4.52	\$4.77	\$5.04	\$5.32	\$169.98
19	Portland General Electric Company	POR	(\$42.12)	\$0.00	\$0.21	\$1.29	\$1.41	\$1.50	\$1.59	\$1.71	\$1.85	\$2.00	\$2.15	\$2.32	\$2.50	\$2.64	\$2.78	\$2.94	\$3.10	\$97.54
20	SCANA Corporation	SCG	(\$71.34)	\$0.00	\$0.39	\$2.39	\$2.60	\$2.76	\$2.91	\$3.14	\$3.38	\$3.64	\$3.92	\$4.22	\$4.55	\$4.80	\$5.07	\$5.35	\$5.65	\$165.39
21	Wisconsin Energy Corporation	WEC	(\$59.09)	\$0.00	\$0.28	\$1.72	\$1.88	\$2.00	\$2.13	\$2.26	\$2.40	\$2.54	\$2.69	\$2.84	\$3.00	\$3.16	\$3.34	\$3.53	\$3.72	\$133.59
22	Xcel Energy Inc.	XEL	(\$40.82)	\$0.00	\$0.23	\$1.41	\$1.53	\$1.61	\$1.70	\$1.81	\$1.93	\$2.07	\$2.21	\$2.36	\$2.52	\$2.66	\$2.81	\$2.97	\$3.13	\$93.59

Multi-Stage Growth Discounted Cash Flow Model  
30 Day Average Stock Price  
High EPS Growth Rate Estimate in First Stage

Line No	Inputs	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]					
1		Stock	EPS Growth Rate Estimates					Payout Ratio			Iterative Solution		Terminal	Terminal					
					Value		Long-Term						P/E	PEG					
2	Company	Ticker	Price	Zacks	First Call	Line	High Growth	Growth	2016	2020	2026	Proof	IRR	Ratio	Ratio				
3	ALLETE, Inc.	ALE	\$59.36	5.50%	5.00%	4.00%	5.50%	5.58%	66.00%	65.00%	66.88%	(\$0.00)	9.93%	16.20	2.91				
4	Alliant Energy Corporation	LNT	\$37.83	6.10%	6.60%	6.00%	6.60%	5.58%	62.00%	61.00%	66.88%	(\$0.00)	9.20%	19.51	3.50				
5	Ameren Corporation	AEE	\$48.99	6.10%	5.60%	6.00%	6.10%	5.58%	66.00%	63.00%	66.88%	(\$0.00)	9.42%	18.38	3.30				
6	American Electric Power Company, Inc.	AEP	\$63.64	5.20%	2.75%	4.00%	5.20%	5.58%	61.00%	67.00%	66.88%	(\$0.00)	9.81%	16.69	2.99				
7	Avista Corporation	AVA	\$40.83	5.30%	5.00%	5.00%	5.30%	5.58%	67.00%	64.00%	66.88%	(\$0.00)	9.06%	20.27	3.64				
8	CenterPoint Energy, Inc.	CNP	\$22.87	5.50%	5.11%	2.00%	5.50%	5.58%	86.00%	85.00%	66.88%	(\$0.00)	9.41%	18.41	3.30				
9	CMS Energy Corporation	CMS	\$41.66	6.60%	7.27%	6.00%	7.27%	5.58%	64.00%	62.00%	66.88%	(\$0.00)	9.43%	18.33	3.29				
10	DTE Energy Company	DTE	\$93.50	5.80%	5.63%	6.00%	6.00%	5.58%	62.00%	60.00%	66.88%	(\$0.01)	9.28%	19.08	3.42				
11	El Paso Electric Company	EE	\$45.17	4.40%	7.00%	4.00%	7.00%	5.58%	54.00%	59.00%	66.88%	(\$0.00)	9.27%	19.11	3.43				
12	Eversource Energy	ES	\$54.04	6.10%	5.39%	6.00%	6.10%	5.58%	61.00%	58.00%	66.88%	(\$0.00)	9.55%	17.77	3.19				
13	IDACORP, Inc.	IDA	\$76.67	4.30%	4.10%	3.00%	4.30%	5.58%	53.00%	60.00%	66.88%	(\$0.01)	9.06%	20.28	3.64				
14	NorthWestern Corporation	NWE	\$56.70	5.00%	4.50%	6.50%	6.50%	5.58%	59.00%	58.00%	66.88%	(\$0.00)	9.65%	17.32	3.11				
15	OGE Energy Corp.	OGE	\$31.09	5.20%	4.30%	3.00%	5.20%	5.58%	66.00%	74.00%	66.88%	(\$0.00)	9.74%	16.95	3.04				
16	Otter Tail Corporation	OTTR	\$34.69	NA	6.00%	6.00%	6.00%	5.58%	82.00%	64.00%	66.88%	(\$0.00)	9.17%	19.67	3.53				
17	Pinnacle West Capital Corporation	PNW	\$75.36	4.30%	3.95%	4.00%	4.30%	5.58%	64.00%	64.00%	66.88%	(\$0.01)	9.23%	19.30	3.46				
18	Portland General Electric Company	POR	\$42.12	6.00%	5.55%	5.50%	6.00%	5.58%	58.00%	59.00%	66.88%	(\$0.00)	9.32%	18.86	3.38				
19	SCANA Corporation	SCG	\$71.34	5.50%	6.00%	4.50%	6.00%	5.58%	58.00%	59.00%	66.88%	(\$0.01)	9.70%	17.12	3.07				
20	Wisconsin Energy Corporation	WEC	\$59.09	6.20%	6.77%	6.00%	6.77%	5.58%	67.00%	67.00%	66.88%	(\$0.00)	8.87%	21.42	3.84				
21	Xcel Energy Inc.	XEL	\$40.82	5.40%	5.36%	5.50%	5.50%	5.58%	62.00%	62.00%	66.88%	(\$0.00)	9.47%	18.15	3.26				
22												Mean	9.40%						
23												Max	9.93%						
24												Min	8.87%						
25	Projected Annual																		
26	Earnings per Share		[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]
27	Company	Ticker	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
28	ALLETE, Inc.	ALE	\$3.38	\$3.57	\$3.76	\$3.97	\$4.19	\$4.42	\$4.66	\$4.92	\$5.19	\$5.48	\$5.78	\$6.11	\$6.45	\$6.81	\$7.19	\$7.59	\$8.01
29	Alliant Energy Corporation	LNT	\$1.69	\$1.80	\$1.92	\$2.05	\$2.18	\$2.33	\$2.48	\$2.63	\$2.79	\$2.96	\$3.13	\$3.30	\$3.48	\$3.68	\$3.88	\$4.10	\$4.33
30	Ameren Corporation	AEE	\$2.38	\$2.53	\$2.68	\$2.84	\$3.02	\$3.20	\$3.39	\$3.59	\$3.80	\$4.02	\$4.25	\$4.49	\$4.74	\$5.00	\$5.28	\$5.57	\$5.89
31	American Electric Power Company, Inc.	AEP	\$3.59	\$3.78	\$3.97	\$4.18	\$4.40	\$4.63	\$4.87	\$5.13	\$5.40	\$5.70	\$6.01	\$6.35	\$6.70	\$7.08	\$7.47	\$7.89	\$8.33
32	Avista Corporation	AVA	\$1.89	\$1.99	\$2.10	\$2.21	\$2.32	\$2.45	\$2.58	\$2.72	\$2.86	\$3.02	\$3.19	\$3.37	\$3.55	\$3.75	\$3.96	\$4.18	\$4.42
33	CenterPoint Energy, Inc.	CNP	\$1.08	\$1.14	\$1.20	\$1.27	\$1.34	\$1.41	\$1.49	\$1.57	\$1.66	\$1.75	\$1.85	\$1.95	\$2.06	\$2.17	\$2.30	\$2.42	\$2.56
34	CMS Energy Corporation	CMS	\$1.89	\$2.03	\$2.17	\$2.33	\$2.50	\$2.68	\$2.87	\$3.06	\$3.26	\$3.46	\$3.66	\$3.87	\$4.08	\$4.31	\$4.55	\$4.81	\$5.07
35	DTE Energy Company	DTE	\$4.45	\$4.72	\$5.00	\$5.30	\$5.62	\$5.96	\$6.31	\$6.68	\$7.06	\$7.47	\$7.89	\$8.33	\$8.79	\$9.28	\$9.80	\$10.35	\$10.93
36	El Paso Electric Company	EE	\$2.03	\$2.17	\$2.32	\$2.49	\$2.66	\$2.85	\$3.04	\$3.24	\$3.44	\$3.65	\$3.86	\$4.08	\$4.30	\$4.54	\$4.80	\$5.07	\$5.35
37	Eversource Energy	ES	\$2.76	\$2.93	\$3.11	\$3.30	\$3.50	\$3.71	\$3.93	\$4.17	\$4.41	\$4.66	\$4.93	\$5.20	\$5.49	\$5.80	\$6.12	\$6.46	\$6.82
38	IDACORP, Inc.	IDA	\$3.87	\$4.04	\$4.21	\$4.39	\$4.58	\$4.78	\$4.99	\$5.23	\$5.49	\$5.77	\$6.08	\$6.42	\$6.78	\$7.15	\$7.55	\$7.97	\$8.42
39	NorthWestern Corporation	NWE	\$2.90	\$3.09	\$3.29	\$3.50	\$3.73	\$3.97	\$4.23	\$4.49	\$4.76	\$5.04	\$5.33	\$5.62	\$5.94	\$6.27	\$6.62	\$6.99	\$7.38
40	OGE Energy Corp.	OGE	\$1.69	\$1.78	\$1.87	\$1.97	\$2.07	\$2.18	\$2.29	\$2.41	\$2.54	\$2.68	\$2.83	\$2.99	\$3.16	\$3.33	\$3.52	\$3.71	\$3.92
41	Otter Tail Corporation	OTTR	\$1.56	\$1.65	\$1.75	\$1.86	\$1.97	\$2.09	\$2.21	\$2.34	\$2.48	\$2.62	\$2.77	\$2.92	\$3.08	\$3.25	\$3.44	\$3.63	\$3.83
42	Pinnacle West Capital Corporation	PNW	\$3.92	\$4.09	\$4.26	\$4.45	\$4.64	\$4.84	\$5.06	\$5.30	\$5.56	\$5.84	\$6.16	\$6.50	\$6.86	\$7.25	\$7.65	\$8.08	\$8.53
43	Portland General Electric Company	POR	\$2.04	\$2.16	\$2.29	\$2.43	\$2.58	\$2.73	\$2.89	\$3.06	\$3.24	\$3.42	\$3.62	\$3.82	\$4.03	\$4.26	\$4.49	\$4.74	\$5.01
44	SCANA Corporation	SCG	\$3.81	\$4.04	\$4.28	\$4.54	\$4.81	\$5.10	\$5.40	\$5.72	\$6.05	\$6.39	\$6.76	\$7.13	\$7.53	\$7.95	\$8.39	\$8.86	\$9.35
45	Wisconsin Energy Corporation	WEC	\$2.34	\$2.50	\$2.67	\$2.85	\$3.04	\$3.25	\$3.46	\$3.68	\$3.91	\$4.14	\$4.38	\$4.62	\$4.88	\$5.15	\$5.44	\$5.75	\$6.07
46	Xcel Energy Inc.	XEL	\$2.10	\$2.22	\$2.34	\$2.47	\$2.60	\$2.74	\$2.90	\$3.06	\$3.23	\$3.40	\$3.59	\$3.79	\$4.01	\$4.23	\$4.46	\$4.71	\$4.98

Multi-Stage Growth Discounted Cash Flow Model  
30 Day Average Stock Price  
High EPS Growth Rate Estimate in First Stage

1	Projected Annual																	
2	Dividend Payout Ratio		[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]
3	Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
4	ALLETE, Inc.	ALE	66.00%	65.75%	65.50%	65.25%	65.00%	65.31%	65.63%	65.94%	66.26%	66.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
5	Alliant Energy Corporation	LNT	62.00%	61.75%	61.50%	61.25%	61.00%	61.98%	62.96%	63.94%	64.92%	65.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
6	Ameren Corporation	AEE	66.00%	65.25%	64.50%	63.75%	63.00%	63.65%	64.29%	64.94%	65.59%	66.24%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
7	American Electric Power Company, Inc.	AEP	61.00%	62.50%	64.00%	65.50%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
8	Avista Corporation	AVA	67.00%	66.25%	65.50%	64.75%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
9	CenterPoint Energy, Inc.	CNP	86.00%	85.75%	85.50%	85.25%	85.00%	81.98%	78.96%	75.94%	72.92%	69.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
10	CMS Energy Corporation	CMS	64.00%	63.50%	63.00%	62.50%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
11	DTE Energy Company	DTE	62.00%	61.50%	61.00%	60.50%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
12	El Paso Electric Company	EE	54.00%	55.25%	56.50%	57.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
13	Eversource Energy	ES	61.00%	60.25%	59.50%	58.75%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
14	IDACORP, Inc.	IDA	53.00%	54.75%	56.50%	58.25%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
15	NorthWestern Corporation	NWE	59.00%	58.75%	58.50%	58.25%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
16	OGE Energy Corp.	OGE	66.00%	68.00%	70.00%	72.00%	74.00%	72.81%	71.63%	70.44%	69.26%	68.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
17	Otter Tail Corporation	OTTR	82.00%	77.50%	73.00%	68.50%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
18	Pinnacle West Capital Corporation	PNW	64.00%	64.00%	64.00%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
19	Portland General Electric Company	POR	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
20	SCANA Corporation	SCG	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
21	Wisconsin Energy Corporation	WEC	67.00%	67.00%	67.00%	67.00%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
22	Xcel Energy Inc.	XEL	62.00%	62.00%	62.00%	62.00%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%

23	Projected Annual																		
24	Cash Flows		[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	[63]
25	Company	Ticker	2015	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Terminal Value
26	ALLETE, Inc.	ALE	\$2.35	\$2.47	\$2.60	\$2.73	\$2.87	\$3.04	\$3.23	\$3.42	\$3.63	\$3.85	\$4.08	\$4.31	\$4.55	\$4.81	\$5.07	\$5.36	\$129.77
27	Alliant Energy Corporation	LNT	\$1.12	\$1.19	\$1.26	\$1.34	\$1.42	\$1.53	\$1.66	\$1.78	\$1.92	\$2.06	\$2.21	\$2.33	\$2.46	\$2.60	\$2.74	\$2.90	\$84.44
28	Ameren Corporation	AEE	\$1.67	\$1.75	\$1.83	\$1.92	\$2.02	\$2.16	\$2.31	\$2.47	\$2.64	\$2.81	\$3.00	\$3.17	\$3.34	\$3.53	\$3.73	\$3.94	\$108.16
29	American Electric Power Company, Inc.	AEP	\$2.30	\$2.48	\$2.67	\$2.88	\$3.10	\$3.26	\$3.43	\$3.62	\$3.81	\$4.02	\$4.25	\$4.48	\$4.73	\$5.00	\$5.28	\$5.57	\$138.97
30	Avista Corporation	AVA	\$1.33	\$1.39	\$1.45	\$1.50	\$1.57	\$1.66	\$1.76	\$1.87	\$1.99	\$2.12	\$2.25	\$2.38	\$2.51	\$2.65	\$2.80	\$2.95	\$89.52
31	CenterPoint Energy, Inc.	CNP	\$0.98	\$1.03	\$1.08	\$1.14	\$1.20	\$1.22	\$1.24	\$1.26	\$1.28	\$1.29	\$1.31	\$1.38	\$1.45	\$1.54	\$1.62	\$1.71	\$47.12
32	CMS Energy Corporation	CMS	\$1.30	\$1.38	\$1.47	\$1.56	\$1.66	\$1.80	\$1.95	\$2.10	\$2.26	\$2.42	\$2.59	\$2.73	\$2.88	\$3.05	\$3.21	\$3.39	\$93.01
33	DTE Energy Company	DTE	\$2.92	\$3.08	\$3.23	\$3.40	\$3.57	\$3.86	\$4.16	\$4.48	\$4.82	\$5.19	\$5.57	\$5.88	\$6.21	\$6.56	\$6.92	\$7.31	\$208.42
34	El Paso Electric Company	EE	\$1.17	\$1.28	\$1.41	\$1.54	\$1.68	\$1.83	\$2.00	\$2.17	\$2.35	\$2.53	\$2.73	\$2.88	\$3.04	\$3.21	\$3.39	\$3.58	\$102.21
35	Eversource Energy	ES	\$1.79	\$1.87	\$1.96	\$2.05	\$2.15	\$2.34	\$2.54	\$2.75	\$2.98	\$3.22	\$3.48	\$3.67	\$3.88	\$4.10	\$4.32	\$4.56	\$121.24
36	IDACORP, Inc.	IDA	\$2.14	\$2.30	\$2.48	\$2.67	\$2.87	\$3.05	\$3.26	\$3.48	\$3.73	\$4.00	\$4.29	\$4.53	\$4.78	\$5.05	\$5.33	\$5.63	\$170.72
37	NorthWestern Corporation	NWE	\$1.82	\$1.93	\$2.05	\$2.17	\$2.30	\$2.51	\$2.74	\$2.97	\$3.22	\$3.48	\$3.76	\$3.97	\$4.19	\$4.43	\$4.67	\$4.93	\$127.79
38	OGE Energy Corp.	OGE	\$1.17	\$1.27	\$1.38	\$1.49	\$1.61	\$1.67	\$1.73	\$1.79	\$1.86	\$1.93	\$2.00	\$2.11	\$2.23	\$2.35	\$2.48	\$2.62	\$66.46
39	Otter Tail Corporation	OTTR	\$1.36	\$1.36	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$2.56	\$75.33
40	Pinnacle West Capital Corporation	PNW	\$2.62	\$2.73	\$2.85	\$2.97	\$3.10	\$3.26	\$3.44	\$3.64	\$3.85	\$4.09	\$4.35	\$4.59	\$4.85	\$5.12	\$5.40	\$5.70	\$164.56
41	Portland General Electric Company	POR	\$1.25	\$1.34	\$1.42	\$1.51	\$1.61	\$1.74	\$1.89	\$2.04	\$2.20	\$2.37	\$2.55	\$2.70	\$2.85	\$3.01	\$3.17	\$3.35	\$94.45
42	SCANA Corporation	SCG	\$2.34	\$2.49	\$2.65	\$2.83	\$3.01	\$3.26	\$3.52	\$3.81	\$4.11	\$4.43	\$4.77	\$5.04	\$5.32	\$5.61	\$5.93	\$6.26	\$160.12
43	Wisconsin Energy Corporation	WEC	\$1.67	\$1.79	\$1.91	\$2.04	\$2.18	\$2.32	\$2.46	\$2.62	\$2.77	\$2.93	\$3.09	\$3.27	\$3.45	\$3.64	\$3.84	\$4.06	\$129.93
44	Xcel Energy Inc.	XEL	\$1.37	\$1.45	\$1.53	\$1.61	\$1.70	\$1.82	\$1.94	\$2.08	\$2.22	\$2.37	\$2.54	\$2.68	\$2.83	\$2.99	\$3.15	\$3.33	\$90.33



Multi-Stage Growth Discounted Cash Flow Model  
30 Day Average Stock Price  
High EPS Growth Rate Estimate in First Stage

1	Projected Annual Data																			
2	Investor Cash Flows		[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]	[80]	[81]
3	Company	Ticker	Initial Outflow	10/31/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30	6/30/31
4	ALLETE, Inc.	ALE	(\$59.37)	\$0.00	\$0.39	\$2.42	\$2.60	\$2.73	\$2.87	\$3.04	\$3.23	\$3.42	\$3.63	\$3.85	\$4.08	\$4.31	\$4.55	\$4.81	\$5.07	\$135.13
5	Alliant Energy Corporation	LNT	(\$37.84)	\$0.00	\$0.19	\$1.15	\$1.26	\$1.34	\$1.42	\$1.53	\$1.66	\$1.78	\$1.92	\$2.06	\$2.21	\$2.33	\$2.46	\$2.60	\$2.74	\$87.34
6	Ameren Corporation	AEE	(\$48.99)	\$0.00	\$0.28	\$1.72	\$1.83	\$1.92	\$2.02	\$2.16	\$2.31	\$2.47	\$2.64	\$2.81	\$3.00	\$3.17	\$3.34	\$3.53	\$3.73	\$112.09
7	American Electric Power Company, Inc.	AEP	(\$63.64)	\$0.00	\$0.39	\$2.36	\$2.67	\$2.88	\$3.10	\$3.26	\$3.43	\$3.62	\$3.81	\$4.02	\$4.25	\$4.48	\$4.73	\$5.00	\$5.28	\$144.54
8	Avista Corporation	AVA	(\$40.84)	\$0.00	\$0.22	\$1.37	\$1.45	\$1.50	\$1.57	\$1.66	\$1.76	\$1.87	\$1.99	\$2.12	\$2.25	\$2.38	\$2.51	\$2.65	\$2.80	\$92.47
9	CenterPoint Energy, Inc.	CNP	(\$22.88)	\$0.00	\$0.16	\$1.01	\$1.08	\$1.14	\$1.20	\$1.22	\$1.24	\$1.26	\$1.28	\$1.29	\$1.31	\$1.38	\$1.45	\$1.54	\$1.62	\$48.83
10	CMS Energy Corporation	CMS	(\$41.67)	\$0.00	\$0.22	\$1.34	\$1.47	\$1.56	\$1.66	\$1.80	\$1.95	\$2.10	\$2.26	\$2.42	\$2.59	\$2.73	\$2.88	\$3.05	\$3.21	\$96.40
11	DTE Energy Company	DTE	(\$93.50)	\$0.00	\$0.49	\$3.01	\$3.23	\$3.40	\$3.57	\$3.86	\$4.16	\$4.48	\$4.82	\$5.19	\$5.57	\$5.88	\$6.21	\$6.56	\$6.92	\$215.73
12	El Paso Electric Company	EE	(\$45.17)	\$0.00	\$0.20	\$1.21	\$1.41	\$1.54	\$1.68	\$1.83	\$2.00	\$2.17	\$2.35	\$2.53	\$2.73	\$2.88	\$3.04	\$3.21	\$3.39	\$105.78
13	Eversource Energy	ES	(\$54.05)	\$0.00	\$0.30	\$1.84	\$1.96	\$2.05	\$2.15	\$2.34	\$2.54	\$2.75	\$2.98	\$3.22	\$3.48	\$3.67	\$3.88	\$4.10	\$4.32	\$125.81
14	IDACORP, Inc.	IDA	(\$76.67)	\$0.00	\$0.36	\$2.19	\$2.48	\$2.67	\$2.87	\$3.05	\$3.26	\$3.48	\$3.73	\$4.00	\$4.29	\$4.53	\$4.78	\$5.05	\$5.33	\$176.35
15	NorthWestern Corporation	NWE	(\$56.70)	\$0.00	\$0.30	\$1.88	\$2.05	\$2.17	\$2.30	\$2.51	\$2.74	\$2.97	\$3.22	\$3.48	\$3.76	\$3.97	\$4.19	\$4.43	\$4.67	\$132.73
16	OGE Energy Corp.	OGE	(\$31.09)	\$0.00	\$0.20	\$1.20	\$1.38	\$1.49	\$1.61	\$1.67	\$1.73	\$1.79	\$1.86	\$1.93	\$2.00	\$2.11	\$2.23	\$2.35	\$2.48	\$69.08
17	Otter Tail Corporation	OTTR	(\$34.69)	\$0.00	\$0.23	\$1.40	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$77.89
18	Pinnacle West Capital Corporation	PNW	(\$75.36)	\$0.00	\$0.44	\$2.67	\$2.85	\$2.97	\$3.10	\$3.26	\$3.44	\$3.64	\$3.85	\$4.09	\$4.35	\$4.59	\$4.85	\$5.12	\$5.40	\$170.26
19	Portland General Electric Company	POR	(\$42.12)	\$0.00	\$0.21	\$1.29	\$1.42	\$1.51	\$1.61	\$1.74	\$1.89	\$2.04	\$2.20	\$2.37	\$2.55	\$2.70	\$2.85	\$3.01	\$3.17	\$97.80
20	SCANA Corporation	SCG	(\$71.34)	\$0.00	\$0.39	\$2.41	\$2.65	\$2.83	\$3.01	\$3.26	\$3.52	\$3.81	\$4.11	\$4.43	\$4.77	\$5.04	\$5.32	\$5.61	\$5.93	\$166.38
21	Wisconsin Energy Corporation	WEC	(\$59.09)	\$0.00	\$0.28	\$1.73	\$1.91	\$2.04	\$2.18	\$2.32	\$2.46	\$2.62	\$2.77	\$2.93	\$3.09	\$3.27	\$3.45	\$3.64	\$3.84	\$133.99
22	Xcel Energy Inc.	XEL	(\$40.82)	\$0.00	\$0.23	\$1.41	\$1.53	\$1.61	\$1.70	\$1.82	\$1.94	\$2.08	\$2.22	\$2.37	\$2.54	\$2.68	\$2.83	\$2.99	\$3.15	\$93.66

Multi-Stage Growth Discounted Cash Flow Model  
30 Day Average Stock Price  
Low EPS Growth Rate Estimate in First Stage

Line No	Inputs	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]					
1		Stock	EPS Growth Rate Estimates					Payout Ratio			Iterative Solution		Terminal	Terminal					
						Value	Low	Long-Term					P/E	PEG					
2	Company	Ticker	Price	Zacks	First Call	Line	Growth	Growth	2016	2020	2026	Proof	IRR	Ratio	Ratio				
3	ALLETE, Inc.	ALE	\$59.36	5.50%	5.00%	4.00%	4.00%	5.58%	66.00%	65.00%	66.88%	(\$0.00)	9.53%	17.88	3.21				
4	Alliant Energy Corporation	LNT	\$37.83	6.10%	6.60%	6.00%	6.00%	5.58%	62.00%	61.00%	66.88%	(\$0.00)	9.06%	20.28	3.64				
5	Ameren Corporation	AEE	\$48.99	6.10%	5.60%	6.00%	5.60%	5.58%	66.00%	63.00%	66.88%	(\$0.00)	9.30%	18.99	3.41				
6	American Electric Power Company, Inc.	AEP	\$63.64	5.20%	2.75%	4.00%	2.75%	5.58%	61.00%	67.00%	66.88%	(\$0.00)	9.17%	19.65	3.52				
7	Avista Corporation	AVA	\$40.83	5.30%	5.00%	5.00%	5.00%	5.58%	67.00%	64.00%	66.88%	(\$0.00)	8.99%	20.68	3.71				
8	CenterPoint Energy, Inc.	CNP	\$22.87	5.50%	5.11%	2.00%	2.00%	5.58%	86.00%	85.00%	66.88%	(\$0.00)	8.58%	23.48	4.21				
9	CMS Energy Corporation	CMS	\$41.66	6.60%	7.27%	6.00%	6.00%	5.58%	64.00%	62.00%	66.88%	(\$0.00)	9.13%	19.90	3.57				
10	DTE Energy Company	DTE	\$93.50	5.80%	5.63%	6.00%	5.63%	5.58%	62.00%	60.00%	66.88%	(\$0.01)	9.19%	19.54	3.50				
11	El Paso Electric Company	EE	\$45.17	4.40%	7.00%	4.00%	4.00%	5.58%	54.00%	59.00%	66.88%	(\$0.00)	8.61%	23.26	4.17				
12	Eversource Energy	ES	\$54.04	6.10%	5.39%	6.00%	5.39%	5.58%	61.00%	58.00%	66.88%	(\$0.00)	9.37%	18.60	3.34				
13	IDACORP, Inc.	IDA	\$76.67	4.30%	4.10%	3.00%	3.00%	5.58%	53.00%	60.00%	66.88%	(\$0.01)	8.77%	22.12	3.97				
14	NorthWestern Corporation	NWE	\$56.70	5.00%	4.50%	6.50%	4.50%	5.58%	59.00%	58.00%	66.88%	(\$0.00)	9.16%	19.72	3.54				
15	OGE Energy Corp.	OGE	\$31.09	5.20%	4.30%	3.00%	3.00%	5.58%	66.00%	74.00%	66.88%	(\$0.00)	9.17%	19.66	3.53				
16	Otter Tail Corporation	OTTR	\$34.69	NA	6.00%	6.00%	6.00%	5.58%	82.00%	64.00%	66.88%	(\$0.00)	9.17%	19.67	3.53				
17	Pinnacle West Capital Corporation	PNW	\$75.36	4.30%	3.95%	4.00%	3.95%	5.58%	64.00%	64.00%	66.88%	(\$0.01)	9.15%	19.76	3.54				
18	Portland General Electric Company	POR	\$42.12	6.00%	5.55%	5.50%	5.50%	5.58%	58.00%	59.00%	66.88%	(\$0.00)	9.20%	19.48	3.49				
19	SCANA Corporation	SCG	\$71.34	5.50%	6.00%	4.50%	4.50%	5.58%	58.00%	59.00%	66.88%	(\$0.01)	9.32%	18.87	3.38				
20	Wisconsin Energy Corporation	WEC	\$59.09	6.20%	6.77%	6.00%	6.00%	5.58%	67.00%	67.00%	66.88%	(\$0.01)	8.71%	22.53	4.04				
21	Xcel Energy Inc.	XEL	\$40.82	5.40%	5.36%	5.50%	5.36%	5.58%	62.00%	62.00%	66.88%	(\$0.00)	9.43%	18.32	3.29				
22												Mean	9.10%						
23												Max	9.53%						
24												Min	8.58%						
25	Projected Annual																		
26	Earnings per Share		[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]
27	Company	Ticker	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
28	ALLETE, Inc.	ALE	\$3.38	\$3.52	\$3.66	\$3.80	\$3.95	\$4.11	\$4.29	\$4.48	\$4.70	\$4.93	\$5.20	\$5.49	\$5.79	\$6.11	\$6.45	\$6.81	\$7.19
29	Alliant Energy Corporation	LNT	\$1.69	\$1.79	\$1.90	\$2.01	\$2.13	\$2.26	\$2.40	\$2.54	\$2.68	\$2.84	\$3.00	\$3.16	\$3.34	\$3.53	\$3.72	\$3.93	\$4.15
30	Ameren Corporation	AEE	\$2.38	\$2.51	\$2.65	\$2.80	\$2.96	\$3.13	\$3.30	\$3.48	\$3.68	\$3.88	\$4.10	\$4.33	\$4.57	\$4.83	\$5.10	\$5.38	\$5.68
31	American Electric Power Company, Inc.	AEP	\$3.59	\$3.69	\$3.79	\$3.89	\$4.00	\$4.11	\$4.24	\$4.40	\$4.58	\$4.80	\$5.04	\$5.32	\$5.62	\$5.93	\$6.26	\$6.61	\$6.98
32	Avista Corporation	AVA	\$1.89	\$1.98	\$2.08	\$2.19	\$2.30	\$2.41	\$2.54	\$2.67	\$2.81	\$2.96	\$3.12	\$3.30	\$3.48	\$3.67	\$3.88	\$4.09	\$4.32
33	CenterPoint Energy, Inc.	CNP	\$1.08	\$1.10	\$1.12	\$1.15	\$1.17	\$1.19	\$1.22	\$1.26	\$1.31	\$1.37	\$1.44	\$1.52	\$1.60	\$1.69	\$1.78	\$1.88	\$1.99
34	CMS Energy Corporation	CMS	\$1.89	\$2.00	\$2.12	\$2.25	\$2.39	\$2.53	\$2.68	\$2.84	\$3.00	\$3.17	\$3.35	\$3.54	\$3.74	\$3.94	\$4.16	\$4.40	\$4.64
35	DTE Energy Company	DTE	\$4.45	\$4.70	\$4.97	\$5.24	\$5.54	\$5.85	\$6.18	\$6.53	\$6.89	\$7.28	\$7.69	\$8.11	\$8.57	\$9.04	\$9.55	\$10.08	\$10.64
36	El Paso Electric Company	EE	\$2.03	\$2.11	\$2.20	\$2.28	\$2.37	\$2.47	\$2.58	\$2.69	\$2.82	\$2.96	\$3.12	\$3.29	\$3.48	\$3.67	\$3.88	\$4.09	\$4.32
37	Eversource Energy	ES	\$2.76	\$2.91	\$3.07	\$3.23	\$3.40	\$3.59	\$3.78	\$3.99	\$4.21	\$4.44	\$4.69	\$4.95	\$5.22	\$5.51	\$5.82	\$6.15	\$6.49
38	IDACORP, Inc.	IDA	\$3.87	\$3.99	\$4.11	\$4.23	\$4.36	\$4.49	\$4.64	\$4.82	\$5.03	\$5.26	\$5.53	\$5.84	\$6.17	\$6.51	\$6.88	\$7.26	\$7.66
39	NorthWestern Corporation	NWE	\$2.90	\$3.03	\$3.17	\$3.31	\$3.46	\$3.61	\$3.78	\$3.97	\$4.17	\$4.38	\$4.62	\$4.88	\$5.15	\$5.44	\$5.74	\$6.06	\$6.40
40	OGE Energy Corp.	OGE	\$1.69	\$1.74	\$1.79	\$1.85	\$1.90	\$1.96	\$2.03	\$2.10	\$2.19	\$2.30	\$2.42	\$2.55	\$2.69	\$2.84	\$3.00	\$3.17	\$3.35
41	Otter Tail Corporation	OTTR	\$1.56	\$1.65	\$1.75	\$1.86	\$1.97	\$2.09	\$2.21	\$2.34	\$2.48	\$2.62	\$2.77	\$2.92	\$3.08	\$3.25	\$3.44	\$3.63	\$3.83
42	Pinnacle West Capital Corporation	PNW	\$3.92	\$4.07	\$4.24	\$4.40	\$4.58	\$4.76	\$4.96	\$5.18	\$5.43	\$5.70	\$6.00	\$6.34	\$6.69	\$7.07	\$7.46	\$7.88	\$8.31
43	Portland General Electric Company	POR	\$2.04	\$2.15	\$2.27	\$2.40	\$2.53	\$2.67	\$2.81	\$2.97	\$3.13	\$3.31	\$3.49	\$3.69	\$3.89	\$4.11	\$4.34	\$4.58	\$4.83
44	SCANA Corporation	SCG	\$3.81	\$3.98	\$4.16	\$4.35	\$4.54	\$4.75	\$4.97	\$5.21	\$5.47	\$5.76	\$6.07	\$6.41	\$6.77	\$7.14	\$7.54	\$7.96	\$8.41
45	Wisconsin Energy Corporation	WEC	\$2.34	\$2.48	\$2.63	\$2.79	\$2.95	\$3.13	\$3.32	\$3.51	\$3.71	\$3.93	\$4.15	\$4.38	\$4.62	\$4.88	\$5.15	\$5.44	\$5.75
46	Xcel Energy Inc.	XEL	\$2.10	\$2.21	\$2.33	\$2.46	\$2.59	\$2.73	\$2.87	\$3.03	\$3.20	\$3.37	\$3.56	\$3.76	\$3.97	\$4.19	\$4.42	\$4.67	\$4.93

Multi-Stage Growth Discounted Cash Flow Model  
30 Day Average Stock Price  
Low EPS Growth Rate Estimate in First Stage

1	Projected Annual																	
2	Dividend Payout Ratio		[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]
3	Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
4	ALLETE, Inc.	ALE	66.00%	65.75%	65.50%	65.25%	65.00%	65.31%	65.63%	65.94%	66.26%	66.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
5	Alliant Energy Corporation	LNT	62.00%	61.75%	61.50%	61.25%	61.00%	61.98%	62.96%	63.94%	64.92%	65.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
6	Ameren Corporation	AEE	66.00%	65.25%	64.50%	63.75%	63.00%	63.65%	64.29%	64.94%	65.59%	66.24%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
7	American Electric Power Company, Inc.	AEP	61.00%	62.50%	64.00%	65.50%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
8	Avista Corporation	AVA	67.00%	66.25%	65.50%	64.75%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
9	CenterPoint Energy, Inc.	CNP	86.00%	85.75%	85.50%	85.25%	85.00%	81.98%	78.96%	75.94%	72.92%	69.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
10	CMS Energy Corporation	CMS	64.00%	63.50%	63.00%	62.50%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
11	DTE Energy Company	DTE	62.00%	61.50%	61.00%	60.50%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
12	El Paso Electric Company	EE	54.00%	55.25%	56.50%	57.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
13	Eversource Energy	ES	61.00%	60.25%	59.50%	58.75%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
14	IDACORP, Inc.	IDA	53.00%	54.75%	56.50%	58.25%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
15	NorthWestern Corporation	NWE	59.00%	58.75%	58.50%	58.25%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
16	OGE Energy Corp.	OGE	66.00%	68.00%	70.00%	72.00%	74.00%	72.81%	71.63%	70.44%	69.26%	68.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
17	Otter Tail Corporation	OTTR	82.00%	77.50%	73.00%	68.50%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
18	Pinnacle West Capital Corporation	PNW	64.00%	64.00%	64.00%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
19	Portland General Electric Company	POR	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
20	SCANA Corporation	SCG	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
21	Wisconsin Energy Corporation	WEC	67.00%	67.00%	67.00%	67.00%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
22	Xcel Energy Inc.	XEL	62.00%	62.00%	62.00%	62.00%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%

23	Projected Annual																		
24	Cash Flows		[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	[63]
25	Company	Ticker	2015	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Terminal Value
26	ALLETE, Inc.	ALE	\$2.32	\$2.40	\$2.49	\$2.58	\$2.67	\$2.80	\$2.94	\$3.10	\$3.27	\$3.46	\$3.67	\$3.87	\$4.09	\$4.32	\$4.56	\$4.81	\$128.64
27	Alliant Energy Corporation	LNT	\$1.11	\$1.17	\$1.24	\$1.31	\$1.38	\$1.48	\$1.60	\$1.72	\$1.84	\$1.97	\$2.12	\$2.23	\$2.36	\$2.49	\$2.63	\$2.78	\$84.15
28	Ameren Corporation	AEE	\$1.66	\$1.73	\$1.81	\$1.89	\$1.97	\$2.10	\$2.24	\$2.39	\$2.55	\$2.72	\$2.90	\$3.06	\$3.23	\$3.41	\$3.60	\$3.80	\$107.85
29	American Electric Power Company, Inc.	AEP	\$2.25	\$2.37	\$2.49	\$2.62	\$2.75	\$2.84	\$2.95	\$3.07	\$3.21	\$3.37	\$3.56	\$3.76	\$3.97	\$4.19	\$4.42	\$4.67	\$137.16
30	Avista Corporation	AVA	\$1.33	\$1.38	\$1.43	\$1.49	\$1.54	\$1.63	\$1.73	\$1.84	\$1.95	\$2.07	\$2.20	\$2.33	\$2.46	\$2.59	\$2.74	\$2.89	\$89.38
31	CenterPoint Energy, Inc.	CNP	\$0.95	\$0.96	\$0.98	\$1.00	\$1.01	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.01	\$1.07	\$1.13	\$1.19	\$1.26	\$1.33	\$46.68
32	CMS Energy Corporation	CMS	\$1.28	\$1.35	\$1.42	\$1.49	\$1.57	\$1.68	\$1.80	\$1.93	\$2.07	\$2.21	\$2.37	\$2.50	\$2.64	\$2.78	\$2.94	\$3.10	\$92.32
33	DTE Energy Company	DTE	\$2.91	\$3.05	\$3.20	\$3.35	\$3.51	\$3.78	\$4.07	\$4.37	\$4.70	\$5.05	\$5.43	\$5.73	\$6.05	\$6.39	\$6.74	\$7.12	\$207.97
34	El Paso Electric Company	EE	\$1.14	\$1.21	\$1.29	\$1.37	\$1.46	\$1.55	\$1.66	\$1.78	\$1.90	\$2.05	\$2.20	\$2.33	\$2.46	\$2.59	\$2.74	\$2.89	\$100.50
35	Eversource Energy	ES	\$1.77	\$1.85	\$1.92	\$2.00	\$2.08	\$2.25	\$2.43	\$2.63	\$2.84	\$3.06	\$3.31	\$3.49	\$3.69	\$3.89	\$4.11	\$4.34	\$120.70
36	IDACORP, Inc.	IDA	\$2.11	\$2.25	\$2.39	\$2.54	\$2.69	\$2.84	\$3.00	\$3.19	\$3.40	\$3.64	\$3.91	\$4.13	\$4.36	\$4.60	\$4.85	\$5.13	\$169.54
37	NorthWestern Corporation	NWE	\$1.79	\$1.86	\$1.94	\$2.01	\$2.10	\$2.25	\$2.42	\$2.60	\$2.80	\$3.02	\$3.26	\$3.44	\$3.64	\$3.84	\$4.05	\$4.28	\$126.19
38	OGE Energy Corp.	OGE	\$1.15	\$1.22	\$1.29	\$1.37	\$1.45	\$1.48	\$1.51	\$1.55	\$1.59	\$1.64	\$1.71	\$1.80	\$1.90	\$2.01	\$2.12	\$2.24	\$65.80
39	Otter Tail Corporation	OTTR	\$1.36	\$1.36	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$2.56	\$75.33
40	Pinnacle West Capital Corporation	PNW	\$2.61	\$2.71	\$2.82	\$2.93	\$3.05	\$3.20	\$3.37	\$3.55	\$3.76	\$3.99	\$4.24	\$4.48	\$4.73	\$4.99	\$5.27	\$5.56	\$164.26
41	Portland General Electric Company	POR	\$1.25	\$1.32	\$1.40	\$1.48	\$1.57	\$1.70	\$1.83	\$1.97	\$2.12	\$2.29	\$2.47	\$2.60	\$2.75	\$2.90	\$3.06	\$3.23	\$94.16
42	SCANA Corporation	SCG	\$2.31	\$2.42	\$2.54	\$2.67	\$2.80	\$3.00	\$3.21	\$3.45	\$3.70	\$3.98	\$4.29	\$4.53	\$4.78	\$5.04	\$5.33	\$5.62	\$158.60
43	Wisconsin Energy Corporation	WEC	\$1.66	\$1.76	\$1.87	\$1.98	\$2.10	\$2.22	\$2.35	\$2.49	\$2.63	\$2.78	\$2.93	\$3.09	\$3.27	\$3.45	\$3.64	\$3.84	\$129.46
44	Xcel Energy Inc.	XEL	\$1.37	\$1.45	\$1.52	\$1.60	\$1.69	\$1.81	\$1.93	\$2.06	\$2.20	\$2.35	\$2.51	\$2.65	\$2.80	\$2.96	\$3.12	\$3.30	\$90.25

Multi-Stage Growth Discounted Cash Flow Model  
30 Day Average Stock Price  
Low EPS Growth Rate Estimate in First Stage

1	Projected Annual Data																			
2	Investor Cash Flows		[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]	[80]	[81]
3	Company	Ticker	Initial Outflow	10/31/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30	6/30/31
4	ALLETE, Inc.	ALE	(\$59.37)	\$0.00	\$0.39	\$2.37	\$2.49	\$2.58	\$2.67	\$2.80	\$2.94	\$3.10	\$3.27	\$3.46	\$3.67	\$3.87	\$4.09	\$4.32	\$4.56	\$133.45
5	Alliant Energy Corporation	LNT	(\$37.84)	\$0.00	\$0.19	\$1.14	\$1.24	\$1.31	\$1.38	\$1.48	\$1.60	\$1.72	\$1.84	\$1.97	\$2.12	\$2.23	\$2.36	\$2.49	\$2.63	\$86.93
6	Ameren Corporation	AEE	(\$48.99)	\$0.00	\$0.28	\$1.71	\$1.81	\$1.89	\$1.97	\$2.10	\$2.24	\$2.39	\$2.55	\$2.72	\$2.90	\$3.06	\$3.23	\$3.41	\$3.60	\$111.65
7	American Electric Power Company, Inc.	AEP	(\$63.64)	\$0.00	\$0.38	\$2.28	\$2.49	\$2.62	\$2.75	\$2.84	\$2.95	\$3.07	\$3.21	\$3.37	\$3.56	\$3.76	\$3.97	\$4.19	\$4.42	\$141.83
8	Avista Corporation	AVA	(\$40.84)	\$0.00	\$0.22	\$1.36	\$1.43	\$1.49	\$1.54	\$1.63	\$1.73	\$1.84	\$1.95	\$2.07	\$2.20	\$2.33	\$2.46	\$2.59	\$2.74	\$92.27
9	CenterPoint Energy, Inc.	CNP	(\$22.88)	\$0.00	\$0.16	\$0.96	\$0.98	\$1.00	\$1.01	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.01	\$1.07	\$1.13	\$1.19	\$1.26	\$48.01
10	CMS Energy Corporation	CMS	(\$41.67)	\$0.00	\$0.21	\$1.32	\$1.42	\$1.49	\$1.57	\$1.68	\$1.80	\$1.93	\$2.07	\$2.21	\$2.37	\$2.50	\$2.64	\$2.78	\$2.94	\$95.43
11	DTE Energy Company	DTE	(\$93.50)	\$0.00	\$0.49	\$3.00	\$3.20	\$3.35	\$3.51	\$3.78	\$4.07	\$4.37	\$4.70	\$5.05	\$5.43	\$5.73	\$6.05	\$6.39	\$6.74	\$215.09
12	El Paso Electric Company	EE	(\$45.18)	\$0.00	\$0.19	\$1.16	\$1.29	\$1.37	\$1.46	\$1.55	\$1.66	\$1.78	\$1.90	\$2.05	\$2.20	\$2.33	\$2.46	\$2.59	\$2.74	\$103.39
13	Eversource Energy	ES	(\$54.05)	\$0.00	\$0.30	\$1.82	\$1.92	\$2.00	\$2.08	\$2.25	\$2.43	\$2.63	\$2.84	\$3.06	\$3.31	\$3.49	\$3.69	\$3.89	\$4.11	\$125.04
14	IDACORP, Inc.	IDA	(\$76.67)	\$0.00	\$0.35	\$2.14	\$2.39	\$2.54	\$2.69	\$2.84	\$3.00	\$3.19	\$3.40	\$3.64	\$3.91	\$4.13	\$4.36	\$4.60	\$4.85	\$174.67
15	NorthWestern Corporation	NWE	(\$56.70)	\$0.00	\$0.30	\$1.83	\$1.94	\$2.01	\$2.10	\$2.25	\$2.42	\$2.60	\$2.80	\$3.02	\$3.26	\$3.44	\$3.64	\$3.84	\$4.05	\$130.47
16	OGE Energy Corp.	OGE	(\$31.09)	\$0.00	\$0.19	\$1.17	\$1.29	\$1.37	\$1.45	\$1.48	\$1.51	\$1.55	\$1.59	\$1.64	\$1.71	\$1.80	\$1.90	\$2.01	\$2.12	\$68.03
17	Otter Tail Corporation	OTTR	(\$34.69)	\$0.00	\$0.23	\$1.40	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$77.89
18	Pinnacle West Capital Corporation	PNW	(\$75.36)	\$0.00	\$0.44	\$2.66	\$2.82	\$2.93	\$3.05	\$3.20	\$3.37	\$3.55	\$3.76	\$3.99	\$4.24	\$4.48	\$4.73	\$4.99	\$5.27	\$169.82
19	Portland General Electric Company	POR	(\$42.12)	\$0.00	\$0.21	\$1.28	\$1.40	\$1.48	\$1.57	\$1.70	\$1.83	\$1.97	\$2.12	\$2.29	\$2.47	\$2.60	\$2.75	\$2.90	\$3.06	\$97.40
20	SCANA Corporation	SCG	(\$71.34)	\$0.00	\$0.39	\$2.36	\$2.54	\$2.67	\$2.80	\$3.00	\$3.21	\$3.45	\$3.70	\$3.98	\$4.29	\$4.53	\$4.78	\$5.04	\$5.33	\$164.22
21	Wisconsin Energy Corporation	WEC	(\$59.09)	\$0.00	\$0.28	\$1.71	\$1.87	\$1.98	\$2.10	\$2.22	\$2.35	\$2.49	\$2.63	\$2.78	\$2.93	\$3.09	\$3.27	\$3.45	\$3.64	\$133.31
22	Xcel Energy Inc.	XEL	(\$40.82)	\$0.00	\$0.23	\$1.41	\$1.52	\$1.60	\$1.69	\$1.81	\$1.93	\$2.06	\$2.20	\$2.35	\$2.51	\$2.65	\$2.80	\$2.96	\$3.12	\$93.55

Multi-Stage Growth Discounted Cash Flow Model  
90 Day Average Stock Price  
Average EPS Growth Rate Estimate in First Stage

Line No	Inputs	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]					
1		Stock	EPS Growth Rate Estimates					Payout Ratio			Iterative Solution		Terminal P/E	Terminal PEG					
			Value					Long-Term											
2	Company	Ticker	Price	Zacks	First Call	Line	Average	Growth	2016	2020	2026	Proof	IRR	Ratio	Ratio				
3	ALLETE, Inc.	ALE	\$61.07	5.50%	5.00%	4.00%	4.83%	5.58%	66.00%	65.00%	66.88%	(\$0.00)	9.63%	17.42	3.12				
4	Alliant Energy Corporation	LNT	\$38.77	6.10%	6.60%	6.00%	6.23%	5.58%	62.00%	61.00%	66.88%	(\$0.00)	9.03%	20.47	3.67				
5	Ameren Corporation	AEE	\$50.47	6.10%	5.60%	6.00%	5.90%	5.58%	66.00%	63.00%	66.88%	(\$0.00)	9.26%	19.19	3.44				
6	American Electric Power Company, Inc.	AEP	\$66.29	5.20%	2.75%	4.00%	3.98%	5.58%	61.00%	67.00%	66.88%	(\$0.00)	9.32%	18.85	3.38				
7	Avista Corporation	AVA	\$41.98	5.30%	5.00%	5.00%	5.10%	5.58%	67.00%	64.00%	66.88%	(\$0.00)	8.92%	21.13	3.79				
8	CenterPoint Energy, Inc.	CNP	\$23.14	5.50%	5.11%	2.00%	4.20%	5.58%	86.00%	85.00%	66.88%	(\$0.00)	9.04%	20.37	3.65				
9	CMS Energy Corporation	CMS	\$43.12	6.60%	7.27%	6.00%	6.62%	5.58%	64.00%	62.00%	66.88%	(\$0.00)	9.15%	19.77	3.55				
10	DTE Energy Company	DTE	\$95.13	5.80%	5.63%	6.00%	5.81%	5.58%	62.00%	60.00%	66.88%	(\$0.01)	9.17%	19.65	3.52				
11	El Paso Electric Company	EE	\$46.04	4.40%	7.00%	4.00%	5.13%	5.58%	54.00%	59.00%	66.88%	(\$0.00)	8.79%	21.99	3.94				
12	Eversource Energy	ES	\$55.87	6.10%	5.39%	6.00%	5.83%	5.58%	61.00%	58.00%	66.88%	(\$0.00)	9.36%	18.68	3.35				
13	IDACORP, Inc.	IDA	\$78.03	4.30%	4.10%	3.00%	3.80%	5.58%	53.00%	60.00%	66.88%	(\$0.01)	8.89%	21.34	3.83				
14	NorthWestern Corporation	NWE	\$58.85	5.00%	4.50%	6.50%	5.33%	5.58%	59.00%	58.00%	66.88%	(\$0.00)	9.22%	19.38	3.48				
15	OGE Energy Corp.	OGE	\$31.39	5.20%	4.30%	3.00%	4.17%	5.58%	66.00%	74.00%	66.88%	(\$0.00)	9.42%	18.35	3.29				
16	Otter Tail Corporation	OTTR	\$34.41	NA	6.00%	6.00%	6.00%	5.58%	82.00%	64.00%	66.88%	(\$0.00)	9.20%	19.50	3.50				
17	Pinnacle West Capital Corporation	PNW	\$77.09	4.30%	3.95%	4.00%	4.08%	5.58%	64.00%	64.00%	66.88%	(\$0.01)	9.10%	20.04	3.59				
18	Portland General Electric Company	POR	\$42.89	6.00%	5.55%	5.50%	5.68%	5.58%	58.00%	59.00%	66.88%	(\$0.00)	9.18%	19.60	3.51				
19	SCANA Corporation	SCG	\$72.46	5.50%	6.00%	4.50%	5.33%	5.58%	58.00%	59.00%	66.88%	(\$0.01)	9.47%	18.15	3.25				
20	Wisconsin Energy Corporation	WEC	\$61.49	6.20%	6.77%	6.00%	6.32%	5.58%	67.00%	67.00%	66.88%	(\$0.01)	8.65%	22.96	4.12				
21	Xcel Energy Inc.	XEL	\$42.22	5.40%	5.36%	5.50%	5.42%	5.58%	62.00%	62.00%	66.88%	(\$0.00)	9.32%	18.88	3.39				
22												Mean	9.16%						
23												Max	9.63%						
24												Min	8.65%						
25	Projected Annual																		
26	Earnings per Share		[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]
27	Company	Ticker	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
28	ALLETE, Inc.	ALE	\$3.38	\$3.54	\$3.71	\$3.89	\$4.08	\$4.28	\$4.49	\$4.72	\$4.97	\$5.23	\$5.52	\$5.82	\$6.15	\$6.49	\$6.85	\$7.23	\$7.64
29	Alliant Energy Corporation	LNT	\$1.69	\$1.80	\$1.91	\$2.03	\$2.15	\$2.29	\$2.43	\$2.57	\$2.72	\$2.88	\$3.05	\$3.22	\$3.40	\$3.58	\$3.78	\$4.00	\$4.22
30	Ameren Corporation	AEE	\$2.38	\$2.52	\$2.67	\$2.83	\$2.99	\$3.17	\$3.36	\$3.55	\$3.75	\$3.97	\$4.19	\$4.42	\$4.67	\$4.93	\$5.21	\$5.50	\$5.80
31	American Electric Power Company, Inc.	AEP	\$3.59	\$3.73	\$3.88	\$4.04	\$4.20	\$4.36	\$4.55	\$4.76	\$4.98	\$5.23	\$5.51	\$5.82	\$6.14	\$6.49	\$6.85	\$7.23	\$7.63
32	Avista Corporation	AVA	\$1.89	\$1.99	\$2.09	\$2.19	\$2.31	\$2.42	\$2.55	\$2.68	\$2.83	\$2.98	\$3.14	\$3.32	\$3.50	\$3.70	\$3.91	\$4.12	\$4.35
33	CenterPoint Energy, Inc.	CNP	\$1.08	\$1.13	\$1.17	\$1.22	\$1.27	\$1.33	\$1.39	\$1.45	\$1.52	\$1.60	\$1.68	\$1.78	\$1.88	\$1.98	\$2.09	\$2.21	\$2.33
34	CMS Energy Corporation	CMS	\$1.89	\$2.02	\$2.15	\$2.29	\$2.44	\$2.60	\$2.77	\$2.95	\$3.13	\$3.31	\$3.50	\$3.70	\$3.90	\$4.12	\$4.35	\$4.59	\$4.85
35	DTE Energy Company	DTE	\$4.45	\$4.71	\$4.98	\$5.27	\$5.58	\$5.90	\$6.24	\$6.60	\$6.98	\$7.37	\$7.78	\$8.22	\$8.68	\$9.16	\$9.67	\$10.21	\$10.78
36	El Paso Electric Company	EE	\$2.03	\$2.13	\$2.24	\$2.36	\$2.48	\$2.61	\$2.74	\$2.89	\$3.04	\$3.21	\$3.38	\$3.57	\$3.77	\$3.98	\$4.20	\$4.44	\$4.69
37	Eversource Energy	ES	\$2.76	\$2.92	\$3.09	\$3.27	\$3.46	\$3.66	\$3.88	\$4.10	\$4.33	\$4.58	\$4.83	\$5.10	\$5.39	\$5.69	\$6.01	\$6.34	\$6.70
38	IDACORP, Inc.	IDA	\$3.87	\$4.02	\$4.17	\$4.33	\$4.49	\$4.66	\$4.85	\$5.07	\$5.31	\$5.57	\$5.86	\$6.19	\$6.54	\$6.90	\$7.28	\$7.69	\$8.12
39	NorthWestern Corporation	NWE	\$2.90	\$3.05	\$3.22	\$3.39	\$3.57	\$3.76	\$3.96	\$4.18	\$4.40	\$4.65	\$4.90	\$5.18	\$5.47	\$5.77	\$6.09	\$6.43	\$6.79
40	OGE Energy Corp.	OGE	\$1.69	\$1.76	\$1.83	\$1.91	\$1.99	\$2.07	\$2.16	\$2.26	\$2.37	\$2.50	\$2.63	\$2.78	\$2.93	\$3.09	\$3.27	\$3.45	\$3.64
41	Otter Tail Corporation	OTTR	\$1.56	\$1.65	\$1.75	\$1.86	\$1.97	\$2.09	\$2.21	\$2.34	\$2.48	\$2.62	\$2.77	\$2.92	\$3.08	\$3.25	\$3.44	\$3.63	\$3.83
42	Pinnacle West Capital Corporation	PNW	\$3.92	\$4.08	\$4.25	\$4.42	\$4.60	\$4.79	\$5.00	\$5.22	\$5.48	\$5.76	\$6.06	\$6.40	\$6.76	\$7.13	\$7.53	\$7.95	\$8.39
43	Portland General Electric Company	POR	\$2.04	\$2.16	\$2.28	\$2.41	\$2.54	\$2.69	\$2.84	\$3.00	\$3.17	\$3.35	\$3.54	\$3.73	\$3.94	\$4.16	\$4.39	\$4.64	\$4.90
44	SCANA Corporation	SCG	\$3.81	\$4.01	\$4.23	\$4.45	\$4.69	\$4.94	\$5.21	\$5.49	\$5.79	\$6.10	\$6.44	\$6.80	\$7.18	\$7.58	\$8.00	\$8.45	\$8.92
45	Wisconsin Energy Corporation	WEC	\$2.34	\$2.49	\$2.65	\$2.81	\$2.99	\$3.18	\$3.38	\$3.58	\$3.79	\$4.02	\$4.24	\$4.48	\$4.73	\$5.00	\$5.27	\$5.57	\$5.88
46	Xcel Energy Inc.	XEL	\$2.10	\$2.21	\$2.33	\$2.46	\$2.59	\$2.73	\$2.88	\$3.04	\$3.21	\$3.39	\$3.57	\$3.77	\$3.98	\$4.20	\$4.44	\$4.69	\$4.95

Multi-Stage Growth Discounted Cash Flow Model  
90 Day Average Stock Price  
Average EPS Growth Rate Estimate in First Stage

1	Projected Annual																	
2	Dividend Payout Ratio		[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]
3	Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
4	ALLETE, Inc.	ALE	66.00%	65.75%	65.50%	65.25%	65.00%	65.31%	65.63%	65.94%	66.26%	66.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
5	Alliant Energy Corporation	LNT	62.00%	61.75%	61.50%	61.25%	61.00%	61.98%	62.96%	63.94%	64.92%	65.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
6	Ameren Corporation	AEE	66.00%	65.25%	64.50%	63.75%	63.00%	63.65%	64.29%	64.94%	65.59%	66.24%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
7	American Electric Power Company, Inc.	AEP	61.00%	62.50%	64.00%	65.50%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
8	Avista Corporation	AVA	67.00%	66.25%	65.50%	64.75%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
9	CenterPoint Energy, Inc.	CNP	86.00%	85.75%	85.50%	85.25%	85.00%	81.98%	78.96%	75.94%	72.92%	69.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
10	CMS Energy Corporation	CMS	64.00%	63.50%	63.00%	62.50%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
11	DTE Energy Company	DTE	62.00%	61.50%	61.00%	60.50%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
12	El Paso Electric Company	EE	54.00%	55.25%	56.50%	57.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
13	Eversource Energy	ES	61.00%	60.25%	59.50%	58.75%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
14	IDACORP, Inc.	IDA	53.00%	54.75%	56.50%	58.25%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
15	NorthWestern Corporation	NWE	59.00%	58.75%	58.50%	58.25%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
16	OGE Energy Corp.	OGE	66.00%	68.00%	70.00%	72.00%	74.00%	72.81%	71.63%	70.44%	69.26%	68.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
17	Otter Tail Corporation	OTTR	82.00%	77.50%	73.00%	68.50%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
18	Pinnacle West Capital Corporation	PNW	64.00%	64.00%	64.00%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
19	Portland General Electric Company	POR	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
20	SCANA Corporation	SCG	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
21	Wisconsin Energy Corporation	WEC	67.00%	67.00%	67.00%	67.00%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
22	Xcel Energy Inc.	XEL	62.00%	62.00%	62.00%	62.00%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%

23	Projected Annual																		
24	Cash Flows		[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	[63]
25	Company	Ticker	2015	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Terminal Value
26	ALLETE, Inc.	ALE	\$2.34	\$2.44	\$2.55	\$2.66	\$2.78	\$2.93	\$3.10	\$3.27	\$3.47	\$3.67	\$3.89	\$4.11	\$4.34	\$4.58	\$4.84	\$5.11	\$133.02
27	Alliant Energy Corporation	LNT	\$1.11	\$1.18	\$1.25	\$1.32	\$1.39	\$1.50	\$1.62	\$1.74	\$1.87	\$2.01	\$2.15	\$2.27	\$2.40	\$2.53	\$2.67	\$2.82	\$86.35
28	Ameren Corporation	AEE	\$1.66	\$1.74	\$1.82	\$1.91	\$2.00	\$2.14	\$2.28	\$2.44	\$2.60	\$2.78	\$2.96	\$3.12	\$3.30	\$3.48	\$3.68	\$3.88	\$111.32
29	American Electric Power Company, Inc.	AEP	\$2.28	\$2.43	\$2.58	\$2.75	\$2.92	\$3.05	\$3.18	\$3.34	\$3.50	\$3.69	\$3.89	\$4.11	\$4.34	\$4.58	\$4.84	\$5.11	\$143.90
30	Avista Corporation	AVA	\$1.33	\$1.38	\$1.44	\$1.49	\$1.55	\$1.64	\$1.74	\$1.85	\$1.96	\$2.09	\$2.22	\$2.34	\$2.47	\$2.61	\$2.76	\$2.91	\$91.98
31	CenterPoint Energy, Inc.	CNP	\$0.97	\$1.01	\$1.04	\$1.09	\$1.13	\$1.14	\$1.15	\$1.16	\$1.17	\$1.18	\$1.19	\$1.26	\$1.33	\$1.40	\$1.48	\$1.56	\$47.52
32	CMS Energy Corporation	CMS	\$1.29	\$1.36	\$1.44	\$1.53	\$1.61	\$1.74	\$1.87	\$2.01	\$2.16	\$2.31	\$2.47	\$2.61	\$2.76	\$2.91	\$3.07	\$3.24	\$95.88
33	DTE Energy Company	DTE	\$2.92	\$3.06	\$3.22	\$3.37	\$3.54	\$3.82	\$4.11	\$4.43	\$4.76	\$5.12	\$5.50	\$5.80	\$6.13	\$6.47	\$6.83	\$7.21	\$211.82
34	El Paso Electric Company	EE	\$1.15	\$1.24	\$1.33	\$1.43	\$1.54	\$1.65	\$1.78	\$1.92	\$2.06	\$2.22	\$2.39	\$2.52	\$2.66	\$2.81	\$2.97	\$3.13	\$103.04
35	Eversource Energy	ES	\$1.78	\$1.86	\$1.95	\$2.03	\$2.13	\$2.31	\$2.50	\$2.71	\$2.93	\$3.16	\$3.41	\$3.60	\$3.81	\$4.02	\$4.24	\$4.48	\$125.10
36	IDACORP, Inc.	IDA	\$2.13	\$2.28	\$2.45	\$2.62	\$2.80	\$2.97	\$3.16	\$3.37	\$3.60	\$3.85	\$4.14	\$4.37	\$4.62	\$4.87	\$5.14	\$5.43	\$173.26
37	NorthWestern Corporation	NWE	\$1.80	\$1.89	\$1.98	\$2.08	\$2.18	\$2.36	\$2.55	\$2.75	\$2.97	\$3.21	\$3.46	\$3.66	\$3.86	\$4.08	\$4.30	\$4.54	\$131.62
38	OGE Energy Corp.	OGE	\$1.16	\$1.25	\$1.34	\$1.43	\$1.53	\$1.58	\$1.62	\$1.67	\$1.73	\$1.79	\$1.86	\$1.96	\$2.07	\$2.18	\$2.31	\$2.44	\$66.80
39	Otter Tail Corporation	OTTR	\$1.36	\$1.36	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$2.56	\$74.70
40	Pinnacle West Capital Corporation	PNW	\$2.61	\$2.72	\$2.83	\$2.94	\$3.06	\$3.22	\$3.39	\$3.58	\$3.79	\$4.03	\$4.28	\$4.52	\$4.77	\$5.04	\$5.32	\$5.61	\$168.21
41	Portland General Electric Company	POR	\$1.25	\$1.33	\$1.41	\$1.50	\$1.59	\$1.71	\$1.85	\$2.00	\$2.15	\$2.32	\$2.50	\$2.64	\$2.78	\$2.94	\$3.10	\$3.28	\$95.98
42	SCANA Corporation	SCG	\$2.33	\$2.46	\$2.60	\$2.76	\$2.91	\$3.14	\$3.38	\$3.64	\$3.92	\$4.22	\$4.55	\$4.80	\$5.07	\$5.35	\$5.65	\$5.97	\$161.92
43	Wisconsin Energy Corporation	WEC	\$1.67	\$1.77	\$1.88	\$2.00	\$2.13	\$2.26	\$2.40	\$2.54	\$2.69	\$2.84	\$3.00	\$3.16	\$3.34	\$3.53	\$3.72	\$3.93	\$134.98
44	Xcel Energy Inc.	XEL	\$1.37	\$1.45	\$1.53	\$1.61	\$1.70	\$1.81	\$1.93	\$2.07	\$2.21	\$2.36	\$2.52	\$2.66	\$2.81	\$2.97	\$3.13	\$3.31	\$93.40

Multi-Stage Growth Discounted Cash Flow Model  
90 Day Average Stock Price  
Average EPS Growth Rate Estimate in First Stage

1	Projected Annual Data																			
2	Investor Cash Flows		[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]	[80]	[81]
3	Company	Ticker	Initial Outflow	10/31/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30	6/30/31
4	ALLETE, Inc.	ALE	(\$61.07)	\$0.00	\$0.39	\$2.40	\$2.55	\$2.66	\$2.78	\$2.93	\$3.10	\$3.27	\$3.47	\$3.67	\$3.89	\$4.11	\$4.34	\$4.58	\$4.84	\$138.13
5	Alliant Energy Corporation	LNT	(\$38.77)	\$0.00	\$0.19	\$1.15	\$1.25	\$1.32	\$1.39	\$1.50	\$1.62	\$1.74	\$1.87	\$2.01	\$2.15	\$2.27	\$2.40	\$2.53	\$2.67	\$89.17
6	Ameren Corporation	AEE	(\$50.48)	\$0.00	\$0.28	\$1.71	\$1.82	\$1.91	\$2.00	\$2.14	\$2.28	\$2.44	\$2.60	\$2.78	\$2.96	\$3.12	\$3.30	\$3.48	\$3.68	\$115.20
7	American Electric Power Company, Inc.	AEP	(\$66.29)	\$0.00	\$0.38	\$2.32	\$2.58	\$2.75	\$2.92	\$3.05	\$3.18	\$3.34	\$3.50	\$3.69	\$3.89	\$4.11	\$4.34	\$4.58	\$4.84	\$149.00
8	Avista Corporation	AVA	(\$41.98)	\$0.00	\$0.22	\$1.36	\$1.44	\$1.49	\$1.55	\$1.64	\$1.74	\$1.85	\$1.96	\$2.09	\$2.22	\$2.34	\$2.47	\$2.61	\$2.76	\$94.89
9	CenterPoint Energy, Inc.	CNP	(\$23.15)	\$0.00	\$0.16	\$0.99	\$1.04	\$1.09	\$1.13	\$1.14	\$1.15	\$1.16	\$1.17	\$1.18	\$1.19	\$1.26	\$1.33	\$1.40	\$1.48	\$49.08
10	CMS Energy Corporation	CMS	(\$43.12)	\$0.00	\$0.22	\$1.33	\$1.44	\$1.53	\$1.61	\$1.74	\$1.87	\$2.01	\$2.16	\$2.31	\$2.47	\$2.61	\$2.76	\$2.91	\$3.07	\$99.12
11	DTE Energy Company	DTE	(\$95.14)	\$0.00	\$0.49	\$3.00	\$3.22	\$3.37	\$3.54	\$3.82	\$4.11	\$4.43	\$4.76	\$5.12	\$5.50	\$5.80	\$6.13	\$6.47	\$6.83	\$219.03
12	El Paso Electric Company	EE	(\$46.05)	\$0.00	\$0.19	\$1.18	\$1.33	\$1.43	\$1.54	\$1.65	\$1.78	\$1.92	\$2.06	\$2.22	\$2.39	\$2.52	\$2.66	\$2.81	\$2.97	\$106.17
13	Eversource Energy	ES	(\$55.88)	\$0.00	\$0.30	\$1.83	\$1.95	\$2.03	\$2.13	\$2.31	\$2.50	\$2.71	\$2.93	\$3.16	\$3.41	\$3.60	\$3.81	\$4.02	\$4.24	\$129.58
14	IDACORP, Inc.	IDA	(\$78.03)	\$0.00	\$0.36	\$2.17	\$2.45	\$2.62	\$2.80	\$2.97	\$3.16	\$3.37	\$3.60	\$3.85	\$4.14	\$4.37	\$4.62	\$4.87	\$5.14	\$178.69
15	NorthWestern Corporation	NWE	(\$58.86)	\$0.00	\$0.30	\$1.85	\$1.98	\$2.08	\$2.18	\$2.36	\$2.55	\$2.75	\$2.97	\$3.21	\$3.46	\$3.66	\$3.86	\$4.08	\$4.30	\$136.16
16	OGE Energy Corp.	OGE	(\$31.39)	\$0.00	\$0.19	\$1.19	\$1.34	\$1.43	\$1.53	\$1.58	\$1.62	\$1.67	\$1.73	\$1.79	\$1.86	\$1.96	\$2.07	\$2.18	\$2.31	\$69.24
17	Otter Tail Corporation	OTTR	(\$34.41)	\$0.00	\$0.23	\$1.40	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$77.26
18	Pinnacle West Capital Corporation	PNW	(\$77.09)	\$0.00	\$0.44	\$2.66	\$2.83	\$2.94	\$3.06	\$3.22	\$3.39	\$3.58	\$3.79	\$4.03	\$4.28	\$4.52	\$4.77	\$5.04	\$5.32	\$173.82
19	Portland General Electric Company	POR	(\$42.89)	\$0.00	\$0.21	\$1.29	\$1.41	\$1.50	\$1.59	\$1.71	\$1.85	\$2.00	\$2.15	\$2.32	\$2.50	\$2.64	\$2.78	\$2.94	\$3.10	\$99.25
20	SCANA Corporation	SCG	(\$72.47)	\$0.00	\$0.39	\$2.39	\$2.60	\$2.76	\$2.91	\$3.14	\$3.38	\$3.64	\$3.92	\$4.22	\$4.55	\$4.80	\$5.07	\$5.35	\$5.65	\$167.89
21	Wisconsin Energy Corporation	WEC	(\$61.49)	\$0.00	\$0.28	\$1.72	\$1.88	\$2.00	\$2.13	\$2.26	\$2.40	\$2.54	\$2.69	\$2.84	\$3.00	\$3.16	\$3.34	\$3.53	\$3.72	\$138.91
22	Xcel Energy Inc.	XEL	(\$42.23)	\$0.00	\$0.23	\$1.41	\$1.53	\$1.61	\$1.70	\$1.81	\$1.93	\$2.07	\$2.21	\$2.36	\$2.52	\$2.66	\$2.81	\$2.97	\$3.13	\$96.71

Multi-Stage Growth Discounted Cash Flow Model  
90 Day Average Stock Price  
High EPS Growth Rate Estimate in First Stage

Line No	Inputs	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]					
1		Stock	EPS Growth Rate Estimates					Payout Ratio			Iterative Solution		Terminal P/E	Terminal PEG					
2	Company	Ticker	Price	Zacks	First Call	Value Line	High Growth	Long-Term	2016	2020	2026	Proof	IRR	Ratio	Ratio				
3	ALLETE, Inc.	ALE	\$61.07	5.50%	5.00%	4.00%	5.50%	5.58%	66.00%	65.00%	66.88%	(\$0.00)	9.81%	16.67	2.99				
4	Alliant Energy Corporation	LNT	\$38.77	6.10%	6.60%	6.00%	6.60%	5.58%	62.00%	61.00%	66.88%	(\$0.00)	9.11%	19.99	3.58				
5	Ameren Corporation	AEE	\$50.47	6.10%	5.60%	6.00%	6.10%	5.58%	66.00%	63.00%	66.88%	(\$0.00)	9.30%	18.94	3.40				
6	American Electric Power Company, Inc.	AEP	\$66.29	5.20%	2.75%	4.00%	5.20%	5.58%	61.00%	67.00%	66.88%	(\$0.00)	9.64%	17.39	3.12				
7	Avista Corporation	AVA	\$41.98	5.30%	5.00%	5.00%	5.30%	5.58%	67.00%	64.00%	66.88%	(\$0.00)	8.96%	20.85	3.74				
8	CenterPoint Energy, Inc.	CNP	\$23.14	5.50%	5.11%	2.00%	5.50%	5.58%	86.00%	85.00%	66.88%	(\$0.00)	9.36%	18.64	3.34				
9	CMS Energy Corporation	CMS	\$43.12	6.60%	7.27%	6.00%	7.27%	5.58%	64.00%	62.00%	66.88%	(\$0.00)	9.30%	18.96	3.40				
10	DTE Energy Company	DTE	\$95.13	5.80%	5.63%	6.00%	6.00%	5.58%	62.00%	60.00%	66.88%	(\$0.01)	9.21%	19.41	3.48				
11	El Paso Electric Company	EE	\$46.04	4.40%	7.00%	4.00%	7.00%	5.58%	54.00%	59.00%	66.88%	(\$0.00)	9.20%	19.47	3.49				
12	Eversource Energy	ES	\$55.87	6.10%	5.39%	6.00%	6.10%	5.58%	61.00%	58.00%	66.88%	(\$0.00)	9.42%	18.36	3.29				
13	IDACORP, Inc.	IDA	\$78.03	4.30%	4.10%	3.00%	4.30%	5.58%	53.00%	60.00%	66.88%	(\$0.01)	9.00%	20.64	3.70				
14	NorthWestern Corporation	NWE	\$58.85	5.00%	4.50%	6.50%	6.50%	5.58%	59.00%	58.00%	66.88%	(\$0.00)	9.50%	17.97	3.22				
15	OGE Energy Corp.	OGE	\$31.39	5.20%	4.30%	3.00%	5.20%	5.58%	66.00%	74.00%	66.88%	(\$0.00)	9.70%	17.12	3.07				
16	Otter Tail Corporation	OTTR	\$34.41	NA	6.00%	6.00%	6.00%	5.58%	82.00%	64.00%	66.88%	(\$0.00)	9.20%	19.50	3.50				
17	Pinnacle West Capital Corporation	PNW	\$77.09	4.30%	3.95%	4.00%	4.30%	5.58%	64.00%	64.00%	66.88%	(\$0.01)	9.15%	19.75	3.54				
18	Portland General Electric Company	POR	\$42.89	6.00%	5.55%	5.50%	6.00%	5.58%	58.00%	59.00%	66.88%	(\$0.00)	9.25%	19.20	3.44				
19	SCANA Corporation	SCG	\$72.46	5.50%	6.00%	4.50%	6.00%	5.58%	58.00%	59.00%	66.88%	(\$0.01)	9.64%	17.38	3.12				
20	Wisconsin Energy Corporation	WEC	\$61.49	6.20%	6.77%	6.00%	6.77%	5.58%	67.00%	67.00%	66.88%	(\$0.01)	8.74%	22.30	4.00				
21	Xcel Energy Inc.	XEL	\$42.22	5.40%	5.36%	5.50%	5.50%	5.58%	62.00%	62.00%	66.88%	(\$0.00)	9.34%	18.78	3.37				
22												Mean	9.31%						
23												Max	9.81%						
24												Min	8.74%						
25	Projected Annual																		
26	Earnings per Share		[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]
27	Company	Ticker	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
28	ALLETE, Inc.	ALE	\$3.38	\$3.57	\$3.76	\$3.97	\$4.19	\$4.42	\$4.66	\$4.92	\$5.19	\$5.48	\$5.78	\$6.11	\$6.45	\$6.81	\$7.19	\$7.59	\$8.01
29	Alliant Energy Corporation	LNT	\$1.69	\$1.80	\$1.92	\$2.05	\$2.18	\$2.33	\$2.48	\$2.63	\$2.79	\$2.96	\$3.13	\$3.30	\$3.48	\$3.68	\$3.88	\$4.10	\$4.33
30	Ameren Corporation	AEE	\$2.38	\$2.53	\$2.68	\$2.84	\$3.02	\$3.20	\$3.39	\$3.59	\$3.80	\$4.02	\$4.25	\$4.49	\$4.74	\$5.00	\$5.28	\$5.57	\$5.89
31	American Electric Power Company, Inc.	AEP	\$3.59	\$3.78	\$3.97	\$4.18	\$4.40	\$4.63	\$4.87	\$5.13	\$5.40	\$5.70	\$6.01	\$6.35	\$6.70	\$7.08	\$7.47	\$7.89	\$8.33
32	Avista Corporation	AVA	\$1.89	\$1.99	\$2.10	\$2.21	\$2.32	\$2.45	\$2.58	\$2.72	\$2.86	\$3.02	\$3.19	\$3.37	\$3.55	\$3.75	\$3.96	\$4.18	\$4.42
33	CenterPoint Energy, Inc.	CNP	\$1.08	\$1.14	\$1.20	\$1.27	\$1.34	\$1.41	\$1.49	\$1.57	\$1.66	\$1.75	\$1.85	\$1.95	\$2.06	\$2.17	\$2.30	\$2.42	\$2.56
34	CMS Energy Corporation	CMS	\$1.89	\$2.03	\$2.17	\$2.33	\$2.50	\$2.68	\$2.87	\$3.06	\$3.26	\$3.46	\$3.66	\$3.87	\$4.08	\$4.31	\$4.55	\$4.81	\$5.07
35	DTE Energy Company	DTE	\$4.45	\$4.72	\$5.00	\$5.30	\$5.62	\$5.96	\$6.31	\$6.68	\$7.06	\$7.47	\$7.89	\$8.33	\$8.79	\$9.28	\$9.80	\$10.35	\$10.93
36	El Paso Electric Company	EE	\$2.03	\$2.17	\$2.32	\$2.49	\$2.66	\$2.85	\$3.04	\$3.24	\$3.44	\$3.65	\$3.86	\$4.08	\$4.30	\$4.54	\$4.80	\$5.07	\$5.35
37	Eversource Energy	ES	\$2.76	\$2.93	\$3.11	\$3.30	\$3.50	\$3.71	\$3.93	\$4.17	\$4.41	\$4.66	\$4.93	\$5.20	\$5.49	\$5.80	\$6.12	\$6.46	\$6.82
38	IDACORP, Inc.	IDA	\$3.87	\$4.04	\$4.21	\$4.39	\$4.58	\$4.78	\$4.99	\$5.23	\$5.49	\$5.77	\$6.08	\$6.42	\$6.78	\$7.15	\$7.55	\$7.97	\$8.42
39	NorthWestern Corporation	NWE	\$2.90	\$3.09	\$3.29	\$3.50	\$3.73	\$3.97	\$4.23	\$4.49	\$4.76	\$5.04	\$5.33	\$5.62	\$5.94	\$6.27	\$6.62	\$6.99	\$7.38
40	OGE Energy Corp.	OGE	\$1.69	\$1.78	\$1.87	\$1.97	\$2.07	\$2.18	\$2.29	\$2.41	\$2.54	\$2.68	\$2.83	\$2.99	\$3.16	\$3.33	\$3.52	\$3.71	\$3.92
41	Otter Tail Corporation	OTTR	\$1.56	\$1.65	\$1.75	\$1.86	\$1.97	\$2.09	\$2.21	\$2.34	\$2.48	\$2.62	\$2.77	\$2.92	\$3.08	\$3.25	\$3.44	\$3.63	\$3.83
42	Pinnacle West Capital Corporation	PNW	\$3.92	\$4.09	\$4.26	\$4.45	\$4.64	\$4.84	\$5.06	\$5.30	\$5.56	\$5.84	\$6.16	\$6.50	\$6.86	\$7.25	\$7.65	\$8.08	\$8.53
43	Portland General Electric Company	POR	\$2.04	\$2.16	\$2.29	\$2.43	\$2.58	\$2.73	\$2.89	\$3.06	\$3.24	\$3.42	\$3.62	\$3.82	\$4.03	\$4.26	\$4.49	\$4.74	\$5.01
44	SCANA Corporation	SCG	\$3.81	\$4.04	\$4.28	\$4.54	\$4.81	\$5.10	\$5.40	\$5.72	\$6.05	\$6.39	\$6.76	\$7.13	\$7.53	\$7.95	\$8.39	\$8.86	\$9.35
45	Wisconsin Energy Corporation	WEC	\$2.34	\$2.50	\$2.67	\$2.85	\$3.04	\$3.25	\$3.46	\$3.68	\$3.91	\$4.14	\$4.38	\$4.62	\$4.88	\$5.15	\$5.44	\$5.75	\$6.07
46	Xcel Energy Inc.	XEL	\$2.10	\$2.22	\$2.34	\$2.47	\$2.60	\$2.74	\$2.90	\$3.06	\$3.23	\$3.40	\$3.59	\$3.79	\$4.01	\$4.23	\$4.46	\$4.71	\$4.98



Multi-Stage Growth Discounted Cash Flow Model  
90 Day Average Stock Price  
High EPS Growth Rate Estimate in First Stage

1	Projected Annual																	
2	Dividend Payout Ratio		[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]
3	Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
4	ALLETE, Inc.	ALE	66.00%	65.75%	65.50%	65.25%	65.00%	65.31%	65.63%	65.94%	66.26%	66.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
5	Alliant Energy Corporation	LNT	62.00%	61.75%	61.50%	61.25%	61.00%	61.98%	62.96%	63.94%	64.92%	65.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
6	Ameren Corporation	AEE	66.00%	65.25%	64.50%	63.75%	63.00%	63.65%	64.29%	64.94%	65.59%	66.24%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
7	American Electric Power Company, Inc.	AEP	61.00%	62.50%	64.00%	65.50%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
8	Avista Corporation	AVA	67.00%	66.25%	65.50%	64.75%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
9	CenterPoint Energy, Inc.	CNP	86.00%	85.75%	85.50%	85.25%	85.00%	81.98%	78.96%	75.94%	72.92%	69.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
10	CMS Energy Corporation	CMS	64.00%	63.50%	63.00%	62.50%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
11	DTE Energy Company	DTE	62.00%	61.50%	61.00%	60.50%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
12	El Paso Electric Company	EE	54.00%	55.25%	56.50%	57.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
13	Eversource Energy	ES	61.00%	60.25%	59.50%	58.75%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
14	IDACORP, Inc.	IDA	53.00%	54.75%	56.50%	58.25%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
15	NorthWestern Corporation	NWE	59.00%	58.75%	58.50%	58.25%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
16	OGE Energy Corp.	OGE	66.00%	68.00%	70.00%	72.00%	74.00%	72.81%	71.63%	70.44%	69.26%	68.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
17	Otter Tail Corporation	OTTR	82.00%	77.50%	73.00%	68.50%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
18	Pinnacle West Capital Corporation	PNW	64.00%	64.00%	64.00%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
19	Portland General Electric Company	POR	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
20	SCANA Corporation	SCG	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
21	Wisconsin Energy Corporation	WEC	67.00%	67.00%	67.00%	67.00%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
22	Xcel Energw Inc.	XEL	62.00%	62.00%	62.00%	62.00%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%

23	Projected Annual																		
24	Cash Flows		[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	[63]
25	Company	Ticker	2015	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Terminal Value
26	ALLETE, Inc.	ALE	\$2.35	\$2.47	\$2.60	\$2.73	\$2.87	\$3.04	\$3.23	\$3.42	\$3.63	\$3.85	\$4.08	\$4.31	\$4.55	\$4.81	\$5.07	\$5.36	\$133.55
27	Alliant Energy Corporation	LNT	\$1.12	\$1.19	\$1.26	\$1.34	\$1.42	\$1.53	\$1.66	\$1.78	\$1.92	\$2.06	\$2.21	\$2.33	\$2.46	\$2.60	\$2.74	\$2.90	\$86.52
28	Ameren Corporation	AEE	\$1.67	\$1.75	\$1.83	\$1.92	\$2.02	\$2.16	\$2.31	\$2.47	\$2.64	\$2.81	\$3.00	\$3.17	\$3.34	\$3.53	\$3.73	\$3.94	\$111.45
29	American Electric Power Company, Inc.	AEP	\$2.30	\$2.48	\$2.67	\$2.88	\$3.10	\$3.26	\$3.43	\$3.62	\$3.81	\$4.02	\$4.25	\$4.48	\$4.73	\$5.00	\$5.28	\$5.57	\$144.85
30	Avista Corporation	AVA	\$1.33	\$1.39	\$1.45	\$1.50	\$1.57	\$1.66	\$1.76	\$1.87	\$1.99	\$2.12	\$2.25	\$2.38	\$2.51	\$2.65	\$2.80	\$2.95	\$92.07
31	CenterPoint Energy, Inc.	CNP	\$0.98	\$1.03	\$1.08	\$1.14	\$1.20	\$1.22	\$1.24	\$1.26	\$1.28	\$1.29	\$1.31	\$1.38	\$1.45	\$1.54	\$1.62	\$1.71	\$47.71
32	CMS Energy Corporation	CMS	\$1.30	\$1.38	\$1.47	\$1.56	\$1.66	\$1.80	\$1.95	\$2.10	\$2.26	\$2.42	\$2.59	\$2.73	\$2.88	\$3.05	\$3.21	\$3.39	\$96.24
33	DTE Energy Company	DTE	\$2.92	\$3.08	\$3.23	\$3.40	\$3.57	\$3.86	\$4.16	\$4.48	\$4.82	\$5.19	\$5.57	\$5.88	\$6.21	\$6.56	\$6.92	\$7.31	\$212.05
34	El Paso Electric Company	EE	\$1.17	\$1.28	\$1.41	\$1.54	\$1.68	\$1.83	\$2.00	\$2.17	\$2.35	\$2.53	\$2.73	\$2.88	\$3.04	\$3.21	\$3.39	\$3.58	\$104.15
35	Eversource Energy	ES	\$1.79	\$1.87	\$1.96	\$2.05	\$2.15	\$2.34	\$2.54	\$2.75	\$2.98	\$3.22	\$3.48	\$3.67	\$3.88	\$4.10	\$4.32	\$4.56	\$125.31
36	IDACORP, Inc.	IDA	\$2.14	\$2.30	\$2.48	\$2.67	\$2.87	\$3.05	\$3.26	\$3.48	\$3.73	\$4.00	\$4.29	\$4.53	\$4.78	\$5.05	\$5.33	\$5.63	\$173.73
37	NorthWestern Corporation	NWE	\$1.82	\$1.93	\$2.05	\$2.17	\$2.30	\$2.51	\$2.74	\$2.97	\$3.22	\$3.48	\$3.76	\$3.97	\$4.19	\$4.43	\$4.67	\$4.93	\$132.58
38	OGE Energy Corp.	OGE	\$1.17	\$1.27	\$1.38	\$1.49	\$1.61	\$1.67	\$1.73	\$1.79	\$1.86	\$1.93	\$2.00	\$2.11	\$2.23	\$2.35	\$2.48	\$2.62	\$67.13
39	Otter Tail Corporation	OTTR	\$1.36	\$1.36	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$2.56	\$74.70
40	Pinnacle West Capital Corporation	PNW	\$2.62	\$2.73	\$2.85	\$2.97	\$3.10	\$3.26	\$3.44	\$3.64	\$3.85	\$4.09	\$4.35	\$4.59	\$4.85	\$5.12	\$5.40	\$5.70	\$168.39
41	Portland General Electric Company	POR	\$1.25	\$1.34	\$1.42	\$1.51	\$1.61	\$1.74	\$1.89	\$2.04	\$2.20	\$2.37	\$2.55	\$2.70	\$2.85	\$3.01	\$3.17	\$3.35	\$96.16
42	SCANA Corporation	SCG	\$2.34	\$2.49	\$2.65	\$2.83	\$3.01	\$3.26	\$3.52	\$3.81	\$4.11	\$4.43	\$4.77	\$5.04	\$5.32	\$5.61	\$5.93	\$6.26	\$162.62
43	Wisconsin Energy Corporation	WEC	\$1.67	\$1.79	\$1.91	\$2.04	\$2.18	\$2.32	\$2.46	\$2.62	\$2.77	\$2.93	\$3.09	\$3.27	\$3.45	\$3.64	\$3.84	\$4.06	\$135.25
44	Xcel Energy Inc.	XEL	\$1.37	\$1.45	\$1.53	\$1.61	\$1.70	\$1.82	\$1.94	\$2.08	\$2.22	\$2.37	\$2.54	\$2.68	\$2.83	\$2.99	\$3.15	\$3.33	\$93.44

Multi-Stage Growth Discounted Cash Flow Model  
90 Day Average Stock Price  
High EPS Growth Rate Estimate in First Stage

1	Projected Annual Data																			
2	Investor Cash Flows		[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]	[80]	[81]
			Initial																	
3	Company	Ticker	Outflow	10/31/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30	6/30/31
4	ALLETE, Inc.	ALE	(\$61.07)	\$0.00	\$0.39	\$2.42	\$2.60	\$2.73	\$2.87	\$3.04	\$3.23	\$3.42	\$3.63	\$3.85	\$4.08	\$4.31	\$4.55	\$4.81	\$5.07	\$138.90
5	Alliant Energy Corporation	LNT	(\$38.77)	\$0.00	\$0.19	\$1.15	\$1.26	\$1.34	\$1.42	\$1.53	\$1.66	\$1.78	\$1.92	\$2.06	\$2.21	\$2.33	\$2.46	\$2.60	\$2.74	\$89.42
6	Ameren Corporation	AEE	(\$50.48)	\$0.00	\$0.28	\$1.72	\$1.83	\$1.92	\$2.02	\$2.16	\$2.31	\$2.47	\$2.64	\$2.81	\$3.00	\$3.17	\$3.34	\$3.53	\$3.73	\$115.39
7	American Electric Power Company, Inc.	AEP	(\$66.29)	\$0.00	\$0.39	\$2.36	\$2.67	\$2.88	\$3.10	\$3.26	\$3.43	\$3.62	\$3.81	\$4.02	\$4.25	\$4.48	\$4.73	\$5.00	\$5.28	\$150.42
8	Avista Corporation	AVA	(\$41.98)	\$0.00	\$0.22	\$1.37	\$1.45	\$1.50	\$1.57	\$1.66	\$1.76	\$1.87	\$1.99	\$2.12	\$2.25	\$2.38	\$2.51	\$2.65	\$2.80	\$95.02
9	CenterPoint Energy, Inc.	CNP	(\$23.14)	\$0.00	\$0.16	\$1.01	\$1.08	\$1.14	\$1.20	\$1.22	\$1.24	\$1.26	\$1.28	\$1.29	\$1.31	\$1.38	\$1.45	\$1.54	\$1.62	\$49.42
10	CMS Energy Corporation	CMS	(\$43.12)	\$0.00	\$0.22	\$1.34	\$1.47	\$1.56	\$1.66	\$1.80	\$1.95	\$2.10	\$2.26	\$2.42	\$2.59	\$2.73	\$2.88	\$3.05	\$3.21	\$99.63
11	DTE Energy Company	DTE	(\$95.14)	\$0.00	\$0.49	\$3.01	\$3.23	\$3.40	\$3.57	\$3.86	\$4.16	\$4.48	\$4.82	\$5.19	\$5.57	\$5.88	\$6.21	\$6.56	\$6.92	\$219.36
12	El Paso Electric Company	EE	(\$46.05)	\$0.00	\$0.20	\$1.21	\$1.41	\$1.54	\$1.68	\$1.83	\$2.00	\$2.17	\$2.35	\$2.53	\$2.73	\$2.88	\$3.04	\$3.21	\$3.39	\$107.73
13	Eversource Energy	ES	(\$55.88)	\$0.00	\$0.30	\$1.84	\$1.96	\$2.05	\$2.15	\$2.34	\$2.54	\$2.75	\$2.98	\$3.22	\$3.48	\$3.67	\$3.88	\$4.10	\$4.32	\$129.88
14	IDACORP, Inc.	IDA	(\$78.03)	\$0.00	\$0.36	\$2.19	\$2.48	\$2.67	\$2.87	\$3.05	\$3.26	\$3.48	\$3.73	\$4.00	\$4.29	\$4.53	\$4.78	\$5.05	\$5.33	\$179.36
15	NorthWestern Corporation	NWE	(\$58.86)	\$0.00	\$0.30	\$1.88	\$2.05	\$2.17	\$2.30	\$2.51	\$2.74	\$2.97	\$3.22	\$3.48	\$3.76	\$3.97	\$4.19	\$4.43	\$4.67	\$137.52
16	OGE Energy Corp.	OGE	(\$31.39)	\$0.00	\$0.20	\$1.20	\$1.38	\$1.49	\$1.61	\$1.67	\$1.73	\$1.79	\$1.86	\$1.93	\$2.00	\$2.11	\$2.23	\$2.35	\$2.48	\$69.76
17	Otter Tail Corporation	OTTR	(\$34.41)	\$0.00	\$0.23	\$1.40	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$77.27
18	Pinnacle West Capital Corporation	PNW	(\$77.09)	\$0.00	\$0.44	\$2.67	\$2.85	\$2.97	\$3.10	\$3.26	\$3.44	\$3.64	\$3.85	\$4.09	\$4.35	\$4.59	\$4.85	\$5.12	\$5.40	\$174.10
19	Portland General Electric Company	POR	(\$42.89)	\$0.00	\$0.21	\$1.29	\$1.42	\$1.51	\$1.61	\$1.74	\$1.89	\$2.04	\$2.20	\$2.37	\$2.55	\$2.70	\$2.85	\$3.01	\$3.17	\$99.51
20	SCANA Corporation	SCG	(\$72.47)	\$0.00	\$0.39	\$2.41	\$2.65	\$2.83	\$3.01	\$3.26	\$3.52	\$3.81	\$4.11	\$4.43	\$4.77	\$5.04	\$5.32	\$5.61	\$5.93	\$168.88
21	Wisconsin Energy Corporation	WEC	(\$61.49)	\$0.00	\$0.28	\$1.73	\$1.91	\$2.04	\$2.18	\$2.32	\$2.46	\$2.62	\$2.77	\$2.93	\$3.09	\$3.27	\$3.45	\$3.64	\$3.84	\$139.31
22	Xcel Energy Inc.	XEL	(\$42.23)	\$0.00	\$0.23	\$1.41	\$1.53	\$1.61	\$1.70	\$1.82	\$1.94	\$2.08	\$2.22	\$2.37	\$2.54	\$2.68	\$2.83	\$2.99	\$3.15	\$96.77

Multi-Stage Growth Discounted Cash Flow Model  
90 Day Average Stock Price  
Low EPS Growth Rate Estimate in First Stage

Line No	Inputs	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]					
1		Stock	EPS Growth Rate Estimates					Payout Ratio			Iterative Solution		Terminal	Terminal					
					Value	Low	Long-Term						P/E	PEG					
2	Company	Ticker	Price	Zacks	First Call	Line	Growth	Growth	2016	2020	2026	Proof	IRR	Ratio	Ratio				
3	ALLETE, Inc.	ALE	\$61.07	5.50%	5.00%	4.00%	4.00%	5.58%	66.00%	65.00%	66.88%	(\$0.00)	9.41%	18.40	3.30				
4	Alliant Energy Corporation	LNT	\$38.77	6.10%	6.60%	6.00%	6.00%	5.58%	62.00%	61.00%	66.88%	(\$0.00)	8.97%	20.78	3.73				
5	Ameren Corporation	AEE	\$50.47	6.10%	5.60%	6.00%	5.60%	5.58%	66.00%	63.00%	66.88%	(\$0.00)	9.18%	19.57	3.51				
6	American Electric Power Company, Inc.	AEP	\$66.29	5.20%	2.75%	4.00%	2.75%	5.58%	61.00%	67.00%	66.88%	(\$0.01)	9.02%	20.49	3.67				
7	Avista Corporation	AVA	\$41.98	5.30%	5.00%	5.00%	5.00%	5.58%	67.00%	64.00%	66.88%	(\$0.00)	8.90%	21.27	3.81				
8	CenterPoint Energy, Inc.	CNP	\$23.14	5.50%	5.11%	2.00%	2.00%	5.58%	86.00%	85.00%	66.88%	(\$0.00)	8.55%	23.78	4.26				
9	CMS Energy Corporation	CMS	\$43.12	6.60%	7.27%	6.00%	6.00%	5.58%	64.00%	62.00%	66.88%	(\$0.00)	9.01%	20.59	3.69				
10	DTE Energy Company	DTE	\$95.13	5.80%	5.63%	6.00%	5.63%	5.58%	62.00%	60.00%	66.88%	(\$0.01)	9.13%	19.88	3.57				
11	El Paso Electric Company	EE	\$46.04	4.40%	7.00%	4.00%	4.00%	5.58%	54.00%	59.00%	66.88%	(\$0.00)	8.55%	23.71	4.25				
12	Eversource Energy	ES	\$55.87	6.10%	5.39%	6.00%	5.39%	5.58%	61.00%	58.00%	66.88%	(\$0.00)	9.25%	19.23	3.45				
13	IDACORP, Inc.	IDA	\$78.03	4.30%	4.10%	3.00%	3.00%	5.58%	53.00%	60.00%	66.88%	(\$0.01)	8.71%	22.52	4.04				
14	NorthWestern Corporation	NWE	\$58.85	5.00%	4.50%	6.50%	4.50%	5.58%	59.00%	58.00%	66.88%	(\$0.00)	9.03%	20.47	3.67				
15	OGE Energy Corp.	OGE	\$31.39	5.20%	4.30%	3.00%	3.00%	5.58%	66.00%	74.00%	66.88%	(\$0.00)	9.13%	19.86	3.56				
16	Otter Tail Corporation	OTTR	\$34.41	NA	6.00%	6.00%	6.00%	5.58%	82.00%	64.00%	66.88%	(\$0.00)	9.20%	19.50	3.50				
17	Pinnacle West Capital Corporation	PNW	\$77.09	4.30%	3.95%	4.00%	3.95%	5.58%	64.00%	64.00%	66.88%	(\$0.00)	9.07%	20.22	3.63				
18	Portland General Electric Company	POR	\$42.89	6.00%	5.55%	5.50%	5.50%	5.58%	58.00%	59.00%	66.88%	(\$0.00)	9.14%	19.83	3.56				
19	SCANA Corporation	SCG	\$72.46	5.50%	6.00%	4.50%	4.50%	5.58%	58.00%	59.00%	66.88%	(\$0.01)	9.26%	19.16	3.44				
20	Wisconsin Energy Corporation	WEC	\$61.49	6.20%	6.77%	6.00%	6.00%	5.58%	67.00%	67.00%	66.88%	(\$0.01)	8.59%	23.46	4.21				
21	Xcel Energy Inc.	XEL	\$42.22	5.40%	5.36%	5.50%	5.36%	5.58%	62.00%	62.00%	66.88%	(\$0.00)	9.30%	18.95	3.40				
22												Mean	9.02%						
23												Max	9.41%						
24												Min	8.55%						
25	Projected Annual																		
26	Earnings per Share		[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]
27	Company	Ticker	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
28	ALLETE, Inc.	ALE	\$3.38	\$3.52	\$3.66	\$3.80	\$3.95	\$4.11	\$4.29	\$4.48	\$4.70	\$4.93	\$5.20	\$5.49	\$5.79	\$6.11	\$6.45	\$6.81	\$7.19
29	Alliant Energy Corporation	LNT	\$1.69	\$1.79	\$1.90	\$2.01	\$2.13	\$2.26	\$2.40	\$2.54	\$2.68	\$2.84	\$3.00	\$3.16	\$3.34	\$3.53	\$3.72	\$3.93	\$4.15
30	Ameren Corporation	AEE	\$2.38	\$2.51	\$2.65	\$2.80	\$2.96	\$3.13	\$3.30	\$3.48	\$3.68	\$3.88	\$4.10	\$4.33	\$4.57	\$4.83	\$5.10	\$5.38	\$5.68
31	American Electric Power Company, Inc.	AEP	\$3.59	\$3.69	\$3.79	\$3.89	\$4.00	\$4.11	\$4.24	\$4.40	\$4.58	\$4.80	\$5.04	\$5.32	\$5.62	\$5.93	\$6.26	\$6.61	\$6.98
32	Avista Corporation	AVA	\$1.89	\$1.98	\$2.08	\$2.19	\$2.30	\$2.41	\$2.54	\$2.67	\$2.81	\$2.96	\$3.12	\$3.30	\$3.48	\$3.67	\$3.88	\$4.09	\$4.32
33	CenterPoint Energy, Inc.	CNP	\$1.08	\$1.10	\$1.12	\$1.15	\$1.17	\$1.19	\$1.22	\$1.26	\$1.31	\$1.37	\$1.44	\$1.52	\$1.60	\$1.69	\$1.78	\$1.88	\$1.99
34	CMS Energy Corporation	CMS	\$1.89	\$2.00	\$2.12	\$2.25	\$2.39	\$2.53	\$2.68	\$2.84	\$3.00	\$3.17	\$3.35	\$3.54	\$3.74	\$3.94	\$4.16	\$4.40	\$4.64
35	DTE Energy Company	DTE	\$4.45	\$4.70	\$4.97	\$5.24	\$5.54	\$5.85	\$6.18	\$6.53	\$6.89	\$7.28	\$7.69	\$8.11	\$8.57	\$9.04	\$9.55	\$10.08	\$10.64
36	El Paso Electric Company	EE	\$2.03	\$2.11	\$2.20	\$2.28	\$2.37	\$2.47	\$2.58	\$2.69	\$2.82	\$2.96	\$3.12	\$3.29	\$3.48	\$3.67	\$3.88	\$4.09	\$4.32
37	Eversource Energy	ES	\$2.76	\$2.91	\$3.07	\$3.23	\$3.40	\$3.59	\$3.78	\$3.99	\$4.21	\$4.44	\$4.69	\$4.95	\$5.22	\$5.51	\$5.82	\$6.15	\$6.49
38	IDACORP, Inc.	IDA	\$3.87	\$3.99	\$4.11	\$4.23	\$4.36	\$4.49	\$4.64	\$4.82	\$5.03	\$5.26	\$5.53	\$5.84	\$6.17	\$6.51	\$6.88	\$7.26	\$7.66
39	NorthWestern Corporation	NWE	\$2.90	\$3.03	\$3.17	\$3.31	\$3.46	\$3.61	\$3.78	\$3.97	\$4.17	\$4.38	\$4.62	\$4.88	\$5.15	\$5.44	\$5.74	\$6.06	\$6.40
40	OGE Energy Corp.	OGE	\$1.69	\$1.74	\$1.79	\$1.85	\$1.90	\$1.96	\$2.03	\$2.10	\$2.19	\$2.30	\$2.42	\$2.55	\$2.69	\$2.84	\$3.00	\$3.17	\$3.35
41	Otter Tail Corporation	OTTR	\$1.56	\$1.65	\$1.75	\$1.86	\$1.97	\$2.09	\$2.21	\$2.34	\$2.48	\$2.62	\$2.77	\$2.92	\$3.08	\$3.25	\$3.44	\$3.63	\$3.83
42	Pinnacle West Capital Corporation	PNW	\$3.92	\$4.07	\$4.24	\$4.40	\$4.58	\$4.76	\$4.96	\$5.18	\$5.43	\$5.70	\$6.00	\$6.34	\$6.69	\$7.07	\$7.46	\$7.88	\$8.31
43	Portland General Electric Company	POR	\$2.04	\$2.15	\$2.27	\$2.40	\$2.53	\$2.67	\$2.81	\$2.97	\$3.13	\$3.31	\$3.49	\$3.69	\$3.89	\$4.11	\$4.34	\$4.58	\$4.83
44	SCANA Corporation	SCG	\$3.81	\$3.98	\$4.16	\$4.35	\$4.54	\$4.75	\$4.97	\$5.21	\$5.47	\$5.76	\$6.07	\$6.41	\$6.77	\$7.14	\$7.54	\$7.96	\$8.41
45	Wisconsin Energy Corporation	WEC	\$2.34	\$2.48	\$2.63	\$2.79	\$2.95	\$3.13	\$3.32	\$3.51	\$3.71	\$3.93	\$4.15	\$4.38	\$4.62	\$4.88	\$5.15	\$5.44	\$5.75
46	Xcel Enerav Inc.	XEL	\$2.10	\$2.21	\$2.33	\$2.46	\$2.59	\$2.73	\$2.87	\$3.03	\$3.20	\$3.37	\$3.56	\$3.76	\$3.97	\$4.19	\$4.42	\$4.67	\$4.93

Multi-Stage Growth Discounted Cash Flow Model  
90 Day Average Stock Price  
Low EPS Growth Rate Estimate in First Stage

1	Projected Annual																	
2	Dividend Payout Ratio		[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]
3	Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
4	ALLETE, Inc.	ALE	66.00%	65.75%	65.50%	65.25%	65.00%	65.31%	65.63%	65.94%	66.26%	66.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
5	Alliant Energy Corporation	LNT	62.00%	61.75%	61.50%	61.25%	61.00%	61.98%	62.96%	63.94%	64.92%	65.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
6	Ameren Corporation	AEE	66.00%	65.25%	64.50%	63.75%	63.00%	63.65%	64.29%	64.94%	65.59%	66.24%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
7	American Electric Power Company, Inc.	AEP	61.00%	62.50%	64.00%	65.50%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
8	Avista Corporation	AVA	67.00%	66.25%	65.50%	64.75%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
9	CenterPoint Energy, Inc.	CNP	86.00%	85.75%	85.50%	85.25%	85.00%	81.98%	78.96%	75.94%	72.92%	69.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
10	CMS Energy Corporation	CMS	64.00%	63.50%	63.00%	62.50%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
11	DTE Energy Company	DTE	62.00%	61.50%	61.00%	60.50%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
12	El Paso Electric Company	EE	54.00%	55.25%	56.50%	57.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
13	Eversource Energy	ES	61.00%	60.25%	59.50%	58.75%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
14	IDACORP, Inc.	IDA	53.00%	54.75%	56.50%	58.25%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
15	NorthWestern Corporation	NWE	59.00%	58.75%	58.50%	58.25%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
16	OGE Energy Corp.	OGE	66.00%	68.00%	70.00%	72.00%	74.00%	72.81%	71.63%	70.44%	69.26%	68.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
17	Otter Tail Corporation	OTTR	82.00%	77.50%	73.00%	68.50%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
18	Pinnacle West Capital Corporation	PNW	64.00%	64.00%	64.00%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
19	Portland General Electric Company	POR	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
20	SCANA Corporation	SCG	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
21	Wisconsin Energy Corporation	WEC	67.00%	67.00%	67.00%	67.00%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
22	Xcel Energy Inc.	XEL	62.00%	62.00%	62.00%	62.00%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%

23	Projected Annual																		
24	Cash Flows		[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	[63]
25	Company	Ticker	2015	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Terminal Value
26	ALLETE, Inc.	ALE	\$2.32	\$2.40	\$2.49	\$2.58	\$2.67	\$2.80	\$2.94	\$3.10	\$3.27	\$3.46	\$3.67	\$3.87	\$4.09	\$4.32	\$4.56	\$4.81	\$132.41
27	Alliant Energy Corporation	LNT	\$1.11	\$1.17	\$1.24	\$1.31	\$1.38	\$1.48	\$1.60	\$1.72	\$1.84	\$1.97	\$2.12	\$2.23	\$2.36	\$2.49	\$2.63	\$2.78	\$86.24
28	Ameren Corporation	AEE	\$1.66	\$1.73	\$1.81	\$1.89	\$1.97	\$2.10	\$2.24	\$2.39	\$2.55	\$2.72	\$2.90	\$3.06	\$3.23	\$3.41	\$3.60	\$3.80	\$111.14
29	American Electric Power Company, Inc.	AEP	\$2.25	\$2.37	\$2.49	\$2.62	\$2.75	\$2.84	\$2.95	\$3.07	\$3.21	\$3.37	\$3.56	\$3.76	\$3.97	\$4.19	\$4.42	\$4.67	\$143.04
30	Avista Corporation	AVA	\$1.33	\$1.38	\$1.43	\$1.49	\$1.54	\$1.63	\$1.73	\$1.84	\$1.95	\$2.07	\$2.20	\$2.33	\$2.46	\$2.59	\$2.74	\$2.89	\$91.93
31	CenterPoint Energy, Inc.	CNP	\$0.95	\$0.96	\$0.98	\$1.00	\$1.01	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.01	\$1.07	\$1.13	\$1.19	\$1.26	\$1.33	\$47.27
32	CMS Energy Corporation	CMS	\$1.28	\$1.35	\$1.42	\$1.49	\$1.57	\$1.68	\$1.80	\$1.93	\$2.07	\$2.21	\$2.37	\$2.50	\$2.64	\$2.78	\$2.94	\$3.10	\$95.55
33	DTE Energy Company	DTE	\$2.91	\$3.05	\$3.20	\$3.35	\$3.51	\$3.78	\$4.07	\$4.37	\$4.70	\$5.05	\$5.43	\$5.73	\$6.05	\$6.39	\$6.74	\$7.12	\$211.60
34	El Paso Electric Company	EE	\$1.14	\$1.21	\$1.29	\$1.37	\$1.46	\$1.55	\$1.66	\$1.78	\$1.90	\$2.05	\$2.20	\$2.33	\$2.46	\$2.59	\$2.74	\$2.89	\$102.44
35	Eversource Energy	ES	\$1.77	\$1.85	\$1.92	\$2.00	\$2.08	\$2.25	\$2.43	\$2.63	\$2.84	\$3.06	\$3.31	\$3.49	\$3.69	\$3.89	\$4.11	\$4.34	\$124.76
36	IDACORP, Inc.	IDA	\$2.11	\$2.25	\$2.39	\$2.54	\$2.69	\$2.84	\$3.00	\$3.19	\$3.40	\$3.64	\$3.91	\$4.13	\$4.36	\$4.60	\$4.85	\$5.13	\$172.55
37	NorthWestern Corporation	NWE	\$1.79	\$1.86	\$1.94	\$2.01	\$2.10	\$2.25	\$2.42	\$2.60	\$2.80	\$3.02	\$3.26	\$3.44	\$3.64	\$3.84	\$4.05	\$4.28	\$130.98
38	OGE Energy Corp.	OGE	\$1.15	\$1.22	\$1.29	\$1.37	\$1.45	\$1.48	\$1.51	\$1.55	\$1.59	\$1.64	\$1.71	\$1.80	\$1.90	\$2.01	\$2.12	\$2.24	\$66.47
39	Otter Tail Corporation	OTTR	\$1.36	\$1.36	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$2.56	\$74.70
40	Pinnacle West Capital Corporation	PNW	\$2.61	\$2.71	\$2.82	\$2.93	\$3.05	\$3.20	\$3.37	\$3.55	\$3.76	\$3.99	\$4.24	\$4.48	\$4.73	\$4.99	\$5.27	\$5.56	\$168.09
41	Portland General Electric Company	POR	\$1.25	\$1.32	\$1.40	\$1.48	\$1.57	\$1.70	\$1.83	\$1.97	\$2.12	\$2.29	\$2.47	\$2.60	\$2.75	\$2.90	\$3.06	\$3.23	\$95.87
42	SCANA Corporation	SCG	\$2.31	\$2.42	\$2.54	\$2.67	\$2.80	\$3.00	\$3.21	\$3.45	\$3.70	\$3.98	\$4.29	\$4.53	\$4.78	\$5.04	\$5.33	\$5.62	\$161.10
43	Wisconsin Energy Corporation	WEC	\$1.66	\$1.76	\$1.87	\$1.98	\$2.10	\$2.22	\$2.35	\$2.49	\$2.63	\$2.78	\$2.93	\$3.09	\$3.27	\$3.45	\$3.64	\$3.84	\$134.79
44	Xcel Energy Inc.	XEL	\$1.37	\$1.45	\$1.52	\$1.60	\$1.69	\$1.81	\$1.93	\$2.06	\$2.20	\$2.35	\$2.51	\$2.65	\$2.80	\$2.96	\$3.12	\$3.30	\$93.37

Multi-Stage Growth Discounted Cash Flow Model  
90 Day Average Stock Price  
Low EPS Growth Rate Estimate in First Stage

1	Projected Annual Data																			
2	Investor Cash Flows		[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]	[80]	[81]
3	Company	Ticker	Initial Outflow	10/31/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30	6/30/31
4	ALLETE, Inc.	ALE	(\$61.07)	\$0.00	\$0.39	\$2.37	\$2.49	\$2.58	\$2.67	\$2.80	\$2.94	\$3.10	\$3.27	\$3.46	\$3.67	\$3.87	\$4.09	\$4.32	\$4.56	\$137.22
5	Alliant Energy Corporation	LNT	(\$38.77)	\$0.00	\$0.19	\$1.14	\$1.24	\$1.31	\$1.38	\$1.48	\$1.60	\$1.72	\$1.84	\$1.97	\$2.12	\$2.23	\$2.36	\$2.49	\$2.63	\$89.01
6	Ameren Corporation	AEE	(\$50.48)	\$0.00	\$0.28	\$1.71	\$1.81	\$1.89	\$1.97	\$2.10	\$2.24	\$2.39	\$2.55	\$2.72	\$2.90	\$3.06	\$3.23	\$3.41	\$3.60	\$114.94
7	American Electric Power Company, Inc.	AEP	(\$66.29)	\$0.00	\$0.38	\$2.28	\$2.49	\$2.62	\$2.75	\$2.84	\$2.95	\$3.07	\$3.21	\$3.37	\$3.56	\$3.76	\$3.97	\$4.19	\$4.42	\$147.70
8	Avista Corporation	AVA	(\$41.98)	\$0.00	\$0.22	\$1.36	\$1.43	\$1.49	\$1.54	\$1.63	\$1.73	\$1.84	\$1.95	\$2.07	\$2.20	\$2.33	\$2.46	\$2.59	\$2.74	\$94.82
9	CenterPoint Energy, Inc.	CNP	(\$23.15)	\$0.00	\$0.16	\$0.96	\$0.98	\$1.00	\$1.01	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.01	\$1.07	\$1.13	\$1.19	\$1.26	\$48.60
10	CMS Energy Corporation	CMS	(\$43.12)	\$0.00	\$0.21	\$1.32	\$1.42	\$1.49	\$1.57	\$1.68	\$1.80	\$1.93	\$2.07	\$2.21	\$2.37	\$2.50	\$2.64	\$2.78	\$2.94	\$98.65
11	DTE Energy Company	DTE	(\$95.14)	\$0.00	\$0.49	\$3.00	\$3.20	\$3.35	\$3.51	\$3.78	\$4.07	\$4.37	\$4.70	\$5.05	\$5.43	\$5.73	\$6.05	\$6.39	\$6.74	\$218.72
12	El Paso Electric Company	EE	(\$46.05)	\$0.00	\$0.19	\$1.16	\$1.29	\$1.37	\$1.46	\$1.55	\$1.66	\$1.78	\$1.90	\$2.05	\$2.20	\$2.33	\$2.46	\$2.59	\$2.74	\$105.33
13	Eversource Energy	ES	(\$55.88)	\$0.00	\$0.30	\$1.82	\$1.92	\$2.00	\$2.08	\$2.25	\$2.43	\$2.63	\$2.84	\$3.06	\$3.31	\$3.49	\$3.69	\$3.89	\$4.11	\$129.10
14	IDACORP, Inc.	IDA	(\$78.03)	\$0.00	\$0.35	\$2.14	\$2.39	\$2.54	\$2.69	\$2.84	\$3.00	\$3.19	\$3.40	\$3.64	\$3.91	\$4.13	\$4.36	\$4.60	\$4.85	\$177.68
15	NorthWestern Corporation	NWE	(\$58.86)	\$0.00	\$0.30	\$1.83	\$1.94	\$2.01	\$2.10	\$2.25	\$2.42	\$2.60	\$2.80	\$3.02	\$3.26	\$3.44	\$3.64	\$3.84	\$4.05	\$135.26
16	OGE Energy Corp.	OGE	(\$31.39)	\$0.00	\$0.19	\$1.17	\$1.29	\$1.37	\$1.45	\$1.48	\$1.51	\$1.55	\$1.59	\$1.64	\$1.71	\$1.80	\$1.90	\$2.01	\$2.12	\$68.71
17	Otter Tail Corporation	OTTR	(\$34.41)	\$0.00	\$0.23	\$1.40	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$77.26
18	Pinnacle West Capital Corporation	PNW	(\$77.09)	\$0.00	\$0.44	\$2.66	\$2.82	\$2.93	\$3.05	\$3.20	\$3.37	\$3.55	\$3.76	\$3.99	\$4.24	\$4.48	\$4.73	\$4.99	\$5.27	\$173.65
19	Portland General Electric Company	POR	(\$42.89)	\$0.00	\$0.21	\$1.28	\$1.40	\$1.48	\$1.57	\$1.70	\$1.83	\$1.97	\$2.12	\$2.29	\$2.47	\$2.60	\$2.75	\$2.90	\$3.06	\$99.11
20	SCANA Corporation	SCG	(\$72.47)	\$0.00	\$0.39	\$2.36	\$2.54	\$2.67	\$2.80	\$3.00	\$3.21	\$3.45	\$3.70	\$3.98	\$4.29	\$4.53	\$4.78	\$5.04	\$5.33	\$166.72
21	Wisconsin Energy Corporation	WEC	(\$61.49)	\$0.00	\$0.28	\$1.71	\$1.87	\$1.98	\$2.10	\$2.22	\$2.35	\$2.49	\$2.63	\$2.78	\$2.93	\$3.09	\$3.27	\$3.45	\$3.64	\$138.63
22	Xcel Energy Inc.	XEL	(\$42.23)	\$0.00	\$0.23	\$1.41	\$1.52	\$1.60	\$1.69	\$1.81	\$1.93	\$2.06	\$2.20	\$2.35	\$2.51	\$2.65	\$2.80	\$2.96	\$3.12	\$96.66

Multi-Stage Growth Discounted Cash Flow Model  
180 Day Average Stock Price  
Average EPS Growth Rate Estimate in First Stage

Line No	Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]				
1			Stock	EPS Growth Rate Estimates					Payout Ratio			Iterative Solution		Terminal P/E	Terminal PEG				
2	Company	Ticker	Price	Zacks	First Call	Value Line	Average	Long-Term Growth	2016	2020	2026	Proof	IRR	Ratio	Ratio				
3	ALLETE, Inc.	ALE	\$58.79	5.50%	5.00%	4.00%	4.83%	5.58%	66.00%	65.00%	66.88%	(\$0.00)	9.79%	16.76	3.01				
4	Alliant Energy Corporation	LNT	\$37.54	6.10%	6.60%	6.00%	6.23%	5.58%	62.00%	61.00%	66.88%	(\$0.00)	9.14%	19.82	3.55				
5	Ameren Corporation	AEE	\$49.50	6.10%	5.60%	6.00%	5.90%	5.58%	66.00%	63.00%	66.88%	(\$0.00)	9.33%	18.82	3.37				
6	American Electric Power Company, Inc.	AEP	\$65.48	5.20%	2.75%	4.00%	3.98%	5.58%	61.00%	67.00%	66.88%	(\$0.00)	9.37%	18.62	3.34				
7	Avista Corporation	AVA	\$41.07	5.30%	5.00%	5.00%	5.10%	5.58%	67.00%	64.00%	66.88%	(\$0.00)	8.99%	20.66	3.71				
8	CenterPoint Energy, Inc.	CNP	\$22.18	5.50%	5.11%	2.00%	4.20%	5.58%	86.00%	85.00%	66.88%	(\$0.00)	9.20%	19.46	3.49				
9	CMS Energy Corporation	CMS	\$42.26	6.60%	7.27%	6.00%	6.62%	5.58%	64.00%	62.00%	66.88%	(\$0.00)	9.22%	19.38	3.47				
10	DTE Energy Company	DTE	\$92.20	5.80%	5.63%	6.00%	5.81%	5.58%	62.00%	60.00%	66.88%	(\$0.01)	9.28%	19.04	3.42				
11	El Paso Electric Company	EE	\$45.14	4.40%	7.00%	4.00%	5.13%	5.58%	54.00%	59.00%	66.88%	(\$0.00)	8.85%	21.56	3.87				
12	Eversource Energy	ES	\$56.12	6.10%	5.39%	6.00%	5.83%	5.58%	61.00%	58.00%	66.88%	(\$0.00)	9.34%	18.77	3.37				
13	IDACORP, Inc.	IDA	\$75.62	4.30%	4.10%	3.00%	3.80%	5.58%	53.00%	60.00%	66.88%	(\$0.01)	8.99%	20.68	3.71				
14	NorthWestern Corporation	NWE	\$59.12	5.00%	4.50%	6.50%	5.33%	5.58%	59.00%	58.00%	66.88%	(\$0.00)	9.20%	19.47	3.49				
15	OGE Energy Corp.	OGE	\$30.12	5.20%	4.30%	3.00%	4.17%	5.58%	66.00%	74.00%	66.88%	(\$0.00)	9.59%	17.57	3.15				
16	Otter Tail Corporation	OTTR	\$31.77	NA	6.00%	6.00%	6.00%	5.58%	82.00%	64.00%	66.88%	(\$0.00)	9.50%	17.97	3.22				
17	Pinnacle West Capital Corporation	PNW	\$75.07	4.30%	3.95%	4.00%	4.08%	5.58%	64.00%	64.00%	66.88%	(\$0.01)	9.20%	19.50	3.50				
18	Portland General Electric Company	POR	\$41.42	6.00%	5.55%	5.50%	5.68%	5.58%	58.00%	59.00%	66.88%	(\$0.00)	9.31%	18.93	3.40				
19	SCANA Corporation	SCG	\$70.61	5.50%	6.00%	4.50%	5.33%	5.58%	58.00%	59.00%	66.88%	(\$0.00)	9.57%	17.69	3.17				
20	Wisconsin Energy Corporation	WEC	\$60.30	6.20%	6.77%	6.00%	6.32%	5.58%	67.00%	67.00%	66.88%	(\$0.01)	8.71%	22.51	4.04				
21	Xcel Energy Inc.	XEL	\$41.56	5.40%	5.36%	5.50%	5.42%	5.58%	62.00%	62.00%	66.88%	(\$0.00)	9.38%	18.58	3.33				
22												Mean	9.26%						
23												Max	9.79%						
24												Min	8.71%						
25	Projected Annual																		
26	Earnings per Share		[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]
27	Company	Ticker	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
28	ALLETE, Inc.	ALE	\$3.38	\$3.54	\$3.71	\$3.89	\$4.08	\$4.28	\$4.49	\$4.72	\$4.97	\$5.23	\$5.52	\$5.82	\$6.15	\$6.49	\$6.85	\$7.23	\$7.64
29	Alliant Energy Corporation	LNT	\$1.69	\$1.80	\$1.91	\$2.03	\$2.15	\$2.29	\$2.43	\$2.57	\$2.72	\$2.88	\$3.05	\$3.22	\$3.40	\$3.58	\$3.78	\$4.00	\$4.22
30	Ameren Corporation	AEE	\$2.38	\$2.52	\$2.67	\$2.83	\$2.99	\$3.17	\$3.36	\$3.55	\$3.75	\$3.97	\$4.19	\$4.42	\$4.67	\$4.93	\$5.21	\$5.50	\$5.80
31	American Electric Power Company, Inc.	AEP	\$3.59	\$3.73	\$3.88	\$4.04	\$4.20	\$4.36	\$4.55	\$4.76	\$4.98	\$5.23	\$5.51	\$5.82	\$6.14	\$6.49	\$6.85	\$7.23	\$7.63
32	Avista Corporation	AVA	\$1.89	\$1.99	\$2.09	\$2.19	\$2.31	\$2.42	\$2.55	\$2.68	\$2.83	\$2.98	\$3.14	\$3.32	\$3.50	\$3.70	\$3.91	\$4.12	\$4.35
33	CenterPoint Energy, Inc.	CNP	\$1.08	\$1.13	\$1.17	\$1.22	\$1.27	\$1.33	\$1.39	\$1.45	\$1.52	\$1.60	\$1.68	\$1.78	\$1.88	\$1.98	\$2.09	\$2.21	\$2.33
34	CMS Energy Corporation	CMS	\$1.89	\$2.02	\$2.15	\$2.29	\$2.44	\$2.60	\$2.77	\$2.95	\$3.13	\$3.31	\$3.50	\$3.70	\$3.90	\$4.12	\$4.35	\$4.59	\$4.85
35	DTE Energy Company	DTE	\$4.45	\$4.71	\$4.98	\$5.27	\$5.58	\$5.90	\$6.24	\$6.60	\$6.98	\$7.37	\$7.78	\$8.22	\$8.68	\$9.16	\$9.67	\$10.21	\$10.78
36	El Paso Electric Company	EE	\$2.03	\$2.13	\$2.24	\$2.36	\$2.48	\$2.61	\$2.74	\$2.89	\$3.04	\$3.21	\$3.38	\$3.57	\$3.77	\$3.98	\$4.20	\$4.44	\$4.69
37	Eversource Energy	ES	\$2.76	\$2.92	\$3.09	\$3.27	\$3.46	\$3.66	\$3.88	\$4.10	\$4.33	\$4.58	\$4.83	\$5.10	\$5.39	\$5.69	\$6.01	\$6.34	\$6.70
38	IDACORP, Inc.	IDA	\$3.87	\$4.02	\$4.17	\$4.33	\$4.49	\$4.66	\$4.85	\$5.07	\$5.31	\$5.57	\$5.86	\$6.19	\$6.54	\$6.90	\$7.28	\$7.69	\$8.12
39	NorthWestern Corporation	NWE	\$2.90	\$3.05	\$3.22	\$3.39	\$3.57	\$3.76	\$3.96	\$4.18	\$4.40	\$4.65	\$4.90	\$5.18	\$5.47	\$5.77	\$6.09	\$6.43	\$6.79
40	OGE Energy Corp.	OGE	\$1.69	\$1.76	\$1.83	\$1.91	\$1.99	\$2.07	\$2.16	\$2.26	\$2.37	\$2.50	\$2.63	\$2.78	\$2.93	\$3.09	\$3.27	\$3.45	\$3.64
41	Otter Tail Corporation	OTTR	\$1.56	\$1.65	\$1.75	\$1.86	\$1.97	\$2.09	\$2.21	\$2.34	\$2.48	\$2.62	\$2.77	\$2.92	\$3.08	\$3.25	\$3.44	\$3.63	\$3.83
42	Pinnacle West Capital Corporation	PNW	\$3.92	\$4.08	\$4.25	\$4.42	\$4.60	\$4.79	\$5.00	\$5.22	\$5.48	\$5.76	\$6.06	\$6.40	\$6.76	\$7.13	\$7.53	\$7.95	\$8.39
43	Portland General Electric Company	POR	\$2.04	\$2.16	\$2.28	\$2.41	\$2.54	\$2.69	\$2.84	\$3.00	\$3.17	\$3.35	\$3.54	\$3.73	\$3.94	\$4.16	\$4.39	\$4.64	\$4.90
44	SCANA Corporation	SCG	\$3.81	\$4.01	\$4.23	\$4.45	\$4.69	\$4.94	\$5.21	\$5.49	\$5.79	\$6.10	\$6.44	\$6.80	\$7.18	\$7.58	\$8.00	\$8.45	\$8.92
45	Wisconsin Energy Corporation	WEC	\$2.34	\$2.49	\$2.65	\$2.81	\$2.99	\$3.18	\$3.38	\$3.58	\$3.79	\$4.02	\$4.24	\$4.48	\$4.73	\$5.00	\$5.27	\$5.57	\$5.88
46	Xcel Energy Inc.	XEL	\$2.10	\$2.21	\$2.33	\$2.46	\$2.59	\$2.73	\$2.88	\$3.04	\$3.21	\$3.39	\$3.57	\$3.77	\$3.98	\$4.20	\$4.44	\$4.69	\$4.95

Multi-Stage Growth Discounted Cash Flow Model  
180 Day Average Stock Price  
Average EPS Growth Rate Estimate in First Stage

1	Projected Annual																	
2	Dividend Payout Ratio		[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]
3	Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
4	ALLETE, Inc.	ALE	66.00%	65.75%	65.50%	65.25%	65.00%	65.31%	65.63%	65.94%	66.26%	66.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
5	Alliant Energy Corporation	LNT	62.00%	61.75%	61.50%	61.25%	61.00%	61.98%	62.96%	63.94%	64.92%	65.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
6	Ameren Corporation	AEE	66.00%	65.25%	64.50%	63.75%	63.00%	63.65%	64.29%	64.94%	65.59%	66.24%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
7	American Electric Power Company, Inc.	AEP	61.00%	62.50%	64.00%	65.50%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
8	Avista Corporation	AVA	67.00%	66.25%	65.50%	64.75%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
9	CenterPoint Energy, Inc.	CNP	86.00%	85.75%	85.50%	85.25%	85.00%	81.98%	78.96%	75.94%	72.92%	69.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
10	CMS Energy Corporation	CMS	64.00%	63.50%	63.00%	62.50%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
11	DTE Energy Company	DTE	62.00%	61.50%	61.00%	60.50%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
12	Ei Paso Electric Company	EE	54.00%	55.25%	56.50%	57.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
13	Eversource Energy	ES	61.00%	60.25%	59.50%	58.75%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
14	IDACORP, Inc.	IDA	53.00%	54.75%	56.50%	58.25%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
15	NorthWestern Corporation	NWE	59.00%	58.75%	58.50%	58.25%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
16	OGE Energy Corp.	OGE	66.00%	68.00%	70.00%	72.00%	74.00%	72.81%	71.63%	70.44%	69.26%	68.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
17	Otter Tail Corporation	OTTR	82.00%	77.50%	73.00%	68.50%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
18	Pinnacle West Capital Corporation	PNW	64.00%	64.00%	64.00%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
19	Portland General Electric Company	POR	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
20	SCANA Corporation	SCG	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
21	Wisconsin Energy Corporation	WEC	67.00%	67.00%	67.00%	67.00%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
22	Xcel Energy Inc.	XEL	62.00%	62.00%	62.00%	62.00%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%

23	Projected Annual																		
24	Cash Flows		[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	[63]
25	Company	Ticker	2015	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Terminal Value
26	ALLETE, Inc.	ALE	\$2.34	\$2.44	\$2.55	\$2.66	\$2.78	\$2.93	\$3.10	\$3.27	\$3.47	\$3.67	\$3.89	\$4.11	\$4.34	\$4.58	\$4.84	\$5.11	\$127.98
27	Alliant Energy Corporation	LNT	\$1.11	\$1.18	\$1.25	\$1.32	\$1.39	\$1.50	\$1.62	\$1.74	\$1.87	\$2.01	\$2.15	\$2.27	\$2.40	\$2.53	\$2.67	\$2.82	\$83.61
28	Ameren Corporation	AEE	\$1.66	\$1.74	\$1.82	\$1.91	\$2.00	\$2.14	\$2.28	\$2.44	\$2.60	\$2.78	\$2.96	\$3.12	\$3.30	\$3.48	\$3.68	\$3.88	\$109.17
29	American Electric Power Company, Inc.	AEP	\$2.28	\$2.43	\$2.58	\$2.75	\$2.92	\$3.05	\$3.18	\$3.34	\$3.50	\$3.69	\$3.89	\$4.11	\$4.34	\$4.58	\$4.84	\$5.11	\$142.11
30	Avista Corporation	AVA	\$1.33	\$1.38	\$1.44	\$1.49	\$1.55	\$1.64	\$1.74	\$1.85	\$1.96	\$2.09	\$2.22	\$2.34	\$2.47	\$2.61	\$2.76	\$2.91	\$89.95
31	CenterPoint Energy, Inc.	CNP	\$0.97	\$1.01	\$1.04	\$1.09	\$1.13	\$1.14	\$1.15	\$1.16	\$1.17	\$1.18	\$1.19	\$1.26	\$1.33	\$1.40	\$1.48	\$1.56	\$45.39
32	CMS Energy Corporation	CMS	\$1.29	\$1.36	\$1.44	\$1.53	\$1.61	\$1.74	\$1.87	\$2.01	\$2.16	\$2.31	\$2.47	\$2.61	\$2.76	\$2.91	\$3.07	\$3.24	\$93.96
33	DTE Energy Company	DTE	\$2.92	\$3.06	\$3.22	\$3.37	\$3.54	\$3.82	\$4.11	\$4.43	\$4.76	\$5.12	\$5.50	\$5.80	\$6.13	\$6.47	\$6.83	\$7.21	\$205.30
34	Ei Paso Electric Company	EE	\$1.15	\$1.24	\$1.33	\$1.43	\$1.54	\$1.65	\$1.78	\$1.92	\$2.06	\$2.22	\$2.39	\$2.52	\$2.66	\$2.81	\$2.97	\$3.13	\$101.04
35	Eversource Energy	ES	\$1.78	\$1.86	\$1.95	\$2.03	\$2.13	\$2.31	\$2.50	\$2.71	\$2.93	\$3.16	\$3.41	\$3.60	\$3.81	\$4.02	\$4.24	\$4.48	\$125.66
36	IDACORP, Inc.	IDA	\$2.13	\$2.28	\$2.45	\$2.62	\$2.80	\$2.97	\$3.16	\$3.37	\$3.60	\$3.85	\$4.14	\$4.37	\$4.62	\$4.87	\$5.14	\$5.43	\$167.91
37	NorthWestern Corporation	NWE	\$1.80	\$1.89	\$1.98	\$2.08	\$2.18	\$2.36	\$2.55	\$2.75	\$2.97	\$3.21	\$3.46	\$3.66	\$3.86	\$4.08	\$4.30	\$4.54	\$132.21
38	OGE Energy Corp.	OGE	\$1.16	\$1.25	\$1.34	\$1.43	\$1.53	\$1.58	\$1.62	\$1.67	\$1.73	\$1.79	\$1.86	\$1.96	\$2.07	\$2.18	\$2.31	\$2.44	\$63.98
39	Otter Tail Corporation	OTTR	\$1.36	\$1.36	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$2.56	\$68.84
40	Pinnacle West Capital Corporation	PNW	\$2.61	\$2.72	\$2.83	\$2.94	\$3.06	\$3.22	\$3.39	\$3.58	\$3.79	\$4.03	\$4.28	\$4.52	\$4.77	\$5.04	\$5.32	\$5.61	\$163.73
41	Portland General Electric Company	POR	\$1.25	\$1.33	\$1.41	\$1.50	\$1.59	\$1.71	\$1.85	\$2.00	\$2.15	\$2.32	\$2.50	\$2.64	\$2.78	\$2.94	\$3.10	\$3.28	\$92.73
42	SCANA Corporation	SCG	\$2.33	\$2.46	\$2.60	\$2.76	\$2.91	\$3.14	\$3.38	\$3.64	\$3.92	\$4.22	\$4.55	\$4.80	\$5.07	\$5.35	\$5.65	\$5.97	\$157.80
43	Wisconsin Energy Corporation	WEC	\$1.67	\$1.77	\$1.88	\$2.00	\$2.13	\$2.26	\$2.40	\$2.54	\$2.69	\$2.84	\$3.00	\$3.16	\$3.34	\$3.53	\$3.72	\$3.93	\$132.33
44	Xcel Energy Inc.	XEL	\$1.37	\$1.45	\$1.53	\$1.61	\$1.70	\$1.81	\$1.93	\$2.07	\$2.21	\$2.36	\$2.52	\$2.66	\$2.81	\$2.97	\$3.13	\$3.31	\$91.94

Multi-Stage Growth Discounted Cash Flow Model  
180 Day Average Stock Price  
Average EPS Growth Rate Estimate in First Stage

1	Projected Annual Data																			
2	Investor Cash Flows		[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]	[80]	[81]
			Initial																	
3	Company	Ticker	Outflow	10/31/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30	6/30/31
4	ALLETE, Inc.	ALE	(\$58.80)	\$0.00	\$0.39	\$2.40	\$2.55	\$2.66	\$2.78	\$2.93	\$3.10	\$3.27	\$3.47	\$3.67	\$3.89	\$4.11	\$4.34	\$4.58	\$4.84	\$133.09
5	Alliant Energy Corporation	LNT	(\$37.54)	\$0.00	\$0.19	\$1.15	\$1.25	\$1.32	\$1.39	\$1.50	\$1.62	\$1.74	\$1.87	\$2.01	\$2.15	\$2.27	\$2.40	\$2.53	\$2.67	\$86.43
6	Ameren Corporation	AEE	(\$49.51)	\$0.00	\$0.28	\$1.71	\$1.82	\$1.91	\$2.00	\$2.14	\$2.28	\$2.44	\$2.60	\$2.78	\$2.96	\$3.12	\$3.30	\$3.48	\$3.68	\$113.05
7	American Electric Power Company, Inc.	AEP	(\$65.49)	\$0.00	\$0.38	\$2.32	\$2.58	\$2.75	\$2.92	\$3.05	\$3.18	\$3.34	\$3.50	\$3.69	\$3.89	\$4.11	\$4.34	\$4.58	\$4.84	\$147.22
8	Avista Corporation	AVA	(\$41.07)	\$0.00	\$0.22	\$1.36	\$1.44	\$1.49	\$1.55	\$1.64	\$1.74	\$1.85	\$1.96	\$2.09	\$2.22	\$2.34	\$2.47	\$2.61	\$2.76	\$92.86
9	CenterPoint Energy, Inc.	CNP	(\$22.18)	\$0.00	\$0.16	\$0.99	\$1.04	\$1.09	\$1.13	\$1.14	\$1.15	\$1.16	\$1.17	\$1.18	\$1.19	\$1.26	\$1.33	\$1.40	\$1.48	\$46.96
10	CMS Energy Corporation	CMS	(\$42.26)	\$0.00	\$0.22	\$1.33	\$1.44	\$1.53	\$1.61	\$1.74	\$1.87	\$2.01	\$2.16	\$2.31	\$2.47	\$2.61	\$2.76	\$2.91	\$3.07	\$97.20
11	DTE Energy Company	DTE	(\$92.20)	\$0.00	\$0.49	\$3.00	\$3.22	\$3.37	\$3.54	\$3.82	\$4.11	\$4.43	\$4.76	\$5.12	\$5.50	\$5.80	\$6.13	\$6.47	\$6.83	\$212.51
12	El Paso Electric Company	EE	(\$45.15)	\$0.00	\$0.19	\$1.18	\$1.33	\$1.43	\$1.54	\$1.65	\$1.78	\$1.92	\$2.06	\$2.22	\$2.39	\$2.52	\$2.66	\$2.81	\$2.97	\$104.17
13	Eversource Energy	ES	(\$56.13)	\$0.00	\$0.30	\$1.83	\$1.95	\$2.03	\$2.13	\$2.31	\$2.50	\$2.71	\$2.93	\$3.16	\$3.41	\$3.60	\$3.81	\$4.02	\$4.24	\$130.14
14	IDACORP, Inc.	IDA	(\$75.62)	\$0.00	\$0.36	\$2.17	\$2.45	\$2.62	\$2.80	\$2.97	\$3.16	\$3.37	\$3.60	\$3.85	\$4.14	\$4.37	\$4.62	\$4.87	\$5.14	\$173.34
15	NorthWestern Corporation	NWE	(\$59.12)	\$0.00	\$0.30	\$1.85	\$1.98	\$2.08	\$2.18	\$2.36	\$2.55	\$2.75	\$2.97	\$3.21	\$3.46	\$3.66	\$3.86	\$4.08	\$4.30	\$136.75
16	OGE Energy Corp.	OGE	(\$30.12)	\$0.00	\$0.19	\$1.19	\$1.34	\$1.43	\$1.53	\$1.58	\$1.62	\$1.67	\$1.73	\$1.79	\$1.86	\$1.96	\$2.07	\$2.18	\$2.31	\$66.42
17	Otter Tail Corporation	OTTR	(\$31.77)	\$0.00	\$0.23	\$1.40	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$71.41
18	Pinnacle West Capital Corporation	PNW	(\$75.07)	\$0.00	\$0.44	\$2.66	\$2.83	\$2.94	\$3.06	\$3.22	\$3.39	\$3.58	\$3.79	\$4.03	\$4.28	\$4.52	\$4.77	\$5.04	\$5.32	\$169.35
19	Portland General Electric Company	POR	(\$41.43)	\$0.00	\$0.21	\$1.29	\$1.41	\$1.50	\$1.59	\$1.71	\$1.85	\$2.00	\$2.15	\$2.32	\$2.50	\$2.64	\$2.78	\$2.94	\$3.10	\$96.01
20	SCANA Corporation	SCG	(\$70.62)	\$0.00	\$0.39	\$2.39	\$2.60	\$2.76	\$2.91	\$3.14	\$3.38	\$3.64	\$3.92	\$4.22	\$4.55	\$4.80	\$5.07	\$5.35	\$5.65	\$163.77
21	Wisconsin Energy Corporation	WEC	(\$60.30)	\$0.00	\$0.28	\$1.72	\$1.88	\$2.00	\$2.13	\$2.26	\$2.40	\$2.54	\$2.69	\$2.84	\$3.00	\$3.16	\$3.34	\$3.53	\$3.72	\$136.27
22	Xcel Energy Inc.	XEL	(\$41.57)	\$0.00	\$0.23	\$1.41	\$1.53	\$1.61	\$1.70	\$1.81	\$1.93	\$2.07	\$2.21	\$2.36	\$2.52	\$2.66	\$2.81	\$2.97	\$3.13	\$95.24



Multi-Stage Growth Discounted Cash Flow Model  
180 Day Average Stock Price  
High EPS Growth Rate Estimate in First Stage

Line No	Inputs	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]					
1		Stock	EPS Growth Rate Estimates				Payout Ratio			Iterative Solution		Terminal	Terminal						
					Value	High	Long-Term						P/E	PEG					
2	Company	Ticker	Price	Zacks	First Call	Line	Growth	Growth	2016	2020	2026	Proof	IRR	Ratio	Ratio				
3	ALLETE, Inc.	ALE	\$58.79	5.50%	5.00%	4.00%	5.50%	5.58%	66.00%	65.00%	66.88%	(\$0.00)	9.98%	16.04	2.88				
4	Alliant Energy Corporation	LNT	\$37.54	6.10%	6.60%	6.00%	6.60%	5.58%	62.00%	61.00%	66.88%	(\$0.00)	9.22%	19.35	3.47				
5	Ameren Corporation	AEE	\$49.50	6.10%	5.60%	6.00%	6.10%	5.58%	66.00%	63.00%	66.88%	(\$0.00)	9.38%	18.57	3.33				
6	American Electric Power Company, Inc.	AEP	\$65.48	5.20%	2.75%	4.00%	5.20%	5.58%	61.00%	67.00%	66.88%	(\$0.00)	9.69%	17.18	3.08				
7	Avista Corporation	AVA	\$41.07	5.30%	5.00%	5.00%	5.30%	5.58%	67.00%	64.00%	66.88%	(\$0.00)	9.04%	20.39	3.66				
8	CenterPoint Energy, Inc.	CNP	\$22.18	5.50%	5.11%	2.00%	5.50%	5.58%	86.00%	85.00%	66.88%	(\$0.00)	9.54%	17.81	3.19				
9	CMS Energy Corporation	CMS	\$42.26	6.60%	7.27%	6.00%	7.27%	5.58%	64.00%	62.00%	66.88%	(\$0.00)	9.38%	18.59	3.33				
10	DTE Energy Company	DTE	\$92.20	5.80%	5.63%	6.00%	6.00%	5.58%	62.00%	60.00%	66.88%	(\$0.01)	9.33%	18.81	3.37				
11	El Paso Electric Company	EE	\$45.14	4.40%	7.00%	4.00%	7.00%	5.58%	54.00%	59.00%	66.88%	(\$0.00)	9.27%	19.10	3.43				
12	Eversource Energy	ES	\$56.12	6.10%	5.39%	6.00%	6.10%	5.58%	61.00%	58.00%	66.88%	(\$0.00)	9.40%	18.44	3.31				
13	IDACORP, Inc.	IDA	\$75.62	4.30%	4.10%	3.00%	4.30%	5.58%	53.00%	60.00%	66.88%	(\$0.01)	9.11%	20.00	3.59				
14	NorthWestern Corporation	NWE	\$59.12	5.00%	4.50%	6.50%	6.50%	5.58%	59.00%	58.00%	66.88%	(\$0.00)	9.49%	18.05	3.24				
15	OGE Energy Corp.	OGE	\$30.12	5.20%	4.30%	3.00%	5.20%	5.58%	66.00%	74.00%	66.88%	(\$0.00)	9.88%	16.41	2.94				
16	Otter Tail Corporation	OTTR	\$31.77	NA	6.00%	6.00%	6.00%	5.58%	82.00%	64.00%	66.88%	(\$0.00)	9.50%	17.97	3.22				
17	Pinnacle West Capital Corporation	PNW	\$75.07	4.30%	3.95%	4.00%	4.30%	5.58%	64.00%	64.00%	66.88%	(\$0.01)	9.25%	19.23	3.45				
18	Portland General Electric Company	POR	\$41.42	6.00%	5.55%	5.50%	6.00%	5.58%	58.00%	59.00%	66.88%	(\$0.00)	9.38%	18.55	3.33				
19	SCANA Corporation	SCG	\$70.61	5.50%	6.00%	4.50%	6.00%	5.58%	58.00%	59.00%	66.88%	(\$0.00)	9.74%	16.94	3.04				
20	Wisconsin Energy Corporation	WEC	\$60.30	6.20%	6.77%	6.00%	6.77%	5.58%	67.00%	67.00%	66.88%	(\$0.01)	8.81%	21.86	3.92				
21	Xcel Energy Inc.	XEL	\$41.56	5.40%	5.36%	5.50%	5.50%	5.58%	62.00%	62.00%	66.88%	(\$0.00)	9.40%	18.48	3.31				
22												Mean	9.41%						
23												Max	9.98%						
24												Min	8.81%						
25	Projected Annual																		
26	Earnings per Share		[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]
27	Company	Ticker	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
28	ALLETE, Inc.	ALE	\$3.38	\$3.57	\$3.76	\$3.97	\$4.19	\$4.42	\$4.66	\$4.92	\$5.19	\$5.48	\$5.78	\$6.11	\$6.45	\$6.81	\$7.19	\$7.59	\$8.01
29	Alliant Energy Corporation	LNT	\$1.69	\$1.80	\$1.92	\$2.05	\$2.18	\$2.33	\$2.48	\$2.63	\$2.79	\$2.96	\$3.13	\$3.30	\$3.48	\$3.68	\$3.88	\$4.10	\$4.33
30	Ameren Corporation	AEE	\$2.38	\$2.53	\$2.68	\$2.84	\$3.02	\$3.20	\$3.39	\$3.59	\$3.80	\$4.02	\$4.25	\$4.49	\$4.74	\$5.00	\$5.28	\$5.57	\$5.89
31	American Electric Power Company, Inc.	AEP	\$3.59	\$3.78	\$3.97	\$4.18	\$4.40	\$4.63	\$4.87	\$5.13	\$5.40	\$5.70	\$6.01	\$6.35	\$6.70	\$7.08	\$7.47	\$7.89	\$8.33
32	Avista Corporation	AVA	\$1.89	\$1.99	\$2.10	\$2.21	\$2.32	\$2.45	\$2.58	\$2.72	\$2.86	\$3.02	\$3.19	\$3.37	\$3.55	\$3.75	\$3.96	\$4.18	\$4.42
33	CenterPoint Energy, Inc.	CNP	\$1.08	\$1.14	\$1.20	\$1.27	\$1.34	\$1.41	\$1.49	\$1.57	\$1.66	\$1.75	\$1.85	\$1.95	\$2.06	\$2.17	\$2.30	\$2.42	\$2.56
34	CMS Energy Corporation	CMS	\$1.89	\$2.03	\$2.17	\$2.33	\$2.50	\$2.68	\$2.87	\$3.06	\$3.26	\$3.46	\$3.66	\$3.87	\$4.08	\$4.31	\$4.55	\$4.81	\$5.07
35	DTE Energy Company	DTE	\$4.45	\$4.72	\$5.00	\$5.30	\$5.62	\$5.96	\$6.31	\$6.68	\$7.06	\$7.47	\$7.89	\$8.33	\$8.79	\$9.28	\$9.80	\$10.35	\$10.93
36	El Paso Electric Company	EE	\$2.03	\$2.17	\$2.32	\$2.49	\$2.66	\$2.85	\$3.04	\$3.24	\$3.44	\$3.65	\$3.86	\$4.08	\$4.30	\$4.54	\$4.80	\$5.07	\$5.35
37	Eversource Energy	ES	\$2.76	\$2.93	\$3.11	\$3.30	\$3.50	\$3.71	\$3.93	\$4.17	\$4.41	\$4.66	\$4.93	\$5.20	\$5.49	\$5.80	\$6.12	\$6.46	\$6.82
38	IDACORP, Inc.	IDA	\$3.87	\$4.04	\$4.21	\$4.39	\$4.58	\$4.78	\$4.99	\$5.23	\$5.49	\$5.77	\$6.08	\$6.42	\$6.78	\$7.15	\$7.55	\$7.97	\$8.42
39	NorthWestern Corporation	NWE	\$2.90	\$3.09	\$3.29	\$3.50	\$3.73	\$3.97	\$4.23	\$4.49	\$4.76	\$5.04	\$5.33	\$5.62	\$5.94	\$6.27	\$6.62	\$6.99	\$7.38
40	OGE Energy Corp.	OGE	\$1.69	\$1.78	\$1.87	\$1.97	\$2.07	\$2.18	\$2.29	\$2.41	\$2.54	\$2.68	\$2.83	\$2.99	\$3.16	\$3.33	\$3.52	\$3.71	\$3.92
41	Otter Tail Corporation	OTTR	\$1.56	\$1.65	\$1.75	\$1.86	\$1.97	\$2.09	\$2.21	\$2.34	\$2.48	\$2.62	\$2.77	\$2.92	\$3.08	\$3.25	\$3.44	\$3.63	\$3.83
42	Pinnacle West Capital Corporation	PNW	\$3.92	\$4.09	\$4.26	\$4.45	\$4.64	\$4.84	\$5.06	\$5.30	\$5.56	\$5.84	\$6.16	\$6.50	\$6.86	\$7.25	\$7.65	\$8.08	\$8.53
43	Portland General Electric Company	POR	\$2.04	\$2.16	\$2.29	\$2.43	\$2.58	\$2.73	\$2.89	\$3.06	\$3.24	\$3.42	\$3.62	\$3.82	\$4.03	\$4.26	\$4.49	\$4.74	\$5.01
44	SCANA Corporation	SCG	\$3.81	\$4.04	\$4.28	\$4.54	\$4.81	\$5.10	\$5.40	\$5.72	\$6.05	\$6.39	\$6.76	\$7.13	\$7.53	\$7.95	\$8.39	\$8.86	\$9.35
45	Wisconsin Energy Corporation	WEC	\$2.34	\$2.50	\$2.67	\$2.85	\$3.04	\$3.25	\$3.46	\$3.68	\$3.91	\$4.14	\$4.38	\$4.62	\$4.88	\$5.15	\$5.44	\$5.75	\$6.07
46	Xcel Energy Inc.	XEL	\$2.10	\$2.22	\$2.34	\$2.47	\$2.60	\$2.74	\$2.90	\$3.06	\$3.23	\$3.40	\$3.59	\$3.79	\$4.01	\$4.23	\$4.46	\$4.71	\$4.98

Multi-Stage Growth Discounted Cash Flow Model  
180 Day Average Stock Price  
High EPS Growth Rate Estimate in First Stage

1	Projected Annual																	
2	Dividend Payout Ratio		[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]
3	Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
4	ALLETE, Inc.	ALE	66.00%	65.75%	65.50%	65.25%	65.00%	65.31%	65.63%	65.94%	66.26%	66.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
5	Alliant Energy Corporation	LNT	62.00%	61.75%	61.50%	61.25%	61.00%	61.98%	62.96%	63.94%	64.92%	65.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
6	Ameren Corporation	AEE	66.00%	65.25%	64.50%	63.75%	63.00%	63.65%	64.29%	64.94%	65.59%	66.24%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
7	American Electric Power Company, Inc.	AEP	61.00%	62.50%	64.00%	65.50%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
8	Avista Corporation	AVA	67.00%	66.25%	65.50%	64.75%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
9	CenterPoint Energy, Inc.	CNP	86.00%	85.75%	85.50%	85.25%	85.00%	81.98%	78.96%	75.94%	72.92%	69.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
10	CMS Energy Corporation	CMS	64.00%	63.50%	63.00%	62.50%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
11	DTE Energy Company	DTE	62.00%	61.50%	61.00%	60.50%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
12	El Paso Electric Company	EE	54.00%	55.25%	56.50%	57.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
13	Eversource Energy	ES	61.00%	60.25%	59.50%	58.75%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
14	IDACORP, Inc.	IDA	53.00%	54.75%	56.50%	58.25%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
15	NorthWestern Corporation	NWE	59.00%	58.75%	58.50%	58.25%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
16	OGE Energy Corp.	OGE	66.00%	68.00%	70.00%	72.00%	74.00%	72.81%	71.63%	70.44%	69.26%	68.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
17	Otter Tail Corporation	OTTR	82.00%	77.50%	73.00%	68.50%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
18	Pinnacle West Capital Corporation	PNW	64.00%	64.00%	64.00%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
19	Portland General Electric Company	POR	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
20	SCANA Corporation	SCG	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
21	Wisconsin Energy Corporation	WEC	67.00%	67.00%	67.00%	67.00%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
22	Xcel Energy Inc.	XEL	62.00%	62.00%	62.00%	62.00%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%

23	Projected Annual																		
24	Cash Flows		[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	[63]
25	Company	Ticker	2015	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Terminal Value
26	ALLETE, Inc.	ALE	\$2.35	\$2.47	\$2.60	\$2.73	\$2.87	\$3.04	\$3.23	\$3.42	\$3.63	\$3.85	\$4.08	\$4.31	\$4.55	\$4.81	\$5.07	\$5.36	\$128.51
27	Alliant Energy Corporation	LNT	\$1.12	\$1.19	\$1.26	\$1.34	\$1.42	\$1.53	\$1.66	\$1.78	\$1.92	\$2.06	\$2.21	\$2.33	\$2.46	\$2.60	\$2.74	\$2.90	\$83.79
28	Ameren Corporation	AEE	\$1.67	\$1.75	\$1.83	\$1.92	\$2.02	\$2.16	\$2.31	\$2.47	\$2.64	\$2.81	\$3.00	\$3.17	\$3.34	\$3.53	\$3.73	\$3.94	\$109.30
29	American Electric Power Company, Inc.	AEP	\$2.30	\$2.48	\$2.67	\$2.88	\$3.10	\$3.26	\$3.43	\$3.62	\$3.81	\$4.02	\$4.25	\$4.48	\$4.73	\$5.00	\$5.28	\$5.57	\$143.07
30	Avista Corporation	AVA	\$1.33	\$1.39	\$1.45	\$1.50	\$1.57	\$1.66	\$1.76	\$1.87	\$1.99	\$2.12	\$2.25	\$2.38	\$2.51	\$2.65	\$2.80	\$2.95	\$90.04
31	CenterPoint Energy, Inc.	CNP	\$0.98	\$1.03	\$1.08	\$1.14	\$1.20	\$1.22	\$1.24	\$1.26	\$1.28	\$1.29	\$1.31	\$1.38	\$1.45	\$1.54	\$1.62	\$1.71	\$45.59
32	CMS Energy Corporation	CMS	\$1.30	\$1.38	\$1.47	\$1.56	\$1.66	\$1.80	\$1.95	\$2.10	\$2.26	\$2.42	\$2.59	\$2.73	\$2.88	\$3.05	\$3.21	\$3.39	\$94.32
33	DTE Energy Company	DTE	\$2.92	\$3.08	\$3.23	\$3.40	\$3.57	\$3.86	\$4.16	\$4.48	\$4.82	\$5.19	\$5.57	\$5.88	\$6.21	\$6.56	\$6.92	\$7.31	\$205.53
34	El Paso Electric Company	EE	\$1.17	\$1.28	\$1.41	\$1.54	\$1.68	\$1.83	\$2.00	\$2.17	\$2.35	\$2.53	\$2.73	\$2.88	\$3.04	\$3.21	\$3.39	\$3.58	\$102.15
35	Eversource Energy	ES	\$1.79	\$1.87	\$1.96	\$2.05	\$2.15	\$2.34	\$2.54	\$2.75	\$2.98	\$3.22	\$3.48	\$3.67	\$3.88	\$4.10	\$4.32	\$4.56	\$125.87
36	IDACORP, Inc.	IDA	\$2.14	\$2.30	\$2.48	\$2.67	\$2.87	\$3.05	\$3.26	\$3.48	\$3.73	\$4.00	\$4.29	\$4.53	\$4.78	\$5.05	\$5.33	\$5.63	\$168.38
37	NorthWestern Corporation	NWE	\$1.82	\$1.93	\$2.05	\$2.17	\$2.30	\$2.51	\$2.74	\$2.97	\$3.22	\$3.48	\$3.76	\$3.97	\$4.19	\$4.43	\$4.67	\$4.93	\$133.18
38	OGE Energy Corp.	OGE	\$1.17	\$1.27	\$1.38	\$1.49	\$1.61	\$1.67	\$1.73	\$1.79	\$1.86	\$1.93	\$2.00	\$2.11	\$2.23	\$2.35	\$2.48	\$2.62	\$64.31
39	Otter Tail Corporation	OTTR	\$1.36	\$1.36	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$2.56	\$68.84
40	Pinnacle West Capital Corporation	PNW	\$2.62	\$2.73	\$2.85	\$2.97	\$3.10	\$3.26	\$3.44	\$3.64	\$3.85	\$4.09	\$4.35	\$4.59	\$4.85	\$5.12	\$5.40	\$5.70	\$163.92
41	Portland General Electric Company	POR	\$1.25	\$1.34	\$1.42	\$1.51	\$1.61	\$1.74	\$1.89	\$2.04	\$2.20	\$2.37	\$2.55	\$2.70	\$2.85	\$3.01	\$3.17	\$3.35	\$92.91
42	SCANA Corporation	SCG	\$2.34	\$2.49	\$2.65	\$2.83	\$3.01	\$3.26	\$3.52	\$3.81	\$4.11	\$4.43	\$4.77	\$5.04	\$5.32	\$5.61	\$5.93	\$6.26	\$158.50
43	Wisconsin Energy Corporation	WEC	\$1.67	\$1.79	\$1.91	\$2.04	\$2.18	\$2.32	\$2.46	\$2.62	\$2.77	\$2.93	\$3.09	\$3.27	\$3.45	\$3.64	\$3.84	\$4.06	\$132.61
44	Xcel Energy Inc.	XEL	\$1.37	\$1.45	\$1.53	\$1.61	\$1.70	\$1.82	\$1.94	\$2.08	\$2.22	\$2.37	\$2.54	\$2.68	\$2.83	\$2.99	\$3.15	\$3.33	\$91.98

Multi-Stage Growth Discounted Cash Flow Model  
180 Day Average Stock Price  
High EPS Growth Rate Estimate in First Stage

1	Projected Annual Data																			
2	Investor Cash Flows		[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]	[80]	[81]
		Initial																		
3	Company	Ticker	Outflow	10/31/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30	6/30/31
4	ALLETE, Inc.	ALE	(\$58.80)	\$0.00	\$0.39	\$2.42	\$2.60	\$2.73	\$2.87	\$3.04	\$3.23	\$3.42	\$3.63	\$3.85	\$4.08	\$4.31	\$4.55	\$4.81	\$5.07	\$133.87
5	Alliant Energy Corporation	LNT	(\$37.54)	\$0.00	\$0.19	\$1.15	\$1.26	\$1.34	\$1.42	\$1.53	\$1.66	\$1.78	\$1.92	\$2.06	\$2.21	\$2.33	\$2.46	\$2.60	\$2.74	\$86.68
6	Ameren Corporation	AEE	(\$49.51)	\$0.00	\$0.28	\$1.72	\$1.83	\$1.92	\$2.02	\$2.16	\$2.31	\$2.47	\$2.64	\$2.81	\$3.00	\$3.17	\$3.34	\$3.53	\$3.73	\$113.23
7	American Electric Power Company, Inc.	AEP	(\$65.49)	\$0.00	\$0.39	\$2.36	\$2.67	\$2.88	\$3.10	\$3.26	\$3.43	\$3.62	\$3.81	\$4.02	\$4.25	\$4.48	\$4.73	\$5.00	\$5.28	\$148.64
8	Avista Corporation	AVA	(\$41.07)	\$0.00	\$0.22	\$1.37	\$1.45	\$1.50	\$1.57	\$1.66	\$1.76	\$1.87	\$1.99	\$2.12	\$2.25	\$2.38	\$2.51	\$2.65	\$2.80	\$93.00
9	CenterPoint Energy, Inc.	CNP	(\$22.18)	\$0.00	\$0.16	\$1.01	\$1.08	\$1.14	\$1.20	\$1.22	\$1.24	\$1.26	\$1.28	\$1.29	\$1.31	\$1.38	\$1.45	\$1.54	\$1.62	\$47.30
10	CMS Energy Corporation	CMS	(\$42.26)	\$0.00	\$0.22	\$1.34	\$1.47	\$1.56	\$1.66	\$1.80	\$1.95	\$2.10	\$2.26	\$2.42	\$2.59	\$2.73	\$2.88	\$3.05	\$3.21	\$97.71
11	DTE Energy Company	DTE	(\$92.20)	\$0.00	\$0.49	\$3.01	\$3.23	\$3.40	\$3.57	\$3.86	\$4.16	\$4.48	\$4.82	\$5.19	\$5.57	\$5.88	\$6.21	\$6.56	\$6.92	\$212.84
12	El Paso Electric Company	EE	(\$45.15)	\$0.00	\$0.20	\$1.21	\$1.41	\$1.54	\$1.68	\$1.83	\$2.00	\$2.17	\$2.35	\$2.53	\$2.73	\$2.88	\$3.04	\$3.21	\$3.39	\$105.72
13	Eversource Energy	ES	(\$56.13)	\$0.00	\$0.30	\$1.84	\$1.96	\$2.05	\$2.15	\$2.34	\$2.54	\$2.75	\$2.98	\$3.22	\$3.48	\$3.67	\$3.88	\$4.10	\$4.32	\$130.43
14	IDACORP, Inc.	IDA	(\$75.62)	\$0.00	\$0.36	\$2.19	\$2.48	\$2.67	\$2.87	\$3.05	\$3.26	\$3.48	\$3.73	\$4.00	\$4.29	\$4.53	\$4.78	\$5.05	\$5.33	\$174.01
15	NorthWestern Corporation	NWE	(\$59.12)	\$0.00	\$0.30	\$1.88	\$2.05	\$2.17	\$2.30	\$2.51	\$2.74	\$2.97	\$3.22	\$3.48	\$3.76	\$3.97	\$4.19	\$4.43	\$4.67	\$138.11
16	OGE Energy Corp.	OGE	(\$30.12)	\$0.00	\$0.20	\$1.20	\$1.38	\$1.49	\$1.61	\$1.67	\$1.73	\$1.79	\$1.86	\$1.93	\$2.00	\$2.11	\$2.23	\$2.35	\$2.48	\$66.93
17	Otter Tail Corporation	OTTR	(\$31.77)	\$0.00	\$0.23	\$1.40	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$71.41
18	Pinnacle West Capital Corporation	PNW	(\$75.07)	\$0.00	\$0.44	\$2.67	\$2.85	\$2.97	\$3.10	\$3.26	\$3.44	\$3.64	\$3.85	\$4.09	\$4.35	\$4.59	\$4.85	\$5.12	\$5.40	\$169.62
19	Portland General Electric Company	POR	(\$41.43)	\$0.00	\$0.21	\$1.29	\$1.42	\$1.51	\$1.61	\$1.74	\$1.89	\$2.04	\$2.20	\$2.37	\$2.55	\$2.70	\$2.85	\$3.01	\$3.17	\$96.26
20	SCANA Corporation	SCG	(\$70.61)	\$0.00	\$0.39	\$2.41	\$2.65	\$2.83	\$3.01	\$3.26	\$3.52	\$3.81	\$4.11	\$4.43	\$4.77	\$5.04	\$5.32	\$5.61	\$5.93	\$164.75
21	Wisconsin Energy Corporation	WEC	(\$60.30)	\$0.00	\$0.28	\$1.73	\$1.91	\$2.04	\$2.18	\$2.32	\$2.46	\$2.62	\$2.77	\$2.93	\$3.09	\$3.27	\$3.45	\$3.64	\$3.84	\$136.67
22	Xcel Energy Inc.	XL	(\$41.57)	\$0.00	\$0.23	\$1.41	\$1.53	\$1.61	\$1.70	\$1.82	\$1.94	\$2.08	\$2.22	\$2.37	\$2.54	\$2.68	\$2.83	\$2.99	\$3.15	\$95.31

Multi-Stage Growth Discounted Cash Flow Model  
180 Day Average Stock Price  
Low EPS Growth Rate Estimate in First Stage

Line No	Inputs	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]					
1		Stock	EPS Growth Rate Estimates				Payout Ratio			Iterative Solution		Terminal	Terminal						
2	Company	Ticker	Price	Zacks	First Call	Value Line	Low Growth	Long-Term Growth	2016	2020	2026	Proof	IRR	P/E Ratio	Terminal PEG Ratio				
3	ALLETE, Inc.	ALE	\$58.79	5.50%	5.00%	4.00%	4.00%	5.58%	66.00%	65.00%	66.88%	(\$0.00)	9.56%	17.70	3.17				
4	Alliant Energy Corporation	LNT	\$37.54	6.10%	6.60%	6.00%	6.00%	5.58%	62.00%	61.00%	66.88%	(\$0.00)	9.09%	20.12	3.61				
5	Ameren Corporation	AEE	\$49.50	6.10%	5.60%	6.00%	5.60%	5.58%	66.00%	63.00%	66.88%	(\$0.00)	9.26%	19.19	3.44				
6	American Electric Power Company, Inc.	AEP	\$65.48	5.20%	2.75%	4.00%	2.75%	5.58%	61.00%	67.00%	66.88%	(\$0.01)	9.07%	20.23	3.63				
7	Avista Corporation	AVA	\$41.07	5.30%	5.00%	5.00%	5.00%	5.58%	67.00%	64.00%	66.88%	(\$0.00)	8.97%	20.80	3.73				
8	CenterPoint Energy, Inc.	CNP	\$22.18	5.50%	5.11%	2.00%	2.00%	5.58%	86.00%	85.00%	66.88%	(\$0.00)	8.69%	22.71	4.07				
9	CMS Energy Corporation	CMS	\$42.26	6.60%	7.27%	6.00%	6.00%	5.58%	64.00%	62.00%	66.88%	(\$0.00)	9.08%	20.18	3.62				
10	DTE Energy Company	DTE	\$92.20	5.80%	5.63%	6.00%	5.63%	5.58%	62.00%	60.00%	66.88%	(\$0.01)	9.24%	19.27	3.46				
11	El Paso Electric Company	EE	\$45.14	4.40%	7.00%	4.00%	4.00%	5.58%	54.00%	59.00%	66.88%	(\$0.00)	8.61%	23.24	4.17				
12	Eversource Energy	ES	\$56.12	6.10%	5.39%	6.00%	5.39%	5.58%	61.00%	58.00%	66.88%	(\$0.00)	9.23%	19.31	3.46				
13	IDACORP, Inc.	IDA	\$75.62	4.30%	4.10%	3.00%	3.00%	5.58%	53.00%	60.00%	66.88%	(\$0.01)	8.81%	21.82	3.91				
14	NorthWestern Corporation	NWE	\$59.12	5.00%	4.50%	6.50%	4.50%	5.58%	59.00%	58.00%	66.88%	(\$0.00)	9.01%	20.56	3.69				
15	OGE Energy Corp.	OGE	\$30.12	5.20%	4.30%	3.00%	3.00%	5.58%	66.00%	74.00%	66.88%	(\$0.00)	9.29%	19.02	3.41				
16	Otter Tail Corporation	OTTR	\$31.77	NA	6.00%	6.00%	6.00%	5.58%	82.00%	64.00%	66.88%	(\$0.00)	9.50%	17.97	3.22				
17	Pinnacle West Capital Corporation	PNW	\$75.07	4.30%	3.95%	4.00%	3.95%	5.58%	64.00%	64.00%	66.88%	(\$0.01)	9.16%	19.68	3.53				
18	Portland General Electric Company	POR	\$41.42	6.00%	5.55%	5.50%	5.50%	5.58%	58.00%	59.00%	66.88%	(\$0.00)	9.26%	19.16	3.44				
19	SCANA Corporation	SCG	\$70.61	5.50%	6.00%	4.50%	4.50%	5.58%	58.00%	59.00%	66.88%	(\$0.01)	9.36%	18.67	3.35				
20	Wisconsin Energy Corporation	WEC	\$60.30	6.20%	6.77%	6.00%	6.00%	5.58%	67.00%	67.00%	66.88%	(\$0.01)	8.65%	23.00	4.12				
21	Xcel Energy Inc.	XEL	\$41.56	5.40%	5.36%	5.50%	5.36%	5.58%	62.00%	62.00%	66.88%	(\$0.00)	9.36%	18.65	3.35				
22												Mean	9.12%						
23												Max	9.56%						
24												Min	8.61%						
25	Projected Annual																		
26	Earnings per Share		[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]
27	Company	Ticker	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
28	ALLETE, Inc.	ALE	\$3.38	\$3.52	\$3.66	\$3.80	\$3.95	\$4.11	\$4.29	\$4.48	\$4.70	\$4.93	\$5.20	\$5.49	\$5.79	\$6.11	\$6.45	\$6.81	\$7.19
29	Alliant Energy Corporation	LNT	\$1.69	\$1.79	\$1.90	\$2.01	\$2.13	\$2.26	\$2.40	\$2.54	\$2.68	\$2.84	\$3.00	\$3.16	\$3.34	\$3.53	\$3.72	\$3.93	\$4.15
30	Ameren Corporation	AEE	\$2.38	\$2.51	\$2.65	\$2.80	\$2.96	\$3.13	\$3.30	\$3.48	\$3.68	\$3.88	\$4.10	\$4.33	\$4.57	\$4.83	\$5.10	\$5.38	\$5.68
31	American Electric Power Company, Inc.	AEP	\$3.59	\$3.69	\$3.79	\$3.89	\$4.00	\$4.11	\$4.24	\$4.40	\$4.58	\$4.80	\$5.04	\$5.32	\$5.62	\$5.93	\$6.26	\$6.61	\$6.98
32	Avista Corporation	AVA	\$1.89	\$1.98	\$2.08	\$2.19	\$2.30	\$2.41	\$2.54	\$2.67	\$2.81	\$2.96	\$3.12	\$3.30	\$3.48	\$3.67	\$3.88	\$4.09	\$4.32
33	CenterPoint Energy, Inc.	CNP	\$1.08	\$1.10	\$1.12	\$1.15	\$1.17	\$1.19	\$1.22	\$1.26	\$1.31	\$1.37	\$1.44	\$1.52	\$1.60	\$1.69	\$1.78	\$1.88	\$1.99
34	CMS Energy Corporation	CMS	\$1.89	\$2.00	\$2.12	\$2.25	\$2.39	\$2.53	\$2.68	\$2.84	\$3.00	\$3.17	\$3.35	\$3.54	\$3.74	\$3.94	\$4.16	\$4.40	\$4.64
35	DTE Energy Company	DTE	\$4.45	\$4.70	\$4.97	\$5.24	\$5.54	\$5.85	\$6.18	\$6.53	\$6.89	\$7.28	\$7.69	\$8.11	\$8.57	\$9.04	\$9.55	\$10.08	\$10.64
36	El Paso Electric Company	EE	\$2.03	\$2.11	\$2.20	\$2.28	\$2.37	\$2.47	\$2.58	\$2.69	\$2.82	\$2.96	\$3.12	\$3.29	\$3.48	\$3.67	\$3.88	\$4.09	\$4.32
37	Eversource Energy	ES	\$2.76	\$2.91	\$3.07	\$3.23	\$3.40	\$3.59	\$3.78	\$3.99	\$4.21	\$4.44	\$4.69	\$4.95	\$5.22	\$5.51	\$5.82	\$6.15	\$6.49
38	IDACORP, Inc.	IDA	\$3.87	\$3.99	\$4.11	\$4.23	\$4.36	\$4.49	\$4.64	\$4.82	\$5.03	\$5.26	\$5.53	\$5.84	\$6.17	\$6.51	\$6.88	\$7.26	\$7.66
39	NorthWestern Corporation	NWE	\$2.90	\$3.03	\$3.17	\$3.31	\$3.46	\$3.61	\$3.78	\$3.97	\$4.17	\$4.38	\$4.62	\$4.88	\$5.15	\$5.44	\$5.74	\$6.06	\$6.40
40	OGE Energy Corp.	OGE	\$1.69	\$1.74	\$1.79	\$1.85	\$1.90	\$1.96	\$2.03	\$2.10	\$2.19	\$2.30	\$2.42	\$2.55	\$2.69	\$2.84	\$3.00	\$3.17	\$3.35
41	Otter Tail Corporation	OTTR	\$1.56	\$1.65	\$1.75	\$1.86	\$1.97	\$2.09	\$2.21	\$2.34	\$2.48	\$2.62	\$2.77	\$2.92	\$3.08	\$3.25	\$3.44	\$3.63	\$3.83
42	Pinnacle West Capital Corporation	PNW	\$3.92	\$4.07	\$4.24	\$4.40	\$4.58	\$4.76	\$4.96	\$5.18	\$5.43	\$5.70	\$6.00	\$6.34	\$6.69	\$7.07	\$7.46	\$7.88	\$8.31
43	Portland General Electric Company	POR	\$2.04	\$2.15	\$2.27	\$2.40	\$2.53	\$2.67	\$2.81	\$2.97	\$3.13	\$3.31	\$3.49	\$3.69	\$3.89	\$4.11	\$4.34	\$4.58	\$4.83
44	SCANA Corporation	SCG	\$3.81	\$3.98	\$4.16	\$4.35	\$4.54	\$4.75	\$4.97	\$5.21	\$5.47	\$5.76	\$6.07	\$6.41	\$6.77	\$7.14	\$7.54	\$7.96	\$8.41
45	Wisconsin Energy Corporation	WEC	\$2.34	\$2.48	\$2.63	\$2.79	\$2.95	\$3.13	\$3.32	\$3.51	\$3.71	\$3.93	\$4.15	\$4.38	\$4.62	\$4.88	\$5.15	\$5.44	\$5.75
46	Xcel Energy Inc.	XEL	\$2.10	\$2.21	\$2.33	\$2.46	\$2.59	\$2.73	\$2.87	\$3.03	\$3.20	\$3.37	\$3.56	\$3.76	\$3.97	\$4.19	\$4.42	\$4.67	\$4.93

Multi-Stage Growth Discounted Cash Flow Model  
180 Day Average Stock Price  
Low EPS Growth Rate Estimate in First Stage

1	Projected Annual																	
2	Dividend Payout Ratio		[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]
3	Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
4	ALLETE, Inc.	ALE	66.00%	65.75%	65.50%	65.25%	65.00%	65.31%	65.63%	65.94%	66.26%	66.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
5	Alliant Energy Corporation	LNT	62.00%	61.75%	61.50%	61.25%	61.00%	61.98%	62.96%	63.94%	64.92%	65.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
6	Ameren Corporation	AEE	66.00%	65.25%	64.50%	63.75%	63.00%	63.65%	64.29%	64.94%	65.59%	66.24%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
7	American Electric Power Company, Inc.	AEP	61.00%	62.50%	64.00%	65.50%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
8	Avista Corporation	AVA	67.00%	66.25%	65.50%	64.75%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
9	CenterPoint Energy, Inc.	CNP	86.00%	85.75%	85.50%	85.25%	85.00%	81.98%	78.96%	75.94%	72.92%	69.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
10	CMS Energy Corporation	CMS	64.00%	63.50%	63.00%	62.50%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
11	DTE Energy Company	DTE	62.00%	61.50%	61.00%	60.50%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
12	Ei Paso Electric Company	EE	54.00%	55.25%	56.50%	57.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
13	Eversource Energy	ES	61.00%	60.25%	59.50%	58.75%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
14	IDACORP, Inc.	IDA	53.00%	54.75%	56.50%	58.25%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
15	NorthWestern Corporation	NWE	59.00%	58.75%	58.50%	58.25%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
16	OGE Energy Corp.	OGE	66.00%	68.00%	70.00%	72.00%	74.00%	72.81%	71.63%	70.44%	69.26%	68.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
17	Otter Tail Corporation	OTTR	82.00%	77.50%	73.00%	68.50%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
18	Pinnacle West Capital Corporation	PNW	64.00%	64.00%	64.00%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
19	Portland General Electric Company	POR	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
20	SCANA Corporation	SCG	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
21	Wisconsin Energy Corporation	WEC	67.00%	67.00%	67.00%	67.00%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
22	Xcel Energy Inc.	XEL	62.00%	62.00%	62.00%	62.00%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%

23	Projected Annual																		
24	Cash Flows		[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	[63]
25	Company	Ticker	2015	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Terminal Value
26	ALLETE, Inc.	ALE	\$2.32	\$2.40	\$2.49	\$2.58	\$2.67	\$2.80	\$2.94	\$3.10	\$3.27	\$3.46	\$3.67	\$3.87	\$4.09	\$4.32	\$4.56	\$4.81	\$127.37
27	Alliant Energy Corporation	LNT	\$1.11	\$1.17	\$1.24	\$1.31	\$1.38	\$1.48	\$1.60	\$1.72	\$1.84	\$1.97	\$2.12	\$2.23	\$2.36	\$2.49	\$2.63	\$2.78	\$83.50
28	Ameren Corporation	AEE	\$1.66	\$1.73	\$1.81	\$1.89	\$1.97	\$2.10	\$2.24	\$2.39	\$2.55	\$2.72	\$2.90	\$3.06	\$3.23	\$3.41	\$3.60	\$3.80	\$108.99
29	American Electric Power Company, Inc.	AEP	\$2.25	\$2.37	\$2.49	\$2.62	\$2.75	\$2.84	\$2.95	\$3.07	\$3.21	\$3.37	\$3.56	\$3.76	\$3.97	\$4.19	\$4.42	\$4.67	\$141.26
30	Avista Corporation	AVA	\$1.33	\$1.38	\$1.43	\$1.49	\$1.54	\$1.63	\$1.73	\$1.84	\$1.95	\$2.07	\$2.20	\$2.33	\$2.46	\$2.59	\$2.74	\$2.89	\$89.91
31	CenterPoint Energy, Inc.	CNP	\$0.95	\$0.96	\$0.98	\$1.00	\$1.01	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.01	\$1.07	\$1.13	\$1.19	\$1.26	\$1.33	\$45.14
32	CMS Energy Corporation	CMS	\$1.28	\$1.35	\$1.42	\$1.49	\$1.57	\$1.68	\$1.80	\$1.93	\$2.07	\$2.21	\$2.37	\$2.50	\$2.64	\$2.78	\$2.94	\$3.10	\$93.63
33	DTE Energy Company	DTE	\$2.91	\$3.05	\$3.20	\$3.35	\$3.51	\$3.78	\$4.07	\$4.37	\$4.70	\$5.05	\$5.43	\$5.73	\$6.05	\$6.39	\$6.74	\$7.12	\$205.08
34	Ei Paso Electric Company	EE	\$1.14	\$1.21	\$1.29	\$1.37	\$1.46	\$1.55	\$1.66	\$1.78	\$1.90	\$2.05	\$2.20	\$2.33	\$2.46	\$2.59	\$2.74	\$2.89	\$100.44
35	Eversource Energy	ES	\$1.77	\$1.85	\$1.92	\$2.00	\$2.08	\$2.25	\$2.43	\$2.63	\$2.84	\$3.06	\$3.31	\$3.49	\$3.69	\$3.89	\$4.11	\$4.34	\$125.32
36	IDACORP, Inc.	IDA	\$2.11	\$2.25	\$2.39	\$2.54	\$2.69	\$2.84	\$3.00	\$3.19	\$3.40	\$3.64	\$3.91	\$4.13	\$4.36	\$4.60	\$4.85	\$5.13	\$167.20
37	NorthWestern Corporation	NWE	\$1.79	\$1.86	\$1.94	\$2.01	\$2.10	\$2.25	\$2.42	\$2.60	\$2.80	\$3.02	\$3.26	\$3.44	\$3.64	\$3.84	\$4.05	\$4.28	\$131.57
38	OGE Energy Corp.	OGE	\$1.15	\$1.22	\$1.29	\$1.37	\$1.45	\$1.48	\$1.51	\$1.55	\$1.59	\$1.64	\$1.71	\$1.80	\$1.90	\$2.01	\$2.12	\$2.24	\$63.65
39	Otter Tail Corporation	OTTR	\$1.36	\$1.36	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$2.56	\$68.84
40	Pinnacle West Capital Corporation	PNW	\$2.61	\$2.71	\$2.82	\$2.93	\$3.05	\$3.20	\$3.37	\$3.55	\$3.76	\$3.99	\$4.24	\$4.48	\$4.73	\$4.99	\$5.27	\$5.56	\$163.62
41	Portland General Electric Company	POR	\$1.25	\$1.32	\$1.40	\$1.48	\$1.57	\$1.70	\$1.83	\$1.97	\$2.12	\$2.29	\$2.47	\$2.60	\$2.75	\$2.90	\$3.06	\$3.23	\$92.63
42	SCANA Corporation	SCG	\$2.31	\$2.42	\$2.54	\$2.67	\$2.80	\$3.00	\$3.21	\$3.45	\$3.70	\$3.98	\$4.29	\$4.53	\$4.78	\$5.04	\$5.33	\$5.62	\$156.98
43	Wisconsin Energy Corporation	WEC	\$1.66	\$1.76	\$1.87	\$1.98	\$2.10	\$2.22	\$2.35	\$2.49	\$2.63	\$2.78	\$2.93	\$3.09	\$3.27	\$3.45	\$3.64	\$3.84	\$132.14
44	Xcel Energy Inc.	XEL	\$1.37	\$1.45	\$1.52	\$1.60	\$1.69	\$1.81	\$1.93	\$2.06	\$2.20	\$2.35	\$2.51	\$2.65	\$2.80	\$2.96	\$3.12	\$3.30	\$91.90

Multi-Stage Growth Discounted Cash Flow Model  
180 Day Average Stock Price  
Low EPS Growth Rate Estimate in First Stage

1	Projected Annual Data																			
2	Investor Cash Flows		[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]	[80]	[81]
3	Company	Ticker	Initial Outflow	10/31/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30	6/30/31
4	ALLETE, Inc.	ALE	(\$58.80)	\$0.00	\$0.39	\$2.37	\$2.49	\$2.58	\$2.67	\$2.80	\$2.94	\$3.10	\$3.27	\$3.46	\$3.67	\$3.87	\$4.09	\$4.32	\$4.56	\$132.19
5	Alliant Energy Corporation	LNT	(\$37.54)	\$0.00	\$0.19	\$1.14	\$1.24	\$1.31	\$1.38	\$1.48	\$1.60	\$1.72	\$1.84	\$1.97	\$2.12	\$2.23	\$2.36	\$2.49	\$2.63	\$86.27
6	Ameren Corporation	AEE	(\$49.51)	\$0.00	\$0.28	\$1.71	\$1.81	\$1.89	\$1.97	\$2.10	\$2.24	\$2.39	\$2.55	\$2.72	\$2.90	\$3.06	\$3.23	\$3.41	\$3.60	\$112.79
7	American Electric Power Company, Inc.	AEP	(\$65.49)	\$0.00	\$0.38	\$2.28	\$2.49	\$2.62	\$2.75	\$2.84	\$2.95	\$3.07	\$3.21	\$3.37	\$3.56	\$3.76	\$3.97	\$4.19	\$4.42	\$145.93
8	Avista Corporation	AVA	(\$41.07)	\$0.00	\$0.22	\$1.36	\$1.43	\$1.49	\$1.54	\$1.63	\$1.73	\$1.84	\$1.95	\$2.07	\$2.20	\$2.33	\$2.46	\$2.59	\$2.74	\$92.80
9	CenterPoint Energy, Inc.	CNP	(\$22.18)	\$0.00	\$0.16	\$0.96	\$0.98	\$1.00	\$1.01	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.01	\$1.07	\$1.13	\$1.19	\$1.26	\$46.47
10	CMS Energy Corporation	CMS	(\$42.26)	\$0.00	\$0.21	\$1.32	\$1.42	\$1.49	\$1.57	\$1.68	\$1.80	\$1.93	\$2.07	\$2.21	\$2.37	\$2.50	\$2.64	\$2.78	\$2.94	\$96.74
11	DTE Energy Company	DTE	(\$92.20)	\$0.00	\$0.49	\$3.00	\$3.20	\$3.35	\$3.51	\$3.78	\$4.07	\$4.37	\$4.70	\$5.05	\$5.43	\$5.73	\$6.05	\$6.39	\$6.74	\$212.20
12	El Paso Electric Company	EE	(\$45.15)	\$0.00	\$0.19	\$1.16	\$1.29	\$1.37	\$1.46	\$1.55	\$1.66	\$1.78	\$1.90	\$2.05	\$2.20	\$2.33	\$2.46	\$2.59	\$2.74	\$103.33
13	Eversource Energy	ES	(\$56.13)	\$0.00	\$0.30	\$1.82	\$1.92	\$2.00	\$2.08	\$2.25	\$2.43	\$2.63	\$2.84	\$3.06	\$3.31	\$3.49	\$3.69	\$3.89	\$4.11	\$129.66
14	IDACORP, Inc.	IDA	(\$75.62)	\$0.00	\$0.35	\$2.14	\$2.39	\$2.54	\$2.69	\$2.84	\$3.00	\$3.19	\$3.40	\$3.64	\$3.91	\$4.13	\$4.36	\$4.60	\$4.85	\$172.33
15	NorthWestern Corporation	NWE	(\$59.12)	\$0.00	\$0.30	\$1.83	\$1.94	\$2.01	\$2.10	\$2.25	\$2.42	\$2.60	\$2.80	\$3.02	\$3.26	\$3.44	\$3.64	\$3.84	\$4.05	\$135.85
16	OGE Energy Corp.	OGE	(\$30.12)	\$0.00	\$0.19	\$1.17	\$1.29	\$1.37	\$1.45	\$1.48	\$1.51	\$1.55	\$1.59	\$1.64	\$1.71	\$1.80	\$1.90	\$2.01	\$2.12	\$65.89
17	Otter Tail Corporation	OTTR	(\$31.77)	\$0.00	\$0.23	\$1.40	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$71.41
18	Pinnacle West Capital Corporation	PNW	(\$75.07)	\$0.00	\$0.44	\$2.66	\$2.82	\$2.93	\$3.05	\$3.20	\$3.37	\$3.55	\$3.76	\$3.99	\$4.24	\$4.48	\$4.73	\$4.99	\$5.27	\$169.18
19	Portland General Electric Company	POR	(\$41.43)	\$0.00	\$0.21	\$1.28	\$1.40	\$1.48	\$1.57	\$1.70	\$1.83	\$1.97	\$2.12	\$2.29	\$2.47	\$2.60	\$2.75	\$2.90	\$3.06	\$95.86
20	SCANA Corporation	SCG	(\$70.62)	\$0.00	\$0.39	\$2.36	\$2.54	\$2.67	\$2.80	\$3.00	\$3.21	\$3.45	\$3.70	\$3.98	\$4.29	\$4.53	\$4.78	\$5.04	\$5.33	\$162.60
21	Wisconsin Energy Corporation	WEC	(\$60.30)	\$0.00	\$0.28	\$1.71	\$1.87	\$1.98	\$2.10	\$2.22	\$2.35	\$2.49	\$2.63	\$2.78	\$2.93	\$3.09	\$3.27	\$3.45	\$3.64	\$135.99
22	Xcel Energy Inc.	XEL	(\$41.57)	\$0.00	\$0.23	\$1.41	\$1.52	\$1.60	\$1.69	\$1.81	\$1.93	\$2.06	\$2.20	\$2.35	\$2.51	\$2.65	\$2.80	\$2.96	\$3.12	\$95.20

Multi-Stage Growth Discounted Cash Flow Model  
360 Day Average Stock Price  
Average EPS Growth Rate Estimate in First Stage

Line No	Inputs	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]					
1		Stock	EPS Growth Rate Estimates				Long-Term		Payout Ratio		Iterative Solution		Terminal P/E	Terminal PEG					
2	Company	Ticker	Price	Zacks	First Call	Line	Average	Growth	2016	2020	2026	Proof	IRR	Ratio	Ratio				
3	ALLETE, Inc.	ALE	\$54.29	5.50%	5.00%	4.00%	4.83%	5.58%	66.00%	65.00%	66.88%	(\$0.00)	10.15%	15.45	2.77				
4	Alliant Energy Corporation	LNT	\$33.81	6.10%	6.60%	6.00%	6.23%	5.58%	62.00%	61.00%	66.88%	(\$0.00)	9.53%	17.86	3.20				
5	Ameren Corporation	AEE	\$45.65	6.10%	5.60%	6.00%	5.90%	5.58%	66.00%	63.00%	66.88%	(\$0.00)	9.65%	17.34	3.11				
6	American Electric Power Company, Inc.	AEP	\$60.96	5.20%	2.75%	4.00%	3.98%	5.58%	61.00%	67.00%	66.88%	(\$0.00)	9.66%	17.31	3.10				
7	Avista Corporation	AVA	\$37.22	5.30%	5.00%	5.00%	5.10%	5.58%	67.00%	64.00%	66.88%	(\$0.00)	9.35%	18.70	3.35				
8	CenterPoint Energy, Inc.	CNP	\$20.24	5.50%	5.11%	2.00%	4.20%	5.58%	86.00%	85.00%	66.88%	(\$0.00)	9.58%	17.64	3.16				
9	CMS Energy Corporation	CMS	\$38.56	6.60%	7.27%	6.00%	6.62%	5.58%	64.00%	62.00%	66.88%	(\$0.00)	9.57%	17.68	3.17				
10	DTE Energy Company	DTE	\$85.92	5.80%	5.63%	6.00%	5.81%	5.58%	62.00%	60.00%	66.88%	(\$0.01)	9.55%	17.75	3.18				
11	El Paso Electric Company	EE	\$41.17	4.40%	7.00%	4.00%	5.13%	5.58%	54.00%	59.00%	66.88%	(\$0.00)	9.17%	19.67	3.53				
12	Eversource Energy	ES	\$52.91	6.10%	5.39%	6.00%	5.83%	5.58%	61.00%	58.00%	66.88%	(\$0.00)	9.57%	17.70	3.17				
13	IDACORP, Inc.	IDA	\$69.66	4.30%	4.10%	3.00%	3.80%	5.58%	53.00%	60.00%	66.88%	(\$0.00)	9.28%	19.05	3.42				
14	NorthWestern Corporation	NWE	\$56.15	5.00%	4.50%	6.50%	5.33%	5.58%	59.00%	58.00%	66.88%	(\$0.00)	9.39%	18.50	3.32				
15	OGE Energy Corp.	OGE	\$28.83	5.20%	4.30%	3.00%	4.17%	5.58%	66.00%	74.00%	66.88%	(\$0.00)	9.78%	16.80	3.01				
16	Otter Tail Corporation	OTTR	\$29.25	NA	6.00%	6.00%	6.00%	5.58%	82.00%	64.00%	66.88%	(\$0.00)	9.85%	16.52	2.96				
17	Pinnacle West Capital Corporation	PNW	\$68.71	4.30%	3.95%	4.00%	4.08%	5.58%	64.00%	64.00%	66.88%	(\$0.00)	9.54%	17.82	3.20				
18	Portland General Electric Company	POR	\$38.75	6.00%	5.55%	5.50%	5.68%	5.58%	58.00%	59.00%	66.88%	(\$0.00)	9.56%	17.72	3.18				
19	SCANA Corporation	SCG	\$63.57	5.50%	6.00%	4.50%	5.33%	5.58%	58.00%	59.00%	66.88%	(\$0.00)	10.01%	15.93	2.86				
20	Wisconsin Energy Corporation	WEC	\$55.19	6.20%	6.77%	6.00%	6.32%	5.58%	67.00%	67.00%	66.88%	(\$0.00)	9.01%	20.59	3.69				
21	Xcel Energy Inc.	XEL	\$38.29	5.40%	5.36%	5.50%	5.42%	5.58%	62.00%	62.00%	66.88%	(\$0.00)	9.70%	17.11	3.07				
22												Mean	9.57%						
23												Max	10.15%						
24												Min	9.01%						
25	Projected Annual																		
26	Earnings per Share		[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]
27	Company	Ticker	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
28	ALLETE, Inc.	ALE	\$3.38	\$3.54	\$3.71	\$3.89	\$4.08	\$4.28	\$4.49	\$4.72	\$4.97	\$5.23	\$5.52	\$5.82	\$6.15	\$6.49	\$6.85	\$7.23	\$7.64
29	Alliant Energy Corporation	LNT	\$1.69	\$1.80	\$1.91	\$2.03	\$2.15	\$2.29	\$2.43	\$2.57	\$2.72	\$2.88	\$3.05	\$3.22	\$3.40	\$3.58	\$3.78	\$4.00	\$4.22
30	Ameren Corporation	AEE	\$2.38	\$2.52	\$2.67	\$2.83	\$2.99	\$3.17	\$3.36	\$3.55	\$3.75	\$3.97	\$4.19	\$4.42	\$4.67	\$4.93	\$5.21	\$5.50	\$5.80
31	American Electric Power Company, Inc.	AEP	\$3.59	\$3.73	\$3.88	\$4.04	\$4.20	\$4.36	\$4.55	\$4.76	\$4.98	\$5.23	\$5.51	\$5.82	\$6.14	\$6.49	\$6.85	\$7.23	\$7.63
32	Avista Corporation	AVA	\$1.89	\$1.99	\$2.09	\$2.19	\$2.31	\$2.42	\$2.55	\$2.68	\$2.83	\$2.98	\$3.14	\$3.32	\$3.50	\$3.70	\$3.91	\$4.12	\$4.35
33	CenterPoint Energy, Inc.	CNP	\$1.08	\$1.13	\$1.17	\$1.22	\$1.27	\$1.33	\$1.39	\$1.45	\$1.52	\$1.60	\$1.68	\$1.78	\$1.88	\$1.98	\$2.09	\$2.21	\$2.33
34	CMS Energy Corporation	CMS	\$1.89	\$2.02	\$2.15	\$2.29	\$2.44	\$2.60	\$2.77	\$2.95	\$3.13	\$3.31	\$3.50	\$3.70	\$3.90	\$4.12	\$4.35	\$4.59	\$4.85
35	DTE Energy Company	DTE	\$4.45	\$4.71	\$4.98	\$5.27	\$5.58	\$5.90	\$6.24	\$6.60	\$6.98	\$7.37	\$7.78	\$8.22	\$8.68	\$9.16	\$9.67	\$10.21	\$10.78
36	El Paso Electric Company	EE	\$2.03	\$2.13	\$2.24	\$2.36	\$2.48	\$2.61	\$2.74	\$2.89	\$3.04	\$3.21	\$3.38	\$3.57	\$3.77	\$3.98	\$4.20	\$4.44	\$4.69
37	Eversource Energy	ES	\$2.76	\$2.92	\$3.09	\$3.27	\$3.46	\$3.66	\$3.88	\$4.10	\$4.33	\$4.58	\$4.83	\$5.10	\$5.39	\$5.69	\$6.01	\$6.34	\$6.70
38	IDACORP, Inc.	IDA	\$3.87	\$4.02	\$4.17	\$4.33	\$4.49	\$4.66	\$4.85	\$5.07	\$5.31	\$5.57	\$5.86	\$6.19	\$6.54	\$6.90	\$7.28	\$7.69	\$8.12
39	NorthWestern Corporation	NWE	\$2.90	\$3.05	\$3.22	\$3.39	\$3.57	\$3.76	\$3.96	\$4.18	\$4.40	\$4.65	\$4.90	\$5.18	\$5.47	\$5.77	\$6.09	\$6.43	\$6.79
40	OGE Energy Corp.	OGE	\$1.69	\$1.76	\$1.83	\$1.91	\$1.99	\$2.07	\$2.16	\$2.26	\$2.37	\$2.50	\$2.63	\$2.78	\$2.93	\$3.09	\$3.27	\$3.45	\$3.64
41	Otter Tail Corporation	OTTR	\$1.56	\$1.65	\$1.75	\$1.86	\$1.97	\$2.09	\$2.21	\$2.34	\$2.48	\$2.62	\$2.77	\$2.92	\$3.08	\$3.25	\$3.44	\$3.63	\$3.83
42	Pinnacle West Capital Corporation	PNW	\$3.92	\$4.08	\$4.25	\$4.42	\$4.60	\$4.79	\$5.00	\$5.22	\$5.48	\$5.76	\$6.06	\$6.40	\$6.76	\$7.13	\$7.53	\$7.95	\$8.39
43	Portland General Electric Company	POR	\$2.04	\$2.16	\$2.28	\$2.41	\$2.54	\$2.69	\$2.84	\$3.00	\$3.17	\$3.35	\$3.54	\$3.73	\$3.94	\$4.16	\$4.39	\$4.64	\$4.90
44	SCANA Corporation	SCG	\$3.81	\$4.01	\$4.23	\$4.45	\$4.69	\$4.94	\$5.21	\$5.49	\$5.79	\$6.10	\$6.44	\$6.80	\$7.18	\$7.58	\$8.00	\$8.45	\$8.92
45	Wisconsin Energy Corporation	WEC	\$2.34	\$2.49	\$2.65	\$2.81	\$2.99	\$3.18	\$3.38	\$3.58	\$3.79	\$4.02	\$4.24	\$4.48	\$4.73	\$5.00	\$5.27	\$5.57	\$5.88
46	Xcel Energy Inc.	XEL	\$2.10	\$2.21	\$2.33	\$2.46	\$2.59	\$2.73	\$2.88	\$3.04	\$3.21	\$3.39	\$3.57	\$3.77	\$3.98	\$4.20	\$4.44	\$4.69	\$4.95



Multi-Stage Growth Discounted Cash Flow Model  
360 Day Average Stock Price  
Average EPS Growth Rate Estimate in First Stage

2	Projected Annual																	
	Dividend Payout Ratio		[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]
3	Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
4	ALLETE, Inc.	ALE	66.00%	65.75%	65.50%	65.25%	65.00%	65.31%	65.63%	65.94%	66.26%	66.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
5	Alliant Energy Corporation	LNT	62.00%	61.75%	61.50%	61.25%	61.00%	61.98%	62.96%	63.94%	64.92%	65.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
6	Ameren Corporation	AEE	66.00%	65.25%	64.50%	63.75%	63.00%	63.65%	64.29%	64.94%	65.59%	66.24%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
7	American Electric Power Company, Inc.	AEP	61.00%	62.50%	64.00%	65.50%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
8	Avista Corporation	AVA	67.00%	66.25%	65.50%	64.75%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
9	CenterPoint Energy, Inc.	CNP	86.00%	85.75%	85.50%	85.25%	85.00%	81.98%	78.96%	75.94%	72.92%	69.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
10	CMS Energy Corporation	CMS	64.00%	63.50%	63.00%	62.50%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
11	DTE Energy Company	DTE	62.00%	61.50%	61.00%	60.50%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
12	El Paso Electric Company	EE	54.00%	55.25%	56.50%	57.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
13	Eversource Energy	ES	61.00%	60.25%	59.50%	58.75%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
14	IDACORP, Inc.	IDA	53.00%	54.75%	56.50%	58.25%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
15	NorthWestern Corporation	NWE	59.00%	58.75%	58.50%	58.25%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
16	OGE Energy Corp.	OGE	66.00%	68.00%	70.00%	72.00%	74.00%	72.81%	71.63%	70.44%	69.26%	68.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
17	Otter Tail Corporation	OTTR	82.00%	77.50%	73.00%	68.50%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
18	Pinnacle West Capital Corporation	PNW	64.00%	64.00%	64.00%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
19	Portland General Electric Company	POR	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
20	SCANA Corporation	SCG	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
21	Wisconsin Energy Corporation	WEC	67.00%	67.00%	67.00%	67.00%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
22	Xcel Energy Inc.	XEL	62.00%	62.00%	62.00%	62.00%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%

23	Projected Annual																		
24	Cash Flows		[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	[63]
25	Company	Ticker	2015	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Terminal Value
26	ALLETE, Inc.	ALE	\$2.34	\$2.44	\$2.55	\$2.66	\$2.78	\$2.93	\$3.10	\$3.27	\$3.47	\$3.67	\$3.89	\$4.11	\$4.34	\$4.58	\$4.84	\$5.11	\$118.00
27	Alliant Energy Corporation	LNT	\$1.11	\$1.18	\$1.25	\$1.32	\$1.39	\$1.50	\$1.62	\$1.74	\$1.87	\$2.01	\$2.15	\$2.27	\$2.40	\$2.53	\$2.67	\$2.82	\$75.33
28	Ameren Corporation	AEE	\$1.66	\$1.74	\$1.82	\$1.91	\$2.00	\$2.14	\$2.28	\$2.44	\$2.60	\$2.78	\$2.96	\$3.12	\$3.30	\$3.48	\$3.68	\$3.88	\$100.62
29	American Electric Power Company, Inc.	AEP	\$2.28	\$2.43	\$2.58	\$2.75	\$2.92	\$3.05	\$3.18	\$3.34	\$3.50	\$3.69	\$3.89	\$4.11	\$4.34	\$4.58	\$4.84	\$5.11	\$132.10
30	Avista Corporation	AVA	\$1.33	\$1.38	\$1.44	\$1.49	\$1.55	\$1.64	\$1.74	\$1.85	\$1.96	\$2.09	\$2.22	\$2.34	\$2.47	\$2.61	\$2.76	\$2.91	\$81.41
31	CenterPoint Energy, Inc.	CNP	\$0.97	\$1.01	\$1.04	\$1.09	\$1.13	\$1.14	\$1.15	\$1.16	\$1.17	\$1.18	\$1.19	\$1.26	\$1.33	\$1.40	\$1.48	\$1.56	\$41.14
32	CMS Energy Corporation	CMS	\$1.29	\$1.36	\$1.44	\$1.53	\$1.61	\$1.74	\$1.87	\$2.01	\$2.16	\$2.31	\$2.47	\$2.61	\$2.76	\$2.91	\$3.07	\$3.24	\$85.76
33	DTE Energy Company	DTE	\$2.92	\$3.06	\$3.22	\$3.37	\$3.54	\$3.82	\$4.11	\$4.43	\$4.76	\$5.12	\$5.50	\$5.80	\$6.13	\$6.47	\$6.83	\$7.21	\$191.35
34	El Paso Electric Company	EE	\$1.15	\$1.24	\$1.33	\$1.43	\$1.54	\$1.65	\$1.78	\$1.92	\$2.06	\$2.22	\$2.39	\$2.52	\$2.66	\$2.81	\$2.97	\$3.13	\$92.20
35	Eversource Energy	ES	\$1.78	\$1.86	\$1.95	\$2.03	\$2.13	\$2.31	\$2.50	\$2.71	\$2.93	\$3.16	\$3.41	\$3.60	\$3.81	\$4.02	\$4.24	\$4.48	\$118.51
36	IDACORP, Inc.	IDA	\$2.13	\$2.28	\$2.45	\$2.62	\$2.80	\$2.97	\$3.16	\$3.37	\$3.60	\$3.85	\$4.14	\$4.37	\$4.62	\$4.87	\$5.14	\$5.43	\$154.69
37	NorthWestern Corporation	NWE	\$1.80	\$1.89	\$1.98	\$2.08	\$2.18	\$2.36	\$2.55	\$2.75	\$2.97	\$3.21	\$3.46	\$3.66	\$3.86	\$4.08	\$4.30	\$4.54	\$125.61
38	OGE Energy Corp.	OGE	\$1.16	\$1.25	\$1.34	\$1.43	\$1.53	\$1.58	\$1.62	\$1.67	\$1.73	\$1.79	\$1.86	\$1.96	\$2.07	\$2.18	\$2.31	\$2.44	\$61.15
39	Otter Tail Corporation	OTTR	\$1.36	\$1.36	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$2.56	\$63.27
40	Pinnacle West Capital Corporation	PNW	\$2.61	\$2.72	\$2.83	\$2.94	\$3.06	\$3.22	\$3.39	\$3.58	\$3.79	\$4.03	\$4.28	\$4.52	\$4.77	\$5.04	\$5.32	\$5.61	\$149.62
41	Portland General Electric Company	POR	\$1.25	\$1.33	\$1.41	\$1.50	\$1.59	\$1.71	\$1.85	\$2.00	\$2.15	\$2.32	\$2.50	\$2.64	\$2.78	\$2.94	\$3.10	\$3.28	\$86.77
42	SCANA Corporation	SCG	\$2.33	\$2.46	\$2.60	\$2.76	\$2.91	\$3.14	\$3.38	\$3.64	\$3.92	\$4.22	\$4.55	\$4.80	\$5.07	\$5.35	\$5.65	\$5.97	\$142.14
43	Wisconsin Energy Corporation	WEC	\$1.67	\$1.77	\$1.88	\$2.00	\$2.13	\$2.26	\$2.40	\$2.54	\$2.69	\$2.84	\$3.00	\$3.16	\$3.34	\$3.53	\$3.72	\$3.93	\$121.02
44	Xcel Energy Inc.	XEL	\$1.37	\$1.45	\$1.53	\$1.61	\$1.70	\$1.81	\$1.93	\$2.07	\$2.21	\$2.36	\$2.52	\$2.66	\$2.81	\$2.97	\$3.13	\$3.31	\$84.67



Multi-Stage Growth Discounted Cash Flow Model  
360 Day Average Stock Price  
Average EPS Growth Rate Estimate in First Stage

1	Projected Annual Data																			
2	Investor Cash Flows		[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]	[80]	[81]
3	Company	Ticker	Initial Outflow	10/31/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30	6/30/31
4	ALLETE, Inc.	ALE	(\$54.29)	\$0.00	\$0.39	\$2.40	\$2.55	\$2.66	\$2.78	\$2.93	\$3.10	\$3.27	\$3.47	\$3.67	\$3.89	\$4.11	\$4.34	\$4.58	\$4.84	\$123.11
5	Alliant Energy Corporation	LNT	(\$33.82)	\$0.00	\$0.19	\$1.15	\$1.25	\$1.32	\$1.39	\$1.50	\$1.62	\$1.74	\$1.87	\$2.01	\$2.15	\$2.27	\$2.40	\$2.53	\$2.67	\$78.15
6	Ameren Corporation	AEE	(\$45.66)	\$0.00	\$0.28	\$1.71	\$1.82	\$1.91	\$2.00	\$2.14	\$2.28	\$2.44	\$2.60	\$2.78	\$2.96	\$3.12	\$3.30	\$3.48	\$3.68	\$104.51
7	American Electric Power Company, Inc.	AEP	(\$60.97)	\$0.00	\$0.38	\$2.32	\$2.58	\$2.75	\$2.92	\$3.05	\$3.18	\$3.34	\$3.50	\$3.69	\$3.89	\$4.11	\$4.34	\$4.58	\$4.84	\$137.21
8	Avista Corporation	AVA	(\$37.22)	\$0.00	\$0.22	\$1.36	\$1.44	\$1.49	\$1.55	\$1.64	\$1.74	\$1.85	\$1.96	\$2.09	\$2.22	\$2.34	\$2.47	\$2.61	\$2.76	\$84.32
9	CenterPoint Energy, Inc.	CNP	(\$20.25)	\$0.00	\$0.16	\$0.99	\$1.04	\$1.09	\$1.13	\$1.14	\$1.15	\$1.16	\$1.17	\$1.18	\$1.19	\$1.26	\$1.33	\$1.40	\$1.48	\$42.70
10	CMS Energy Corporation	CMS	(\$38.57)	\$0.00	\$0.22	\$1.33	\$1.44	\$1.53	\$1.61	\$1.74	\$1.87	\$2.01	\$2.16	\$2.31	\$2.47	\$2.61	\$2.76	\$2.91	\$3.07	\$89.00
11	DTE Energy Company	DTE	(\$85.93)	\$0.00	\$0.49	\$3.00	\$3.22	\$3.37	\$3.54	\$3.82	\$4.11	\$4.43	\$4.76	\$5.12	\$5.50	\$5.80	\$6.13	\$6.47	\$6.83	\$198.56
12	El Paso Electric Company	EE	(\$41.17)	\$0.00	\$0.19	\$1.18	\$1.33	\$1.43	\$1.54	\$1.65	\$1.78	\$1.92	\$2.06	\$2.22	\$2.39	\$2.52	\$2.66	\$2.81	\$2.97	\$95.34
13	Eversource Energy	ES	(\$52.91)	\$0.00	\$0.30	\$1.83	\$1.95	\$2.03	\$2.13	\$2.31	\$2.50	\$2.71	\$2.93	\$3.16	\$3.41	\$3.60	\$3.81	\$4.02	\$4.24	\$122.99
14	IDACORP, Inc.	IDA	(\$69.67)	\$0.00	\$0.36	\$2.17	\$2.45	\$2.62	\$2.80	\$2.97	\$3.16	\$3.37	\$3.60	\$3.85	\$4.14	\$4.37	\$4.62	\$4.87	\$5.14	\$160.12
15	NorthWestern Corporation	NWE	(\$56.15)	\$0.00	\$0.30	\$1.85	\$1.98	\$2.08	\$2.18	\$2.36	\$2.55	\$2.75	\$2.97	\$3.21	\$3.46	\$3.66	\$3.86	\$4.08	\$4.30	\$130.15
16	OGE Energy Corp.	OGE	(\$28.84)	\$0.00	\$0.19	\$1.19	\$1.34	\$1.43	\$1.53	\$1.58	\$1.62	\$1.67	\$1.73	\$1.79	\$1.86	\$1.96	\$2.07	\$2.18	\$2.31	\$63.59
17	Otter Tail Corporation	OTTR	(\$29.25)	\$0.00	\$0.23	\$1.40	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$65.83
18	Pinnacle West Capital Corporation	PNW	(\$68.71)	\$0.00	\$0.44	\$2.66	\$2.83	\$2.94	\$3.06	\$3.22	\$3.39	\$3.58	\$3.79	\$4.03	\$4.28	\$4.52	\$4.77	\$5.04	\$5.32	\$155.24
19	Portland General Electric Company	POR	(\$38.75)	\$0.00	\$0.21	\$1.29	\$1.41	\$1.50	\$1.59	\$1.71	\$1.85	\$2.00	\$2.15	\$2.32	\$2.50	\$2.64	\$2.78	\$2.94	\$3.10	\$90.05
20	SCANA Corporation	SCG	(\$63.57)	\$0.00	\$0.39	\$2.39	\$2.60	\$2.76	\$2.91	\$3.14	\$3.38	\$3.64	\$3.92	\$4.22	\$4.55	\$4.80	\$5.07	\$5.35	\$5.65	\$148.10
21	Wisconsin Energy Corporation	WEC	(\$55.20)	\$0.00	\$0.28	\$1.72	\$1.88	\$2.00	\$2.13	\$2.26	\$2.40	\$2.54	\$2.69	\$2.84	\$3.00	\$3.16	\$3.34	\$3.53	\$3.72	\$124.95
22	Xcel Energy Inc.	XEL	(\$38.29)	\$0.00	\$0.23	\$1.41	\$1.53	\$1.61	\$1.70	\$1.81	\$1.93	\$2.07	\$2.21	\$2.36	\$2.52	\$2.66	\$2.81	\$2.97	\$3.13	\$87.98

Multi-Stage Growth Discounted Cash Flow Model  
360 Day Average Stock Price  
High EPS Growth Rate Estimate in First Stage

Line No	Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]				
1			Stock	EPS Growth Rate Estimates			Long-Term			Payout Ratio			Iterative Solution		Terminal P/E	Terminal PEG			
2	Company	Ticker	Price	Zacks	First Call	Value Line	High Growth	Growth	2016	2020	2026	Proof	IRR	Ratio	Ratio				
3	ALLETE, Inc.	ALE	\$54.29	5.50%	5.00%	4.00%	5.50%	5.58%	66.00%	65.00%	66.88%	(\$0.00)	10.35%	14.80	2.65				
4	Alliant Energy Corporation	LNT	\$33.81	6.10%	6.60%	6.00%	6.60%	5.58%	62.00%	61.00%	66.88%	(\$0.00)	9.62%	17.44	3.13				
5	Ameren Corporation	AEE	\$45.65	6.10%	5.60%	6.00%	6.10%	5.58%	66.00%	63.00%	66.88%	(\$0.00)	9.70%	17.12	3.07				
6	American Electric Power Company, Inc.	AEP	\$60.96	5.20%	2.75%	4.00%	5.20%	5.58%	61.00%	67.00%	66.88%	(\$0.00)	10.00%	15.98	2.87				
7	Avista Corporation	AVA	\$37.22	5.30%	5.00%	5.00%	5.30%	5.58%	67.00%	64.00%	66.88%	(\$0.00)	9.40%	18.46	3.31				
8	CenterPoint Energy, Inc.	CNP	\$20.24	5.50%	5.11%	2.00%	5.50%	5.58%	86.00%	85.00%	66.88%	(\$0.00)	9.95%	16.15	2.90				
9	CMS Energy Corporation	CMS	\$38.56	6.60%	7.27%	6.00%	7.27%	5.58%	64.00%	62.00%	66.88%	(\$0.00)	9.74%	16.97	3.04				
10	DTE Energy Company	DTE	\$85.92	5.80%	5.63%	6.00%	6.00%	5.58%	62.00%	60.00%	66.88%	(\$0.01)	9.60%	17.53	3.14				
11	El Paso Electric Company	EE	\$41.17	4.40%	7.00%	4.00%	7.00%	5.58%	54.00%	59.00%	66.88%	(\$0.00)	9.62%	17.45	3.13				
12	Eversource Energy	ES	\$52.91	6.10%	5.39%	6.00%	6.10%	5.58%	61.00%	58.00%	66.88%	(\$0.00)	9.64%	17.40	3.12				
13	IDACORP, Inc.	IDA	\$69.66	4.30%	4.10%	3.00%	4.30%	5.58%	53.00%	60.00%	66.88%	(\$0.00)	9.41%	18.43	3.31				
14	NorthWestern Corporation	NWE	\$56.15	5.00%	4.50%	6.50%	6.50%	5.58%	59.00%	58.00%	66.88%	(\$0.00)	9.69%	17.16	3.08				
15	OGE Energy Corp.	OGE	\$28.83	5.20%	4.30%	3.00%	5.20%	5.58%	66.00%	74.00%	66.88%	(\$0.00)	10.08%	15.68	2.81				
16	Otter Tail Corporation	OTTR	\$29.25	NA	6.00%	6.00%	6.00%	5.58%	82.00%	64.00%	66.88%	(\$0.00)	9.85%	16.52	2.96				
17	Pinnacle West Capital Corporation	PNW	\$68.71	4.30%	3.95%	4.00%	4.30%	5.58%	64.00%	64.00%	66.88%	(\$0.00)	9.59%	17.57	3.15				
18	Portland General Electric Company	POR	\$38.75	6.00%	5.55%	5.50%	6.00%	5.58%	58.00%	59.00%	66.88%	(\$0.00)	9.64%	17.36	3.11				
19	SCANA Corporation	SCG	\$63.57	5.50%	6.00%	4.50%	6.00%	5.58%	58.00%	59.00%	66.88%	(\$0.00)	10.20%	15.27	2.74				
20	Wisconsin Energy Corporation	WEC	\$55.19	6.20%	6.77%	6.00%	6.77%	5.58%	67.00%	67.00%	66.88%	(\$0.00)	9.11%	20.00	3.59				
21	Xcel Energy Inc.	XEL	\$38.29	5.40%	5.36%	5.50%	5.50%	5.58%	62.00%	62.00%	66.88%	(\$0.00)	9.72%	17.02	3.05				
22												Mean	9.73%						
23												Max	10.35%						
24												Min	9.11%						
25	Projected Annual																		
26	Earnings per Share		[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]
27	Company	Ticker	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
28	ALLETE, Inc.	ALE	\$3.38	\$3.57	\$3.76	\$3.97	\$4.19	\$4.42	\$4.66	\$4.92	\$5.19	\$5.48	\$5.78	\$6.11	\$6.45	\$6.81	\$7.19	\$7.59	\$8.01
29	Alliant Energy Corporation	LNT	\$1.69	\$1.80	\$1.92	\$2.05	\$2.18	\$2.33	\$2.48	\$2.63	\$2.79	\$2.96	\$3.13	\$3.30	\$3.48	\$3.68	\$3.88	\$4.10	\$4.33
30	Ameren Corporation	AEE	\$2.38	\$2.53	\$2.68	\$2.84	\$3.02	\$3.20	\$3.39	\$3.59	\$3.80	\$4.02	\$4.25	\$4.49	\$4.74	\$5.00	\$5.28	\$5.57	\$5.89
31	American Electric Power Company, Inc.	AEP	\$3.59	\$3.78	\$3.97	\$4.18	\$4.40	\$4.63	\$4.87	\$5.13	\$5.40	\$5.70	\$6.01	\$6.35	\$6.70	\$7.08	\$7.47	\$7.89	\$8.33
32	Avista Corporation	AVA	\$1.89	\$1.99	\$2.10	\$2.21	\$2.32	\$2.45	\$2.58	\$2.72	\$2.86	\$3.02	\$3.19	\$3.37	\$3.55	\$3.75	\$3.96	\$4.18	\$4.42
33	CenterPoint Energy, Inc.	CNP	\$1.08	\$1.14	\$1.20	\$1.27	\$1.34	\$1.41	\$1.49	\$1.57	\$1.66	\$1.75	\$1.85	\$1.95	\$2.06	\$2.17	\$2.30	\$2.42	\$2.56
34	CMS Energy Corporation	CMS	\$1.89	\$2.03	\$2.17	\$2.33	\$2.50	\$2.68	\$2.87	\$3.06	\$3.26	\$3.46	\$3.66	\$3.87	\$4.08	\$4.31	\$4.55	\$4.81	\$5.07
35	DTE Energy Company	DTE	\$4.45	\$4.72	\$5.00	\$5.30	\$5.62	\$5.96	\$6.31	\$6.68	\$7.06	\$7.47	\$7.89	\$8.33	\$8.79	\$9.28	\$9.80	\$10.35	\$10.93
36	El Paso Electric Company	EE	\$2.03	\$2.17	\$2.32	\$2.49	\$2.66	\$2.85	\$3.04	\$3.24	\$3.44	\$3.65	\$3.86	\$4.08	\$4.30	\$4.54	\$4.80	\$5.07	\$5.35
37	Eversource Energy	ES	\$2.76	\$2.93	\$3.11	\$3.30	\$3.50	\$3.71	\$3.93	\$4.17	\$4.41	\$4.66	\$4.93	\$5.20	\$5.49	\$5.80	\$6.12	\$6.46	\$6.82
38	IDACORP, Inc.	IDA	\$3.87	\$4.04	\$4.21	\$4.39	\$4.58	\$4.78	\$4.99	\$5.23	\$5.49	\$5.77	\$6.08	\$6.42	\$6.78	\$7.15	\$7.55	\$7.97	\$8.42
39	NorthWestern Corporation	NWE	\$2.90	\$3.09	\$3.29	\$3.50	\$3.73	\$3.97	\$4.23	\$4.49	\$4.76	\$5.04	\$5.33	\$5.62	\$5.94	\$6.27	\$6.62	\$6.99	\$7.38
40	OGE Energy Corp.	OGE	\$1.69	\$1.78	\$1.87	\$1.97	\$2.07	\$2.18	\$2.29	\$2.41	\$2.54	\$2.68	\$2.83	\$2.99	\$3.16	\$3.33	\$3.52	\$3.71	\$3.92
41	Otter Tail Corporation	OTTR	\$1.56	\$1.65	\$1.75	\$1.86	\$1.97	\$2.09	\$2.21	\$2.34	\$2.48	\$2.62	\$2.77	\$2.92	\$3.08	\$3.25	\$3.44	\$3.63	\$3.83
42	Pinnacle West Capital Corporation	PNW	\$3.92	\$4.09	\$4.26	\$4.45	\$4.64	\$4.84	\$5.06	\$5.30	\$5.56	\$5.84	\$6.16	\$6.50	\$6.86	\$7.25	\$7.65	\$8.08	\$8.53
43	Portland General Electric Company	POR	\$2.04	\$2.16	\$2.29	\$2.43	\$2.58	\$2.73	\$2.89	\$3.06	\$3.24	\$3.42	\$3.62	\$3.82	\$4.03	\$4.26	\$4.49	\$4.74	\$5.01
44	SCANA Corporation	SCG	\$3.81	\$4.04	\$4.28	\$4.54	\$4.81	\$5.10	\$5.40	\$5.72	\$6.05	\$6.39	\$6.76	\$7.13	\$7.53	\$7.95	\$8.39	\$8.86	\$9.35
45	Wisconsin Energy Corporation	WEC	\$2.34	\$2.50	\$2.67	\$2.85	\$3.04	\$3.25	\$3.46	\$3.68	\$3.91	\$4.14	\$4.38	\$4.62	\$4.88	\$5.15	\$5.44	\$5.75	\$6.07
46	Xcel Energy Inc.	XEL	\$2.10	\$2.22	\$2.34	\$2.47	\$2.60	\$2.74	\$2.90	\$3.06	\$3.23	\$3.40	\$3.59	\$3.79	\$4.01	\$4.23	\$4.46	\$4.71	\$4.98

Multi-Stage Growth Discounted Cash Flow Model  
360 Day Average Stock Price  
High EPS Growth Rate Estimate in First Stage

1	Projected Annual																	
2	Dividend Payout Ratio		[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]
3	Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
4	ALLETE, Inc.	ALE	66.00%	65.75%	65.50%	65.25%	65.00%	65.31%	65.63%	65.94%	66.26%	66.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
5	Alliant Energy Corporation	LNT	62.00%	61.75%	61.50%	61.25%	61.00%	61.98%	62.96%	63.94%	64.92%	65.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
6	Ameren Corporation	AEE	66.00%	65.25%	64.50%	63.75%	63.00%	63.65%	64.29%	64.94%	65.59%	66.24%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
7	American Electric Power Company, Inc.	AEP	61.00%	62.50%	64.00%	65.50%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
8	Avista Corporation	AVA	67.00%	66.25%	65.50%	64.75%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
9	CenterPoint Energy, Inc.	CNP	86.00%	85.75%	85.50%	85.25%	85.00%	81.98%	78.96%	75.94%	72.92%	69.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
10	CMS Energy Corporation	CMS	64.00%	63.50%	63.00%	62.50%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
11	DTE Energy Company	DTE	62.00%	61.50%	61.00%	60.50%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
12	El Paso Electric Company	EE	54.00%	55.25%	56.50%	57.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
13	Eversource Energy	ES	61.00%	60.25%	59.50%	58.75%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
14	IDACORP, Inc.	IDA	53.00%	54.75%	56.50%	58.25%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
15	NorthWestern Corporation	NWE	59.00%	58.75%	58.50%	58.25%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
16	OGE Energy Corp.	OGE	66.00%	68.00%	70.00%	72.00%	74.00%	72.81%	71.63%	70.44%	69.26%	68.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
17	Otter Tail Corporation	OTTR	82.00%	77.50%	73.00%	68.50%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
18	Pinnacle West Capital Corporation	PNW	64.00%	64.00%	64.00%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
19	Portland General Electric Company	POR	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
20	SCANA Corporation	SCG	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
21	Wisconsin Energy Corporation	WEC	67.00%	67.00%	67.00%	67.00%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
22	Xcel Energy Inc.	XEL	62.00%	62.00%	62.00%	62.00%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%

23	Projected Annual																		
24	Cash Flows		[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	[63]
25	Company	Ticker	2015	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Terminal Value
26	ALLETE, Inc.	ALE	\$2.35	\$2.47	\$2.60	\$2.73	\$2.87	\$3.04	\$3.23	\$3.42	\$3.63	\$3.85	\$4.08	\$4.31	\$4.55	\$4.81	\$5.07	\$5.36	\$118.52
27	Alliant Energy Corporation	LNT	\$1.12	\$1.19	\$1.26	\$1.34	\$1.42	\$1.53	\$1.66	\$1.78	\$1.92	\$2.06	\$2.21	\$2.33	\$2.46	\$2.60	\$2.74	\$2.90	\$75.51
28	Ameren Corporation	AEE	\$1.67	\$1.75	\$1.83	\$1.92	\$2.02	\$2.16	\$2.31	\$2.47	\$2.64	\$2.81	\$3.00	\$3.17	\$3.34	\$3.53	\$3.73	\$3.94	\$100.75
29	American Electric Power Company, Inc.	AEP	\$2.30	\$2.48	\$2.67	\$2.88	\$3.10	\$3.26	\$3.43	\$3.62	\$3.81	\$4.02	\$4.25	\$4.48	\$4.73	\$5.00	\$5.28	\$5.57	\$133.05
30	Avista Corporation	AVA	\$1.33	\$1.39	\$1.45	\$1.50	\$1.57	\$1.66	\$1.76	\$1.87	\$1.99	\$2.12	\$2.25	\$2.38	\$2.51	\$2.65	\$2.80	\$2.95	\$81.50
31	CenterPoint Energy, Inc.	CNP	\$0.98	\$1.03	\$1.08	\$1.14	\$1.20	\$1.22	\$1.24	\$1.26	\$1.28	\$1.29	\$1.31	\$1.38	\$1.45	\$1.54	\$1.62	\$1.71	\$41.34
32	CMS Energy Corporation	CMS	\$1.30	\$1.38	\$1.47	\$1.56	\$1.66	\$1.80	\$1.95	\$2.10	\$2.26	\$2.42	\$2.59	\$2.73	\$2.88	\$3.05	\$3.21	\$3.39	\$86.11
33	DTE Energy Company	DTE	\$2.92	\$3.08	\$3.23	\$3.40	\$3.57	\$3.86	\$4.16	\$4.48	\$4.82	\$5.19	\$5.57	\$5.88	\$6.21	\$6.56	\$6.92	\$7.31	\$191.59
34	El Paso Electric Company	EE	\$1.17	\$1.28	\$1.41	\$1.54	\$1.68	\$1.83	\$2.00	\$2.17	\$2.35	\$2.53	\$2.73	\$2.88	\$3.04	\$3.21	\$3.39	\$3.58	\$93.30
35	Eversource Energy	ES	\$1.79	\$1.87	\$1.96	\$2.05	\$2.15	\$2.34	\$2.54	\$2.75	\$2.98	\$3.22	\$3.48	\$3.67	\$3.88	\$4.10	\$4.32	\$4.56	\$118.72
36	IDACORP, Inc.	IDA	\$2.14	\$2.30	\$2.48	\$2.67	\$2.87	\$3.05	\$3.26	\$3.48	\$3.73	\$4.00	\$4.29	\$4.53	\$4.78	\$5.05	\$5.33	\$5.63	\$155.15
37	NorthWestern Corporation	NWE	\$1.82	\$1.93	\$2.05	\$2.17	\$2.30	\$2.51	\$2.74	\$2.97	\$3.22	\$3.48	\$3.76	\$3.97	\$4.19	\$4.43	\$4.67	\$4.93	\$126.57
38	OGE Energy Corp.	OGE	\$1.17	\$1.27	\$1.38	\$1.49	\$1.61	\$1.67	\$1.73	\$1.79	\$1.86	\$1.93	\$2.00	\$2.11	\$2.23	\$2.35	\$2.48	\$2.62	\$61.48
39	Otter Tail Corporation	OTTR	\$1.36	\$1.36	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$2.56	\$63.27
40	Pinnacle West Capital Corporation	PNW	\$2.62	\$2.73	\$2.85	\$2.97	\$3.10	\$3.26	\$3.44	\$3.64	\$3.85	\$4.09	\$4.35	\$4.59	\$4.85	\$5.12	\$5.40	\$5.70	\$149.81
41	Portland General Electric Company	POR	\$1.25	\$1.34	\$1.42	\$1.51	\$1.61	\$1.74	\$1.89	\$2.04	\$2.20	\$2.37	\$2.55	\$2.70	\$2.85	\$3.01	\$3.17	\$3.35	\$86.95
42	SCANA Corporation	SCG	\$2.34	\$2.49	\$2.65	\$2.83	\$3.01	\$3.26	\$3.52	\$3.81	\$4.11	\$4.43	\$4.77	\$5.04	\$5.32	\$5.61	\$5.93	\$6.26	\$142.82
43	Wisconsin Energy Corporation	WEC	\$1.67	\$1.79	\$1.91	\$2.04	\$2.18	\$2.32	\$2.46	\$2.62	\$2.77	\$2.93	\$3.09	\$3.27	\$3.45	\$3.64	\$3.84	\$4.06	\$121.29
44	Xcel Energy Inc.	XEL	\$1.37	\$1.45	\$1.53	\$1.61	\$1.70	\$1.82	\$1.94	\$2.08	\$2.22	\$2.37	\$2.54	\$2.68	\$2.83	\$2.99	\$3.15	\$3.33	\$84.71

Multi-Stage Growth Discounted Cash Flow Model  
360 Day Average Stock Price  
High EPS Growth Rate Estimate in First Stage

1	Projected Annual Data																			
2	Investor Cash Flows		[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]	[80]	[81]
3	Company	Ticker	Initial Outflow	10/31/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30	6/30/31
4	ALLETE, Inc.	ALE	(\$54.29)	\$0.00	\$0.39	\$2.42	\$2.60	\$2.73	\$2.87	\$3.04	\$3.23	\$3.42	\$3.63	\$3.85	\$4.08	\$4.31	\$4.55	\$4.81	\$5.07	\$123.88
5	Alliant Energy Corporation	LNT	(\$33.82)	\$0.00	\$0.19	\$1.15	\$1.26	\$1.34	\$1.42	\$1.53	\$1.66	\$1.78	\$1.92	\$2.06	\$2.21	\$2.33	\$2.46	\$2.60	\$2.74	\$78.40
6	Ameren Corporation	AEE	(\$45.66)	\$0.00	\$0.28	\$1.72	\$1.83	\$1.92	\$2.02	\$2.16	\$2.31	\$2.47	\$2.64	\$2.81	\$3.00	\$3.17	\$3.34	\$3.53	\$3.73	\$104.68
7	American Electric Power Company, Inc.	AEP	(\$60.97)	\$0.00	\$0.39	\$2.36	\$2.67	\$2.88	\$3.10	\$3.26	\$3.43	\$3.62	\$3.81	\$4.02	\$4.25	\$4.48	\$4.73	\$5.00	\$5.28	\$138.62
8	Avista Corporation	AVA	(\$37.22)	\$0.00	\$0.22	\$1.37	\$1.45	\$1.50	\$1.57	\$1.66	\$1.76	\$1.87	\$1.99	\$2.12	\$2.25	\$2.38	\$2.51	\$2.65	\$2.80	\$84.45
9	CenterPoint Energy, Inc.	CNP	(\$20.25)	\$0.00	\$0.16	\$1.01	\$1.08	\$1.14	\$1.20	\$1.22	\$1.24	\$1.26	\$1.28	\$1.29	\$1.31	\$1.38	\$1.45	\$1.54	\$1.62	\$43.05
10	CMS Energy Corporation	CMS	(\$38.57)	\$0.00	\$0.22	\$1.34	\$1.47	\$1.56	\$1.66	\$1.80	\$1.95	\$2.10	\$2.26	\$2.42	\$2.59	\$2.73	\$2.88	\$3.05	\$3.21	\$89.50
11	DTE Energy Company	DTE	(\$85.93)	\$0.00	\$0.49	\$3.01	\$3.23	\$3.40	\$3.57	\$3.86	\$4.16	\$4.48	\$4.82	\$5.19	\$5.57	\$5.88	\$6.21	\$6.56	\$6.92	\$198.89
12	El Paso Electric Company	EE	(\$41.17)	\$0.00	\$0.20	\$1.21	\$1.41	\$1.54	\$1.68	\$1.83	\$2.00	\$2.17	\$2.35	\$2.53	\$2.73	\$2.88	\$3.04	\$3.21	\$3.39	\$96.88
13	Eversource Energy	ES	(\$52.91)	\$0.00	\$0.30	\$1.84	\$1.96	\$2.05	\$2.15	\$2.34	\$2.54	\$2.75	\$2.98	\$3.22	\$3.48	\$3.67	\$3.88	\$4.10	\$4.32	\$123.29
14	IDACORP, Inc.	IDA	(\$69.67)	\$0.00	\$0.36	\$2.19	\$2.48	\$2.67	\$2.87	\$3.05	\$3.26	\$3.48	\$3.73	\$4.00	\$4.29	\$4.53	\$4.78	\$5.05	\$5.33	\$160.78
15	NorthWestern Corporation	NWE	(\$56.15)	\$0.00	\$0.30	\$1.88	\$2.05	\$2.17	\$2.30	\$2.51	\$2.74	\$2.97	\$3.22	\$3.48	\$3.76	\$3.97	\$4.19	\$4.43	\$4.67	\$131.50
16	OGE Energy Corp.	OGE	(\$28.84)	\$0.00	\$0.20	\$1.20	\$1.38	\$1.49	\$1.61	\$1.67	\$1.73	\$1.79	\$1.86	\$1.93	\$2.00	\$2.11	\$2.23	\$2.35	\$2.48	\$64.10
17	Otter Tail Corporation	OTTR	(\$29.25)	\$0.00	\$0.23	\$1.40	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$65.83
18	Pinnacle West Capital Corporation	PNW	(\$68.71)	\$0.00	\$0.44	\$2.67	\$2.85	\$2.97	\$3.10	\$3.26	\$3.44	\$3.64	\$3.85	\$4.09	\$4.35	\$4.59	\$4.85	\$5.12	\$5.40	\$155.51
19	Portland General Electric Company	POR	(\$38.75)	\$0.00	\$0.21	\$1.29	\$1.42	\$1.51	\$1.61	\$1.74	\$1.89	\$2.04	\$2.20	\$2.37	\$2.55	\$2.70	\$2.85	\$3.01	\$3.17	\$90.30
20	SCANA Corporation	SCG	(\$63.57)	\$0.00	\$0.39	\$2.41	\$2.65	\$2.83	\$3.01	\$3.26	\$3.52	\$3.81	\$4.11	\$4.43	\$4.77	\$5.04	\$5.32	\$5.61	\$5.93	\$149.08
21	Wisconsin Energy Corporation	WEC	(\$55.20)	\$0.00	\$0.28	\$1.73	\$1.91	\$2.04	\$2.18	\$2.32	\$2.46	\$2.62	\$2.77	\$2.93	\$3.09	\$3.27	\$3.45	\$3.64	\$3.84	\$125.35
22	Xcel Energy Inc.	XEL	(\$38.29)	\$0.00	\$0.23	\$1.41	\$1.53	\$1.61	\$1.70	\$1.82	\$1.94	\$2.08	\$2.22	\$2.37	\$2.54	\$2.68	\$2.83	\$2.99	\$3.15	\$88.04

Multi-Stage Growth Discounted Cash Flow Model  
360 Day Average Stock Price  
Low EPS Growth Rate Estimate in First Stage

Line No	Inputs	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]					
1		Stock	EPS Growth Rate Estimates					Payout Ratio			Iterative Solution		Terminal P/E	Terminal PEG					
2	Company	Ticker	Price	Zacks	First Call	Value Line	Low Growth	Long-Term Growth	2016	2020	2026	Proof	IRR	Ratio	Ratio				
3	ALLETE, Inc.	ALE	\$54.29	5.50%	5.00%	4.00%	4.00%	5.58%	66.00%	65.00%	66.88%	(\$0.00)	9.90%	16.32	2.93				
4	Alliant Energy Corporation	LNT	\$33.81	6.10%	6.60%	6.00%	6.00%	5.58%	62.00%	61.00%	66.88%	(\$0.00)	9.47%	18.13	3.25				
5	Ameren Corporation	AEE	\$45.65	6.10%	5.60%	6.00%	5.60%	5.58%	66.00%	63.00%	66.88%	(\$0.00)	9.57%	17.68	3.17				
6	American Electric Power Company, Inc.	AEP	\$60.96	5.20%	2.75%	4.00%	2.75%	5.58%	61.00%	67.00%	66.88%	(\$0.00)	9.33%	18.80	3.37				
7	Avista Corporation	AVA	\$37.22	5.30%	5.00%	5.00%	5.00%	5.58%	67.00%	64.00%	66.88%	(\$0.00)	9.33%	18.83	3.38				
8	CenterPoint Energy, Inc.	CNP	\$20.24	5.50%	5.11%	2.00%	2.00%	5.58%	86.00%	85.00%	66.88%	(\$0.00)	9.01%	20.56	3.69				
9	CMS Energy Corporation	CMS	\$38.56	6.60%	7.27%	6.00%	6.00%	5.58%	64.00%	62.00%	66.88%	(\$0.00)	9.41%	18.41	3.30				
10	DTE Energy Company	DTE	\$85.92	5.80%	5.63%	6.00%	5.63%	5.58%	62.00%	60.00%	66.88%	(\$0.01)	9.51%	17.96	3.22				
11	El Paso Electric Company	EE	\$41.17	4.40%	7.00%	4.00%	4.00%	5.58%	54.00%	59.00%	66.88%	(\$0.00)	8.91%	21.20	3.80				
12	Eversource Energy	ES	\$52.91	6.10%	5.39%	6.00%	5.39%	5.58%	61.00%	58.00%	66.88%	(\$0.00)	9.45%	18.21	3.27				
13	IDACORP, Inc.	IDA	\$69.66	4.30%	4.10%	3.00%	3.00%	5.58%	53.00%	60.00%	66.88%	(\$0.01)	9.09%	20.09	3.60				
14	NorthWestern Corporation	NWE	\$56.15	5.00%	4.50%	6.50%	4.50%	5.58%	59.00%	58.00%	66.88%	(\$0.00)	9.19%	19.53	3.50				
15	OGE Energy Corp.	OGE	\$28.83	5.20%	4.30%	3.00%	3.00%	5.58%	66.00%	74.00%	66.88%	(\$0.00)	9.46%	18.17	3.26				
16	Otter Tail Corporation	OTTR	\$29.25	NA	6.00%	6.00%	6.00%	5.58%	82.00%	64.00%	66.88%	(\$0.00)	9.85%	16.52	2.96				
17	Pinnacle West Capital Corporation	PNW	\$68.71	4.30%	3.95%	4.00%	3.95%	5.58%	64.00%	64.00%	66.88%	(\$0.00)	9.50%	17.98	3.22				
18	Portland General Electric Company	POR	\$38.75	6.00%	5.55%	5.50%	5.50%	5.58%	58.00%	59.00%	66.88%	(\$0.00)	9.51%	17.93	3.22				
19	SCANA Corporation	SCG	\$63.57	5.50%	6.00%	4.50%	4.50%	5.58%	58.00%	59.00%	66.88%	(\$0.00)	9.78%	16.81	3.01				
20	Wisconsin Energy Corporation	WEC	\$55.19	6.20%	6.77%	6.00%	6.00%	5.58%	67.00%	67.00%	66.88%	(\$0.00)	8.93%	21.03	3.77				
21	Xcel Energy Inc.	XEL	\$38.29	5.40%	5.36%	5.50%	5.36%	5.58%	62.00%	62.00%	66.88%	(\$0.00)	9.69%	17.18	3.08				
22												Mean	9.42%						
23												Max	9.90%						
24												Min	8.91%						
25	Projected Annual																		
26	Earnings per Share		[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]
27	Company	Ticker	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
28	ALLETE, Inc.	ALE	\$3.38	\$3.52	\$3.66	\$3.80	\$3.95	\$4.11	\$4.29	\$4.48	\$4.70	\$4.93	\$5.20	\$5.49	\$5.79	\$6.11	\$6.45	\$6.81	\$7.19
29	Alliant Energy Corporation	LNT	\$1.69	\$1.79	\$1.90	\$2.01	\$2.13	\$2.26	\$2.40	\$2.54	\$2.68	\$2.84	\$3.00	\$3.16	\$3.34	\$3.53	\$3.72	\$3.93	\$4.15
30	Ameren Corporation	AEE	\$2.38	\$2.51	\$2.65	\$2.80	\$2.96	\$3.13	\$3.30	\$3.48	\$3.68	\$3.88	\$4.10	\$4.33	\$4.57	\$4.83	\$5.10	\$5.38	\$5.68
31	American Electric Power Company, Inc.	AEP	\$3.59	\$3.69	\$3.79	\$3.89	\$4.00	\$4.11	\$4.24	\$4.40	\$4.58	\$4.80	\$5.04	\$5.32	\$5.62	\$5.93	\$6.26	\$6.61	\$6.98
32	Avista Corporation	AVA	\$1.89	\$1.98	\$2.08	\$2.19	\$2.30	\$2.41	\$2.54	\$2.67	\$2.81	\$2.96	\$3.12	\$3.30	\$3.48	\$3.67	\$3.88	\$4.09	\$4.32
33	CenterPoint Energy, Inc.	CNP	\$1.08	\$1.10	\$1.12	\$1.15	\$1.17	\$1.19	\$1.22	\$1.26	\$1.31	\$1.37	\$1.44	\$1.52	\$1.60	\$1.69	\$1.78	\$1.88	\$1.99
34	CMS Energy Corporation	CMS	\$1.89	\$2.00	\$2.12	\$2.25	\$2.39	\$2.53	\$2.68	\$2.84	\$3.00	\$3.17	\$3.35	\$3.54	\$3.74	\$3.94	\$4.16	\$4.40	\$4.64
35	DTE Energy Company	DTE	\$4.45	\$4.70	\$4.97	\$5.24	\$5.54	\$5.85	\$6.18	\$6.53	\$6.89	\$7.28	\$7.69	\$8.11	\$8.57	\$9.04	\$9.55	\$10.08	\$10.64
36	El Paso Electric Company	EE	\$2.03	\$2.11	\$2.20	\$2.28	\$2.37	\$2.47	\$2.58	\$2.69	\$2.82	\$2.96	\$3.12	\$3.29	\$3.48	\$3.67	\$3.88	\$4.09	\$4.32
37	Eversource Energy	ES	\$2.76	\$2.91	\$3.07	\$3.23	\$3.40	\$3.59	\$3.78	\$3.99	\$4.21	\$4.44	\$4.69	\$4.95	\$5.22	\$5.51	\$5.82	\$6.15	\$6.49
38	IDACORP, Inc.	IDA	\$3.87	\$3.99	\$4.11	\$4.23	\$4.36	\$4.49	\$4.64	\$4.82	\$5.03	\$5.26	\$5.53	\$5.84	\$6.17	\$6.51	\$6.88	\$7.26	\$7.66
39	NorthWestern Corporation	NWE	\$2.90	\$3.03	\$3.17	\$3.31	\$3.46	\$3.61	\$3.78	\$3.97	\$4.17	\$4.38	\$4.62	\$4.88	\$5.15	\$5.44	\$5.74	\$6.06	\$6.40
40	OGE Energy Corp.	OGE	\$1.69	\$1.74	\$1.79	\$1.85	\$1.90	\$1.96	\$2.03	\$2.10	\$2.19	\$2.30	\$2.42	\$2.55	\$2.69	\$2.84	\$3.00	\$3.17	\$3.35
41	Otter Tail Corporation	OTTR	\$1.56	\$1.65	\$1.75	\$1.86	\$1.97	\$2.09	\$2.21	\$2.34	\$2.48	\$2.62	\$2.77	\$2.92	\$3.08	\$3.25	\$3.44	\$3.63	\$3.83
42	Pinnacle West Capital Corporation	PNW	\$3.92	\$4.07	\$4.24	\$4.40	\$4.58	\$4.76	\$4.96	\$5.18	\$5.43	\$5.70	\$6.00	\$6.34	\$6.69	\$7.07	\$7.46	\$7.88	\$8.31
43	Portland General Electric Company	POR	\$2.04	\$2.15	\$2.27	\$2.40	\$2.53	\$2.67	\$2.81	\$2.97	\$3.13	\$3.31	\$3.49	\$3.69	\$3.89	\$4.11	\$4.34	\$4.58	\$4.83
44	SCANA Corporation	SCG	\$3.81	\$3.98	\$4.16	\$4.35	\$4.54	\$4.75	\$4.97	\$5.21	\$5.47	\$5.76	\$6.07	\$6.41	\$6.77	\$7.14	\$7.54	\$7.96	\$8.41
45	Wisconsin Energy Corporation	WEC	\$2.34	\$2.48	\$2.63	\$2.79	\$2.95	\$3.13	\$3.32	\$3.51	\$3.71	\$3.93	\$4.15	\$4.38	\$4.62	\$4.88	\$5.15	\$5.44	\$5.75
46	Xcel Energy Inc.	XEL	\$2.10	\$2.21	\$2.33	\$2.46	\$2.59	\$2.73	\$2.87	\$3.03	\$3.20	\$3.37	\$3.56	\$3.76	\$3.97	\$4.19	\$4.42	\$4.67	\$4.93

Multi-Stage Growth Discounted Cash Flow Model  
360 Day Average Stock Price  
Low EPS Growth Rate Estimate in First Stage

2	Projected Annual																	
	Dividend Payout Ratio		[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]
3	Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
4	ALLETE, Inc.	ALE	66.00%	65.75%	65.50%	65.25%	65.00%	65.31%	65.63%	65.94%	66.26%	66.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
5	Alliant Energy Corporation	LNT	62.00%	61.75%	61.50%	61.25%	61.00%	61.98%	62.96%	63.94%	64.92%	65.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
6	Ameren Corporation	AEE	66.00%	65.25%	64.50%	63.75%	63.00%	63.65%	64.29%	64.94%	65.59%	66.24%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
7	American Electric Power Company, Inc.	AEP	61.00%	62.50%	64.00%	65.50%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
8	Avista Corporation	AVA	67.00%	66.25%	65.50%	64.75%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
9	CenterPoint Energy, Inc.	CNP	86.00%	85.75%	85.50%	85.25%	85.00%	81.98%	78.96%	75.94%	72.92%	69.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
10	CMS Energy Corporation	CMS	64.00%	63.50%	63.00%	62.50%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
11	DTE Energy Company	DTE	62.00%	61.50%	61.00%	60.50%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
12	El Paso Electric Company	EE	54.00%	55.25%	56.50%	57.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
13	Eversource Energy	ES	61.00%	60.25%	59.50%	58.75%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
14	IDACORP, Inc.	IDA	53.00%	54.75%	56.50%	58.25%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
15	NorthWestern Corporation	NWE	59.00%	58.75%	58.50%	58.25%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
16	OGE Energy Corp.	OGE	66.00%	68.00%	70.00%	72.00%	74.00%	72.81%	71.63%	70.44%	69.26%	68.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
17	Otter Tail Corporation	OTTR	82.00%	77.50%	73.00%	68.50%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
18	Pinnacle West Capital Corporation	PNW	64.00%	64.00%	64.00%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
19	Portland General Electric Company	POR	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
20	SCANA Corporation	SCG	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
21	Wisconsin Energy Corporation	WEC	67.00%	67.00%	67.00%	67.00%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
22	Xcel Energy Inc.	XEL	62.00%	62.00%	62.00%	62.00%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%

23	Projected Annual																			
24	Cash Flows		[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	[63]	Terminal
25	Company	Ticker	2015	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Value	
26	ALLETE, Inc.	ALE	\$2.32	\$2.40	\$2.49	\$2.58	\$2.67	\$2.80	\$2.94	\$3.10	\$3.27	\$3.46	\$3.67	\$3.87	\$4.09	\$4.32	\$4.56	\$4.81	\$117.40	
27	Alliant Energy Corporation	LNT	\$1.11	\$1.17	\$1.24	\$1.31	\$1.38	\$1.48	\$1.60	\$1.72	\$1.84	\$1.97	\$2.12	\$2.23	\$2.36	\$2.49	\$2.63	\$2.78	\$75.22	
28	Ameren Corporation	AEE	\$1.66	\$1.73	\$1.81	\$1.89	\$1.97	\$2.10	\$2.24	\$2.39	\$2.55	\$2.72	\$2.90	\$3.06	\$3.23	\$3.41	\$3.60	\$3.80	\$100.44	
29	American Electric Power Company, Inc.	AEP	\$2.25	\$2.37	\$2.49	\$2.62	\$2.75	\$2.84	\$2.95	\$3.07	\$3.21	\$3.37	\$3.56	\$3.76	\$3.97	\$4.19	\$4.42	\$4.67	\$131.25	
30	Avista Corporation	AVA	\$1.33	\$1.38	\$1.43	\$1.49	\$1.54	\$1.63	\$1.73	\$1.84	\$1.95	\$2.07	\$2.20	\$2.33	\$2.46	\$2.59	\$2.74	\$2.89	\$81.36	
31	CenterPoint Energy, Inc.	CNP	\$0.95	\$0.96	\$0.98	\$1.00	\$1.01	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.01	\$1.07	\$1.13	\$1.19	\$1.26	\$1.33	\$40.89	
32	CMS Energy Corporation	CMS	\$1.28	\$1.35	\$1.42	\$1.49	\$1.57	\$1.68	\$1.80	\$1.93	\$2.07	\$2.21	\$2.37	\$2.50	\$2.64	\$2.78	\$2.94	\$3.10	\$85.43	
33	DTE Energy Company	DTE	\$2.91	\$3.05	\$3.20	\$3.35	\$3.51	\$3.78	\$4.07	\$4.37	\$4.70	\$5.05	\$5.43	\$5.73	\$6.05	\$6.39	\$6.74	\$7.12	\$191.14	
34	El Paso Electric Company	EE	\$1.14	\$1.21	\$1.29	\$1.37	\$1.46	\$1.55	\$1.66	\$1.78	\$1.90	\$2.05	\$2.20	\$2.33	\$2.46	\$2.59	\$2.74	\$2.89	\$91.62	
35	Eversource Energy	ES	\$1.77	\$1.85	\$1.92	\$2.00	\$2.08	\$2.25	\$2.43	\$2.63	\$2.84	\$3.06	\$3.31	\$3.49	\$3.69	\$3.89	\$4.11	\$4.34	\$118.18	
36	IDACORP, Inc.	IDA	\$2.11	\$2.25	\$2.39	\$2.54	\$2.69	\$2.84	\$3.00	\$3.19	\$3.40	\$3.64	\$3.91	\$4.13	\$4.36	\$4.60	\$4.85	\$5.13	\$153.99	
37	NorthWestern Corporation	NWE	\$1.79	\$1.86	\$1.94	\$2.01	\$2.10	\$2.25	\$2.42	\$2.60	\$2.80	\$3.02	\$3.26	\$3.44	\$3.64	\$3.84	\$4.05	\$4.28	\$124.98	
38	OGE Energy Corp.	OGE	\$1.15	\$1.22	\$1.29	\$1.37	\$1.45	\$1.48	\$1.51	\$1.55	\$1.59	\$1.64	\$1.71	\$1.80	\$1.90	\$2.01	\$2.12	\$2.24	\$60.82	
39	Otter Tail Corporation	OTTR	\$1.36	\$1.36	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$2.56	\$63.27	
40	Pinnacle West Capital Corporation	PNW	\$2.61	\$2.71	\$2.82	\$2.93	\$3.05	\$3.20	\$3.37	\$3.55	\$3.76	\$3.99	\$4.24	\$4.48	\$4.73	\$4.99	\$5.27	\$5.56	\$149.51	
41	Portland General Electric Company	POR	\$1.25	\$1.32	\$1.40	\$1.48	\$1.57	\$1.70	\$1.83	\$1.97	\$2.12	\$2.29	\$2.47	\$2.60	\$2.75	\$2.90	\$3.06	\$3.23	\$86.67	
42	SCANA Corporation	SCG	\$2.31	\$2.42	\$2.54	\$2.67	\$2.80	\$3.00	\$3.21	\$3.45	\$3.70	\$3.98	\$4.29	\$4.53	\$4.78	\$5.04	\$5.33	\$5.62	\$141.33	
43	Wisconsin Energy Corporation	WEC	\$1.66	\$1.76	\$1.87	\$1.98	\$2.10	\$2.22	\$2.35	\$2.49	\$2.63	\$2.78	\$2.93	\$3.09	\$3.27	\$3.45	\$3.64	\$3.84	\$120.83	
44	Xcel Energy Inc.	XEL	\$1.37	\$1.45	\$1.52	\$1.60	\$1.69	\$1.81	\$1.93	\$2.06	\$2.20	\$2.35	\$2.51	\$2.65	\$2.80	\$2.96	\$3.12	\$3.30	\$84.64	

Multi-Stage Growth Discounted Cash Flow Model  
360 Day Average Stock Price  
Low EPS Growth Rate Estimate in First Stage

1	Projected Annual Data																			
2	Investor Cash Flows		[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]	[80]	[81]
3	Company	Ticker	Initial Outflow	10/31/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30	6/30/31
4	ALLETE, Inc.	ALE	(\$54.29)	\$0.00	\$0.39	\$2.37	\$2.49	\$2.58	\$2.67	\$2.80	\$2.94	\$3.10	\$3.27	\$3.46	\$3.67	\$3.87	\$4.09	\$4.32	\$4.56	\$122.21
5	Alliant Energy Corporation	LNT	(\$33.82)	\$0.00	\$0.19	\$1.14	\$1.24	\$1.31	\$1.38	\$1.48	\$1.60	\$1.72	\$1.84	\$1.97	\$2.12	\$2.23	\$2.36	\$2.49	\$2.63	\$78.00
6	Ameren Corporation	AEE	(\$45.66)	\$0.00	\$0.28	\$1.71	\$1.81	\$1.89	\$1.97	\$2.10	\$2.24	\$2.39	\$2.55	\$2.72	\$2.90	\$3.06	\$3.23	\$3.41	\$3.60	\$104.24
7	American Electric Power Company, Inc.	AEP	(\$60.97)	\$0.00	\$0.38	\$2.28	\$2.49	\$2.62	\$2.75	\$2.84	\$2.95	\$3.07	\$3.21	\$3.37	\$3.56	\$3.76	\$3.97	\$4.19	\$4.42	\$135.92
8	Avista Corporation	AVA	(\$37.22)	\$0.00	\$0.22	\$1.36	\$1.43	\$1.49	\$1.54	\$1.63	\$1.73	\$1.84	\$1.95	\$2.07	\$2.20	\$2.33	\$2.46	\$2.59	\$2.74	\$84.25
9	CenterPoint Energy, Inc.	CNP	(\$20.25)	\$0.00	\$0.16	\$0.96	\$0.98	\$1.00	\$1.01	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.01	\$1.07	\$1.13	\$1.19	\$1.26	\$42.22
10	CMS Energy Corporation	CMS	(\$38.57)	\$0.00	\$0.21	\$1.32	\$1.42	\$1.49	\$1.57	\$1.68	\$1.80	\$1.93	\$2.07	\$2.21	\$2.37	\$2.50	\$2.64	\$2.78	\$2.94	\$88.54
11	DTE Energy Company	DTE	(\$85.93)	\$0.00	\$0.49	\$3.00	\$3.20	\$3.35	\$3.51	\$3.78	\$4.07	\$4.37	\$4.70	\$5.05	\$5.43	\$5.73	\$6.05	\$6.39	\$6.74	\$198.26
12	El Paso Electric Company	EE	(\$41.17)	\$0.00	\$0.19	\$1.16	\$1.29	\$1.37	\$1.46	\$1.55	\$1.66	\$1.78	\$1.90	\$2.05	\$2.20	\$2.33	\$2.46	\$2.59	\$2.74	\$94.51
13	Eversource Energy	ES	(\$52.91)	\$0.00	\$0.30	\$1.82	\$1.92	\$2.00	\$2.08	\$2.25	\$2.43	\$2.63	\$2.84	\$3.06	\$3.31	\$3.49	\$3.69	\$3.89	\$4.11	\$122.52
14	IDACORP, Inc.	IDA	(\$69.67)	\$0.00	\$0.35	\$2.14	\$2.39	\$2.54	\$2.69	\$2.84	\$3.00	\$3.19	\$3.40	\$3.64	\$3.91	\$4.13	\$4.36	\$4.60	\$4.85	\$159.11
15	NorthWestern Corporation	NWE	(\$56.15)	\$0.00	\$0.30	\$1.83	\$1.94	\$2.01	\$2.10	\$2.25	\$2.42	\$2.60	\$2.80	\$3.02	\$3.26	\$3.44	\$3.64	\$3.84	\$4.05	\$129.26
16	OGE Energy Corp.	OGE	(\$28.84)	\$0.00	\$0.19	\$1.17	\$1.29	\$1.37	\$1.45	\$1.48	\$1.51	\$1.55	\$1.59	\$1.64	\$1.71	\$1.80	\$1.90	\$2.01	\$2.12	\$63.06
17	Otter Tail Corporation	OTTR	(\$29.25)	\$0.00	\$0.23	\$1.40	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$65.83
18	Pinnacle West Capital Corporation	PNW	(\$68.71)	\$0.00	\$0.44	\$2.66	\$2.82	\$2.93	\$3.05	\$3.20	\$3.37	\$3.55	\$3.76	\$3.99	\$4.24	\$4.48	\$4.73	\$4.99	\$5.27	\$155.07
19	Portland General Electric Company	POR	(\$38.75)	\$0.00	\$0.21	\$1.28	\$1.40	\$1.48	\$1.57	\$1.70	\$1.83	\$1.97	\$2.12	\$2.29	\$2.47	\$2.60	\$2.75	\$2.90	\$3.06	\$89.90
20	SCANA Corporation	SCG	(\$63.57)	\$0.00	\$0.39	\$2.36	\$2.54	\$2.67	\$2.80	\$3.00	\$3.21	\$3.45	\$3.70	\$3.98	\$4.29	\$4.53	\$4.78	\$5.04	\$5.33	\$146.95
21	Wisconsin Energy Corporation	WEC	(\$55.20)	\$0.00	\$0.28	\$1.71	\$1.87	\$1.98	\$2.10	\$2.22	\$2.35	\$2.49	\$2.63	\$2.78	\$2.93	\$3.09	\$3.27	\$3.45	\$3.64	\$124.67
22	Xcel Energy Inc.	XEL	(\$38.29)	\$0.00	\$0.23	\$1.41	\$1.52	\$1.60	\$1.69	\$1.81	\$1.93	\$2.06	\$2.20	\$2.35	\$2.51	\$2.65	\$2.80	\$2.96	\$3.12	\$87.93

Line No.	Multi-Stage DCF Notes:
1	[1] Source: Bloomberg; based on 30-, 90-, 180, and 360-day historical average as of October 31, 2016
2	[2] Source: Zacks
3	[3] Source: Yahoo! Finance
4	[4] Source: Value Line
5	[5] Equals indicated value (average, minimum, maximum) from Columns [2], [3], [4]
6	[6] Source: Average of 5.25%, 6.19%, 5.28%
7	[7] Source: Value Line
8	[8] Source: Value Line
9	[9] Source: Bloomberg Professional
10	[10] Equals Column [1] + Column [64]
11	[11] Equals result of Excel Solver function; goal: Column [10] equals \$0.00
12	[12] Equals Column [63] / Column [30]
13	[13] Equals Column [12] / (Column [6] x 100)
14	[14] Source: Value Line
15	[15] Equals Column [14] x (1 + Column [5])
16	[16] Equals Column [15] x (1 + Column [5])
17	[17] Equals Column [16] x (1 + Column [5])
18	[18] Equals Column [17] x (1 + Column [5])
19	[19] Equals Column [18] x (1 + Column [5])
20	[20] Equals (1 + (Column [5] + (((Column [6] - Column [5]) / (2025 - 2020 + 1)) x (2020 - 2019)))) x Column [19]
21	[21] Equals (1 + (Column [5] + (((Column [6] - Column [5]) / (2025 - 2020 + 1)) x (2021 - 2019)))) x Column [20]
22	[22] Equals (1 + (Column [5] + (((Column [6] - Column [5]) / (2025 - 2020 + 1)) x (2022 - 2019)))) x Column [21]
23	[23] Equals (1 + (Column [5] + (((Column [6] - Column [5]) / (2025 - 2020 + 1)) x (2023 - 2019)))) x Column [22]
24	[24] Equals (1 + (Column [5] + (((Column [6] - Column [5]) / (2025 - 2020 + 1)) x (2024 - 2019)))) x Column [23]
25	[25] Equals Column [24] x (1 + Column [6])
26	[26] Equals Column [25] x (1 + Column [6])
27	[27] Equals Column [26] x (1 + Column [6])
28	[28] Equals Column [27] x (1 + Column [6])
29	[29] Equals Column [28] x (1 + Column [6])
30	[30] Equals Column [29] x (1 + Column [6])
31	[31] Equals Column [7]
32	[32] Equals Column [31] + ((Column [35] - Column [31]) / 4)
33	[33] Equals Column [32] + ((Column [35] - Column [31]) / 4)
34	[34] Equals Column [33] + ((Column [35] - Column [31]) / 4)
35	[35] Equals Column [8]
36	[36] Equals Column [35] + ((Column [41] - Column [35]) / 6)
37	[37] Equals Column [36] + ((Column [41] - Column [35]) / 6)
38	[38] Equals Column [37] + ((Column [41] - Column [35]) / 6)
39	[39] Equals Column [38] + ((Column [41] - Column [35]) / 6)
40	[40] Equals Column [39] + ((Column [41] - Column [35]) / 6)
41	[41] Equals Column [9]
42	[42] Equals Column [9]
43	[43] Equals Column [9]
44	[44] Equals Column [9]
45	[45] Equals Column [9]
46	[46] Equals Column [9]
47	[47] Equals Column [15] x Column [31]
48	[48] Equals Column [16] x Column [32]
49	[49] Equals Column [17] x Column [33]
50	[50] Equals Column [18] x Column [34]
51	[51] Equals Column [19] x Column [35]
52	[52] Equals Column [20] x Column [36]
53	[53] Equals Column [21] x Column [37]
54	[54] Equals Column [22] x Column [38]
55	[55] Equals Column [23] x Column [39]
56	[56] Equals Column [24] x Column [40]
57	[57] Equals Column [25] x Column [41]
58	[58] Equals Column [26] x Column [42]
59	[59] Equals Column [27] x Column [43]
60	[60] Equals Column [28] x Column [44]
61	[61] Equals Column [29] x Column [45]
62	[62] Equals Column [30] x Column [46]
63	[63] Equals (Column [62] x (1 + Column [6])) / (Column [11] - Column [6])
64	[64] Equals negative net present value; discount rate equals Column [11], cash flows equal Column [65] through Column [81]
65	[65] Equals \$0.00
66	[66] Equals Column [47] x (12/31/2016 - 10/31/2016) / 365
67	[67] Equals Column [47] x (1 + (0.5 x Column [5]))
68	[68] Equals Column [49]
69	[69] Equals Column [50]
70	[70] Equals Column [51]
71	[71] Equals Column [52]
72	[72] Equals Column [53]
73	[73] Equals Column [54]
74	[74] Equals Column [55]
75	[75] Equals Column [56]
76	[76] Equals Column [57]
77	[77] Equals Column [58]
78	[78] Equals Column [59]
79	[79] Equals Column [60]
80	[80] Equals Column [61]
81	[81] Equals Column [62] + [63]



Multi-Stage Growth Discounted Cash Flow Model  
30 Day Average Stock Price  
Average EPS Growth Rate Estimate in First Stage

Line No	Inputs	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]					
1		Stock	EPS Growth Rate Estimates				Payout Ratio			Iterative Solution		Terminal P/E	Terminal PEG						
					Value		Long-Term												
2	Company	Ticker	Price	Zacks	First Call	Line	Average	Growth	2016	2020	2026	Proof	IRR	Ratio	Ratio				
3	ALLETE, Inc.	ALE	\$59.36	5.50%	5.00%	4.00%	4.83%	5.58%	66.00%	65.00%	66.88%	(\$0.00)	10.62%	19.78	3.55				
4	Alliant Energy Corporation	LNT	\$37.83	6.10%	6.60%	6.00%	6.23%	5.58%	62.00%	61.00%	66.88%	(\$0.00)	9.06%	19.78	3.55				
5	Ameren Corporation	AEE	\$48.99	6.10%	5.60%	6.00%	5.90%	5.58%	66.00%	63.00%	66.88%	(\$0.00)	9.71%	19.78	3.55				
6	American Electric Power Company, Inc.	AEP	\$63.64	5.20%	2.75%	4.00%	3.98%	5.58%	61.00%	67.00%	66.88%	(\$0.00)	9.98%	19.78	3.55				
7	Avista Corporation	AVA	\$40.83	5.30%	5.00%	5.00%	5.10%	5.58%	67.00%	64.00%	66.88%	(\$0.00)	8.80%	19.78	3.55				
8	CenterPoint Energy, Inc.	CNP	\$22.87	5.50%	5.11%	2.00%	4.20%	5.58%	86.00%	85.00%	66.88%	(\$0.00)	8.99%	19.78	3.55				
9	CMS Energy Corporation	CMS	\$41.66	6.60%	7.27%	6.00%	6.62%	5.58%	64.00%	62.00%	66.88%	(\$0.00)	9.47%	19.78	3.55				
10	DTE Energy Company	DTE	\$93.50	5.80%	5.63%	6.00%	5.81%	5.58%	62.00%	60.00%	66.88%	(\$0.00)	9.37%	19.78	3.55				
11	El Paso Electric Company	EE	\$45.17	4.40%	7.00%	4.00%	5.13%	5.58%	54.00%	59.00%	66.88%	(\$0.00)	8.35%	19.78	3.55				
12	Eversource Energy	ES	\$54.04	6.10%	5.39%	6.00%	5.83%	5.58%	61.00%	58.00%	66.88%	(\$0.00)	9.99%	19.78	3.55				
13	IDACORP, Inc.	IDA	\$76.67	4.30%	4.10%	3.00%	3.80%	5.58%	53.00%	60.00%	66.88%	(\$0.00)	8.61%	19.78	3.55				
14	NorthWestern Corporation	NWE	\$56.70	5.00%	4.50%	6.50%	5.33%	5.58%	59.00%	58.00%	66.88%	(\$0.00)	9.68%	19.78	3.55				
15	OGE Energy Corp.	OGE	\$31.09	5.20%	4.30%	3.00%	4.17%	5.58%	66.00%	74.00%	66.88%	(\$0.00)	9.94%	19.78	3.55				
16	Otter Tail Corporation	OTTR	\$34.69	NA	6.00%	6.00%	6.00%	5.58%	82.00%	64.00%	66.88%	(\$0.00)	9.20%	19.78	3.55				
17	Pinnacle West Capital Corporation	PNW	\$75.36	4.30%	3.95%	4.00%	4.08%	5.58%	64.00%	64.00%	66.88%	(\$0.00)	9.24%	19.78	3.55				
18	Portland General Electric Company	POR	\$42.12	6.00%	5.55%	5.50%	5.68%	5.58%	58.00%	59.00%	66.88%	(\$0.00)	9.40%	19.78	3.55				
19	SCANA Corporation	SCG	\$71.34	5.50%	6.00%	4.50%	5.33%	5.58%	58.00%	59.00%	66.88%	(\$0.00)	10.10%	19.78	3.55				
20	Wisconsin Energy Corporation	WEC	\$59.09	6.20%	6.77%	6.00%	6.32%	5.58%	67.00%	67.00%	66.88%	(\$0.00)	8.15%	19.78	3.55				
21	Xcel Energy Inc.	XEL	\$40.82	5.40%	5.36%	5.50%	5.42%	5.58%	62.00%	62.00%	66.88%	(\$0.00)	9.90%	19.78	3.55				
22							0.052523					Mean	9.40%						
23												Max	10.62%						
24												Min	8.15%						
25	Projected Annual																		
26	Earnings per Share		[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]
27	Company	Ticker	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
28	ALLETE, Inc.	ALE	\$3.38	\$3.54	\$3.71	\$3.89	\$4.08	\$4.28	\$4.49	\$4.72	\$4.97	\$5.23	\$5.52	\$5.82	\$6.15	\$6.49	\$6.85	\$7.23	\$7.64
29	Alliant Energy Corporation	LNT	\$1.69	\$1.80	\$1.91	\$2.03	\$2.15	\$2.29	\$2.43	\$2.57	\$2.72	\$2.88	\$3.05	\$3.22	\$3.40	\$3.58	\$3.78	\$4.00	\$4.22
30	Ameren Corporation	AEE	\$2.38	\$2.52	\$2.67	\$2.83	\$2.99	\$3.17	\$3.36	\$3.55	\$3.75	\$3.97	\$4.19	\$4.42	\$4.67	\$4.93	\$5.21	\$5.50	\$5.80
31	American Electric Power Company, Inc.	AEP	\$3.59	\$3.73	\$3.88	\$4.04	\$4.20	\$4.36	\$4.55	\$4.76	\$4.98	\$5.23	\$5.51	\$5.82	\$6.14	\$6.49	\$6.85	\$7.23	\$7.63
32	Avista Corporation	AVA	\$1.89	\$1.99	\$2.09	\$2.19	\$2.31	\$2.42	\$2.55	\$2.68	\$2.83	\$2.98	\$3.14	\$3.32	\$3.50	\$3.70	\$3.91	\$4.12	\$4.35
33	CenterPoint Energy, Inc.	CNP	\$1.08	\$1.13	\$1.17	\$1.22	\$1.27	\$1.33	\$1.39	\$1.45	\$1.52	\$1.60	\$1.68	\$1.78	\$1.88	\$1.98	\$2.09	\$2.21	\$2.33
34	CMS Energy Corporation	CMS	\$1.89	\$2.02	\$2.15	\$2.29	\$2.44	\$2.60	\$2.77	\$2.95	\$3.13	\$3.31	\$3.50	\$3.70	\$3.90	\$4.12	\$4.35	\$4.59	\$4.85
35	DTE Energy Company	DTE	\$4.45	\$4.71	\$4.98	\$5.27	\$5.58	\$5.90	\$6.24	\$6.60	\$6.98	\$7.37	\$7.78	\$8.22	\$8.68	\$9.16	\$9.67	\$10.21	\$10.78
36	El Paso Electric Company	EE	\$2.03	\$2.13	\$2.24	\$2.36	\$2.48	\$2.61	\$2.74	\$2.89	\$3.04	\$3.21	\$3.38	\$3.57	\$3.77	\$3.98	\$4.20	\$4.44	\$4.69
37	Eversource Energy	ES	\$2.76	\$2.92	\$3.09	\$3.27	\$3.46	\$3.66	\$3.88	\$4.10	\$4.33	\$4.58	\$4.83	\$5.10	\$5.39	\$5.69	\$6.01	\$6.34	\$6.70
38	IDACORP, Inc.	IDA	\$3.87	\$4.02	\$4.17	\$4.33	\$4.49	\$4.66	\$4.85	\$5.07	\$5.31	\$5.57	\$5.86	\$6.19	\$6.54	\$6.90	\$7.28	\$7.69	\$8.12
39	NorthWestern Corporation	NWE	\$2.90	\$3.05	\$3.22	\$3.39	\$3.57	\$3.76	\$3.96	\$4.18	\$4.40	\$4.65	\$4.90	\$5.18	\$5.47	\$5.77	\$6.09	\$6.43	\$6.79
40	OGE Energy Corp.	OGE	\$1.69	\$1.76	\$1.83	\$1.91	\$1.99	\$2.07	\$2.16	\$2.26	\$2.37	\$2.50	\$2.63	\$2.78	\$2.93	\$3.09	\$3.27	\$3.45	\$3.64
41	Otter Tail Corporation	OTTR	\$1.56	\$1.65	\$1.75	\$1.86	\$1.97	\$2.09	\$2.21	\$2.34	\$2.48	\$2.62	\$2.77	\$2.92	\$3.08	\$3.25	\$3.44	\$3.63	\$3.83
42	Pinnacle West Capital Corporation	PNW	\$3.92	\$4.08	\$4.25	\$4.42	\$4.60	\$4.79	\$5.00	\$5.22	\$5.48	\$5.76	\$6.06	\$6.40	\$6.76	\$7.13	\$7.53	\$7.95	\$8.39
43	Portland General Electric Company	POR	\$2.04	\$2.16	\$2.28	\$2.41	\$2.54	\$2.69	\$2.84	\$3.00	\$3.17	\$3.35	\$3.54	\$3.73	\$3.94	\$4.16	\$4.39	\$4.64	\$4.90
44	SCANA Corporation	SCG	\$3.81	\$4.01	\$4.23	\$4.45	\$4.69	\$4.94	\$5.21	\$5.49	\$5.79	\$6.10	\$6.44	\$6.80	\$7.18	\$7.58	\$8.00	\$8.45	\$8.92
45	Wisconsin Energy Corporation	WEC	\$2.34	\$2.49	\$2.65	\$2.81	\$2.99	\$3.18	\$3.38	\$3.58	\$3.79	\$4.02	\$4.24	\$4.48	\$4.73	\$5.00	\$5.27	\$5.57	\$5.88
46	Xcel Energy Inc.	XEL	\$2.10	\$2.21	\$2.33	\$2.46	\$2.59	\$2.73	\$2.88	\$3.04	\$3.21	\$3.39	\$3.57	\$3.77	\$3.98	\$4.20	\$4.44	\$4.69	\$4.95

1	Projected Annual																	
2	Dividend Payout Ratio		[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]
3	Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
4	ALLETE, Inc.	ALE	66.00%	65.75%	65.50%	65.25%	65.00%	65.31%	65.63%	65.94%	66.26%	66.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
5	Alliant Energy Corporation	LNT	62.00%	61.75%	61.50%	61.25%	61.00%	61.98%	62.96%	63.94%	64.92%	65.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
6	Ameren Corporation	AEE	66.00%	65.25%	64.50%	63.75%	63.00%	63.65%	64.29%	64.94%	65.59%	66.24%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
7	American Electric Power Company, Inc.	AEP	61.00%	62.50%	64.00%	65.50%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
8	Avista Corporation	AVA	67.00%	66.25%	65.50%	64.75%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
9	CenterPoint Energy, Inc.	CNP	86.00%	85.75%	85.50%	85.25%	85.00%	81.98%	78.96%	75.94%	72.92%	69.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
10	CMS Energy Corporation	CMS	64.00%	63.50%	63.00%	62.50%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
11	DTE Energy Company	DTE	62.00%	61.50%	61.00%	60.50%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
12	El Paso Electric Company	EE	54.00%	55.25%	56.50%	57.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
13	Eversource Energy	ES	61.00%	60.25%	59.50%	58.75%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
14	IDACORP, Inc.	IDA	53.00%	54.75%	56.50%	58.25%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
15	NorthWestern Corporation	NWE	59.00%	58.75%	58.50%	58.25%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
16	OGE Energy Corp.	OGE	66.00%	68.00%	70.00%	72.00%	74.00%	72.81%	71.63%	70.44%	69.26%	68.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
17	Otter Tail Corporation	OTTR	82.00%	77.50%	73.00%	68.50%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
18	Pinnacle West Capital Corporation	PNW	64.00%	64.00%	64.00%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
19	Portland General Electric Company	POR	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
20	SCANA Corporation	SCG	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
21	Wisconsin Energy Corporation	WEC	67.00%	67.00%	67.00%	67.00%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
22	Xcel Energy Inc.	XEL	62.00%	62.00%	62.00%	62.00%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%

23	Projected Annual																		
24	Cash Flows		[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	[63]
25	Company	Ticker	2015	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Terminal Value
26	ALLETE, Inc.	ALE	\$2.34	\$2.44	\$2.55	\$2.66	\$2.78	\$2.93	\$3.10	\$3.27	\$3.47	\$3.67	\$3.89	\$4.11	\$4.34	\$4.58	\$4.84	\$5.11	\$151.08
27	Alliant Energy Corporation	LNT	\$1.11	\$1.18	\$1.25	\$1.32	\$1.39	\$1.50	\$1.62	\$1.74	\$1.87	\$2.01	\$2.15	\$2.27	\$2.40	\$2.53	\$2.67	\$2.82	\$83.44
28	Ameren Corporation	AEE	\$1.66	\$1.74	\$1.82	\$1.91	\$2.00	\$2.14	\$2.28	\$2.44	\$2.60	\$2.78	\$2.96	\$3.12	\$3.30	\$3.48	\$3.68	\$3.88	\$114.77
29	American Electric Power Company, Inc.	AEP	\$2.28	\$2.43	\$2.58	\$2.75	\$2.92	\$3.05	\$3.18	\$3.34	\$3.50	\$3.69	\$3.89	\$4.11	\$4.34	\$4.58	\$4.84	\$5.11	\$150.97
30	Avista Corporation	AVA	\$1.33	\$1.38	\$1.44	\$1.49	\$1.55	\$1.64	\$1.74	\$1.85	\$1.96	\$2.09	\$2.22	\$2.34	\$2.47	\$2.61	\$2.76	\$2.91	\$86.10
31	CenterPoint Energy, Inc.	CNP	\$0.97	\$1.01	\$1.04	\$1.09	\$1.13	\$1.14	\$1.15	\$1.16	\$1.17	\$1.18	\$1.19	\$1.26	\$1.33	\$1.40	\$1.48	\$1.56	\$46.14
32	CMS Energy Corporation	CMS	\$1.29	\$1.36	\$1.44	\$1.53	\$1.61	\$1.74	\$1.87	\$2.01	\$2.16	\$2.31	\$2.47	\$2.61	\$2.76	\$2.91	\$3.07	\$3.24	\$95.92
33	DTE Energy Company	DTE	\$2.92	\$3.06	\$3.22	\$3.37	\$3.54	\$3.82	\$4.11	\$4.43	\$4.76	\$5.12	\$5.50	\$5.80	\$6.13	\$6.47	\$6.83	\$7.21	\$213.23
34	El Paso Electric Company	EE	\$1.15	\$1.24	\$1.33	\$1.43	\$1.54	\$1.65	\$1.78	\$1.92	\$2.06	\$2.22	\$2.39	\$2.52	\$2.66	\$2.81	\$2.97	\$3.13	\$92.70
35	Eversource Energy	ES	\$1.78	\$1.86	\$1.95	\$2.03	\$2.13	\$2.31	\$2.50	\$2.71	\$2.93	\$3.16	\$3.41	\$3.60	\$3.81	\$4.02	\$4.24	\$4.48	\$132.44
36	IDACORP, Inc.	IDA	\$2.13	\$2.28	\$2.45	\$2.62	\$2.80	\$2.97	\$3.16	\$3.37	\$3.60	\$3.85	\$4.14	\$4.37	\$4.62	\$4.87	\$5.14	\$5.43	\$160.61
37	NorthWestern Corporation	NWE	\$1.80	\$1.89	\$1.98	\$2.08	\$2.18	\$2.36	\$2.55	\$2.75	\$2.97	\$3.21	\$3.46	\$3.66	\$3.86	\$4.08	\$4.30	\$4.54	\$134.33
38	OGE Energy Corp.	OGE	\$1.16	\$1.25	\$1.34	\$1.43	\$1.53	\$1.58	\$1.62	\$1.67	\$1.73	\$1.79	\$1.86	\$1.96	\$2.07	\$2.18	\$2.31	\$2.44	\$72.01
39	Otter Tail Corporation	OTTR	\$1.36	\$1.36	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$2.56	\$75.76
40	Pinnacle West Capital Corporation	PNW	\$2.61	\$2.72	\$2.83	\$2.94	\$3.06	\$3.22	\$3.39	\$3.58	\$3.79	\$4.03	\$4.28	\$4.52	\$4.77	\$5.04	\$5.32	\$5.61	\$166.04
41	Portland General Electric Company	POR	\$1.25	\$1.33	\$1.41	\$1.50	\$1.59	\$1.71	\$1.85	\$2.00	\$2.15	\$2.32	\$2.50	\$2.64	\$2.78	\$2.94	\$3.10	\$3.28	\$96.87
42	SCANA Corporation	SCG	\$2.33	\$2.46	\$2.60	\$2.76	\$2.91	\$3.14	\$3.38	\$3.64	\$3.92	\$4.22	\$4.55	\$4.80	\$5.07	\$5.35	\$5.65	\$5.97	\$176.48
43	Wisconsin Energy Corporation	WEC	\$1.67	\$1.77	\$1.88	\$2.00	\$2.13	\$2.26	\$2.40	\$2.54	\$2.69	\$2.84	\$3.00	\$3.16	\$3.34	\$3.53	\$3.72	\$3.93	\$116.27
44	Xcel Energy Inc.	XEL	\$1.37	\$1.45	\$1.53	\$1.61	\$1.70	\$1.81	\$1.93	\$2.07	\$2.21	\$2.36	\$2.52	\$2.66	\$2.81	\$2.97	\$3.13	\$3.31	\$97.88

1	Projected Annual Data																			
2	Investor Cash Flows		[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]	[80]	[81]
		Initial																		
3	Company	Ticker	Outflow	10/31/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30	6/30/31
4	ALLETE, Inc.	ALE	(\$59.36)	\$0.00	\$0.39	\$2.40	\$2.55	\$2.66	\$2.78	\$2.93	\$3.10	\$3.27	\$3.47	\$3.67	\$3.89	\$4.11	\$4.34	\$4.58	\$4.84	\$156.19
5	Alliant Energy Corporation	LNT	(\$37.83)	\$0.00	\$0.19	\$1.15	\$1.25	\$1.32	\$1.39	\$1.50	\$1.62	\$1.74	\$1.87	\$2.01	\$2.15	\$2.27	\$2.40	\$2.53	\$2.67	\$86.26
6	Ameren Corporation	AEE	(\$48.99)	\$0.00	\$0.28	\$1.71	\$1.82	\$1.91	\$2.00	\$2.14	\$2.28	\$2.44	\$2.60	\$2.78	\$2.96	\$3.12	\$3.30	\$3.48	\$3.68	\$118.65
7	American Electric Power Company, Inc.	AEP	(\$63.64)	\$0.00	\$0.38	\$2.32	\$2.58	\$2.75	\$2.92	\$3.05	\$3.18	\$3.34	\$3.50	\$3.69	\$3.89	\$4.11	\$4.34	\$4.58	\$4.84	\$156.08
8	Avista Corporation	AVA	(\$40.83)	\$0.00	\$0.22	\$1.36	\$1.44	\$1.49	\$1.55	\$1.64	\$1.74	\$1.85	\$1.96	\$2.09	\$2.22	\$2.34	\$2.47	\$2.61	\$2.76	\$89.01
9	CenterPoint Energy, Inc.	CNP	(\$22.87)	\$0.00	\$0.16	\$0.99	\$1.04	\$1.09	\$1.13	\$1.14	\$1.15	\$1.16	\$1.17	\$1.18	\$1.19	\$1.26	\$1.33	\$1.40	\$1.48	\$47.70
10	CMS Energy Corporation	CMS	(\$41.67)	\$0.00	\$0.22	\$1.33	\$1.44	\$1.53	\$1.61	\$1.74	\$1.87	\$2.01	\$2.16	\$2.31	\$2.47	\$2.61	\$2.76	\$2.91	\$3.07	\$99.16
11	DTE Energy Company	DTE	(\$93.50)	\$0.00	\$0.49	\$3.00	\$3.22	\$3.37	\$3.54	\$3.82	\$4.11	\$4.43	\$4.76	\$5.12	\$5.50	\$5.80	\$6.13	\$6.47	\$6.83	\$220.44
12	El Paso Electric Company	EE	(\$45.17)	\$0.00	\$0.19	\$1.18	\$1.33	\$1.43	\$1.54	\$1.65	\$1.78	\$1.92	\$2.06	\$2.22	\$2.39	\$2.52	\$2.66	\$2.81	\$2.97	\$95.84
13	Eversource Energy	ES	(\$54.05)	\$0.00	\$0.30	\$1.83	\$1.95	\$2.03	\$2.13	\$2.31	\$2.50	\$2.71	\$2.93	\$3.16	\$3.41	\$3.60	\$3.81	\$4.02	\$4.24	\$136.91
14	IDACORP, Inc.	IDA	(\$76.67)	\$0.00	\$0.36	\$2.17	\$2.45	\$2.62	\$2.80	\$2.97	\$3.16	\$3.37	\$3.60	\$3.85	\$4.14	\$4.37	\$4.62	\$4.87	\$5.14	\$166.05
15	NorthWestern Corporation	NWE	(\$56.70)	\$0.00	\$0.30	\$1.85	\$1.98	\$2.08	\$2.18	\$2.36	\$2.55	\$2.75	\$2.97	\$3.21	\$3.46	\$3.66	\$3.86	\$4.08	\$4.30	\$138.87
16	OGE Energy Corp.	OGE	(\$31.09)	\$0.00	\$0.19	\$1.19	\$1.34	\$1.43	\$1.53	\$1.58	\$1.62	\$1.67	\$1.73	\$1.79	\$1.86	\$1.96	\$2.07	\$2.18	\$2.31	\$74.45
17	Otter Tail Corporation	OTTR	(\$34.69)	\$0.00	\$0.23	\$1.40	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$78.32
18	Pinnacle West Capital Corporation	PNW	(\$75.36)	\$0.00	\$0.44	\$2.66	\$2.83	\$2.94	\$3.06	\$3.22	\$3.39	\$3.58	\$3.79	\$4.03	\$4.28	\$4.52	\$4.77	\$5.04	\$5.32	\$171.66
19	Portland General Electric Company	POR	(\$42.12)	\$0.00	\$0.21	\$1.29	\$1.41	\$1.50	\$1.59	\$1.71	\$1.85	\$2.00	\$2.15	\$2.32	\$2.50	\$2.64	\$2.78	\$2.94	\$3.10	\$100.15
20	SCANA Corporation	SCG	(\$71.34)	\$0.00	\$0.39	\$2.39	\$2.60	\$2.76	\$2.91	\$3.14	\$3.38	\$3.64	\$3.92	\$4.22	\$4.55	\$4.80	\$5.07	\$5.35	\$5.65	\$182.45
21	Wisconsin Energy Corporation	WEC	(\$59.09)	\$0.00	\$0.28	\$1.72	\$1.88	\$2.00	\$2.13	\$2.26	\$2.40	\$2.54	\$2.69	\$2.84	\$3.00	\$3.16	\$3.34	\$3.53	\$3.72	\$120.20
22	Xcel Energy Inc.	XEL	(\$40.82)	\$0.00	\$0.23	\$1.41	\$1.53	\$1.61	\$1.70	\$1.81	\$1.93	\$2.07	\$2.21	\$2.36	\$2.52	\$2.66	\$2.81	\$2.97	\$3.13	\$101.19

Multi-Stage Growth Discounted Cash Flow Model  
30 Day Average Stock Price  
High EPS Growth Rate Estimate in First Stage

Line No	Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]				
1			Stock	EPS Growth Rate Estimates						Payout Ratio		Iterative Solution		Terminal	Terminal				
						Value	High	Long-Term						P/E	PEG				
2	Company	Ticker	Price	Zacks	First Call	Line	Growth	Growth	2016	2020	2026	Proof	IRR	Ratio	Ratio				
3	ALLETE, Inc.	ALE	\$59.36	5.50%	5.00%	4.00%	5.50%	5.58%	66.00%	65.00%	66.88%	(\$0.00)	11.04%	19.78	3.55				
4	Alliant Energy Corporation	LNT	\$37.83	6.10%	6.60%	6.00%	6.60%	5.58%	62.00%	61.00%	66.88%	(\$0.00)	9.28%	19.78	3.55				
5	Ameren Corporation	AEE	\$48.99	6.10%	5.60%	6.00%	6.10%	5.58%	66.00%	63.00%	66.88%	(\$0.00)	9.83%	19.78	3.55				
6	American Electric Power Company, Inc.	AEP	\$63.64	5.20%	2.75%	4.00%	5.20%	5.58%	61.00%	67.00%	66.88%	(\$0.00)	10.75%	19.78	3.55				
7	Avista Corporation	AVA	\$40.83	5.30%	5.00%	5.00%	5.30%	5.58%	67.00%	64.00%	66.88%	(\$0.00)	8.92%	19.78	3.55				
8	CenterPoint Energy, Inc.	CNP	\$22.87	5.50%	5.11%	2.00%	5.50%	5.58%	86.00%	85.00%	66.88%	(\$0.00)	9.81%	19.78	3.55				
9	CMS Energy Corporation	CMS	\$41.66	6.60%	7.27%	6.00%	7.27%	5.58%	64.00%	62.00%	66.88%	(\$0.00)	9.86%	19.78	3.55				
10	DTE Energy Company	DTE	\$93.50	5.80%	5.63%	6.00%	6.00%	5.58%	62.00%	60.00%	66.88%	(\$0.00)	9.48%	19.78	3.55				
11	El Paso Electric Company	EE	\$45.17	4.40%	7.00%	4.00%	7.00%	5.58%	54.00%	59.00%	66.88%	(\$0.00)	9.47%	19.78	3.55				
12	Eversource Energy	ES	\$54.04	6.10%	5.39%	6.00%	6.10%	5.58%	61.00%	58.00%	66.88%	(\$0.00)	10.16%	19.78	3.55				
13	IDACORP, Inc.	IDA	\$76.67	4.30%	4.10%	3.00%	4.30%	5.58%	53.00%	60.00%	66.88%	(\$0.00)	8.92%	19.78	3.55				
14	NorthWestern Corporation	NWE	\$56.70	5.00%	4.50%	6.50%	6.50%	5.58%	59.00%	58.00%	66.88%	(\$0.00)	10.40%	19.78	3.55				
15	OGE Energy Corp.	OGE	\$31.09	5.20%	4.30%	3.00%	5.20%	5.58%	66.00%	74.00%	66.88%	(\$0.00)	10.59%	19.78	3.55				
16	Otter Tail Corporation	OTTR	\$34.69	NA	6.00%	6.00%	6.00%	5.58%	82.00%	64.00%	66.88%	(\$0.00)	9.20%	19.78	3.55				
17	Pinnacle West Capital Corporation	PNW	\$75.36	4.30%	3.95%	4.00%	4.30%	5.58%	64.00%	64.00%	66.88%	(\$0.00)	9.37%	19.78	3.55				
18	Portland General Electric Company	POR	\$42.12	6.00%	5.55%	5.50%	6.00%	5.58%	58.00%	59.00%	66.88%	(\$0.00)	9.59%	19.78	3.55				
19	SCANA Corporation	SCG	\$71.34	5.50%	6.00%	4.50%	6.00%	5.58%	58.00%	59.00%	66.88%	(\$0.00)	10.51%	19.78	3.55				
20	Wisconsin Energy Corporation	WEC	\$59.09	6.20%	6.77%	6.00%	6.77%	5.58%	67.00%	67.00%	66.88%	(\$0.00)	8.42%	19.78	3.55				
21	Xcel Energy Inc.	XEL	\$40.82	5.40%	5.36%	5.50%	5.50%	5.58%	62.00%	62.00%	66.88%	(\$0.00)	9.95%	19.78	3.55				
22												Mean	9.77%						
23												Max	11.04%						
24												Min	8.42%						
25	Projected Annual																		
26	Earnings per Share		[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]
27	Company	Ticker	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
28	ALLETE, Inc.	ALE	\$3.38	\$3.57	\$3.76	\$3.97	\$4.19	\$4.42	\$4.66	\$4.92	\$5.19	\$5.48	\$5.78	\$6.11	\$6.45	\$6.81	\$7.19	\$7.59	\$8.01
29	Alliant Energy Corporation	LNT	\$1.69	\$1.80	\$1.92	\$2.05	\$2.18	\$2.33	\$2.48	\$2.63	\$2.79	\$2.96	\$3.13	\$3.30	\$3.48	\$3.68	\$3.88	\$4.10	\$4.33
30	Ameren Corporation	AEE	\$2.38	\$2.53	\$2.68	\$2.84	\$3.02	\$3.20	\$3.39	\$3.59	\$3.80	\$4.02	\$4.25	\$4.49	\$4.74	\$5.00	\$5.28	\$5.57	\$5.89
31	American Electric Power Company, Inc.	AEP	\$3.59	\$3.78	\$3.97	\$4.18	\$4.40	\$4.63	\$4.87	\$5.13	\$5.40	\$5.70	\$6.01	\$6.35	\$6.70	\$7.08	\$7.47	\$7.89	\$8.33
32	Avista Corporation	AVA	\$1.89	\$1.99	\$2.10	\$2.21	\$2.32	\$2.45	\$2.58	\$2.72	\$2.86	\$3.02	\$3.19	\$3.37	\$3.55	\$3.75	\$3.96	\$4.18	\$4.42
33	CenterPoint Energy, Inc.	CNP	\$1.08	\$1.14	\$1.20	\$1.27	\$1.34	\$1.41	\$1.49	\$1.57	\$1.66	\$1.75	\$1.85	\$1.95	\$2.06	\$2.17	\$2.30	\$2.42	\$2.56
34	CMS Energy Corporation	CMS	\$1.89	\$2.03	\$2.17	\$2.33	\$2.50	\$2.68	\$2.87	\$3.06	\$3.26	\$3.46	\$3.66	\$3.87	\$4.08	\$4.31	\$4.55	\$4.81	\$5.07
35	DTE Energy Company	DTE	\$4.45	\$4.72	\$5.00	\$5.30	\$5.62	\$5.96	\$6.31	\$6.68	\$7.06	\$7.47	\$7.89	\$8.33	\$8.79	\$9.28	\$9.80	\$10.35	\$10.93
36	El Paso Electric Company	EE	\$2.03	\$2.17	\$2.32	\$2.49	\$2.66	\$2.85	\$3.04	\$3.24	\$3.44	\$3.65	\$3.86	\$4.08	\$4.30	\$4.54	\$4.80	\$5.07	\$5.35
37	Eversource Energy	ES	\$2.76	\$2.93	\$3.11	\$3.30	\$3.50	\$3.71	\$3.93	\$4.17	\$4.41	\$4.66	\$4.93	\$5.20	\$5.49	\$5.80	\$6.12	\$6.46	\$6.82
38	IDACORP, Inc.	IDA	\$3.87	\$4.04	\$4.21	\$4.39	\$4.58	\$4.78	\$4.99	\$5.23	\$5.49	\$5.77	\$6.08	\$6.42	\$6.78	\$7.15	\$7.55	\$7.97	\$8.42
39	NorthWestern Corporation	NWE	\$2.90	\$3.09	\$3.29	\$3.50	\$3.73	\$3.97	\$4.23	\$4.49	\$4.76	\$5.04	\$5.33	\$5.62	\$5.94	\$6.27	\$6.62	\$6.99	\$7.38
40	OGE Energy Corp.	OGE	\$1.69	\$1.78	\$1.87	\$1.97	\$2.07	\$2.18	\$2.29	\$2.41	\$2.54	\$2.68	\$2.83	\$2.99	\$3.16	\$3.33	\$3.52	\$3.71	\$3.92
41	Otter Tail Corporation	OTTR	\$1.56	\$1.65	\$1.75	\$1.86	\$1.97	\$2.09	\$2.21	\$2.34	\$2.48	\$2.62	\$2.77	\$2.92	\$3.08	\$3.25	\$3.44	\$3.63	\$3.83
42	Pinnacle West Capital Corporation	PNW	\$3.92	\$4.09	\$4.26	\$4.45	\$4.64	\$4.84	\$5.06	\$5.30	\$5.56	\$5.84	\$6.16	\$6.50	\$6.86	\$7.25	\$7.65	\$8.08	\$8.53
43	Portland General Electric Company	POR	\$2.04	\$2.16	\$2.29	\$2.43	\$2.58	\$2.73	\$2.89	\$3.06	\$3.24	\$3.42	\$3.62	\$3.82	\$4.03	\$4.26	\$4.49	\$4.74	\$5.01
44	SCANA Corporation	SCG	\$3.81	\$4.04	\$4.28	\$4.54	\$4.81	\$5.10	\$5.40	\$5.72	\$6.05	\$6.39	\$6.76	\$7.13	\$7.53	\$7.95	\$8.39	\$8.86	\$9.35
45	Wisconsin Energy Corporation	WEC	\$2.34	\$2.50	\$2.67	\$2.85	\$3.04	\$3.25	\$3.46	\$3.68	\$3.91	\$4.14	\$4.38	\$4.62	\$4.88	\$5.15	\$5.44	\$5.75	\$6.07
46	Xcel Energy Inc.	XEL	\$2.10	\$2.22	\$2.34	\$2.47	\$2.60	\$2.74	\$2.90	\$3.06	\$3.23	\$3.40	\$3.59	\$3.79	\$4.01	\$4.23	\$4.46	\$4.71	\$4.98

1	Projected Annual																	
2	Dividend Payout Ratio		[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]
3	Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
4	ALLETE, Inc.	ALE	66.00%	65.75%	65.50%	65.25%	65.00%	65.31%	65.63%	65.94%	66.26%	66.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
5	Alliant Energy Corporation	LNT	62.00%	61.75%	61.50%	61.25%	61.00%	61.98%	62.96%	63.94%	64.92%	65.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
6	Ameren Corporation	AEE	66.00%	65.25%	64.50%	63.75%	63.00%	63.65%	64.29%	64.94%	65.59%	66.24%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
7	American Electric Power Company, Inc.	AEP	61.00%	62.50%	64.00%	65.50%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
8	Avista Corporation	AVA	67.00%	66.25%	65.50%	64.75%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
9	CenterPoint Energy, Inc.	CNP	86.00%	85.75%	85.50%	85.25%	85.00%	81.98%	78.96%	75.94%	72.92%	69.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
10	CMS Energy Corporation	CMS	64.00%	63.50%	63.00%	62.50%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
11	DTE Energy Company	DTE	62.00%	61.50%	61.00%	60.50%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
12	El Paso Electric Company	EE	54.00%	55.25%	56.50%	57.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
13	Eversource Energy	ES	61.00%	60.25%	59.50%	58.75%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
14	IDACORP, Inc.	IDA	53.00%	54.75%	56.50%	58.25%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
15	NorthWestern Corporation	NWE	59.00%	58.75%	58.50%	58.25%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
16	OGE Energy Corp.	OGE	66.00%	68.00%	70.00%	72.00%	74.00%	72.81%	71.63%	70.44%	69.26%	68.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
17	Otter Tail Corporation	OTTR	82.00%	77.50%	73.00%	68.50%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
18	Pinnacle West Capital Corporation	PNW	64.00%	64.00%	64.00%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
19	Portland General Electric Company	POR	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
20	SCANA Corporation	SCG	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
21	Wisconsin Energy Corporation	WEC	67.00%	67.00%	67.00%	67.00%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
22	Xcel Energy Inc.	XEL	62.00%	62.00%	62.00%	62.00%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%

23	Projected Annual																		
24	Cash Flows		[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	[63]
25	Company	Ticker	2015	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Terminal Value
26	ALLETE, Inc.	ALE	\$2.35	\$2.47	\$2.60	\$2.73	\$2.87	\$3.04	\$3.23	\$3.42	\$3.63	\$3.85	\$4.08	\$4.31	\$4.55	\$4.81	\$5.07	\$5.36	\$158.43
27	Alliant Energy Corporation	LNT	\$1.12	\$1.19	\$1.26	\$1.34	\$1.42	\$1.53	\$1.66	\$1.78	\$1.92	\$2.06	\$2.21	\$2.33	\$2.46	\$2.60	\$2.74	\$2.90	\$85.63
28	Ameren Corporation	AEE	\$1.67	\$1.75	\$1.83	\$1.92	\$2.02	\$2.16	\$2.31	\$2.47	\$2.64	\$2.81	\$3.00	\$3.17	\$3.34	\$3.53	\$3.73	\$3.94	\$116.41
29	American Electric Power Company, Inc.	AEP	\$2.30	\$2.48	\$2.67	\$2.88	\$3.10	\$3.26	\$3.43	\$3.62	\$3.81	\$4.02	\$4.25	\$4.48	\$4.73	\$5.00	\$5.28	\$5.57	\$164.72
30	Avista Corporation	AVA	\$1.33	\$1.39	\$1.45	\$1.50	\$1.57	\$1.66	\$1.76	\$1.87	\$1.99	\$2.12	\$2.25	\$2.38	\$2.51	\$2.65	\$2.80	\$2.95	\$87.34
31	CenterPoint Energy, Inc.	CNP	\$0.98	\$1.03	\$1.08	\$1.14	\$1.20	\$1.22	\$1.24	\$1.26	\$1.28	\$1.29	\$1.31	\$1.38	\$1.45	\$1.54	\$1.62	\$1.71	\$50.62
32	CMS Energy Corporation	CMS	\$1.30	\$1.38	\$1.47	\$1.56	\$1.66	\$1.80	\$1.95	\$2.10	\$2.26	\$2.42	\$2.59	\$2.73	\$2.88	\$3.05	\$3.21	\$3.39	\$100.38
33	DTE Energy Company	DTE	\$2.92	\$3.08	\$3.23	\$3.40	\$3.57	\$3.86	\$4.16	\$4.48	\$4.82	\$5.19	\$5.57	\$5.88	\$6.21	\$6.56	\$6.92	\$7.31	\$216.12
34	El Paso Electric Company	EE	\$1.17	\$1.28	\$1.41	\$1.54	\$1.68	\$1.83	\$2.00	\$2.17	\$2.35	\$2.53	\$2.73	\$2.88	\$3.04	\$3.21	\$3.39	\$3.58	\$105.79
35	Eversource Energy	ES	\$1.79	\$1.87	\$1.96	\$2.05	\$2.15	\$2.34	\$2.54	\$2.75	\$2.98	\$3.22	\$3.48	\$3.67	\$3.88	\$4.10	\$4.32	\$4.56	\$134.99
36	IDACORP, Inc.	IDA	\$2.14	\$2.30	\$2.48	\$2.67	\$2.87	\$3.05	\$3.26	\$3.48	\$3.73	\$4.00	\$4.29	\$4.53	\$4.78	\$5.05	\$5.33	\$5.63	\$166.50
37	NorthWestern Corporation	NWE	\$1.82	\$1.93	\$2.05	\$2.17	\$2.30	\$2.51	\$2.74	\$2.97	\$3.22	\$3.48	\$3.76	\$3.97	\$4.19	\$4.43	\$4.67	\$4.93	\$145.90
38	OGE Energy Corp.	OGE	\$1.17	\$1.27	\$1.38	\$1.49	\$1.61	\$1.67	\$1.73	\$1.79	\$1.86	\$1.93	\$2.00	\$2.11	\$2.23	\$2.35	\$2.48	\$2.62	\$77.54
39	Otter Tail Corporation	OTTR	\$1.36	\$1.36	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$2.56	\$75.76
40	Pinnacle West Capital Corporation	PNW	\$2.62	\$2.73	\$2.85	\$2.97	\$3.10	\$3.26	\$3.44	\$3.64	\$3.85	\$4.09	\$4.35	\$4.59	\$4.85	\$5.12	\$5.40	\$5.70	\$168.65
41	Portland General Electric Company	POR	\$1.25	\$1.34	\$1.42	\$1.51	\$1.61	\$1.74	\$1.89	\$2.04	\$2.20	\$2.37	\$2.55	\$2.70	\$2.85	\$3.01	\$3.17	\$3.35	\$99.07
42	SCANA Corporation	SCG	\$2.34	\$2.49	\$2.65	\$2.83	\$3.01	\$3.26	\$3.52	\$3.81	\$4.11	\$4.43	\$4.77	\$5.04	\$5.32	\$5.61	\$5.93	\$6.26	\$185.04
43	Wisconsin Energy Corporation	WEC	\$1.67	\$1.79	\$1.91	\$2.04	\$2.18	\$2.32	\$2.46	\$2.62	\$2.77	\$2.93	\$3.09	\$3.27	\$3.45	\$3.64	\$3.84	\$4.06	\$119.99
44	Xcel Energy Inc.	XEL	\$1.37	\$1.45	\$1.53	\$1.61	\$1.70	\$1.82	\$1.94	\$2.08	\$2.22	\$2.37	\$2.54	\$2.68	\$2.83	\$2.99	\$3.15	\$3.33	\$98.43

1	Projected Annual Data																			
2	Investor Cash Flows		[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]	[80]	[81]
3	Company	Ticker	Initial Outflow	10/31/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30	6/30/31
4	ALLETE, Inc.	ALE	(\$59.36)	\$0.00	\$0.39	\$2.42	\$2.60	\$2.73	\$2.87	\$3.04	\$3.23	\$3.42	\$3.63	\$3.85	\$4.08	\$4.31	\$4.55	\$4.81	\$5.07	\$163.79
5	Alliant Energy Corporation	LNT	(\$37.83)	\$0.00	\$0.19	\$1.15	\$1.26	\$1.34	\$1.42	\$1.53	\$1.66	\$1.78	\$1.92	\$2.06	\$2.21	\$2.33	\$2.46	\$2.60	\$2.74	\$88.52
6	Ameren Corporation	AEE	(\$48.99)	\$0.00	\$0.28	\$1.72	\$1.83	\$1.92	\$2.02	\$2.16	\$2.31	\$2.47	\$2.64	\$2.81	\$3.00	\$3.17	\$3.34	\$3.53	\$3.73	\$120.34
7	American Electric Power Company, Inc.	AEP	(\$63.64)	\$0.00	\$0.39	\$2.36	\$2.67	\$2.88	\$3.10	\$3.26	\$3.43	\$3.62	\$3.81	\$4.02	\$4.25	\$4.48	\$4.73	\$5.00	\$5.28	\$170.29
8	Avista Corporation	AVA	(\$40.83)	\$0.00	\$0.22	\$1.37	\$1.45	\$1.50	\$1.57	\$1.66	\$1.76	\$1.87	\$1.99	\$2.12	\$2.25	\$2.38	\$2.51	\$2.65	\$2.80	\$90.29
9	CenterPoint Energy, Inc.	CNP	(\$22.87)	\$0.00	\$0.16	\$1.01	\$1.08	\$1.14	\$1.20	\$1.22	\$1.24	\$1.26	\$1.28	\$1.29	\$1.31	\$1.38	\$1.45	\$1.54	\$1.62	\$52.33
10	CMS Energy Corporation	CMS	(\$41.67)	\$0.00	\$0.22	\$1.34	\$1.47	\$1.56	\$1.66	\$1.80	\$1.95	\$2.10	\$2.26	\$2.42	\$2.59	\$2.73	\$2.88	\$3.05	\$3.21	\$103.77
11	DTE Energy Company	DTE	(\$93.50)	\$0.00	\$0.49	\$3.01	\$3.23	\$3.40	\$3.57	\$3.86	\$4.16	\$4.48	\$4.82	\$5.19	\$5.57	\$5.88	\$6.21	\$6.56	\$6.92	\$223.42
12	El Paso Electric Company	EE	(\$45.17)	\$0.00	\$0.20	\$1.21	\$1.41	\$1.54	\$1.68	\$1.83	\$2.00	\$2.17	\$2.35	\$2.53	\$2.73	\$2.88	\$3.04	\$3.21	\$3.39	\$109.37
13	Eversource Energy	ES	(\$54.05)	\$0.00	\$0.30	\$1.84	\$1.96	\$2.05	\$2.15	\$2.34	\$2.54	\$2.75	\$2.98	\$3.22	\$3.48	\$3.67	\$3.88	\$4.10	\$4.32	\$139.56
14	IDACORP, Inc.	IDA	(\$76.67)	\$0.00	\$0.36	\$2.19	\$2.48	\$2.67	\$2.87	\$3.05	\$3.26	\$3.48	\$3.73	\$4.00	\$4.29	\$4.53	\$4.78	\$5.05	\$5.33	\$172.13
15	NorthWestern Corporation	NWE	(\$56.70)	\$0.00	\$0.30	\$1.88	\$2.05	\$2.17	\$2.30	\$2.51	\$2.74	\$2.97	\$3.22	\$3.48	\$3.76	\$3.97	\$4.19	\$4.43	\$4.67	\$150.84
16	OGE Energy Corp.	OGE	(\$31.09)	\$0.00	\$0.20	\$1.20	\$1.38	\$1.49	\$1.61	\$1.67	\$1.73	\$1.79	\$1.86	\$1.93	\$2.00	\$2.11	\$2.23	\$2.35	\$2.48	\$80.16
17	Otter Tail Corporation	OTTR	(\$34.69)	\$0.00	\$0.23	\$1.40	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$78.32
18	Pinnacle West Capital Corporation	PNW	(\$75.36)	\$0.00	\$0.44	\$2.67	\$2.85	\$2.97	\$3.10	\$3.26	\$3.44	\$3.64	\$3.85	\$4.09	\$4.35	\$4.59	\$4.85	\$5.12	\$5.40	\$174.35
19	Portland General Electric Company	POR	(\$42.12)	\$0.00	\$0.21	\$1.29	\$1.42	\$1.51	\$1.61	\$1.74	\$1.89	\$2.04	\$2.20	\$2.37	\$2.55	\$2.70	\$2.85	\$3.01	\$3.17	\$102.42
20	SCANA Corporation	SCG	(\$71.34)	\$0.00	\$0.39	\$2.41	\$2.65	\$2.83	\$3.01	\$3.26	\$3.52	\$3.81	\$4.11	\$4.43	\$4.77	\$5.04	\$5.32	\$5.61	\$5.93	\$191.29
21	Wisconsin Energy Corporation	WEC	(\$59.09)	\$0.00	\$0.28	\$1.73	\$1.91	\$2.04	\$2.18	\$2.32	\$2.46	\$2.62	\$2.77	\$2.93	\$3.09	\$3.27	\$3.45	\$3.64	\$3.84	\$124.05
22	Xcel Energy Inc.	XEL	(\$40.82)	\$0.00	\$0.23	\$1.41	\$1.53	\$1.61	\$1.70	\$1.82	\$1.94	\$2.08	\$2.22	\$2.37	\$2.54	\$2.68	\$2.83	\$2.99	\$3.15	\$101.76

Multi-Stage Growth Discounted Cash Flow Model  
30 Day Average Stock Price  
Low EPS Growth Rate Estimate in First Stage

Line No	Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]				
1			Stock	EPS Growth Rate Estimates				Payout Ratio			Iterative Solution		Terminal	Terminal					
					Value	Low	Long-Term						P/E	PEG					
2	Company	Ticker	Price	Zacks	First Call	Line	Growth	Growth	2016	2020	2026	Proof	IRR	Ratio	Ratio				
3	ALLETE, Inc.	ALE	\$59.36	5.50%	5.00%	4.00%	4.00%	5.58%	66.00%	65.00%	66.88%	(\$0.00)	10.09%	19.78	3.55				
4	Alliant Energy Corporation	LNT	\$37.83	6.10%	6.60%	6.00%	6.00%	5.58%	62.00%	61.00%	66.88%	(\$0.00)	8.92%	19.78	3.55				
5	Ameren Corporation	AEE	\$48.99	6.10%	5.60%	6.00%	5.60%	5.58%	66.00%	63.00%	66.88%	(\$0.00)	9.53%	19.78	3.55				
6	American Electric Power Company, Inc.	AEP	\$63.64	5.20%	2.75%	4.00%	2.75%	5.58%	61.00%	67.00%	66.88%	(\$0.00)	9.21%	19.78	3.55				
7	Avista Corporation	AVA	\$40.83	5.30%	5.00%	5.00%	5.00%	5.58%	67.00%	64.00%	66.88%	(\$0.00)	8.74%	19.78	3.55				
8	CenterPoint Energy, Inc.	CNP	\$22.87	5.50%	5.11%	2.00%	2.00%	5.58%	86.00%	85.00%	66.88%	(\$0.00)	7.61%	19.78	3.55				
9	CMS Energy Corporation	CMS	\$41.66	6.60%	7.27%	6.00%	6.00%	5.58%	64.00%	62.00%	66.88%	(\$0.00)	9.09%	19.78	3.55				
10	DTE Energy Company	DTE	\$93.50	5.80%	5.63%	6.00%	5.63%	5.58%	62.00%	60.00%	66.88%	(\$0.00)	9.26%	19.78	3.55				
11	El Paso Electric Company	EE	\$45.17	4.40%	7.00%	4.00%	4.00%	5.58%	54.00%	59.00%	66.88%	(\$0.00)	7.67%	19.78	3.55				
12	Eversource Energy	ES	\$54.04	6.10%	5.39%	6.00%	5.39%	5.58%	61.00%	58.00%	66.88%	(\$0.00)	9.72%	19.78	3.55				
13	IDACORP, Inc.	IDA	\$76.67	4.30%	4.10%	3.00%	3.00%	5.58%	53.00%	60.00%	66.88%	(\$0.00)	8.12%	19.78	3.55				
14	NorthWestern Corporation	NWE	\$56.70	5.00%	4.50%	6.50%	4.50%	5.58%	59.00%	58.00%	66.88%	(\$0.00)	9.17%	19.78	3.55				
15	OGE Energy Corp.	OGE	\$31.09	5.20%	4.30%	3.00%	3.00%	5.58%	66.00%	74.00%	66.88%	(\$0.00)	9.20%	19.78	3.55				
16	Otter Tail Corporation	OTTR	\$34.69	NA	6.00%	6.00%	6.00%	5.58%	82.00%	64.00%	66.88%	(\$0.00)	9.20%	19.78	3.55				
17	Pinnacle West Capital Corporation	PNW	\$75.36	4.30%	3.95%	4.00%	3.95%	5.58%	64.00%	64.00%	66.88%	(\$0.00)	9.16%	19.78	3.55				
18	Portland General Electric Company	POR	\$42.12	6.00%	5.55%	5.50%	5.50%	5.58%	58.00%	59.00%	66.88%	(\$0.00)	9.29%	19.78	3.55				
19	SCANA Corporation	SCG	\$71.34	5.50%	6.00%	4.50%	4.50%	5.58%	58.00%	59.00%	66.88%	(\$0.00)	9.59%	19.78	3.55				
20	Wisconsin Energy Corporation	WEC	\$59.09	6.20%	6.77%	6.00%	6.00%	5.58%	67.00%	67.00%	66.88%	(\$0.00)	7.96%	19.78	3.55				
21	Xcel Energy Inc.	XEL	\$40.82	5.40%	5.36%	5.50%	5.36%	5.58%	62.00%	62.00%	66.88%	(\$0.00)	9.86%	19.78	3.55				
22												Mean	9.02%						
23												Max	10.09%						
24												Min	7.61%						
25	Projected Annual																		
26	Earnings per Share		[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]
27	Company	Ticker	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
28	ALLETE, Inc.	ALE	\$3.38	\$3.52	\$3.66	\$3.80	\$3.95	\$4.11	\$4.29	\$4.48	\$4.70	\$4.93	\$5.20	\$5.49	\$5.79	\$6.11	\$6.45	\$6.81	\$7.19
29	Alliant Energy Corporation	LNT	\$1.69	\$1.79	\$1.90	\$2.01	\$2.13	\$2.26	\$2.40	\$2.54	\$2.68	\$2.84	\$3.00	\$3.16	\$3.34	\$3.53	\$3.72	\$3.93	\$4.15
30	Ameren Corporation	AEE	\$2.38	\$2.51	\$2.65	\$2.80	\$2.96	\$3.13	\$3.30	\$3.48	\$3.68	\$3.88	\$4.10	\$4.33	\$4.57	\$4.83	\$5.10	\$5.38	\$5.68
31	American Electric Power Company, Inc.	AEP	\$3.59	\$3.69	\$3.79	\$3.89	\$4.00	\$4.11	\$4.24	\$4.40	\$4.58	\$4.80	\$5.04	\$5.32	\$5.62	\$5.93	\$6.26	\$6.61	\$6.98
32	Avista Corporation	AVA	\$1.89	\$1.98	\$2.08	\$2.19	\$2.30	\$2.41	\$2.54	\$2.67	\$2.81	\$2.96	\$3.12	\$3.30	\$3.48	\$3.67	\$3.88	\$4.09	\$4.32
33	CenterPoint Energy, Inc.	CNP	\$1.08	\$1.10	\$1.12	\$1.15	\$1.17	\$1.19	\$1.22	\$1.26	\$1.31	\$1.37	\$1.44	\$1.52	\$1.60	\$1.69	\$1.78	\$1.88	\$1.99
34	CMS Energy Corporation	CMS	\$1.89	\$2.00	\$2.12	\$2.25	\$2.39	\$2.53	\$2.68	\$2.84	\$3.00	\$3.17	\$3.35	\$3.54	\$3.74	\$3.94	\$4.16	\$4.40	\$4.64
35	DTE Energy Company	DTE	\$4.45	\$4.70	\$4.97	\$5.24	\$5.54	\$5.85	\$6.18	\$6.53	\$6.89	\$7.28	\$7.69	\$8.11	\$8.57	\$9.04	\$9.55	\$10.08	\$10.64
36	El Paso Electric Company	EE	\$2.03	\$2.11	\$2.20	\$2.28	\$2.37	\$2.47	\$2.58	\$2.69	\$2.82	\$2.96	\$3.12	\$3.29	\$3.48	\$3.67	\$3.88	\$4.09	\$4.32
37	Eversource Energy	ES	\$2.76	\$2.91	\$3.07	\$3.23	\$3.40	\$3.59	\$3.78	\$3.99	\$4.21	\$4.44	\$4.69	\$4.95	\$5.22	\$5.51	\$5.82	\$6.15	\$6.49
38	IDACORP, Inc.	IDA	\$3.87	\$3.99	\$4.11	\$4.23	\$4.36	\$4.49	\$4.64	\$4.82	\$5.03	\$5.26	\$5.53	\$5.84	\$6.17	\$6.51	\$6.88	\$7.26	\$7.66
39	NorthWestern Corporation	NWE	\$2.90	\$3.03	\$3.17	\$3.31	\$3.46	\$3.61	\$3.78	\$3.97	\$4.17	\$4.38	\$4.62	\$4.88	\$5.15	\$5.44	\$5.74	\$6.06	\$6.40
40	OGE Energy Corp.	OGE	\$1.69	\$1.74	\$1.79	\$1.85	\$1.90	\$1.96	\$2.03	\$2.10	\$2.19	\$2.30	\$2.42	\$2.55	\$2.69	\$2.84	\$3.00	\$3.17	\$3.35
41	Otter Tail Corporation	OTTR	\$1.56	\$1.65	\$1.75	\$1.86	\$1.97	\$2.09	\$2.21	\$2.34	\$2.48	\$2.62	\$2.77	\$2.92	\$3.08	\$3.25	\$3.44	\$3.63	\$3.83
42	Pinnacle West Capital Corporation	PNW	\$3.92	\$4.07	\$4.24	\$4.40	\$4.58	\$4.76	\$4.96	\$5.18	\$5.43	\$5.70	\$6.00	\$6.34	\$6.69	\$7.07	\$7.46	\$7.88	\$8.31
43	Portland General Electric Company	POR	\$2.04	\$2.15	\$2.27	\$2.40	\$2.53	\$2.67	\$2.81	\$2.97	\$3.13	\$3.31	\$3.49	\$3.69	\$3.89	\$4.11	\$4.34	\$4.58	\$4.83
44	SCANA Corporation	SCG	\$3.81	\$3.98	\$4.16	\$4.35	\$4.54	\$4.75	\$4.97	\$5.21	\$5.47	\$5.76	\$6.07	\$6.41	\$6.77	\$7.14	\$7.54	\$7.96	\$8.41
45	Wisconsin Energy Corporation	WEC	\$2.34	\$2.48	\$2.63	\$2.79	\$2.95	\$3.13	\$3.32	\$3.51	\$3.71	\$3.93	\$4.15	\$4.38	\$4.62	\$4.88	\$5.15	\$5.44	\$5.75
46	Xcel Energy Inc.	XEL	\$2.10	\$2.21	\$2.33	\$2.46	\$2.59	\$2.73	\$2.87	\$3.03	\$3.20	\$3.37	\$3.56	\$3.76	\$3.97	\$4.19	\$4.42	\$4.67	\$4.93

1	Projected Annual																	
2	Dividend Payout Ratio		[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]
3	Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
4	ALLETE, Inc.	ALE	66.00%	65.75%	65.50%	65.25%	65.00%	65.31%	65.63%	65.94%	66.26%	66.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
5	Alliant Energy Corporation	LNT	62.00%	61.75%	61.50%	61.25%	61.00%	61.98%	62.96%	63.94%	64.92%	65.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
6	Ameren Corporation	AEE	66.00%	65.25%	64.50%	63.75%	63.00%	63.65%	64.29%	64.94%	65.59%	66.24%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
7	American Electric Power Company, Inc.	AEP	61.00%	62.50%	64.00%	65.50%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
8	Avista Corporation	AVA	67.00%	66.25%	65.50%	64.75%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
9	CenterPoint Energy, Inc.	CNP	86.00%	85.75%	85.50%	85.25%	85.00%	81.98%	78.96%	75.94%	72.92%	69.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
10	CMS Energy Corporation	CMS	64.00%	63.50%	63.00%	62.50%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
11	DTE Energy Company	DTE	62.00%	61.50%	61.00%	60.50%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
12	El Paso Electric Company	EE	54.00%	55.25%	56.50%	57.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
13	Eversource Energy	ES	61.00%	60.25%	59.50%	58.75%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
14	IDACORP, Inc.	IDA	53.00%	54.75%	56.50%	58.25%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
15	NorthWestern Corporation	NWE	59.00%	58.75%	58.50%	58.25%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
16	OGE Energy Corp.	OGE	66.00%	68.00%	70.00%	72.00%	74.00%	72.81%	71.63%	70.44%	69.26%	68.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
17	Otter Tail Corporation	OTTR	82.00%	77.50%	73.00%	68.50%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
18	Pinnacle West Capital Corporation	PNW	64.00%	64.00%	64.00%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
19	Portland General Electric Company	POR	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
20	SCANA Corporation	SCG	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
21	Wisconsin Energy Corporation	WEC	67.00%	67.00%	67.00%	67.00%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
22	Xcel Energy Inc.	XEL	62.00%	62.00%	62.00%	62.00%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%

23	Projected Annual																		
24	Cash Flows		[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	[63]
25	Company	Ticker	2015	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Terminal Value
26	ALLETE, Inc.	ALE	\$2.32	\$2.40	\$2.49	\$2.58	\$2.67	\$2.80	\$2.94	\$3.10	\$3.27	\$3.46	\$3.67	\$3.87	\$4.09	\$4.32	\$4.56	\$4.81	\$142.31
27	Alliant Energy Corporation	LNT	\$1.11	\$1.17	\$1.24	\$1.31	\$1.38	\$1.48	\$1.60	\$1.72	\$1.84	\$1.97	\$2.12	\$2.23	\$2.36	\$2.49	\$2.63	\$2.78	\$82.08
28	Ameren Corporation	AEE	\$1.66	\$1.73	\$1.81	\$1.89	\$1.97	\$2.10	\$2.24	\$2.39	\$2.55	\$2.72	\$2.90	\$3.06	\$3.23	\$3.41	\$3.60	\$3.80	\$112.35
29	American Electric Power Company, Inc.	AEP	\$2.25	\$2.37	\$2.49	\$2.62	\$2.75	\$2.84	\$2.95	\$3.07	\$3.21	\$3.37	\$3.56	\$3.76	\$3.97	\$4.19	\$4.42	\$4.67	\$138.08
30	Avista Corporation	AVA	\$1.33	\$1.38	\$1.43	\$1.49	\$1.54	\$1.63	\$1.73	\$1.84	\$1.95	\$2.07	\$2.20	\$2.33	\$2.46	\$2.59	\$2.74	\$2.89	\$85.49
31	CenterPoint Energy, Inc.	CNP	\$0.95	\$0.96	\$0.98	\$1.00	\$1.01	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.01	\$1.07	\$1.13	\$1.19	\$1.26	\$1.33	\$39.33
32	CMS Energy Corporation	CMS	\$1.28	\$1.35	\$1.42	\$1.49	\$1.57	\$1.68	\$1.80	\$1.93	\$2.07	\$2.21	\$2.37	\$2.50	\$2.64	\$2.78	\$2.94	\$3.10	\$91.79
33	DTE Energy Company	DTE	\$2.91	\$3.05	\$3.20	\$3.35	\$3.51	\$3.78	\$4.07	\$4.37	\$4.70	\$5.05	\$5.43	\$5.73	\$6.05	\$6.39	\$6.74	\$7.12	\$210.52
34	El Paso Electric Company	EE	\$1.14	\$1.21	\$1.29	\$1.37	\$1.46	\$1.55	\$1.66	\$1.78	\$1.90	\$2.05	\$2.20	\$2.33	\$2.46	\$2.59	\$2.74	\$2.89	\$85.47
35	Eversource Energy	ES	\$1.77	\$1.85	\$1.92	\$2.00	\$2.08	\$2.25	\$2.43	\$2.63	\$2.84	\$3.06	\$3.31	\$3.49	\$3.69	\$3.89	\$4.11	\$4.34	\$128.36
36	IDACORP, Inc.	IDA	\$2.11	\$2.25	\$2.39	\$2.54	\$2.69	\$2.84	\$3.00	\$3.19	\$3.40	\$3.64	\$3.91	\$4.13	\$4.36	\$4.60	\$4.85	\$5.13	\$151.58
37	NorthWestern Corporation	NWE	\$1.79	\$1.86	\$1.94	\$2.01	\$2.10	\$2.25	\$2.42	\$2.60	\$2.80	\$3.02	\$3.26	\$3.44	\$3.64	\$3.84	\$4.05	\$4.28	\$126.57
38	OGE Energy Corp.	OGE	\$1.15	\$1.22	\$1.29	\$1.37	\$1.45	\$1.48	\$1.51	\$1.55	\$1.59	\$1.64	\$1.71	\$1.80	\$1.90	\$2.01	\$2.12	\$2.24	\$66.20
39	Otter Tail Corporation	OTTR	\$1.36	\$1.36	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$2.56	\$75.76
40	Pinnacle West Capital Corporation	PNW	\$2.61	\$2.71	\$2.82	\$2.93	\$3.05	\$3.20	\$3.37	\$3.55	\$3.76	\$3.99	\$4.24	\$4.48	\$4.73	\$4.99	\$5.27	\$5.56	\$164.46
41	Portland General Electric Company	POR	\$1.25	\$1.32	\$1.40	\$1.48	\$1.57	\$1.70	\$1.83	\$1.97	\$2.12	\$2.29	\$2.47	\$2.60	\$2.75	\$2.90	\$3.06	\$3.23	\$95.62
42	SCANA Corporation	SCG	\$2.31	\$2.42	\$2.54	\$2.67	\$2.80	\$3.00	\$3.21	\$3.45	\$3.70	\$3.98	\$4.29	\$4.53	\$4.78	\$5.04	\$5.33	\$5.62	\$166.28
43	Wisconsin Energy Corporation	WEC	\$1.66	\$1.76	\$1.87	\$1.98	\$2.10	\$2.22	\$2.35	\$2.49	\$2.63	\$2.78	\$2.93	\$3.09	\$3.27	\$3.45	\$3.64	\$3.84	\$113.64
44	Xcel Energy Inc.	XEL	\$1.37	\$1.45	\$1.52	\$1.60	\$1.69	\$1.81	\$1.93	\$2.06	\$2.20	\$2.35	\$2.51	\$2.65	\$2.80	\$2.96	\$3.12	\$3.30	\$97.46



1	Projected Annual Data																			
2	Investor Cash Flows		[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]	[80]	[81]
3	Company	Ticker	Initial Outflow	10/31/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30	6/30/31
4	ALLETE, Inc.	ALE	(\$59.36)	\$0.00	\$0.39	\$2.37	\$2.49	\$2.58	\$2.67	\$2.80	\$2.94	\$3.10	\$3.27	\$3.46	\$3.67	\$3.87	\$4.09	\$4.32	\$4.56	\$147.13
5	Alliant Energy Corporation	LNT	(\$37.83)	\$0.00	\$0.19	\$1.14	\$1.24	\$1.31	\$1.38	\$1.48	\$1.60	\$1.72	\$1.84	\$1.97	\$2.12	\$2.23	\$2.36	\$2.49	\$2.63	\$84.85
6	Ameren Corporation	AEE	(\$48.99)	\$0.00	\$0.28	\$1.71	\$1.81	\$1.89	\$1.97	\$2.10	\$2.24	\$2.39	\$2.55	\$2.72	\$2.90	\$3.06	\$3.23	\$3.41	\$3.60	\$116.15
7	American Electric Power Company, Inc.	AEP	(\$63.64)	\$0.00	\$0.38	\$2.28	\$2.49	\$2.62	\$2.75	\$2.84	\$2.95	\$3.07	\$3.21	\$3.37	\$3.56	\$3.76	\$3.97	\$4.19	\$4.42	\$142.75
8	Avista Corporation	AVA	(\$40.83)	\$0.00	\$0.22	\$1.36	\$1.43	\$1.49	\$1.54	\$1.63	\$1.73	\$1.84	\$1.95	\$2.07	\$2.20	\$2.33	\$2.46	\$2.59	\$2.74	\$88.38
9	CenterPoint Energy, Inc.	CNP	(\$22.87)	\$0.00	\$0.16	\$0.96	\$0.98	\$1.00	\$1.01	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.01	\$1.07	\$1.13	\$1.19	\$1.26	\$40.66
10	CMS Energy Corporation	CMS	(\$41.66)	\$0.00	\$0.21	\$1.32	\$1.42	\$1.49	\$1.57	\$1.68	\$1.80	\$1.93	\$2.07	\$2.21	\$2.37	\$2.50	\$2.64	\$2.78	\$2.94	\$94.89
11	DTE Energy Company	DTE	(\$93.50)	\$0.00	\$0.49	\$3.00	\$3.20	\$3.35	\$3.51	\$3.78	\$4.07	\$4.37	\$4.70	\$5.05	\$5.43	\$5.73	\$6.05	\$6.39	\$6.74	\$217.64
12	El Paso Electric Company	EE	(\$45.17)	\$0.00	\$0.19	\$1.16	\$1.29	\$1.37	\$1.46	\$1.55	\$1.66	\$1.78	\$1.90	\$2.05	\$2.20	\$2.33	\$2.46	\$2.59	\$2.74	\$88.36
13	Eversource Energy	ES	(\$54.05)	\$0.00	\$0.30	\$1.82	\$1.92	\$2.00	\$2.08	\$2.25	\$2.43	\$2.63	\$2.84	\$3.06	\$3.31	\$3.49	\$3.69	\$3.89	\$4.11	\$132.70
14	IDACORP, Inc.	IDA	(\$76.67)	\$0.00	\$0.35	\$2.14	\$2.39	\$2.54	\$2.69	\$2.84	\$3.00	\$3.19	\$3.40	\$3.64	\$3.91	\$4.13	\$4.36	\$4.60	\$4.85	\$156.71
15	NorthWestern Corporation	NWE	(\$56.70)	\$0.00	\$0.30	\$1.83	\$1.94	\$2.01	\$2.10	\$2.25	\$2.42	\$2.60	\$2.80	\$3.02	\$3.26	\$3.44	\$3.64	\$3.84	\$4.05	\$130.85
16	OGE Energy Corp.	OGE	(\$31.09)	\$0.00	\$0.19	\$1.17	\$1.29	\$1.37	\$1.45	\$1.48	\$1.51	\$1.55	\$1.59	\$1.64	\$1.71	\$1.80	\$1.90	\$2.01	\$2.12	\$68.43
17	Otter Tail Corporation	OTTR	(\$34.69)	\$0.00	\$0.23	\$1.40	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$78.32
18	Pinnacle West Capital Corporation	PNW	(\$75.36)	\$0.00	\$0.44	\$2.66	\$2.82	\$2.93	\$3.05	\$3.20	\$3.37	\$3.55	\$3.76	\$3.99	\$4.24	\$4.48	\$4.73	\$4.99	\$5.27	\$170.02
19	Portland General Electric Company	POR	(\$42.12)	\$0.00	\$0.21	\$1.28	\$1.40	\$1.48	\$1.57	\$1.70	\$1.83	\$1.97	\$2.12	\$2.29	\$2.47	\$2.60	\$2.75	\$2.90	\$3.06	\$98.85
20	SCANA Corporation	SCG	(\$71.34)	\$0.00	\$0.39	\$2.36	\$2.54	\$2.67	\$2.80	\$3.00	\$3.21	\$3.45	\$3.70	\$3.98	\$4.29	\$4.53	\$4.78	\$5.04	\$5.33	\$171.91
21	Wisconsin Energy Corporation	WEC	(\$59.09)	\$0.00	\$0.28	\$1.71	\$1.87	\$1.98	\$2.10	\$2.22	\$2.35	\$2.49	\$2.63	\$2.78	\$2.93	\$3.09	\$3.27	\$3.45	\$3.64	\$117.49
22	Xcel Energy Inc.	XEL	(\$40.82)	\$0.00	\$0.23	\$1.41	\$1.52	\$1.60	\$1.69	\$1.81	\$1.93	\$2.06	\$2.20	\$2.35	\$2.51	\$2.65	\$2.80	\$2.96	\$3.12	\$100.75

Multi-Stage Growth Discounted Cash Flow Model  
90 Day Average Stock Price  
Average EPS Growth Rate Estimate in First Stage

Line No	Inputs	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]					
1		Stock	EPS Growth Rate Estimates				Payout Ratio			Iterative Solution		Terminal	Terminal						
					Value		Long-Term						P/E	PEG					
2	Company	Ticker	Price	Zacks	First Call	Line	Average	Growth	2016	2020	2026	Proof	IRR	Ratio	Ratio				
3	ALLETE, Inc.	ALE	\$61.07	5.50%	5.00%	4.00%	4.83%	5.58%	66.00%	65.00%	66.88%	(\$0.00)	10.34%	19.78	3.55				
4	Alliant Energy Corporation	LNT	\$38.77	6.10%	6.60%	6.00%	6.23%	5.58%	62.00%	61.00%	66.88%	(\$0.00)	8.83%	19.78	3.55				
5	Ameren Corporation	AEE	\$50.47	6.10%	5.60%	6.00%	5.90%	5.58%	66.00%	63.00%	66.88%	(\$0.00)	9.43%	19.78	3.55				
6	American Electric Power Company, Inc.	AEP	\$66.29	5.20%	2.75%	4.00%	3.98%	5.58%	61.00%	67.00%	66.88%	(\$0.00)	9.59%	19.78	3.55				
7	Avista Corporation	AVA	\$41.98	5.30%	5.00%	5.00%	5.10%	5.58%	67.00%	64.00%	66.88%	(\$0.00)	8.54%	19.78	3.55				
8	CenterPoint Energy, Inc.	CNP	\$23.14	5.50%	5.11%	2.00%	4.20%	5.58%	86.00%	85.00%	66.88%	(\$0.00)	8.88%	19.78	3.55				
9	CMS Energy Corporation	CMS	\$43.12	6.60%	7.27%	6.00%	6.62%	5.58%	64.00%	62.00%	66.88%	(\$0.00)	9.15%	19.78	3.55				
10	DTE Energy Company	DTE	\$95.13	5.80%	5.63%	6.00%	5.81%	5.58%	62.00%	60.00%	66.88%	(\$0.00)	9.21%	19.78	3.55				
11	El Paso Electric Company	EE	\$46.04	4.40%	7.00%	4.00%	5.13%	5.58%	54.00%	59.00%	66.88%	(\$0.00)	8.18%	19.78	3.55				
12	Eversource Energy	ES	\$55.87	6.10%	5.39%	6.00%	5.83%	5.58%	61.00%	58.00%	66.88%	(\$0.00)	9.68%	19.78	3.55				
13	IDACORP, Inc.	IDA	\$78.03	4.30%	4.10%	3.00%	3.80%	5.58%	53.00%	60.00%	66.88%	(\$0.00)	8.45%	19.78	3.55				
14	NorthWestern Corporation	NWE	\$58.85	5.00%	4.50%	6.50%	5.33%	5.58%	59.00%	58.00%	66.88%	(\$0.00)	9.34%	19.78	3.55				
15	OGE Energy Corp.	OGE	\$31.39	5.20%	4.30%	3.00%	4.17%	5.58%	66.00%	74.00%	66.88%	(\$0.00)	9.84%	19.78	3.55				
16	Otter Tail Corporation	OTTR	\$34.41	NA	6.00%	6.00%	6.00%	5.58%	82.00%	64.00%	66.88%	(\$0.00)	9.28%	19.78	3.55				
17	Pinnacle West Capital Corporation	PNW	\$77.09	4.30%	3.95%	4.00%	4.08%	5.58%	64.00%	64.00%	66.88%	(\$0.00)	9.03%	19.78	3.55				
18	Portland General Electric Company	POR	\$42.89	6.00%	5.55%	5.50%	5.68%	5.58%	58.00%	59.00%	66.88%	(\$0.00)	9.23%	19.78	3.55				
19	SCANA Corporation	SCG	\$72.46	5.50%	6.00%	4.50%	5.33%	5.58%	58.00%	59.00%	66.88%	(\$0.00)	9.95%	19.78	3.55				
20	Wisconsin Energy Corporation	WEC	\$61.49	6.20%	6.77%	6.00%	6.32%	5.58%	67.00%	67.00%	66.88%	(\$0.00)	7.79%	19.78	3.55				
21	Xcel Energy Inc.	XEL	\$42.22	5.40%	5.36%	5.50%	5.42%	5.58%	62.00%	62.00%	66.88%	(\$0.00)	9.58%	19.78	3.55				
22												Mean	9.17%						
23												Max	10.34%						
24												Min	7.79%						
25	Projected Annual																		
26	Earnings per Share		[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]
27	Company	Ticker	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
28	ALLETE, Inc.	ALE	\$3.38	\$3.54	\$3.71	\$3.89	\$4.08	\$4.28	\$4.49	\$4.72	\$4.97	\$5.23	\$5.52	\$5.82	\$6.15	\$6.49	\$6.85	\$7.23	\$7.64
29	Alliant Energy Corporation	LNT	\$1.69	\$1.80	\$1.91	\$2.03	\$2.15	\$2.29	\$2.43	\$2.57	\$2.72	\$2.88	\$3.05	\$3.22	\$3.40	\$3.58	\$3.78	\$4.00	\$4.22
30	Ameren Corporation	AEE	\$2.38	\$2.52	\$2.67	\$2.83	\$2.99	\$3.17	\$3.36	\$3.55	\$3.75	\$3.97	\$4.19	\$4.42	\$4.67	\$4.93	\$5.21	\$5.50	\$5.80
31	American Electric Power Company, Inc.	AEP	\$3.59	\$3.73	\$3.88	\$4.04	\$4.20	\$4.36	\$4.55	\$4.76	\$4.98	\$5.23	\$5.51	\$5.82	\$6.14	\$6.49	\$6.85	\$7.23	\$7.63
32	Avista Corporation	AVA	\$1.89	\$1.99	\$2.09	\$2.19	\$2.31	\$2.42	\$2.55	\$2.68	\$2.83	\$2.98	\$3.14	\$3.32	\$3.50	\$3.70	\$3.91	\$4.12	\$4.35
33	CenterPoint Energy, Inc.	CNP	\$1.08	\$1.13	\$1.17	\$1.22	\$1.27	\$1.33	\$1.39	\$1.45	\$1.52	\$1.60	\$1.68	\$1.78	\$1.88	\$1.98	\$2.09	\$2.21	\$2.33
34	CMS Energy Corporation	CMS	\$1.89	\$2.02	\$2.15	\$2.29	\$2.44	\$2.60	\$2.77	\$2.95	\$3.13	\$3.31	\$3.50	\$3.70	\$3.90	\$4.12	\$4.35	\$4.59	\$4.85
35	DTE Energy Company	DTE	\$4.45	\$4.71	\$4.98	\$5.27	\$5.58	\$5.90	\$6.24	\$6.60	\$6.98	\$7.37	\$7.78	\$8.22	\$8.68	\$9.16	\$9.67	\$10.21	\$10.78
36	El Paso Electric Company	EE	\$2.03	\$2.13	\$2.24	\$2.36	\$2.48	\$2.61	\$2.74	\$2.89	\$3.04	\$3.21	\$3.38	\$3.57	\$3.77	\$3.98	\$4.20	\$4.44	\$4.69
37	Eversource Energy	ES	\$2.76	\$2.92	\$3.09	\$3.27	\$3.46	\$3.66	\$3.88	\$4.10	\$4.33	\$4.58	\$4.83	\$5.10	\$5.39	\$5.69	\$6.01	\$6.34	\$6.70
38	IDACORP, Inc.	IDA	\$3.87	\$4.02	\$4.17	\$4.33	\$4.49	\$4.66	\$4.85	\$5.07	\$5.31	\$5.57	\$5.86	\$6.19	\$6.54	\$6.90	\$7.28	\$7.69	\$8.12
39	NorthWestern Corporation	NWE	\$2.80	\$3.05	\$3.22	\$3.39	\$3.57	\$3.76	\$3.96	\$4.18	\$4.40	\$4.65	\$4.90	\$5.18	\$5.47	\$5.77	\$6.09	\$6.43	\$6.79
40	OGE Energy Corp.	OGE	\$1.69	\$1.76	\$1.83	\$1.91	\$1.99	\$2.07	\$2.16	\$2.26	\$2.37	\$2.50	\$2.63	\$2.78	\$2.93	\$3.09	\$3.27	\$3.45	\$3.64
41	Otter Tail Corporation	OTTR	\$1.56	\$1.65	\$1.75	\$1.86	\$1.97	\$2.09	\$2.21	\$2.34	\$2.48	\$2.62	\$2.77	\$2.92	\$3.08	\$3.25	\$3.44	\$3.63	\$3.83
42	Pinnacle West Capital Corporation	PNW	\$3.92	\$4.08	\$4.25	\$4.42	\$4.60	\$4.79	\$5.00	\$5.22	\$5.48	\$5.76	\$6.06	\$6.40	\$6.76	\$7.13	\$7.53	\$7.95	\$8.39
43	Portland General Electric Company	POR	\$2.04	\$2.16	\$2.28	\$2.41	\$2.54	\$2.69	\$2.84	\$3.00	\$3.17	\$3.35	\$3.54	\$3.73	\$3.94	\$4.16	\$4.39	\$4.64	\$4.90
44	SCANA Corporation	SCG	\$3.81	\$4.01	\$4.23	\$4.45	\$4.69	\$4.94	\$5.21	\$5.49	\$5.79	\$6.10	\$6.44	\$6.80	\$7.18	\$7.58	\$8.00	\$8.45	\$8.92
45	Wisconsin Energy Corporation	WEC	\$2.34	\$2.49	\$2.65	\$2.81	\$2.99	\$3.18	\$3.38	\$3.58	\$3.79	\$4.02	\$4.24	\$4.48	\$4.73	\$5.00	\$5.27	\$5.57	\$5.88
46	Xcel Energy Inc.	XEL	\$2.10	\$2.21	\$2.33	\$2.46	\$2.59	\$2.73	\$2.88	\$3.04	\$3.21	\$3.39	\$3.57	\$3.77	\$3.98	\$4.20	\$4.44	\$4.69	\$4.95

2	Projected Annual																	
	Dividend Payout Ratio		[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]
3	Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
4	ALLETE, Inc.	ALE	66.00%	65.75%	65.50%	65.25%	65.00%	65.31%	65.63%	65.94%	66.26%	66.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
5	Alliant Energy Corporation	LNT	62.00%	61.75%	61.50%	61.25%	61.00%	61.98%	62.96%	63.94%	64.92%	65.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
6	Ameren Corporation	AEE	66.00%	65.25%	64.50%	63.75%	63.00%	63.65%	64.29%	64.94%	65.59%	66.24%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
7	American Electric Power Company, Inc.	AEP	61.00%	62.50%	64.00%	65.50%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
8	Avista Corporation	AVA	67.00%	66.25%	65.50%	64.75%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
9	CenterPoint Energy, Inc.	CNP	86.00%	85.75%	85.50%	85.25%	85.00%	81.98%	78.96%	75.94%	72.92%	69.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
10	CMS Energy Corporation	CMS	64.00%	63.50%	63.00%	62.50%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
11	DTE Energy Company	DTE	62.00%	61.50%	61.00%	60.50%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
12	El Paso Electric Company	EE	54.00%	55.25%	56.50%	57.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
13	Eversource Energy	ES	61.00%	60.25%	59.50%	58.75%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
14	IDACORP, Inc.	IDA	53.00%	54.75%	56.50%	58.25%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
15	NorthWestern Corporation	NWE	59.00%	58.75%	58.50%	58.25%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
16	OGE Energy Corp.	OGE	66.00%	68.00%	70.00%	72.00%	74.00%	72.81%	71.63%	70.44%	69.26%	68.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
17	Otter Tail Corporation	OTTR	82.00%	77.50%	73.00%	68.50%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
18	Pinnacle West Capital Corporation	PNW	64.00%	64.00%	64.00%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
19	Portland General Electric Company	POR	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
20	SCANA Corporation	SCG	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
21	Wisconsin Energy Corporation	WEC	67.00%	67.00%	67.00%	67.00%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
22	Xcel Energy Inc.	XEL	62.00%	62.00%	62.00%	62.00%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%

23	Projected Annual																		
24	Cash Flows		[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	[63]
25	Company	Ticker	2015	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Terminal Value
26	ALLETE, Inc.	ALE	\$2.34	\$2.44	\$2.55	\$2.66	\$2.78	\$2.93	\$3.10	\$3.27	\$3.47	\$3.67	\$3.89	\$4.11	\$4.34	\$4.58	\$4.84	\$5.11	\$151.08
27	Alliant Energy Corporation	LNT	\$1.11	\$1.18	\$1.25	\$1.32	\$1.39	\$1.50	\$1.62	\$1.74	\$1.87	\$2.01	\$2.15	\$2.27	\$2.40	\$2.53	\$2.67	\$2.82	\$83.44
28	Ameren Corporation	AEE	\$1.66	\$1.74	\$1.82	\$1.91	\$2.00	\$2.14	\$2.28	\$2.44	\$2.60	\$2.78	\$2.96	\$3.12	\$3.30	\$3.48	\$3.68	\$3.88	\$114.77
29	American Electric Power Company, Inc.	AEP	\$2.28	\$2.43	\$2.58	\$2.75	\$2.92	\$3.05	\$3.18	\$3.34	\$3.50	\$3.69	\$3.89	\$4.11	\$4.34	\$4.58	\$4.84	\$5.11	\$150.97
30	Avista Corporation	AVA	\$1.33	\$1.38	\$1.44	\$1.49	\$1.55	\$1.64	\$1.74	\$1.85	\$1.96	\$2.09	\$2.22	\$2.34	\$2.47	\$2.61	\$2.76	\$2.91	\$86.10
31	CenterPoint Energy, Inc.	CNP	\$0.97	\$1.01	\$1.04	\$1.09	\$1.13	\$1.14	\$1.15	\$1.16	\$1.17	\$1.18	\$1.19	\$1.26	\$1.33	\$1.40	\$1.48	\$1.56	\$46.14
32	CMS Energy Corporation	CMS	\$1.29	\$1.36	\$1.44	\$1.53	\$1.61	\$1.74	\$1.87	\$2.01	\$2.16	\$2.31	\$2.47	\$2.61	\$2.76	\$2.91	\$3.07	\$3.24	\$95.92
33	DTE Energy Company	DTE	\$2.92	\$3.06	\$3.22	\$3.37	\$3.54	\$3.82	\$4.11	\$4.43	\$4.76	\$5.12	\$5.50	\$5.80	\$6.13	\$6.47	\$6.83	\$7.21	\$213.23
34	El Paso Electric Company	EE	\$1.15	\$1.24	\$1.33	\$1.43	\$1.54	\$1.65	\$1.78	\$1.92	\$2.06	\$2.22	\$2.39	\$2.52	\$2.66	\$2.81	\$2.97	\$3.13	\$92.70
35	Eversource Energy	ES	\$1.78	\$1.86	\$1.95	\$2.03	\$2.13	\$2.31	\$2.50	\$2.71	\$2.93	\$3.16	\$3.41	\$3.60	\$3.81	\$4.02	\$4.24	\$4.48	\$132.44
36	IDACORP, Inc.	IDA	\$2.13	\$2.28	\$2.45	\$2.62	\$2.80	\$2.97	\$3.16	\$3.37	\$3.60	\$3.85	\$4.14	\$4.37	\$4.62	\$4.87	\$5.14	\$5.43	\$160.61
37	NorthWestern Corporation	NWE	\$1.80	\$1.89	\$1.98	\$2.08	\$2.18	\$2.36	\$2.55	\$2.75	\$2.97	\$3.21	\$3.46	\$3.66	\$3.86	\$4.08	\$4.30	\$4.54	\$134.33
38	OGE Energy Corp.	OGE	\$1.16	\$1.25	\$1.34	\$1.43	\$1.53	\$1.58	\$1.62	\$1.67	\$1.73	\$1.79	\$1.86	\$1.96	\$2.07	\$2.18	\$2.31	\$2.44	\$72.01
39	Otter Tail Corporation	OTTR	\$1.36	\$1.36	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$2.56	\$75.76
40	Pinnacle West Capital Corporation	PNW	\$2.61	\$2.72	\$2.83	\$2.94	\$3.06	\$3.22	\$3.39	\$3.58	\$3.79	\$4.03	\$4.28	\$4.52	\$4.77	\$5.04	\$5.32	\$5.61	\$166.04
41	Portland General Electric Company	POR	\$1.25	\$1.33	\$1.41	\$1.50	\$1.59	\$1.71	\$1.85	\$2.00	\$2.15	\$2.32	\$2.50	\$2.64	\$2.78	\$2.94	\$3.10	\$3.28	\$96.87
42	SCANA Corporation	SCG	\$2.33	\$2.46	\$2.60	\$2.76	\$2.91	\$3.14	\$3.38	\$3.64	\$3.92	\$4.22	\$4.55	\$4.80	\$5.07	\$5.35	\$5.65	\$5.97	\$176.48
43	Wisconsin Energy Corporation	WEC	\$1.67	\$1.77	\$1.88	\$2.00	\$2.13	\$2.26	\$2.40	\$2.54	\$2.69	\$2.84	\$3.00	\$3.16	\$3.34	\$3.53	\$3.72	\$3.93	\$116.27
44	Xcel Energy Inc.	XEL	\$1.37	\$1.45	\$1.53	\$1.61	\$1.70	\$1.81	\$1.93	\$2.07	\$2.21	\$2.36	\$2.52	\$2.66	\$2.81	\$2.97	\$3.13	\$3.31	\$97.88

1	Projected Annual Data																			
2	Investor Cash Flows		[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]	[80]	[81]
		Initial																		
3	Company	Ticker	Outflow	10/31/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30	6/30/31
4	ALLETE, Inc.	ALE	(\$61.07)	\$0.00	\$0.39	\$2.40	\$2.55	\$2.66	\$2.78	\$2.93	\$3.10	\$3.27	\$3.47	\$3.67	\$3.89	\$4.11	\$4.34	\$4.58	\$4.84	\$156.19
5	Alliant Energy Corporation	LNT	(\$38.77)	\$0.00	\$0.19	\$1.15	\$1.25	\$1.32	\$1.39	\$1.50	\$1.62	\$1.74	\$1.87	\$2.01	\$2.15	\$2.27	\$2.40	\$2.53	\$2.67	\$86.26
6	Ameren Corporation	AEE	(\$50.47)	\$0.00	\$0.28	\$1.71	\$1.82	\$1.91	\$2.00	\$2.14	\$2.28	\$2.44	\$2.60	\$2.78	\$2.96	\$3.12	\$3.30	\$3.48	\$3.68	\$118.65
7	American Electric Power Company, Inc.	AEP	(\$66.29)	\$0.00	\$0.38	\$2.32	\$2.58	\$2.75	\$2.92	\$3.05	\$3.18	\$3.34	\$3.50	\$3.69	\$3.89	\$4.11	\$4.34	\$4.58	\$4.84	\$156.08
8	Avista Corporation	AVA	(\$41.98)	\$0.00	\$0.22	\$1.36	\$1.44	\$1.49	\$1.55	\$1.64	\$1.74	\$1.85	\$1.96	\$2.09	\$2.22	\$2.34	\$2.47	\$2.61	\$2.76	\$89.01
9	CenterPoint Energy, Inc.	CNP	(\$23.14)	\$0.00	\$0.16	\$0.99	\$1.04	\$1.09	\$1.13	\$1.14	\$1.15	\$1.16	\$1.17	\$1.18	\$1.19	\$1.26	\$1.33	\$1.40	\$1.48	\$47.70
10	CMS Energy Corporation	CMS	(\$43.12)	\$0.00	\$0.22	\$1.33	\$1.44	\$1.53	\$1.61	\$1.74	\$1.87	\$2.01	\$2.16	\$2.31	\$2.47	\$2.61	\$2.76	\$2.91	\$3.07	\$99.16
11	DTE Energy Company	DTE	(\$95.13)	\$0.00	\$0.49	\$3.00	\$3.22	\$3.37	\$3.54	\$3.82	\$4.11	\$4.43	\$4.76	\$5.12	\$5.50	\$5.80	\$6.13	\$6.47	\$6.83	\$220.44
12	El Paso Electric Company	EE	(\$46.04)	\$0.00	\$0.19	\$1.18	\$1.33	\$1.43	\$1.54	\$1.65	\$1.78	\$1.92	\$2.06	\$2.22	\$2.39	\$2.52	\$2.66	\$2.81	\$2.97	\$95.84
13	Eversource Energy	ES	(\$55.87)	\$0.00	\$0.30	\$1.83	\$1.95	\$2.03	\$2.13	\$2.31	\$2.50	\$2.71	\$2.93	\$3.16	\$3.41	\$3.60	\$3.81	\$4.02	\$4.24	\$136.91
14	IDACORP, Inc.	IDA	(\$78.03)	\$0.00	\$0.36	\$2.17	\$2.45	\$2.62	\$2.80	\$2.97	\$3.16	\$3.37	\$3.60	\$3.85	\$4.14	\$4.37	\$4.62	\$4.87	\$5.14	\$166.05
15	NorthWestern Corporation	NWE	(\$58.85)	\$0.00	\$0.30	\$1.85	\$1.98	\$2.08	\$2.18	\$2.36	\$2.55	\$2.75	\$2.97	\$3.21	\$3.46	\$3.66	\$3.86	\$4.08	\$4.30	\$138.87
16	OGE Energy Corp.	OGE	(\$31.39)	\$0.00	\$0.19	\$1.19	\$1.34	\$1.43	\$1.53	\$1.58	\$1.62	\$1.67	\$1.73	\$1.79	\$1.86	\$1.96	\$2.07	\$2.18	\$2.31	\$74.45
17	Otter Tail Corporation	OTTR	(\$34.41)	\$0.00	\$0.23	\$1.40	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$78.32
18	Pinnacle West Capital Corporation	PNW	(\$77.09)	\$0.00	\$0.44	\$2.66	\$2.83	\$2.94	\$3.06	\$3.22	\$3.39	\$3.58	\$3.79	\$4.03	\$4.28	\$4.52	\$4.77	\$5.04	\$5.32	\$171.66
19	Portland General Electric Company	POR	(\$42.89)	\$0.00	\$0.21	\$1.29	\$1.41	\$1.50	\$1.59	\$1.71	\$1.85	\$2.00	\$2.15	\$2.32	\$2.50	\$2.64	\$2.78	\$2.94	\$3.10	\$100.15
20	SCANA Corporation	SCG	(\$72.47)	\$0.00	\$0.39	\$2.39	\$2.60	\$2.76	\$2.91	\$3.14	\$3.38	\$3.64	\$3.92	\$4.22	\$4.55	\$4.80	\$5.07	\$5.35	\$5.65	\$182.45
21	Wisconsin Energy Corporation	WEC	(\$61.49)	\$0.00	\$0.28	\$1.72	\$1.88	\$2.00	\$2.13	\$2.26	\$2.40	\$2.54	\$2.69	\$2.84	\$3.00	\$3.16	\$3.34	\$3.53	\$3.72	\$120.20
22	Xcel Energy Inc.	XEL	(\$42.22)	\$0.00	\$0.23	\$1.41	\$1.53	\$1.61	\$1.70	\$1.81	\$1.93	\$2.07	\$2.21	\$2.36	\$2.52	\$2.66	\$2.81	\$2.97	\$3.13	\$101.19

Multi-Stage Growth Discounted Cash Flow Model  
90 Day Average Stock Price  
High EPS Growth Rate Estimate in First Stage

Line No	Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]				
1			Stock	EPS Growth Rate Estimates				Payout Ratio			Iterative Solution		Terminal	Terminal					
						Value	High	Long-Term						P/E	PEG				
2	Company	Ticker	Price	Zacks	First Call	Line	Growth	Growth	2016	2020	2026	Proof	IRR	Ratio	Ratio				
3	ALLETE, Inc.	ALE	\$61.07	5.50%	5.00%	4.00%	5.50%	5.58%	66.00%	65.00%	66.88%	(\$0.00)	10.76%	19.78	3.55				
4	Alliant Energy Corporation	LNT	\$38.77	6.10%	6.60%	6.00%	6.60%	5.58%	62.00%	61.00%	66.88%	(\$0.00)	9.05%	19.78	3.55				
5	Ameren Corporation	AEE	\$50.47	6.10%	5.60%	6.00%	6.10%	5.58%	66.00%	63.00%	66.88%	(\$0.00)	9.55%	19.78	3.55				
6	American Electric Power Company, Inc.	AEP	\$66.29	5.20%	2.75%	4.00%	5.20%	5.58%	61.00%	67.00%	66.88%	(\$0.00)	10.35%	19.78	3.55				
7	Avista Corporation	AVA	\$41.98	5.30%	5.00%	5.00%	5.30%	5.58%	67.00%	64.00%	66.88%	(\$0.00)	8.66%	19.78	3.55				
8	CenterPoint Energy, Inc.	CNP	\$23.14	5.50%	5.11%	2.00%	5.50%	5.58%	86.00%	85.00%	66.88%	(\$0.00)	9.69%	19.78	3.55				
9	CMS Energy Corporation	CMS	\$43.12	6.60%	7.27%	6.00%	7.27%	5.58%	64.00%	62.00%	66.88%	(\$0.00)	9.54%	19.78	3.55				
10	DTE Energy Company	DTE	\$95.13	5.80%	5.63%	6.00%	6.00%	5.58%	62.00%	60.00%	66.88%	(\$0.00)	9.32%	19.78	3.55				
11	El Paso Electric Company	EE	\$46.04	4.40%	7.00%	4.00%	7.00%	5.58%	54.00%	59.00%	66.88%	(\$0.00)	9.29%	19.78	3.55				
12	Eversource Energy	ES	\$55.87	6.10%	5.39%	6.00%	6.10%	5.58%	61.00%	58.00%	66.88%	(\$0.00)	9.84%	19.78	3.55				
13	IDACORP, Inc.	IDA	\$78.03	4.30%	4.10%	3.00%	4.30%	5.58%	53.00%	60.00%	66.88%	(\$0.00)	8.75%	19.78	3.55				
14	NorthWestern Corporation	NWE	\$58.85	5.00%	4.50%	6.50%	6.50%	5.58%	59.00%	58.00%	66.88%	(\$0.00)	10.05%	19.78	3.55				
15	OGE Energy Corp.	OGE	\$31.39	5.20%	4.30%	3.00%	5.20%	5.58%	66.00%	74.00%	66.88%	(\$0.00)	10.50%	19.78	3.55				
16	Otter Tail Corporation	OTTR	\$34.41	NA	6.00%	6.00%	6.00%	5.58%	82.00%	64.00%	66.88%	(\$0.00)	9.28%	19.78	3.55				
17	Pinnacle West Capital Corporation	PNW	\$77.09	4.30%	3.95%	4.00%	4.30%	5.58%	64.00%	64.00%	66.88%	(\$0.00)	9.16%	19.78	3.55				
18	Portland General Electric Company	POR	\$42.89	6.00%	5.55%	5.50%	6.00%	5.58%	58.00%	59.00%	66.88%	(\$0.00)	9.42%	19.78	3.55				
19	SCANA Corporation	SCG	\$72.46	5.50%	6.00%	4.50%	6.00%	5.58%	58.00%	59.00%	66.88%	(\$0.00)	10.36%	19.78	3.55				
20	Wisconsin Energy Corporation	WEC	\$61.49	6.20%	6.77%	6.00%	6.77%	5.58%	67.00%	67.00%	66.88%	(\$0.00)	8.05%	19.78	3.55				
21	Xcel Energy Inc.	XEL	\$42.22	5.40%	5.36%	5.50%	5.50%	5.58%	62.00%	62.00%	66.88%	(\$0.00)	9.63%	19.78	3.55				
22												Mean	9.54%						
23												Max	10.76%						
24												Min	8.05%						
25	Projected Annual																		
26	Earnings per Share		[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]
27	Company	Ticker	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
28	ALLETE, Inc.	ALE	\$3.38	\$3.57	\$3.76	\$3.97	\$4.19	\$4.42	\$4.66	\$4.92	\$5.19	\$5.48	\$5.78	\$6.11	\$6.45	\$6.81	\$7.19	\$7.59	\$8.01
29	Alliant Energy Corporation	LNT	\$1.69	\$1.80	\$1.92	\$2.05	\$2.18	\$2.33	\$2.48	\$2.63	\$2.79	\$2.96	\$3.13	\$3.30	\$3.48	\$3.68	\$3.88	\$4.10	\$4.33
30	Ameren Corporation	AEE	\$2.38	\$2.53	\$2.68	\$2.84	\$3.02	\$3.20	\$3.39	\$3.59	\$3.80	\$4.02	\$4.25	\$4.49	\$4.74	\$5.00	\$5.28	\$5.57	\$5.89
31	American Electric Power Company, Inc.	AEP	\$3.59	\$3.78	\$3.97	\$4.18	\$4.40	\$4.63	\$4.87	\$5.13	\$5.40	\$5.70	\$6.01	\$6.35	\$6.70	\$7.08	\$7.47	\$7.89	\$8.33
32	Avista Corporation	AVA	\$1.89	\$1.99	\$2.10	\$2.21	\$2.32	\$2.45	\$2.58	\$2.72	\$2.86	\$3.02	\$3.19	\$3.37	\$3.55	\$3.75	\$3.96	\$4.18	\$4.42
33	CenterPoint Energy, Inc.	CNP	\$1.08	\$1.14	\$1.20	\$1.27	\$1.34	\$1.41	\$1.49	\$1.57	\$1.66	\$1.75	\$1.85	\$1.95	\$2.06	\$2.17	\$2.30	\$2.42	\$2.56
34	CMS Energy Corporation	CMS	\$1.89	\$2.03	\$2.17	\$2.33	\$2.50	\$2.68	\$2.87	\$3.06	\$3.26	\$3.46	\$3.66	\$3.87	\$4.08	\$4.31	\$4.55	\$4.81	\$5.07
35	DTE Energy Company	DTE	\$4.45	\$4.72	\$5.00	\$5.30	\$5.62	\$5.96	\$6.31	\$6.68	\$7.06	\$7.47	\$7.89	\$8.33	\$8.79	\$9.28	\$9.80	\$10.35	\$10.93
36	El Paso Electric Company	EE	\$2.03	\$2.17	\$2.32	\$2.49	\$2.66	\$2.85	\$3.04	\$3.24	\$3.44	\$3.65	\$3.86	\$4.08	\$4.30	\$4.54	\$4.80	\$5.07	\$5.35
37	Eversource Energy	ES	\$2.76	\$2.93	\$3.11	\$3.30	\$3.50	\$3.71	\$3.93	\$4.17	\$4.41	\$4.66	\$4.93	\$5.20	\$5.49	\$5.80	\$6.12	\$6.46	\$6.82
38	IDACORP, Inc.	IDA	\$3.87	\$4.04	\$4.21	\$4.39	\$4.58	\$4.78	\$4.99	\$5.23	\$5.49	\$5.77	\$6.08	\$6.42	\$6.78	\$7.15	\$7.55	\$7.97	\$8.42
39	NorthWestern Corporation	NWE	\$2.90	\$3.09	\$3.29	\$3.50	\$3.73	\$3.97	\$4.23	\$4.49	\$4.76	\$5.04	\$5.33	\$5.62	\$5.94	\$6.27	\$6.62	\$6.99	\$7.38
40	OGE Energy Corp.	OGE	\$1.69	\$1.78	\$1.87	\$1.97	\$2.07	\$2.18	\$2.29	\$2.41	\$2.54	\$2.68	\$2.83	\$2.99	\$3.16	\$3.33	\$3.52	\$3.71	\$3.92
41	Otter Tail Corporation	OTTR	\$1.56	\$1.65	\$1.75	\$1.86	\$1.97	\$2.09	\$2.21	\$2.34	\$2.48	\$2.62	\$2.77	\$2.92	\$3.08	\$3.25	\$3.44	\$3.63	\$3.83
42	Pinnacle West Capital Corporation	PNW	\$3.92	\$4.09	\$4.26	\$4.45	\$4.64	\$4.84	\$5.06	\$5.30	\$5.56	\$5.84	\$6.16	\$6.50	\$6.86	\$7.25	\$7.65	\$8.08	\$8.53
43	Portland General Electric Company	POR	\$2.04	\$2.16	\$2.29	\$2.43	\$2.58	\$2.73	\$2.89	\$3.06	\$3.24	\$3.42	\$3.62	\$3.82	\$4.03	\$4.26	\$4.49	\$4.74	\$5.01
44	SCANA Corporation	SCG	\$3.81	\$4.04	\$4.28	\$4.54	\$4.81	\$5.10	\$5.40	\$5.72	\$6.05	\$6.39	\$6.76	\$7.13	\$7.53	\$7.95	\$8.39	\$8.86	\$9.35
45	Wisconsin Energy Corporation	WEC	\$2.34	\$2.50	\$2.67	\$2.85	\$3.04	\$3.25	\$3.46	\$3.68	\$3.91	\$4.14	\$4.38	\$4.62	\$4.88	\$5.15	\$5.44	\$5.75	\$6.07
46	Xcel Energy Inc.	XEL	\$2.10	\$2.22	\$2.34	\$2.47	\$2.60	\$2.74	\$2.90	\$3.06	\$3.23	\$3.40	\$3.59	\$3.79	\$4.01	\$4.23	\$4.46	\$4.71	\$4.98

1	Projected Annual																	
2	Dividend Payout Ratio		[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]
3	Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
4	ALLETE, Inc.	ALE	66.00%	65.75%	65.50%	65.25%	65.00%	65.31%	65.63%	65.94%	66.26%	66.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
5	Alliant Energy Corporation	LNT	62.00%	61.75%	61.50%	61.25%	61.00%	61.98%	62.96%	63.94%	64.92%	65.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
6	Ameren Corporation	AEE	66.00%	65.25%	64.50%	63.75%	63.00%	63.65%	64.29%	64.94%	65.59%	66.24%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
7	American Electric Power Company, Inc.	AEP	61.00%	62.50%	64.00%	65.50%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
8	Avista Corporation	AVA	67.00%	66.25%	65.50%	64.75%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
9	CenterPoint Energy, Inc.	CNP	86.00%	85.75%	85.50%	85.25%	85.00%	81.98%	78.96%	75.94%	72.92%	69.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
10	CMS Energy Corporation	CMS	64.00%	63.50%	63.00%	62.50%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
11	DTE Energy Company	DTE	62.00%	61.50%	61.00%	60.50%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
12	El Paso Electric Company	EE	54.00%	55.25%	56.50%	57.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
13	Eversource Energy	ES	61.00%	60.25%	59.50%	58.75%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
14	IDACORP, Inc.	IDA	53.00%	54.75%	56.50%	58.25%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
15	NorthWestern Corporation	NWE	59.00%	58.75%	58.50%	58.25%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
16	OGE Energy Corp.	OGE	66.00%	68.00%	70.00%	72.00%	74.00%	72.81%	71.63%	70.44%	69.26%	68.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
17	Otter Tail Corporation	OTTR	82.00%	77.50%	73.00%	68.50%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
18	Pinnacle West Capital Corporation	PNW	64.00%	64.00%	64.00%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
19	Portland General Electric Company	POR	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
20	SCANA Corporation	SCG	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
21	Wisconsin Energy Corporation	WEC	67.00%	67.00%	67.00%	67.00%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
22	Xcel Energy Inc.	XEL	62.00%	62.00%	62.00%	62.00%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%

23	Projected Annual																		
24	Cash Flows		[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	[63]
25	Company	Ticker	2015	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Terminal Value
26	ALLETE, Inc.	ALE	\$2.35	\$2.47	\$2.60	\$2.73	\$2.87	\$3.04	\$3.23	\$3.42	\$3.63	\$3.85	\$4.08	\$4.31	\$4.55	\$4.81	\$5.07	\$5.36	\$158.43
27	Alliant Energy Corporation	LNT	\$1.12	\$1.19	\$1.26	\$1.34	\$1.42	\$1.53	\$1.66	\$1.78	\$1.92	\$2.06	\$2.21	\$2.33	\$2.46	\$2.60	\$2.74	\$2.90	\$85.63
28	Ameren Corporation	AEE	\$1.67	\$1.75	\$1.83	\$1.92	\$2.02	\$2.16	\$2.31	\$2.47	\$2.64	\$2.81	\$3.00	\$3.17	\$3.34	\$3.53	\$3.73	\$3.94	\$116.41
29	American Electric Power Company, Inc.	AEP	\$2.30	\$2.48	\$2.67	\$2.88	\$3.10	\$3.26	\$3.43	\$3.62	\$3.81	\$4.02	\$4.25	\$4.48	\$4.73	\$5.00	\$5.28	\$5.57	\$164.72
30	Avista Corporation	AVA	\$1.33	\$1.39	\$1.45	\$1.50	\$1.57	\$1.66	\$1.76	\$1.87	\$1.99	\$2.12	\$2.25	\$2.38	\$2.51	\$2.65	\$2.80	\$2.95	\$87.34
31	CenterPoint Energy, Inc.	CNP	\$0.98	\$1.03	\$1.08	\$1.14	\$1.20	\$1.22	\$1.24	\$1.26	\$1.28	\$1.29	\$1.31	\$1.38	\$1.45	\$1.54	\$1.62	\$1.71	\$50.62
32	CMS Energy Corporation	CMS	\$1.30	\$1.38	\$1.47	\$1.56	\$1.66	\$1.80	\$1.95	\$2.10	\$2.26	\$2.42	\$2.59	\$2.73	\$2.88	\$3.05	\$3.21	\$3.39	\$100.38
33	DTE Energy Company	DTE	\$2.92	\$3.08	\$3.23	\$3.40	\$3.57	\$3.86	\$4.16	\$4.48	\$4.82	\$5.19	\$5.57	\$5.88	\$6.21	\$6.56	\$6.92	\$7.31	\$216.12
34	El Paso Electric Company	EE	\$1.17	\$1.28	\$1.41	\$1.54	\$1.68	\$1.83	\$2.00	\$2.17	\$2.35	\$2.53	\$2.73	\$2.88	\$3.04	\$3.21	\$3.39	\$3.58	\$105.79
35	Eversource Energy	ES	\$1.79	\$1.87	\$1.96	\$2.05	\$2.15	\$2.34	\$2.54	\$2.75	\$2.98	\$3.22	\$3.48	\$3.67	\$3.88	\$4.10	\$4.32	\$4.56	\$134.99
36	IDACORP, Inc.	IDA	\$2.14	\$2.30	\$2.48	\$2.67	\$2.87	\$3.05	\$3.26	\$3.48	\$3.73	\$4.00	\$4.29	\$4.53	\$4.78	\$5.05	\$5.33	\$5.63	\$166.50
37	NorthWestern Corporation	NWE	\$1.82	\$1.93	\$2.05	\$2.17	\$2.30	\$2.51	\$2.74	\$2.97	\$3.22	\$3.48	\$3.76	\$3.97	\$4.19	\$4.43	\$4.67	\$4.93	\$145.90
38	OGE Energy Corp.	OGE	\$1.17	\$1.27	\$1.38	\$1.49	\$1.61	\$1.67	\$1.73	\$1.79	\$1.86	\$1.93	\$2.00	\$2.11	\$2.23	\$2.35	\$2.48	\$2.62	\$77.54
39	Otter Tail Corporation	OTTR	\$1.36	\$1.36	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$2.56	\$75.76
40	Pinnacle West Capital Corporation	PNW	\$2.62	\$2.73	\$2.85	\$2.97	\$3.10	\$3.26	\$3.44	\$3.64	\$3.85	\$4.09	\$4.35	\$4.59	\$4.85	\$5.12	\$5.40	\$5.70	\$168.65
41	Portland General Electric Company	POR	\$1.25	\$1.34	\$1.42	\$1.51	\$1.61	\$1.74	\$1.89	\$2.04	\$2.20	\$2.37	\$2.55	\$2.70	\$2.85	\$3.01	\$3.17	\$3.35	\$99.07
42	SCANA Corporation	SCG	\$2.34	\$2.49	\$2.65	\$2.83	\$3.01	\$3.26	\$3.52	\$3.81	\$4.11	\$4.43	\$4.77	\$5.04	\$5.32	\$5.61	\$5.93	\$6.26	\$185.04
43	Wisconsin Energy Corporation	WEC	\$1.67	\$1.79	\$1.91	\$2.04	\$2.18	\$2.32	\$2.46	\$2.62	\$2.77	\$2.93	\$3.09	\$3.27	\$3.45	\$3.64	\$3.84	\$4.06	\$119.99
44	Xcel Energy Inc.	XEL	\$1.37	\$1.45	\$1.53	\$1.61	\$1.70	\$1.82	\$1.94	\$2.08	\$2.22	\$2.37	\$2.54	\$2.68	\$2.83	\$2.99	\$3.15	\$3.33	\$98.43

1	Projected Annual Data																			
2	Investor Cash Flows		[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]	[80]	[81]
		Initial																		
3	Company	Ticker	Outflow	10/31/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30	6/30/31
4	ALLETE, Inc.	ALE	(\$61.07)	\$0.00	\$0.39	\$2.42	\$2.60	\$2.73	\$2.87	\$3.04	\$3.23	\$3.42	\$3.63	\$3.85	\$4.08	\$4.31	\$4.55	\$4.81	\$5.07	\$163.79
5	Alliant Energy Corporation	LNT	(\$38.77)	\$0.00	\$0.19	\$1.15	\$1.26	\$1.34	\$1.42	\$1.53	\$1.66	\$1.78	\$1.92	\$2.06	\$2.21	\$2.33	\$2.46	\$2.60	\$2.74	\$88.52
6	Ameren Corporation	AEE	(\$50.47)	\$0.00	\$0.28	\$1.72	\$1.83	\$1.92	\$2.02	\$2.16	\$2.31	\$2.47	\$2.64	\$2.81	\$3.00	\$3.17	\$3.34	\$3.53	\$3.73	\$120.34
7	American Electric Power Company, Inc.	AEP	(\$66.29)	\$0.00	\$0.39	\$2.36	\$2.67	\$2.88	\$3.10	\$3.26	\$3.43	\$3.62	\$3.81	\$4.02	\$4.25	\$4.48	\$4.73	\$5.00	\$5.28	\$170.29
8	Avista Corporation	AVA	(\$41.98)	\$0.00	\$0.22	\$1.37	\$1.45	\$1.50	\$1.57	\$1.66	\$1.76	\$1.87	\$1.99	\$2.12	\$2.25	\$2.38	\$2.51	\$2.65	\$2.80	\$90.29
9	CenterPoint Energy, Inc.	CNP	(\$23.14)	\$0.00	\$0.16	\$1.01	\$1.08	\$1.14	\$1.20	\$1.22	\$1.24	\$1.26	\$1.28	\$1.29	\$1.31	\$1.38	\$1.45	\$1.54	\$1.62	\$52.33
10	CMS Energy Corporation	CMS	(\$43.12)	\$0.00	\$0.22	\$1.34	\$1.47	\$1.56	\$1.66	\$1.80	\$1.95	\$2.10	\$2.26	\$2.42	\$2.59	\$2.73	\$2.88	\$3.05	\$3.21	\$103.77
11	DTE Energy Company	DTE	(\$95.13)	\$0.00	\$0.49	\$3.01	\$3.23	\$3.40	\$3.57	\$3.86	\$4.16	\$4.48	\$4.82	\$5.19	\$5.57	\$5.88	\$6.21	\$6.56	\$6.92	\$223.42
12	El Paso Electric Company	EE	(\$46.04)	\$0.00	\$0.20	\$1.21	\$1.41	\$1.54	\$1.68	\$1.83	\$2.00	\$2.17	\$2.35	\$2.53	\$2.73	\$2.88	\$3.04	\$3.21	\$3.39	\$109.37
13	Eversource Energy	ES	(\$55.87)	\$0.00	\$0.30	\$1.84	\$1.96	\$2.05	\$2.15	\$2.34	\$2.54	\$2.75	\$2.98	\$3.22	\$3.48	\$3.67	\$3.88	\$4.10	\$4.32	\$139.56
14	IDACORP, Inc.	IDA	(\$78.03)	\$0.00	\$0.36	\$2.19	\$2.48	\$2.67	\$2.87	\$3.05	\$3.26	\$3.48	\$3.73	\$4.00	\$4.29	\$4.53	\$4.78	\$5.05	\$5.33	\$172.13
15	NorthWestern Corporation	NWE	(\$58.85)	\$0.00	\$0.30	\$1.88	\$2.05	\$2.17	\$2.30	\$2.51	\$2.74	\$2.97	\$3.22	\$3.48	\$3.76	\$3.97	\$4.19	\$4.43	\$4.67	\$150.84
16	OGE Energy Corp.	OGE	(\$31.39)	\$0.00	\$0.20	\$1.20	\$1.38	\$1.49	\$1.61	\$1.67	\$1.73	\$1.79	\$1.86	\$1.93	\$2.00	\$2.11	\$2.23	\$2.35	\$2.48	\$80.16
17	Otter Tail Corporation	OTTR	(\$34.41)	\$0.00	\$0.23	\$1.40	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$78.32
18	Pinnacle West Capital Corporation	PNW	(\$77.09)	\$0.00	\$0.44	\$2.67	\$2.85	\$2.97	\$3.10	\$3.26	\$3.44	\$3.64	\$3.85	\$4.09	\$4.35	\$4.59	\$4.85	\$5.12	\$5.40	\$174.35
19	Portland General Electric Company	POR	(\$42.89)	\$0.00	\$0.21	\$1.29	\$1.42	\$1.51	\$1.61	\$1.74	\$1.89	\$2.04	\$2.20	\$2.37	\$2.55	\$2.70	\$2.85	\$3.01	\$3.17	\$102.42
20	SCANA Corporation	SCG	(\$72.47)	\$0.00	\$0.39	\$2.41	\$2.65	\$2.83	\$3.01	\$3.26	\$3.52	\$3.81	\$4.11	\$4.43	\$4.77	\$5.04	\$5.32	\$5.61	\$5.93	\$191.29
21	Wisconsin Energy Corporation	WEC	(\$61.49)	\$0.00	\$0.28	\$1.73	\$1.91	\$2.04	\$2.18	\$2.32	\$2.46	\$2.62	\$2.77	\$2.93	\$3.09	\$3.27	\$3.45	\$3.64	\$3.84	\$124.05
22	Xcel Energy Inc.	XEL	(\$42.22)	\$0.00	\$0.23	\$1.41	\$1.53	\$1.61	\$1.70	\$1.82	\$1.94	\$2.08	\$2.22	\$2.37	\$2.54	\$2.68	\$2.83	\$2.99	\$3.15	\$101.76

Multi-Stage Growth Discounted Cash Flow Model  
90 Day Average Stock Price  
Low EPS Growth Rate Estimate in First Stage

Line No	Inputs	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]					
1		Stock	EPS Growth Rate Estimates					Payout Ratio			Iterative Solution		Terminal P/E	Terminal PEG					
2	Company	Ticker	Price	Zacks	First Call	Value Line	Low Growth	Long-Term Growth	2016	2020	2026	Proof	IRR	Ratio	Ratio				
3	ALLETE, Inc.	ALE	\$61.07	5.50%	5.00%	4.00%	4.00%	5.58%	66.00%	65.00%	66.88%	(\$0.00)	9.82%	19.78	3.55				
4	Alliant Energy Corporation	LNT	\$38.77	6.10%	6.60%	6.00%	6.00%	5.58%	62.00%	61.00%	66.88%	(\$0.00)	8.69%	19.78	3.55				
5	Ameren Corporation	AEE	\$50.47	6.10%	5.60%	6.00%	5.60%	5.58%	66.00%	63.00%	66.88%	(\$0.00)	9.25%	19.78	3.55				
6	American Electric Power Company, Inc.	AEP	\$66.29	5.20%	2.75%	4.00%	2.75%	5.58%	61.00%	67.00%	66.88%	(\$0.00)	8.82%	19.78	3.55				
7	Avista Corporation	AVA	\$41.98	5.30%	5.00%	5.00%	5.00%	5.58%	67.00%	64.00%	66.88%	\$0.00	8.48%	19.78	3.55				
8	CenterPoint Energy, Inc.	CNP	\$23.14	5.50%	5.11%	2.00%	2.00%	5.58%	86.00%	85.00%	66.88%	(\$0.00)	7.50%	19.78	3.55				
9	CMS Energy Corporation	CMS	\$43.12	6.60%	7.27%	6.00%	6.00%	5.58%	64.00%	62.00%	66.88%	(\$0.00)	8.78%	19.78	3.55				
10	DTE Energy Company	DTE	\$95.13	5.80%	5.63%	6.00%	5.63%	5.58%	62.00%	60.00%	66.88%	(\$0.00)	9.10%	19.78	3.55				
11	El Paso Electric Company	EE	\$46.04	4.40%	7.00%	4.00%	4.00%	5.58%	54.00%	59.00%	66.88%	(\$0.00)	7.50%	19.78	3.55				
12	Eversource Energy	ES	\$55.87	6.10%	5.39%	6.00%	5.39%	5.58%	61.00%	58.00%	66.88%	(\$0.00)	9.41%	19.78	3.55				
13	IDACORP, Inc.	IDA	\$78.03	4.30%	4.10%	3.00%	3.00%	5.58%	53.00%	60.00%	66.88%	(\$0.00)	7.96%	19.78	3.55				
14	NorthWestern Corporation	NWE	\$58.85	5.00%	4.50%	6.50%	4.50%	5.58%	59.00%	58.00%	66.88%	(\$0.00)	8.83%	19.78	3.55				
15	OGE Energy Corp.	OGE	\$31.39	5.20%	4.30%	3.00%	3.00%	5.58%	66.00%	74.00%	66.88%	(\$0.00)	9.11%	19.78	3.55				
16	Otter Tail Corporation	OTTR	\$34.41	NA	6.00%	6.00%	6.00%	5.58%	82.00%	64.00%	66.88%	(\$0.00)	9.28%	19.78	3.55				
17	Pinnacle West Capital Corporation	PNW	\$77.09	4.30%	3.95%	4.00%	3.95%	5.58%	64.00%	64.00%	66.88%	(\$0.00)	8.94%	19.78	3.55				
18	Portland General Electric Company	POR	\$42.89	6.00%	5.55%	5.50%	5.50%	5.58%	58.00%	59.00%	66.88%	(\$0.00)	9.12%	19.78	3.55				
19	SCANA Corporation	SCG	\$72.46	5.50%	6.00%	4.50%	4.50%	5.58%	58.00%	59.00%	66.88%	(\$0.00)	9.44%	19.78	3.55				
20	Wisconsin Energy Corporation	WEC	\$61.49	6.20%	6.77%	6.00%	6.00%	5.58%	67.00%	67.00%	66.88%	(\$0.00)	7.60%	19.78	3.55				
21	Xcel Energy Inc.	XEL	\$42.22	5.40%	5.36%	5.50%	5.36%	5.58%	62.00%	62.00%	66.88%	(\$0.00)	9.55%	19.78	3.55				
22												Mean	8.80%						
23												Max	9.82%						
24												Min	7.50%						
25	Projected Annual																		
26	Earnings per Share		[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]
27	Company	Ticker	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
28	ALLETE, Inc.	ALE	\$3.38	\$3.52	\$3.66	\$3.80	\$3.95	\$4.11	\$4.29	\$4.48	\$4.70	\$4.93	\$5.20	\$5.49	\$5.79	\$6.11	\$6.45	\$6.81	\$7.19
29	Alliant Energy Corporation	LNT	\$1.69	\$1.79	\$1.90	\$2.01	\$2.13	\$2.26	\$2.40	\$2.54	\$2.68	\$2.84	\$3.00	\$3.16	\$3.34	\$3.53	\$3.72	\$3.93	\$4.15
30	Ameren Corporation	AEE	\$2.38	\$2.51	\$2.65	\$2.80	\$2.96	\$3.13	\$3.30	\$3.48	\$3.68	\$3.88	\$4.10	\$4.33	\$4.57	\$4.83	\$5.10	\$5.38	\$5.68
31	American Electric Power Company, Inc.	AEP	\$3.59	\$3.69	\$3.79	\$3.89	\$4.00	\$4.11	\$4.24	\$4.40	\$4.58	\$4.80	\$5.04	\$5.32	\$5.62	\$5.93	\$6.26	\$6.61	\$6.98
32	Avista Corporation	AVA	\$1.89	\$1.98	\$2.08	\$2.19	\$2.30	\$2.41	\$2.54	\$2.67	\$2.81	\$2.96	\$3.12	\$3.30	\$3.48	\$3.67	\$3.88	\$4.09	\$4.32
33	CenterPoint Energy, Inc.	CNP	\$1.08	\$1.10	\$1.12	\$1.15	\$1.17	\$1.19	\$1.22	\$1.26	\$1.31	\$1.37	\$1.44	\$1.52	\$1.60	\$1.69	\$1.78	\$1.88	\$1.99
34	CMS Energy Corporation	CMS	\$1.89	\$2.00	\$2.12	\$2.25	\$2.39	\$2.53	\$2.68	\$2.84	\$3.00	\$3.17	\$3.35	\$3.54	\$3.74	\$3.94	\$4.16	\$4.40	\$4.64
35	DTE Energy Company	DTE	\$4.45	\$4.70	\$4.97	\$5.24	\$5.54	\$5.85	\$6.18	\$6.53	\$6.89	\$7.28	\$7.69	\$8.11	\$8.57	\$9.04	\$9.55	\$10.08	\$10.64
36	El Paso Electric Company	EE	\$2.03	\$2.11	\$2.20	\$2.28	\$2.37	\$2.47	\$2.58	\$2.69	\$2.82	\$2.96	\$3.12	\$3.29	\$3.48	\$3.67	\$3.88	\$4.09	\$4.32
37	Eversource Energy	ES	\$2.76	\$2.91	\$3.07	\$3.23	\$3.40	\$3.59	\$3.78	\$3.99	\$4.21	\$4.44	\$4.69	\$4.95	\$5.22	\$5.51	\$5.82	\$6.15	\$6.49
38	IDACORP, Inc.	IDA	\$3.87	\$3.99	\$4.11	\$4.23	\$4.36	\$4.49	\$4.64	\$4.82	\$5.03	\$5.26	\$5.53	\$5.84	\$6.17	\$6.51	\$6.88	\$7.26	\$7.66
39	NorthWestern Corporation	NWE	\$2.90	\$3.03	\$3.17	\$3.31	\$3.46	\$3.61	\$3.78	\$3.97	\$4.17	\$4.38	\$4.62	\$4.88	\$5.15	\$5.44	\$5.74	\$6.06	\$6.40
40	OGE Energy Corp.	OGE	\$1.69	\$1.74	\$1.79	\$1.85	\$1.90	\$1.96	\$2.03	\$2.10	\$2.19	\$2.30	\$2.42	\$2.55	\$2.69	\$2.84	\$3.00	\$3.17	\$3.35
41	Otter Tail Corporation	OTTR	\$1.56	\$1.65	\$1.75	\$1.86	\$1.97	\$2.09	\$2.21	\$2.34	\$2.48	\$2.62	\$2.77	\$2.92	\$3.08	\$3.25	\$3.44	\$3.63	\$3.83
42	Pinnacle West Capital Corporation	PNW	\$3.92	\$4.07	\$4.24	\$4.40	\$4.58	\$4.76	\$4.96	\$5.18	\$5.43	\$5.70	\$6.00	\$6.34	\$6.69	\$7.07	\$7.46	\$7.88	\$8.31
43	Portland General Electric Company	POR	\$2.04	\$2.15	\$2.27	\$2.40	\$2.53	\$2.67	\$2.81	\$2.97	\$3.13	\$3.31	\$3.49	\$3.69	\$3.89	\$4.11	\$4.34	\$4.58	\$4.83
44	SCANA Corporation	SCG	\$3.81	\$3.98	\$4.16	\$4.35	\$4.54	\$4.75	\$4.97	\$5.21	\$5.47	\$5.76	\$6.07	\$6.41	\$6.77	\$7.14	\$7.54	\$7.96	\$8.41
45	Wisconsin Energy Corporation	WEC	\$2.34	\$2.48	\$2.63	\$2.79	\$2.95	\$3.13	\$3.32	\$3.51	\$3.71	\$3.93	\$4.15	\$4.38	\$4.62	\$4.88	\$5.15	\$5.44	\$5.75
46	Xcel Energy Inc.	XEL	\$2.10	\$2.21	\$2.33	\$2.46	\$2.59	\$2.73	\$2.87	\$3.03	\$3.20	\$3.37	\$3.56	\$3.76	\$3.97	\$4.19	\$4.42	\$4.67	\$4.93



1 Projected Annual																	
2 Dividend Payout Ratio		[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]
3 Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
4 ALLETE, Inc.	ALE	66.00%	65.75%	65.50%	65.25%	65.00%	65.31%	65.63%	65.94%	66.26%	66.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
5 Alliant Energy Corporation	LNT	62.00%	61.75%	61.50%	61.25%	61.00%	61.98%	62.96%	63.94%	64.92%	65.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
6 Ameren Corporation	AEE	66.00%	65.25%	64.50%	63.75%	63.00%	63.65%	64.29%	64.94%	65.59%	66.24%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
7 American Electric Power Company, Inc.	AEP	61.00%	62.50%	64.00%	65.50%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
8 Avista Corporation	AVA	67.00%	66.25%	65.50%	64.75%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
9 CenterPoint Energy, Inc.	CNP	86.00%	85.75%	85.50%	85.25%	85.00%	81.98%	78.96%	75.94%	72.92%	69.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
10 CMS Energy Corporation	CMS	64.00%	63.50%	63.00%	62.50%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
11 DTE Energy Company	DTE	62.00%	61.50%	61.00%	60.50%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
12 El Paso Electric Company	EE	54.00%	55.25%	56.50%	57.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
13 Eversource Energy	ES	61.00%	60.25%	59.50%	58.75%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
14 IDACORP, Inc.	IDA	53.00%	54.75%	56.50%	58.25%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
15 NorthWestern Corporation	NWE	59.00%	58.75%	58.50%	58.25%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
16 OGE Energy Corp.	OGE	66.00%	68.00%	70.00%	72.00%	74.00%	72.81%	71.63%	70.44%	69.26%	68.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
17 Otter Tail Corporation	OTTR	82.00%	77.50%	73.00%	68.50%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
18 Pinnacle West Capital Corporation	PNW	64.00%	64.00%	64.00%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
19 Portland General Electric Company	POR	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
20 SCANA Corporation	SCG	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
21 Wisconsin Energy Corporation	WEC	67.00%	67.00%	67.00%	67.00%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
22 Xcel Energy Inc.	XEL	62.00%	62.00%	62.00%	62.00%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%

23	Projected Annual																		
24	Cash Flows		[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	[63]
25	Company	Ticker	2015	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Terminal Value
26	ALLETE, Inc.	ALE	\$2.32	\$2.40	\$2.49	\$2.58	\$2.67	\$2.80	\$2.94	\$3.10	\$3.27	\$3.46	\$3.67	\$3.87	\$4.09	\$4.32	\$4.56	\$4.81	\$142.31
27	Alliant Energy Corporation	LNT	\$1.11	\$1.17	\$1.24	\$1.31	\$1.38	\$1.48	\$1.60	\$1.72	\$1.84	\$1.97	\$2.12	\$2.23	\$2.36	\$2.49	\$2.63	\$2.78	\$82.08
28	Ameren Corporation	AEE	\$1.66	\$1.73	\$1.81	\$1.89	\$1.97	\$2.10	\$2.24	\$2.39	\$2.55	\$2.72	\$2.90	\$3.06	\$3.23	\$3.41	\$3.60	\$3.80	\$112.35
29	American Electric Power Company, Inc.	AEP	\$2.25	\$2.37	\$2.49	\$2.62	\$2.75	\$2.84	\$2.95	\$3.07	\$3.21	\$3.37	\$3.56	\$3.76	\$3.97	\$4.19	\$4.42	\$4.67	\$138.08
30	Avista Corporation	AVA	\$1.33	\$1.38	\$1.43	\$1.49	\$1.54	\$1.63	\$1.73	\$1.84	\$1.95	\$2.07	\$2.20	\$2.33	\$2.46	\$2.59	\$2.74	\$2.89	\$85.49
31	CenterPoint Energy, Inc.	CNP	\$0.95	\$0.96	\$0.98	\$1.00	\$1.01	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.01	\$1.07	\$1.13	\$1.19	\$1.26	\$1.33	\$39.33
32	CMS Energy Corporation	CMS	\$1.28	\$1.35	\$1.42	\$1.49	\$1.57	\$1.68	\$1.80	\$1.93	\$2.07	\$2.21	\$2.37	\$2.50	\$2.64	\$2.78	\$2.94	\$3.10	\$91.79
33	DTE Energy Company	DTE	\$2.91	\$3.05	\$3.20	\$3.35	\$3.51	\$3.78	\$4.07	\$4.37	\$4.70	\$5.05	\$5.43	\$5.73	\$6.05	\$6.39	\$6.74	\$7.12	\$210.52
34	El Paso Electric Company	EE	\$1.14	\$1.21	\$1.29	\$1.37	\$1.46	\$1.55	\$1.66	\$1.78	\$1.90	\$2.05	\$2.20	\$2.33	\$2.46	\$2.59	\$2.74	\$2.89	\$85.47
35	Eversource Energy	ES	\$1.77	\$1.85	\$1.92	\$2.00	\$2.08	\$2.25	\$2.43	\$2.63	\$2.84	\$3.06	\$3.31	\$3.49	\$3.69	\$3.89	\$4.11	\$4.34	\$128.36
36	IDACORP, Inc.	IDA	\$2.11	\$2.25	\$2.39	\$2.54	\$2.69	\$2.84	\$3.00	\$3.19	\$3.40	\$3.64	\$3.91	\$4.13	\$4.36	\$4.60	\$4.85	\$5.13	\$151.58
37	NorthWestern Corporation	NWE	\$1.79	\$1.86	\$1.94	\$2.01	\$2.10	\$2.25	\$2.42	\$2.60	\$2.80	\$3.02	\$3.26	\$3.44	\$3.64	\$3.84	\$4.05	\$4.28	\$126.57
38	OGE Energy Corp.	OGE	\$1.15	\$1.22	\$1.29	\$1.37	\$1.45	\$1.48	\$1.51	\$1.55	\$1.59	\$1.64	\$1.71	\$1.80	\$1.90	\$2.01	\$2.12	\$2.24	\$66.20
39	Otter Tail Corporation	OTTR	\$1.36	\$1.36	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$2.56	\$75.76
40	Pinnacle West Capital Corporation	PNW	\$2.61	\$2.71	\$2.82	\$2.93	\$3.05	\$3.20	\$3.37	\$3.55	\$3.76	\$3.99	\$4.24	\$4.48	\$4.73	\$4.99	\$5.27	\$5.56	\$164.46
41	Portland General Electric Company	POR	\$1.25	\$1.32	\$1.40	\$1.48	\$1.57	\$1.70	\$1.83	\$1.97	\$2.12	\$2.29	\$2.47	\$2.60	\$2.75	\$2.90	\$3.06	\$3.23	\$95.62
42	SCANA Corporation	SCG	\$2.31	\$2.42	\$2.54	\$2.67	\$2.80	\$3.00	\$3.21	\$3.45	\$3.70	\$3.98	\$4.29	\$4.53	\$4.78	\$5.04	\$5.33	\$5.62	\$166.28
43	Wisconsin Energy Corporation	WEC	\$1.66	\$1.76	\$1.87	\$1.98	\$2.10	\$2.22	\$2.35	\$2.49	\$2.63	\$2.78	\$2.93	\$3.09	\$3.27	\$3.45	\$3.64	\$3.84	\$113.64
44	Xcel Energy Inc.	XEL	\$1.37	\$1.45	\$1.52	\$1.60	\$1.69	\$1.81	\$1.93	\$2.06	\$2.20	\$2.35	\$2.51	\$2.65	\$2.80	\$2.96	\$3.12	\$3.30	\$97.46

2	Projected Annual Data																			
	Investor Cash Flows		[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]	[80]	[81]
		Initial																		
3	Company	Ticker	Outflow	10/31/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30	6/30/31
4	ALLETE, Inc.	ALE	(\$61.07)	\$0.00	\$0.39	\$2.37	\$2.49	\$2.58	\$2.67	\$2.80	\$2.94	\$3.10	\$3.27	\$3.46	\$3.67	\$3.87	\$4.09	\$4.32	\$4.56	\$147.13
5	Alliant Energy Corporation	LNT	(\$38.77)	\$0.00	\$0.19	\$1.14	\$1.24	\$1.31	\$1.38	\$1.48	\$1.60	\$1.72	\$1.84	\$1.97	\$2.12	\$2.23	\$2.36	\$2.49	\$2.63	\$84.85
6	Ameren Corporation	AEE	(\$50.47)	\$0.00	\$0.28	\$1.71	\$1.81	\$1.89	\$1.97	\$2.10	\$2.24	\$2.39	\$2.55	\$2.72	\$2.90	\$3.06	\$3.23	\$3.41	\$3.60	\$116.15
7	American Electric Power Company, Inc.	AEP	(\$66.29)	\$0.00	\$0.38	\$2.28	\$2.49	\$2.62	\$2.75	\$2.84	\$2.95	\$3.07	\$3.21	\$3.37	\$3.56	\$3.76	\$3.97	\$4.19	\$4.42	\$142.75
8	Avista Corporation	AVA	(\$41.98)	\$0.00	\$0.22	\$1.36	\$1.43	\$1.49	\$1.54	\$1.63	\$1.73	\$1.84	\$1.95	\$2.07	\$2.20	\$2.33	\$2.46	\$2.59	\$2.74	\$88.38
9	CenterPoint Energy, Inc.	CNP	(\$23.14)	\$0.00	\$0.16	\$0.96	\$0.98	\$1.00	\$1.01	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.01	\$1.07	\$1.13	\$1.19	\$1.26	\$40.66
10	CMS Energy Corporation	CMS	(\$43.12)	\$0.00	\$0.21	\$1.32	\$1.42	\$1.49	\$1.57	\$1.68	\$1.80	\$1.93	\$2.07	\$2.21	\$2.37	\$2.50	\$2.64	\$2.78	\$2.94	\$94.89
11	DTE Energy Company	DTE	(\$95.13)	\$0.00	\$0.49	\$3.00	\$3.20	\$3.35	\$3.51	\$3.78	\$4.07	\$4.37	\$4.70	\$5.05	\$5.43	\$5.73	\$6.05	\$6.39	\$6.74	\$217.64
12	El Paso Electric Company	EE	(\$46.04)	\$0.00	\$0.19	\$1.16	\$1.29	\$1.37	\$1.46	\$1.55	\$1.66	\$1.78	\$1.90	\$2.05	\$2.20	\$2.33	\$2.46	\$2.59	\$2.74	\$88.36
13	Eversource Energy	ES	(\$55.87)	\$0.00	\$0.30	\$1.82	\$1.92	\$2.00	\$2.08	\$2.25	\$2.43	\$2.63	\$2.84	\$3.06	\$3.31	\$3.49	\$3.69	\$3.89	\$4.11	\$132.70
14	IDACORP, Inc.	IDA	(\$78.03)	\$0.00	\$0.35	\$2.14	\$2.39	\$2.54	\$2.69	\$2.84	\$3.00	\$3.19	\$3.40	\$3.64	\$3.91	\$4.13	\$4.36	\$4.60	\$4.85	\$156.71
15	NorthWestern Corporation	NWE	(\$58.85)	\$0.00	\$0.30	\$1.83	\$1.94	\$2.01	\$2.10	\$2.25	\$2.42	\$2.60	\$2.80	\$3.02	\$3.26	\$3.44	\$3.64	\$3.84	\$4.05	\$130.85
16	OGE Energy Corp.	OGE	(\$31.39)	\$0.00	\$0.19	\$1.17	\$1.29	\$1.37	\$1.45	\$1.48	\$1.51	\$1.55	\$1.59	\$1.64	\$1.71	\$1.80	\$1.90	\$2.01	\$2.12	\$68.43
17	Otter Tail Corporation	OTTR	(\$34.41)	\$0.00	\$0.23	\$1.40	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$78.32
18	Pinnacle West Capital Corporation	PNW	(\$77.09)	\$0.00	\$0.44	\$2.66	\$2.82	\$2.93	\$3.05	\$3.20	\$3.37	\$3.55	\$3.76	\$3.99	\$4.24	\$4.48	\$4.73	\$4.99	\$5.27	\$170.02
19	Portland General Electric Company	POR	(\$42.89)	\$0.00	\$0.21	\$1.28	\$1.40	\$1.48	\$1.57	\$1.70	\$1.83	\$1.97	\$2.12	\$2.29	\$2.47	\$2.60	\$2.75	\$2.90	\$3.06	\$98.85
20	SCANA Corporation	SCG	(\$72.47)	\$0.00	\$0.39	\$2.36	\$2.54	\$2.67	\$2.80	\$3.00	\$3.21	\$3.45	\$3.70	\$3.98	\$4.29	\$4.53	\$4.78	\$5.04	\$5.33	\$171.91
21	Wisconsin Energy Corporation	WEC	(\$61.49)	\$0.00	\$0.28	\$1.71	\$1.87	\$1.98	\$2.10	\$2.22	\$2.35	\$2.49	\$2.63	\$2.78	\$2.93	\$3.09	\$3.27	\$3.45	\$3.64	\$117.49
22	Xcel Energy Inc.	XEL	(\$42.22)	\$0.00	\$0.23	\$1.41	\$1.52	\$1.60	\$1.69	\$1.81	\$1.93	\$2.06	\$2.20	\$2.35	\$2.51	\$2.65	\$2.80	\$2.96	\$3.12	\$100.75

Multi-Stage Growth Discounted Cash Flow Model  
180 Day Average Stock Price  
Average EPS Growth Rate Estimate in First Stage

Line No	Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]				
1			Stock	EPS Growth Rate Estimates						Payout Ratio		Iterative Solution		Terminal P/E	Terminal PEG				
2	Company	Ticker	Price	Zacks	First Call	Value Line	Average	Long-Term Growth	2016	2020	2026	Proof	IRR	Ratio	Ratio				
3	ALLETE, Inc.	ALE	\$58.79	5.50%	5.00%	4.00%	4.83%	5.58%	66.00%	65.00%	66.88%	(\$0.00)	10.71%	19.78	3.55				
4	Alliant Energy Corporation	LNT	\$37.54	6.10%	6.60%	6.00%	6.23%	5.58%	62.00%	61.00%	66.88%	(\$0.00)	9.13%	19.78	3.55				
5	Ameren Corporation	AEE	\$49.50	6.10%	5.60%	6.00%	5.90%	5.58%	66.00%	63.00%	66.88%	(\$0.00)	9.61%	19.78	3.55				
6	American Electric Power Company, Inc.	AEP	\$65.48	5.20%	2.75%	4.00%	3.98%	5.58%	61.00%	67.00%	66.88%	(\$0.00)	9.71%	19.78	3.55				
7	Avista Corporation	AVA	\$41.07	5.30%	5.00%	5.00%	5.10%	5.58%	67.00%	64.00%	66.88%	(\$0.00)	8.74%	19.78	3.55				
8	CenterPoint Energy, Inc.	CNP	\$22.18	5.50%	5.11%	2.00%	4.20%	5.58%	86.00%	85.00%	66.88%	(\$0.00)	9.30%	19.78	3.55				
9	CMS Energy Corporation	CMS	\$42.26	6.60%	7.27%	6.00%	6.62%	5.58%	64.00%	62.00%	66.88%	(\$0.00)	9.34%	19.78	3.55				
10	DTE Energy Company	DTE	\$92.20	5.80%	5.63%	6.00%	5.81%	5.58%	62.00%	60.00%	66.88%	(\$0.00)	9.50%	19.78	3.55				
11	El Paso Electric Company	EE	\$45.14	4.40%	7.00%	4.00%	5.13%	5.58%	54.00%	59.00%	66.88%	(\$0.00)	8.36%	19.78	3.55				
12	Eversource Energy	ES	\$56.12	6.10%	5.39%	6.00%	5.83%	5.58%	61.00%	58.00%	66.88%	(\$0.00)	9.64%	19.78	3.55				
13	IDACORP, Inc.	IDA	\$75.62	4.30%	4.10%	3.00%	3.80%	5.58%	53.00%	60.00%	66.88%	(\$0.00)	8.74%	19.78	3.55				
14	NorthWestern Corporation	NWE	\$59.12	5.00%	4.50%	6.50%	5.33%	5.58%	59.00%	58.00%	66.88%	(\$0.00)	9.29%	19.78	3.55				
15	OGE Energy Corp.	OGE	\$30.12	5.20%	4.30%	3.00%	4.17%	5.58%	66.00%	74.00%	66.88%	(\$0.00)	10.25%	19.78	3.55				
16	Otter Tail Corporation	OTTR	\$31.77	NA	6.00%	6.00%	6.00%	5.58%	82.00%	64.00%	66.88%	(\$0.00)	10.04%	19.78	3.55				
17	Pinnacle West Capital Corporation	PNW	\$75.07	4.30%	3.95%	4.00%	4.08%	5.58%	64.00%	64.00%	66.88%	(\$0.00)	9.28%	19.78	3.55				
18	Portland General Electric Company	POR	\$41.42	6.00%	5.55%	5.50%	5.68%	5.58%	58.00%	59.00%	66.88%	(\$0.00)	9.55%	19.78	3.55				
19	SCANA Corporation	SCG	\$70.61	5.50%	6.00%	4.50%	5.33%	5.58%	58.00%	59.00%	66.88%	(\$0.00)	10.20%	19.78	3.55				
20	Wisconsin Energy Corporation	WEC	\$60.30	6.20%	6.77%	6.00%	6.32%	5.58%	67.00%	67.00%	66.88%	(\$0.00)	7.97%	19.78	3.55				
21	Xcel Energy Inc.	XEL	\$41.56	5.40%	5.36%	5.50%	5.42%	5.58%	62.00%	62.00%	66.88%	(\$0.00)	9.73%	19.78	3.55				
22												Mean	9.43%						
23												Max	10.71%						
24												Min	7.97%						
25	Projected Annual																		
26	Earnings per Share		[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]
27	Company	Ticker	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
28	ALLETE, Inc.	ALE	\$3.38	\$3.54	\$3.71	\$3.89	\$4.08	\$4.28	\$4.49	\$4.72	\$4.97	\$5.23	\$5.52	\$5.82	\$6.15	\$6.49	\$6.85	\$7.23	\$7.64
29	Alliant Energy Corporation	LNT	\$1.69	\$1.80	\$1.91	\$2.03	\$2.15	\$2.29	\$2.43	\$2.57	\$2.72	\$2.88	\$3.05	\$3.22	\$3.40	\$3.58	\$3.78	\$4.00	\$4.22
30	Ameren Corporation	AEE	\$2.38	\$2.52	\$2.67	\$2.83	\$2.99	\$3.17	\$3.36	\$3.55	\$3.75	\$3.97	\$4.19	\$4.42	\$4.67	\$4.93	\$5.21	\$5.50	\$5.80
31	American Electric Power Company, Inc.	AEP	\$3.59	\$3.73	\$3.88	\$4.04	\$4.20	\$4.36	\$4.55	\$4.76	\$4.98	\$5.23	\$5.51	\$5.82	\$6.14	\$6.49	\$6.85	\$7.23	\$7.63
32	Avista Corporation	AVA	\$1.89	\$1.99	\$2.09	\$2.19	\$2.31	\$2.42	\$2.55	\$2.68	\$2.83	\$2.98	\$3.14	\$3.32	\$3.50	\$3.70	\$3.91	\$4.12	\$4.35
33	CenterPoint Energy, Inc.	CNP	\$1.08	\$1.13	\$1.17	\$1.22	\$1.27	\$1.33	\$1.39	\$1.45	\$1.52	\$1.60	\$1.68	\$1.78	\$1.88	\$1.98	\$2.09	\$2.21	\$2.33
34	CMS Energy Corporation	CMS	\$1.89	\$2.02	\$2.15	\$2.29	\$2.44	\$2.60	\$2.77	\$2.95	\$3.13	\$3.31	\$3.50	\$3.70	\$3.90	\$4.12	\$4.35	\$4.59	\$4.85
35	DTE Energy Company	DTE	\$4.45	\$4.71	\$4.98	\$5.27	\$5.58	\$5.90	\$6.24	\$6.60	\$6.98	\$7.37	\$7.78	\$8.22	\$8.68	\$9.16	\$9.67	\$10.21	\$10.78
36	El Paso Electric Company	EE	\$2.03	\$2.13	\$2.24	\$2.36	\$2.48	\$2.61	\$2.74	\$2.89	\$3.04	\$3.21	\$3.38	\$3.57	\$3.77	\$3.98	\$4.20	\$4.44	\$4.69
37	Eversource Energy	ES	\$2.76	\$2.92	\$3.09	\$3.27	\$3.46	\$3.66	\$3.88	\$4.10	\$4.33	\$4.58	\$4.83	\$5.10	\$5.39	\$5.69	\$6.01	\$6.34	\$6.70
38	IDACORP, Inc.	IDA	\$3.87	\$4.02	\$4.17	\$4.33	\$4.49	\$4.66	\$4.85	\$5.07	\$5.31	\$5.57	\$5.86	\$6.19	\$6.54	\$6.90	\$7.28	\$7.69	\$8.12
39	NorthWestern Corporation	NWE	\$2.90	\$3.05	\$3.22	\$3.39	\$3.57	\$3.76	\$3.96	\$4.18	\$4.40	\$4.65	\$4.90	\$5.18	\$5.47	\$5.77	\$6.09	\$6.43	\$6.79
40	OGE Energy Corp.	OGE	\$1.69	\$1.76	\$1.83	\$1.91	\$1.99	\$2.07	\$2.16	\$2.26	\$2.37	\$2.50	\$2.63	\$2.78	\$2.93	\$3.09	\$3.27	\$3.45	\$3.64
41	Otter Tail Corporation	OTTR	\$1.56	\$1.65	\$1.75	\$1.86	\$1.97	\$2.09	\$2.21	\$2.34	\$2.48	\$2.62	\$2.77	\$2.92	\$3.08	\$3.25	\$3.44	\$3.63	\$3.83
42	Pinnacle West Capital Corporation	PNW	\$3.92	\$4.08	\$4.25	\$4.42	\$4.60	\$4.79	\$5.00	\$5.22	\$5.48	\$5.76	\$6.06	\$6.40	\$6.76	\$7.13	\$7.53	\$7.95	\$8.39
43	Portland General Electric Company	POR	\$2.04	\$2.16	\$2.28	\$2.41	\$2.54	\$2.69	\$2.84	\$3.00	\$3.17	\$3.35	\$3.54	\$3.73	\$3.94	\$4.16	\$4.39	\$4.64	\$4.90
44	SCANA Corporation	SCG	\$3.81	\$4.01	\$4.23	\$4.45	\$4.69	\$4.94	\$5.21	\$5.49	\$5.79	\$6.10	\$6.44	\$6.80	\$7.18	\$7.58	\$8.00	\$8.45	\$8.92
45	Wisconsin Energy Corporation	WEC	\$2.34	\$2.49	\$2.65	\$2.81	\$2.99	\$3.18	\$3.38	\$3.58	\$3.79	\$4.02	\$4.24	\$4.48	\$4.73	\$5.00	\$5.27	\$5.57	\$5.88
46	Xcel Energy Inc.	XEL	\$2.10	\$2.21	\$2.33	\$2.46	\$2.59	\$2.73	\$2.88	\$3.04	\$3.21	\$3.39	\$3.57	\$3.77	\$3.98	\$4.20	\$4.44	\$4.69	\$4.95

1	Projected Annual																	
2	Dividend Payout Ratio		[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]
3	Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
4	ALLETE, Inc.	ALE	66.00%	65.75%	65.50%	65.25%	65.00%	65.31%	65.63%	65.94%	66.26%	66.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
5	Alliant Energy Corporation	LNT	62.00%	61.75%	61.50%	61.25%	61.00%	61.98%	62.96%	63.94%	64.92%	65.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
6	Ameren Corporation	AEE	66.00%	65.25%	64.50%	63.75%	63.00%	63.65%	64.29%	64.94%	65.59%	66.24%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
7	American Electric Power Company, Inc.	AEP	61.00%	62.50%	64.00%	65.50%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
8	Avista Corporation	AVA	67.00%	66.25%	65.50%	64.75%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
9	CenterPoint Energy, Inc.	CNP	86.00%	85.75%	85.50%	85.25%	85.00%	81.98%	78.96%	75.94%	72.92%	69.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
10	CMS Energy Corporation	CMS	64.00%	63.50%	63.00%	62.50%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
11	DTE Energy Company	DTE	62.00%	61.50%	61.00%	60.50%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
12	El Paso Electric Company	EE	54.00%	55.25%	56.50%	57.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
13	Eversource Energy	ES	61.00%	60.25%	59.50%	58.75%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
14	IDACORP, Inc.	IDA	53.00%	54.75%	56.50%	58.25%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
15	NorthWestern Corporation	NWE	59.00%	58.75%	58.50%	58.25%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
16	OGE Energy Corp.	OGE	66.00%	68.00%	70.00%	72.00%	74.00%	72.81%	71.63%	70.44%	69.26%	68.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
17	Otter Tail Corporation	OTTR	82.00%	77.50%	73.00%	68.50%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
18	Pinnacle West Capital Corporation	PNW	64.00%	64.00%	64.00%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
19	Portland General Electric Company	POR	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
20	SCANA Corporation	SCG	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
21	Wisconsin Energy Corporation	WEC	67.00%	67.00%	67.00%	67.00%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
22	Xcel Energy Inc.	XEL	62.00%	62.00%	62.00%	62.00%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%

23	Projected Annual																		
24	Cash Flows		[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	[63]
25	Company	Ticker	2015	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Terminal Value
26	ALLETE, Inc.	ALE	\$2.34	\$2.44	\$2.55	\$2.66	\$2.78	\$2.93	\$3.10	\$3.27	\$3.47	\$3.67	\$3.89	\$4.11	\$4.34	\$4.58	\$4.84	\$5.11	\$151.08
27	Alliant Energy Corporation	LNT	\$1.11	\$1.18	\$1.25	\$1.32	\$1.39	\$1.50	\$1.62	\$1.74	\$1.87	\$2.01	\$2.15	\$2.27	\$2.40	\$2.53	\$2.67	\$2.82	\$83.44
28	Ameren Corporation	AEE	\$1.66	\$1.74	\$1.82	\$1.91	\$2.00	\$2.14	\$2.28	\$2.44	\$2.60	\$2.78	\$2.96	\$3.12	\$3.30	\$3.48	\$3.68	\$3.88	\$114.77
29	American Electric Power Company, Inc.	AEP	\$2.28	\$2.43	\$2.58	\$2.75	\$2.92	\$3.05	\$3.18	\$3.34	\$3.50	\$3.69	\$3.89	\$4.11	\$4.34	\$4.58	\$4.84	\$5.11	\$150.97
30	Avista Corporation	AVA	\$1.33	\$1.38	\$1.44	\$1.49	\$1.55	\$1.64	\$1.74	\$1.85	\$1.96	\$2.09	\$2.22	\$2.34	\$2.47	\$2.61	\$2.76	\$2.91	\$86.10
31	CenterPoint Energy, Inc.	CNP	\$0.97	\$1.01	\$1.04	\$1.09	\$1.13	\$1.14	\$1.15	\$1.16	\$1.17	\$1.18	\$1.19	\$1.26	\$1.33	\$1.40	\$1.48	\$1.56	\$46.14
32	CMS Energy Corporation	CMS	\$1.29	\$1.36	\$1.44	\$1.53	\$1.61	\$1.74	\$1.87	\$2.01	\$2.16	\$2.31	\$2.47	\$2.61	\$2.76	\$2.91	\$3.07	\$3.24	\$95.92
33	DTE Energy Company	DTE	\$2.92	\$3.06	\$3.22	\$3.37	\$3.54	\$3.82	\$4.11	\$4.43	\$4.76	\$5.12	\$5.50	\$5.80	\$6.13	\$6.47	\$6.83	\$7.21	\$213.23
34	El Paso Electric Company	EE	\$1.15	\$1.24	\$1.33	\$1.43	\$1.54	\$1.65	\$1.78	\$1.92	\$2.06	\$2.22	\$2.39	\$2.52	\$2.66	\$2.81	\$2.97	\$3.13	\$92.70
35	Eversource Energy	ES	\$1.78	\$1.86	\$1.95	\$2.03	\$2.13	\$2.31	\$2.50	\$2.71	\$2.93	\$3.16	\$3.41	\$3.60	\$3.81	\$4.02	\$4.24	\$4.48	\$132.44
36	IDACORP, Inc.	IDA	\$2.13	\$2.28	\$2.45	\$2.62	\$2.80	\$2.97	\$3.16	\$3.37	\$3.60	\$3.85	\$4.14	\$4.37	\$4.62	\$4.87	\$5.14	\$5.43	\$160.61
37	NorthWestern Corporation	NWE	\$1.80	\$1.89	\$1.98	\$2.08	\$2.18	\$2.36	\$2.55	\$2.75	\$2.97	\$3.21	\$3.46	\$3.66	\$3.86	\$4.08	\$4.30	\$4.54	\$134.33
38	OGE Energy Corp.	OGE	\$1.16	\$1.25	\$1.34	\$1.43	\$1.53	\$1.58	\$1.62	\$1.67	\$1.73	\$1.79	\$1.86	\$1.96	\$2.07	\$2.18	\$2.31	\$2.44	\$72.01
39	Otter Tail Corporation	OTTR	\$1.36	\$1.36	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$2.56	\$75.76
40	Pinnacle West Capital Corporation	PNW	\$2.61	\$2.72	\$2.83	\$2.94	\$3.06	\$3.22	\$3.39	\$3.58	\$3.79	\$4.03	\$4.28	\$4.52	\$4.77	\$5.04	\$5.32	\$5.61	\$166.04
41	Portland General Electric Company	POR	\$1.25	\$1.33	\$1.41	\$1.50	\$1.59	\$1.71	\$1.85	\$2.00	\$2.15	\$2.32	\$2.50	\$2.64	\$2.78	\$2.94	\$3.10	\$3.28	\$96.87
42	SCANA Corporation	SCG	\$2.33	\$2.46	\$2.60	\$2.76	\$2.91	\$3.14	\$3.38	\$3.64	\$3.92	\$4.22	\$4.55	\$4.80	\$5.07	\$5.35	\$5.65	\$5.97	\$176.48
43	Wisconsin Energy Corporation	WEC	\$1.67	\$1.77	\$1.88	\$2.00	\$2.13	\$2.26	\$2.40	\$2.54	\$2.69	\$2.84	\$3.00	\$3.16	\$3.34	\$3.53	\$3.72	\$3.93	\$116.27
44	Xcel Energy Inc.	XEL	\$1.37	\$1.45	\$1.53	\$1.61	\$1.70	\$1.81	\$1.93	\$2.07	\$2.21	\$2.36	\$2.52	\$2.66	\$2.81	\$2.97	\$3.13	\$3.31	\$97.88

1	Projected Annual Data																			
2	Investor Cash Flows		[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]	[80]	[81]
		Initial																		
3	Company	Ticker	Outflow	10/31/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30	6/30/31
4	ALLETE, Inc.	ALE	(\$58.80)	\$0.00	\$0.39	\$2.40	\$2.55	\$2.66	\$2.78	\$2.93	\$3.10	\$3.27	\$3.47	\$3.67	\$3.89	\$4.11	\$4.34	\$4.58	\$4.84	\$156.19
5	Alliant Energy Corporation	LNT	(\$37.54)	\$0.00	\$0.19	\$1.15	\$1.25	\$1.32	\$1.39	\$1.50	\$1.62	\$1.74	\$1.87	\$2.01	\$2.15	\$2.27	\$2.40	\$2.53	\$2.67	\$86.26
6	Ameren Corporation	AEE	(\$49.50)	\$0.00	\$0.28	\$1.71	\$1.82	\$1.91	\$2.00	\$2.14	\$2.28	\$2.44	\$2.60	\$2.78	\$2.96	\$3.12	\$3.30	\$3.48	\$3.68	\$118.65
7	American Electric Power Company, Inc.	AEP	(\$65.48)	\$0.00	\$0.38	\$2.32	\$2.58	\$2.75	\$2.92	\$3.05	\$3.18	\$3.34	\$3.50	\$3.69	\$3.89	\$4.11	\$4.34	\$4.58	\$4.84	\$156.08
8	Avista Corporation	AVA	(\$41.07)	\$0.00	\$0.22	\$1.36	\$1.44	\$1.49	\$1.55	\$1.64	\$1.74	\$1.85	\$1.96	\$2.09	\$2.22	\$2.34	\$2.47	\$2.61	\$2.76	\$89.01
9	CenterPoint Energy, Inc.	CNP	(\$22.18)	\$0.00	\$0.16	\$0.99	\$1.04	\$1.09	\$1.13	\$1.14	\$1.15	\$1.16	\$1.17	\$1.18	\$1.19	\$1.26	\$1.33	\$1.40	\$1.48	\$47.70
10	CMS Energy Corporation	CMS	(\$42.26)	\$0.00	\$0.22	\$1.33	\$1.44	\$1.53	\$1.61	\$1.74	\$1.87	\$2.01	\$2.16	\$2.31	\$2.47	\$2.61	\$2.76	\$2.91	\$3.07	\$99.16
11	DTE Energy Company	DTE	(\$92.20)	\$0.00	\$0.49	\$3.00	\$3.22	\$3.37	\$3.54	\$3.82	\$4.11	\$4.43	\$4.76	\$5.12	\$5.50	\$5.80	\$6.13	\$6.47	\$6.83	\$220.44
12	El Paso Electric Company	EE	(\$45.14)	\$0.00	\$0.19	\$1.18	\$1.33	\$1.43	\$1.54	\$1.65	\$1.78	\$1.92	\$2.06	\$2.22	\$2.39	\$2.52	\$2.66	\$2.81	\$2.97	\$95.84
13	Eversource Energy	ES	(\$56.12)	\$0.00	\$0.30	\$1.83	\$1.95	\$2.03	\$2.13	\$2.31	\$2.50	\$2.71	\$2.93	\$3.16	\$3.41	\$3.60	\$3.81	\$4.02	\$4.24	\$136.91
14	IDACORP, Inc.	IDA	(\$75.62)	\$0.00	\$0.36	\$2.17	\$2.45	\$2.62	\$2.80	\$2.97	\$3.16	\$3.37	\$3.60	\$3.85	\$4.14	\$4.37	\$4.62	\$4.87	\$5.14	\$166.05
15	NorthWestern Corporation	NWE	(\$59.12)	\$0.00	\$0.30	\$1.85	\$1.98	\$2.08	\$2.18	\$2.36	\$2.55	\$2.75	\$2.97	\$3.21	\$3.46	\$3.66	\$3.86	\$4.08	\$4.30	\$138.87
16	OGE Energy Corp.	OGE	(\$30.12)	\$0.00	\$0.19	\$1.19	\$1.34	\$1.43	\$1.53	\$1.58	\$1.62	\$1.67	\$1.73	\$1.79	\$1.86	\$1.96	\$2.07	\$2.18	\$2.31	\$74.45
17	Otter Tail Corporation	OTTR	(\$31.77)	\$0.00	\$0.23	\$1.40	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$78.32
18	Pinnacle West Capital Corporation	PNW	(\$75.07)	\$0.00	\$0.44	\$2.66	\$2.83	\$2.94	\$3.06	\$3.22	\$3.39	\$3.58	\$3.79	\$4.03	\$4.28	\$4.52	\$4.77	\$5.04	\$5.32	\$171.66
19	Portland General Electric Company	POR	(\$41.43)	\$0.00	\$0.21	\$1.29	\$1.41	\$1.50	\$1.59	\$1.71	\$1.85	\$2.00	\$2.15	\$2.32	\$2.50	\$2.64	\$2.78	\$2.94	\$3.10	\$100.15
20	SCANA Corporation	SCG	(\$70.61)	\$0.00	\$0.39	\$2.39	\$2.60	\$2.76	\$2.91	\$3.14	\$3.38	\$3.64	\$3.92	\$4.22	\$4.55	\$4.80	\$5.07	\$5.35	\$5.65	\$182.45
21	Wisconsin Energy Corporation	WEC	(\$60.30)	\$0.00	\$0.28	\$1.72	\$1.88	\$2.00	\$2.13	\$2.26	\$2.40	\$2.54	\$2.69	\$2.84	\$3.00	\$3.16	\$3.34	\$3.53	\$3.72	\$120.20
22	Xcel Energy Inc.	XEL	(\$41.56)	\$0.00	\$0.23	\$1.41	\$1.53	\$1.61	\$1.70	\$1.81	\$1.93	\$2.07	\$2.21	\$2.36	\$2.52	\$2.66	\$2.81	\$2.97	\$3.13	\$101.19

Multi-Stage Growth Discounted Cash Flow Model  
180 Day Average Stock Price  
High EPS Growth Rate Estimate in First Stage

Line No	Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]				
1		Stock	EPS Growth Rate Estimates					Payout Ratio			Iterative Solution		Terminal	Terminal					
						Value	High	Long-Term						P/E	PEG				
2	Company	Ticker	Price	Zacks	First Call	Line	Growth	Growth	2016	2020	2026	Proof	IRR	Ratio	Ratio				
3	ALLETE, Inc.	ALE	\$58.79	5.50%	5.00%	4.00%	5.50%	5.58%	66.00%	65.00%	66.88%	(\$0.00)	11.13%	19.78	3.55				
4	Alliant Energy Corporation	LNT	\$37.54	6.10%	6.60%	6.00%	6.60%	5.58%	62.00%	61.00%	66.88%	(\$0.00)	9.35%	19.78	3.55				
5	Ameren Corporation	AEE	\$49.50	6.10%	5.60%	6.00%	6.10%	5.58%	66.00%	63.00%	66.88%	(\$0.00)	9.73%	19.78	3.55				
6	American Electric Power Company, Inc.	AEP	\$65.48	5.20%	2.75%	4.00%	5.20%	5.58%	61.00%	67.00%	66.88%	(\$0.00)	10.47%	19.78	3.55				
7	Avista Corporation	AVA	\$41.07	5.30%	5.00%	5.00%	5.30%	5.58%	67.00%	64.00%	66.88%	(\$0.00)	8.87%	19.78	3.55				
8	CenterPoint Energy, Inc.	CNP	\$22.18	5.50%	5.11%	2.00%	5.50%	5.58%	86.00%	85.00%	66.88%	(\$0.00)	10.12%	19.78	3.55				
9	CMS Energy Corporation	CMS	\$42.26	6.60%	7.27%	6.00%	7.27%	5.58%	64.00%	62.00%	66.88%	(\$0.00)	9.73%	19.78	3.55				
10	DTE Energy Company	DTE	\$92.20	5.80%	5.63%	6.00%	6.00%	5.58%	62.00%	60.00%	66.88%	(\$0.00)	9.62%	19.78	3.55				
11	El Paso Electric Company	EE	\$45.14	4.40%	7.00%	4.00%	7.00%	5.58%	54.00%	59.00%	66.88%	(\$0.00)	9.47%	19.78	3.55				
12	Eversource Energy	ES	\$56.12	6.10%	5.39%	6.00%	6.10%	5.58%	61.00%	58.00%	66.88%	(\$0.00)	9.80%	19.78	3.55				
13	IDACORP, Inc.	IDA	\$75.62	4.30%	4.10%	3.00%	4.30%	5.58%	53.00%	60.00%	66.88%	(\$0.00)	9.04%	19.78	3.55				
14	NorthWestern Corporation	NWE	\$59.12	5.00%	4.50%	6.50%	6.50%	5.58%	59.00%	58.00%	66.88%	(\$0.00)	10.00%	19.78	3.55				
15	OGE Energy Corp.	OGE	\$30.12	5.20%	4.30%	3.00%	5.20%	5.58%	66.00%	74.00%	66.88%	(\$0.00)	10.91%	19.78	3.55				
16	Otter Tail Corporation	OTTR	\$31.77	NA	6.00%	6.00%	6.00%	5.58%	82.00%	64.00%	66.88%	(\$0.00)	10.04%	19.78	3.55				
17	Pinnacle West Capital Corporation	PNW	\$75.07	4.30%	3.95%	4.00%	4.30%	5.58%	64.00%	64.00%	66.88%	(\$0.00)	9.41%	19.78	3.55				
18	Portland General Electric Company	POR	\$41.42	6.00%	5.55%	5.50%	6.00%	5.58%	58.00%	59.00%	66.88%	(\$0.00)	9.75%	19.78	3.55				
19	SCANA Corporation	SCG	\$70.61	5.50%	6.00%	4.50%	6.00%	5.58%	58.00%	59.00%	66.88%	(\$0.00)	10.61%	19.78	3.55				
20	Wisconsin Energy Corporation	WEC	\$60.30	6.20%	6.77%	6.00%	6.77%	5.58%	67.00%	67.00%	66.88%	(\$0.00)	8.23%	19.78	3.55				
21	Xcel Energy Inc.	XEL	\$41.56	5.40%	5.36%	5.50%	5.50%	5.58%	62.00%	62.00%	66.88%	(\$0.00)	9.78%	19.78	3.55				
22												Mean	9.79%						
23												Max	11.13%						
24												Min	8.23%						
25	Projected Annual																		
26	Earnings per Share		[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]
27	Company	Ticker	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
28	ALLETE, Inc.	ALE	\$3.38	\$3.57	\$3.76	\$3.97	\$4.19	\$4.42	\$4.66	\$4.92	\$5.19	\$5.48	\$5.78	\$6.11	\$6.45	\$6.81	\$7.19	\$7.59	\$8.01
29	Alliant Energy Corporation	LNT	\$1.69	\$1.80	\$1.92	\$2.05	\$2.18	\$2.33	\$2.48	\$2.63	\$2.79	\$2.96	\$3.13	\$3.30	\$3.48	\$3.68	\$3.88	\$4.10	\$4.33
30	Ameren Corporation	AEE	\$2.38	\$2.53	\$2.68	\$2.84	\$3.02	\$3.20	\$3.39	\$3.59	\$3.80	\$4.02	\$4.25	\$4.49	\$4.74	\$5.00	\$5.28	\$5.57	\$5.89
31	American Electric Power Company, Inc.	AEP	\$3.59	\$3.78	\$3.97	\$4.18	\$4.40	\$4.63	\$4.87	\$5.13	\$5.40	\$5.70	\$6.01	\$6.35	\$6.70	\$7.08	\$7.47	\$7.89	\$8.33
32	Avista Corporation	AVA	\$1.89	\$1.99	\$2.10	\$2.21	\$2.32	\$2.45	\$2.58	\$2.72	\$2.86	\$3.02	\$3.19	\$3.37	\$3.55	\$3.75	\$3.96	\$4.18	\$4.42
33	CenterPoint Energy, Inc.	CNP	\$1.08	\$1.14	\$1.20	\$1.27	\$1.34	\$1.41	\$1.49	\$1.57	\$1.66	\$1.75	\$1.85	\$1.95	\$2.06	\$2.17	\$2.30	\$2.42	\$2.56
34	CMS Energy Corporation	CMS	\$1.89	\$2.03	\$2.17	\$2.33	\$2.50	\$2.68	\$2.87	\$3.06	\$3.26	\$3.46	\$3.66	\$3.87	\$4.08	\$4.31	\$4.55	\$4.81	\$5.07
35	DTE Energy Company	DTE	\$4.45	\$4.72	\$5.00	\$5.30	\$5.62	\$5.96	\$6.31	\$6.68	\$7.06	\$7.47	\$7.89	\$8.33	\$8.79	\$9.28	\$9.80	\$10.35	\$10.93
36	El Paso Electric Company	EE	\$2.03	\$2.17	\$2.32	\$2.49	\$2.66	\$2.85	\$3.04	\$3.24	\$3.44	\$3.65	\$3.86	\$4.08	\$4.30	\$4.54	\$4.80	\$5.07	\$5.35
37	Eversource Energy	ES	\$2.76	\$2.93	\$3.11	\$3.30	\$3.50	\$3.71	\$3.93	\$4.17	\$4.41	\$4.66	\$4.93	\$5.20	\$5.49	\$5.80	\$6.12	\$6.46	\$6.82
38	IDACORP, Inc.	IDA	\$3.87	\$4.04	\$4.21	\$4.39	\$4.58	\$4.78	\$4.99	\$5.23	\$5.49	\$5.77	\$6.08	\$6.42	\$6.78	\$7.15	\$7.55	\$7.97	\$8.42
39	NorthWestern Corporation	NWE	\$2.90	\$3.09	\$3.29	\$3.50	\$3.73	\$3.97	\$4.23	\$4.49	\$4.76	\$5.04	\$5.33	\$5.62	\$5.94	\$6.27	\$6.62	\$6.99	\$7.38
40	OGE Energy Corp.	OGE	\$1.69	\$1.78	\$1.87	\$1.97	\$2.07	\$2.18	\$2.29	\$2.41	\$2.54	\$2.68	\$2.83	\$2.99	\$3.16	\$3.33	\$3.52	\$3.71	\$3.92
41	Otter Tail Corporation	OTTR	\$1.56	\$1.65	\$1.75	\$1.86	\$1.97	\$2.09	\$2.21	\$2.34	\$2.48	\$2.62	\$2.77	\$2.92	\$3.08	\$3.25	\$3.44	\$3.63	\$3.83
42	Pinnacle West Capital Corporation	PNW	\$3.92	\$4.09	\$4.26	\$4.45	\$4.64	\$4.84	\$5.06	\$5.30	\$5.56	\$5.84	\$6.16	\$6.50	\$6.86	\$7.25	\$7.65	\$8.08	\$8.53
43	Portland General Electric Company	POR	\$2.04	\$2.16	\$2.29	\$2.43	\$2.58	\$2.73	\$2.89	\$3.06	\$3.24	\$3.42	\$3.62	\$3.82	\$4.03	\$4.26	\$4.49	\$4.74	\$5.01
44	SCANA Corporation	SCG	\$3.81	\$4.04	\$4.28	\$4.54	\$4.81	\$5.10	\$5.40	\$5.72	\$6.05	\$6.39	\$6.76	\$7.13	\$7.53	\$7.95	\$8.39	\$8.86	\$9.35
45	Wisconsin Energy Corporation	WEC	\$2.34	\$2.50	\$2.67	\$2.85	\$3.04	\$3.25	\$3.46	\$3.68	\$3.91	\$4.14	\$4.38	\$4.62	\$4.88	\$5.15	\$5.44	\$5.75	\$6.07
46	Xcel Energy Inc.	XEL	\$2.10	\$2.22	\$2.34	\$2.47	\$2.60	\$2.74	\$2.90	\$3.06	\$3.23	\$3.40	\$3.59	\$3.79	\$4.01	\$4.23	\$4.46	\$4.71	\$4.98

1	Projected Annual																	
2	Dividend Payout Ratio		[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]
3	Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
4	ALLETE, Inc.	ALE	66.00%	65.75%	65.50%	65.25%	65.00%	65.31%	65.63%	65.94%	66.26%	66.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
5	Alliant Energy Corporation	LNT	62.00%	61.75%	61.50%	61.25%	61.00%	61.98%	62.96%	63.94%	64.92%	65.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
6	Ameren Corporation	AEE	66.00%	65.25%	64.50%	63.75%	63.00%	63.65%	64.29%	64.94%	65.59%	66.24%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
7	American Electric Power Company, Inc.	AEP	61.00%	62.50%	64.00%	65.50%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
8	Avista Corporation	AVA	67.00%	66.25%	65.50%	64.75%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
9	CenterPoint Energy, Inc.	CNP	86.00%	85.75%	85.50%	85.25%	85.00%	81.98%	78.96%	75.94%	72.92%	69.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
10	CMS Energy Corporation	CMS	64.00%	63.50%	63.00%	62.50%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
11	DTE Energy Company	DTE	62.00%	61.50%	61.00%	60.50%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
12	El Paso Electric Company	EE	54.00%	55.25%	56.50%	57.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
13	Eversource Energy	ES	61.00%	60.25%	59.50%	58.75%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
14	IDACORP, Inc.	IDA	53.00%	54.75%	56.50%	58.25%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
15	NorthWestern Corporation	NWE	59.00%	58.75%	58.50%	58.25%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
16	OGE Energy Corp.	OGE	66.00%	68.00%	70.00%	72.00%	74.00%	72.81%	71.63%	70.44%	69.26%	68.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
17	Otter Tail Corporation	OTTR	82.00%	77.50%	73.00%	68.50%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
18	Pinnacle West Capital Corporation	PNW	64.00%	64.00%	64.00%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
19	Portland General Electric Company	POR	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
20	SCANA Corporation	SCG	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
21	Wisconsin Energy Corporation	WEC	67.00%	67.00%	67.00%	67.00%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
22	Xcel Energy Inc.	XEL	62.00%	62.00%	62.00%	62.00%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%

23	Projected Annual																		
24	Cash Flows		[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	[63]
25	Company	Ticker	2015	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Terminal Value
26	ALLETE, Inc.	ALE	\$2.35	\$2.47	\$2.60	\$2.73	\$2.87	\$3.04	\$3.23	\$3.42	\$3.63	\$3.85	\$4.08	\$4.31	\$4.55	\$4.81	\$5.07	\$5.36	\$158.43
27	Alliant Energy Corporation	LNT	\$1.12	\$1.19	\$1.26	\$1.34	\$1.42	\$1.53	\$1.66	\$1.78	\$1.92	\$2.06	\$2.21	\$2.33	\$2.46	\$2.60	\$2.74	\$2.90	\$85.63
28	Ameren Corporation	AEE	\$1.67	\$1.75	\$1.83	\$1.92	\$2.02	\$2.16	\$2.31	\$2.47	\$2.64	\$2.81	\$3.00	\$3.17	\$3.34	\$3.53	\$3.73	\$3.94	\$116.41
29	American Electric Power Company, Inc.	AEP	\$2.30	\$2.48	\$2.67	\$2.88	\$3.10	\$3.26	\$3.43	\$3.62	\$3.81	\$4.02	\$4.25	\$4.48	\$4.73	\$5.00	\$5.28	\$5.57	\$164.72
30	Avista Corporation	AVA	\$1.33	\$1.39	\$1.45	\$1.50	\$1.57	\$1.66	\$1.76	\$1.87	\$1.99	\$2.12	\$2.25	\$2.38	\$2.51	\$2.65	\$2.80	\$2.95	\$87.34
31	CenterPoint Energy, Inc.	CNP	\$0.98	\$1.03	\$1.08	\$1.14	\$1.20	\$1.22	\$1.24	\$1.26	\$1.28	\$1.29	\$1.31	\$1.38	\$1.45	\$1.54	\$1.62	\$1.71	\$50.62
32	CMS Energy Corporation	CMS	\$1.30	\$1.38	\$1.47	\$1.56	\$1.66	\$1.80	\$1.95	\$2.10	\$2.26	\$2.42	\$2.59	\$2.73	\$2.88	\$3.05	\$3.21	\$3.39	\$100.38
33	DTE Energy Company	DTE	\$2.92	\$3.08	\$3.23	\$3.40	\$3.57	\$3.86	\$4.16	\$4.48	\$4.82	\$5.19	\$5.57	\$5.88	\$6.21	\$6.56	\$6.92	\$7.31	\$216.12
34	El Paso Electric Company	EE	\$1.17	\$1.28	\$1.41	\$1.54	\$1.68	\$1.83	\$2.00	\$2.17	\$2.35	\$2.53	\$2.73	\$2.88	\$3.04	\$3.21	\$3.39	\$3.58	\$105.79
35	Eversource Energy	ES	\$1.79	\$1.87	\$1.96	\$2.05	\$2.15	\$2.34	\$2.54	\$2.75	\$2.98	\$3.22	\$3.48	\$3.67	\$3.88	\$4.10	\$4.32	\$4.56	\$134.99
36	IDACORP, Inc.	IDA	\$2.14	\$2.30	\$2.48	\$2.67	\$2.87	\$3.05	\$3.26	\$3.48	\$3.73	\$4.00	\$4.29	\$4.53	\$4.78	\$5.05	\$5.33	\$5.63	\$166.50
37	NorthWestern Corporation	NWE	\$1.82	\$1.93	\$2.05	\$2.17	\$2.30	\$2.51	\$2.74	\$2.97	\$3.22	\$3.48	\$3.76	\$3.97	\$4.19	\$4.43	\$4.67	\$4.93	\$145.90
38	OGE Energy Corp.	OGE	\$1.17	\$1.27	\$1.38	\$1.49	\$1.61	\$1.67	\$1.73	\$1.79	\$1.86	\$1.93	\$2.00	\$2.11	\$2.23	\$2.35	\$2.48	\$2.62	\$77.54
39	Otter Tail Corporation	OTTR	\$1.36	\$1.36	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$2.56	\$75.76
40	Pinnacle West Capital Corporation	PNW	\$2.62	\$2.73	\$2.85	\$2.97	\$3.10	\$3.26	\$3.44	\$3.64	\$3.85	\$4.09	\$4.35	\$4.59	\$4.85	\$5.12	\$5.40	\$5.70	\$168.65
41	Portland General Electric Company	POR	\$1.25	\$1.34	\$1.42	\$1.51	\$1.61	\$1.74	\$1.89	\$2.04	\$2.20	\$2.37	\$2.55	\$2.70	\$2.85	\$3.01	\$3.17	\$3.35	\$99.07
42	SCANA Corporation	SCG	\$2.34	\$2.49	\$2.65	\$2.83	\$3.01	\$3.26	\$3.52	\$3.81	\$4.11	\$4.43	\$4.77	\$5.04	\$5.32	\$5.61	\$5.93	\$6.26	\$185.04
43	Wisconsin Energy Corporation	WEC	\$1.67	\$1.79	\$1.91	\$2.04	\$2.18	\$2.32	\$2.46	\$2.62	\$2.77	\$2.93	\$3.09	\$3.27	\$3.45	\$3.64	\$3.84	\$4.06	\$119.99
44	Xcel Energy Inc.	XEL	\$1.37	\$1.45	\$1.53	\$1.61	\$1.70	\$1.82	\$1.94	\$2.08	\$2.22	\$2.37	\$2.54	\$2.68	\$2.83	\$2.99	\$3.15	\$3.33	\$98.43

1	Projected Annual Data																			
2	Investor Cash Flows		[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]	[80]	[81]
			Initial																	
3	Company	Ticker	Outflow	10/31/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30	6/30/31
4	ALLETE, Inc.	ALE	(\$58.80)	\$0.00	\$0.39	\$2.42	\$2.60	\$2.73	\$2.87	\$3.04	\$3.23	\$3.42	\$3.63	\$3.85	\$4.08	\$4.31	\$4.55	\$4.81	\$5.07	\$163.79
5	Alliant Energy Corporation	LNT	(\$37.54)	\$0.00	\$0.19	\$1.15	\$1.26	\$1.34	\$1.42	\$1.53	\$1.66	\$1.78	\$1.92	\$2.06	\$2.21	\$2.33	\$2.46	\$2.60	\$2.74	\$88.52
6	Ameren Corporation	AEE	(\$49.51)	\$0.00	\$0.28	\$1.72	\$1.83	\$1.92	\$2.02	\$2.16	\$2.31	\$2.47	\$2.64	\$2.81	\$3.00	\$3.17	\$3.34	\$3.53	\$3.73	\$120.34
7	American Electric Power Company, Inc.	AEP	(\$65.48)	\$0.00	\$0.39	\$2.36	\$2.67	\$2.88	\$3.10	\$3.26	\$3.43	\$3.62	\$3.81	\$4.02	\$4.25	\$4.48	\$4.73	\$5.00	\$5.28	\$170.29
8	Avista Corporation	AVA	(\$41.07)	\$0.00	\$0.22	\$1.37	\$1.45	\$1.50	\$1.57	\$1.66	\$1.76	\$1.87	\$1.99	\$2.12	\$2.25	\$2.38	\$2.51	\$2.65	\$2.80	\$90.29
9	CenterPoint Energy, Inc.	CNP	(\$22.18)	\$0.00	\$0.16	\$1.01	\$1.08	\$1.14	\$1.20	\$1.22	\$1.24	\$1.26	\$1.28	\$1.29	\$1.31	\$1.38	\$1.45	\$1.54	\$1.62	\$52.33
10	CMS Energy Corporation	CMS	(\$42.26)	\$0.00	\$0.22	\$1.34	\$1.47	\$1.56	\$1.66	\$1.80	\$1.95	\$2.10	\$2.26	\$2.42	\$2.59	\$2.73	\$2.88	\$3.05	\$3.21	\$103.77
11	DTE Energy Company	DTE	(\$92.20)	\$0.00	\$0.49	\$3.01	\$3.23	\$3.40	\$3.57	\$3.86	\$4.16	\$4.48	\$4.82	\$5.19	\$5.57	\$5.88	\$6.21	\$6.56	\$6.92	\$223.42
12	El Paso Electric Company	EE	(\$45.14)	\$0.00	\$0.20	\$1.21	\$1.41	\$1.54	\$1.68	\$1.83	\$2.00	\$2.17	\$2.35	\$2.53	\$2.73	\$2.88	\$3.04	\$3.21	\$3.39	\$109.37
13	Eversource Energy	ES	(\$56.13)	\$0.00	\$0.30	\$1.84	\$1.96	\$2.05	\$2.15	\$2.34	\$2.54	\$2.75	\$2.98	\$3.22	\$3.48	\$3.67	\$3.88	\$4.10	\$4.32	\$139.56
14	IDACORP, Inc.	IDA	(\$75.62)	\$0.00	\$0.36	\$2.19	\$2.48	\$2.67	\$2.87	\$3.05	\$3.26	\$3.48	\$3.73	\$4.00	\$4.29	\$4.53	\$4.78	\$5.05	\$5.33	\$172.13
15	NorthWestern Corporation	NWE	(\$59.12)	\$0.00	\$0.30	\$1.88	\$2.05	\$2.17	\$2.30	\$2.51	\$2.74	\$2.97	\$3.22	\$3.48	\$3.76	\$3.97	\$4.19	\$4.43	\$4.67	\$150.84
16	OGE Energy Corp.	OGE	(\$30.12)	\$0.00	\$0.20	\$1.20	\$1.38	\$1.49	\$1.61	\$1.67	\$1.73	\$1.79	\$1.86	\$1.93	\$2.00	\$2.11	\$2.23	\$2.35	\$2.48	\$80.16
17	Otter Tail Corporation	OTTR	(\$31.77)	\$0.00	\$0.23	\$1.40	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$78.32
18	Pinnacle West Capital Corporation	PNW	(\$75.07)	\$0.00	\$0.44	\$2.67	\$2.85	\$2.97	\$3.10	\$3.26	\$3.44	\$3.64	\$3.85	\$4.09	\$4.35	\$4.59	\$4.85	\$5.12	\$5.40	\$174.35
19	Portland General Electric Company	POR	(\$41.43)	\$0.00	\$0.21	\$1.29	\$1.42	\$1.51	\$1.61	\$1.74	\$1.89	\$2.04	\$2.20	\$2.37	\$2.55	\$2.70	\$2.85	\$3.01	\$3.17	\$102.42
20	SCANA Corporation	SCG	(\$70.61)	\$0.00	\$0.39	\$2.41	\$2.65	\$2.83	\$3.01	\$3.26	\$3.52	\$3.81	\$4.11	\$4.43	\$4.77	\$5.04	\$5.32	\$5.61	\$5.93	\$191.29
21	Wisconsin Energy Corporation	WEC	(\$60.30)	\$0.00	\$0.28	\$1.73	\$1.91	\$2.04	\$2.18	\$2.32	\$2.46	\$2.62	\$2.77	\$2.93	\$3.09	\$3.27	\$3.45	\$3.64	\$3.84	\$124.05
22	Xcel Energy Inc.	XEL	(\$41.56)	\$0.00	\$0.23	\$1.41	\$1.53	\$1.61	\$1.70	\$1.82	\$1.94	\$2.08	\$2.22	\$2.37	\$2.54	\$2.68	\$2.83	\$2.99	\$3.15	\$101.76



Multi-Stage Growth Discounted Cash Flow Model  
180 Day Average Stock Price  
Low EPS Growth Rate Estimate in First Stage

Line No	Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]					
1			Stock	EPS Growth Rate Estimates					Payout Ratio			Iterative Solution		Terminal	Terminal					
						Value	Low	Long-Term												
2	Company	Ticker	Price	Zacks	First Call	Line	Growth		2016	2020	2026	Proof	IRR	P/E	PEG	Ratio				
3	ALLETE, Inc.	ALE	\$58.79	5.50%	5.00%	4.00%	4.00%	5.58%	66.00%	65.00%	66.88%	(\$0.00)	10.18%	19.78	3.55					
4	Alliant Energy Corporation	LNT	\$37.54	6.10%	6.60%	6.00%	6.00%	5.58%	62.00%	61.00%	66.88%	(\$0.00)	8.99%	19.78	3.55					
5	Ameren Corporation	AEE	\$49.50	6.10%	5.60%	6.00%	5.60%	5.58%	66.00%	63.00%	66.88%	(\$0.00)	9.43%	19.78	3.55					
6	American Electric Power Company, Inc.	AEP	\$65.48	5.20%	2.75%	4.00%	2.75%	5.58%	61.00%	67.00%	66.88%	(\$0.00)	8.94%	19.78	3.55					
7	Avista Corporation	AVA	\$41.07	5.30%	5.00%	5.00%	5.00%	5.58%	67.00%	64.00%	66.88%	(\$0.00)	8.68%	19.78	3.55					
8	CenterPoint Energy, Inc.	CNP	\$22.18	5.50%	5.11%	2.00%	2.00%	5.58%	86.00%	85.00%	66.88%	(\$0.00)	7.91%	19.78	3.55					
9	CMS Energy Corporation	CMS	\$42.26	6.60%	7.27%	6.00%	6.00%	5.58%	64.00%	62.00%	66.88%	(\$0.00)	8.96%	19.78	3.55					
10	DTE Energy Company	DTE	\$92.20	5.80%	5.63%	6.00%	5.63%	5.58%	62.00%	60.00%	66.88%	(\$0.00)	9.39%	19.78	3.55					
11	El Paso Electric Company	EE	\$45.14	4.40%	7.00%	4.00%	4.00%	5.58%	54.00%	59.00%	66.88%	(\$0.00)	7.68%	19.78	3.55					
12	Eversource Energy	ES	\$56.12	6.10%	5.39%	6.00%	5.39%	5.58%	61.00%	58.00%	66.88%	(\$0.00)	9.37%	19.78	3.55					
13	IDACORP, Inc.	IDA	\$75.62	4.30%	4.10%	3.00%	3.00%	5.58%	53.00%	60.00%	66.88%	(\$0.00)	8.25%	19.78	3.55					
14	NorthWestern Corporation	NWE	\$59.12	5.00%	4.50%	6.50%	4.50%	5.58%	59.00%	58.00%	66.88%	(\$0.00)	8.79%	19.78	3.55					
15	OGE Energy Corp.	OGE	\$30.12	5.20%	4.30%	3.00%	3.00%	5.58%	66.00%	74.00%	66.88%	(\$0.00)	9.51%	19.78	3.55					
16	Otter Tail Corporation	OTTR	\$31.77	NA	6.00%	6.00%	6.00%	5.58%	82.00%	64.00%	66.88%	(\$0.00)	10.04%	19.78	3.55					
17	Pinnacle West Capital Corporation	PNW	\$75.07	4.30%	3.95%	4.00%	3.95%	5.58%	64.00%	64.00%	66.88%	(\$0.00)	9.19%	19.78	3.55					
18	Portland General Electric Company	POR	\$41.42	6.00%	5.55%	5.50%	5.50%	5.58%	58.00%	59.00%	66.88%	(\$0.00)	9.44%	19.78	3.55					
19	SCANA Corporation	SCG	\$70.61	5.50%	6.00%	4.50%	4.50%	5.58%	58.00%	59.00%	66.88%	(\$0.00)	9.68%	19.78	3.55					
20	Wisconsin Energy Corporation	WEC	\$60.30	6.20%	6.77%	6.00%	6.00%	5.58%	67.00%	67.00%	66.88%	(\$0.00)	7.77%	19.78	3.55					
21	Xcel Energy Inc.	XEL	\$41.56	5.40%	5.36%	5.50%	5.36%	5.58%	62.00%	62.00%	66.88%	(\$0.00)	9.69%	19.78	3.55					
22												Mean	9.05%							
23												Max	10.18%							
24												Min	7.68%							
25	Projected Annual																			
26	Earnings per Share			[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]
27	Company	Ticker	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
28	ALLETE, Inc.	ALE	\$3.38	\$3.52	\$3.66	\$3.80	\$3.95	\$4.11	\$4.29	\$4.48	\$4.70	\$4.93	\$5.20	\$5.49	\$5.79	\$6.11	\$6.45	\$6.81	\$7.19	
29	Alliant Energy Corporation	LNT	\$1.69	\$1.79	\$1.90	\$2.01	\$2.13	\$2.26	\$2.40	\$2.54	\$2.68	\$2.84	\$3.00	\$3.16	\$3.34	\$3.53	\$3.72	\$3.93	\$4.15	
30	Ameren Corporation	AEE	\$2.38	\$2.51	\$2.65	\$2.80	\$2.96	\$3.13	\$3.30	\$3.48	\$3.68	\$3.88	\$4.10	\$4.33	\$4.57	\$4.83	\$5.10	\$5.38	\$5.68	
31	American Electric Power Company, Inc.	AEP	\$3.59	\$3.69	\$3.79	\$3.89	\$4.00	\$4.11	\$4.24	\$4.40	\$4.58	\$4.80	\$5.04	\$5.32	\$5.62	\$5.93	\$6.26	\$6.61	\$6.98	
32	Avista Corporation	AVA	\$1.89	\$1.98	\$2.08	\$2.19	\$2.30	\$2.41	\$2.54	\$2.67	\$2.81	\$2.96	\$3.12	\$3.30	\$3.48	\$3.67	\$3.88	\$4.09	\$4.32	
33	CenterPoint Energy, Inc.	CNP	\$1.08	\$1.10	\$1.12	\$1.15	\$1.17	\$1.19	\$1.22	\$1.26	\$1.31	\$1.37	\$1.44	\$1.52	\$1.60	\$1.69	\$1.78	\$1.88	\$1.99	
34	CMS Energy Corporation	CMS	\$1.89	\$2.00	\$2.12	\$2.25	\$2.39	\$2.53	\$2.68	\$2.84	\$3.00	\$3.17	\$3.35	\$3.54	\$3.74	\$3.94	\$4.16	\$4.40	\$4.64	
35	DTE Energy Company	DTE	\$4.45	\$4.70	\$4.97	\$5.24	\$5.54	\$5.85	\$6.18	\$6.53	\$6.89	\$7.28	\$7.69	\$8.11	\$8.57	\$9.04	\$9.55	\$10.08	\$10.64	
36	El Paso Electric Company	EE	\$2.03	\$2.11	\$2.20	\$2.28	\$2.37	\$2.47	\$2.58	\$2.69	\$2.82	\$2.96	\$3.12	\$3.29	\$3.48	\$3.67	\$3.88	\$4.09	\$4.32	
37	Eversource Energy	ES	\$2.76	\$2.91	\$3.07	\$3.23	\$3.40	\$3.59	\$3.78	\$3.99	\$4.21	\$4.44	\$4.69	\$4.95	\$5.22	\$5.51	\$5.82	\$6.15	\$6.49	
38	IDACORP, Inc.	IDA	\$3.87	\$3.99	\$4.11	\$4.23	\$4.36	\$4.49	\$4.64	\$4.82	\$5.03	\$5.26	\$5.53	\$5.84	\$6.17	\$6.51	\$6.88	\$7.26	\$7.66	
39	NorthWestern Corporation	NWE	\$2.90	\$3.03	\$3.17	\$3.31	\$3.46	\$3.61	\$3.78	\$3.97	\$4.17	\$4.38	\$4.62	\$4.88	\$5.15	\$5.44	\$5.74	\$6.06	\$6.40	
40	OGE Energy Corp.	OGE	\$1.69	\$1.74	\$1.79	\$1.85	\$1.90	\$1.96	\$2.03	\$2.10	\$2.19	\$2.30	\$2.42	\$2.55	\$2.69	\$2.84	\$3.00	\$3.17	\$3.35	
41	Otter Tail Corporation	OTTR	\$1.56	\$1.65	\$1.75	\$1.86	\$1.97	\$2.09	\$2.21	\$2.34	\$2.48	\$2.62	\$2.77	\$2.92	\$3.08	\$3.25	\$3.44	\$3.63	\$3.83	
42	Pinnacle West Capital Corporation	PNW	\$3.92	\$4.07	\$4.24	\$4.40	\$4.58	\$4.76	\$4.96	\$5.18	\$5.43	\$5.70	\$6.00	\$6.34	\$6.69	\$7.07	\$7.46	\$7.88	\$8.31	
43	Portland General Electric Company	POR	\$2.04	\$2.15	\$2.27	\$2.40	\$2.53	\$2.67	\$2.81	\$2.97	\$3.13	\$3.31	\$3.49	\$3.69	\$3.89	\$4.11	\$4.34	\$4.58	\$4.83	
44	SCANA Corporation	SCG	\$3.81	\$3.98	\$4.16	\$4.35	\$4.54	\$4.75	\$4.97	\$5.21	\$5.47	\$5.76	\$6.07	\$6.41	\$6.77	\$7.14	\$7.54	\$7.96	\$8.41	
45	Wisconsin Energy Corporation	WEC	\$2.34	\$2.48	\$2.63	\$2.79	\$2.95	\$3.13	\$3.32	\$3.51	\$3.71	\$3.93	\$4.15	\$4.38	\$4.62	\$4.88	\$5.15	\$5.44	\$5.75	
46	Xcel Energy Inc.	XEL	\$2.10	\$2.21	\$2.33	\$2.46	\$2.59	\$2.73	\$2.87	\$3.03	\$3.20	\$3.37	\$3.56	\$3.76	\$3.97	\$4.19	\$4.42	\$4.67	\$4.93	

1	Projected Annual																	
2	Dividend Payout Ratio		[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]
3	Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
4	ALLETE, Inc.	ALE	66.00%	65.75%	65.50%	65.25%	65.00%	65.31%	65.63%	65.94%	66.26%	66.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
5	Alliant Energy Corporation	LNT	62.00%	61.75%	61.50%	61.25%	61.00%	61.98%	62.96%	63.94%	64.92%	65.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
6	Ameren Corporation	AEE	66.00%	65.25%	64.50%	63.75%	63.00%	63.65%	64.29%	64.94%	65.59%	66.24%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
7	American Electric Power Company, Inc.	AEP	61.00%	62.50%	64.00%	65.50%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
8	Avista Corporation	AVA	67.00%	66.25%	65.50%	64.75%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
9	CenterPoint Energy, Inc.	CNP	86.00%	85.75%	85.50%	85.25%	85.00%	81.98%	78.96%	75.94%	72.92%	69.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
10	CMS Energy Corporation	CMS	64.00%	63.50%	63.00%	62.50%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
11	DTE Energy Company	DTE	62.00%	61.50%	61.00%	60.50%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
12	El Paso Electric Company	EE	54.00%	55.25%	56.50%	57.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
13	Eversource Energy	ES	61.00%	60.25%	59.50%	58.75%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
14	IDACORP, Inc.	IDA	53.00%	54.75%	56.50%	58.25%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
15	NorthWestern Corporation	NWE	59.00%	58.75%	58.50%	58.25%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
16	OGE Energy Corp.	OGE	66.00%	68.00%	70.00%	72.00%	74.00%	72.81%	71.63%	70.44%	69.26%	68.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
17	Otter Tail Corporation	OTTR	82.00%	77.50%	73.00%	68.50%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
18	Pinnacle West Capital Corporation	PNW	64.00%	64.00%	64.00%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
19	Portland General Electric Company	POR	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
20	SCANA Corporation	SCG	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
21	Wisconsin Energy Corporation	WEC	67.00%	67.00%	67.00%	67.00%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
22	Xcel Energy Inc.	XEL	62.00%	62.00%	62.00%	62.00%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%

23	Projected Annual																		
24	Cash Flows		[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	[63]
25	Company	Ticker	2015	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Terminal Value
26	ALLETE, Inc.	ALE	\$2.32	\$2.40	\$2.49	\$2.58	\$2.67	\$2.80	\$2.94	\$3.10	\$3.27	\$3.46	\$3.67	\$3.87	\$4.09	\$4.32	\$4.56	\$4.81	\$142.31
27	Alliant Energy Corporation	LNT	\$1.11	\$1.17	\$1.24	\$1.31	\$1.38	\$1.48	\$1.60	\$1.72	\$1.84	\$1.97	\$2.12	\$2.23	\$2.36	\$2.49	\$2.63	\$2.78	\$82.08
28	Ameren Corporation	AEE	\$1.66	\$1.73	\$1.81	\$1.89	\$1.97	\$2.10	\$2.24	\$2.39	\$2.55	\$2.72	\$2.90	\$3.06	\$3.23	\$3.41	\$3.60	\$3.80	\$112.35
29	American Electric Power Company, Inc.	AEP	\$2.25	\$2.37	\$2.49	\$2.62	\$2.75	\$2.84	\$2.95	\$3.07	\$3.21	\$3.37	\$3.56	\$3.76	\$3.97	\$4.19	\$4.42	\$4.67	\$138.08
30	Avista Corporation	AVA	\$1.33	\$1.38	\$1.43	\$1.49	\$1.54	\$1.63	\$1.73	\$1.84	\$1.95	\$2.07	\$2.20	\$2.33	\$2.46	\$2.59	\$2.74	\$2.89	\$85.49
31	CenterPoint Energy, Inc.	CNP	\$0.95	\$0.96	\$0.98	\$1.00	\$1.01	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.01	\$1.07	\$1.13	\$1.19	\$1.26	\$1.33	\$39.33
32	CMS Energy Corporation	CMS	\$1.28	\$1.35	\$1.42	\$1.49	\$1.57	\$1.68	\$1.80	\$1.93	\$2.07	\$2.21	\$2.37	\$2.50	\$2.64	\$2.78	\$2.94	\$3.10	\$91.79
33	DTE Energy Company	DTE	\$2.91	\$3.05	\$3.20	\$3.35	\$3.51	\$3.78	\$4.07	\$4.37	\$4.70	\$5.05	\$5.43	\$5.73	\$6.05	\$6.39	\$6.74	\$7.12	\$210.52
34	El Paso Electric Company	EE	\$1.14	\$1.21	\$1.29	\$1.37	\$1.46	\$1.55	\$1.66	\$1.78	\$1.90	\$2.05	\$2.20	\$2.33	\$2.46	\$2.59	\$2.74	\$2.89	\$85.47
35	Eversource Energy	ES	\$1.77	\$1.85	\$1.92	\$2.00	\$2.08	\$2.25	\$2.43	\$2.63	\$2.84	\$3.06	\$3.31	\$3.49	\$3.69	\$3.89	\$4.11	\$4.34	\$128.36
36	IDACORP, Inc.	IDA	\$2.11	\$2.25	\$2.39	\$2.54	\$2.69	\$2.84	\$3.00	\$3.19	\$3.40	\$3.64	\$3.91	\$4.13	\$4.36	\$4.60	\$4.85	\$5.13	\$151.58
37	NorthWestern Corporation	NWE	\$1.79	\$1.86	\$1.94	\$2.01	\$2.10	\$2.25	\$2.42	\$2.60	\$2.80	\$3.02	\$3.26	\$3.44	\$3.64	\$3.84	\$4.05	\$4.28	\$126.57
38	OGE Energy Corp.	OGE	\$1.15	\$1.22	\$1.29	\$1.37	\$1.45	\$1.48	\$1.51	\$1.55	\$1.59	\$1.64	\$1.71	\$1.80	\$1.90	\$2.01	\$2.12	\$2.24	\$66.20
39	Otter Tail Corporation	OTTR	\$1.36	\$1.36	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$2.56	\$75.76
40	Pinnacle West Capital Corporation	PNW	\$2.61	\$2.71	\$2.82	\$2.93	\$3.05	\$3.20	\$3.37	\$3.55	\$3.76	\$3.99	\$4.24	\$4.48	\$4.73	\$4.99	\$5.27	\$5.56	\$164.46
41	Portland General Electric Company	POR	\$1.25	\$1.32	\$1.40	\$1.48	\$1.57	\$1.70	\$1.83	\$1.97	\$2.12	\$2.29	\$2.47	\$2.60	\$2.75	\$2.90	\$3.06	\$3.23	\$95.62
42	SCANA Corporation	SCG	\$2.31	\$2.42	\$2.54	\$2.67	\$2.80	\$3.00	\$3.21	\$3.45	\$3.70	\$3.98	\$4.29	\$4.53	\$4.78	\$5.04	\$5.33	\$5.62	\$166.28
43	Wisconsin Energy Corporation	WEC	\$1.66	\$1.76	\$1.87	\$1.98	\$2.10	\$2.22	\$2.35	\$2.49	\$2.63	\$2.78	\$2.93	\$3.09	\$3.27	\$3.45	\$3.64	\$3.84	\$113.64
44	Xcel Energy Inc.	XEL	\$1.37	\$1.45	\$1.52	\$1.60	\$1.69	\$1.81	\$1.93	\$2.06	\$2.20	\$2.35	\$2.51	\$2.65	\$2.80	\$2.96	\$3.12	\$3.30	\$97.46

1	Projected Annual Data																			
2	Investor Cash Flows		[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]	[80]	[81]
		Initial																		
3	Company	Ticker	Outflow	10/31/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30	6/30/31
4	ALLETE, Inc.	ALE	(\$58.80)	\$0.00	\$0.39	\$2.37	\$2.49	\$2.58	\$2.67	\$2.80	\$2.94	\$3.10	\$3.27	\$3.46	\$3.67	\$3.87	\$4.09	\$4.32	\$4.56	\$147.13
5	Alliant Energy Corporation	LNT	(\$37.54)	\$0.00	\$0.19	\$1.14	\$1.24	\$1.31	\$1.38	\$1.48	\$1.60	\$1.72	\$1.84	\$1.97	\$2.12	\$2.23	\$2.36	\$2.49	\$2.63	\$84.85
6	Ameren Corporation	AEE	(\$49.50)	\$0.00	\$0.28	\$1.71	\$1.81	\$1.89	\$1.97	\$2.10	\$2.24	\$2.39	\$2.55	\$2.72	\$2.90	\$3.06	\$3.23	\$3.41	\$3.60	\$116.15
7	American Electric Power Company, Inc.	AEP	(\$65.48)	\$0.00	\$0.38	\$2.28	\$2.49	\$2.62	\$2.75	\$2.84	\$2.95	\$3.07	\$3.21	\$3.37	\$3.56	\$3.76	\$3.97	\$4.19	\$4.42	\$142.75
8	Avista Corporation	AVA	(\$41.07)	\$0.00	\$0.22	\$1.36	\$1.43	\$1.49	\$1.54	\$1.63	\$1.73	\$1.84	\$1.95	\$2.07	\$2.20	\$2.33	\$2.46	\$2.59	\$2.74	\$88.38
9	CenterPoint Energy, Inc.	CNP	(\$22.18)	\$0.00	\$0.16	\$0.96	\$0.98	\$1.00	\$1.01	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.01	\$1.07	\$1.13	\$1.19	\$1.26	\$40.66
10	CMS Energy Corporation	CMS	(\$42.26)	\$0.00	\$0.21	\$1.32	\$1.42	\$1.49	\$1.57	\$1.68	\$1.80	\$1.93	\$2.07	\$2.21	\$2.37	\$2.50	\$2.64	\$2.78	\$2.94	\$94.89
11	DTE Energy Company	DTE	(\$92.20)	\$0.00	\$0.49	\$3.00	\$3.20	\$3.35	\$3.51	\$3.78	\$4.07	\$4.37	\$4.70	\$5.05	\$5.43	\$5.73	\$6.05	\$6.39	\$6.74	\$217.64
12	El Paso Electric Company	EE	(\$45.14)	\$0.00	\$0.19	\$1.16	\$1.29	\$1.37	\$1.46	\$1.55	\$1.66	\$1.78	\$1.90	\$2.05	\$2.20	\$2.33	\$2.46	\$2.59	\$2.74	\$88.36
13	Eversource Energy	ES	(\$56.12)	\$0.00	\$0.30	\$1.82	\$1.92	\$2.00	\$2.08	\$2.25	\$2.43	\$2.63	\$2.84	\$3.06	\$3.31	\$3.49	\$3.69	\$3.89	\$4.11	\$132.70
14	IDACORP, Inc.	IDA	(\$75.62)	\$0.00	\$0.35	\$2.14	\$2.39	\$2.54	\$2.69	\$2.84	\$3.00	\$3.19	\$3.40	\$3.64	\$3.91	\$4.13	\$4.36	\$4.60	\$4.85	\$156.71
15	NorthWestern Corporation	NWE	(\$59.12)	\$0.00	\$0.30	\$1.83	\$1.94	\$2.01	\$2.10	\$2.25	\$2.42	\$2.60	\$2.80	\$3.02	\$3.26	\$3.44	\$3.64	\$3.84	\$4.05	\$130.85
16	OGE Energy Corp.	OGE	(\$30.12)	\$0.00	\$0.19	\$1.17	\$1.29	\$1.37	\$1.45	\$1.48	\$1.51	\$1.55	\$1.59	\$1.64	\$1.71	\$1.80	\$1.90	\$2.01	\$2.12	\$68.43
17	Otter Tail Corporation	OTTR	(\$31.77)	\$0.00	\$0.23	\$1.40	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$78.32
18	Pinnacle West Capital Corporation	PNW	(\$75.07)	\$0.00	\$0.44	\$2.66	\$2.82	\$2.93	\$3.05	\$3.20	\$3.37	\$3.55	\$3.76	\$3.99	\$4.24	\$4.48	\$4.73	\$4.99	\$5.27	\$170.02
19	Portland General Electric Company	POR	(\$41.43)	\$0.00	\$0.21	\$1.28	\$1.40	\$1.48	\$1.57	\$1.70	\$1.83	\$1.97	\$2.12	\$2.29	\$2.47	\$2.60	\$2.75	\$2.90	\$3.06	\$98.85
20	SCANA Corporation	SCG	(\$70.61)	\$0.00	\$0.39	\$2.36	\$2.54	\$2.67	\$2.80	\$3.00	\$3.21	\$3.45	\$3.70	\$3.98	\$4.29	\$4.53	\$4.78	\$5.04	\$5.33	\$171.91
21	Wisconsin Energy Corporation	WEC	(\$60.30)	\$0.00	\$0.28	\$1.71	\$1.87	\$1.98	\$2.10	\$2.22	\$2.35	\$2.49	\$2.63	\$2.78	\$2.93	\$3.09	\$3.27	\$3.45	\$3.64	\$117.49
22	Xcel Energy Inc.	XEL	(\$41.56)	\$0.00	\$0.23	\$1.41	\$1.52	\$1.60	\$1.69	\$1.81	\$1.93	\$2.06	\$2.20	\$2.35	\$2.51	\$2.65	\$2.80	\$2.96	\$3.12	\$100.75

Multi-Stage Growth Discounted Cash Flow Model  
360 Day Average Stock Price  
Average EPS Growth Rate Estimate in First Stage

Line No	Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]				
1			Stock	EPS Growth Rate Estimates					Payout Ratio			Iterative Solution		Terminal	Terminal				
						Value		Long-Term											
2	Company	Ticker	Price	Zacks	First Call	Line	Average	Growth	2016	2020	2026	Proof	IRR	Ratio	PEG				
3	ALLETE, Inc.	ALE	\$54.29	5.50%	5.00%	4.00%	4.83%	5.58%	66.00%	65.00%	66.88%	(\$0.00)	11.50%	19.78	3.55				
4	Alliant Energy Corporation	LNT	\$33.81	6.10%	6.60%	6.00%	6.23%	5.58%	62.00%	61.00%	66.88%	(\$0.00)	10.11%	19.78	3.55				
5	Ameren Corporation	AEE	\$45.65	6.10%	5.60%	6.00%	5.90%	5.58%	66.00%	63.00%	66.88%	(\$0.00)	10.38%	19.78	3.55				
6	American Electric Power Company, Inc.	AEP	\$60.96	5.20%	2.75%	4.00%	3.98%	5.58%	61.00%	67.00%	66.88%	(\$0.00)	10.40%	19.78	3.55				
7	Avista Corporation	AVA	\$37.22	5.30%	5.00%	5.00%	5.10%	5.58%	67.00%	64.00%	66.88%	(\$0.00)	9.67%	19.78	3.55				
8	CenterPoint Energy, Inc.	CNP	\$20.24	5.50%	5.11%	2.00%	4.20%	5.58%	86.00%	85.00%	66.88%	(\$0.00)	10.21%	19.78	3.55				
9	CMS Energy Corporation	CMS	\$38.56	6.60%	7.27%	6.00%	6.62%	5.58%	64.00%	62.00%	66.88%	(\$0.00)	10.20%	19.78	3.55				
10	DTE Energy Company	DTE	\$85.92	5.80%	5.63%	6.00%	5.81%	5.58%	62.00%	60.00%	66.88%	(\$0.00)	10.16%	19.78	3.55				
11	El Paso Electric Company	EE	\$41.17	4.40%	7.00%	4.00%	5.13%	5.58%	54.00%	59.00%	66.88%	(\$0.00)	9.20%	19.78	3.55				
12	Eversource Energy	ES	\$52.91	6.10%	5.39%	6.00%	5.83%	5.58%	61.00%	58.00%	66.88%	(\$0.00)	10.19%	19.78	3.55				
13	IDACORP, Inc.	IDA	\$69.66	4.30%	4.10%	3.00%	3.80%	5.58%	53.00%	60.00%	66.88%	(\$0.00)	9.50%	19.78	3.55				
14	NorthWestern Corporation	NWE	\$56.15	5.00%	4.50%	6.50%	5.33%	5.58%	59.00%	58.00%	66.88%	(\$0.00)	9.77%	19.78	3.55				
15	OGE Energy Corp.	OGE	\$28.83	5.20%	4.30%	3.00%	4.17%	5.58%	66.00%	74.00%	66.88%	(\$0.00)	10.68%	19.78	3.55				
16	Otter Tail Corporation	OTTR	\$29.25	NA	6.00%	6.00%	6.00%	5.58%	82.00%	64.00%	66.88%	(\$0.00)	10.85%	19.78	3.55				
17	Pinnacle West Capital Corporation	PNW	\$68.71	4.30%	3.95%	4.00%	4.08%	5.58%	64.00%	64.00%	66.88%	(\$0.00)	10.12%	19.78	3.55				
18	Portland General Electric Company	POR	\$38.75	6.00%	5.55%	5.50%	5.68%	5.58%	58.00%	59.00%	66.88%	(\$0.00)	10.18%	19.78	3.55				
19	SCANA Corporation	SCG	\$63.57	5.50%	6.00%	4.50%	5.33%	5.58%	58.00%	59.00%	66.88%	(\$0.00)	11.21%	19.78	3.55				
20	Wisconsin Energy Corporation	WEC	\$55.19	6.20%	6.77%	6.00%	6.32%	5.58%	67.00%	67.00%	66.88%	(\$0.00)	8.78%	19.78	3.55				
21	Xcel Energy Inc.	XEL	\$38.29	5.40%	5.36%	5.50%	5.42%	5.58%	62.00%	62.00%	66.88%	(\$0.00)	10.51%	19.78	3.55				
22													Mean	10.19%					
23													Max	11.50%					
24													Min	8.78%					
25	Projected Annual																		
26	Earnings per Share		[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]
27	Company	Ticker	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
28	ALLETE, Inc.	ALE	\$3.38	\$3.54	\$3.71	\$3.89	\$4.08	\$4.28	\$4.49	\$4.72	\$4.97	\$5.23	\$5.52	\$5.82	\$6.15	\$6.49	\$6.85	\$7.23	\$7.64
29	Alliant Energy Corporation	LNT	\$1.69	\$1.80	\$1.91	\$2.03	\$2.15	\$2.29	\$2.43	\$2.57	\$2.72	\$2.88	\$3.05	\$3.22	\$3.40	\$3.58	\$3.78	\$4.00	\$4.22
30	Ameren Corporation	AEE	\$2.38	\$2.52	\$2.67	\$2.83	\$2.99	\$3.17	\$3.36	\$3.55	\$3.75	\$3.97	\$4.19	\$4.42	\$4.67	\$4.93	\$5.21	\$5.50	\$5.80
31	American Electric Power Company, Inc.	AEP	\$3.59	\$3.73	\$3.88	\$4.04	\$4.20	\$4.36	\$4.55	\$4.76	\$4.98	\$5.23	\$5.51	\$5.82	\$6.14	\$6.49	\$6.85	\$7.23	\$7.63
32	Avista Corporation	AVA	\$1.89	\$1.99	\$2.09	\$2.19	\$2.31	\$2.42	\$2.55	\$2.68	\$2.83	\$2.98	\$3.14	\$3.32	\$3.50	\$3.70	\$3.91	\$4.12	\$4.35
33	CenterPoint Energy, Inc.	CNP	\$1.08	\$1.13	\$1.17	\$1.22	\$1.27	\$1.33	\$1.39	\$1.45	\$1.52	\$1.60	\$1.68	\$1.78	\$1.88	\$1.98	\$2.09	\$2.21	\$2.33
34	CMS Energy Corporation	CMS	\$1.89	\$2.02	\$2.15	\$2.29	\$2.44	\$2.60	\$2.77	\$2.95	\$3.13	\$3.31	\$3.50	\$3.70	\$3.90	\$4.12	\$4.35	\$4.59	\$4.85
35	DTE Energy Company	DTE	\$4.45	\$4.71	\$4.98	\$5.27	\$5.58	\$5.90	\$6.24	\$6.60	\$6.98	\$7.37	\$7.78	\$8.22	\$8.68	\$9.16	\$9.67	\$10.21	\$10.78
36	El Paso Electric Company	EE	\$2.03	\$2.13	\$2.24	\$2.36	\$2.48	\$2.61	\$2.74	\$2.89	\$3.04	\$3.21	\$3.38	\$3.57	\$3.77	\$3.98	\$4.20	\$4.44	\$4.69
37	Eversource Energy	ES	\$2.76	\$2.92	\$3.09	\$3.27	\$3.46	\$3.66	\$3.88	\$4.10	\$4.33	\$4.58	\$4.83	\$5.10	\$5.39	\$5.69	\$6.01	\$6.34	\$6.70
38	IDACORP, Inc.	IDA	\$3.87	\$4.02	\$4.17	\$4.33	\$4.49	\$4.66	\$4.85	\$5.07	\$5.31	\$5.57	\$5.86	\$6.19	\$6.54	\$6.90	\$7.28	\$7.69	\$8.12
39	NorthWestern Corporation	NWE	\$2.90	\$3.05	\$3.22	\$3.39	\$3.57	\$3.76	\$3.96	\$4.18	\$4.40	\$4.65	\$4.90	\$5.18	\$5.47	\$5.77	\$6.09	\$6.43	\$6.79
40	OGE Energy Corp.	OGE	\$1.69	\$1.76	\$1.83	\$1.91	\$1.99	\$2.07	\$2.16	\$2.26	\$2.37	\$2.50	\$2.63	\$2.78	\$2.93	\$3.09	\$3.27	\$3.45	\$3.64
41	Otter Tail Corporation	OTTR	\$1.56	\$1.65	\$1.75	\$1.86	\$1.97	\$2.09	\$2.21	\$2.34	\$2.48	\$2.62	\$2.77	\$2.92	\$3.08	\$3.25	\$3.44	\$3.63	\$3.83
42	Pinnacle West Capital Corporation	PNW	\$3.92	\$4.08	\$4.25	\$4.42	\$4.60	\$4.79	\$5.00	\$5.22	\$5.48	\$5.76	\$6.06	\$6.40	\$6.76	\$7.13	\$7.53	\$7.95	\$8.39
43	Portland General Electric Company	POR	\$2.04	\$2.16	\$2.28	\$2.41	\$2.54	\$2.69	\$2.84	\$3.00	\$3.17	\$3.35	\$3.54	\$3.73	\$3.94	\$4.16	\$4.39	\$4.64	\$4.90
44	SCANA Corporation	SCG	\$3.81	\$4.01	\$4.23	\$4.45	\$4.69	\$4.94	\$5.21	\$5.49	\$5.79	\$6.10	\$6.44	\$6.80	\$7.18	\$7.58	\$8.00	\$8.45	\$8.92
45	Wisconsin Energy Corporation	WEC	\$2.34	\$2.49	\$2.65	\$2.81	\$2.99	\$3.18	\$3.38	\$3.58	\$3.79	\$4.02	\$4.24	\$4.48	\$4.73	\$5.00	\$5.27	\$5.57	\$5.88
46	Xcel Energy Inc.	XEL	\$2.10	\$2.21	\$2.33	\$2.46	\$2.59	\$2.73	\$2.88	\$3.04	\$3.21	\$3.39	\$3.57	\$3.77	\$3.98	\$4.20	\$4.44	\$4.69	\$4.95

2	Projected Annual																	
	Dividend Payout Ratio		[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]
3	Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
4	ALLETE, Inc.	ALE	66.00%	65.75%	65.50%	65.25%	65.00%	65.31%	65.63%	65.94%	66.26%	66.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
5	Alliant Energy Corporation	LNT	62.00%	61.75%	61.50%	61.25%	61.00%	61.98%	62.96%	63.94%	64.92%	65.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
6	Ameren Corporation	AEE	66.00%	65.25%	64.50%	63.75%	63.00%	63.65%	64.29%	64.94%	65.59%	66.24%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
7	American Electric Power Company, Inc.	AEP	61.00%	62.50%	64.00%	65.50%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
8	Avista Corporation	AVA	67.00%	66.25%	65.50%	64.75%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
9	CenterPoint Energy, Inc.	CNP	86.00%	85.75%	85.50%	85.25%	85.00%	81.98%	78.96%	75.94%	72.92%	69.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
10	CMS Energy Corporation	CMS	64.00%	63.50%	63.00%	62.50%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
11	DTE Energy Company	DTE	62.00%	61.50%	61.00%	60.50%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
12	El Paso Electric Company	EE	54.00%	55.25%	56.50%	57.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
13	Eversource Energy	ES	61.00%	60.25%	59.50%	58.75%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
14	IDACORP, Inc.	IDA	53.00%	54.75%	56.50%	58.25%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
15	NorthWestern Corporation	NWE	59.00%	58.75%	58.50%	58.25%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
16	OGE Energy Corp.	OGE	66.00%	68.00%	70.00%	72.00%	74.00%	72.81%	71.63%	70.44%	69.26%	68.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
17	Otter Tail Corporation	OTTR	82.00%	77.50%	73.00%	68.50%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
18	Pinnacle West Capital Corporation	PNW	64.00%	64.00%	64.00%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
19	Portland General Electric Company	POR	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
20	SCANA Corporation	SCG	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
21	Wisconsin Energy Corporation	WEC	67.00%	67.00%	67.00%	67.00%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
22	Xcel Energy Inc.	XEL	62.00%	62.00%	62.00%	62.00%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%

23	Projected Annual																		
24	Cash Flows		[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	[63]
25	Company	Ticker	2015	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Terminal Value
26	ALLETE, Inc.	ALE	\$2.34	\$2.44	\$2.55	\$2.66	\$2.78	\$2.93	\$3.10	\$3.27	\$3.47	\$3.67	\$3.89	\$4.11	\$4.34	\$4.58	\$4.84	\$5.11	\$151.08
27	Alliant Energy Corporation	LNT	\$1.11	\$1.18	\$1.25	\$1.32	\$1.39	\$1.50	\$1.62	\$1.74	\$1.87	\$2.01	\$2.15	\$2.27	\$2.40	\$2.53	\$2.67	\$2.82	\$83.44
28	Ameren Corporation	AEE	\$1.66	\$1.74	\$1.82	\$1.91	\$2.00	\$2.14	\$2.28	\$2.44	\$2.60	\$2.78	\$2.96	\$3.12	\$3.30	\$3.48	\$3.68	\$3.88	\$114.77
29	American Electric Power Company, Inc.	AEP	\$2.28	\$2.43	\$2.58	\$2.75	\$2.92	\$3.05	\$3.18	\$3.34	\$3.50	\$3.69	\$3.89	\$4.11	\$4.34	\$4.58	\$4.84	\$5.11	\$150.97
30	Avista Corporation	AVA	\$1.33	\$1.38	\$1.44	\$1.49	\$1.55	\$1.64	\$1.74	\$1.85	\$1.96	\$2.09	\$2.22	\$2.34	\$2.47	\$2.61	\$2.76	\$2.91	\$86.10
31	CenterPoint Energy, Inc.	CNP	\$0.97	\$1.01	\$1.04	\$1.09	\$1.13	\$1.14	\$1.15	\$1.16	\$1.17	\$1.18	\$1.19	\$1.26	\$1.33	\$1.40	\$1.48	\$1.56	\$46.14
32	CMS Energy Corporation	CMS	\$1.29	\$1.36	\$1.44	\$1.53	\$1.61	\$1.74	\$1.87	\$2.01	\$2.16	\$2.31	\$2.47	\$2.61	\$2.76	\$2.91	\$3.07	\$3.24	\$95.92
33	DTE Energy Company	DTE	\$2.92	\$3.06	\$3.22	\$3.37	\$3.54	\$3.82	\$4.11	\$4.43	\$4.76	\$5.12	\$5.50	\$5.80	\$6.13	\$6.47	\$6.83	\$7.21	\$213.23
34	El Paso Electric Company	EE	\$1.15	\$1.24	\$1.33	\$1.43	\$1.54	\$1.65	\$1.78	\$1.92	\$2.06	\$2.22	\$2.39	\$2.52	\$2.66	\$2.81	\$2.97	\$3.13	\$92.70
35	Eversource Energy	ES	\$1.78	\$1.86	\$1.95	\$2.03	\$2.13	\$2.31	\$2.50	\$2.71	\$2.93	\$3.16	\$3.41	\$3.60	\$3.81	\$4.02	\$4.24	\$4.48	\$132.44
36	IDACORP, Inc.	IDA	\$2.13	\$2.28	\$2.45	\$2.62	\$2.80	\$2.97	\$3.16	\$3.37	\$3.60	\$3.85	\$4.14	\$4.37	\$4.62	\$4.87	\$5.14	\$5.43	\$160.61
37	NorthWestern Corporation	NWE	\$1.80	\$1.89	\$1.98	\$2.08	\$2.18	\$2.36	\$2.55	\$2.75	\$2.97	\$3.21	\$3.46	\$3.66	\$3.86	\$4.08	\$4.30	\$4.54	\$134.33
38	OGE Energy Corp.	OGE	\$1.16	\$1.25	\$1.34	\$1.43	\$1.53	\$1.58	\$1.62	\$1.67	\$1.73	\$1.79	\$1.86	\$1.96	\$2.07	\$2.18	\$2.31	\$2.44	\$72.01
39	Otter Tail Corporation	OTTR	\$1.36	\$1.36	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$2.56	\$75.76
40	Pinnacle West Capital Corporation	PNW	\$2.61	\$2.72	\$2.83	\$2.94	\$3.06	\$3.22	\$3.39	\$3.58	\$3.79	\$4.03	\$4.28	\$4.52	\$4.77	\$5.04	\$5.32	\$5.61	\$166.04
41	Portland General Electric Company	POR	\$1.25	\$1.33	\$1.41	\$1.50	\$1.59	\$1.71	\$1.85	\$2.00	\$2.15	\$2.32	\$2.50	\$2.64	\$2.78	\$2.94	\$3.10	\$3.28	\$96.87
42	SCANA Corporation	SCG	\$2.33	\$2.46	\$2.60	\$2.76	\$2.91	\$3.14	\$3.38	\$3.64	\$3.92	\$4.22	\$4.55	\$4.80	\$5.07	\$5.35	\$5.65	\$5.97	\$176.48
43	Wisconsin Energy Corporation	WEC	\$1.67	\$1.77	\$1.88	\$2.00	\$2.13	\$2.26	\$2.40	\$2.54	\$2.69	\$2.84	\$3.00	\$3.16	\$3.34	\$3.53	\$3.72	\$3.93	\$116.27
44	Xcel Energy Inc.	XEL	\$1.37	\$1.45	\$1.53	\$1.61	\$1.70	\$1.81	\$1.93	\$2.07	\$2.21	\$2.36	\$2.52	\$2.66	\$2.81	\$2.97	\$3.13	\$3.31	\$97.88

1	Projected Annual Data																			
2	Investor Cash Flows		[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]	[80]	[81]
		Initial																		
3	Company	Ticker	Outflow	10/31/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30	6/30/31
4	ALLETE, Inc.	ALE	(\$54.29)	\$0.00	\$0.39	\$2.40	\$2.55	\$2.66	\$2.78	\$2.93	\$3.10	\$3.27	\$3.47	\$3.67	\$3.89	\$4.11	\$4.34	\$4.58	\$4.84	\$156.19
5	Alliant Energy Corporation	LNT	(\$33.81)	\$0.00	\$0.19	\$1.15	\$1.25	\$1.32	\$1.39	\$1.50	\$1.62	\$1.74	\$1.87	\$2.01	\$2.15	\$2.27	\$2.40	\$2.53	\$2.67	\$86.26
6	Ameren Corporation	AEE	(\$45.66)	\$0.00	\$0.28	\$1.71	\$1.82	\$1.91	\$2.00	\$2.14	\$2.28	\$2.44	\$2.60	\$2.78	\$2.96	\$3.12	\$3.30	\$3.48	\$3.68	\$118.65
7	American Electric Power Company, Inc.	AEP	(\$60.96)	\$0.00	\$0.38	\$2.32	\$2.58	\$2.75	\$2.92	\$3.05	\$3.18	\$3.34	\$3.50	\$3.69	\$3.89	\$4.11	\$4.34	\$4.58	\$4.84	\$156.08
8	Avista Corporation	AVA	(\$37.22)	\$0.00	\$0.22	\$1.36	\$1.44	\$1.49	\$1.55	\$1.64	\$1.74	\$1.85	\$1.96	\$2.09	\$2.22	\$2.34	\$2.47	\$2.61	\$2.76	\$89.01
9	CenterPoint Energy, Inc.	CNP	(\$20.24)	\$0.00	\$0.16	\$0.99	\$1.04	\$1.09	\$1.13	\$1.14	\$1.15	\$1.16	\$1.17	\$1.18	\$1.19	\$1.26	\$1.33	\$1.40	\$1.48	\$47.70
10	CMS Energy Corporation	CMS	(\$38.56)	\$0.00	\$0.22	\$1.33	\$1.44	\$1.53	\$1.61	\$1.74	\$1.87	\$2.01	\$2.16	\$2.31	\$2.47	\$2.61	\$2.76	\$2.91	\$3.07	\$99.16
11	DTE Energy Company	DTE	(\$85.92)	\$0.00	\$0.49	\$3.00	\$3.22	\$3.37	\$3.54	\$3.82	\$4.11	\$4.43	\$4.76	\$5.12	\$5.50	\$5.80	\$6.13	\$6.47	\$6.83	\$220.44
12	El Paso Electric Company	EE	(\$41.17)	\$0.00	\$0.19	\$1.18	\$1.33	\$1.43	\$1.54	\$1.65	\$1.78	\$1.92	\$2.06	\$2.22	\$2.39	\$2.52	\$2.66	\$2.81	\$2.97	\$95.84
13	Eversource Energy	ES	(\$52.91)	\$0.00	\$0.30	\$1.83	\$1.95	\$2.03	\$2.13	\$2.31	\$2.50	\$2.71	\$2.93	\$3.16	\$3.41	\$3.60	\$3.81	\$4.02	\$4.24	\$136.91
14	IDACORP, Inc.	IDA	(\$69.66)	\$0.00	\$0.36	\$2.17	\$2.45	\$2.62	\$2.80	\$2.97	\$3.16	\$3.37	\$3.60	\$3.85	\$4.14	\$4.37	\$4.62	\$4.87	\$5.14	\$166.05
15	NorthWestern Corporation	NWE	(\$56.15)	\$0.00	\$0.30	\$1.85	\$1.98	\$2.08	\$2.18	\$2.36	\$2.55	\$2.75	\$2.97	\$3.21	\$3.46	\$3.66	\$3.86	\$4.08	\$4.30	\$138.87
16	OGE Energy Corp.	OGE	(\$28.83)	\$0.00	\$0.19	\$1.19	\$1.34	\$1.43	\$1.53	\$1.58	\$1.62	\$1.67	\$1.73	\$1.79	\$1.86	\$1.96	\$2.07	\$2.18	\$2.31	\$74.45
17	Otter Tail Corporation	OTTR	(\$29.25)	\$0.00	\$0.23	\$1.40	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$78.32
18	Pinnacle West Capital Corporation	PNW	(\$68.71)	\$0.00	\$0.44	\$2.66	\$2.83	\$2.94	\$3.06	\$3.22	\$3.39	\$3.58	\$3.79	\$4.03	\$4.28	\$4.52	\$4.77	\$5.04	\$5.32	\$171.66
19	Portland General Electric Company	POR	(\$38.75)	\$0.00	\$0.21	\$1.29	\$1.41	\$1.50	\$1.59	\$1.71	\$1.85	\$2.00	\$2.15	\$2.32	\$2.50	\$2.64	\$2.78	\$2.94	\$3.10	\$100.15
20	SCANA Corporation	SCG	(\$63.57)	\$0.00	\$0.39	\$2.39	\$2.60	\$2.76	\$2.91	\$3.14	\$3.38	\$3.64	\$3.92	\$4.22	\$4.55	\$4.80	\$5.07	\$5.35	\$5.65	\$182.45
21	Wisconsin Energy Corporation	WEC	(\$55.19)	\$0.00	\$0.28	\$1.72	\$1.88	\$2.00	\$2.13	\$2.26	\$2.40	\$2.54	\$2.69	\$2.84	\$3.00	\$3.16	\$3.34	\$3.53	\$3.72	\$120.20
22	Xcel Energy Inc.	XEL	(\$38.29)	\$0.00	\$0.23	\$1.41	\$1.53	\$1.61	\$1.70	\$1.81	\$1.93	\$2.07	\$2.21	\$2.36	\$2.52	\$2.66	\$2.81	\$2.97	\$3.13	\$101.19

Multi-Stage Growth Discounted Cash Flow Model  
360 Day Average Stock Price  
High EPS Growth Rate Estimate in First Stage

Line No	Inputs	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]					
1		Stock	EPS Growth Rate Estimates					Payout Ratio			Iterative Solution		Terminal P/E	Terminal PEG					
			Price	Zacks	First Call	Value Line	High Growth	Long-Term Growth	2016	2020	2026	Proof	IRR	Ratio	Ratio				
2	Company	Ticker																	
3	ALLETE, Inc.	ALE	\$54.29	5.50%	5.00%	4.00%	5.50%	5.58%	66.00%	65.00%	66.88%	(\$0.00)	11.93%	19.78	3.55				
4	Alliant Energy Corporation	LNT	\$33.81	6.10%	6.80%	6.00%	6.60%	5.58%	62.00%	61.00%	66.88%	(\$0.00)	10.33%	19.78	3.55				
5	Ameren Corporation	AEE	\$45.65	6.10%	5.60%	6.00%	6.10%	5.58%	66.00%	63.00%	66.88%	(\$0.00)	10.51%	19.78	3.55				
6	American Electric Power Company, Inc.	AEP	\$60.96	5.20%	2.75%	4.00%	5.20%	5.58%	61.00%	67.00%	66.88%	(\$0.00)	11.17%	19.78	3.55				
7	Avista Corporation	AVA	\$37.22	5.30%	5.00%	5.00%	5.30%	5.58%	67.00%	64.00%	66.88%	(\$0.00)	9.79%	19.78	3.55				
8	CenterPoint Energy, Inc.	CNP	\$20.24	5.50%	5.11%	2.00%	5.50%	5.58%	86.00%	85.00%	66.88%	(\$0.00)	11.04%	19.78	3.55				
9	CMS Energy Corporation	CMS	\$38.56	6.60%	7.27%	6.00%	7.27%	5.58%	64.00%	62.00%	66.88%	(\$0.00)	10.60%	19.78	3.55				
10	DTE Energy Company	DTE	\$85.92	5.80%	5.63%	6.00%	6.00%	5.58%	62.00%	60.00%	66.88%	(\$0.00)	10.28%	19.78	3.55				
11	El Paso Electric Company	EE	\$41.17	4.40%	7.00%	4.00%	7.00%	5.58%	54.00%	59.00%	66.88%	(\$0.00)	10.33%	19.78	3.55				
12	Eversource Energy	ES	\$52.91	6.10%	5.39%	6.00%	6.10%	5.58%	61.00%	58.00%	66.88%	(\$0.00)	10.36%	19.78	3.55				
13	IDACORP, Inc.	IDA	\$69.66	4.30%	4.10%	3.00%	4.30%	5.58%	53.00%	60.00%	66.88%	(\$0.00)	9.81%	19.78	3.55				
14	NorthWestern Corporation	NWE	\$56.15	5.00%	4.50%	6.50%	6.50%	5.58%	59.00%	58.00%	66.88%	(\$0.00)	10.49%	19.78	3.55				
15	OGE Energy Corp.	OGE	\$28.83	5.20%	4.30%	3.00%	5.20%	5.58%	66.00%	74.00%	66.88%	(\$0.00)	11.34%	19.78	3.55				
16	Otter Tail Corporation	OTTR	\$29.25	NA	6.00%	6.00%	6.00%	5.58%	82.00%	64.00%	66.88%	(\$0.00)	10.85%	19.78	3.55				
17	Pinnacle West Capital Corporation	PNW	\$68.71	4.30%	3.95%	4.00%	4.30%	5.58%	64.00%	64.00%	66.88%	(\$0.00)	10.26%	19.78	3.55				
18	Portland General Electric Company	POR	\$38.75	6.00%	5.55%	5.50%	6.00%	5.58%	58.00%	59.00%	66.88%	(\$0.00)	10.38%	19.78	3.55				
19	SCANA Corporation	SCG	\$63.57	5.50%	6.00%	4.50%	6.00%	5.58%	58.00%	59.00%	66.88%	(\$0.00)	11.63%	19.78	3.55				
20	Wisconsin Energy Corporation	WEC	\$55.19	6.20%	6.77%	6.00%	6.77%	5.58%	67.00%	67.00%	66.88%	(\$0.00)	9.05%	19.78	3.55				
21	Xcel Energy Inc.	XEL	\$38.29	5.40%	5.36%	5.50%	5.50%	5.58%	62.00%	62.00%	66.88%	(\$0.00)	10.56%	19.78	3.55				
22												Mean	10.56%						
23												Max	11.93%						
24												Min	9.05%						
25	Projected Annual																		
26	Earnings per Share		[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]
27	Company	Ticker	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
28	ALLETE, Inc.	ALE	\$3.38	\$3.57	\$3.76	\$3.97	\$4.19	\$4.42	\$4.66	\$4.92	\$5.19	\$5.48	\$5.78	\$6.11	\$6.45	\$6.81	\$7.19	\$7.59	\$8.01
29	Alliant Energy Corporation	LNT	\$1.69	\$1.80	\$1.92	\$2.05	\$2.18	\$2.33	\$2.48	\$2.63	\$2.79	\$2.96	\$3.13	\$3.30	\$3.48	\$3.68	\$3.88	\$4.10	\$4.33
30	Ameren Corporation	AEE	\$2.38	\$2.53	\$2.68	\$2.84	\$3.02	\$3.20	\$3.39	\$3.59	\$3.80	\$4.02	\$4.25	\$4.49	\$4.74	\$5.00	\$5.28	\$5.57	\$5.89
31	American Electric Power Company, Inc.	AEP	\$3.59	\$3.78	\$3.97	\$4.18	\$4.40	\$4.63	\$4.87	\$5.13	\$5.40	\$5.70	\$6.01	\$6.35	\$6.70	\$7.08	\$7.47	\$7.89	\$8.33
32	Avista Corporation	AVA	\$1.89	\$1.99	\$2.10	\$2.21	\$2.32	\$2.45	\$2.58	\$2.72	\$2.86	\$3.02	\$3.19	\$3.37	\$3.55	\$3.75	\$3.96	\$4.18	\$4.42
33	CenterPoint Energy, Inc.	CNP	\$1.08	\$1.14	\$1.20	\$1.27	\$1.34	\$1.41	\$1.49	\$1.57	\$1.66	\$1.75	\$1.85	\$1.95	\$2.06	\$2.17	\$2.30	\$2.42	\$2.56
34	CMS Energy Corporation	CMS	\$1.89	\$2.03	\$2.17	\$2.33	\$2.50	\$2.68	\$2.87	\$3.06	\$3.26	\$3.46	\$3.66	\$3.87	\$4.08	\$4.31	\$4.55	\$4.81	\$5.07
35	DTE Energy Company	DTE	\$4.45	\$4.72	\$5.00	\$5.30	\$5.62	\$5.96	\$6.31	\$6.68	\$7.06	\$7.47	\$7.89	\$8.33	\$8.79	\$9.28	\$9.80	\$10.35	\$10.93
36	El Paso Electric Company	EE	\$2.03	\$2.17	\$2.32	\$2.49	\$2.66	\$2.85	\$3.04	\$3.24	\$3.44	\$3.65	\$3.86	\$4.08	\$4.30	\$4.54	\$4.80	\$5.07	\$5.35
37	Eversource Energy	ES	\$2.76	\$2.93	\$3.11	\$3.30	\$3.50	\$3.71	\$3.93	\$4.17	\$4.41	\$4.66	\$4.93	\$5.20	\$5.49	\$5.80	\$6.12	\$6.46	\$6.82
38	IDACORP, Inc.	IDA	\$3.87	\$4.04	\$4.21	\$4.39	\$4.58	\$4.78	\$4.99	\$5.23	\$5.49	\$5.77	\$6.08	\$6.42	\$6.78	\$7.15	\$7.55	\$7.97	\$8.42
39	NorthWestern Corporation	NWE	\$2.90	\$3.09	\$3.29	\$3.50	\$3.73	\$3.97	\$4.23	\$4.49	\$4.76	\$5.04	\$5.33	\$5.62	\$5.94	\$6.27	\$6.62	\$6.99	\$7.38
40	OGE Energy Corp.	OGE	\$1.69	\$1.78	\$1.87	\$1.97	\$2.07	\$2.18	\$2.29	\$2.41	\$2.54	\$2.68	\$2.83	\$2.99	\$3.16	\$3.33	\$3.52	\$3.71	\$3.92
41	Otter Tail Corporation	OTTR	\$1.56	\$1.65	\$1.75	\$1.86	\$1.97	\$2.09	\$2.21	\$2.34	\$2.48	\$2.62	\$2.77	\$2.92	\$3.08	\$3.25	\$3.44	\$3.63	\$3.83
42	Pinnacle West Capital Corporation	PNW	\$3.92	\$4.09	\$4.26	\$4.45	\$4.64	\$4.84	\$5.06	\$5.30	\$5.56	\$5.84	\$6.16	\$6.50	\$6.86	\$7.25	\$7.65	\$8.08	\$8.53
43	Portland General Electric Company	POR	\$2.04	\$2.16	\$2.29	\$2.43	\$2.58	\$2.73	\$2.89	\$3.06	\$3.24	\$3.42	\$3.62	\$3.82	\$4.03	\$4.26	\$4.49	\$4.74	\$5.01
44	SCANA Corporation	SCG	\$3.81	\$4.04	\$4.28	\$4.54	\$4.81	\$5.10	\$5.40	\$5.72	\$6.05	\$6.39	\$6.76	\$7.13	\$7.53	\$7.95	\$8.39	\$8.86	\$9.35
45	Wisconsin Energy Corporation	WEC	\$2.34	\$2.50	\$2.67	\$2.85	\$3.04	\$3.25	\$3.46	\$3.68	\$3.91	\$4.14	\$4.38	\$4.62	\$4.88	\$5.15	\$5.44	\$5.75	\$6.07
46	Xcel Energy Inc.	XEL	\$2.10	\$2.22	\$2.34	\$2.47	\$2.60	\$2.74	\$2.90	\$3.06	\$3.23	\$3.40	\$3.59	\$3.79	\$4.01	\$4.23	\$4.46	\$4.71	\$4.98

1	Projected Annual																	
2	Dividend Payout Ratio		[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]
3	Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
4	ALLETE, Inc.	ALE	66.00%	65.75%	65.50%	65.25%	65.00%	65.31%	65.63%	65.94%	66.26%	66.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
5	Alliant Energy Corporation	LNT	62.00%	61.75%	61.50%	61.25%	61.00%	61.98%	62.96%	63.94%	64.92%	65.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
6	Ameren Corporation	AEE	66.00%	65.25%	64.50%	63.75%	63.00%	63.65%	64.29%	64.94%	65.59%	66.24%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
7	American Electric Power Company, Inc.	AEP	61.00%	62.50%	64.00%	65.50%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
8	Avista Corporation	AVA	67.00%	66.25%	65.50%	64.75%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
9	CenterPoint Energy, Inc.	CNP	86.00%	85.75%	85.50%	85.25%	85.00%	81.98%	78.96%	75.94%	72.92%	69.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
10	CMS Energy Corporation	CMS	64.00%	63.50%	63.00%	62.50%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
11	DTE Energy Company	DTE	62.00%	61.50%	61.00%	60.50%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
12	El Paso Electric Company	EE	54.00%	55.25%	56.50%	57.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
13	Eversource Energy	ES	61.00%	60.25%	59.50%	58.75%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
14	IDACORP, Inc.	IDA	53.00%	54.75%	56.50%	58.25%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
15	NorthWestern Corporation	NWE	59.00%	58.75%	58.50%	58.25%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
16	OGE Energy Corp.	OGE	66.00%	68.00%	70.00%	72.00%	74.00%	72.81%	71.63%	70.44%	69.26%	68.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
17	Otter Tail Corporation	OTTR	82.00%	77.50%	73.00%	68.50%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
18	Pinnacle West Capital Corporation	PNW	64.00%	64.00%	64.00%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
19	Portland General Electric Company	POR	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
20	SCANA Corporation	SCG	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
21	Wisconsin Energy Corporation	WEC	67.00%	67.00%	67.00%	67.00%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
22	Xcel Energy Inc.	XEL	62.00%	62.00%	62.00%	62.00%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%

23	Projected Annual																		
24	Cash Flows		[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	[63]
25	Company	Ticker	2015	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Terminal Value
26	ALLETE, Inc.	ALE	\$2.35	\$2.47	\$2.60	\$2.73	\$2.87	\$3.04	\$3.23	\$3.42	\$3.63	\$3.85	\$4.08	\$4.31	\$4.55	\$4.81	\$5.07	\$5.36	\$158.43
27	Alliant Energy Corporation	LNT	\$1.12	\$1.19	\$1.26	\$1.34	\$1.42	\$1.53	\$1.66	\$1.78	\$1.92	\$2.06	\$2.21	\$2.33	\$2.46	\$2.60	\$2.74	\$2.90	\$85.63
28	Ameren Corporation	AEE	\$1.67	\$1.75	\$1.83	\$1.92	\$2.02	\$2.16	\$2.31	\$2.47	\$2.64	\$2.81	\$3.00	\$3.17	\$3.34	\$3.53	\$3.73	\$3.94	\$116.41
29	American Electric Power Company, Inc.	AEP	\$2.30	\$2.48	\$2.67	\$2.88	\$3.10	\$3.26	\$3.43	\$3.62	\$3.81	\$4.02	\$4.25	\$4.48	\$4.73	\$5.00	\$5.28	\$5.57	\$164.72
30	Avista Corporation	AVA	\$1.33	\$1.39	\$1.45	\$1.50	\$1.57	\$1.66	\$1.76	\$1.87	\$1.99	\$2.12	\$2.25	\$2.38	\$2.51	\$2.65	\$2.80	\$2.95	\$87.34
31	CenterPoint Energy, Inc.	CNP	\$0.98	\$1.03	\$1.08	\$1.14	\$1.20	\$1.22	\$1.24	\$1.26	\$1.28	\$1.29	\$1.31	\$1.38	\$1.45	\$1.54	\$1.62	\$1.71	\$50.62
32	CMS Energy Corporation	CMS	\$1.30	\$1.38	\$1.47	\$1.56	\$1.66	\$1.80	\$1.95	\$2.10	\$2.26	\$2.42	\$2.59	\$2.73	\$2.88	\$3.05	\$3.21	\$3.39	\$100.38
33	DTE Energy Company	DTE	\$2.92	\$3.08	\$3.23	\$3.40	\$3.57	\$3.86	\$4.16	\$4.48	\$4.82	\$5.19	\$5.57	\$5.88	\$6.21	\$6.56	\$6.92	\$7.31	\$216.12
34	El Paso Electric Company	EE	\$1.17	\$1.28	\$1.41	\$1.54	\$1.68	\$1.83	\$2.00	\$2.17	\$2.35	\$2.53	\$2.73	\$2.88	\$3.04	\$3.21	\$3.39	\$3.58	\$105.79
35	Eversource Energy	ES	\$1.79	\$1.87	\$1.96	\$2.05	\$2.15	\$2.34	\$2.54	\$2.75	\$2.98	\$3.22	\$3.48	\$3.67	\$3.88	\$4.10	\$4.32	\$4.56	\$134.99
36	IDACORP, Inc.	IDA	\$2.14	\$2.30	\$2.48	\$2.67	\$2.87	\$3.05	\$3.26	\$3.48	\$3.73	\$4.00	\$4.29	\$4.53	\$4.78	\$5.05	\$5.33	\$5.63	\$166.50
37	NorthWestern Corporation	NWE	\$1.82	\$1.93	\$2.05	\$2.17	\$2.30	\$2.51	\$2.74	\$2.97	\$3.22	\$3.48	\$3.76	\$3.97	\$4.19	\$4.43	\$4.67	\$4.93	\$145.90
38	OGE Energy Corp.	OGE	\$1.17	\$1.27	\$1.38	\$1.49	\$1.61	\$1.67	\$1.73	\$1.79	\$1.86	\$1.93	\$2.00	\$2.11	\$2.23	\$2.35	\$2.48	\$2.62	\$77.54
39	Otter Tail Corporation	OTTR	\$1.36	\$1.36	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$2.56	\$75.76
40	Pinnacle West Capital Corporation	PNW	\$2.62	\$2.73	\$2.85	\$2.97	\$3.10	\$3.26	\$3.44	\$3.64	\$3.85	\$4.09	\$4.35	\$4.59	\$4.85	\$5.12	\$5.40	\$5.70	\$168.65
41	Portland General Electric Company	POR	\$1.25	\$1.34	\$1.42	\$1.51	\$1.61	\$1.74	\$1.89	\$2.04	\$2.20	\$2.37	\$2.55	\$2.70	\$2.85	\$3.01	\$3.17	\$3.35	\$99.07
42	SCANA Corporation	SCG	\$2.34	\$2.49	\$2.65	\$2.83	\$3.01	\$3.26	\$3.52	\$3.81	\$4.11	\$4.43	\$4.77	\$5.04	\$5.32	\$5.61	\$5.93	\$6.26	\$185.04
43	Wisconsin Energy Corporation	WEC	\$1.67	\$1.79	\$1.91	\$2.04	\$2.18	\$2.32	\$2.46	\$2.62	\$2.77	\$2.93	\$3.09	\$3.27	\$3.45	\$3.64	\$3.84	\$4.06	\$119.99
44	Xcel Energy Inc.	XEL	\$1.37	\$1.45	\$1.53	\$1.61	\$1.70	\$1.82	\$1.94	\$2.08	\$2.22	\$2.37	\$2.54	\$2.68	\$2.83	\$2.99	\$3.15	\$3.33	\$98.43



1	Projected Annual Data																			
2	Investor Cash Flows		[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]	[80]	[81]
3	Company	Ticker	Initial Outflow	10/31/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30	6/30/31
4	ALLETE, Inc.	ALE	(\$54.29)	\$0.00	\$0.39	\$2.42	\$2.60	\$2.73	\$2.87	\$3.04	\$3.23	\$3.42	\$3.63	\$3.85	\$4.08	\$4.31	\$4.55	\$4.81	\$5.07	\$163.79
5	Alliant Energy Corporation	LNT	(\$33.81)	\$0.00	\$0.19	\$1.15	\$1.26	\$1.34	\$1.42	\$1.53	\$1.66	\$1.78	\$1.92	\$2.06	\$2.21	\$2.33	\$2.46	\$2.60	\$2.74	\$88.52
6	Ameren Corporation	AEE	(\$45.66)	\$0.00	\$0.28	\$1.72	\$1.83	\$1.92	\$2.02	\$2.16	\$2.31	\$2.47	\$2.64	\$2.81	\$3.00	\$3.17	\$3.34	\$3.53	\$3.73	\$120.34
7	American Electric Power Company, Inc.	AEP	(\$60.97)	\$0.00	\$0.39	\$2.36	\$2.67	\$2.88	\$3.10	\$3.26	\$3.43	\$3.62	\$3.81	\$4.02	\$4.25	\$4.48	\$4.73	\$5.00	\$5.28	\$170.29
8	Avista Corporation	AVA	(\$37.22)	\$0.00	\$0.22	\$1.37	\$1.45	\$1.50	\$1.57	\$1.66	\$1.76	\$1.87	\$1.99	\$2.12	\$2.25	\$2.38	\$2.51	\$2.65	\$2.80	\$90.29
9	CenterPoint Energy, Inc.	CNP	(\$20.24)	\$0.00	\$0.16	\$1.01	\$1.08	\$1.14	\$1.20	\$1.22	\$1.24	\$1.26	\$1.28	\$1.29	\$1.31	\$1.38	\$1.45	\$1.54	\$1.62	\$52.33
10	CMS Energy Corporation	CMS	(\$38.56)	\$0.00	\$0.22	\$1.34	\$1.47	\$1.56	\$1.66	\$1.80	\$1.95	\$2.10	\$2.26	\$2.42	\$2.59	\$2.73	\$2.88	\$3.05	\$3.21	\$103.77
11	DTE Energy Company	DTE	(\$85.92)	\$0.00	\$0.49	\$3.01	\$3.23	\$3.40	\$3.57	\$3.86	\$4.16	\$4.48	\$4.82	\$5.19	\$5.57	\$5.88	\$6.21	\$6.56	\$6.92	\$223.42
12	El Paso Electric Company	EE	(\$41.17)	\$0.00	\$0.20	\$1.21	\$1.41	\$1.54	\$1.68	\$1.83	\$2.00	\$2.17	\$2.35	\$2.53	\$2.73	\$2.88	\$3.04	\$3.21	\$3.39	\$109.37
13	Eversource Energy	ES	(\$52.91)	\$0.00	\$0.30	\$1.84	\$1.96	\$2.05	\$2.15	\$2.34	\$2.54	\$2.75	\$2.98	\$3.22	\$3.48	\$3.67	\$3.88	\$4.10	\$4.32	\$139.56
14	IDACORP, Inc.	IDA	(\$69.66)	\$0.00	\$0.36	\$2.19	\$2.48	\$2.67	\$2.87	\$3.05	\$3.26	\$3.48	\$3.73	\$4.00	\$4.29	\$4.53	\$4.78	\$5.05	\$5.33	\$172.13
15	NorthWestern Corporation	NWE	(\$56.15)	\$0.00	\$0.30	\$1.88	\$2.05	\$2.17	\$2.30	\$2.51	\$2.74	\$2.97	\$3.22	\$3.48	\$3.76	\$3.97	\$4.19	\$4.43	\$4.67	\$150.84
16	OGE Energy Corp.	OGE	(\$28.83)	\$0.00	\$0.20	\$1.20	\$1.38	\$1.49	\$1.61	\$1.67	\$1.73	\$1.79	\$1.86	\$1.93	\$2.00	\$2.11	\$2.23	\$2.35	\$2.48	\$80.16
17	Otter Tail Corporation	OTTR	(\$29.25)	\$0.00	\$0.23	\$1.40	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$78.32
18	Pinnacle West Capital Corporation	PNW	(\$68.71)	\$0.00	\$0.44	\$2.67	\$2.85	\$2.97	\$3.10	\$3.26	\$3.44	\$3.64	\$3.85	\$4.09	\$4.35	\$4.59	\$4.85	\$5.12	\$5.40	\$174.35
19	Portland General Electric Company	POR	(\$38.75)	\$0.00	\$0.21	\$1.29	\$1.42	\$1.51	\$1.61	\$1.74	\$1.89	\$2.04	\$2.20	\$2.37	\$2.55	\$2.70	\$2.85	\$3.01	\$3.17	\$102.42
20	SCANA Corporation	SCG	(\$63.57)	\$0.00	\$0.39	\$2.41	\$2.65	\$2.83	\$3.01	\$3.26	\$3.52	\$3.81	\$4.11	\$4.43	\$4.77	\$5.04	\$5.32	\$5.61	\$5.93	\$191.29
21	Wisconsin Energy Corporation	WEC	(\$55.19)	\$0.00	\$0.28	\$1.73	\$1.91	\$2.04	\$2.18	\$2.32	\$2.46	\$2.62	\$2.77	\$2.93	\$3.09	\$3.27	\$3.45	\$3.64	\$3.84	\$124.05
22	Xcel Energy Inc.	XEL	(\$38.29)	\$0.00	\$0.23	\$1.41	\$1.53	\$1.61	\$1.70	\$1.82	\$1.94	\$2.08	\$2.22	\$2.37	\$2.54	\$2.68	\$2.83	\$2.99	\$3.15	\$101.76

Multi-Stage Growth Discounted Cash Flow Model  
360 Day Average Stock Price  
Low EPS Growth Rate Estimate in First Stage

Line No	Inputs	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]						
1		Stock	EPS Growth Rate Estimates					Payout Ratio			Iterative Solution		Terminal	Terminal						
					Value	Low	Long-Term						P/E	PEG						
2	Company	Ticker	Price	Zacks	First Call	Line	Growth	2016	2020	2026	Proof	IRR	Ratio	Ratio						
3	ALLETE, Inc.	ALE	\$54.29	5.50%	5.00%	4.00%	4.00%	5.58%	66.00%	65.00%	66.88%	(\$0.00)	10.97%	19.78	3.55					
4	Alliant Energy Corporation	LNT	\$33.81	6.10%	6.60%	6.00%	6.00%	5.58%	62.00%	61.00%	66.88%	(\$0.00)	9.96%	19.78	3.55					
5	Ameren Corporation	AEE	\$45.65	6.10%	5.60%	6.00%	5.60%	5.58%	66.00%	63.00%	66.88%	(\$0.00)	10.20%	19.78	3.55					
6	American Electric Power Company, Inc.	AEP	\$60.96	5.20%	2.75%	4.00%	2.75%	5.58%	61.00%	67.00%	66.88%	(\$0.00)	9.62%	19.78	3.55					
7	Avista Corporation	AVA	\$37.22	5.30%	5.00%	5.00%	5.00%	5.58%	67.00%	64.00%	66.88%	(\$0.00)	9.61%	19.78	3.55					
8	CenterPoint Energy, Inc.	CNP	\$20.24	5.50%	5.11%	2.00%	2.00%	5.58%	86.00%	85.00%	66.88%	(\$0.00)	8.79%	19.78	3.55					
9	CMS Energy Corporation	CMS	\$38.56	6.60%	7.27%	6.00%	6.00%	5.58%	64.00%	62.00%	66.88%	(\$0.00)	9.82%	19.78	3.55					
10	DTE Energy Company	DTE	\$85.92	5.80%	5.63%	6.00%	5.63%	5.58%	62.00%	60.00%	66.88%	(\$0.00)	10.05%	19.78	3.55					
11	El Paso Electric Company	EE	\$41.17	4.40%	7.00%	4.00%	4.00%	5.58%	54.00%	59.00%	66.88%	\$0.00	8.51%	19.78	3.55					
12	Eversource Energy	ES	\$52.91	6.10%	5.39%	6.00%	5.39%	5.58%	61.00%	58.00%	66.88%	(\$0.00)	9.92%	19.78	3.55					
13	IDACORP, Inc.	IDA	\$69.66	4.30%	4.10%	3.00%	3.00%	5.58%	53.00%	60.00%	66.88%	(\$0.00)	9.00%	19.78	3.55					
14	NorthWestern Corporation	NWE	\$56.15	5.00%	4.50%	6.50%	4.50%	5.58%	59.00%	58.00%	66.88%	(\$0.00)	9.26%	19.78	3.55					
15	OGE Energy Corp.	OGE	\$28.83	5.20%	4.30%	3.00%	3.00%	5.58%	66.00%	74.00%	66.88%	(\$0.00)	9.93%	19.78	3.55					
16	Otter Tail Corporation	OTTR	\$29.25	NA	6.00%	6.00%	6.00%	5.58%	82.00%	64.00%	66.88%	(\$0.00)	10.85%	19.78	3.55					
17	Pinnacle West Capital Corporation	PNW	\$68.71	4.30%	3.95%	4.00%	3.95%	5.58%	64.00%	64.00%	66.88%	(\$0.00)	10.04%	19.78	3.55					
18	Portland General Electric Company	POR	\$38.75	6.00%	5.55%	5.50%	5.50%	5.58%	58.00%	59.00%	66.88%	(\$0.00)	10.07%	19.78	3.55					
19	SCANA Corporation	SCG	\$63.57	5.50%	6.00%	4.50%	4.50%	5.58%	58.00%	59.00%	66.88%	(\$0.00)	10.68%	19.78	3.55					
20	Wisconsin Energy Corporation	WEC	\$55.19	6.20%	6.77%	6.00%	6.00%	5.58%	67.00%	67.00%	66.88%	(\$0.00)	8.58%	19.78	3.55					
21	Xcel Energy Inc.	XEL	\$38.29	5.40%	5.36%	5.50%	5.36%	5.58%	62.00%	62.00%	66.88%	(\$0.00)	10.48%	19.78	3.55					
22												Mean	9.81%							
23												Max	10.97%							
24												Min	8.51%							
25	Projected Annual																			
26	Earnings per Share		[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]	
27	Company	Ticker	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
28	ALLETE, Inc.	ALE	\$3.38	\$3.52	\$3.66	\$3.80	\$3.95	\$4.11	\$4.29	\$4.48	\$4.70	\$4.93	\$5.20	\$5.49	\$5.79	\$6.11	\$6.45	\$6.81	\$7.19	
29	Alliant Energy Corporation	LNT	\$1.69	\$1.79	\$1.90	\$2.01	\$2.13	\$2.26	\$2.40	\$2.54	\$2.68	\$2.84	\$3.00	\$3.16	\$3.34	\$3.53	\$3.72	\$3.93	\$4.15	
30	Ameren Corporation	AEE	\$2.38	\$2.51	\$2.65	\$2.80	\$2.96	\$3.13	\$3.30	\$3.48	\$3.68	\$3.88	\$4.10	\$4.33	\$4.57	\$4.83	\$5.10	\$5.38	\$5.68	
31	American Electric Power Company, Inc.	AEP	\$3.59	\$3.69	\$3.79	\$3.89	\$4.00	\$4.11	\$4.24	\$4.40	\$4.58	\$4.80	\$5.04	\$5.32	\$5.62	\$5.93	\$6.26	\$6.61	\$6.98	
32	Avista Corporation	AVA	\$1.89	\$1.98	\$2.08	\$2.19	\$2.30	\$2.41	\$2.54	\$2.67	\$2.81	\$2.96	\$3.12	\$3.30	\$3.48	\$3.67	\$3.88	\$4.09	\$4.32	
33	CenterPoint Energy, Inc.	CNP	\$1.08	\$1.10	\$1.12	\$1.15	\$1.17	\$1.19	\$1.22	\$1.26	\$1.31	\$1.37	\$1.44	\$1.52	\$1.60	\$1.69	\$1.78	\$1.88	\$1.99	
34	CMS Energy Corporation	CMS	\$1.89	\$2.00	\$2.12	\$2.25	\$2.39	\$2.53	\$2.68	\$2.84	\$3.00	\$3.17	\$3.35	\$3.54	\$3.74	\$3.94	\$4.16	\$4.40	\$4.64	
35	DTE Energy Company	DTE	\$4.45	\$4.70	\$4.97	\$5.24	\$5.54	\$5.85	\$6.18	\$6.53	\$6.89	\$7.28	\$7.69	\$8.11	\$8.57	\$9.04	\$9.55	\$10.08	\$10.64	
36	El Paso Electric Company	EE	\$2.03	\$2.11	\$2.20	\$2.28	\$2.37	\$2.47	\$2.58	\$2.69	\$2.82	\$2.96	\$3.12	\$3.29	\$3.48	\$3.67	\$3.88	\$4.09	\$4.32	
37	Eversource Energy	ES	\$2.76	\$2.91	\$3.07	\$3.23	\$3.40	\$3.59	\$3.78	\$3.99	\$4.21	\$4.44	\$4.69	\$4.95	\$5.22	\$5.51	\$5.82	\$6.15	\$6.49	
38	IDACORP, Inc.	IDA	\$3.87	\$3.99	\$4.11	\$4.23	\$4.36	\$4.49	\$4.64	\$4.82	\$5.03	\$5.26	\$5.53	\$5.84	\$6.17	\$6.51	\$6.88	\$7.26	\$7.66	
39	NorthWestern Corporation	NWE	\$2.90	\$3.03	\$3.17	\$3.31	\$3.46	\$3.61	\$3.78	\$3.97	\$4.17	\$4.38	\$4.62	\$4.88	\$5.15	\$5.44	\$5.74	\$6.06	\$6.40	
40	OGE Energy Corp.	OGE	\$1.69	\$1.74	\$1.79	\$1.85	\$1.90	\$1.96	\$2.03	\$2.10	\$2.19	\$2.30	\$2.42	\$2.55	\$2.69	\$2.84	\$3.00	\$3.17	\$3.35	
41	Otter Tail Corporation	OTTR	\$1.56	\$1.65	\$1.75	\$1.86	\$1.97	\$2.09	\$2.21	\$2.34	\$2.48	\$2.62	\$2.77	\$2.92	\$3.08	\$3.25	\$3.44	\$3.63	\$3.83	
42	Pinnacle West Capital Corporation	PNW	\$3.92	\$4.07	\$4.24	\$4.40	\$4.58	\$4.76	\$4.96	\$5.18	\$5.43	\$5.70	\$6.00	\$6.34	\$6.69	\$7.07	\$7.46	\$7.88	\$8.31	
43	Portland General Electric Company	POR	\$2.04	\$2.15	\$2.27	\$2.40	\$2.53	\$2.67	\$2.81	\$2.97	\$3.13	\$3.31	\$3.49	\$3.69	\$3.89	\$4.11	\$4.34	\$4.58	\$4.83	
44	SCANA Corporation	SCG	\$3.81	\$3.98	\$4.16	\$4.35	\$4.54	\$4.75	\$4.97	\$5.21	\$5.47	\$5.76	\$6.07	\$6.41	\$6.77	\$7.14	\$7.54	\$7.96	\$8.41	
45	Wisconsin Energy Corporation	WEC	\$2.34	\$2.48	\$2.63	\$2.79	\$2.95	\$3.13	\$3.32	\$3.51	\$3.71	\$3.93	\$4.15	\$4.38	\$4.62	\$4.88	\$5.15	\$5.44	\$5.75	
46	Xcel Energy Inc.	XEL	\$2.10	\$2.21	\$2.33	\$2.46	\$2.59	\$2.73	\$2.87	\$3.03	\$3.20	\$3.37	\$3.56	\$3.76	\$3.97	\$4.19	\$4.42	\$4.67	\$4.93	

1	Projected Annual																	
2	Dividend Payout Ratio		[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]
3	Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
4	ALLETE, Inc.	ALE	66.00%	65.75%	65.50%	65.25%	65.00%	65.31%	65.63%	65.94%	66.26%	66.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
5	Alliant Energy Corporation	LNT	62.00%	61.75%	61.50%	61.25%	61.00%	61.98%	62.96%	63.94%	64.92%	65.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
6	Ameren Corporation	AEE	66.00%	65.25%	64.50%	63.75%	63.00%	63.65%	64.29%	64.94%	65.59%	66.24%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
7	American Electric Power Company, Inc.	AEP	61.00%	62.50%	64.00%	65.50%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
8	Avista Corporation	AVA	67.00%	66.25%	65.50%	64.75%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
9	CenterPoint Energy, Inc.	CNP	86.00%	85.75%	85.50%	85.25%	85.00%	81.98%	78.96%	75.94%	72.92%	69.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
10	CMS Energy Corporation	CMS	64.00%	63.50%	63.00%	62.50%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
11	DTE Energy Company	DTE	62.00%	61.50%	61.00%	60.50%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
12	El Paso Electric Company	EE	54.00%	55.25%	56.50%	57.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
13	Eversource Energy	ES	61.00%	60.25%	59.50%	58.75%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
14	IDACORP, Inc.	IDA	53.00%	54.75%	56.50%	58.25%	60.00%	61.15%	62.29%	63.44%	64.59%	65.74%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
15	NorthWestern Corporation	NWE	59.00%	58.75%	58.50%	58.25%	58.00%	59.48%	60.96%	62.44%	63.92%	65.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
16	OGE Energy Corp.	OGE	66.00%	68.00%	70.00%	72.00%	74.00%	72.81%	71.63%	70.44%	69.26%	68.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
17	Otter Tail Corporation	OTTR	82.00%	77.50%	73.00%	68.50%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
18	Pinnacle West Capital Corporation	PNW	64.00%	64.00%	64.00%	64.00%	64.00%	64.48%	64.96%	65.44%	65.92%	66.40%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
19	Portland General Electric Company	POR	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
20	SCANA Corporation	SCG	58.00%	58.25%	58.50%	58.75%	59.00%	60.31%	61.63%	62.94%	64.26%	65.57%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
21	Wisconsin Energy Corporation	WEC	67.00%	67.00%	67.00%	67.00%	67.00%	66.98%	66.96%	66.94%	66.92%	66.90%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%
22	Xcel Energy Inc.	XEL	62.00%	62.00%	62.00%	62.00%	62.00%	62.81%	63.63%	64.44%	65.26%	66.07%	66.88%	66.88%	66.88%	66.88%	66.88%	66.88%

23	Projected Annual																		
24	Cash Flows		[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	[63]
25	Company	Ticker	2015	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Terminal Value
26	ALLETE, Inc.	ALE	\$2.32	\$2.40	\$2.49	\$2.58	\$2.67	\$2.80	\$2.94	\$3.10	\$3.27	\$3.46	\$3.67	\$3.87	\$4.09	\$4.32	\$4.56	\$4.81	\$142.31
27	Alliant Energy Corporation	LNT	\$1.11	\$1.17	\$1.24	\$1.31	\$1.38	\$1.48	\$1.60	\$1.72	\$1.84	\$1.97	\$2.12	\$2.23	\$2.36	\$2.49	\$2.63	\$2.78	\$82.08
28	Ameren Corporation	AEE	\$1.66	\$1.73	\$1.81	\$1.89	\$1.97	\$2.10	\$2.24	\$2.39	\$2.55	\$2.72	\$2.90	\$3.06	\$3.23	\$3.41	\$3.60	\$3.80	\$112.35
29	American Electric Power Company, Inc.	AEP	\$2.25	\$2.37	\$2.49	\$2.62	\$2.75	\$2.84	\$2.95	\$3.07	\$3.21	\$3.37	\$3.56	\$3.76	\$3.97	\$4.19	\$4.42	\$4.67	\$138.08
30	Avista Corporation	AVA	\$1.33	\$1.38	\$1.43	\$1.49	\$1.54	\$1.63	\$1.73	\$1.84	\$1.95	\$2.07	\$2.20	\$2.33	\$2.46	\$2.59	\$2.74	\$2.89	\$85.49
31	CenterPoint Energy, Inc.	CNP	\$0.95	\$0.96	\$0.98	\$1.00	\$1.01	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.01	\$1.07	\$1.13	\$1.19	\$1.26	\$1.33	\$39.33
32	CMS Energy Corporation	CMS	\$1.28	\$1.35	\$1.42	\$1.49	\$1.57	\$1.68	\$1.80	\$1.93	\$2.07	\$2.21	\$2.37	\$2.50	\$2.64	\$2.78	\$2.94	\$3.10	\$91.79
33	DTE Energy Company	DTE	\$2.91	\$3.05	\$3.20	\$3.35	\$3.51	\$3.78	\$4.07	\$4.37	\$4.70	\$5.05	\$5.43	\$5.73	\$6.05	\$6.39	\$6.74	\$7.12	\$210.52
34	El Paso Electric Company	EE	\$1.14	\$1.21	\$1.29	\$1.37	\$1.46	\$1.55	\$1.66	\$1.78	\$1.90	\$2.05	\$2.20	\$2.33	\$2.46	\$2.59	\$2.74	\$2.89	\$85.47
35	Eversource Energy	ES	\$1.77	\$1.85	\$1.92	\$2.00	\$2.08	\$2.25	\$2.43	\$2.63	\$2.84	\$3.06	\$3.31	\$3.49	\$3.69	\$3.89	\$4.11	\$4.34	\$128.36
36	IDACORP, Inc.	IDA	\$2.11	\$2.25	\$2.39	\$2.54	\$2.69	\$2.84	\$3.00	\$3.19	\$3.40	\$3.64	\$3.91	\$4.13	\$4.36	\$4.60	\$4.85	\$5.13	\$151.58
37	NorthWestern Corporation	NWE	\$1.79	\$1.86	\$1.94	\$2.01	\$2.10	\$2.25	\$2.42	\$2.60	\$2.80	\$3.02	\$3.26	\$3.44	\$3.64	\$3.84	\$4.05	\$4.28	\$126.57
38	OGE Energy Corp.	OGE	\$1.15	\$1.22	\$1.29	\$1.37	\$1.45	\$1.48	\$1.51	\$1.55	\$1.59	\$1.64	\$1.71	\$1.80	\$1.90	\$2.01	\$2.12	\$2.24	\$66.20
39	Otter Tail Corporation	OTTR	\$1.36	\$1.36	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$2.56	\$75.76
40	Pinnacle West Capital Corporation	PNW	\$2.61	\$2.71	\$2.82	\$2.93	\$3.05	\$3.20	\$3.37	\$3.55	\$3.76	\$3.99	\$4.24	\$4.48	\$4.73	\$4.99	\$5.27	\$5.56	\$164.46
41	Portland General Electric Company	POR	\$1.25	\$1.32	\$1.40	\$1.48	\$1.57	\$1.70	\$1.83	\$1.97	\$2.12	\$2.29	\$2.47	\$2.60	\$2.75	\$2.90	\$3.06	\$3.23	\$95.62
42	SCANA Corporation	SCG	\$2.31	\$2.42	\$2.54	\$2.67	\$2.80	\$3.00	\$3.21	\$3.45	\$3.70	\$3.98	\$4.29	\$4.53	\$4.78	\$5.04	\$5.33	\$5.62	\$166.28
43	Wisconsin Energy Corporation	WEC	\$1.66	\$1.76	\$1.87	\$1.98	\$2.10	\$2.22	\$2.35	\$2.49	\$2.63	\$2.78	\$2.93	\$3.09	\$3.27	\$3.45	\$3.64	\$3.84	\$113.64
44	Xcel Energy Inc.	XEL	\$1.37	\$1.45	\$1.52	\$1.60	\$1.69	\$1.81	\$1.93	\$2.06	\$2.20	\$2.35	\$2.51	\$2.65	\$2.80	\$2.96	\$3.12	\$3.30	\$97.46

1	Projected Annual Data																			
2	Investor Cash Flows		[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]	[80]	[81]
3	Company	Ticker	Initial Outflow	10/31/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30	6/30/31
4	ALLETE, Inc.	ALE	(\$54.29)	\$0.00	\$0.39	\$2.37	\$2.49	\$2.58	\$2.67	\$2.80	\$2.94	\$3.10	\$3.27	\$3.46	\$3.67	\$3.87	\$4.09	\$4.32	\$4.56	\$147.13
5	Alliant Energy Corporation	LNT	(\$33.81)	\$0.00	\$0.19	\$1.14	\$1.24	\$1.31	\$1.38	\$1.48	\$1.60	\$1.72	\$1.84	\$1.97	\$2.12	\$2.23	\$2.36	\$2.49	\$2.63	\$84.85
6	Ameren Corporation	AEE	(\$45.66)	\$0.00	\$0.28	\$1.71	\$1.81	\$1.89	\$1.97	\$2.10	\$2.24	\$2.39	\$2.55	\$2.72	\$2.90	\$3.06	\$3.23	\$3.41	\$3.60	\$116.15
7	American Electric Power Company, Inc.	AEP	(\$60.97)	\$0.00	\$0.38	\$2.28	\$2.49	\$2.62	\$2.75	\$2.84	\$2.95	\$3.07	\$3.21	\$3.37	\$3.56	\$3.76	\$3.97	\$4.19	\$4.42	\$142.75
8	Avista Corporation	AVA	(\$37.22)	\$0.00	\$0.22	\$1.36	\$1.43	\$1.49	\$1.54	\$1.63	\$1.73	\$1.84	\$1.95	\$2.07	\$2.20	\$2.33	\$2.46	\$2.59	\$2.74	\$88.38
9	CenterPoint Energy, Inc.	CNP	(\$20.24)	\$0.00	\$0.16	\$0.96	\$0.98	\$1.00	\$1.01	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.01	\$1.07	\$1.13	\$1.19	\$1.26	\$40.66
10	CMS Energy Corporation	CMS	(\$38.56)	\$0.00	\$0.21	\$1.32	\$1.42	\$1.49	\$1.57	\$1.68	\$1.80	\$1.93	\$2.07	\$2.21	\$2.37	\$2.50	\$2.64	\$2.78	\$2.94	\$94.89
11	DTE Energy Company	DTE	(\$85.92)	\$0.00	\$0.49	\$3.00	\$3.20	\$3.35	\$3.51	\$3.78	\$4.07	\$4.37	\$4.70	\$5.05	\$5.43	\$5.73	\$6.05	\$6.39	\$6.74	\$217.64
12	El Paso Electric Company	EE	(\$41.17)	\$0.00	\$0.19	\$1.16	\$1.29	\$1.37	\$1.46	\$1.55	\$1.66	\$1.78	\$1.90	\$2.05	\$2.20	\$2.33	\$2.46	\$2.59	\$2.74	\$88.36
13	Eversource Energy	ES	(\$52.91)	\$0.00	\$0.30	\$1.82	\$1.92	\$2.00	\$2.08	\$2.25	\$2.43	\$2.63	\$2.84	\$3.06	\$3.31	\$3.49	\$3.69	\$3.89	\$4.11	\$132.70
14	IDACORP, Inc.	IDA	(\$69.66)	\$0.00	\$0.35	\$2.14	\$2.39	\$2.54	\$2.69	\$2.84	\$3.00	\$3.19	\$3.40	\$3.64	\$3.91	\$4.13	\$4.36	\$4.60	\$4.85	\$156.71
15	NorthWestern Corporation	NWE	(\$56.15)	\$0.00	\$0.30	\$1.83	\$1.94	\$2.01	\$2.10	\$2.25	\$2.42	\$2.60	\$2.80	\$3.02	\$3.26	\$3.44	\$3.64	\$3.84	\$4.05	\$130.85
16	OGE Energy Corp.	OGE	(\$28.84)	\$0.00	\$0.19	\$1.17	\$1.29	\$1.37	\$1.45	\$1.48	\$1.51	\$1.55	\$1.59	\$1.64	\$1.71	\$1.80	\$1.90	\$2.01	\$2.12	\$68.43
17	Otter Tail Corporation	OTTR	(\$29.25)	\$0.00	\$0.23	\$1.40	\$1.36	\$1.35	\$1.34	\$1.43	\$1.52	\$1.62	\$1.73	\$1.84	\$1.95	\$2.06	\$2.18	\$2.30	\$2.43	\$78.32
18	Pinnacle West Capital Corporation	PNW	(\$68.71)	\$0.00	\$0.44	\$2.66	\$2.82	\$2.93	\$3.05	\$3.20	\$3.37	\$3.55	\$3.76	\$3.99	\$4.24	\$4.48	\$4.73	\$4.99	\$5.27	\$170.02
19	Portland General Electric Company	POR	(\$38.75)	\$0.00	\$0.21	\$1.28	\$1.40	\$1.48	\$1.57	\$1.70	\$1.83	\$1.97	\$2.12	\$2.29	\$2.47	\$2.60	\$2.75	\$2.90	\$3.06	\$98.85
20	SCANA Corporation	SCG	(\$63.57)	\$0.00	\$0.39	\$2.36	\$2.54	\$2.67	\$2.80	\$3.00	\$3.21	\$3.45	\$3.70	\$3.98	\$4.29	\$4.53	\$4.78	\$5.04	\$5.33	\$171.91
21	Wisconsin Energy Corporation	WEC	(\$55.19)	\$0.00	\$0.28	\$1.71	\$1.87	\$1.98	\$2.10	\$2.22	\$2.35	\$2.49	\$2.63	\$2.78	\$2.93	\$3.09	\$3.27	\$3.45	\$3.64	\$117.49
22	Xcel Energy Inc.	XEL	(\$38.29)	\$0.00	\$0.23	\$1.41	\$1.52	\$1.60	\$1.69	\$1.81	\$1.93	\$2.06	\$2.20	\$2.35	\$2.51	\$2.65	\$2.80	\$2.96	\$3.12	\$100.75

Line

No.	Multi-Stage DCF Notes:
1	[1] Source: Bloomberg; based on 30-, 90-, and 180-day historical average as of October 31, 2016
2	[2] Source: Zacks
3	[3] Source: Yahoo! Finance
4	[4] Source: Value Line
5	[5] Equals indicated value (average, minimum, maximum) of Columns [2], [3], [4]
6	[6] Source: Federal Reserve, Bureau of Economic Analysis, Blue Chip Financial Forecast
7	[7] Source: Value Line
8	[8] Source: Value Line
9	[9] Source: Bloomberg Professional
10	[10] Equals Column [1] + Column [64]
11	[11] Equals result of Excel Solver function; goal: Column [10] equals \$0.00
12	[12] Equals Proxy Group 30-day average PE ratio. Source: SNL Financial
13	[13] Equals Column [12] / (Column [6] x 100)
14	[14] Source: Value Line
15	[15] Equals Column [14] x (1 + Column [5])
16	[16] Equals Column [15] x (1 + Column [5])
17	[17] Equals Column [16] x (1 + Column [5])
18	[18] Equals Column [17] x (1 + Column [5])
19	[19] Equals Column [18] x (1 + Column [5])
20	[20] Equals (1 + (Column [5] + (((Column [6] - Column [5]) / (2026 - 2021 + 1)) x (2021 - 2020)))) x Column [19]
21	[21] Equals (1 + (Column [5] + (((Column [6] - Column [5]) / (2026 - 2021 + 1)) x (2022 - 2020)))) x Column [20]
22	[22] Equals (1 + (Column [5] + (((Column [6] - Column [5]) / (2026 - 2021 + 1)) x (2023 - 2020)))) x Column [21]
23	[23] Equals (1 + (Column [5] + (((Column [6] - Column [5]) / (2026 - 2021 + 1)) x (2024 - 2020)))) x Column [22]
24	[24] Equals (1 + (Column [5] + (((Column [6] - Column [5]) / (2026 - 2021 + 1)) x (2025 - 2020)))) x Column [23]
25	[25] Equals Column [24] x (1 + Column [6])
26	[26] Equals Column [25] x (1 + Column [6])
27	[27] Equals Column [26] x (1 + Column [6])
28	[28] Equals Column [27] x (1 + Column [6])
29	[29] Equals Column [28] x (1 + Column [6])
30	[30] Equals Column [29] x (1 + Column [6])
31	[31] Equals Column [7]
32	[32] Equals Column [31] + ((Column [35] - Column [31]) / 4)
33	[33] Equals Column [32] + ((Column [35] - Column [31]) / 4)
34	[34] Equals Column [33] + ((Column [35] - Column [31]) / 4)
35	[35] Equals Column [8]
36	[36] Equals Column [35] + ((Column [41] - Column [35]) / 6)
37	[37] Equals Column [36] + ((Column [41] - Column [35]) / 6)
38	[38] Equals Column [37] + ((Column [41] - Column [35]) / 6)
39	[39] Equals Column [38] + ((Column [41] - Column [35]) / 6)
40	[40] Equals Column [39] + ((Column [41] - Column [35]) / 6)
41	[41] Equals Column [9]
42	[42] Equals Column [9]
43	[43] Equals Column [9]
44	[44] Equals Column [9]
45	[45] Equals Column [9]
46	[46] Equals Column [9]
47	[47] Equals Column [15] x Column [31]
48	[48] Equals Column [16] x Column [32]
49	[49] Equals Column [17] x Column [33]
50	[50] Equals Column [18] x Column [34]
51	[51] Equals Column [19] x Column [35]
52	[52] Equals Column [20] x Column [36]
53	[53] Equals Column [21] x Column [37]
54	[54] Equals Column [22] x Column [38]
55	[55] Equals Column [23] x Column [39]
56	[56] Equals Column [24] x Column [40]
57	[57] Equals Column [25] x Column [41]
58	[58] Equals Column [26] x Column [42]
59	[59] Equals Column [27] x Column [43]
60	[60] Equals Column [28] x Column [44]
61	[61] Equals Column [29] x Column [45]
62	[62] Equals Column [30] x Column [46]
63	[63] Equals Column [12] x Column [30]
64	[64] Equals negative net present value; discount rate equals Column [11], cash flows equal Column [65] through Column [81]
65	[65] Equals \$0.00
66	[66] Equals Column [47] x (12/31/2016 - 10/31/2016) / 365
67	[67] Equals Column [47] + (0.5 x Column [5])
68	[68] Equals Column [49]
69	[69] Equals Column [50]
70	[70] Equals Column [51]
71	[71] Equals Column [52]
72	[72] Equals Column [53]
73	[73] Equals Column [54]
74	[74] Equals Column [55]
75	[75] Equals Column [56]
76	[76] Equals Column [57]
77	[77] Equals Column [58]
78	[78] Equals Column [59]
79	[79] Equals Column [60]
80	[80] Equals Column [61]
81	[81] Equals Column [62] + [63]

Ex-Ante Market Risk Premium

# PNM Exhibit RBH-4

Is contained in the following 14 pages

Ex-Ante Market Risk Premium  
Market DCF Method Based - Bloomberg

Line  
No.

[1]	[2]	[3]
S&P 500 Est. Required Market Return	Current 30-Year Treasury (30-day average)	Implied Market Risk Premium
13.13%	2.45%	10.68%

			[4]	[5]	[6]	[7]	[8]	[9]
			Market		Estimated	Long-Term Growth		Weighted
3	Company	Ticker	Capitalization	Weight in Index	Dividend Yield	Est.	DCF Result	DCF Result
4	AGILENT TECHNOLOGIES INC	A	14,133.44	0.07%	1.03%	10.43%	11.51%	0.0084%
5	ALCOA INC	AA	12,592.57	0.06%	0.79%	5.00%	5.81%	0.0038%
6	AMERICAN AIRLINES GROUP INC	AAL	21,035.88	0.11%	1.01%	-18.84%	-17.92%	-0.0194%
7	ADVANCE AUTO PARTS INC	AAP	10,315.52	0.05%	0.18%	10.67%	10.86%	0.0058%
8	APPLE INC	AAPL	605,430.82	3.12%	1.98%	9.66%	11.74%	0.3660%
9	ABBVIE INC	ABBV	90,840.09	0.47%	4.08%	11.45%	15.76%	0.0737%
10	AMERISOURCEBERGEN CORP	ABC	16,728.53	0.09%	1.93%	11.11%	13.15%	0.0113%
11	ABBOTT LABORATORIES	ABT	57,682.62	0.30%	2.66%	11.10%	13.91%	0.0413%
12	ACCENTURE PLC-CL A	ACN	75,473.91	0.39%	2.08%	8.25%	10.42%	0.0405%
13	ADOBE SYSTEMS INC	ADBE	53,456.88	0.28%	0.00%	17.32%	17.32%	0.0477%
14	ANALOG DEVICES INC	ADI	19,709.10	0.10%	2.53%	10.48%	13.14%	0.0133%
15	ARCHER-DANIELS-MIDLAND CO	ADM	25,347.42	0.13%	2.76%	3.67%	6.48%	0.0085%
16	ADIANT PLC	ADNT	4,255.19	0.02%	0.00%	16.63%	16.63%	0.0036%
17	AUTOMATIC DATA PROCESSING	ADP	39,557.91	0.20%	2.54%	10.42%	13.09%	0.0267%
18	ALLIANCE DATA SYSTEMS CORP	ADS	11,967.44	0.06%	0.25%	14.60%	14.87%	0.0092%
19	AUTODESK INC	ADSK	16,038.42	0.08%	0.00%	9.82%	9.82%	0.0081%
20	AMEREN CORPORATION	AEE	12,119.61	0.06%	3.47%	6.30%	9.88%	0.0062%
21	AMERICAN ELECTRIC POWER	AEP	31,882.44	0.16%	3.48%	3.86%	7.41%	0.0122%
22	AES CORP	AES	7,757.48	0.04%	3.75%	6.66%	10.53%	0.0042%
23	AETNA INC	AET	37,669.12	0.19%	0.93%	10.54%	11.52%	0.0223%
24	AFLAC INC	AFL	28,207.45	0.15%	2.41%	5.00%	7.47%	0.0108%
25	ALLERGAN PLC	AGN	82,730.25	0.43%	0.00%	12.37%	12.37%	0.0527%
26	AMERICAN INTERNATIONAL GROUP	AIG	66,059.72	0.34%	2.07%	18.48%	20.75%	0.0706%
27	APARTMENT INVT & MGMT CO -A	AIV	6,901.95	0.04%	2.99%	7.09%	10.18%	0.0036%
28	ASSURANT INC	AIZ	4,847.66	0.02%	2.54%	8.83%	11.48%	0.0029%
29	ARTHUR J GALLAGHER & CO	AJG	8,582.09	0.04%	3.15%	8.99%	12.28%	0.0054%
30	AKAMAI TECHNOLOGIES INC	AKAM	12,138.11	0.06%	0.00%	14.80%	14.80%	0.0093%
31	ALBEMARLE CORP	ALB	9,391.28	0.05%	1.41%	14.10%	15.61%	0.0075%
32	ALASKA AIR GROUP INC	ALK	8,889.78	0.05%	1.52%	0.10%	1.62%	0.0007%
33	ALLSTATE CORP	ALL	25,222.20	0.13%	1.93%	8.25%	10.26%	0.0133%
34	ALLEGION PLC	ALLE	6,129.62	0.03%	0.75%	13.10%	13.90%	0.0044%
35	ALEXION PHARMACEUTICALS INC	ALXN	29,264.36	0.15%	0.00%	28.11%	28.11%	0.0424%
36	APPLIED MATERIALS INC	AMAT	31,432.39	0.16%	1.39%	14.80%	16.29%	0.0264%
37	AMETEK INC	AME	10,249.68	0.05%	0.84%	9.40%	10.28%	0.0054%
38	AFFILIATED MANAGERS GROUP	AMG	7,146.67	0.04%	0.00%	12.30%	12.30%	0.0045%
39	AMGEN INC	AMGN	105,012.10	0.54%	2.83%	7.86%	10.80%	0.0584%
40	AMERIPRISE FINANCIAL INC	AMP	14,267.99	N/A	3.30%	N/A	N/A	N/A
41	AMERICAN TOWER CORP	AMT	49,886.36	0.26%	1.83%	20.83%	22.84%	0.0587%
42	AMAZON.COM INC	AMZN	375,296.03	1.93%	0.00%	46.53%	46.53%	0.8992%
43	AUTONATION INC	AN	4,432.80	0.02%	0.00%	6.08%	6.08%	0.0014%
44	ANTHEM INC	ANTM	32,070.02	0.17%	2.13%	8.66%	10.88%	0.0180%
45	AON PLC	AON	29,158.71	0.15%	1.16%	10.35%	11.57%	0.0174%
46	APACHE CORP	APA	22,568.08	0.12%	1.68%	7.95%	9.70%	0.0113%
47	ANADARKO PETROLEUM CORP	APC	32,907.02	0.17%	0.34%	1.48%	1.82%	0.0031%
48	AIR PRODUCTS & CHEMICALS INC	APD	28,892.06	0.15%	2.60%	6.22%	8.90%	0.0132%
49	AMPHENOL CORP-CL A	APH	20,354.21	0.10%	0.86%	10.44%	11.34%	0.0119%
50	ACTIVISION BLIZZARD INC	ATVI	32,009.13	0.16%	0.60%	14.73%	15.37%	0.0253%
51	AVALONBAY COMMUNITIES INC	AVB	23,505.33	0.12%	3.15%	7.20%	10.46%	0.0127%
52	BROADCOM LTD	AVGO	67,657.27	0.35%	1.12%	14.58%	15.78%	0.0550%
53	AVERY DENNISON CORP	AVY	6,201.34	0.03%	2.31%	6.55%	8.93%	0.0029%
54	AMERICAN WATER WORKS CO INC	AWK	13,171.89	0.07%	1.95%	7.64%	9.67%	0.0066%
55	AMERICAN EXPRESS CO	AXP	60,791.26	0.31%	1.83%	8.99%	10.90%	0.0341%
56	ACUITY BRANDS INC	AYI	9,855.56	0.05%	0.23%	19.60%	19.86%	0.0101%
57	AUTOZONE INC	AZO	21,419.77	0.11%	0.00%	12.58%	12.58%	0.0139%
58	BOEING CO/THE	BA	87,902.94	0.45%	3.06%	12.98%	16.23%	0.0735%
59	BANK OF AMERICA CORP	BAC	168,379.18	0.87%	1.52%	9.67%	11.26%	0.0976%
60	BAXTER INTERNATIONAL INC	BAX	25,883.61	0.13%	1.05%	12.21%	13.33%	0.0178%
61	BED BATH & BEYOND INC	BBBY	6,147.24	0.03%	1.07%	6.42%	7.53%	0.0024%
62	BB&T CORP	BBT	31,807.83	0.16%	2.93%	7.50%	10.54%	0.0173%
63	BEST BUY CO INC	BBY	12,345.15	0.06%	3.45%	11.18%	14.82%	0.0094%
64	CR BARD INC	BCR	15,931.68	0.08%	0.47%	10.75%	11.24%	0.0092%
65	BECTON DICKINSON AND CO	BDX	35,752.38	0.18%	1.57%	11.28%	12.95%	0.0238%
66	FRANKLIN RESOURCES INC	BEN	19,392.25	0.10%	2.32%	10.00%	12.44%	0.0124%
67	BROWN-FORMAN CORP-CLASS B	BF/B	18,581.27	0.10%	1.54%	9.22%	10.83%	0.0104%
68	BAKER HUGHES INC	BHI	23,422.79	0.12%	1.23%	36.00%	37.45%	0.0452%
69	BIAGEN INC	BIIB	60,960.02	0.31%	0.00%	8.81%	8.81%	0.0277%
70	BANK OF NEW YORK MELLON CORP	BK	46,198.27	0.24%	1.66%	15.35%	17.14%	0.0408%

71	BLACKROCK INC	BLK	56,021.62	0.29%	2.68%	11.87%	14.71%	0.0424%
72	BALL CORP	BLL	13,427.84	0.07%	0.67%	4.80%	5.49%	0.0038%
73	BRISTOL-MYERS SQUIBB CO	BMJ	85,082.32	0.44%	3.00%	20.13%	23.43%	0.1026%
74	BERKSHIRE HATHAWAY INC-CL B	BRK/B	355,220.90	1.83%	0.00%	2.00%	2.00%	0.0366%
75	BOSTON SCIENTIFIC CORP	BSX	29,936.35	0.15%	0.00%	12.71%	12.71%	0.0196%
76	BORGWARNER INC	BWA	7,633.41	0.04%	1.46%	11.59%	13.13%	0.0052%
77	BOSTON PROPERTIES INC	BXP	18,516.99	0.10%	2.45%	6.50%	9.02%	0.0086%
78	CITIGROUP INC	C	140,064.24	0.72%	0.80%	4.39%	5.21%	0.0376%
79	CA INC	CA	12,844.31	0.07%	3.34%	7.60%	11.07%	0.0073%
80	CONAGRA FOODS INC	CAG	21,091.74	0.11%	2.16%	8.37%	10.62%	0.0115%
81	CARDINAL HEALTH INC	CAH	21,977.54	0.11%	2.60%	11.53%	14.28%	0.0162%
82	CATERPILLAR INC	CAT	48,759.93	0.25%	3.69%	8.08%	11.91%	0.0299%
83	CHUBB LTD	CB	59,091.34	0.30%	2.18%	10.00%	12.28%	0.0374%
84	CBRE GROUP INC - A	CBG	8,645.53	0.04%	0.00%	8.63%	8.63%	0.0038%
85	CBS CORP-CLASS B NON VOTING	CBS	25,197.87	0.13%	1.16%	15.77%	17.02%	0.0221%
86	CROWN CASTLE INTL CORP	CCI	30,714.90	0.16%	3.94%	9.95%	14.09%	0.0223%
87	CARNIVAL CORP	CCL	36,225.04	0.19%	2.73%	15.06%	17.99%	0.0336%
88	CELGENE CORP	CELG	79,210.29	0.41%	0.00%	21.43%	21.43%	0.0874%
89	CERNER CORP	CERN	19,783.01	0.10%	0.00%	14.41%	14.41%	0.0147%
90	CF INDUSTRIES HOLDINGS INC	CF	5,597.45	0.03%	5.01%	1.20%	6.24%	0.0018%
91	CITIZENS FINANCIAL GROUP	CFG	13,682.86	0.07%	1.74%	18.00%	19.89%	0.0140%
92	CHURCH & DWIGHT CO INC	CHD	12,431.64	0.06%	1.66%	9.26%	11.00%	0.0070%
93	CHESAPEAKE ENERGY CORP	CHK	4,888.78	0.03%	0.00%	0.88%	0.88%	0.0002%
94	C.H. ROBINSON WORLDWIDE INC	CHRW	9,721.23	0.05%	2.56%	9.52%	12.20%	0.0061%
95	CHARTER COMMUNICATIONS INC-A	CHTR	77,777.93	0.40%	0.00%	31.05%	31.05%	0.1243%
96	CIGNA CORP	CI	30,488.23	0.16%	0.03%	10.99%	11.02%	0.0173%
97	CINCINNATI FINANCIAL CORP	CINF	11,660.90	N/A	0.00%	N/A	N/A	N/A
98	COLGATE-PALMOLIVE CO	CL	63,427.81	0.33%	2.19%	9.35%	11.64%	0.0380%
99	CLOROX COMPANY	CLX	15,551.69	0.08%	2.70%	7.48%	10.27%	0.0082%
100	COMERICA INC	CMA	9,058.58	0.05%	1.71%	-1.63%	0.06%	0.0000%
101	COMCAST CORP-CLASS A	CMCSA	147,924.90	0.76%	1.79%	11.65%	13.55%	0.1032%
102	CME GROUP INC	CME	33,919.40	0.17%	5.31%	10.10%	15.68%	0.0274%
103	CHIPOTLE MEXICAN GRILL INC	CMG	10,443.70	0.05%	0.00%	13.57%	13.57%	0.0073%
104	CUMMINS INC	CMI	21,555.72	0.11%	3.14%	5.19%	8.41%	0.0093%
105	CMS ENERGY CORP	CMS	11,798.12	0.06%	2.94%	6.03%	9.06%	0.0055%
106	CENTENE CORP	CNC	10,677.34	0.05%	0.00%	15.86%	15.86%	0.0087%
107	CENTERPOINT ENERGY INC	CNP	9,819.54	0.05%	4.53%	5.10%	9.74%	0.0049%
108	CAPITAL ONE FINANCIAL CORP	COF	37,915.84	0.20%	2.16%	5.37%	7.59%	0.0148%
109	CABOT OIL & GAS CORP	COG	9,712.32	0.05%	0.39%	37.06%	37.51%	0.0188%
110	COACH INC	COH	10,060.41	0.05%	3.79%	11.69%	15.70%	0.0081%
111	ROCKWELL COLLINS INC	COL	10,955.80	0.06%	1.66%	9.03%	10.76%	0.0061%
112	COOPER COS INC/THE	COO	8,580.57	0.04%	0.03%	11.88%	11.92%	0.0053%
113	COCOPHILLIPS	COP	53,813.05	0.28%	2.30%	6.67%	9.05%	0.0251%
114	COSTCO WHOLESALE CORP	COST	64,637.91	0.33%	1.20%	9.85%	11.11%	0.0370%
115	COTY INC-CL A	COTY	17,155.14	0.09%	1.36%	2.38%	3.75%	0.0033%
116	CAMPBELL SOUP CO	CPB	16,729.93	0.09%	2.56%	4.80%	7.43%	0.0064%
117	SALESFORCE.COM INC	CRM	51,484.60	0.27%	0.00%	27.90%	27.90%	0.0740%
118	CISCO SYSTEMS INC	CSCO	154,206.36	0.79%	3.51%	8.19%	11.84%	0.0940%
119	CSRA INC	CSRA	4,105.43	0.02%	0.00%	10.00%	10.00%	0.0021%
120	CSX CORP	CSX	28,577.53	0.15%	2.37%	7.43%	9.89%	0.0145%
121	CINTAS CORP	CTAS	11,193.49	0.06%	1.10%	11.40%	12.56%	0.0072%
122	CENTURYLINK INC	CTL	14,511.87	0.07%	8.13%	-0.85%	7.24%	0.0054%
123	COGNIZANT TECH SOLUTIONS-A	CTSH	31,166.51	0.16%	0.00%	13.48%	13.48%	0.0216%
124	CITRIX SYSTEMS INC	CTXS	13,205.64	0.07%	0.00%	16.18%	16.18%	0.0110%
125	CVS HEALTH CORP	CVS	89,668.68	0.46%	1.95%	13.45%	15.54%	0.0717%
126	CHEVRON CORP	CVX	197,613.02	1.02%	4.10%	1.65%	5.78%	0.0588%
127	CONCHO RESOURCES INC	CXO	17,871.66	0.09%	0.00%	12.68%	12.68%	0.0117%
128	DOMINION RESOURCES INC/VA	D	47,057.38	0.24%	3.72%	6.14%	9.98%	0.0242%
129	DELTA AIR LINES INC	DAL	31,281.87	0.16%	1.59%	15.39%	17.11%	0.0276%
130	DU PONT (E.I.) DE NEMOURS	DD	59,802.04	0.31%	2.21%	7.53%	9.82%	0.0302%
131	DEERE & CO	DE	27,763.54	0.14%	2.73%	7.74%	10.58%	0.0151%
132	DISCOVER FINANCIAL SERVICES	DFS	22,216.48	0.11%	2.06%	7.31%	9.44%	0.0108%
133	DOLLAR GENERAL CORP	DG	19,465.71	0.10%	1.44%	13.16%	14.70%	0.0147%
134	QUEST DIAGNOSTICS INC	DGX	11,290.84	0.06%	1.96%	7.28%	9.31%	0.0054%
135	DR HORTON INC	DHI	10,733.00	0.06%	1.12%	13.30%	14.49%	0.0080%
136	DANAHER CORP	DHR	54,333.20	0.28%	0.75%	8.74%	9.53%	0.0267%
137	WALT DISNEY CO/THE	DIS	148,962.21	0.77%	1.53%	9.57%	11.17%	0.0857%
138	DISCOVERY COMMUNICATIONS-A	DISCA	15,588.44	0.08%	0.00%	17.65%	17.65%	0.0142%
139	DELPHI AUTOMOTIVE PLC	DLPH	17,748.80	0.09%	1.79%	9.43%	11.31%	0.0103%
140	DIGITAL REALTY TRUST INC	DLR	15,084.07	0.08%	3.77%	5.45%	9.32%	0.0072%
141	DOLLAR TREE INC	DLTR	17,812.83	0.09%	0.00%	17.50%	17.50%	0.0161%
142	DUN & BRADSTREET CORP	DNB	4,532.92	0.02%	1.54%	9.83%	11.44%	0.0027%
143	DOVER CORP	DOV	10,391.15	0.05%	2.57%	10.54%	13.24%	0.0071%
144	DOW CHEMICAL CO/THE	DOW	60,341.50	0.31%	3.51%	3.53%	7.10%	0.0221%
145	DR PEPPER SNAPPLE GROUP INC	DPS	16,128.35	0.08%	2.39%	8.66%	11.15%	0.0093%
146	DARDEN RESTAURANTS INC	DRI	7,974.41	0.04%	3.46%	10.95%	14.60%	0.0060%
147	DTE ENERGY COMPANY	DTE	17,227.59	0.09%	3.15%	5.28%	8.51%	0.0076%
148	DUKE ENERGY CORP	DUK	55,128.46	0.28%	4.24%	4.57%	8.91%	0.0253%
149	DAVITA INC	DVA	12,128.48	0.06%	0.00%	10.49%	10.49%	0.0066%
150	DEVON ENERGY CORP	DVN	19,839.20	0.10%	1.11%	9.25%	10.41%	0.0106%



151	ELECTRONIC ARTS INC	EA	23,616.06	0.12%	0.00%	15.00%	15.00%	0.0182%
152	EBAY INC	EBAY	31,872.08	0.16%	0.00%	9.67%	9.67%	0.0159%
153	ECOLAB INC	ECL	33,291.43	0.17%	1.25%	12.87%	14.19%	0.0243%
154	CONSOLIDATED EDISON INC	ED	22,998.55	0.12%	3.55%	3.54%	7.15%	0.0085%
155	EQUIFAX INC	EFX	14,846.81	0.08%	1.06%	12.20%	13.33%	0.0102%
156	EDISON INTERNATIONAL	EIX	23,940.61	0.12%	2.64%	5.72%	8.43%	0.0104%
157	ESTEE LAUDER COMPANIES-CL A	EL	31,913.79	0.16%	1.49%	10.22%	11.79%	0.0194%
158	EASTMAN CHEMICAL CO	EMN	10,621.97	0.05%	2.58%	5.43%	8.08%	0.0044%
159	EMERSON ELECTRIC CO	EMR	32,614.48	0.17%	3.75%	5.31%	9.16%	0.0154%
160	ENDO INTERNATIONAL PLC	ENDP	4,176.88	0.02%	0.00%	1.92%	1.92%	0.0004%
161	EOG RESOURCES INC	EOG	49,789.19	0.26%	0.74%	-2.56%	-1.83%	-0.0047%
162	EQUINIX INC	EQIX	25,393.52	0.13%	1.96%	22.86%	25.04%	0.0327%
163	EQUITY RESIDENTIAL	EQR	22,573.09	0.12%	16.23%	5.94%	22.64%	0.0263%
164	EQT CORP	EQT	11,402.03	0.06%	0.18%	17.50%	17.70%	0.0104%
165	EVERSOURCE ENERGY	ES	17,465.42	0.09%	3.25%	6.70%	10.06%	0.0090%
166	EXPRESS SCRIPTS HOLDING CO	ESRX	41,560.26	0.21%	0.00%	13.97%	13.97%	0.0299%
167	ESSEX PROPERTY TRUST INC	ESS	14,026.63	0.07%	2.99%	6.04%	9.12%	0.0066%
168	E*TRADE FINANCIAL CORP	ETFC	7,706.98	0.04%	0.00%	18.28%	18.28%	0.0073%
169	EATON CORP PLC	ETN	28,996.22	0.15%	3.57%	8.50%	12.22%	0.0182%
170	ENTERGY CORP	ETR	13,187.40	0.07%	4.67%	-1.64%	3.00%	0.0020%
171	EDWARDS LIFESCIENCES CORP	EW	20,359.36	0.10%	0.00%	17.73%	17.73%	0.0186%
172	EXELON CORP	EXC	31,402.14	0.16%	3.71%	5.00%	8.80%	0.0142%
173	EXPEDITORS INTL WASH INC	EXPD	9,318.75	0.05%	1.52%	8.38%	9.95%	0.0048%
174	EXPEDIA INC	EXPE	19,388.36	0.10%	0.70%	18.10%	18.86%	0.0188%
175	EXTRA SPACE STORAGE INC	EXR	9,201.49	0.05%	4.04%	9.51%	13.75%	0.0065%
176	FORD MOTOR CO	F	46,651.41	0.24%	5.11%	3.87%	9.08%	0.0218%
177	FASTENAL CO	FAST	11,266.47	0.06%	3.08%	15.50%	18.82%	0.0109%
178	FACEBOOK INC-A	FB	376,115.29	1.94%	0.00%	33.02%	33.02%	0.6396%
179	FORTUNE BRANDS HOME & SECURI	FBHS	8,407.67	0.04%	1.16%	14.68%	15.93%	0.0069%
180	FREEMPORT-MCMORAN INC	FCX	14,849.93	0.08%	0.00%	12.77%	12.77%	0.0098%
181	FEDEX CORP	FDX	46,327.17	0.24%	0.92%	12.72%	13.70%	0.0327%
182	FIRSTENERGY CORP	FE	14,580.05	0.08%	4.20%	0.66%	4.88%	0.0037%
183	F5 NETWORKS INC	FFIV	9,150.14	0.05%	0.00%	12.22%	12.22%	0.0058%
184	FIDELITY NATIONAL INFO SERV	FIS	24,232.86	0.12%	1.42%	12.00%	13.50%	0.0168%
185	FISERV INC	FISV	21,375.81	0.11%	0.00%	12.18%	12.18%	0.0134%
186	FIFTH THIRD BANCORP	FITB	16,676.31	0.09%	2.44%	1.87%	4.33%	0.0037%
187	FOOT LOCKER INC	FL	8,897.07	0.05%	1.64%	10.01%	11.73%	0.0054%
188	FLIR SYSTEMS INC	FLIR	4,519.30	0.02%	1.43%	15.00%	16.53%	0.0038%
189	FLUOR CORP	FLR	7,239.52	0.04%	1.61%	8.25%	9.92%	0.0037%
190	FLOWSERVE CORP	FLS	5,524.65	0.03%	1.70%	7.94%	9.70%	0.0028%
191	FMC CORP	FMC	6,274.31	0.03%	1.41%	10.13%	11.61%	0.0038%
192	TWENTY-FIRST CENTURY FOX-A	FOXA	48,939.25	0.25%	1.45%	11.96%	13.50%	0.0340%
193	FEDERAL REALTY INVS TRUST	FRT	10,373.24	0.05%	2.65%	5.90%	8.63%	0.0046%
194	FIRST SOLAR INC	FSLR	4,144.54	0.02%	0.00%	-17.70%	-17.70%	-0.0038%
195	FMC TECHNOLOGIES INC	FTI	7,283.40	0.04%	0.00%	-10.45%	-10.45%	-0.0039%
196	FRONTIER COMMUNICATIONS CORP	FTR	4,715.75	0.02%	10.45%	3.00%	13.60%	0.0033%
197	FORTIVE CORP	FTV	17,649.95	0.09%	0.21%	7.44%	7.66%	0.0070%
198	GENERAL DYNAMICS CORP	GD	45,903.28	0.24%	1.99%	7.72%	9.78%	0.0231%
199	GENERAL ELECTRIC CO	GE	260,771.88	1.34%	3.18%	10.24%	13.58%	0.1824%
200	GENERAL GROWTH PROPERTIES	GGP	22,074.20	0.11%	3.64%	6.66%	10.42%	0.0118%
201	GILEAD SCIENCES INC	GILD	97,166.45	0.50%	2.50%	-0.47%	2.02%	0.0101%
202	GENERAL MILLS INC	GIS	36,653.94	0.19%	3.06%	8.54%	11.73%	0.0221%
203	CORNING INC	GLW	21,602.32	0.11%	2.39%	12.45%	14.99%	0.0167%
204	GENERAL MOTORS CO	GM	48,169.27	0.25%	4.82%	9.37%	14.41%	0.0357%
205	ALPHABET INC-CL A	GOOGL	547,290.14	2.82%	0.00%	17.48%	17.48%	0.4926%
206	GENUINE PARTS CO	GPC	13,474.11	0.07%	2.91%	6.81%	9.82%	0.0068%
207	GLOBAL PAYMENTS INC	GPV	11,146.13	0.06%	0.06%	14.68%	14.75%	0.0085%
208	GAP INC/THE	GPS	10,993.98	0.06%	3.36%	5.98%	9.43%	0.0053%
209	GARMIN LTD	GRMN	9,113.25	0.05%	4.24%	5.78%	10.14%	0.0048%
210	GOLDMAN SACHS GROUP INC	GS	75,800.12	0.39%	1.48%	9.42%	10.97%	0.0428%
211	GOODYEAR TIRE & RUBBER CO	GT	7,578.35	0.04%	1.05%	7.00%	8.09%	0.0032%
212	WW GRAINGER INC	GWW	12,397.62	0.06%	2.32%	12.13%	14.59%	0.0093%
213	HALLIBURTON CO	HAL	39,764.80	0.20%	1.56%	16.45%	18.14%	0.0371%
214	HARMAN INTERNATIONAL	HAR	5,574.35	0.03%	1.85%	16.00%	18.00%	0.0052%
215	HASBRO INC	HAS	10,460.27	0.05%	2.45%	10.35%	12.92%	0.0070%
216	HUNTINGTON BANCSHARES INC	HBAN	11,500.61	0.06%	2.71%	5.82%	8.61%	0.0051%
217	HANESBRANDS INC	HBI	9,713.19	0.05%	1.71%	16.48%	18.32%	0.0092%
218	HCA HOLDINGS INC	HCA	28,977.79	0.15%	0.00%	11.58%	11.58%	0.0173%
219	WELLTOWER INC	HCN	24,527.93	0.13%	5.02%	5.44%	10.60%	0.0134%
220	HCP INC	HCP	16,022.84	0.08%	6.62%	2.00%	8.69%	0.0072%
221	HOME DEPOT INC	HD	150,752.35	0.78%	2.27%	13.55%	15.97%	0.1240%
222	HESS CORP	HES	15,190.87	0.08%	2.10%	-7.49%	-5.47%	-0.0043%
223	HARTFORD FINANCIAL SVCS GRP	HIG	16,661.86	0.09%	2.00%	9.67%	11.77%	0.0101%
224	HARLEY-DAVIDSON INC	HOG	10,195.02	0.05%	2.46%	10.25%	12.83%	0.0067%
225	HOLOGIC INC	HOLX	9,990.00	0.05%	0.00%	11.87%	11.87%	0.0061%
226	HONEYWELL INTERNATIONAL INC	HON	83,589.84	0.43%	2.23%	9.16%	11.49%	0.0494%
227	HELMERICH & PAYNE	HP	6,820.05	0.04%	4.41%	6.73%	11.29%	0.0040%
228	HEWLETT PACKARD ENTERPRIS	HPE	37,424.62	0.19%	1.00%	6.88%	7.92%	0.0153%
229	HP INC	HPQ	24,790.59	0.13%	3.53%	1.26%	4.81%	0.0061%
230	H&R BLOCK INC	HRB	5,032.58	0.03%	3.78%	11.00%	14.99%	0.0039%

231	HORMEL FOODS CORP	HRL	20,374.23	0.10%	1.69%	5.17%	6.90%	0.0072%
232	HARRIS CORP	HRS	11,024.21	N/A	2.35%	N/A	N/A	N/A
233	HENRY SCHEIN INC	HSIC	12,204.00	0.06%	0.00%	11.04%	11.04%	0.0069%
234	HOST HOTELS & RESORTS INC	HST	11,493.62	0.06%	5.18%	6.00%	11.34%	0.0067%
235	HERSHEY CO/THE	HSY	21,745.03	0.11%	2.30%	8.74%	11.14%	0.0125%
236	HUMANA INC	HUM	25,569.52	0.13%	0.68%	13.15%	13.87%	0.0183%
237	INTL BUSINESS MACHINES CORP	IBM	146,136.84	0.75%	3.54%	5.02%	8.65%	0.0651%
238	INTERCONTINENTAL EXCHANGE IN	ICE	32,218.08	0.17%	1.26%	15.78%	17.14%	0.0284%
239	INTL FLAVORS & FRAGRANCES	IFF	10,409.02	0.05%	1.78%	9.30%	11.16%	0.0060%
240	ILLUMINA INC	ILMN	19,958.12	0.10%	0.00%	12.65%	12.65%	0.0130%
241	INTEL CORP	INTC	164,969.97	0.85%	2.82%	8.65%	11.59%	0.0985%
242	INTUIT INC	INTU	28,048.18	0.14%	1.22%	16.51%	17.83%	0.0258%
243	INTERNATIONAL PAPER CO	IP	18,516.43	0.10%	3.95%	6.38%	10.46%	0.0100%
244	INTERPUBLIC GROUP OF COS INC	IPG	8,889.05	0.05%	2.62%	7.25%	9.97%	0.0046%
245	INGERSOLL-RAND PLC	IR	17,383.08	0.09%	1.96%	10.82%	12.88%	0.0115%
246	IRON MOUNTAIN INC	IRM	8,879.38	0.05%	5.55%	10.70%	16.55%	0.0076%
247	INTUITIVE SURGICAL INC	ISRG	26,041.09	0.13%	0.00%	14.09%	14.09%	0.0189%
248	ILLINOIS TOOL WORKS	ITW	39,863.61	0.21%	2.03%	7.37%	9.47%	0.0194%
249	INVESCO LTD	IVZ	11,475.76	0.06%	3.98%	10.51%	14.70%	0.0087%
250	HUNT (JB) TRANSPRT SVCS INC	JBHT	9,155.42	0.05%	1.08%	14.97%	16.13%	0.0076%
251	JOHNSON CONTROLS INTERNATIONAL	JCI	37,731.47	N/A	2.88%	N/A	N/A	N/A
252	JACOBS ENGINEERING GROUP INC	JEC	6,263.27	0.03%	0.00%	7.98%	7.98%	0.0026%
253	JOHNSON & JOHNSON	JNJ	317,334.36	1.63%	2.69%	6.55%	9.33%	0.1524%
254	JUNIPER NETWORKS INC	JNPR	10,087.24	0.05%	1.55%	9.51%	11.13%	0.0058%
255	JPMORGAN CHASE & CO	JPM	250,165.90	1.29%	2.71%	6.66%	9.46%	0.1219%
256	NORDSTROM INC	JWN	9,018.88	0.05%	2.93%	8.12%	11.17%	0.0052%
257	KELLOGG CO	K	26,314.96	0.14%	2.73%	6.83%	9.65%	0.0131%
258	KEYCORP	KEY	15,280.39	0.08%	2.34%	4.58%	6.97%	0.0055%
259	KRAFT HEINZ CO/THE	KHC	108,310.04	0.56%	2.64%	21.39%	24.31%	0.1356%
260	KIMCO REALTY CORP	KIM	11,309.94	0.06%	3.88%	5.45%	9.44%	0.0055%
261	KLA-TENCOR CORP	KLAC	11,741.10	0.06%	2.85%	4.50%	7.41%	0.0045%
262	KIMBERLY-CLARK CORP	KMB	40,976.56	0.21%	3.20%	6.85%	10.16%	0.0214%
263	KINDER MORGAN INC	KMI	45,607.20	0.23%	2.45%	10.55%	13.13%	0.0308%
264	CARMAX INC	KMX	9,505.05	0.05%	0.00%	12.89%	12.89%	0.0063%
265	COCA-COLA CO/THE	KO	182,869.48	0.94%	3.30%	4.08%	7.45%	0.0702%
266	MICHAEL KORS HOLDINGS LTD	KORS	8,582.39	0.04%	0.00%	7.32%	7.32%	0.0032%
267	KROGER CO	KR	29,250.49	0.15%	1.49%	8.00%	9.55%	0.0144%
268	KOHL'S CORP	KSS	7,857.20	0.04%	4.61%	2.63%	7.30%	0.0030%
269	KANSAS CITY SOUTHERN	KSU	9,441.14	0.05%	1.52%	11.25%	12.86%	0.0062%
270	LOEWS CORP	L	14,499.36	N/A	0.58%	N/A	N/A	N/A
271	L BRANDS INC	LB	20,644.30	0.11%	5.69%	9.48%	15.44%	0.0164%
272	LEGGETT & PLATT INC	LEG	6,132.85	N/A	2.86%	N/A	N/A	N/A
273	LENNAR CORP-A	LEN	9,241.38	0.05%	0.38%	11.52%	11.92%	0.0057%
274	LABORATORY CRP OF AMER HLDGS	LH	12,910.02	0.07%	0.00%	11.17%	11.17%	0.0074%
275	LKQ CORP	LKQ	9,913.43	0.05%	0.00%	15.60%	15.60%	0.0080%
276	L-3 COMMUNICATIONS HOLDINGS	LLL	10,586.68	0.05%	2.10%	17.59%	19.87%	0.0108%
277	LINEAR TECHNOLOGY CORP	LLTC	14,753.77	0.08%	2.14%	6.69%	8.90%	0.0068%
278	ELI LILLY & CO	LLY	81,515.54	0.42%	2.76%	11.50%	14.42%	0.0605%
279	LEGG MASON INC	LM	2,976.18	0.02%	3.06%	14.97%	18.26%	0.0028%
280	LOCKHEED MARTIN CORP	LMT	72,183.76	0.37%	2.72%	7.25%	10.07%	0.0374%
281	LINCOLN NATIONAL CORP	LNC	11,429.55	0.06%	2.10%	8.00%	10.18%	0.0060%
282	ALLIANT ENERGY CORP	LNT	8,650.05	0.04%	3.71%	6.77%	10.60%	0.0047%
283	LOWE'S COS INC	LOW	58,296.05	0.30%	1.91%	15.69%	17.75%	0.0533%
284	LAM RESEARCH CORP	LRCX	15,771.71	0.08%	1.22%	8.95%	10.23%	0.0083%
285	LEUCADIA NATIONAL CORP	LUK	6,728.52	0.03%	1.34%	18.00%	19.46%	0.0067%
286	SOUTHWEST AIRLINES CO	LUV	24,654.69	0.13%	0.98%	8.59%	9.61%	0.0122%
287	LEVEL 3 COMMUNICATIONS INC	LVL	20,187.33	0.10%	0.00%	-11.43%	-11.43%	-0.0119%
288	LYONDELLBASELL INDU-CL A	LYB	33,070.68	0.17%	4.23%	4.13%	8.45%	0.0144%
289	MACY'S INC	M	11,255.99	0.06%	4.15%	6.93%	11.22%	0.0065%
290	MASTERCARD INC - A	MA	116,610.54	0.60%	0.70%	16.20%	16.96%	0.1018%
291	MACERICH CO/THE	MAC	10,165.81	0.05%	6.10%	6.93%	13.23%	0.0069%
292	MARRIOTT INTERNATIONAL -CL A	MAR	26,795.77	0.14%	1.64%	10.82%	12.55%	0.0173%
293	MASCO CORP	MAS	10,138.13	0.05%	1.28%	14.03%	15.40%	0.0080%
294	MATTEL INC	MAT	10,784.69	0.06%	4.82%	10.40%	15.47%	0.0086%
295	MCDONALD'S CORP	MCD	96,062.96	0.49%	3.23%	10.43%	13.83%	0.0684%
296	MICROCHIP TECHNOLOGY INC	MCHP	13,035.72	0.07%	2.31%	12.73%	15.19%	0.0102%
297	MCKESSON CORP	MCK	28,751.48	0.15%	0.89%	9.98%	10.91%	0.0162%
298	MOODY'S CORP	MCO	19,216.49	0.10%	1.44%	10.00%	11.51%	0.0114%
299	MONDELEZ INTERNATIONAL INC-A	MDLZ	69,405.86	0.36%	1.52%	12.08%	13.69%	0.0489%
300	MEDTRONIC PLC	MDT	113,346.36	0.58%	1.97%	7.76%	9.81%	0.0573%
301	METLIFE INC	MET	51,603.05	0.27%	3.36%	9.03%	12.55%	0.0333%
302	MOHAWK INDUSTRIES INC	MHK	13,666.47	0.07%	0.00%	9.39%	9.39%	0.0066%
303	MEAD JOHNSON NUTRITION CO	MJN	13,811.77	0.07%	2.29%	7.58%	9.96%	0.0071%
304	MCCORMICK & CO-NON VTG SHRS	MKC	12,082.08	0.06%	1.80%	7.90%	9.77%	0.0061%
305	MARTIN MARIETTA MATERIALS	MLM	11,760.05	0.06%	0.87%	22.25%	23.22%	0.0141%
306	MARSH & MCLENNAN COS	MMC	32,683.50	0.17%	2.06%	11.43%	13.60%	0.0229%
307	3M CO	MMM	99,907.37	0.51%	2.68%	8.86%	11.66%	0.0600%
308	MALLINCKRODT PLC	MNK	6,383.09	0.03%	0.00%	9.00%	9.00%	0.0030%
309	MONSTER BEVERAGE CORP	MNST	27,479.67	0.14%	0.00%	20.12%	20.12%	0.0285%
310	ALTRIA GROUP INC	MO	128,951.90	0.66%	3.59%	7.77%	11.50%	0.0764%

311	MONSANTO CO	MON	44,135.51	0.23%	2.12%	10.78%	13.01%	0.0296%
312	MOSAIC CO/THE	MOS	8,240.09	0.04%	4.68%	0.05%	4.73%	0.0020%
313	MARATHON PETROLEUM CORP	MPC	23,007.46	0.12%	3.15%	3.66%	6.86%	0.0081%
314	MERCK & CO. INC.	MRK	162,373.03	0.84%	3.14%	7.38%	10.64%	0.0890%
315	MARATHON OIL CORP	MRO	11,166.87	0.06%	1.52%	8.00%	9.58%	0.0055%
316	MORGAN STANLEY	MS	64,179.43	0.33%	2.06%	10.64%	12.82%	0.0424%
317	MICROSOFT CORP	MSFT	465,899.00	2.40%	2.58%	7.05%	9.72%	0.2332%
318	MOTOROLA SOLUTIONS INC	MSI	12,100.95	0.06%	2.28%	5.83%	8.18%	0.0051%
319	M & T BANK CORP	MTB	19,021.31	0.10%	2.29%	1.36%	3.66%	0.0036%
320	METTLER-TOLEDO INTERNATIONAL	MTD	10,703.92	0.06%	0.00%	11.79%	11.79%	0.0065%
321	MICRON TECHNOLOGY INC	MU	17,872.78	0.09%	0.00%	9.50%	9.50%	0.0087%
322	MURPHY OIL CORP	MUR	4,454.79	N/A	4.81%	N/A	N/A	N/A
323	MYLAN NV	MYL	19,524.27	0.10%	0.00%	16.47%	16.47%	0.0166%
324	NAVIENT CORP	NAVI	4,051.68	N/A	5.01%	N/A	N/A	N/A
325	NOBLE ENERGY INC	NBL	14,810.79	0.08%	1.16%	3.06%	4.24%	0.0032%
326	NASDAQ INC	NDAQ	10,584.07	0.05%	1.91%	12.70%	14.73%	0.0080%
327	NEXTERA ENERGY INC	NEE	59,132.53	0.30%	2.72%	6.50%	9.31%	0.0283%
328	NEWMONT MINING CORP	NEM	19,658.98	0.10%	0.36%	4.80%	5.17%	0.0052%
329	NETFLIX INC	NFLX	53,587.34	0.28%	0.00%	38.29%	38.29%	0.1057%
330	NEWFIELD EXPLORATION CO	NFX	8,061.35	0.04%	0.00%	20.76%	20.76%	0.0086%
331	NISOURCE INC	NI	7,494.03	0.04%	2.76%	6.86%	9.71%	0.0037%
332	NIKE INC -CL B	NKE	83,571.49	0.43%	1.38%	11.86%	13.32%	0.0573%
333	NIELSEN HOLDINGS PLC	NLSN	16,091.49	0.08%	2.69%	12.00%	14.85%	0.0123%
334	NORTHROP GRUMMAN CORP	NOC	40,363.99	0.21%	1.50%	7.08%	8.63%	0.0179%
335	NATIONAL OILWELL VARCO INC	NOV	12,123.64	0.06%	1.90%	-11.29%	-9.49%	-0.0059%
336	NRG ENERGY INC	NRG	3,351.43	0.02%	2.26%	0.90%	3.17%	0.0005%
337	NORFOLK SOUTHERN CORP	NSC	27,150.63	0.14%	2.54%	9.63%	12.29%	0.0172%
338	NETAPP INC	NTAP	9,457.99	0.05%	2.25%	9.58%	11.94%	0.0058%
339	NORTHERN TRUST CORP	NTRS	16,398.14	0.08%	2.05%	12.10%	14.27%	0.0120%
340	NUCOR CORP	NUE	15,551.67	0.08%	3.07%	7.90%	11.09%	0.0089%
341	NVIDIA CORP	NVDA	38,070.60	0.20%	0.65%	10.87%	11.56%	0.0227%
342	NEWELL BRANDS INC	NWL	23,155.24	0.12%	1.57%	13.47%	15.15%	0.0181%
343	NEWS CORP - CLASS B	NWS	7,101.53	0.04%	1.61%	11.66%	13.37%	0.0049%
344	REALTY INCOME CORP	O	15,319.42	0.08%	4.04%	5.15%	9.29%	0.0073%
345	OWENS-ILLINOIS INC	OI	3,130.40	0.02%	0.00%	7.51%	7.51%	0.0012%
346	ONEOK INC	OKE	10,190.97	0.05%	5.08%	9.83%	15.16%	0.0080%
347	OMNICOM GROUP	OMC	18,828.01	0.10%	2.69%	5.68%	8.45%	0.0082%
348	ORACLE CORP	ORCL	157,738.87	0.81%	1.55%	8.25%	9.87%	0.0801%
349	O'REILLY AUTOMOTIVE INC	ORLY	25,102.69	0.13%	0.00%	15.46%	15.46%	0.0200%
350	OCCIDENTAL PETROLEUM CORP	OXY	55,697.86	0.29%	4.14%	8.00%	12.31%	0.0353%
351	PAYCHEX INC	PAYX	19,963.16	0.10%	3.33%	9.31%	12.80%	0.0132%
352	PEOPLE'S UNITED FINANCIAL	PBCT	5,054.16	N/A	4.19%	N/A	N/A	N/A
353	PITNEY BOWES INC	PBI	3,310.92	0.02%	4.20%	14.00%	18.50%	0.0032%
354	PACCAR INC	PCAR	19,251.01	0.10%	3.06%	4.78%	7.91%	0.0078%
355	P G & E CORP	PCG	31,309.27	0.16%	3.13%	4.83%	8.03%	0.0129%
356	PRICELINE GROUP INC/THE	PCLN	72,866.70	0.38%	0.00%	17.52%	17.52%	0.0657%
357	PATTERSON COS INC	PDCO	4,231.41	0.02%	2.32%	7.69%	10.10%	0.0022%
358	PUBLIC SERVICE ENTERPRISE GP	PEG	21,288.97	0.11%	3.89%	2.54%	6.49%	0.0071%
359	PEPSICO INC	PEP	153,744.43	0.79%	2.76%	6.69%	9.53%	0.0755%
360	PFIZER INC	PFE	192,341.84	0.99%	3.78%	5.53%	9.42%	0.0933%
361	PRINCIPAL FINANCIAL GROUP	PFG	15,702.60	0.08%	2.95%	8.44%	11.51%	0.0093%
362	PROCTER & GAMBLE CO/THE	PG	232,276.15	1.20%	3.15%	7.98%	11.25%	0.1346%
363	PROGRESSIVE CORP	PGR	18,336.16	0.09%	1.96%	9.16%	11.21%	0.0106%
364	PARKER HANNIFIN CORP	PH	16,420.52	0.08%	2.12%	8.57%	10.79%	0.0091%
365	PULTEGROUP INC	PHM	6,151.76	0.03%	1.94%	23.92%	26.08%	0.0083%
366	PERKINELMER INC	PKI	5,567.47	0.03%	0.55%	19.79%	20.39%	0.0058%
367	PROLOGIS INC	PLD	27,388.21	0.14%	3.22%	4.86%	8.15%	0.0115%
368	PHILIP MORRIS INTERNATIONAL	PM	149,612.18	0.77%	4.28%	8.59%	13.05%	0.1006%
369	PNC FINANCIAL SERVICES GROUP	PNC	46,652.80	0.24%	2.22%	4.41%	6.68%	0.0160%
370	PENTAIR PLC	PNR	10,019.32	0.05%	2.44%	6.55%	9.07%	0.0047%
371	PINNACLE WEST CAPITAL	PNW	8,463.74	0.04%	3.32%	4.93%	8.33%	0.0036%
372	PPG INDUSTRIES INC	PPG	24,585.88	0.13%	1.68%	8.10%	9.84%	0.0125%
373	PPL CORP	PPL	23,285.75	0.12%	4.43%	5.12%	9.66%	0.0116%
374	PERRIGO CO PLC	PRGO	11,919.53	0.06%	0.70%	9.30%	10.03%	0.0062%
375	PRUDENTIAL FINANCIAL INC	PRU	37,053.23	0.19%	3.35%	8.33%	11.82%	0.0226%
376	PUBLIC STORAGE	PSA	37,059.34	0.19%	3.35%	4.98%	8.41%	0.0160%
377	PHILLIPS 66	PSX	42,266.99	0.22%	3.00%	6.22%	9.31%	0.0203%
378	PVH CORP	PVH	8,582.90	0.04%	0.14%	7.08%	7.23%	0.0032%
379	QUANTA SERVICES INC	PWR	4,343.25	0.02%	0.00%	8.00%	8.00%	0.0018%
380	PRAXAIR INC	PX	33,407.64	0.17%	2.56%	9.07%	11.75%	0.0202%

381	PIONEER NATURAL RESOURCES CO	PXD	30,363.20	0.16%	0.04%	20.00%	20.05%	0.0313%
382	PAYPAL HOLDINGS INC	PYPL	50,268.87	0.26%	0.00%	14.85%	14.85%	0.0384%
383	QUALCOMM INC	QCOM	101,269.12	0.52%	2.95%	8.29%	11.36%	0.0592%
384	QORVO INC	QRVO	7,117.43	0.04%	0.00%	15.83%	15.83%	0.0058%
385	RYDER SYSTEM INC	R	3,710.17	0.02%	1.71%	15.00%	16.84%	0.0032%
386	REYNOLDS AMERICAN INC	RAI	78,532.42	0.40%	3.22%	8.89%	12.25%	0.0495%
387	ROYAL CARIBBEAN CRUISES LTD	RCL	16,494.92	0.08%	2.22%	18.55%	20.97%	0.0178%
388	REGENERON PHARMACEUTICALS	REGN	36,328.71	0.19%	0.00%	24.34%	24.34%	0.0455%
389	REGIONS FINANCIAL CORP	RF	13,443.17	0.07%	2.43%	6.05%	8.55%	0.0059%
390	ROBERT HALF INTL INC	RHI	4,869.85	0.03%	2.34%	10.85%	13.32%	0.0033%
391	RED HAT INC	RHT	13,909.72	0.07%	0.00%	18.73%	18.73%	0.0134%
392	TRANSOCEAN LTD	RIG	3,511.41	N/A	0.00%	N/A	N/A	N/A
393	RALPH LAUREN CORP	RL	8,069.56	0.04%	2.10%	9.14%	11.34%	0.0047%
394	ROCKWELL AUTOMATION INC	ROK	15,491.78	0.08%	2.43%	6.00%	8.50%	0.0068%
395	ROPER TECHNOLOGIES INC	ROP	17,563.30	0.09%	0.67%	11.37%	12.07%	0.0109%
396	ROSS STORES INC	ROST	24,802.10	0.13%	0.87%	12.50%	13.42%	0.0171%
397	RANGE RESOURCES CORP	RRC	8,351.04	0.04%	0.25%	-13.93%	-13.70%	-0.0059%
398	REPUBLIC SERVICES INC	RSG	17,892.19	0.09%	2.32%	8.27%	10.68%	0.0098%
399	RAYTHEON COMPANY	RTN	40,115.12	0.21%	2.11%	7.57%	9.75%	0.0201%
400	STARBUCKS CORP	SBUX	77,832.46	0.40%	1.54%	19.00%	20.68%	0.0829%
401	SCANA CORP	SCG	10,484.39	0.05%	3.13%	6.07%	9.29%	0.0050%
402	SCHWAB (CHARLES) CORP	SCHW	41,939.23	0.22%	0.85%	16.70%	17.62%	0.0381%
403	SPECTRA ENERGY CORP	SE	29,313.02	0.15%	3.88%	10.47%	14.55%	0.0220%
404	SEALED AIR CORP	SEE	8,820.62	0.05%	1.34%	4.65%	6.02%	0.0027%
405	SHERWIN-WILLIAMS CO/THE	SHW	22,749.39	0.12%	1.37%	13.75%	15.21%	0.0178%
406	SIGNET JEWELERS LTD	SIG	6,142.88	0.03%	1.31%	11.20%	12.58%	0.0040%
407	JM SMUCKER CO/THE	SJM	15,286.84	0.08%	2.22%	8.10%	10.41%	0.0082%
408	SCHLUMBERGER LTD	SLB	108,842.06	0.56%	2.56%	7.73%	10.39%	0.0582%
409	SL GREEN REALTY CORP	SLG	10,246.35	0.05%	2.99%	5.04%	8.10%	0.0043%
410	SNAP-ON INC	SNA	8,941.67	0.05%	1.66%	4.40%	6.10%	0.0028%
411	SCRIPPS NETWORKS INTER-CL A	SNI	8,305.49	0.04%	1.56%	8.64%	10.27%	0.0044%
412	SOUTHERN CO/THE	SO	50,471.87	0.26%	4.32%	3.92%	8.32%	0.0216%
413	SIMON PROPERTY GROUP INC	SPG	58,434.51	0.30%	3.52%	8.30%	11.97%	0.0360%
414	S&P GLOBAL INC	SPGI	32,168.40	0.17%	1.18%	10.00%	11.24%	0.0186%
415	STAPLES INC	SPLS	4,813.13	0.02%	6.49%	0.00%	6.49%	0.0016%
416	STERICYCLE INC	SRCL	6,811.01	0.04%	0.14%	10.05%	10.19%	0.0036%
417	SEMPRA ENERGY	SRE	26,753.73	0.14%	2.82%	7.38%	10.30%	0.0142%
418	SUNTRUST BANKS INC	STI	22,422.27	0.12%	2.21%	5.40%	7.66%	0.0088%
419	ST JUDE MEDICAL INC	STJ	22,230.14	0.11%	1.59%	10.57%	12.25%	0.0140%
420	STATE STREET CORP	STT	27,382.97	0.14%	2.04%	8.30%	10.42%	0.0147%
421	SEAGATE TECHNOLOGY	STX	10,105.08	0.05%	6.60%	8.79%	15.68%	0.0082%
422	CONSTELLATION BRANDS INC-A	STZ	33,668.21	0.17%	0.94%	15.10%	16.11%	0.0279%
423	STANLEY BLACK & DECKER INC	SWK	17,154.40	0.09%	1.98%	11.00%	13.09%	0.0116%
424	SKYWORKS SOLUTIONS INC	SWKS	14,425.95	0.07%	1.32%	17.54%	18.97%	0.0141%
425	SOUTHWESTERN ENERGY CO	SWN	5,147.76	0.03%	0.00%	-14.02%	-14.02%	-0.0037%
426	SYNCHRONY FINANCIAL	SYF	23,600.07	0.12%	0.81%	4.91%	5.74%	0.0070%
427	STRYKER CORP	SYK	43,193.01	0.22%	1.30%	9.21%	10.58%	0.0235%
428	SYMANTEC CORP	SYMC	15,579.11	0.08%	1.24%	7.98%	9.27%	0.0074%
429	SYSCO CORP	SYI	26,524.59	0.14%	2.63%	10.01%	12.77%	0.0174%
430	AT&T INC	T	226,332.08	1.17%	5.25%	5.00%	10.38%	0.1209%
431	MOLSON COORS BREWING CO -B	TAP	22,321.51	N/A	1.59%	N/A	N/A	N/A
432	TERADATA CORP	TDC	3,515.58	0.02%	0.00%	7.12%	7.12%	0.0013%
433	TRANSDIGM GROUP INC	TDG	14,512.70	0.07%	1.76%	14.25%	16.14%	0.0121%
434	TE CONNECTIVITY LTD	TEL	22,353.42	0.12%	2.17%	9.35%	11.62%	0.0134%
435	TEGNA INC	TGNA	4,205.03	0.02%	2.85%	2.00%	4.88%	0.0011%
436	TARGET CORP	TGT	39,510.45	0.20%	3.37%	8.28%	11.78%	0.0240%
437	TIFFANY & CO	TIF	9,169.55	0.05%	2.31%	9.34%	11.76%	0.0056%
438	TJX COMPANIES INC	TJX	48,427.56	0.25%	1.43%	11.74%	13.26%	0.0331%
439	TORCHMARK CORP	TMK	7,594.52	0.04%	0.88%	7.65%	8.56%	0.0033%

440	THERMO FISHER SCIENTIFIC INC	TMO	57,968.47	0.30%	0.41%	14.00%	14.44%	0.0431%
441	TRIPADVISOR INC	TRIP	9,392.01	0.05%	0.00%	11.37%	11.37%	0.0055%
442	T ROWE PRICE GROUP INC	TROW	15,582.16	0.08%	3.37%	9.78%	13.31%	0.0107%
443	TRAVELERS COS INC/THE	TRV	30,729.48	0.16%	2.42%	7.38%	9.89%	0.0156%
444	TRACTOR SUPPLY COMPANY	TSCO	8,371.43	0.04%	1.48%	14.16%	15.74%	0.0068%
445	TYSON FOODS INC-CL A	TSN	28,294.44	0.15%	0.87%	12.43%	13.35%	0.0195%
446	TESORO CORP	TSO	10,093.53	0.05%	2.47%	3.28%	5.79%	0.0030%
447	TOTAL SYSTEM SERVICES INC	TSS	9,169.74	0.05%	0.80%	11.00%	11.85%	0.0056%
448	TIME WARNER INC	TWX	69,220.18	0.36%	1.81%	11.95%	13.86%	0.0494%
449	TEXAS INSTRUMENTS INC	TXN	71,077.41	0.37%	2.28%	10.00%	12.39%	0.0454%
450	TEXTRON INC	TXT	10,829.94	0.06%	0.20%	8.66%	8.86%	0.0049%
451	UNDER ARMOUR INC-CLASS A	UA	12,359.61	0.06%	0.00%	21.84%	21.84%	0.0139%
452	UNITED CONTINENTAL HOLDINGS	UAL	18,129.02	0.09%	0.00%	-11.52%	-11.52%	-0.0108%
453	UDR INC	UDR	9,345.68	0.05%	3.36%	6.67%	10.14%	0.0049%
454	UNIVERSAL HEALTH SERVICES-B	UHS	11,754.56	0.06%	0.33%	9.01%	9.36%	0.0057%
455	ULTA SALON COSMETICS & FRAGR	ULTA	15,177.06	0.08%	0.00%	19.50%	19.50%	0.0152%
456	UNITEDHEALTH GROUP INC	UNH	134,601.48	0.69%	1.68%	13.65%	15.44%	0.1070%
457	UNUM GROUP	UNM	8,217.02	0.04%	2.17%	7.00%	9.25%	0.0039%
458	UNION PACIFIC CORP	UNP	72,670.23	0.37%	2.51%	9.46%	12.08%	0.0452%
459	UNITED PARCEL SERVICE-CL B	UPS	94,620.36	0.49%	2.90%	8.13%	11.15%	0.0543%
460	URBAN OUTFITTERS INC	URBN	3,921.23	0.02%	0.00%	12.83%	12.83%	0.0026%
461	UNITED RENTALS INC	URI	6,372.43	0.03%	0.00%	12.88%	12.88%	0.0042%
462	US BANCORP	USB	76,608.24	0.39%	2.39%	5.48%	7.93%	0.0313%
463	UNITED TECHNOLOGIES CORP	UTX	84,152.06	0.43%	2.53%	8.11%	10.75%	0.0466%
464	VISA INC-CLASS A SHARES	V	194,790.43	1.00%	0.85%	16.26%	17.17%	0.1723%
465	VARIAN MEDICAL SYSTEMS INC	VAR	8,472.43	0.04%	0.00%	12.50%	12.50%	0.0055%
466	VF CORP	VFC	22,482.93	0.12%	2.81%	9.51%	12.45%	0.0144%
467	VIACOM INC-CLASS B	VIAB	15,132.70	0.08%	3.99%	4.15%	8.22%	0.0064%
468	VALERO ENERGY CORP	VLO	27,329.84	0.14%	4.04%	4.06%	8.18%	0.0115%
469	VULCAN MATERIALS CO	VMC	15,063.71	0.08%	0.71%	25.16%	25.96%	0.0201%
470	VORNADO REALTY TRUST	VNO	17,534.89	0.09%	2.73%	7.00%	9.83%	0.0089%
471	VERISK ANALYTICS INC	VRSK	13,779.52	0.07%	0.00%	12.33%	12.33%	0.0088%
472	VERISIGN INC	VRSN	8,786.35	0.05%	0.00%	10.35%	10.35%	0.0047%
473	VERTEX PHARMACEUTICALS INC	VRTX	18,815.81	0.10%	0.00%	68.06%	68.06%	0.0659%
474	VENTAS INC	VTR	23,990.93	0.12%	4.35%	6.38%	10.87%	0.0134%
475	VERIZON COMMUNICATIONS INC	VZ	196,086.09	1.01%	4.75%	4.64%	9.50%	0.0959%
476	WATERS CORP	WAT	11,211.06	0.06%	0.00%	8.70%	8.70%	0.0050%
477	WALGREENS BOOTS ALLIANCE INC	WBA	89,619.97	0.46%	1.79%	12.32%	14.22%	0.0656%
478	WESTERN DIGITAL CORP	WDC	16,612.43	0.09%	3.45%	5.28%	8.82%	0.0075%
479	WEC ENERGY GROUP INC	WEC	18,848.82	0.10%	3.32%	5.73%	9.14%	0.0089%
480	WELLS FARGO & CO	WFC	232,145.62	1.20%	3.30%	9.27%	12.73%	0.1521%
481	WHOLE FOODS MARKET INC	WFM	9,018.98	0.05%	1.91%	7.38%	9.36%	0.0043%
482	WHIRLPOOL CORP	WHR	11,252.71	0.06%	2.61%	15.55%	18.36%	0.0106%
483	WILLIS TOWERS WATSON PLC	WLTW	17,380.59	0.09%	1.53%	15.47%	17.11%	0.0153%
484	WASTE MANAGEMENT INC	WM	29,021.92	0.15%	2.49%	8.62%	11.22%	0.0168%
485	WILLIAMS COS INC	WMB	21,925.80	0.11%	5.75%	17.70%	23.96%	0.0271%
486	WAL-MART STORES INC	WMT	216,589.89	1.12%	2.86%	2.91%	5.81%	0.0647%
487	WESTROCK CO	WRK	11,616.54	0.06%	3.20%	-0.18%	3.01%	0.0018%
488	WESTERN UNION CO	WU	9,788.81	0.05%	3.19%	6.53%	9.82%	0.0050%
489	WEYERHAEUSER CO	WY	22,389.39	0.12%	4.16%	12.93%	17.37%	0.0200%
490	WYNNDHAM WORLDWIDE CORP	WYN	7,096.01	0.04%	3.04%	8.70%	11.87%	0.0043%
491	WYNN RESORTS LTD	WYNN	9,624.33	0.05%	2.11%	23.03%	25.39%	0.0126%
492	CIMAREX ENERGY CO	XEC	12,265.65	0.06%	0.31%	55.91%	56.31%	0.0356%
493	XCEL ENERGY INC	XEL	21,105.44	0.11%	3.27%	4.93%	8.29%	0.0090%
494	XL GROUP LTD	XL	9,541.54	0.05%	2.31%	13.25%	15.71%	0.0077%
495	XILINX INC	XLNX	12,845.25	0.07%	2.72%	7.94%	10.77%	0.0071%
496	EXXON MOBIL CORP	XOM	345,498.88	1.78%	3.59%	11.58%	15.37%	0.2735%
497	DENTSPLY SIRONA INC	XRAY	13,414.52	0.07%	0.51%	9.76%	10.30%	0.0071%
498	XEROX CORP	XRX	9,899.98	0.05%	3.15%	11.60%	14.94%	0.0076%
499	XYLEM INC	XYL	8,659.85	0.04%	1.28%	11.10%	12.45%	0.0056%
500	YAHOO! INC	YHOO	39,546.57	0.20%	0.00%	5.74%	5.74%	0.0117%
501	YUM! BRANDS INC	YUM	31,665.24	0.16%	2.20%	11.87%	14.20%	0.0232%
502	ZIMMER BIOMET HOLDINGS INC	ZBH	21,081.32	0.11%	0.91%	11.04%	12.00%	0.0130%
503	ZIONS BANCORPORATION	ZION	6,606.62	0.03%	0.87%	14.07%	15.00%	0.0051%
504	ZOETIS INC	ZTS	23,663.09	0.12%	0.80%	14.97%	15.83%	0.0193%
505	Total Market Capitalization:		19,420,147.30					13.13%

## Notes:

[1] Equals sum of Col. [9]

[2] Source: Bloomberg Professional

[3] Equals [1] - [2]

[4] Source: Bloomberg Professional

[5] Equals weight in S&amp;P 500 based on market capitalization

[6] Source: Bloomberg Professional

[7] Source: Bloomberg Professional

[8] Equals ([6] x (1 + (0.5 x [7]))) + [7]

[9] Equals Col. [5] x Col. [8]

Ex-Ante Market Risk Premium  
Market DCF Method Based - Value Line

Line  
No.

			[1]	[2]	[3]			
			S&P 500 Est. Required Market Return	Current 30-Year Treasury (30-day average)	Implied Market Risk Premium			
1			14.17%	2.45%	11.72%			
2								
3	Company	Ticker	[4]	[5]	[6]	[7]	[8]	[9]
			Market Capitalization	Weight in Index	Estimated Dividend Yield	Long-Term Growth Est.	DCF Result	Weighted DCF Result
4	AGILENT TECHNOLOGIES INC	A	14,055.12	0.08%	1.06%	4.50%	5.58%	0.0044%
5	ALCOA INC	AA	12,372.04	0.07%	1.28%	10.50%	11.85%	0.0083%
6	AMERICAN AIRLINES GROUP INC	AAL	20,719.72	N/A	1.00%	N/A	N/A	N/A
7	ADVANCE AUTO PARTS INC	AAP	10,248.40	0.06%	0.17%	11.50%	11.68%	0.0068%
8	APPLE INC	AAPL	617,409.50	3.50%	2.08%	11.50%	13.70%	0.4792%
9	ABBVIE INC	ABBV	100,090.20	0.57%	3.71%	13.00%	16.95%	0.0961%
10	AMERISOURCEBERGEN CORP	ABC	17,064.44	0.10%	1.71%	11.00%	12.80%	0.0124%
11	ABBOTT LABORATORIES	ABT	59,226.10	0.34%	2.58%	7.50%	10.18%	0.0342%
12	ACCENTURE PLC-CL A	ACN	74,440.76	0.42%	2.10%	6.50%	8.67%	0.0366%
13	ADOBE SYSTEMS INC	ADBE	53,216.47	0.30%	0.00%	35.50%	35.50%	0.1070%
14	ANALOG DEVICES INC	ADI	19,453.88	0.11%	2.66%	11.00%	13.81%	0.0152%
15	ARCHER-DANIELS-MIDLAND CO	ADM	25,115.64	0.14%	2.79%	5.00%	7.86%	0.0112%
16	ADIANT PLC	ADNT	N/A	N/A	0.00%	N/A	N/A	N/A
17	AUTOMATIC DATA PROCESSING	ADP	39,525.63	0.22%	2.62%	9.50%	12.24%	0.0274%
18	ALLIANCE DATA SYSTEMS CORP	ADS	11,870.02	0.07%	1.03%	10.50%	11.58%	0.0078%
19	AUTODESK INC	ADSK	15,661.21	N/A	0.00%	N/A	N/A	N/A
20	AMEREN CORPORATION	AEE	11,824.32	0.07%	3.61%	6.00%	9.72%	0.0065%
21	AMERICAN ELECTRIC POWER	AEP	31,068.19	0.18%	3.74%	4.00%	7.81%	0.0138%
22	AES CORP	AES	7,789.39	0.04%	3.72%	8.50%	12.38%	0.0055%
23	AETNA INC	AET	38,879.16	0.22%	0.90%	9.50%	10.44%	0.0230%
24	AFLAC INC	AFL	28,794.18	0.16%	2.45%	4.50%	7.01%	0.0114%
25	ALLERGAN PLC	AGN	87,677.61	0.50%	0.00%	13.50%	13.50%	0.0671%
26	AMERICAN INTERNATIONAL GROUP	AIG	66,498.76	0.38%	2.08%	10.00%	12.18%	0.0459%
27	APARTMENT INVT & MGMT CO -A	AIV	-	N/A	3.14%	N/A	N/A	N/A
28	ASSURANT INC	AIZ	4,859.26	0.03%	2.50%	7.00%	9.59%	0.0026%
29	ARTHUR J GALLAGHER & CO	AJG	8,513.70	0.05%	3.16%	13.50%	16.87%	0.0081%
30	AKAMAI TECHNOLOGIES INC	AKAM	12,049.32	0.07%	0.00%	13.00%	13.00%	0.0089%
31	ALBEMARLE CORP	ALB	9,221.68	0.05%	1.49%	7.50%	9.05%	0.0047%
32	ALASKA AIR GROUP INC	ALK	8,753.45	0.05%	1.55%	10.50%	12.13%	0.0060%
33	ALLSTATE CORP	ALL	25,075.89	0.14%	1.95%	6.50%	8.51%	0.0121%
34	ALLEGION PLC	ALLE	6,033.58	0.03%	0.76%	10.50%	11.30%	0.0039%
35	ALEXION PHARMACEUTICALS INC	ALXN	29,456.31	0.17%	0.00%	27.50%	27.50%	0.0459%
36	APPLIED MATERIALS INC	AMAT	31,197.66	0.18%	1.39%	18.00%	19.52%	0.0345%
37	AMETEK INC	AME	10,270.60	0.06%	0.82%	6.00%	6.84%	0.0040%
38	AFFILIATED MANAGERS GROUP	AMG	7,751.74	0.04%	0.00%	8.50%	8.50%	0.0037%
39	AMGEN INC	AMGN	120,250.90	0.68%	2.68%	9.00%	11.80%	0.0804%
40	AMERIPRISE FINANCIAL INC	AMP	14,746.17	0.08%	3.30%	10.50%	13.97%	0.0117%
41	AMERICAN TOWER CORP	AMT	49,116.78	0.28%	2.08%	15.50%	17.74%	0.0494%
42	AMAZON.COM INC	AMZN	387,902.60	2.20%	0.00%	91.00%	91.00%	2.0000%
43	AUTONATION INC	AN	4,704.05	0.03%	0.00%	9.00%	9.00%	0.0024%
44	ANTHEM INC	ANTM	32,496.89	0.18%	2.11%	7.50%	9.69%	0.0178%
45	AON PLC	AON	28,818.04	0.16%	1.22%	12.00%	13.29%	0.0217%
46	APACHE CORP	APA	23,406.39	0.13%	1.62%	6.00%	7.67%	0.0102%
47	ANADARKO PETROLEUM CORP	APC	31,354.91	N/A	0.33%	N/A	N/A	N/A
48	AIR PRODUCTS & CHEMICALS INC	APD	28,887.77	0.16%	2.58%	11.00%	13.72%	0.0225%
49	AMPHENOL CORP-CL A	APH	20,181.35	0.11%	0.98%	8.00%	9.02%	0.0103%
50	ACTIVISION BLIZZARD INC	ATVI	32,408.46	0.18%	0.64%	8.00%	8.67%	0.0159%
51	AVALONBAY COMMUNITIES INC	AVB	-	N/A	3.46%	N/A	N/A	N/A
52	BROADCOM LTD	AVGO	68,282.99	0.39%	1.18%	23.00%	24.32%	0.0941%
53	AVERY DENNISON CORP	AVY	6,256.90	0.04%	2.42%	8.50%	11.02%	0.0039%
54	AMERICAN WATER WORKS CO INC	AWK	12,865.66	0.07%	2.17%	8.00%	10.26%	0.0075%
55	AMERICAN EXPRESS CO	AXP	61,910.24	0.35%	1.91%	3.00%	4.94%	0.0173%
56	ACUITY BRANDS INC	AYI	9,911.44	0.06%	0.23%	19.50%	19.75%	0.0111%
57	AUTOZONE INC	AZO	21,428.64	0.12%	0.00%	11.50%	11.50%	0.0140%
58	BOEING CO/THE	BA	88,703.16	0.50%	3.27%	10.50%	13.94%	0.0701%
59	BANK OF AMERICA CORP	BAC	172,765.80	0.98%	1.83%	15.50%	17.47%	0.1710%
60	BAXTER INTERNATIONAL INC	BAX	25,393.39	0.14%	1.11%	-4.50%	-3.41%	-0.0049%
61	BED BATH & BEYOND INC	BBBY	6,198.56	0.04%	1.25%	2.50%	3.77%	0.0013%
62	BB&T CORP	BBT	32,034.29	0.18%	3.05%	7.50%	10.66%	0.0194%
63	BEST BUY CO INC	BBY	12,198.16	0.07%	3.12%	8.00%	11.24%	0.0078%
64	CR BARD INC	BCR	15,459.58	0.09%	0.50%	9.50%	10.02%	0.0088%

65	BECTON DICKINSON AND CO	BDX	35,611.88	0.20%	1.73%	9.50%	11.31%	0.0228%
66	FRANKLIN RESOURCES INC	BEN	19,858.54	0.11%	2.35%	4.50%	6.90%	0.0078%
67	BROWN-FORMAN CORP-CLASS B	BF/B	17,798.13	0.10%	1.54%	9.00%	10.61%	0.0107%
68	BAKER HUGHES INC	BHI	23,063.41	0.13%	1.25%	29.00%	30.43%	0.0398%
69	BIOMER INC	BIIB	63,290.11	0.36%	0.00%	11.50%	11.50%	0.0412%
70	BANK OF NEW YORK MELLON CORP	BK	46,657.35	0.26%	1.74%	10.50%	12.33%	0.0326%
71	BLACKROCK INC	BLK	55,423.45	0.31%	2.69%	8.00%	10.80%	0.0339%
72	BALL CORP	BLI	11,027.29	0.06%	0.66%	11.00%	11.70%	0.0073%
73	BRISTOL-MYERS SQUIBB CO	BMJ	86,837.11	0.49%	2.93%	19.50%	22.72%	0.1118%
74	BERKSHIRE HATHAWAY INC-CL B	BRK/B	-	N/A	0.00%	N/A	N/A	N/A
75	BOSTON SCIENTIFIC CORP	BSX	29,198.44	0.17%	0.00%	19.50%	19.50%	0.0323%
76	BORGWARNER INC	BWA	7,548.22	0.04%	1.47%	8.50%	10.03%	0.0043%
77	BOSTON PROPERTIES INC	BXP	-	N/A	2.30%	N/A	N/A	N/A
78	CITIGROUP INC	C	145,065.30	0.82%	1.28%	11.50%	12.85%	0.1056%
79	CA INC	CA	13,281.02	0.08%	3.18%	6.50%	9.78%	0.0074%
80	CONAGRA FOODS INC	CAG	20,776.56	0.12%	2.11%	6.00%	8.17%	0.0096%
81	CARDINAL HEALTH INC	CAH	24,384.80	0.14%	2.49%	14.00%	16.66%	0.0230%
82	CATERPILLAR INC	CAT	48,497.01	0.27%	3.71%	4.00%	7.78%	0.0214%
83	CHUBB LTD	CB	59,061.17	0.33%	2.17%	8.00%	10.26%	0.0343%
84	CBRE GROUP INC - A	CBG	8,922.94	0.05%	0.00%	10.00%	10.00%	0.0051%
85	CBS CORP-CLASS B NON VOTING	CBS	25,158.86	0.14%	1.28%	13.00%	14.36%	0.0205%
86	CROWN CASTLE INTL CORP	CCI	30,643.88	0.17%	4.19%	18.00%	22.57%	0.0392%
87	CARNIVAL CORP	CCL	33,966.90	0.19%	3.01%	15.50%	18.74%	0.0361%
88	CELGENE CORP	CELG	81,199.89	0.46%	0.00%	27.50%	27.50%	0.1265%
89	CERNER CORP	CERN	19,495.39	0.11%	0.00%	13.50%	13.50%	0.0149%
90	CF INDUSTRIES HOLDINGS INC	CF	5,718.75	0.03%	5.50%	-1.50%	3.96%	0.0013%
91	CITIZENS FINANCIAL GROUP	CFG	14,216.78	N/A	1.86%	N/A	N/A	N/A
92	CHURCH & DWIGHT CO INC	CHD	12,281.22	0.07%	1.49%	7.00%	8.54%	0.0059%
93	CHESAPEAKE ENERGY CORP	CHK	4,714.40	N/A	0.00%	N/A	N/A	N/A
94	C.H. ROBINSON WORLDWIDE INC	CHRW	9,631.23	0.05%	2.55%	7.50%	10.15%	0.0055%
95	CHARTER COMMUNICATIONS INC-A	CHTR	66,133.52	N/A	0.00%	N/A	N/A	N/A
96	CIGNA CORP	CI	31,573.50	0.18%	0.03%	12.50%	12.53%	0.0224%
97	CINCINNATI FINANCIAL CORP	CINF	11,472.23	0.07%	2.75%	6.50%	9.34%	0.0061%
98	COLGATE-PALMOLIVE CO	CL	62,725.66	0.36%	2.30%	14.00%	16.46%	0.0585%
99	CLOROX COMPANY	CLX	15,260.01	0.09%	2.74%	9.50%	12.37%	0.0107%
100	COMERICA INC	CMA	9,097.60	0.05%	1.76%	6.50%	8.32%	0.0043%
101	COMCAST CORP-CLASS A	CMCSA	147,111.30	0.83%	1.79%	10.00%	11.88%	0.0990%
102	CME GROUP INC	CME	37,790.39	0.21%	2.40%	9.50%	12.01%	0.0257%
103	CHIPOTLE MEXICAN GRILL INC	CMG	10,682.48	0.06%	0.00%	12.50%	12.50%	0.0076%
104	CUMMINS INC	CMI	21,300.06	0.12%	3.25%	5.00%	8.33%	0.0101%
105	CMS ENERGY CORP	CMS	11,543.58	0.07%	3.14%	6.00%	9.23%	0.0060%
106	CENTENE CORP	CNC	10,836.00	0.06%	0.00%	24.50%	24.50%	0.0150%
107	CENTERPOINT ENERGY INC	CNP	9,720.47	0.06%	4.70%	2.00%	6.75%	0.0037%
108	CAPITAL ONE FINANCIAL CORP	COF	37,843.19	0.21%	2.14%	2.50%	4.67%	0.0100%
109	CABOT OIL & GAS CORP	COG	10,070.46	0.06%	0.37%	39.00%	39.44%	0.0225%
110	COACH INC	COH	9,871.01	0.06%	3.80%	4.00%	7.88%	0.0044%
111	ROCKWELL COLLINS INC	COL	10,671.28	0.06%	1.61%	8.00%	9.67%	0.0058%
112	COOPER COS INC/THE	COO	8,543.50	0.05%	0.03%	14.50%	14.53%	0.0070%
113	CINOCOPHILLIPS	COP	54,494.22	0.31%	2.27%	7.00%	9.35%	0.0289%
114	COSTCO WHOLESALE CORP	COST	66,132.19	0.37%	1.19%	9.00%	10.24%	0.0384%
115	COTY INC-CL A	COTY	7,697.54	0.04%	1.23%	14.50%	15.82%	0.0069%
116	CAMPBELL SOUP CO	CPB	16,324.00	0.09%	2.64%	5.50%	8.21%	0.0076%
117	SALESFORCE.COM INC	CRM	51,196.90	N/A	0.00%	N/A	N/A	N/A
118	CISCO SYSTEMS INC	CSCO	152,932.90	0.87%	3.69%	6.00%	9.80%	0.0849%
119	CSRA INC	CSRA	4,023.46	N/A	1.63%	N/A	N/A	N/A
120	CSX CORP	CSX	28,390.20	0.16%	2.38%	6.50%	8.96%	0.0144%
121	CINTAS CORP	CTAS	11,012.19	0.06%	1.26%	10.00%	11.32%	0.0071%
122	CENTURYLINK INC	CTL	16,923.64	0.10%	6.97%	14.00%	21.46%	0.0206%
123	COGNIZANT TECH SOLUTIONS-A	CTSH	31,154.49	0.18%	0.00%	12.50%	12.50%	0.0221%
124	CITRIX SYSTEMS INC	CTXS	12,926.72	0.07%	0.00%	11.00%	11.00%	0.0081%
125	CVS HEALTH CORP	CVS	92,857.35	0.53%	1.95%	11.50%	13.56%	0.0714%
126	CHEVRON CORP	CVX	188,501.10	1.07%	4.28%	3.50%	7.85%	0.0839%
127	CONCHO RESOURCES INC	CXO	17,616.67	0.10%	0.00%	16.50%	16.50%	0.0165%
128	DOMINION RESOURCES INC/VA	D	43,686.80	0.25%	4.05%	9.00%	13.23%	0.0328%
129	DELTA AIR LINES INC	DAL	30,537.89	0.17%	1.95%	12.00%	14.07%	0.0243%
130	DU PONT (E.I.) DE NEMOURS	DD	60,712.96	0.34%	2.32%	6.50%	8.90%	0.0306%
131	DEERE & CO	DE	27,354.80	0.15%	2.76%	-2.00%	0.73%	0.0011%
132	DISCOVER FINANCIAL SERVICES	DFS	22,485.91	0.13%	2.12%	5.00%	7.17%	0.0091%
133	DOLLAR GENERAL CORP	DG	19,003.63	0.11%	1.71%	12.00%	13.81%	0.0149%
134	QUEST DIAGNOSTICS INC	DGX	11,110.27	0.06%	2.00%	10.00%	12.10%	0.0076%
135	DR HORTON INC	DHI	10,443.15	0.06%	1.14%	13.00%	14.21%	0.0084%
136	DANAHER CORP	DHR	54,173.03	0.31%	0.64%	8.00%	8.67%	0.0266%
137	WALT DISNEY CO/THE	DIS	159,834.00	0.91%	1.51%	10.00%	11.59%	0.1049%
138	DISCOVERY COMMUNICATIONS-A	DISCA	10,357.84	0.06%	0.00%	15.50%	15.50%	0.0091%
139	DELPHI AUTOMOTIVE PLC	DLPH	17,579.70	0.10%	1.92%	14.50%	16.56%	0.0165%
140	DIGITAL REALTY TRUST INC	DLR	-	N/A	4.14%	N/A	N/A	N/A

141	DOLLAR TREE INC	DLTR	17,547.86	0.10%	0.00%	21.00%	21.00%	0.0209%
142	DUN & BRADSTREET CORP	DNB	4,499.02	0.03%	1.56%	4.50%	6.10%	0.0016%
143	DOVER CORP	DOV	10,484.37	0.06%	2.61%	3.50%	6.16%	0.0037%
144	DOW CHEMICAL CO/THE	DOW	61,182.55	0.35%	3.59%	10.00%	13.77%	0.0477%
145	DR PEPPER SNAPPLE GROUP INC	DPS	16,006.18	0.09%	2.50%	9.00%	11.61%	0.0105%
146	DARDEN RESTAURANTS INC	DRI	7,571.94	0.04%	3.64%	15.00%	18.91%	0.0081%
147	DTE ENERGY COMPANY	DTE	16,811.27	0.10%	3.33%	6.00%	9.43%	0.0090%
148	DUKE ENERGY CORP	DUK	54,031.38	0.31%	4.40%	4.50%	9.00%	0.0275%
149	DAVITA INC	DVA	11,572.14	0.07%	0.00%	11.00%	11.00%	0.0072%
150	DEVON ENERGY CORP	DVN	21,201.04	0.12%	0.59%	1.00%	1.59%	0.0019%
151	ELECTRONIC ARTS INC	EA	24,898.72	0.14%	0.00%	14.00%	14.00%	0.0198%
152	EBAY INC	EBAY	32,180.77	0.18%	0.00%	3.50%	3.50%	0.0064%
153	ECOLAB INC	ECL	33,522.34	0.19%	1.22%	8.50%	9.77%	0.0186%
154	CONSOLIDATED EDISON INC	ED	20,645.07	0.12%	3.73%	2.50%	6.28%	0.0073%
155	EQUIFAX INC	EFX	14,731.13	0.08%	1.07%	11.00%	12.13%	0.0101%
156	EDISON INTERNATIONAL	EIX	23,266.16	0.13%	2.89%	3.50%	6.44%	0.0085%
157	ESTEE LAUDER COMPANIES-CL A	EL	31,719.26	0.18%	1.40%	8.00%	9.46%	0.0170%
158	EASTMAN CHEMICAL CO	EMN	9,933.16	0.06%	2.74%	8.00%	10.85%	0.0061%
159	EMERSON ELECTRIC CO	EMR	32,067.20	0.18%	3.81%	2.00%	5.85%	0.0106%
160	ENDO INTERNATIONAL PLC	ENDP	4,548.86	0.03%	0.00%	32.00%	32.00%	0.0082%
161	EOG RESOURCES INC	EOG	50,514.71	0.29%	0.77%	4.00%	4.79%	0.0137%
162	EQUINIX INC	EQIX	24,987.13	0.14%	1.99%	19.50%	21.68%	0.0307%
163	EQUITY RESIDENTIAL	EQR	-	N/A	3.54%	N/A	N/A	N/A
164	EQT CORP	EQT	11,474.59	0.07%	0.18%	12.00%	12.19%	0.0079%
165	EVERSOURCE ENERGY	ES	17,100.63	0.10%	3.47%	6.00%	9.57%	0.0093%
166	EXPRESS SCRIPTS HOLDING CO	ESRX	42,687.21	0.24%	0.00%	15.50%	15.50%	0.0375%
167	ESSEX PROPERTY TRUST INC	ESS	-	N/A	3.30%	N/A	N/A	N/A
168	E*TRADE FINANCIAL CORP	ETFC	7,805.27	0.04%	0.00%	17.50%	17.50%	0.0077%
169	EATON CORP PLC	ETN	28,323.26	0.16%	3.66%	5.00%	8.75%	0.0140%
170	ENTERGY CORP	ETR	12,875.72	0.07%	4.84%	2.00%	6.89%	0.0050%
171	EDWARDS LIFESCIENCES CORP	EW	19,610.94	0.11%	0.00%	18.00%	18.00%	0.0200%
172	EXELON CORP	EXC	30,717.19	0.17%	3.85%	7.00%	10.98%	0.0191%
173	EXPEDITORS INTL WASH INC	EXPD	9,184.92	0.05%	1.58%	10.00%	11.66%	0.0061%
174	EXPEDIA INC	EXPE	18,911.55	0.11%	0.82%	22.00%	22.91%	0.0245%
175	EXTRA SPACE STORAGE INC	EXR	-	N/A	4.51%	N/A	N/A	N/A
176	FORD MOTOR CO	F	45,819.61	0.26%	5.11%	5.50%	10.75%	0.0279%
177	FASTENAL CO	FAST	11,109.97	0.06%	3.12%	7.00%	10.23%	0.0064%
178	FACEBOOK INC-A	FB	372,210.30	2.11%	0.00%	36.50%	36.50%	0.7698%
179	FORTUNE BRANDS HOME & SECURI	FBHS	8,313.79	0.05%	1.19%	15.50%	16.78%	0.0079%
180	FREEMPORT-MCMORAN INC	FCX	14,089.42	0.08%	0.00%	36.50%	36.50%	0.0291%
181	FEDEX CORP	FDX	46,348.37	0.26%	0.92%	13.50%	14.48%	0.0380%
182	FIRSTENERGY CORP	FE	14,414.21	0.08%	4.25%	7.50%	11.91%	0.0097%
183	F5 NETWORKS INC	FFIV	8,672.06	0.05%	0.00%	9.00%	9.00%	0.0044%
184	FIDELITY NATIONAL INFO SERV	FIS	24,227.43	0.14%	1.40%	15.50%	17.01%	0.0233%
185	FISERV INC	FISV	21,072.15	0.12%	0.00%	9.50%	9.50%	0.0113%
186	FIFTH THIRD BANCORP	FITB	16,721.67	0.09%	2.57%	3.00%	5.61%	0.0053%
187	FOOT LOCKER INC	FL	8,884.15	0.05%	1.65%	9.00%	10.72%	0.0054%
188	FLIR SYSTEMS INC	FLIR	4,448.76	0.03%	1.57%	8.00%	9.63%	0.0024%
189	FLUOR CORP	FLR	7,055.49	0.04%	1.66%	1.50%	3.17%	0.0013%
190	FLOWSERVE CORP	FLS	5,648.29	0.03%	1.75%	2.50%	4.27%	0.0014%
191	FMC CORP	FMC	6,287.69	0.04%	1.47%	4.00%	5.50%	0.0020%
192	TWENTY-FIRST CENTURY FOX-A	FOXA	48,821.08	0.28%	1.38%	12.00%	13.46%	0.0372%
193	FEDERAL REALTY INVS TRUST	FRT	-	N/A	2.77%	N/A	N/A	N/A
194	FIRST SOLAR INC	FSLR	4,202.49	0.02%	0.00%	8.50%	8.50%	0.0020%
195	FMC TECHNOLOGIES INC	FTI	7,332.00	0.04%	0.00%	-1.00%	-1.00%	-0.0004%
196	FRONTIER COMMUNICATIONS CORP	FTR	4,871.39	0.03%	10.07%	13.50%	24.25%	0.0067%
197	FORTIVE CORP	FTV	-	N/A	0.59%	N/A	N/A	N/A
198	GENERAL DYNAMICS CORP	GD	45,717.59	0.26%	2.03%	7.00%	9.10%	0.0236%
199	GENERAL ELECTRIC CO	GE	268,529.00	1.52%	3.21%	12.00%	15.40%	0.2343%
200	GENERAL GROWTH PROPERTIES	GGP	-	N/A	3.29%	N/A	N/A	N/A
201	GILEAD SCIENCES INC	GILD	100,929.70	0.57%	2.48%	10.00%	12.60%	0.0721%
202	GENERAL MILLS INC	GIS	36,104.11	0.20%	3.20%	7.00%	10.31%	0.0211%
203	CORNING INC	GLW	21,796.92	0.12%	2.36%	6.50%	8.94%	0.0110%
204	GENERAL MOTORS CO	GM	46,995.00	0.27%	4.85%	9.00%	14.07%	0.0375%
205	ALPHABET INC-CL A	GOOGL	N/A	N/A	0.00%	N/A	N/A	N/A
206	GENUINE PARTS CO	GPC	13,275.68	0.08%	2.95%	7.00%	10.05%	0.0076%
207	GLOBAL PAYMENTS INC	GPN	11,137.48	0.06%	0.06%	14.50%	14.56%	0.0092%
208	GAP INC/THE	GPS	10,594.76	0.06%	3.46%	-0.50%	2.95%	0.0018%
209	GARMIN LTD	GRMN	9,037.76	0.05%	4.33%	1.50%	5.86%	0.0030%
210	GOLDMAN SACHS GROUP INC	GS	72,271.55	0.41%	1.46%	7.00%	8.51%	0.0349%
211	GOODYEAR TIRE & RUBBER CO	GT	8,142.96	0.05%	1.29%	8.50%	9.84%	0.0045%
212	VW GRAINGER INC	GWW	12,471.91	0.07%	2.36%	6.00%	8.43%	0.0060%
213	HALLIBURTON CO	HAL	40,893.00	0.23%	1.51%	8.00%	9.57%	0.0222%
214	HARMAN INTERNATIONAL	HAR	5,473.66	0.03%	1.81%	17.00%	18.96%	0.0059%
215	HASBRO INC	HAS	10,388.84	0.06%	2.46%	12.00%	14.61%	0.0086%
216	HUNTINGTON BANCSHARES INC	HBAN	8,590.91	0.05%	2.98%	9.00%	12.11%	0.0059%
217	HANESBRANDS INC	HBI	8,991.40	0.05%	1.85%	13.00%	14.97%	0.0076%
218	HCA HOLDINGS INC	HCA	30,142.72	0.17%	0.00%	11.50%	11.50%	0.0196%
219	WELLTOWER INC	HCN	-	N/A	5.25%	N/A	N/A	N/A
220	HCP INC	HCP	-	N/A	6.84%	N/A	N/A	N/A



221	HOME DEPOT INC	HD	151,061.10	0.86%	2.50%	12.50%	15.16%	0.1297%
222	HESS CORP	HES	15,966.70	0.09%	1.98%	-1.00%	0.97%	0.0009%
223	HARTFORD FINANCIAL SVCS GRP	HIG	16,723.02	0.09%	1.95%	11.50%	13.56%	0.0129%
224	HARLEY-DAVIDSON INC	HOG	9,925.02	0.06%	2.52%	9.00%	11.63%	0.0065%
225	HOLOGIC INC	HOLX	9,999.53	0.06%	0.00%	21.00%	21.00%	0.0119%
226	HONEYWELL INTERNATIONAL INC	HON	82,942.06	0.47%	2.19%	9.00%	11.29%	0.0530%
227	HELMERICH & PAYNE	HP	6,933.39	0.04%	4.36%	-6.00%	-1.77%	-0.0007%
228	HEWLETT PACKARD ENTERPRIS	HPE	36,924.16	N/A	0.99%	N/A	N/A	N/A
229	HP INC	HPQ	23,935.15	N/A	3.57%	N/A	N/A	N/A
230	H&R BLOCK INC	HRB	4,971.22	0.03%	3.88%	10.00%	14.07%	0.0040%
231	HORMEL FOODS CORP	HRL	20,064.72	0.11%	1.69%	14.00%	15.81%	0.0180%
232	HARRIS CORP	HRS	11,090.73	0.06%	2.41%	7.50%	10.00%	0.0063%
233	HENRY SCHEIN INC	HSIC	12,182.40	0.07%	0.00%	9.00%	9.00%	0.0062%
234	HOST HOTELS & RESORTS INC	HST	-	N/A	5.51%	N/A	N/A	N/A
235	HERSHEY CO/THE	HSY	20,324.24	0.12%	2.59%	5.50%	8.16%	0.0094%
236	HUMANA INC	HUM	25,965.98	0.15%	0.67%	9.50%	10.20%	0.0150%
237	INTL BUSINESS MACHINES CORP	IBM	146,578.70	0.83%	3.72%	0.50%	4.23%	0.0351%
238	INTERCONTINENTAL EXCHANGE IN	ICE	31,667.09	0.18%	1.28%	14.00%	15.37%	0.0276%
239	INTL FLAVORS & FRAGRANCES	IFF	10,622.52	0.06%	1.92%	7.00%	8.99%	0.0054%
240	ILLUMINA INC	ILMN	20,419.91	0.12%	0.00%	21.50%	21.50%	0.0249%
241	INTEL CORP	INTC	164,581.70	0.93%	2.99%	9.50%	12.63%	0.1178%
242	INTUIT INC	INTU	27,670.21	0.16%	1.12%	13.00%	14.19%	0.0223%
243	INTERNATIONAL PAPER CO	IP	18,561.03	0.11%	4.10%	15.00%	19.41%	0.0204%
244	INTERPUBLIC GROUP OF COS INC	IPG	9,043.01	0.05%	3.13%	13.00%	16.33%	0.0084%
245	INGERSOLL-RAND PLC	IR	17,318.51	0.10%	2.39%	10.00%	12.51%	0.0123%
246	IRON MOUNTAIN INC	IRM	8,616.63	0.05%	5.92%	11.50%	17.76%	0.0087%
247	INTUITIVE SURGICAL INC	ISRG	25,667.00	0.15%	0.00%	11.50%	11.50%	0.0167%
248	ILLINOIS TOOL WORKS	ITW	40,224.07	0.23%	2.29%	10.50%	12.91%	0.0294%
249	INVESCO LTD	IVZ	11,884.28	0.07%	3.85%	7.00%	10.98%	0.0074%
250	HUNT (JB) TRANSPRT SVCS INC	JBHT	9,130.46	0.05%	1.09%	10.50%	11.65%	0.0060%
251	JOHNSON CONTROLS INTERNATION	JCI	28,067.20	0.16%	2.64%	9.50%	12.27%	0.0195%
252	JACOBS ENGINEERING GROUP INC	JEC	6,167.96	0.03%	0.00%	4.00%	4.00%	0.0014%
253	JOHNSON & JOHNSON	JNJ	316,746.60	1.79%	2.85%	8.50%	11.47%	0.2059%
254	JUNIPER NETWORKS INC	JNPR	10,025.53	0.06%	1.60%	10.00%	11.68%	0.0066%
255	JPMORGAN CHASE & CO	JPM	250,057.50	1.42%	2.80%	6.00%	8.88%	0.1259%
256	NORDSTROM INC	JWN	9,098.25	0.05%	2.88%	0.50%	3.39%	0.0017%
257	KELLOGG CO	K	25,881.84	0.15%	2.82%	5.00%	7.89%	0.0116%
258	KEYCORP	KEY	12,025.37	0.07%	2.45%	7.50%	10.04%	0.0068%
259	KRAFT HEINZ CO/THE	KHC	106,749.80	N/A	2.77%	N/A	N/A	N/A
260	KIMCO REALTY CORP	KIM	-	N/A	4.09%	N/A	N/A	N/A
261	KLA-TENCOR CORP	KLAC	11,680.16	0.07%	2.89%	12.50%	15.57%	0.0103%
262	KIMBERLY-CLARK CORP	KMB	40,765.20	0.23%	3.23%	10.00%	13.39%	0.0309%
263	KINDER MORGAN INC	KMI	46,764.89	0.26%	2.38%	13.00%	15.53%	0.0412%
264	CARMAX INC	KMX	9,666.69	0.05%	0.00%	10.50%	10.50%	0.0058%
265	COCA-COLA CO/THE	KO	181,663.60	1.03%	3.47%	4.00%	7.54%	0.0776%
266	MICHAEL KORS HOLDINGS LTD	KORS	8,140.59	0.05%	0.00%	6.00%	6.00%	0.0028%
267	KROGER CO	KR	29,282.88	0.17%	1.64%	10.00%	11.72%	0.0194%
268	KOHL'S CORP	KSS	7,848.21	0.04%	4.85%	8.00%	13.04%	0.0058%
269	KANSAS CITY SOUTHERN	KSU	9,596.05	0.05%	1.48%	9.00%	10.55%	0.0057%
270	LOEWS CORP	L	13,824.72	0.08%	0.61%	12.50%	13.15%	0.0103%
271	L BRANDS INC	LB	20,803.64	0.12%	3.30%	6.00%	9.40%	0.0111%
272	LEGGETT & PLATT INC	LEG	5,933.70	0.03%	3.06%	11.00%	14.23%	0.0048%
273	LENNAR CORP-A	LEN	9,189.57	0.05%	0.40%	12.50%	12.93%	0.0067%
274	LABORATORY CRP OF AMER HLDGS	LH	12,667.69	0.07%	0.00%	10.00%	10.00%	0.0072%
275	LKQ CORP	LKQ	9,761.93	0.06%	0.00%	15.00%	15.00%	0.0083%
276	L-3 COMMUNICATIONS HOLDINGS	LLL	10,655.79	0.06%	2.03%	6.50%	8.60%	0.0052%
277	LINEAR TECHNOLOGY CORP	LLTC	14,384.89	0.08%	2.13%	5.50%	7.69%	0.0063%
278	ELI LILLY & CO	LLY	84,068.69	0.48%	2.68%	9.50%	12.31%	0.0586%
279	LEGG MASON INC	LM	3,202.12	0.02%	2.85%	21.50%	24.66%	0.0045%
280	LOCKHEED MARTIN CORP	LMT	72,813.57	0.41%	2.93%	8.00%	11.05%	0.0456%
281	LINCOLN NATIONAL CORP	LNC	11,571.74	0.07%	2.25%	7.00%	9.33%	0.0061%
282	ALLIANT ENERGY CORP	LNT	8,415.90	0.05%	3.19%	6.50%	9.79%	0.0047%
283	LOWE'S COS INC	LOW	59,167.96	0.34%	2.09%	15.00%	17.25%	0.0578%
284	LAM RESEARCH CORP	LRCX	15,636.97	0.09%	1.24%	16.00%	17.34%	0.0154%
285	LEUCADIA NATIONAL CORP	LUK	6,743.18	0.04%	1.34%	16.50%	17.95%	0.0069%
286	SOUTHWEST AIRLINES CO	LUV	24,337.94	0.14%	1.02%	16.50%	17.60%	0.0243%
287	LEVEL 3 COMMUNICATIONS INC	LVL	18,571.48	0.11%	0.00%	37.00%	37.00%	0.0389%
288	LYONDELLBASELL INDU-CL A	LYB	33,655.41	0.19%	4.24%	6.50%	10.88%	0.0207%
289	MACY'S INC	M	10,888.92	N/A	4.33%	N/A	N/A	N/A
290	MASTERCARD INC - A	MA	113,649.20	0.64%	0.73%	11.00%	11.77%	0.0758%
291	MACERICH CO/THE	MAC	-	N/A	3.91%	N/A	N/A	N/A
292	MARRIOTT INTERNATIONAL -CL A	MAR	17,024.45	0.10%	1.79%	13.00%	14.91%	0.0144%
293	MASCO CORP	MAS	9,897.25	0.06%	1.31%	15.00%	16.41%	0.0092%
294	MATTEL INC	MAT	10,759.04	0.06%	4.83%	6.50%	11.49%	0.0070%
295	MCDONALD'S CORP	MCD	95,637.87	0.54%	3.36%	6.00%	9.46%	0.0513%
296	MICROCHIP TECHNOLOGY INC	MCHP	12,979.27	0.07%	2.39%	8.00%	10.49%	0.0077%
297	MCKESSON CORP	MCK	36,286.96	0.21%	0.70%	12.00%	12.74%	0.0262%
298	MOODY'S CORP	MCO	19,530.03	0.11%	1.45%	6.50%	8.00%	0.0088%
299	MONDELEZ INTERNATIONAL INC-A	MDLZ	67,851.66	0.38%	1.78%	11.50%	13.38%	0.0514%
300	MEDTRONIC PLC	MDT	112,116.50	0.64%	2.12%	6.50%	8.69%	0.0552%

301	METLIFE INC	MET	52,401.49	0.30%	3.50%	6.50%	10.11%	0.0300%
302	MOHAWK INDUSTRIES INC	MHK	13,769.29	0.08%	0.00%	10.50%	10.50%	0.0082%
303	MEAD JOHNSON NUTRITION CO	MJN	14,161.10	0.08%	2.21%	6.00%	8.28%	0.0066%
304	MCCORMICK & CO-NON VTG SHRS	MKC	11,917.68	0.07%	1.82%	7.50%	9.39%	0.0063%
305	MARTIN MARIETTA MATERIALS	MLM	11,220.49	0.06%	0.95%	24.50%	25.57%	0.0163%
306	MARSH & MCLENNAN COS	MMC	32,793.45	0.19%	2.15%	9.00%	11.25%	0.0209%
307	3M CO	MMM	100,185.40	0.57%	2.68%	8.50%	11.29%	0.0641%
308	MALLINCKRODT PLC	MNK	6,787.08	N/A	0.00%	N/A	N/A	N/A
309	MONSTER BEVERAGE CORP	MNST	27,275.86	0.15%	0.00%	14.50%	14.50%	0.0224%
310	ALTRIA GROUP INC	MO	125,728.90	0.71%	3.79%	9.50%	13.47%	0.0960%
311	MONSANTO CO	MON	44,226.05	0.25%	2.14%	9.50%	11.74%	0.0294%
312	MOSAIC CO/THE	MOS	8,373.73	0.05%	5.14%	0.50%	5.65%	0.0027%
313	MARATHON PETROLEUM CORP	MPC	22,603.68	0.13%	3.46%	5.50%	9.06%	0.0116%
314	MERCK & CO. INC.	MRK	169,505.30	0.96%	3.00%	6.00%	9.09%	0.0873%
315	MARATHON OIL CORP	MRO	11,829.60	0.07%	1.43%	14.50%	16.03%	0.0107%
316	MORGAN STANLEY	MS	64,657.35	0.37%	2.37%	14.50%	17.04%	0.0624%
317	MICROSOFT CORP	MSFT	467,818.40	2.65%	2.60%	7.00%	9.69%	0.2569%
318	MOTOROLA SOLUTIONS INC	MSI	12,249.12	0.07%	2.45%	9.00%	11.56%	0.0080%
319	M & T BANK CORP	MTB	19,262.71	0.11%	2.30%	5.00%	7.36%	0.0080%
320	METTLER-TOLEDO INTERNATIONAL	MTD	10,535.87	0.06%	0.00%	10.00%	10.00%	0.0060%
321	MICRON TECHNOLOGY INC	MU	18,231.20	0.10%	0.00%	-3.50%	-3.50%	-0.0036%
322	MURPHY OIL CORP	MUR	4,752.69	N/A	3.62%	N/A	N/A	N/A
323	MYLAN NV	MYL	19,330.16	0.11%	0.00%	20.50%	20.50%	0.0225%
324	NAVIENT CORP	NAVI	4,067.53	N/A	4.99%	N/A	N/A	N/A
325	NOBLE ENERGY INC	NBL	15,536.04	N/A	1.12%	N/A	N/A	N/A
326	NASDAQ INC	NDAQ	10,586.41	0.06%	2.00%	10.00%	12.10%	0.0073%
327	NEXTERA ENERGY INC	NEE	57,805.44	0.33%	2.96%	6.00%	9.05%	0.0296%
328	NEWMONT MINING CORP	NEM	18,464.79	0.10%	0.58%	9.00%	9.61%	0.0100%
329	NETFLIX INC	NFLX	54,273.97	0.31%	0.00%	35.00%	35.00%	0.1076%
330	NEWFIELD EXPLORATION CO	NFX	8,327.01	0.05%	0.00%	11.50%	11.50%	0.0054%
331	NISOURCE INC	NI	7,238.65	0.04%	2.94%	1.50%	4.46%	0.0018%
332	NIKE INC -CL B	NKE	86,552.52	0.49%	1.23%	14.50%	15.82%	0.0776%
333	NIELSEN HOLDINGS PLC	NLSN	16,423.91	0.09%	2.70%	9.00%	11.82%	0.0110%
334	NORTHROP GRUMMAN CORP	NOC	39,838.27	0.23%	1.60%	7.50%	9.16%	0.0207%
335	NATIONAL OILWELL VARCO INC	NOV	12,726.16	0.07%	0.59%	-9.50%	-8.94%	-0.0064%
336	NRG ENERGY INC	NRG	3,297.48	N/A	1.15%	N/A	N/A	N/A
337	NORFOLK SOUTHERN CORP	NSC	26,668.90	0.15%	2.58%	6.50%	9.16%	0.0138%
338	NETAPP INC	NTAP	9,396.40	0.05%	2.25%	3.50%	5.79%	0.0031%
339	NORTHERN TRUST CORP	NTRS	16,393.60	0.09%	2.10%	7.50%	9.68%	0.0090%
340	NUCOR CORP	NUE	14,879.96	0.08%	3.21%	24.50%	28.10%	0.0237%
341	VIDIA CORP	NVDA	37,813.80	0.21%	0.65%	15.50%	16.20%	0.0347%
342	NEWELL BRANDS INC	NWL	24,206.44	0.14%	1.51%	14.00%	15.62%	0.0214%
343	NEWS CORP - CLASS B	NWS	N/A	N/A	0.00%	N/A	N/A	N/A
344	REALTY INCOME CORP	O	-	N/A	4.09%	N/A	N/A	N/A
345	OWENS-ILLINOIS INC	OI	3,156.35	0.02%	0.00%	6.00%	6.00%	0.0011%
346	ONEOK INC	OKE	10,207.43	0.06%	5.24%	12.50%	18.07%	0.0104%
347	OMNICOM GROUP	OMC	18,662.90	0.11%	2.91%	9.00%	12.04%	0.0127%
348	ORACLE CORP	ORCL	156,931.30	0.89%	1.68%	6.00%	7.73%	0.0687%
349	O'REILLY AUTOMOTIVE INC	ORLY	24,005.15	0.14%	0.00%	13.00%	13.00%	0.0177%
350	OCCIDENTAL PETROLEUM CORP	OXY	56,370.09	0.32%	4.12%	4.00%	8.20%	0.0262%
351	PAYCHEX INC	PAYX	19,983.93	0.11%	3.39%	9.00%	12.54%	0.0142%
352	PEOPLE'S UNITED FINANCIAL	PBCT	5,114.12	0.03%	4.13%	10.50%	14.85%	0.0043%
353	PITNEY BOWES INC	PBI	3,223.44	0.02%	4.32%	4.50%	8.92%	0.0016%
354	PACCAR INC	PCAR	19,375.64	0.11%	4.52%	5.50%	10.14%	0.0111%
355	P G & E CORP	PCG	30,237.28	0.17%	3.36%	12.00%	15.56%	0.0267%
356	PRICELINE GROUP INC/THE	PCLN	72,387.30	0.41%	0.00%	15.50%	15.50%	0.0636%
357	PATTERSON COS INC	PDCO	4,223.48	0.02%	2.35%	11.50%	13.99%	0.0033%
358	PUBLIC SERVICE ENTERPRISE GP	PEG	20,811.05	0.12%	4.08%	3.00%	7.14%	0.0084%
359	PEPSICO INC	PEP	153,120.70	0.87%	2.85%	7.00%	9.95%	0.0863%
360	PFIZER INC	PFE	197,012.40	1.12%	3.70%	12.00%	15.92%	0.1777%
361	PRINCIPAL FINANCIAL GROUP	PFG	15,425.28	0.09%	3.06%	5.00%	8.14%	0.0071%
362	PROCTER & GAMBLE CO/THE	PG	231,687.50	1.31%	3.10%	9.00%	12.24%	0.1607%
363	PROGRESSIVE CORP	PGR	18,417.14	0.10%	2.81%	8.50%	11.43%	0.0119%
364	PARKER HANNIFIN CORP	PH	16,310.60	0.09%	2.07%	6.50%	8.64%	0.0080%
365	PULTEGROUP INC	PHM	6,350.80	0.04%	2.14%	13.00%	15.28%	0.0055%
366	PERKINELMER INC	PKI	5,569.25	0.03%	0.55%	8.50%	9.07%	0.0029%
367	PROLOGIS INC	PLD	-	N/A	3.29%	N/A	N/A	N/A
368	PHILIP MORRIS INTERNATIONAL	PM	148,588.00	0.84%	4.34%	5.00%	9.45%	0.0795%
369	PNC FINANCIAL SERVICES GROUP	PNC	47,046.98	0.27%	2.31%	4.00%	6.36%	0.0169%
370	PENTAIR PLC	PNR	9,929.33	0.06%	2.48%	10.00%	12.60%	0.0071%
371	PINNACLE WEST CAPITAL	PNW	8,324.71	0.05%	3.50%	4.00%	7.57%	0.0036%
372	PPG INDUSTRIES INC	PPG	24,643.94	0.14%	1.71%	9.50%	11.29%	0.0158%
373	PPL CORP	PPL	22,819.85	0.13%	4.66%	1.00%	5.68%	0.0073%
374	PERRIGO CO PLC	PRGO	13,031.20	0.07%	0.67%	8.50%	9.20%	0.0068%
375	PRUDENTIAL FINANCIAL INC	PRU	37,191.91	0.21%	3.30%	1.50%	4.82%	0.0102%
376	PUBLIC STORAGE	PSA	-	N/A	3.71%	N/A	N/A	N/A
377	PHILLIPS 66	PSX	41,822.70	0.24%	3.28%	2.50%	5.82%	0.0138%
378	PVH CORP	PVH	8,442.79	0.05%	0.14%	6.00%	6.14%	0.0029%
379	QUANTA SERVICES INC	PWR	4,064.83	0.02%	0.00%	8.50%	8.50%	0.0020%
380	PRAXAIR INC	PX	33,264.94	0.19%	2.70%	6.50%	9.29%	0.0175%

381	PIONEER NATURAL RESOURCES CO	PXD	30,981.20	0.18%	0.04%	36.50%	36.55%	0.0642%
382	PAYPAL HOLDINGS INC	PYPL	50,278.14	N/A	0.00%	N/A	N/A	N/A
383	QUALCOMM INC	QCOM	103,242.60	0.58%	3.17%	4.50%	7.74%	0.0453%
384	QORVO INC	QORVO	7,105.35	N/A	0.00%	N/A	N/A	N/A
385	RYDER SYSTEM INC	R	3,698.92	0.02%	2.54%	9.00%	11.65%	0.0024%
386	REYNOLDS AMERICAN INC	RAI	77,363.26	0.44%	3.39%	14.00%	17.63%	0.0773%
387	ROYAL CARIBBEAN CRUISES LTD	RCL	14,648.04	0.08%	2.82%	16.50%	19.55%	0.0162%
388	REGENERON PHARMACEUTICALS	REGN	37,766.59	0.21%	0.00%	23.50%	23.50%	0.0503%
389	REGIONS FINANCIAL CORP	RF	13,647.72	0.08%	2.49%	7.00%	9.58%	0.0074%
390	ROBERT HALF INTL INC	RHI	4,785.17	0.03%	2.48%	9.00%	11.59%	0.0031%
391	RED HAT INC	RHT	13,810.96	0.08%	0.00%	16.50%	16.50%	0.0129%
392	TRANSOCEAN LTD	RIG	3,792.75	0.02%	0.00%	-19.00%	-19.00%	-0.0041%
393	RALPH LAUREN CORP	RL	8,051.41	0.05%	2.10%	3.50%	5.64%	0.0026%
394	ROCKWELL AUTOMATION INC	ROK	15,296.38	0.09%	2.70%	3.00%	5.74%	0.0050%
395	ROPER TECHNOLOGIES INC	ROP	17,073.76	0.10%	0.71%	7.00%	7.73%	0.0075%
396	ROSS STORES INC	ROST	24,710.90	0.14%	0.95%	9.00%	9.99%	0.0140%
397	RANGE RESOURCES CORP	RRC	8,809.12	0.05%	0.22%	13.50%	13.73%	0.0069%
398	REPUBLIC SERVICES INC	RSG	17,467.42	0.10%	2.51%	8.50%	11.12%	0.0110%
399	RAYTHEON COMPANY	RTN	40,066.32	0.23%	2.15%	9.00%	11.25%	0.0255%
400	STARBUCKS CORP	SBUX	78,584.37	0.45%	1.79%	16.50%	18.44%	0.0821%
401	SCANA CORP	SCG	10,165.69	0.06%	3.36%	4.50%	7.94%	0.0046%
402	SCHWAB (CHARLES) CORP	SCHW	42,543.60	0.24%	0.87%	12.00%	12.92%	0.0311%
403	SPECTRA ENERGY CORP	SE	29,944.02	0.17%	3.79%	11.50%	15.51%	0.0263%
404	SEALED AIR CORP	SEE	8,748.14	0.05%	1.44%	16.00%	17.56%	0.0087%
405	SHERWIN-WILLIAMS CO/THE	SHW	23,004.02	0.13%	1.45%	11.00%	12.53%	0.0163%
406	SIGNET JEWELERS LTD	SIG	6,060.10	0.03%	1.40%	13.00%	14.49%	0.0050%
407	JM SMUCKER CO/THE	SJM	15,050.91	0.09%	2.32%	7.50%	9.91%	0.0084%
408	SCHLUMBERGER LTD	SLB	110,748.10	0.63%	2.51%	10.00%	12.64%	0.0793%
409	SL GREEN REALTY CORP	SLG	-	N/A	3.09%	N/A	N/A	N/A
410	SNAP-ON INC	SNA	8,920.18	0.05%	1.59%	10.00%	11.67%	0.0059%
411	SCRIPPS NETWORKS INTER-CL A	SNI	8,223.80	0.05%	1.57%	9.00%	10.64%	0.0050%
412	SOUTHERN CO/THE	SO	47,775.31	0.27%	4.49%	4.00%	8.58%	0.0232%
413	SIMON PROPERTY GROUP INC	SPG	-	N/A	3.73%	N/A	N/A	N/A
414	S&P GLOBAL INC	SPGI	32,435.04	0.18%	1.22%	11.50%	12.79%	0.0235%
415	STAPLES INC	SPLS	4,735.04	N/A	6.59%	N/A	N/A	N/A
416	STERICYCLE INC	SRCL	6,284.01	0.04%	0.00%	6.50%	6.50%	0.0023%
417	SEMPRA ENERGY	SRE	26,142.50	0.15%	3.08%	8.00%	11.20%	0.0166%
418	SUNTRUST BANKS INC	STI	22,894.47	0.13%	2.32%	7.00%	9.40%	0.0122%
419	ST JUDE MEDICAL INC	STJ	22,486.01	0.13%	1.62%	5.50%	7.16%	0.0091%
420	STATE STREET CORP	STT	27,591.12	0.16%	2.20%	5.50%	7.76%	0.0121%
421	SEAGATE TECHNOLOGY	STX	10,223.11	0.06%	7.36%	-0.50%	6.84%	0.0040%
422	CONSTELLATION BRANDS INC-A	STZ	34,976.59	0.20%	0.99%	15.50%	16.57%	0.0328%
423	STANLEY BLACK & DECKER INC	SWK	17,303.39	0.10%	2.02%	9.00%	11.11%	0.0109%
424	SKYWORKS SOLUTIONS INC	SWKS	14,486.25	0.08%	1.45%	16.50%	18.07%	0.0148%
425	SOUTHWESTERN ENERGY CO	SWN	5,363.42	0.03%	0.00%	-3.00%	-3.00%	-0.0009%
426	SYNCHRON FINANCIAL	SYF	23,888.93	N/A	1.80%	N/A	N/A	N/A
427	STRYKER CORP	SYK	41,035.28	0.23%	1.39%	18.50%	20.02%	0.0465%
428	SYMANTEC CORP	SYMC	15,346.61	0.09%	1.20%	5.00%	6.23%	0.0054%
429	SYS CO CORP	SYI	26,552.88	0.15%	2.68%	11.50%	14.33%	0.0216%
430	AT&T INC	T	224,665.00	1.27%	5.37%	6.50%	12.04%	0.1533%
431	MOLSON COORS BREWING CO -B	TAP	22,523.93	0.13%	1.56%	17.00%	18.69%	0.0239%
432	TERADATA CORP	TDC	3,581.97	0.02%	0.00%	3.50%	3.50%	0.0007%
433	TRANSDIGM GROUP INC	TDG	14,361.31	0.08%	0.00%	20.50%	20.50%	0.0167%
434	TE CONNECTIVITY LTD	TEL	22,146.88	0.13%	2.38%	9.00%	11.49%	0.0144%
435	TEGNA INC	TGNA	4,209.30	0.02%	2.85%	1.00%	3.86%	0.0009%
436	TARGET CORP	TGT	38,868.04	0.22%	3.55%	9.00%	12.71%	0.0280%
437	TIFFANY & CO	TIF	9,096.47	0.05%	2.53%	7.50%	10.12%	0.0052%
438	TJX COMPANIES INC	TJX	48,053.28	0.27%	1.42%	10.50%	11.99%	0.0327%
439	TORCHMARK CORP	TMK	7,591.49	0.04%	0.88%	7.50%	8.41%	0.0036%
440	THERMO FISHER SCIENTIFIC INC	TMO	58,831.93	0.33%	0.40%	10.50%	10.92%	0.0364%
441	TRIPADVISOR INC	TRIP	9,007.15	0.05%	0.00%	16.50%	16.50%	0.0084%
442	T ROWE PRICE GROUP INC	TROW	15,627.44	0.09%	3.48%	7.50%	11.11%	0.0098%
443	TRAVELERS COS INC/THE	TRV	31,142.17	0.18%	2.48%	1.50%	4.00%	0.0071%
444	TRACTOR SUPPLY COMPANY	TSCO	8,298.95	0.05%	1.55%	12.00%	13.64%	0.0064%
445	TYSON FOODS INC-CL A	TSN	25,321.46	0.14%	0.99%	12.50%	13.55%	0.0194%
446	TESORO CORP	TSO	9,884.43	0.06%	2.64%	8.50%	11.25%	0.0063%
447	TOTAL SYSTEM SERVICES INC	TSS	9,207.84	0.05%	0.80%	12.00%	12.85%	0.0067%
448	TIME WARNER INC	TWX	68,874.00	0.39%	1.82%	11.00%	12.92%	0.0504%
449	TEXAS INSTRUMENTS INC	TXN	70,966.80	0.40%	2.15%	8.00%	10.24%	0.0412%
450	TEXTRON INC	TXT	10,657.94	0.06%	0.20%	15.50%	15.72%	0.0095%
451	UNDER ARMOUR INC-CLASS A	UA	13,731.00	0.08%	0.00%	22.00%	22.00%	0.0171%
452	UNITED CONTINENTAL HOLDINGS	UAL	17,300.44	0.10%	0.00%	5.50%	5.50%	0.0054%
453	UDR INC	UDR	-	N/A	3.96%	N/A	N/A	N/A
454	UNIVERSAL HEALTH SERVICES-B	UHS	11,914.32	0.07%	0.33%	11.50%	11.85%	0.0080%
455	ULTA SALON COSMETICS & FRAGR	ULTA	14,967.74	0.08%	0.00%	22.50%	22.50%	0.0191%
456	UNITEDHEALTH GROUP INC	UNH	134,984.90	0.76%	1.76%	14.00%	15.88%	0.1215%
457	UNUM GROUP	UNM	8,505.05	0.05%	2.21%	10.50%	12.83%	0.0062%
458	UNION PACIFIC CORP	UNP	73,294.18	0.42%	2.48%	7.00%	9.57%	0.0397%
459	UNITED PARCEL SERVICE-CL B	UPS	95,002.32	0.54%	3.03%	9.50%	12.67%	0.0682%
460	URBAN OUTFITTERS INC	URBN	3,924.09	0.02%	0.00%	13.50%	13.50%	0.0030%

461	UNITED RENTALS INC	URI	6,459.08	0.04%	0.00%	12.50%	12.50%	0.0046%
462	US BANCORP	USB	76,828.12	0.44%	2.51%	4.50%	7.07%	0.0308%
463	UNITED TECHNOLOGIES CORP	UTX	82,398.14	0.47%	2.64%	7.00%	9.73%	0.0454%
464	VISA INC-CLASS A SHARES	V	176,373.80	1.00%	0.81%	11.00%	11.85%	0.1185%
465	VARIAN MEDICAL SYSTEMS INC	VAR	8,482.82	0.05%	0.00%	7.50%	7.50%	0.0036%
466	VF CORP	VFC	22,591.05	0.13%	3.09%	10.00%	13.24%	0.0170%
467	VIACOM INC-CLASS B	VIAB	14,967.30	0.08%	2.12%	2.50%	4.65%	0.0039%
468	VALERO ENERGY CORP	VLO	27,188.21	0.15%	4.08%	5.50%	9.69%	0.0149%
469	VULCAN MATERIALS CO	VMC	14,877.74	0.08%	0.72%	33.50%	34.34%	0.0289%
470	VORNADO REALTY TRUST	VNO	17,326.67	0.10%	2.87%	22.50%	25.69%	0.0252%
471	VERISK ANALYTICS INC	VRSK	13,708.42	0.08%	0.00%	11.00%	11.00%	0.0085%
472	VERISIGN INC	VRSN	8,487.47	0.05%	0.00%	12.00%	12.00%	0.0058%
473	VERTEX PHARMACEUTICALS INC	VRTX	18,785.87	N/A	0.00%	N/A	N/A	N/A
474	VENTAS INC	VTR	-	N/A	4.49%	N/A	N/A	N/A
475	VERIZON COMMUNICATIONS INC	VZ	197,863.70	1.12%	4.76%	3.00%	7.83%	0.0878%
476	WATERS CORP	WAT	11,339.61	0.06%	0.00%	7.00%	7.00%	0.0045%
477	WALGREENS BOOTS ALLIANCE INC	WBA	88,880.86	0.50%	1.83%	13.00%	14.95%	0.0753%
478	WESTERN DIGITAL CORP	WDC	16,920.72	0.10%	3.36%	1.50%	4.89%	0.0047%
479	WEC ENERGY GROUP INC	WEC	18,397.49	0.10%	3.53%	6.00%	9.64%	0.0100%
480	WELLS FARGO & CO	WFC	234,300.60	1.33%	3.32%	5.00%	8.40%	0.1116%
481	WHOLE FOODS MARKET INC	WFM	9,018.85	0.05%	2.05%	6.50%	8.62%	0.0044%
482	WHIRLPOOL CORP	WHR	11,076.75	0.06%	2.71%	10.50%	13.35%	0.0084%
483	WILLIS TOWERS WATSON PLC	WLTW	N/A	N/A	0.00%	N/A	N/A	N/A
484	WASTE MANAGEMENT INC	WM	28,004.93	0.16%	2.65%	8.50%	11.26%	0.0179%
485	WILLIAMS COS INC	WMB	22,020.00	0.12%	2.73%	16.50%	19.46%	0.0243%
486	WAL-MART STORES INC	WMT	216,263.50	1.23%	2.91%	2.00%	4.94%	0.0605%
487	WESTROCK CO	WRK	11,652.00	N/A	3.24%	N/A	N/A	N/A
488	WESTERN UNION CO	WU	9,711.20	0.06%	3.22%	8.00%	11.35%	0.0062%
489	WEYERHAEUSER CO	WY	22,327.48	0.13%	4.07%	8.50%	12.74%	0.0161%
490	WYNDHAM WORLDWIDE CORP	WYN	6,912.17	0.04%	3.12%	5.50%	8.71%	0.0034%
491	WYNN RESORTS LTD	WYNN	9,586.68	0.05%	2.12%	6.50%	8.69%	0.0047%
492	CIMAREX ENERGY CO	XEC	12,642.77	0.07%	0.24%	16.50%	16.76%	0.0120%
493	XCEL ENERGY INC	XEL	20,541.62	0.12%	3.51%	5.50%	9.11%	0.0106%
494	XL GROUP LTD	XL	9,921.12	0.06%	2.38%	9.00%	11.49%	0.0065%
495	XILINX INC	XLNX	12,706.35	0.07%	2.62%	6.00%	8.70%	0.0063%
496	EXXON MOBIL CORP	XOM	360,457.20	2.04%	3.47%	5.00%	8.56%	0.1748%
497	DENTSPLY SIRONA INC	XRAY	13,008.39	0.07%	0.56%	8.00%	8.58%	0.0063%
498	XEROX CORP	XRX	9,697.32	0.05%	3.24%	4.50%	7.81%	0.0043%
499	XYLEM INC	XYL	8,606.98	0.05%	1.29%	9.50%	10.85%	0.0053%
500	YAHOO! INC	YHOO	39,807.95	N/A	0.00%	N/A	N/A	N/A
501	YUM! BRANDS INC	YUM	32,095.36	0.18%	2.39%	10.00%	12.51%	0.0227%
502	ZIMMER BIOMET HOLDINGS INC	ZBH	24,161.70	0.14%	0.83%	15.00%	15.89%	0.0218%
503	ZIONS BANCORPORATION	ZION	6,641.27	0.04%	1.02%	11.00%	12.08%	0.0045%
504	ZOETIS INC	ZTS	24,160.17	0.14%	0.78%	11.00%	11.82%	0.0162%
505	Total Market Capitalization:		17,649,311.89					14.17%

506 Notes:

507 [1] Equals sum of Col. [9]

508 [2] Source: Bloomberg Professional

509 [3] Equals [1] - [2]

510 [4] Source: Value Line

511 [5] Equals weight in S&P 500 based on market capitalization

512 [6] Source: Value Line

513 [7] Source: Value Line

514 [8] Equals ([6] x (1 + (0.5 x [7]))) + [7]

515 [9] Equals Col. [5] x Col. [8]

Bloomberg and Value Line Beta Coefficients

# PNM Exhibit RBH-5

Is contained in the following 1 page

Bloomberg and Value Line Beta Coefficients

Line No.	Company	Ticker	[1]	[2]
			Bloomberg	Value Line
1	ALLETE, Inc.	ALE	0.643	0.750
2	Alliant Energy Corporation	LNT	0.603	0.750
3	Ameren Corporation	AEE	0.616	0.700
4	American Electric Power Company, Inc.	AEP	0.564	0.650
5	Avista Corporation	AVA	0.616	0.700
6	CenterPoint Energy, Inc.	CNP	0.731	0.800
7	CMS Energy Corporation	CMS	0.524	0.650
8	DTE Energy Company	DTE	0.596	0.700
9	El Paso Electric Company	EE	0.727	0.700
10	Eversource Energy	ES	0.590	0.700
11	IDACORP, Inc.	IDA	0.689	0.750
12	NorthWestern Corporation	NWE	0.601	0.700
13	OGE Energy Corp.	OGE	0.680	0.900
14	Otter Tail Corporation	OTTR	0.732	0.850
15	Pinnacle West Capital Corporation	PNW	0.607	0.700
16	Portland General Electric Company	POR	0.591	0.700
17	SCANA Corporation	SCG	0.596	0.700
18	Wisconsin Energy Corporation	WEC	0.532	0.650
19	Xcel Energy Inc.	XEL	0.484	0.600
20	Mean		0.617	0.718
21	Notes:			
22	[1] Source: Bloomberg Professional			
23	[2] Source: Value Line			

CAPM Analysis

# PNM Exhibit RBH-6

Is contained in the following 1 page

Capital Asset Pricing Model Results  
Bloomberg, and Value Line Derived Market Risk Premium

Line No.	[1]	[2]	[3]	[4]	[5]	[6]
	Risk-Free Rate	Average Beta Coefficient	Bloomberg Market DCF Derived	Value Line Market DCF Derived	Bloomberg MRP	Value Line MRP
1						
2	<b>PROXY GROUP AVERAGE BLOOMBERG BETA COEFFICIENT</b>					
3	Current 30-Year Treasury [7]	2.45%	0.617	10.68%	11.72%	9.04%
4	Near-Term Projected 30-Year Treasury [8]	2.80%	0.617	10.68%	11.72%	9.39%
5	Mean				9.21%	9.86%
6						
	Risk-Free Rate	Average Beta Coefficient	Bloomberg Market DCF Derived	Value Line Market DCF Derived	Bloomberg MRP	Value Line MRP
7	<b>PROXY GROUP AVERAGE VALUE LINE AVERAGE BETA COEFFICIENT</b>					
8	Current 30-Year Treasury [7]	2.45%	0.718	10.68%	11.72%	10.12%
9	Near-Term Projected 30-Year Treasury [8]	2.80%	0.718	10.68%	11.72%	10.47%
10	Mean				10.30%	11.05%

- 11 Notes:  
 12 [1] See Note [7]  
 13 [2] Source: PNM Exhibit RBH-5  
 14 [3] Source: PNM Exhibit RBH-4  
 15 [4] Source: PNM Exhibit RBH-4  
 16 [5] Equals Col. [1] + (Col. [2] x Col. [3])  
 17 [6] Equals Col. [1] + (Col. [2] x Col. [4])  
 18 [7] Source: Bloomberg Professional  
 19 [8] Source: Blue Chip Financial Forecasts, Vol. 35, No. 10, October 1, 2016, at 2.



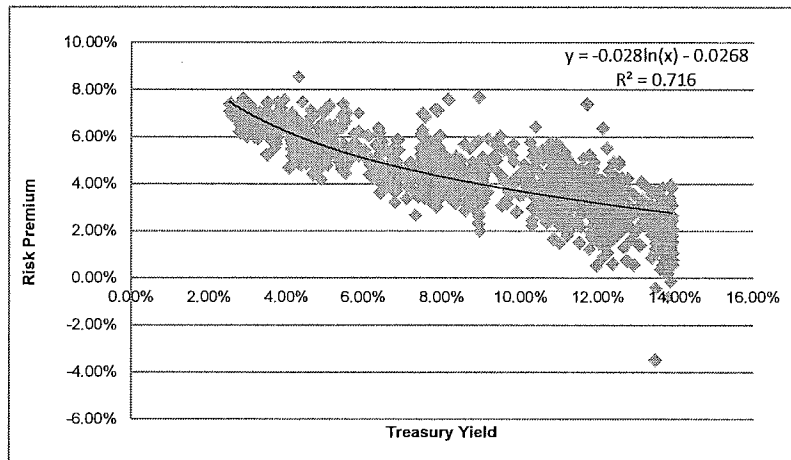
Bond Yield Plus Risk Premium Analysis

# PNM Exhibit RBH-7

Is contained in the following 25 pages

Bond Yield Plus Risk Premium

Line No.	[1]	[2]	[3] 30-Year Treasury Yield	[4] Risk Premium	[5] Return on Equity
1	Constant	Slope			
2	-2.68%	-2.77%			
3	Current 30-Year Treasury		2.45%	7.59%	10.03%
4	Near-Term Projected 30-Year Treasury		2.80%	7.21%	10.01%
5	Long-Term Projected 30-Year Treasury		4.45%	5.93%	10.38%



- 6 Notes:
- 7 [1] Constant of regression equation
- 8 [2] Slope of regression equation
- 9 [3] Source: Current = Bloomberg Professional,
- 10 Near Term Projected = Source: Blue Chip Financial Forecasts, Vol. 35, No. 10, October 1, 2016, at 2.
- 11 Long Term Projected = Blue Chip Financial Forecasts, Vol. 35, No. 6, June 1, 2016, at 14.
- 12 [4] Equals  $[1] + \ln([3]) \times [2]$
- 13 [5] Equals  $[3] + [4]$
- 14 [6] Source: SNL Financial
- 15 [7] Source: SNL Financial
- 16 [8] Source: Bloomberg Professional, equals 201-trading day average (i.e. lag period)
- 17 [9] Equals  $[7] - [8]$

	Bond Yield Plus Risk Premium			
	[6]	[7]	[8]	[9]
	Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
1				
2				
3				
4	1/1/1980	14.50%	9.36%	5.14%
5	1/7/1980	14.39%	9.38%	5.01%
6	1/9/1980	15.00%	9.40%	5.60%
7	1/14/1980	15.17%	9.42%	5.75%
8	1/17/1980	13.93%	9.44%	4.49%
9	1/23/1980	15.50%	9.47%	6.03%
10	1/30/1980	13.86%	9.52%	4.34%
11	1/31/1980	12.61%	9.53%	3.08%
12	2/6/1980	13.71%	9.58%	4.13%
13	2/13/1980	12.80%	9.63%	3.17%
14	2/14/1980	13.00%	9.65%	3.35%
15	2/19/1980	13.50%	9.68%	3.82%
16	2/27/1980	13.75%	9.78%	3.97%
17	2/29/1980	13.75%	9.81%	3.94%
18	2/29/1980	14.00%	9.81%	4.19%
19	2/29/1980	14.77%	9.81%	4.96%
20	3/7/1980	12.70%	9.89%	2.81%
21	3/14/1980	13.50%	9.97%	3.53%
22	3/26/1980	14.16%	10.10%	4.06%
23	3/27/1980	14.24%	10.12%	4.12%
24	3/28/1980	14.50%	10.13%	4.37%
25	4/11/1980	12.75%	10.27%	2.48%
26	4/14/1980	13.85%	10.29%	3.56%
27	4/16/1980	15.50%	10.31%	5.19%
28	4/22/1980	13.25%	10.35%	2.90%
29	4/22/1980	13.90%	10.35%	3.55%
30	4/24/1980	16.80%	10.38%	6.43%
31	4/29/1980	15.50%	10.41%	5.09%
32	5/6/1980	13.70%	10.45%	3.25%
33	5/7/1980	15.00%	10.45%	4.55%
34	5/8/1980	13.75%	10.46%	3.29%
35	5/9/1980	14.35%	10.47%	3.88%
36	5/13/1980	13.60%	10.48%	3.12%
37	5/15/1980	13.25%	10.49%	2.76%
38	5/19/1980	13.75%	10.51%	3.24%
39	5/27/1980	13.62%	10.54%	3.08%
40	5/27/1980	14.60%	10.54%	4.06%
41	5/29/1980	16.00%	10.56%	5.44%
42	5/30/1980	13.80%	10.56%	3.24%
43	6/2/1980	15.63%	10.57%	5.06%
44	6/9/1980	15.90%	10.60%	5.30%
45	6/10/1980	13.78%	10.60%	3.18%
46	6/12/1980	14.25%	10.61%	3.64%
47	6/19/1980	13.40%	10.62%	2.78%
48	6/30/1980	13.00%	10.65%	2.35%
49	6/30/1980	13.40%	10.65%	2.75%
50	7/9/1980	14.75%	10.67%	4.08%
51	7/10/1980	15.00%	10.68%	4.32%
52	7/15/1980	15.80%	10.70%	5.10%
53	7/18/1980	13.80%	10.71%	3.09%
54	7/22/1980	14.10%	10.72%	3.38%
55	7/24/1980	15.00%	10.73%	4.27%
56	7/25/1980	13.48%	10.73%	2.75%
57	7/31/1980	14.58%	10.75%	3.83%
58	8/8/1980	13.50%	10.78%	2.72%
59	8/8/1980	14.00%	10.78%	3.22%
60	8/8/1980	15.45%	10.78%	4.67%
61	8/11/1980	14.85%	10.78%	4.07%
62	8/14/1980	14.00%	10.79%	3.21%
63	8/14/1980	16.25%	10.79%	5.46%
64	8/25/1980	13.75%	10.82%	2.93%
65	8/27/1980	13.80%	10.83%	2.97%
66	8/29/1980	12.50%	10.84%	1.66%

	Bond Yield Plus Risk Premium			
	[6]	[7]	[8]	[9]
	Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
3	9/15/1980	13.50%	10.88%	2.62%
4	9/15/1980	13.93%	10.88%	3.05%
5	9/15/1980	15.80%	10.88%	4.92%
6	9/24/1980	12.50%	10.93%	1.57%
7	9/24/1980	15.00%	10.93%	4.07%
8	9/26/1980	13.75%	10.94%	2.81%
9	9/30/1980	14.10%	10.96%	3.14%
10	9/30/1980	14.20%	10.96%	3.24%
11	10/1/1980	13.90%	10.97%	2.93%
12	10/3/1980	15.50%	10.98%	4.52%
13	10/7/1980	12.50%	10.99%	1.51%
14	10/9/1980	13.25%	11.00%	2.25%
15	10/9/1980	14.50%	11.00%	3.50%
16	10/9/1980	14.50%	11.00%	3.50%
17	10/16/1980	16.10%	11.02%	5.08%
18	10/17/1980	14.50%	11.03%	3.47%
19	10/31/1980	13.75%	11.11%	2.64%
20	10/31/1980	14.25%	11.11%	3.14%
21	11/4/1980	15.00%	11.12%	3.88%
22	11/5/1980	13.75%	11.12%	2.63%
23	11/5/1980	14.00%	11.12%	2.88%
24	11/8/1980	13.75%	11.14%	2.61%
25	11/10/1980	14.85%	11.15%	3.70%
26	11/17/1980	14.00%	11.18%	2.82%
27	11/18/1980	14.00%	11.19%	2.81%
28	11/19/1980	13.00%	11.19%	1.81%
29	11/24/1980	14.00%	11.21%	2.79%
30	11/26/1980	14.00%	11.21%	2.79%
31	12/8/1980	14.15%	11.22%	2.93%
32	12/8/1980	15.10%	11.22%	3.88%
33	12/9/1980	15.35%	11.22%	4.13%
34	12/12/1980	15.45%	11.23%	4.22%
35	12/17/1980	13.25%	11.23%	2.02%
36	12/18/1980	15.80%	11.23%	4.57%
37	12/19/1980	14.50%	11.23%	3.27%
38	12/19/1980	14.64%	11.23%	3.41%
39	12/22/1980	13.45%	11.23%	2.22%
40	12/22/1980	15.00%	11.23%	3.77%
41	12/30/1980	14.50%	11.22%	3.28%
42	12/30/1980	14.95%	11.22%	3.73%
43	12/31/1980	13.39%	11.22%	2.17%
44	1/2/1981	15.25%	11.22%	4.03%
45	1/7/1981	14.30%	11.21%	3.09%
46	1/19/1981	15.25%	11.20%	4.05%
47	1/23/1981	13.10%	11.20%	1.90%
48	1/23/1981	14.40%	11.20%	3.20%
49	1/26/1981	15.25%	11.20%	4.05%
50	1/27/1981	15.00%	11.21%	3.79%
51	1/31/1981	13.47%	11.22%	2.25%
52	2/3/1981	15.25%	11.23%	4.02%
53	2/5/1981	15.75%	11.25%	4.50%
54	2/11/1981	15.60%	11.28%	4.32%
55	2/20/1981	15.25%	11.33%	3.92%
56	3/11/1981	15.40%	11.49%	3.91%
57	3/12/1981	14.51%	11.50%	3.01%
58	3/12/1981	16.00%	11.50%	4.50%
59	3/13/1981	13.02%	11.52%	1.50%
60	3/18/1981	16.19%	11.55%	4.64%
61	3/19/1981	13.75%	11.56%	2.19%
62	3/23/1981	14.30%	11.58%	2.72%
63	3/25/1981	15.30%	11.60%	3.70%
64	4/1/1981	14.53%	11.68%	2.85%
65	4/3/1981	19.10%	11.71%	7.39%
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	Bond Yield Plus Risk Premium			
	[6]	[7]	[8]	[9]
	Date of	Return on	30-Year	Risk
	Electric	Equity	Treasury	Premium
	Rate Case		Yield	
3	4/9/1981	15.00%	11.78%	3.22%
4	4/9/1981	15.30%	11.78%	3.52%
5	4/9/1981	16.50%	11.78%	4.72%
6	4/9/1981	17.00%	11.78%	5.22%
7	4/10/1981	13.75%	11.80%	1.95%
8	4/13/1981	13.57%	11.82%	1.75%
9	4/15/1981	15.30%	11.85%	3.45%
10	4/16/1981	13.50%	11.87%	1.63%
11	4/17/1981	14.10%	11.87%	2.23%
12	4/21/1981	14.00%	11.90%	2.10%
13	4/21/1981	16.80%	11.90%	4.90%
14	4/24/1981	16.00%	11.95%	4.05%
15	4/27/1981	12.50%	11.97%	0.53%
16	4/27/1981	13.61%	11.97%	1.64%
17	4/29/1981	13.65%	12.00%	1.65%
18	4/30/1981	13.50%	12.02%	1.48%
19	5/4/1981	16.22%	12.05%	4.17%
20	5/5/1981	14.40%	12.07%	2.33%
21	5/7/1981	16.25%	12.11%	4.14%
22	5/7/1981	16.27%	12.11%	4.16%
23	5/8/1981	13.00%	12.13%	0.87%
24	5/8/1981	16.00%	12.13%	3.87%
25	5/12/1981	13.50%	12.16%	1.34%
26	5/15/1981	15.75%	12.22%	3.53%
27	5/18/1981	14.88%	12.23%	2.65%
28	5/20/1981	16.00%	12.26%	3.74%
29	5/21/1981	14.00%	12.27%	1.73%
30	5/26/1981	14.90%	12.30%	2.60%
31	5/27/1981	15.00%	12.31%	2.69%
32	5/29/1981	15.50%	12.34%	3.16%
33	6/1/1981	16.50%	12.35%	4.15%
34	6/3/1981	14.67%	12.37%	2.30%
35	6/5/1981	13.00%	12.39%	0.61%
36	6/10/1981	16.75%	12.42%	4.33%
37	6/17/1981	14.40%	12.46%	1.94%
38	6/18/1981	16.33%	12.47%	3.86%
39	6/25/1981	14.75%	12.51%	2.24%
40	6/26/1981	16.00%	12.52%	3.48%
41	6/30/1981	15.25%	12.54%	2.71%
42	7/1/1981	15.50%	12.56%	2.94%
43	7/1/1981	17.50%	12.56%	4.94%
44	7/10/1981	16.00%	12.62%	3.38%
45	7/14/1981	16.90%	12.64%	4.26%
46	7/15/1981	16.00%	12.65%	3.35%
47	7/17/1981	15.00%	12.67%	2.33%
48	7/20/1981	15.00%	12.68%	2.32%
49	7/21/1981	14.00%	12.69%	1.31%
50	7/28/1981	13.48%	12.74%	0.74%
51	7/31/1981	13.50%	12.78%	0.72%
52	7/31/1981	15.00%	12.78%	2.22%
53	7/31/1981	16.00%	12.78%	3.22%
54	8/5/1981	15.71%	12.83%	2.88%
55	8/10/1981	14.50%	12.87%	1.63%
56	8/11/1981	15.00%	12.88%	2.12%
57	8/20/1981	13.50%	12.95%	0.55%
58	8/20/1981	16.50%	12.95%	3.55%
59	8/24/1981	15.00%	12.97%	2.03%
60	8/28/1981	15.00%	13.01%	1.99%
61	9/3/1981	14.50%	13.05%	1.45%
62	9/10/1981	14.50%	13.11%	1.39%
63	9/11/1981	16.00%	13.12%	2.88%
64	9/16/1981	16.00%	13.15%	2.85%
65	9/17/1981	16.50%	13.16%	3.34%
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	Bond Yield Plus Risk Premium			
	[6]	[7]	[8]	[9]
	Date of	Return on	30-Year	Risk
	Electric	Equity	Treasury	Premium
	Rate Case		Yield	
3	9/23/1981	15.85%	13.20%	2.65%
4	9/28/1981	15.50%	13.23%	2.27%
5	10/9/1981	15.75%	13.33%	2.42%
6	10/15/1981	16.25%	13.37%	2.88%
7	10/16/1981	15.50%	13.38%	2.12%
8	10/16/1981	16.50%	13.38%	3.12%
9	10/19/1981	14.25%	13.39%	0.86%
10	10/20/1981	15.25%	13.41%	1.84%
11	10/20/1981	17.00%	13.41%	3.59%
12	10/23/1981	16.00%	13.45%	2.55%
13	10/27/1981	10.00%	13.48%	-3.48%
14	10/29/1981	14.75%	13.51%	1.24%
15	10/29/1981	16.50%	13.51%	2.99%
16	11/3/1981	15.17%	13.53%	1.64%
17	11/5/1981	16.60%	13.55%	3.05%
18	11/6/1981	15.17%	13.56%	1.61%
19	11/24/1981	15.50%	13.61%	1.89%
20	11/25/1981	15.25%	13.61%	1.64%
21	11/25/1981	15.35%	13.61%	1.74%
22	11/25/1981	16.10%	13.61%	2.49%
23	11/25/1981	16.10%	13.61%	2.49%
24	12/1/1981	15.70%	13.61%	2.09%
25	12/1/1981	16.00%	13.61%	2.39%
26	12/1/1981	16.49%	13.61%	2.88%
27	12/1/1981	16.50%	13.61%	2.89%
28	12/4/1981	16.00%	13.61%	2.39%
29	12/11/1981	16.25%	13.63%	2.62%
30	12/14/1981	14.00%	13.63%	0.37%
31	12/15/1981	15.81%	13.63%	2.18%
32	12/15/1981	16.00%	13.63%	2.37%
33	12/16/1981	15.25%	13.63%	1.62%
34	12/17/1981	16.50%	13.63%	2.87%
35	12/18/1981	15.45%	13.63%	1.82%
36	12/30/1981	14.25%	13.67%	0.58%
37	12/30/1981	16.00%	13.67%	2.33%
38	12/30/1981	16.25%	13.67%	2.58%
39	12/31/1981	16.15%	13.67%	2.48%
40	1/4/1982	15.50%	13.67%	1.83%
41	1/11/1982	14.50%	13.72%	0.78%
42	1/11/1982	17.00%	13.72%	3.28%
43	1/13/1982	14.75%	13.74%	1.01%
44	1/14/1982	15.75%	13.75%	2.00%
45	1/15/1982	15.00%	13.76%	1.24%
46	1/15/1982	16.50%	13.76%	2.74%
47	1/22/1982	16.25%	13.79%	2.46%
48	1/27/1982	16.84%	13.81%	3.03%
49	1/28/1982	13.00%	13.81%	-0.81%
50	1/29/1982	15.50%	13.82%	1.68%
51	2/1/1982	15.85%	13.82%	2.03%
52	2/3/1982	16.44%	13.84%	2.60%
53	2/8/1982	15.50%	13.86%	1.64%
54	2/11/1982	16.00%	13.88%	2.12%
55	2/11/1982	16.20%	13.88%	2.32%
56	2/17/1982	15.00%	13.89%	1.11%
57	2/19/1982	15.17%	13.89%	1.28%
58	2/26/1982	15.25%	13.89%	1.36%
59	3/1/1982	15.03%	13.89%	1.14%
60	3/1/1982	16.00%	13.89%	2.11%
61	3/3/1982	15.00%	13.88%	1.12%
62	3/8/1982	17.10%	13.88%	3.22%
63	3/12/1982	16.25%	13.88%	2.37%
64	3/17/1982	17.30%	13.88%	3.42%
65	3/22/1982	15.10%	13.89%	1.21%
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	Bond Yield Plus Risk Premium			
	[6]	[7]	[8]	[9]
	Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
3	3/27/1982	15.40%	13.89%	1.51%
4	3/30/1982	15.50%	13.90%	1.60%
5	3/31/1982	17.00%	13.91%	3.09%
6	4/1/1982	14.70%	13.91%	0.79%
7	4/1/1982	16.50%	13.91%	2.59%
8	4/2/1982	15.50%	13.91%	1.59%
9	4/5/1982	15.50%	13.92%	1.58%
10	4/8/1982	16.40%	13.93%	2.47%
11	4/13/1982	14.50%	13.94%	0.56%
12	4/23/1982	15.75%	13.94%	1.81%
13	4/27/1982	15.00%	13.94%	1.06%
14	4/28/1982	15.75%	13.94%	1.81%
15	4/30/1982	14.70%	13.94%	0.76%
16	4/30/1982	15.50%	13.94%	1.56%
17	5/3/1982	16.60%	13.94%	2.66%
18	5/4/1982	16.00%	13.94%	2.06%
19	5/14/1982	15.50%	13.92%	1.58%
20	5/18/1982	15.42%	13.92%	1.50%
21	5/19/1982	14.69%	13.92%	0.77%
22	5/20/1982	15.00%	13.91%	1.09%
23	5/20/1982	15.10%	13.91%	1.19%
24	5/20/1982	15.50%	13.91%	1.59%
25	5/20/1982	16.30%	13.91%	2.39%
26	5/21/1982	17.75%	13.91%	3.84%
27	5/27/1982	15.00%	13.89%	1.11%
28	5/28/1982	15.50%	13.89%	1.61%
29	5/28/1982	17.00%	13.89%	3.11%
30	6/1/1982	13.75%	13.89%	-0.14%
31	6/1/1982	16.60%	13.89%	2.71%
32	6/9/1982	17.86%	13.88%	3.98%
33	6/14/1982	15.75%	13.88%	1.87%
34	6/15/1982	14.85%	13.88%	0.97%
35	6/18/1982	15.50%	13.87%	1.63%
36	6/21/1982	14.90%	13.87%	1.03%
37	6/23/1982	16.00%	13.86%	2.14%
38	6/23/1982	16.17%	13.86%	2.31%
39	6/24/1982	14.85%	13.86%	0.99%
40	6/25/1982	14.70%	13.86%	0.84%
41	7/1/1982	16.00%	13.84%	2.16%
42	7/2/1982	15.62%	13.84%	1.78%
43	7/2/1982	17.00%	13.84%	3.16%
44	7/13/1982	14.00%	13.82%	0.18%
45	7/13/1982	16.80%	13.82%	2.98%
46	7/14/1982	15.76%	13.82%	1.94%
47	7/14/1982	16.02%	13.82%	2.20%
48	7/19/1982	16.50%	13.80%	2.70%
49	7/22/1982	14.50%	13.77%	0.73%
50	7/22/1982	17.00%	13.77%	3.23%
51	7/27/1982	16.75%	13.75%	3.00%
52	7/29/1982	16.50%	13.74%	2.76%
53	8/11/1982	17.50%	13.68%	3.82%
54	8/18/1982	17.07%	13.63%	3.44%
55	8/20/1982	15.73%	13.60%	2.13%
56	8/25/1982	16.00%	13.57%	2.43%
57	8/26/1982	15.50%	13.56%	1.94%
58	8/30/1982	15.00%	13.55%	1.45%
59	9/3/1982	16.20%	13.53%	2.67%
60	9/8/1982	15.00%	13.52%	1.48%
61	9/15/1982	13.08%	13.50%	-0.42%
62	9/15/1982	16.25%	13.50%	2.75%
63	9/16/1982	16.00%	13.50%	2.50%
64	9/17/1982	15.25%	13.50%	1.75%
65	9/23/1982	17.17%	13.47%	3.70%
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	Bond Yield Plus Risk Premium			
	[6]	[7]	[8]	[9]
	Date of	Return on	30-Year	Risk
	Electric	Equity	Treasury	Premium
	Rate Case		Yield	
3	9/24/1982	14.50%	13.46%	1.04%
4	9/27/1982	15.25%	13.46%	1.79%
5	10/1/1982	15.50%	13.42%	2.08%
6	10/15/1982	15.90%	13.32%	2.58%
7	10/22/1982	15.75%	13.24%	2.51%
8	10/22/1982	17.15%	13.24%	3.91%
9	10/29/1982	15.54%	13.16%	2.38%
10	11/1/1982	15.50%	13.15%	2.35%
11	11/3/1982	17.20%	13.13%	4.07%
12	11/4/1982	16.25%	13.11%	3.14%
13	11/5/1982	16.20%	13.09%	3.11%
14	11/9/1982	16.00%	13.05%	2.95%
15	11/23/1982	15.50%	12.89%	2.61%
16	11/23/1982	15.85%	12.89%	2.96%
17	11/30/1982	16.50%	12.81%	3.69%
18	12/1/1982	17.04%	12.79%	4.25%
19	12/6/1982	15.00%	12.73%	2.27%
20	12/6/1982	16.35%	12.73%	3.62%
21	12/10/1982	15.50%	12.66%	2.84%
22	12/13/1982	16.00%	12.65%	3.35%
23	12/14/1982	15.30%	12.63%	2.67%
24	12/14/1982	16.40%	12.63%	3.77%
25	12/20/1982	16.00%	12.57%	3.43%
26	12/21/1982	14.75%	12.56%	2.19%
27	12/21/1982	15.85%	12.56%	3.29%
28	12/22/1982	16.25%	12.54%	3.71%
29	12/22/1982	16.58%	12.54%	4.04%
30	12/22/1982	16.75%	12.54%	4.21%
31	12/29/1982	14.90%	12.48%	2.42%
32	12/29/1982	16.25%	12.48%	3.77%
33	12/30/1982	16.00%	12.47%	3.53%
34	12/30/1982	16.35%	12.47%	3.88%
35	12/30/1982	16.77%	12.47%	4.30%
36	1/5/1983	17.33%	12.40%	4.93%
37	1/11/1983	15.90%	12.34%	3.56%
38	1/12/1983	14.63%	12.33%	2.30%
39	1/12/1983	15.50%	12.33%	3.17%
40	1/20/1983	17.75%	12.24%	5.51%
41	1/21/1983	15.00%	12.22%	2.78%
42	1/24/1983	14.50%	12.21%	2.29%
43	1/24/1983	15.50%	12.21%	3.29%
44	1/25/1983	15.85%	12.19%	3.66%
45	1/27/1983	16.14%	12.17%	3.97%
46	2/1/1983	18.50%	12.13%	6.37%
47	2/4/1983	14.00%	12.10%	1.90%
48	2/10/1983	15.00%	12.06%	2.94%
49	2/21/1983	15.50%	11.98%	3.52%
50	2/22/1983	15.50%	11.97%	3.53%
51	2/23/1983	15.10%	11.96%	3.14%
52	2/23/1983	16.00%	11.96%	4.04%
53	3/2/1983	15.25%	11.89%	3.36%
54	3/9/1983	15.20%	11.82%	3.38%
55	3/15/1983	13.00%	11.77%	1.23%
56	3/18/1983	15.25%	11.73%	3.52%
57	3/23/1983	15.40%	11.69%	3.71%
58	3/24/1983	15.00%	11.67%	3.33%
59	3/29/1983	15.50%	11.63%	3.87%
60	3/30/1983	16.71%	11.61%	5.10%
61	3/31/1983	15.00%	11.59%	3.41%
62	4/4/1983	15.20%	11.58%	3.62%
63	4/8/1983	15.50%	11.51%	3.99%
64	4/11/1983	14.81%	11.49%	3.32%
65	4/19/1983	14.50%	11.38%	3.12%
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	Bond Yield Plus Risk Premium			
	[6]	[7]	[8]	[9]
	Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
3	4/20/1983	16.00%	11.36%	4.64%
4	4/29/1983	16.00%	11.24%	4.76%
5	5/1/1983	14.50%	11.24%	3.26%
6	5/9/1983	15.50%	11.15%	4.35%
7	5/11/1983	16.46%	11.12%	5.34%
8	5/12/1983	14.14%	11.11%	3.03%
9	5/18/1983	15.00%	11.05%	3.95%
10	5/23/1983	14.90%	11.01%	3.89%
11	5/23/1983	15.50%	11.01%	4.49%
12	5/25/1983	15.50%	10.98%	4.52%
13	5/27/1983	15.00%	10.96%	4.04%
14	5/31/1983	14.00%	10.95%	3.05%
15	5/31/1983	15.50%	10.95%	4.55%
16	6/2/1983	14.50%	10.93%	3.57%
17	6/17/1983	15.03%	10.84%	4.19%
18	7/1/1983	14.80%	10.78%	4.02%
19	7/1/1983	14.90%	10.78%	4.12%
20	7/8/1983	16.25%	10.76%	5.49%
21	7/13/1983	13.20%	10.75%	2.45%
22	7/19/1983	15.00%	10.74%	4.26%
23	7/19/1983	15.10%	10.74%	4.36%
24	7/25/1983	16.25%	10.73%	5.52%
25	7/28/1983	15.90%	10.74%	5.16%
26	8/3/1983	16.34%	10.75%	5.59%
27	8/3/1983	16.50%	10.75%	5.75%
28	8/19/1983	15.00%	10.80%	4.20%
29	8/22/1983	15.50%	10.80%	4.70%
30	8/22/1983	16.40%	10.80%	5.60%
31	8/31/1983	14.75%	10.84%	3.91%
32	9/7/1983	15.00%	10.86%	4.14%
33	9/14/1983	15.78%	10.89%	4.89%
34	9/16/1983	15.00%	10.90%	4.10%
35	9/19/1983	14.50%	10.91%	3.59%
36	9/20/1983	16.50%	10.91%	5.59%
37	9/28/1983	14.50%	10.94%	3.56%
38	9/29/1983	15.50%	10.95%	4.55%
39	9/30/1983	15.25%	10.95%	4.30%
40	9/30/1983	16.15%	10.95%	5.20%
41	10/4/1983	14.80%	10.96%	3.84%
42	10/7/1983	16.00%	10.97%	5.03%
43	10/13/1983	15.52%	10.99%	4.53%
44	10/17/1983	15.50%	11.00%	4.50%
45	10/18/1983	14.50%	11.00%	3.50%
46	10/19/1983	16.25%	11.01%	5.24%
47	10/19/1983	16.50%	11.01%	5.49%
48	10/26/1983	15.00%	11.04%	3.96%
49	10/27/1983	15.20%	11.04%	4.16%
50	11/1/1983	16.00%	11.06%	4.94%
51	11/9/1983	14.90%	11.09%	3.81%
52	11/10/1983	14.35%	11.10%	3.25%
53	11/23/1983	16.00%	11.13%	4.87%
54	11/23/1983	16.15%	11.13%	5.02%
55	11/30/1983	15.00%	11.14%	3.86%
56	12/5/1983	15.25%	11.15%	4.10%
57	12/6/1983	15.07%	11.15%	3.92%
58	12/8/1983	15.90%	11.16%	4.74%
59	12/9/1983	14.75%	11.17%	3.58%
60	12/12/1983	14.50%	11.17%	3.33%
61	12/15/1983	15.56%	11.19%	4.37%
62	12/19/1983	14.80%	11.21%	3.59%
63	12/20/1983	14.69%	11.22%	3.47%
64	12/20/1983	16.00%	11.22%	4.78%
65	12/20/1983	16.25%	11.22%	5.03%
66				

	Bond Yield Plus Risk Premium			
	[6]	[7]	[8]	[9]
	Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
3	12/22/1983	14.75%	11.23%	3.52%
4	12/22/1983	15.75%	11.23%	4.52%
5	1/3/1984	14.75%	11.27%	3.48%
6	1/10/1984	15.90%	11.30%	4.60%
7	1/12/1984	15.60%	11.31%	4.29%
8	1/18/1984	13.75%	11.33%	2.42%
9	1/19/1984	15.90%	11.33%	4.57%
10	1/30/1984	16.10%	11.37%	4.73%
11	1/31/1984	15.25%	11.37%	3.88%
12	2/1/1984	14.80%	11.38%	3.42%
13	2/6/1984	13.75%	11.40%	2.35%
14	2/6/1984	14.75%	11.40%	3.35%
15	2/9/1984	15.25%	11.42%	3.83%
16	2/15/1984	15.70%	11.44%	4.26%
17	2/20/1984	15.00%	11.46%	3.54%
18	2/20/1984	15.00%	11.46%	3.54%
19	2/22/1984	14.75%	11.47%	3.28%
20	2/28/1984	14.50%	11.51%	2.99%
21	3/2/1984	14.25%	11.54%	2.71%
22	3/20/1984	16.00%	11.64%	4.36%
23	3/23/1984	15.50%	11.67%	3.83%
24	3/26/1984	14.71%	11.68%	3.03%
25	4/2/1984	15.50%	11.71%	3.79%
26	4/6/1984	14.74%	11.75%	2.99%
27	4/11/1984	15.72%	11.78%	3.94%
28	4/17/1984	15.00%	11.81%	3.19%
29	4/18/1984	16.20%	11.82%	4.38%
30	4/25/1984	14.64%	11.85%	2.79%
31	4/30/1984	14.40%	11.87%	2.53%
32	5/16/1984	14.69%	11.98%	2.71%
33	5/16/1984	15.00%	11.98%	3.02%
34	5/22/1984	14.40%	12.02%	2.38%
35	5/29/1984	15.10%	12.06%	3.04%
36	6/13/1984	15.25%	12.15%	3.10%
37	6/15/1984	15.60%	12.17%	3.43%
38	6/22/1984	16.25%	12.21%	4.04%
39	6/29/1984	15.25%	12.26%	2.99%
40	7/2/1984	13.35%	12.27%	1.08%
41	7/10/1984	16.00%	12.31%	3.69%
42	7/12/1984	16.50%	12.32%	4.18%
43	7/13/1984	16.25%	12.33%	3.92%
44	7/17/1984	14.14%	12.35%	1.79%
45	7/18/1984	15.30%	12.36%	2.94%
46	7/18/1984	15.50%	12.36%	3.14%
47	7/19/1984	14.30%	12.37%	1.93%
48	7/24/1984	16.79%	12.39%	4.40%
49	7/31/1984	16.00%	12.43%	3.57%
50	8/3/1984	14.25%	12.44%	1.81%
51	8/17/1984	14.30%	12.49%	1.81%
52	8/20/1984	15.00%	12.49%	2.51%
53	8/27/1984	16.30%	12.51%	3.79%
54	8/31/1984	15.55%	12.52%	3.03%
55	9/6/1984	16.00%	12.53%	3.47%
56	9/10/1984	14.75%	12.54%	2.21%
57	9/13/1984	15.00%	12.55%	2.45%
58	9/17/1984	17.38%	12.56%	4.82%
59	9/26/1984	14.50%	12.57%	1.93%
60	9/28/1984	15.00%	12.57%	2.43%
61	9/28/1984	16.25%	12.57%	3.68%
62	10/9/1984	14.75%	12.58%	2.17%
63	10/12/1984	15.60%	12.59%	3.01%
64	10/22/1984	15.00%	12.59%	2.41%
65	10/26/1984	16.40%	12.58%	3.82%
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	Bond Yield Plus Risk Premium			
	[6]	[7]	[8]	[9]
	Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
3	10/31/1984	16.25%	12.58%	3.67%
4	11/7/1984	15.60%	12.58%	3.02%
5	11/9/1984	16.00%	12.58%	3.42%
6	11/14/1984	15.75%	12.58%	3.17%
7	11/20/1984	15.25%	12.58%	2.67%
8	11/20/1984	15.92%	12.58%	3.34%
9	11/23/1984	15.00%	12.58%	2.42%
10	11/28/1984	16.15%	12.57%	3.58%
11	12/3/1984	15.80%	12.56%	3.24%
12	12/4/1984	16.50%	12.56%	3.94%
13	12/18/1984	16.40%	12.53%	3.87%
14	12/19/1984	14.75%	12.53%	2.22%
15	12/19/1984	15.00%	12.53%	2.47%
16	12/20/1984	16.00%	12.53%	3.47%
17	12/28/1984	16.00%	12.50%	3.50%
18	1/3/1985	14.75%	12.49%	2.26%
19	1/10/1985	15.75%	12.47%	3.28%
20	1/11/1985	16.30%	12.46%	3.84%
21	1/23/1985	15.80%	12.43%	3.37%
22	1/24/1985	15.82%	12.43%	3.39%
23	1/25/1985	16.75%	12.42%	4.33%
24	1/30/1985	14.90%	12.40%	2.50%
25	1/31/1985	14.75%	12.39%	2.36%
26	2/8/1985	14.47%	12.35%	2.12%
27	3/1/1985	13.84%	12.31%	1.53%
28	3/8/1985	16.85%	12.28%	4.57%
29	3/14/1985	15.50%	12.25%	3.25%
30	3/15/1985	15.62%	12.25%	3.37%
31	3/29/1985	15.62%	12.17%	3.45%
32	4/3/1985	14.60%	12.14%	2.46%
33	4/9/1985	15.50%	12.11%	3.39%
34	4/16/1985	15.70%	12.06%	3.64%
35	4/22/1985	14.00%	12.02%	1.98%
36	4/26/1985	15.50%	11.98%	3.52%
37	4/29/1985	15.00%	11.97%	3.03%
38	5/2/1985	14.68%	11.94%	2.74%
39	5/8/1985	15.62%	11.89%	3.73%
40	5/10/1985	16.50%	11.87%	4.63%
41	5/29/1985	14.61%	11.73%	2.88%
42	5/31/1985	16.00%	11.71%	4.29%
43	6/14/1985	15.50%	11.61%	3.89%
44	7/9/1985	15.00%	11.45%	3.55%
45	7/16/1985	14.50%	11.39%	3.11%
46	7/26/1985	14.50%	11.33%	3.17%
47	8/2/1985	14.80%	11.29%	3.51%
48	8/7/1985	15.00%	11.27%	3.73%
49	8/28/1985	14.25%	11.15%	3.10%
50	8/28/1985	15.50%	11.15%	4.35%
51	8/29/1985	14.50%	11.15%	3.35%
52	9/9/1985	14.60%	11.11%	3.49%
53	9/9/1985	14.90%	11.11%	3.79%
54	9/17/1985	14.90%	11.08%	3.82%
55	9/23/1985	15.00%	11.06%	3.94%
56	9/27/1985	15.50%	11.05%	4.45%
57	9/27/1985	15.80%	11.05%	4.75%
58	10/2/1985	14.00%	11.03%	2.97%
59	10/2/1985	14.75%	11.03%	3.72%
60	10/3/1985	15.25%	11.03%	4.22%
61	10/24/1985	15.40%	10.96%	4.44%
62	10/24/1985	15.82%	10.96%	4.86%
63	10/24/1985	15.85%	10.96%	4.89%
64	10/28/1985	16.00%	10.95%	5.05%
65	10/29/1985	16.65%	10.94%	5.71%
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	Bond Yield Plus Risk Premium			
	[6]	[7]	[8]	[9]
	Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
3	10/31/1985	15.06%	10.93%	4.13%
4	11/4/1985	14.50%	10.92%	3.58%
5	11/7/1985	15.50%	10.90%	4.60%
6	11/8/1985	14.30%	10.89%	3.41%
7	12/12/1985	14.75%	10.73%	4.02%
8	12/18/1985	15.00%	10.69%	4.31%
9	12/20/1985	14.50%	10.67%	3.83%
10	12/20/1985	14.50%	10.67%	3.83%
11	12/20/1985	15.00%	10.67%	4.33%
12	1/24/1986	15.40%	10.41%	4.99%
13	1/31/1986	15.00%	10.35%	4.65%
14	2/5/1986	15.00%	10.32%	4.68%
15	2/5/1986	15.75%	10.32%	5.43%
16	2/10/1986	13.30%	10.29%	3.01%
17	2/11/1986	12.50%	10.28%	2.22%
18	2/14/1986	14.40%	10.24%	4.16%
19	2/18/1986	16.00%	10.23%	5.77%
20	2/24/1986	14.50%	10.18%	4.32%
21	2/26/1986	14.00%	10.15%	3.85%
22	3/5/1986	14.90%	10.08%	4.82%
23	3/11/1986	14.50%	10.02%	4.48%
24	3/12/1986	13.50%	10.00%	3.50%
25	3/27/1986	14.10%	9.86%	4.24%
26	3/31/1986	13.50%	9.84%	3.66%
27	4/1/1986	14.00%	9.83%	4.17%
28	4/2/1986	15.50%	9.81%	5.69%
29	4/4/1986	15.00%	9.78%	5.22%
30	4/14/1986	13.40%	9.69%	3.71%
31	4/23/1986	15.00%	9.57%	5.43%
32	5/16/1986	14.50%	9.32%	5.18%
33	5/16/1986	14.50%	9.32%	5.18%
34	5/29/1986	13.90%	9.19%	4.71%
35	5/30/1986	15.10%	9.18%	5.92%
36	6/2/1986	12.81%	9.17%	3.64%
37	6/11/1986	14.00%	9.07%	4.93%
38	6/24/1986	16.63%	8.94%	7.69%
39	6/26/1986	12.00%	8.91%	3.09%
40	6/26/1986	14.75%	8.91%	5.84%
41	6/30/1986	13.00%	8.87%	4.13%
42	7/10/1986	14.34%	8.75%	5.59%
43	7/11/1986	12.75%	8.73%	4.02%
44	7/14/1986	12.60%	8.71%	3.89%
45	7/17/1986	12.40%	8.66%	3.74%
46	7/25/1986	14.25%	8.57%	5.68%
47	8/6/1986	13.50%	8.44%	5.06%
48	8/14/1986	13.50%	8.35%	5.15%
49	9/16/1986	12.75%	8.06%	4.69%
50	9/19/1986	13.25%	8.03%	5.22%
51	10/1/1986	14.00%	7.95%	6.05%
52	10/3/1986	13.40%	7.93%	5.47%
53	10/31/1986	13.50%	7.77%	5.73%
54	11/5/1986	13.00%	7.75%	5.25%
55	12/3/1986	12.90%	7.58%	5.32%
56	12/4/1986	14.44%	7.58%	6.86%
57	12/16/1986	13.60%	7.52%	6.08%
58	12/22/1986	13.80%	7.51%	6.29%
59	12/30/1986	13.00%	7.49%	5.51%
60	1/2/1987	13.00%	7.49%	5.51%
61	1/12/1987	12.40%	7.47%	4.93%
62	1/27/1987	12.71%	7.46%	5.25%
63	3/2/1987	12.47%	7.47%	5.00%
64	3/3/1987	13.60%	7.47%	6.13%
65	3/4/1987	12.38%	7.47%	4.91%
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	Bond Yield Plus Risk Premium			
	[6]	[7]	[8]	[9]
	Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
3	3/10/1987	13.50%	7.47%	6.03%
4	3/13/1987	13.00%	7.47%	5.53%
5	3/31/1987	13.00%	7.46%	5.54%
6	4/6/1987	13.00%	7.47%	5.53%
7	4/14/1987	12.50%	7.49%	5.01%
8	4/16/1987	14.50%	7.50%	7.00%
9	4/27/1987	12.00%	7.54%	4.46%
10	5/5/1987	12.85%	7.58%	5.27%
11	5/12/1987	12.65%	7.62%	5.03%
12	5/28/1987	13.50%	7.70%	5.80%
13	6/15/1987	13.20%	7.78%	5.42%
14	6/29/1987	15.00%	7.83%	7.17%
15	6/30/1987	12.50%	7.84%	4.66%
16	7/8/1987	12.00%	7.86%	4.14%
17	7/10/1987	12.90%	7.86%	5.04%
18	7/15/1987	13.50%	7.88%	5.62%
19	7/16/1987	13.50%	7.88%	5.62%
20	7/16/1987	15.00%	7.88%	7.12%
21	7/27/1987	13.00%	7.92%	5.08%
22	7/27/1987	13.40%	7.92%	5.48%
23	7/27/1987	13.50%	7.92%	5.58%
24	7/31/1987	12.98%	7.95%	5.03%
25	8/26/1987	12.63%	8.06%	4.57%
26	8/26/1987	12.75%	8.06%	4.69%
27	8/27/1987	13.25%	8.06%	5.19%
28	9/9/1987	13.00%	8.14%	4.86%
29	9/30/1987	12.75%	8.31%	4.44%
30	9/30/1987	13.00%	8.31%	4.69%
31	10/2/1987	11.50%	8.33%	3.17%
32	10/15/1987	13.00%	8.43%	4.57%
33	11/2/1987	13.00%	8.55%	4.45%
34	11/19/1987	13.00%	8.64%	4.36%
35	11/30/1987	12.00%	8.68%	3.32%
36	12/3/1987	14.20%	8.70%	5.50%
37	12/15/1987	13.25%	8.77%	4.48%
38	12/16/1987	13.50%	8.78%	4.72%
39	12/16/1987	13.72%	8.78%	4.94%
40	12/17/1987	11.75%	8.79%	2.96%
41	12/18/1987	13.50%	8.80%	4.70%
42	12/21/1987	12.01%	8.81%	3.20%
43	12/22/1987	12.00%	8.81%	3.19%
44	12/22/1987	12.00%	8.81%	3.19%
45	12/22/1987	12.75%	8.81%	3.94%
46	12/22/1987	13.00%	8.81%	4.19%
47	1/20/1988	13.80%	8.94%	4.86%
48	1/26/1988	13.90%	8.95%	4.95%
49	1/29/1988	13.20%	8.96%	4.24%
50	2/4/1988	12.60%	8.96%	3.64%
51	3/1/1988	11.56%	8.94%	2.62%
52	3/23/1988	12.87%	8.92%	3.95%
53	3/24/1988	11.24%	8.92%	2.32%
54	3/30/1988	12.72%	8.92%	3.80%
55	4/1/1988	12.50%	8.92%	3.58%
56	4/7/1988	13.25%	8.93%	4.32%
57	4/25/1988	10.96%	8.96%	2.00%
58	5/3/1988	12.91%	8.97%	3.94%
59	5/11/1988	13.50%	8.99%	4.51%
60	5/16/1988	13.00%	8.99%	4.01%
61	6/30/1988	12.75%	9.00%	3.75%
62	7/1/1988	12.75%	8.99%	3.76%
63	7/20/1988	13.40%	8.96%	4.44%
64	8/5/1988	12.75%	8.92%	3.83%
65	8/23/1988	11.70%	8.93%	2.77%
66				

	Bond Yield Plus Risk Premium			
	[6]	[7]	[8]	[9]
	Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
1				
2				
3				
4	8/29/1988	12.75%	8.94%	3.81%
5	8/30/1988	13.50%	8.94%	4.56%
6	9/8/1988	12.60%	8.95%	3.65%
7	10/13/1988	13.10%	8.93%	4.17%
8	12/19/1988	13.00%	9.02%	3.98%
9	12/20/1988	12.25%	9.02%	3.23%
10	12/20/1988	13.00%	9.02%	3.98%
11	12/21/1988	12.90%	9.02%	3.88%
12	12/27/1988	13.00%	9.03%	3.97%
13	12/28/1988	13.10%	9.03%	4.07%
14	12/30/1988	13.40%	9.04%	4.36%
15	1/27/1989	13.00%	9.05%	3.95%
16	1/31/1989	13.00%	9.05%	3.95%
17	2/17/1989	13.00%	9.05%	3.95%
18	2/20/1989	12.40%	9.05%	3.35%
19	3/1/1989	12.76%	9.05%	3.71%
20	3/8/1989	13.00%	9.05%	3.95%
21	3/30/1989	14.00%	9.05%	4.95%
22	4/5/1989	14.20%	9.05%	5.15%
23	4/18/1989	13.00%	9.05%	3.95%
24	5/5/1989	12.40%	9.05%	3.35%
25	6/2/1989	13.20%	9.00%	4.20%
26	6/8/1989	13.50%	8.98%	4.52%
27	6/27/1989	13.25%	8.91%	4.34%
28	6/30/1989	13.00%	8.90%	4.10%
29	8/14/1989	12.50%	8.77%	3.73%
30	9/28/1989	12.25%	8.63%	3.62%
31	10/24/1989	12.50%	8.54%	3.96%
32	11/9/1989	13.00%	8.49%	4.51%
33	12/15/1989	13.00%	8.34%	4.66%
34	12/20/1989	12.90%	8.32%	4.58%
35	12/21/1989	12.90%	8.31%	4.59%
36	12/27/1989	12.50%	8.29%	4.21%
37	12/27/1989	13.00%	8.29%	4.71%
38	1/10/1990	12.80%	8.24%	4.56%
39	1/11/1990	12.90%	8.24%	4.66%
40	1/17/1990	12.80%	8.22%	4.58%
41	1/26/1990	12.00%	8.20%	3.80%
42	2/9/1990	12.10%	8.17%	3.93%
43	2/24/1990	12.86%	8.15%	4.71%
44	3/30/1990	12.90%	8.16%	4.74%
45	4/4/1990	15.76%	8.17%	7.59%
46	4/12/1990	12.52%	8.18%	4.34%
47	4/19/1990	12.75%	8.20%	4.55%
48	5/21/1990	12.10%	8.28%	3.82%
49	5/29/1990	12.40%	8.30%	4.10%
50	5/31/1990	12.00%	8.30%	3.70%
51	6/4/1990	12.90%	8.30%	4.60%
52	6/6/1990	12.25%	8.31%	3.94%
53	6/15/1990	13.20%	8.32%	4.88%
54	6/20/1990	12.92%	8.32%	4.60%
55	6/27/1990	12.90%	8.33%	4.57%
56	6/29/1990	12.50%	8.33%	4.17%
57	7/6/1990	12.10%	8.34%	3.76%
58	7/6/1990	12.35%	8.34%	4.01%
59	8/10/1990	12.55%	8.41%	4.14%
60	8/16/1990	13.21%	8.43%	4.78%
61	8/22/1990	13.10%	8.45%	4.65%
62	8/24/1990	13.00%	8.46%	4.54%
63	9/26/1990	11.45%	8.59%	2.86%
64	10/2/1990	13.00%	8.61%	4.39%
65	10/5/1990	12.84%	8.62%	4.22%
66	10/19/1990	13.00%	8.67%	4.33%

	Bond Yield Plus Risk Premium			
	[6]	[7]	[8]	[9]
	Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
3	10/25/1990	12.30%	8.68%	3.62%
4	11/21/1990	12.70%	8.69%	4.01%
5	12/13/1990	12.30%	8.67%	3.63%
6	12/17/1990	12.87%	8.67%	4.20%
7	12/18/1990	13.10%	8.67%	4.43%
8	12/19/1990	12.00%	8.66%	3.34%
9	12/20/1990	12.75%	8.66%	4.09%
10	12/21/1990	12.50%	8.66%	3.84%
11	12/27/1990	12.79%	8.66%	4.13%
12	1/2/1991	13.10%	8.65%	4.45%
13	1/4/1991	12.50%	8.65%	3.85%
14	1/15/1991	12.75%	8.64%	4.11%
15	1/25/1991	11.70%	8.63%	3.07%
16	2/4/1991	12.50%	8.60%	3.90%
17	2/7/1991	12.50%	8.59%	3.91%
18	2/12/1991	13.00%	8.58%	4.43%
19	2/14/1991	12.72%	8.57%	4.15%
20	2/22/1991	12.80%	8.55%	4.25%
21	3/6/1991	13.10%	8.53%	4.57%
22	3/8/1991	12.30%	8.52%	3.78%
23	3/8/1991	13.00%	8.52%	4.48%
24	4/22/1991	13.00%	8.49%	4.51%
25	5/7/1991	13.50%	8.47%	5.03%
26	5/13/1991	13.25%	8.47%	4.78%
27	5/30/1991	12.75%	8.44%	4.31%
28	6/12/1991	12.00%	8.41%	3.59%
29	6/25/1991	11.70%	8.39%	3.31%
30	6/28/1991	12.50%	8.38%	4.12%
31	7/1/1991	12.00%	8.38%	3.62%
32	7/3/1991	12.50%	8.37%	4.13%
33	7/19/1991	12.10%	8.34%	3.76%
34	8/1/1991	12.90%	8.32%	4.58%
35	8/16/1991	13.20%	8.29%	4.91%
36	9/27/1991	12.50%	8.23%	4.27%
37	9/30/1991	12.25%	8.23%	4.02%
38	10/17/1991	13.00%	8.20%	4.80%
39	10/23/1991	12.50%	8.20%	4.30%
40	10/23/1991	12.55%	8.20%	4.35%
41	10/31/1991	11.80%	8.19%	3.61%
42	11/1/1991	12.00%	8.19%	3.81%
43	11/5/1991	12.25%	8.19%	4.06%
44	11/12/1991	12.50%	8.18%	4.32%
45	11/12/1991	13.25%	8.18%	5.07%
46	11/25/1991	12.40%	8.18%	4.22%
47	11/26/1991	11.60%	8.18%	3.42%
48	11/26/1991	12.50%	8.18%	4.32%
49	11/27/1991	12.10%	8.18%	3.92%
50	12/18/1991	12.25%	8.15%	4.10%
51	12/19/1991	12.60%	8.15%	4.45%
52	12/19/1991	12.80%	8.15%	4.65%
53	12/20/1991	12.65%	8.14%	4.51%
54	1/9/1992	12.80%	8.09%	4.71%
55	1/16/1992	12.75%	8.07%	4.68%
56	1/21/1992	12.00%	8.06%	3.94%
57	1/22/1992	13.00%	8.06%	4.94%
58	1/27/1992	12.65%	8.05%	4.60%
59	1/31/1992	12.00%	8.04%	3.96%
60	2/11/1992	12.40%	8.03%	4.37%
61	2/25/1992	12.50%	8.01%	4.49%
62	3/16/1992	11.43%	7.98%	3.45%
63	3/18/1992	12.28%	7.98%	4.30%
64	4/2/1992	12.10%	7.95%	4.15%
65	4/9/1992	11.45%	7.94%	3.51%
66				

	Bond Yield Plus Risk Premium			
	[6]	[7]	[8]	[9]
	Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
3	4/10/1992	11.50%	7.93%	3.57%
4	4/14/1992	11.50%	7.93%	3.57%
5	5/5/1992	11.50%	7.89%	3.61%
6	5/12/1992	11.87%	7.88%	3.99%
7	5/12/1992	12.46%	7.88%	4.58%
8	6/1/1992	12.30%	7.87%	4.43%
9	6/12/1992	10.90%	7.86%	3.04%
10	6/26/1992	12.35%	7.85%	4.50%
11	6/29/1992	11.00%	7.85%	3.15%
12	6/30/1992	13.00%	7.85%	5.15%
13	7/13/1992	11.90%	7.84%	4.06%
14	7/13/1992	13.50%	7.84%	5.66%
15	7/22/1992	11.20%	7.83%	3.37%
16	8/3/1992	12.00%	7.81%	4.19%
17	8/6/1992	12.50%	7.80%	4.70%
18	9/22/1992	12.00%	7.71%	4.29%
19	9/28/1992	11.40%	7.71%	3.69%
20	9/30/1992	11.75%	7.70%	4.05%
21	10/2/1992	13.00%	7.70%	5.30%
22	10/12/1992	12.20%	7.70%	4.50%
23	10/16/1992	13.16%	7.70%	5.46%
24	10/30/1992	11.75%	7.71%	4.04%
25	11/3/1992	12.00%	7.71%	4.29%
26	12/3/1992	11.85%	7.68%	4.17%
27	12/15/1992	11.00%	7.66%	3.34%
28	12/16/1992	11.90%	7.66%	4.24%
29	12/16/1992	12.40%	7.66%	4.74%
30	12/17/1992	12.00%	7.66%	4.34%
31	12/22/1992	12.30%	7.65%	4.65%
32	12/22/1992	12.40%	7.65%	4.75%
33	12/29/1992	12.25%	7.63%	4.62%
34	12/30/1992	12.00%	7.63%	4.37%
35	12/31/1992	11.90%	7.63%	4.27%
36	1/12/1993	12.00%	7.61%	4.39%
37	1/21/1993	11.25%	7.59%	3.66%
38	2/2/1993	11.40%	7.56%	3.84%
39	2/15/1993	12.30%	7.52%	4.78%
40	2/24/1993	11.90%	7.49%	4.41%
41	2/26/1993	11.80%	7.48%	4.32%
42	2/26/1993	12.20%	7.48%	4.72%
43	4/23/1993	11.75%	7.29%	4.46%
44	5/11/1993	11.75%	7.25%	4.50%
45	5/14/1993	11.50%	7.24%	4.26%
46	5/25/1993	11.50%	7.23%	4.27%
47	5/28/1993	11.00%	7.22%	3.78%
48	6/3/1993	12.00%	7.21%	4.79%
49	6/16/1993	11.50%	7.19%	4.31%
50	6/18/1993	12.10%	7.18%	4.92%
51	6/25/1993	11.67%	7.17%	4.50%
52	7/21/1993	11.38%	7.10%	4.28%
53	7/23/1993	10.46%	7.09%	3.37%
54	8/24/1993	11.50%	6.96%	4.54%
55	9/21/1993	10.50%	6.81%	3.69%
56	9/29/1993	11.47%	6.77%	4.70%
57	9/30/1993	11.60%	6.76%	4.84%
58	11/2/1993	10.80%	6.60%	4.20%
59	11/12/1993	12.00%	6.57%	5.43%
60	11/26/1993	11.00%	6.52%	4.48%
61	12/14/1993	10.55%	6.48%	4.07%
62	12/16/1993	10.60%	6.48%	4.12%
63	12/21/1993	11.30%	6.47%	4.83%
64	1/4/1994	10.07%	6.44%	3.63%
65	1/13/1994	11.00%	6.42%	4.58%
66				



	Bond Yield Plus Risk Premium			
	[6]	[7]	[8]	[9]
	Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
3	1/21/1994	11.00%	6.40%	4.60%
4	1/28/1994	11.35%	6.39%	4.96%
5	2/3/1994	11.40%	6.38%	5.02%
6	2/17/1994	10.60%	6.36%	4.24%
7	2/25/1994	11.25%	6.35%	4.90%
8	2/25/1994	12.00%	6.35%	5.65%
9	3/1/1994	11.00%	6.35%	4.65%
10	3/4/1994	11.00%	6.35%	4.65%
11	4/25/1994	11.00%	6.41%	4.59%
12	5/10/1994	11.75%	6.45%	5.30%
13	5/13/1994	10.50%	6.46%	4.04%
14	6/3/1994	11.00%	6.54%	4.46%
15	6/27/1994	11.40%	6.65%	4.75%
16	8/5/1994	12.75%	6.88%	5.87%
17	10/31/1994	10.00%	7.33%	2.67%
18	11/9/1994	10.85%	7.39%	3.46%
19	11/9/1994	10.85%	7.39%	3.46%
20	11/18/1994	11.20%	7.45%	3.75%
21	11/22/1994	11.60%	7.47%	4.13%
22	11/28/1994	11.06%	7.49%	3.57%
23	12/8/1994	11.50%	7.54%	3.96%
24	12/8/1994	11.70%	7.54%	4.16%
25	12/14/1994	10.95%	7.56%	3.39%
26	12/15/1994	11.50%	7.57%	3.93%
27	12/19/1994	11.50%	7.58%	3.92%
28	12/28/1994	12.15%	7.61%	4.54%
29	1/9/1995	12.28%	7.64%	4.64%
30	1/31/1995	11.00%	7.69%	3.31%
31	2/10/1995	12.60%	7.70%	4.90%
32	2/17/1995	11.90%	7.70%	4.20%
33	3/9/1995	11.50%	7.71%	3.79%
34	3/20/1995	12.00%	7.72%	4.28%
35	3/23/1995	12.81%	7.72%	5.09%
36	3/29/1995	11.60%	7.72%	3.88%
37	4/6/1995	11.10%	7.71%	3.39%
38	4/7/1995	11.00%	7.71%	3.29%
39	4/19/1995	11.00%	7.70%	3.30%
40	5/12/1995	11.63%	7.68%	3.95%
41	5/25/1995	11.20%	7.65%	3.55%
42	6/9/1995	11.25%	7.60%	3.65%
43	6/21/1995	12.25%	7.56%	4.69%
44	6/30/1995	11.10%	7.52%	3.58%
45	9/11/1995	11.30%	7.20%	4.10%
46	9/27/1995	11.30%	7.12%	4.18%
47	9/27/1995	11.50%	7.12%	4.38%
48	9/27/1995	11.75%	7.12%	4.63%
49	9/29/1995	11.00%	7.11%	3.89%
50	11/9/1995	11.38%	6.90%	4.48%
51	11/9/1995	12.36%	6.90%	5.46%
52	11/17/1995	11.00%	6.86%	4.14%
53	12/4/1995	11.35%	6.78%	4.57%
54	12/11/1995	11.40%	6.74%	4.66%
55	12/20/1995	11.60%	6.70%	4.90%
56	12/27/1995	12.00%	6.66%	5.34%
57	2/5/1996	12.25%	6.48%	5.77%
58	3/29/1996	10.67%	6.42%	4.25%
59	4/8/1996	11.00%	6.42%	4.58%
60	4/11/1996	12.59%	6.43%	6.16%
61	4/11/1996	12.59%	6.43%	6.16%
62	4/24/1996	11.25%	6.43%	4.82%
63	4/30/1996	11.00%	6.43%	4.57%
64	5/13/1996	11.00%	6.44%	4.56%
65	5/23/1996	11.25%	6.43%	4.82%
66				

	Bond Yield Plus Risk Premium			
	[6]	[7]	[8]	[9]
	Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
3	6/25/1996	11.25%	6.48%	4.77%
4	6/27/1996	11.20%	6.48%	4.72%
5	8/12/1996	10.40%	6.57%	3.83%
6	9/27/1996	11.00%	6.71%	4.29%
7	10/16/1996	12.25%	6.76%	5.49%
8	11/5/1996	11.00%	6.81%	4.19%
9	11/26/1996	11.30%	6.83%	4.47%
10	12/18/1996	11.75%	6.83%	4.92%
11	12/31/1996	11.50%	6.83%	4.67%
12	1/3/1997	10.70%	6.83%	3.87%
13	2/13/1997	11.80%	6.82%	4.98%
14	2/20/1997	11.80%	6.82%	4.98%
15	3/31/1997	10.02%	6.80%	3.22%
16	4/2/1997	11.65%	6.80%	4.85%
17	4/28/1997	11.50%	6.81%	4.69%
18	4/29/1997	11.70%	6.81%	4.89%
19	7/17/1997	12.00%	6.77%	5.23%
20	12/12/1997	11.00%	6.60%	4.40%
21	12/23/1997	11.12%	6.57%	4.55%
22	2/2/1998	12.75%	6.39%	6.36%
23	3/2/1998	11.25%	6.29%	4.96%
24	3/6/1998	10.75%	6.27%	4.48%
25	3/20/1998	10.50%	6.22%	4.28%
26	4/30/1998	12.20%	6.12%	6.08%
27	7/10/1998	11.40%	5.94%	5.46%
28	9/15/1998	11.90%	5.78%	6.12%
29	11/30/1998	12.60%	5.58%	7.02%
30	12/10/1998	12.20%	5.54%	6.66%
31	12/17/1998	12.10%	5.52%	6.58%
32	2/5/1999	10.30%	5.38%	4.92%
33	3/4/1999	10.50%	5.34%	5.16%
34	4/6/1999	10.94%	5.32%	5.62%
35	7/29/1999	10.75%	5.52%	5.23%
36	9/23/1999	10.75%	5.70%	5.05%
37	11/17/1999	11.10%	5.90%	5.20%
38	1/7/2000	11.50%	6.05%	5.45%
39	1/7/2000	11.50%	6.05%	5.45%
40	2/17/2000	10.60%	6.17%	4.43%
41	3/28/2000	11.25%	6.20%	5.05%
42	5/24/2000	11.00%	6.18%	4.82%
43	7/18/2000	12.20%	6.16%	6.04%
44	9/29/2000	11.16%	6.03%	5.13%
45	11/28/2000	12.90%	5.89%	7.01%
46	11/30/2000	12.10%	5.88%	6.22%
47	1/23/2001	11.25%	5.79%	5.46%
48	2/8/2001	11.50%	5.77%	5.73%
49	5/8/2001	10.75%	5.62%	5.13%
50	6/26/2001	11.00%	5.62%	5.38%
51	7/25/2001	11.02%	5.60%	5.42%
52	7/25/2001	11.02%	5.60%	5.42%
53	7/31/2001	11.00%	5.59%	5.41%
54	8/31/2001	10.50%	5.56%	4.94%
55	9/7/2001	10.75%	5.55%	5.20%
56	9/10/2001	11.00%	5.55%	5.45%
57	9/20/2001	10.00%	5.55%	4.45%
58	10/24/2001	10.30%	5.54%	4.76%
59	11/28/2001	10.60%	5.49%	5.11%
60	12/3/2001	12.88%	5.49%	7.39%
61	12/20/2001	12.50%	5.50%	7.00%
62	1/22/2002	10.00%	5.50%	4.50%
63	3/27/2002	10.10%	5.45%	4.65%
64	4/22/2002	11.80%	5.45%	6.35%
65	5/28/2002	10.17%	5.46%	4.71%
66				

	Bond Yield Plus Risk Premium			
	[6]	[7]	[8]	[9]
	Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
3	6/10/2002	12.00%	5.47%	6.53%
4	6/18/2002	11.16%	5.48%	5.68%
5	6/20/2002	11.00%	5.48%	5.52%
6	6/20/2002	12.30%	5.48%	6.82%
7	7/15/2002	11.00%	5.48%	5.52%
8	9/12/2002	12.30%	5.45%	6.85%
9	9/26/2002	10.45%	5.41%	5.04%
10	12/4/2002	11.55%	5.29%	6.26%
11	12/13/2002	11.75%	5.27%	6.48%
12	12/20/2002	11.40%	5.25%	6.15%
13	1/8/2003	11.10%	5.19%	5.91%
14	1/31/2003	12.45%	5.13%	7.32%
15	2/28/2003	12.30%	5.05%	7.25%
16	3/6/2003	10.75%	5.03%	5.72%
17	3/7/2003	9.96%	5.02%	4.94%
18	3/20/2003	12.00%	4.98%	7.02%
19	4/3/2003	12.00%	4.96%	7.04%
20	4/15/2003	11.15%	4.94%	6.21%
21	6/25/2003	10.75%	4.79%	5.96%
22	6/26/2003	10.75%	4.79%	5.96%
23	7/9/2003	9.75%	4.79%	4.96%
24	7/16/2003	9.75%	4.79%	4.96%
25	7/25/2003	9.50%	4.80%	4.70%
26	8/26/2003	10.50%	4.83%	5.67%
27	12/17/2003	9.85%	4.94%	4.91%
28	12/17/2003	10.70%	4.94%	5.76%
29	12/18/2003	11.50%	4.94%	6.56%
30	12/19/2003	12.00%	4.94%	7.06%
31	12/19/2003	12.00%	4.94%	7.06%
32	12/23/2003	10.50%	4.94%	5.56%
33	1/13/2004	12.00%	4.95%	7.05%
34	3/2/2004	10.75%	4.99%	5.76%
35	3/26/2004	10.25%	5.02%	5.23%
36	4/5/2004	11.25%	5.03%	6.22%
37	5/18/2004	10.50%	5.07%	5.43%
38	5/25/2004	10.25%	5.08%	5.17%
39	5/27/2004	10.25%	5.08%	5.17%
40	6/2/2004	11.22%	5.08%	6.14%
41	6/30/2004	10.50%	5.10%	5.40%
42	6/30/2004	10.50%	5.10%	5.40%
43	7/16/2004	11.60%	5.11%	6.49%
44	8/25/2004	10.25%	5.10%	5.15%
45	9/9/2004	10.40%	5.10%	5.30%
46	11/9/2004	10.50%	5.07%	5.43%
47	11/23/2004	11.00%	5.06%	5.94%
48	12/14/2004	10.97%	5.07%	5.90%
49	12/21/2004	11.25%	5.07%	6.18%
50	12/21/2004	11.50%	5.07%	6.43%
51	12/22/2004	10.70%	5.07%	5.63%
52	12/22/2004	11.50%	5.07%	6.43%
53	12/29/2004	9.85%	5.07%	4.78%
54	1/6/2005	10.70%	5.08%	5.62%
55	2/18/2005	10.30%	4.98%	5.32%
56	2/25/2005	10.50%	4.96%	5.54%
57	3/10/2005	11.00%	4.93%	6.07%
58	3/24/2005	10.30%	4.90%	5.40%
59	4/4/2005	10.00%	4.88%	5.12%
60	4/7/2005	10.25%	4.87%	5.38%
61	5/18/2005	10.25%	4.78%	5.47%
62	5/25/2005	10.75%	4.76%	5.99%
63	5/26/2005	9.75%	4.76%	4.99%
64	6/1/2005	9.75%	4.75%	5.00%
65	7/19/2005	11.50%	4.64%	6.86%
66				

	Bond Yield Plus Risk Premium			
	[6]	[7]	[8]	[9]
	Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
3	8/5/2005	11.75%	4.62%	7.13%
4	8/15/2005	10.13%	4.61%	5.52%
5	9/28/2005	10.00%	4.54%	5.46%
6	10/4/2005	10.75%	4.54%	6.21%
7	12/12/2005	11.00%	4.55%	6.45%
8	12/13/2005	10.75%	4.55%	6.20%
9	12/21/2005	10.29%	4.54%	5.75%
10	12/21/2005	10.40%	4.54%	5.86%
11	12/22/2005	11.00%	4.54%	6.46%
12	12/22/2005	11.15%	4.54%	6.61%
13	12/28/2005	10.00%	4.54%	5.46%
14	12/28/2005	10.00%	4.54%	5.46%
15	1/5/2006	11.00%	4.53%	6.47%
16	1/27/2006	9.75%	4.52%	5.23%
17	3/3/2006	10.39%	4.53%	5.86%
18	4/17/2006	10.20%	4.61%	5.59%
19	4/26/2006	10.60%	4.64%	5.96%
20	5/17/2006	11.60%	4.69%	6.91%
21	6/6/2006	10.00%	4.74%	5.26%
22	6/27/2006	10.75%	4.80%	5.95%
23	7/6/2006	10.20%	4.83%	5.37%
24	7/24/2006	9.60%	4.86%	4.74%
25	7/26/2006	10.50%	4.86%	5.64%
26	7/28/2006	10.05%	4.86%	5.19%
27	8/23/2006	9.55%	4.89%	4.66%
28	9/1/2006	10.54%	4.90%	5.64%
29	9/14/2006	10.00%	4.91%	5.09%
30	10/6/2006	9.67%	4.92%	4.75%
31	11/21/2006	10.08%	4.95%	5.13%
32	11/21/2006	10.08%	4.95%	5.13%
33	11/21/2006	10.12%	4.95%	5.17%
34	12/1/2006	10.25%	4.95%	5.30%
35	12/1/2006	10.50%	4.95%	5.55%
36	12/7/2006	10.75%	4.95%	5.80%
37	12/21/2006	10.90%	4.95%	5.95%
38	12/21/2006	11.25%	4.95%	6.30%
39	12/22/2006	10.25%	4.95%	5.30%
40	1/5/2007	10.00%	4.95%	5.05%
41	1/11/2007	10.10%	4.95%	5.15%
42	1/11/2007	10.10%	4.95%	5.15%
43	1/11/2007	10.90%	4.95%	5.95%
44	1/12/2007	10.10%	4.95%	5.15%
45	1/13/2007	10.40%	4.95%	5.45%
46	1/19/2007	10.80%	4.94%	5.86%
47	3/21/2007	11.35%	4.87%	6.48%
48	3/22/2007	9.75%	4.86%	4.89%
49	5/15/2007	10.00%	4.81%	5.19%
50	5/17/2007	10.25%	4.81%	5.44%
51	5/17/2007	10.25%	4.81%	5.44%
52	5/22/2007	10.20%	4.80%	5.40%
53	5/22/2007	10.50%	4.80%	5.70%
54	5/23/2007	10.70%	4.80%	5.90%
55	5/25/2007	9.67%	4.80%	4.87%
56	6/15/2007	9.90%	4.82%	5.08%
57	6/21/2007	10.20%	4.83%	5.37%
58	6/22/2007	10.50%	4.83%	5.67%
59	6/28/2007	10.75%	4.84%	5.91%
60	7/12/2007	9.67%	4.86%	4.81%
61	7/19/2007	10.00%	4.87%	5.13%
62	7/19/2007	10.00%	4.87%	5.13%
63	8/15/2007	10.40%	4.88%	5.52%
64	10/9/2007	10.00%	4.91%	5.09%
65	10/17/2007	9.10%	4.91%	4.19%
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	Bond Yield Plus Risk Premium			
	[6]	[7]	[8]	[9]
	Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
3	10/31/2007	9.96%	4.90%	5.06%
4	11/29/2007	10.90%	4.87%	6.03%
5	12/6/2007	10.75%	4.86%	5.89%
6	12/13/2007	9.96%	4.86%	5.10%
7	12/14/2007	10.70%	4.86%	5.84%
8	12/14/2007	10.80%	4.86%	5.94%
9	12/19/2007	10.20%	4.86%	5.34%
10	12/20/2007	10.20%	4.85%	5.35%
11	12/20/2007	11.00%	4.85%	6.15%
12	12/28/2007	10.25%	4.85%	5.40%
13	12/31/2007	11.25%	4.85%	6.40%
14	1/8/2008	10.75%	4.83%	5.92%
15	1/17/2008	10.75%	4.81%	5.94%
16	1/28/2008	9.40%	4.80%	4.60%
17	1/30/2008	10.00%	4.79%	5.21%
18	1/31/2008	10.71%	4.79%	5.92%
19	2/29/2008	10.25%	4.75%	5.50%
20	3/12/2008	10.25%	4.73%	5.52%
21	3/25/2008	9.10%	4.68%	4.42%
22	4/22/2008	10.25%	4.60%	5.65%
23	4/24/2008	10.10%	4.60%	5.50%
24	5/1/2008	10.70%	4.59%	6.11%
25	5/19/2008	11.00%	4.56%	6.44%
26	5/27/2008	10.00%	4.55%	5.45%
27	6/10/2008	10.70%	4.54%	6.16%
28	6/27/2008	10.50%	4.54%	5.96%
29	6/27/2008	11.04%	4.54%	6.50%
30	7/10/2008	10.43%	4.52%	5.91%
31	7/16/2008	9.40%	4.52%	4.88%
32	7/30/2008	10.80%	4.51%	6.29%
33	7/31/2008	10.70%	4.51%	6.19%
34	8/11/2008	10.25%	4.51%	5.74%
35	8/26/2008	10.18%	4.50%	5.68%
36	9/10/2008	10.30%	4.50%	5.80%
37	9/24/2008	10.65%	4.48%	6.17%
38	9/24/2008	10.65%	4.48%	6.17%
39	9/24/2008	10.65%	4.48%	6.17%
40	9/30/2008	10.20%	4.48%	5.72%
41	10/8/2008	10.15%	4.46%	5.69%
42	11/13/2008	10.55%	4.45%	6.10%
43	11/17/2008	10.20%	4.44%	5.76%
44	12/1/2008	10.25%	4.40%	5.85%
45	12/23/2008	11.00%	4.27%	6.73%
46	12/29/2008	10.00%	4.24%	5.76%
47	12/29/2008	10.20%	4.24%	5.96%
48	12/31/2008	10.75%	4.22%	6.53%
49	1/14/2009	10.50%	4.15%	6.35%
50	1/21/2009	10.50%	4.12%	6.38%
51	1/21/2009	10.50%	4.12%	6.38%
52	1/21/2009	10.50%	4.12%	6.38%
53	1/27/2009	10.76%	4.09%	6.67%
54	1/30/2009	10.50%	4.08%	6.42%
55	2/4/2009	8.75%	4.06%	4.69%
56	3/4/2009	10.50%	3.96%	6.54%
57	3/12/2009	11.50%	3.93%	7.57%
58	4/2/2009	11.10%	3.85%	7.25%
59	4/21/2009	10.61%	3.80%	6.81%
60	4/24/2009	10.00%	3.79%	6.21%
61	4/30/2009	11.25%	3.78%	7.47%
62	5/4/2009	10.74%	3.77%	6.97%
63	5/20/2009	10.25%	3.74%	6.51%
64	5/28/2009	10.50%	3.74%	6.76%
65	6/22/2009	10.00%	3.76%	6.24%
66				

	Bond Yield Plus Risk Premium			
	[6]	[7]	[8]	[9]
	Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
3	6/24/2009	10.80%	3.77%	7.03%
4	7/8/2009	10.63%	3.77%	6.86%
5	7/17/2009	10.50%	3.78%	6.72%
6	8/31/2009	10.25%	3.82%	6.43%
7	10/14/2009	10.70%	4.01%	6.69%
8	10/23/2009	10.88%	4.06%	6.82%
9	11/2/2009	10.70%	4.09%	6.61%
10	11/3/2009	10.70%	4.10%	6.60%
11	11/24/2009	10.25%	4.15%	6.10%
12	11/25/2009	10.75%	4.16%	6.59%
13	11/30/2009	10.35%	4.17%	6.18%
14	12/3/2009	10.50%	4.18%	6.32%
15	12/7/2009	10.70%	4.18%	6.52%
16	12/16/2009	10.90%	4.21%	6.69%
17	12/16/2009	11.00%	4.21%	6.79%
18	12/18/2009	10.40%	4.22%	6.18%
19	12/18/2009	10.40%	4.22%	6.18%
20	12/22/2009	10.20%	4.23%	5.97%
21	12/22/2009	10.40%	4.23%	6.17%
22	12/22/2009	10.40%	4.23%	6.17%
23	12/30/2009	10.00%	4.26%	5.74%
24	1/4/2010	10.80%	4.28%	6.52%
25	1/11/2010	11.00%	4.30%	6.70%
26	1/26/2010	10.13%	4.35%	5.78%
27	1/27/2010	10.40%	4.35%	6.05%
28	1/27/2010	10.40%	4.35%	6.05%
29	1/27/2010	10.70%	4.35%	6.35%
30	2/9/2010	9.80%	4.38%	5.42%
31	2/18/2010	10.60%	4.40%	6.20%
32	2/24/2010	10.18%	4.41%	5.77%
33	3/2/2010	9.63%	4.41%	5.22%
34	3/4/2010	10.50%	4.41%	6.09%
35	3/5/2010	10.50%	4.41%	6.09%
36	3/11/2010	11.90%	4.42%	7.48%
37	3/17/2010	10.00%	4.41%	5.59%
38	3/25/2010	10.15%	4.42%	5.73%
39	4/2/2010	10.10%	4.43%	5.67%
40	4/27/2010	10.00%	4.46%	5.54%
41	4/29/2010	9.90%	4.46%	5.44%
42	4/29/2010	10.06%	4.46%	5.60%
43	4/29/2010	10.26%	4.46%	5.80%
44	5/12/2010	10.30%	4.45%	5.85%
45	5/12/2010	10.30%	4.45%	5.85%
46	5/28/2010	10.10%	4.44%	5.66%
47	5/28/2010	10.20%	4.44%	5.76%
48	6/7/2010	10.30%	4.44%	5.86%
49	6/16/2010	10.00%	4.44%	5.56%
50	6/28/2010	9.67%	4.43%	5.24%
51	6/28/2010	10.50%	4.43%	6.07%
52	6/30/2010	9.40%	4.43%	4.97%
53	7/1/2010	10.25%	4.43%	5.82%
54	7/15/2010	10.53%	4.43%	6.10%
55	7/15/2010	10.70%	4.43%	6.27%
56	7/30/2010	10.70%	4.41%	6.29%
57	8/4/2010	10.50%	4.41%	6.09%
58	8/6/2010	9.83%	4.41%	5.42%
59	8/25/2010	9.90%	4.37%	5.53%
60	9/3/2010	10.60%	4.35%	6.25%
61	9/14/2010	10.70%	4.33%	6.37%
62	9/16/2010	10.00%	4.33%	5.67%
63	9/16/2010	10.00%	4.33%	5.67%
64	9/30/2010	9.75%	4.29%	5.46%
65	10/14/2010	10.35%	4.24%	6.11%
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	Bond Yield Plus Risk Premium			
	[6]	[7]	[8]	[9]
	Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
3	10/28/2010	10.70%	4.21%	6.49%
4	11/2/2010	10.38%	4.20%	6.18%
5	11/4/2010	10.70%	4.20%	6.50%
6	11/19/2010	10.20%	4.18%	6.02%
7	11/22/2010	10.00%	4.18%	5.82%
8	12/1/2010	10.13%	4.16%	5.97%
9	12/6/2010	9.86%	4.15%	5.71%
10	12/9/2010	10.25%	4.15%	6.10%
11	12/13/2010	10.70%	4.15%	6.55%
12	12/14/2010	10.13%	4.15%	5.98%
13	12/15/2010	10.44%	4.15%	6.29%
14	12/17/2010	10.00%	4.15%	5.85%
15	12/20/2010	10.60%	4.15%	6.45%
16	12/21/2010	10.30%	4.14%	6.16%
17	12/27/2010	9.90%	4.14%	5.76%
18	12/29/2010	11.15%	4.14%	7.01%
19	1/5/2011	10.15%	4.13%	6.02%
20	1/12/2011	10.30%	4.12%	6.18%
21	1/13/2011	10.30%	4.12%	6.18%
22	1/18/2011	10.00%	4.12%	5.88%
23	1/20/2011	9.30%	4.12%	5.18%
24	1/20/2011	10.13%	4.12%	6.01%
25	1/31/2011	9.60%	4.12%	5.48%
26	2/3/2011	10.00%	4.12%	5.88%
27	2/25/2011	10.00%	4.14%	5.86%
28	3/25/2011	9.80%	4.18%	5.62%
29	3/30/2011	10.00%	4.18%	5.82%
30	4/12/2011	10.00%	4.21%	5.79%
31	4/25/2011	10.74%	4.23%	6.51%
32	4/26/2011	9.67%	4.23%	5.44%
33	4/27/2011	10.40%	4.24%	6.16%
34	5/4/2011	10.00%	4.24%	5.76%
35	5/4/2011	10.00%	4.24%	5.76%
36	5/24/2011	10.50%	4.27%	6.23%
37	6/8/2011	10.75%	4.30%	6.45%
38	6/16/2011	9.20%	4.32%	4.88%
39	6/17/2011	9.95%	4.32%	5.63%
40	7/13/2011	10.20%	4.36%	5.84%
41	8/1/2011	9.20%	4.39%	4.81%
42	8/8/2011	10.00%	4.38%	5.62%
43	8/11/2011	10.00%	4.38%	5.62%
44	8/12/2011	10.35%	4.37%	5.98%
45	8/19/2011	10.25%	4.36%	5.89%
46	9/2/2011	12.88%	4.32%	8.56%
47	9/22/2011	10.00%	4.24%	5.76%
48	10/12/2011	10.30%	4.14%	6.16%
49	10/20/2011	10.50%	4.10%	6.40%
50	11/30/2011	10.90%	3.87%	7.03%
51	11/30/2011	10.90%	3.87%	7.03%
52	12/14/2011	10.00%	3.80%	6.20%
53	12/14/2011	10.30%	3.80%	6.50%
54	12/20/2011	10.20%	3.76%	6.44%
55	12/21/2011	10.20%	3.76%	6.44%
56	12/22/2011	9.90%	3.75%	6.15%
57	12/22/2011	10.40%	3.75%	6.65%
58	12/23/2011	10.19%	3.74%	6.45%
59	1/25/2012	10.50%	3.57%	6.93%
60	1/27/2012	10.50%	3.56%	6.94%
61	2/15/2012	10.20%	3.47%	6.73%
62	2/23/2012	9.90%	3.44%	6.46%
63	2/27/2012	10.25%	3.43%	6.82%
64	2/29/2012	10.40%	3.41%	6.99%
65	3/29/2012	10.37%	3.32%	7.05%
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	Bond Yield Plus Risk Premium			
	[6]	[7]	[8]	[9]
	Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
3	4/4/2012	10.00%	3.30%	6.70%
4	4/26/2012	10.00%	3.21%	6.79%
5	5/2/2012	10.00%	3.18%	6.82%
6	5/7/2012	9.80%	3.17%	6.63%
7	5/15/2012	10.00%	3.14%	6.86%
8	5/29/2012	10.05%	3.11%	6.94%
9	6/7/2012	10.30%	3.08%	7.22%
10	6/14/2012	9.40%	3.06%	6.34%
11	6/15/2012	10.40%	3.06%	7.34%
12	6/18/2012	9.60%	3.06%	6.54%
13	6/19/2012	9.25%	3.05%	6.20%
14	6/26/2012	10.10%	3.04%	7.06%
15	6/29/2012	10.00%	3.04%	6.96%
16	7/9/2012	10.20%	3.03%	7.17%
17	7/16/2012	9.80%	3.02%	6.78%
18	7/20/2012	9.31%	3.01%	6.30%
19	7/20/2012	9.81%	3.01%	6.80%
20	9/13/2012	9.80%	2.94%	6.86%
21	9/19/2012	9.80%	2.94%	6.86%
22	9/19/2012	10.05%	2.94%	7.11%
23	9/26/2012	9.50%	2.94%	6.56%
24	10/12/2012	9.60%	2.93%	6.67%
25	10/23/2012	9.75%	2.93%	6.82%
26	10/24/2012	10.30%	2.93%	7.37%
27	11/9/2012	10.30%	2.92%	7.38%
28	11/28/2012	10.40%	2.90%	7.50%
29	11/29/2012	9.75%	2.89%	6.86%
30	11/29/2012	9.88%	2.89%	6.99%
31	12/5/2012	9.71%	2.89%	6.82%
32	12/5/2012	10.40%	2.89%	7.51%
33	12/12/2012	9.80%	2.88%	6.92%
34	12/13/2012	9.50%	2.88%	6.62%
35	12/13/2012	10.50%	2.88%	7.62%
36	12/14/2012	10.40%	2.88%	7.52%
37	12/19/2012	9.71%	2.87%	6.84%
38	12/19/2012	10.25%	2.87%	7.38%
39	12/20/2012	9.50%	2.87%	6.63%
40	12/20/2012	9.80%	2.87%	6.93%
41	12/20/2012	10.25%	2.87%	7.38%
42	12/20/2012	10.25%	2.87%	7.38%
43	12/20/2012	10.30%	2.87%	7.43%
44	12/20/2012	10.40%	2.87%	7.53%
45	12/20/2012	10.45%	2.87%	7.58%
46	12/21/2012	10.20%	2.87%	7.33%
47	12/26/2012	9.80%	2.86%	6.94%
48	1/9/2013	9.70%	2.85%	6.85%
49	1/9/2013	9.70%	2.85%	6.85%
50	1/9/2013	9.70%	2.85%	6.85%
51	1/16/2013	9.60%	2.84%	6.76%
52	1/16/2013	9.60%	2.84%	6.76%
53	2/13/2013	10.20%	2.84%	7.36%
54	2/22/2013	9.75%	2.85%	6.90%
55	2/27/2013	10.00%	2.86%	7.14%
56	3/14/2013	9.30%	2.88%	6.42%
57	3/27/2013	9.80%	2.90%	6.90%
58	5/1/2013	9.84%	2.94%	6.90%
59	5/15/2013	10.30%	2.96%	7.34%
60	5/30/2013	10.20%	2.98%	7.22%
61	5/31/2013	9.00%	2.98%	6.02%
62	6/11/2013	10.00%	3.00%	7.00%
63	6/21/2013	9.75%	3.02%	6.73%
64	6/25/2013	9.80%	3.03%	6.77%
65	7/12/2013	9.36%	3.07%	6.29%
66				



	Bond Yield Plus Risk Premium			
	[6]	[7]	[8]	[9]
	Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
1				
2				
3				
4	8/8/2013	9.83%	3.14%	6.69%
5	8/14/2013	9.15%	3.16%	5.99%
6	9/11/2013	10.20%	3.26%	6.94%
7	9/11/2013	10.25%	3.26%	6.99%
8	9/24/2013	10.20%	3.31%	6.89%
9	10/3/2013	9.65%	3.33%	6.32%
10	11/6/2013	10.20%	3.41%	6.79%
11	11/21/2013	10.00%	3.44%	6.56%
12	11/26/2013	10.00%	3.45%	6.55%
13	12/3/2013	10.25%	3.47%	6.78%
14	12/4/2013	9.50%	3.47%	6.03%
15	12/5/2013	10.20%	3.48%	6.72%
16	12/9/2013	8.72%	3.48%	5.24%
17	12/9/2013	9.75%	3.48%	6.27%
18	12/13/2013	9.75%	3.50%	6.25%
19	12/16/2013	9.95%	3.50%	6.45%
20	12/16/2013	9.95%	3.50%	6.45%
21	12/16/2013	10.12%	3.50%	6.62%
22	12/17/2013	9.50%	3.51%	5.99%
23	12/17/2013	10.95%	3.51%	7.44%
24	12/18/2013	8.72%	3.51%	5.21%
25	12/18/2013	9.80%	3.51%	6.29%
26	12/19/2013	10.15%	3.51%	6.64%
27	12/30/2013	9.50%	3.54%	5.96%
28	2/20/2014	9.20%	3.68%	5.52%
29	2/26/2014	9.75%	3.69%	6.06%
30	3/17/2014	9.55%	3.72%	5.83%
31	3/26/2014	9.40%	3.73%	5.67%
32	3/26/2014	9.96%	3.73%	6.23%
33	4/2/2014	9.70%	3.73%	5.97%
34	5/16/2014	9.80%	3.70%	6.10%
35	5/30/2014	9.70%	3.68%	6.02%
36	6/6/2014	10.40%	3.67%	6.73%
37	6/30/2014	9.55%	3.64%	5.91%
38	7/2/2014	9.62%	3.64%	5.98%
39	7/10/2014	9.95%	3.63%	6.32%
40	7/23/2014	9.75%	3.61%	6.14%
41	7/29/2014	9.45%	3.60%	5.85%
42	7/31/2014	9.90%	3.60%	6.30%
43	8/20/2014	9.75%	3.57%	6.18%
44	8/25/2014	9.60%	3.56%	6.04%
45	8/29/2014	9.80%	3.54%	6.26%
46	9/11/2014	9.60%	3.51%	6.09%
47	9/15/2014	10.25%	3.51%	6.74%
48	10/9/2014	9.80%	3.45%	6.35%
49	11/6/2014	9.56%	3.37%	6.19%
50	11/6/2014	10.20%	3.37%	6.83%
51	11/14/2014	10.20%	3.35%	6.85%
52	11/26/2014	9.70%	3.33%	6.37%
53	11/26/2014	10.20%	3.33%	6.87%
54	12/4/2014	9.68%	3.31%	6.37%
55	12/10/2014	9.25%	3.29%	5.96%
56	12/10/2014	9.25%	3.29%	5.96%
57	12/11/2014	10.07%	3.29%	6.78%
58	12/12/2014	10.20%	3.28%	6.92%
59	12/17/2014	9.17%	3.27%	5.90%
60	12/18/2014	9.83%	3.26%	6.57%
61	1/23/2015	9.50%	3.14%	6.36%
62	2/24/2015	9.83%	3.04%	6.79%
63	3/18/2015	9.75%	2.98%	6.77%
64	3/25/2015	9.50%	2.96%	6.54%
65	3/26/2015	9.72%	2.95%	6.77%
66	4/23/2015	10.20%	2.87%	7.33%

	Bond Yield Plus Risk Premium			
	[6]	[7]	[8]	[9]
	Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
3	4/29/2015	9.53%	2.86%	6.67%
4	5/1/2015	9.60%	2.85%	6.75%
5	5/26/2015	9.75%	2.83%	6.92%
6	6/17/2015	9.00%	2.82%	6.18%
7	6/17/2015	9.00%	2.82%	6.18%
8	9/2/2015	9.50%	2.79%	6.71%
9	9/10/2015	9.30%	2.79%	6.51%
10	10/15/2015	9.00%	2.81%	6.19%
11	11/19/2015	10.00%	2.88%	7.12%
12	11/19/2015	10.30%	2.88%	7.42%
13	12/3/2015	10.00%	2.90%	7.10%
14	12/9/2015	9.14%	2.90%	6.24%
15	12/9/2015	9.14%	2.90%	6.24%
16	12/11/2015	10.30%	2.90%	7.40%
17	12/15/2015	9.60%	2.91%	6.69%
18	12/17/2015	9.70%	2.91%	6.79%
19	12/18/2015	9.50%	2.91%	6.59%
20	12/30/2015	9.50%	2.93%	6.57%
21	1/6/2016	9.50%	2.94%	6.56%
22	2/23/2016	9.75%	2.94%	6.81%
23	3/16/2016	9.85%	2.91%	6.94%
24	4/29/2016	9.80%	2.83%	6.97%
25	6/3/2016	9.75%	2.80%	6.95%
26	6/8/2016	9.48%	2.80%	6.68%
27	6/15/2016	9.00%	2.78%	6.22%
28	6/15/2016	9.00%	2.78%	6.22%
29	7/18/2016	9.98%	2.71%	7.27%
30	8/9/2016	9.85%	2.66%	7.19%
31	8/18/2016	9.50%	2.63%	6.87%
32	8/24/2016	9.75%	2.62%	7.13%
33	9/1/2016	9.50%	2.59%	6.91%
34	9/8/2016	10.00%	2.58%	7.42%
35	9/28/2016	9.58%	2.54%	7.04%
36	9/30/2016	9.90%	2.53%	7.37%
37				
38			# of Cases:	1,483
39			Average:	4.52%

Capital Structure Analysis

# PNM Exhibit RBH-8

Is contained in the following 3 pages

## Proxy Group Capital Structure

Line No.	% Common Equity										
1											
2	Company	Ticker	2016Q2	2016Q1	2015Q4	2015Q3	2015Q2	2015Q1	2014Q4	2014Q3	Average
3	ALLETE, Inc.	ALE	59.08%	58.83%	58.04%	58.01%	58.93%	58.70%	56.98%	56.18%	58.09%
4	Alliant Energy Corporation	LNT	50.02%	50.41%	50.00%	50.03%	49.85%	49.01%	48.81%	52.72%	50.11%
5	Ameren Corporation	AEE	52.52%	52.24%	51.66%	52.80%	51.84%	52.27%	52.21%	53.88%	52.43%
6	American Electric Power Company, Inc.	AEP	49.66%	49.13%	48.82%	49.13%	49.63%	52.23%	52.11%	52.27%	50.37%
7	Avista Corporation	AVA	55.46%	55.13%	54.30%	54.95%	54.98%	54.81%	51.39%	52.62%	54.20%
8	CenterPoint Energy, Inc.	CNP	30.39%	32.28%	30.56%	34.62%	37.41%	37.06%	36.22%	36.45%	34.37%
9	CMS Energy Corporation	CMS	52.14%	51.25%	50.46%	51.26%	50.97%	51.17%	50.03%	49.81%	50.89%
10	DTE Energy Company	DTE	49.35%	50.53%	50.39%	50.32%	49.81%	48.42%	50.39%	49.32%	49.82%
11	El Paso Electric Company	EE	46.22%	45.95%	49.86%	49.94%	49.04%	48.79%	49.01%	53.63%	49.05%
12	Eversource Energy	ES	53.96%	54.12%	53.64%	54.43%	53.33%	53.42%	53.22%	53.03%	53.64%
13	IDACORP, Inc.	IDA	52.46%	50.70%	52.34%	52.25%	51.61%	49.38%	52.94%	52.92%	51.82%
14	NorthWestern Corporation	NWE	47.66%	47.54%	47.31%	46.01%	46.97%	47.54%	47.06%	47.78%	47.24%
15	OGE Energy Corp.	OGE	55.50%	55.17%	54.30%	54.38%	53.31%	52.98%	53.08%	55.43%	54.27%
16	Otter Tail Corporation	OTTR	54.15%	53.10%	52.75%	52.51%	52.32%	51.13%	49.80%	49.32%	51.89%
17	Pinnacle West Capital Corporation	PNW	53.13%	55.54%	55.50%	57.11%	55.72%	55.86%	57.54%	58.43%	56.10%
18	Portland General Electric Company	POR	49.64%	50.89%	50.61%	50.31%	49.57%	44.11%	43.31%	44.86%	47.91%
19	SCANA Corporation	SCG	50.84%	52.77%	52.57%	52.55%	52.08%	53.72%	53.46%	53.47%	52.68%
20	Wisconsin Energy Corporation	WEC	55.74%	55.66%	55.25%	56.05%	55.26%	56.23%	55.91%	55.70%	55.72%
21	Xcel Energy Inc.	XEL	54.17%	54.68%	54.43%	53.02%	53.88%	54.97%	54.62%	54.54%	54.29%
22	Mean		51.16%	51.36%	51.20%	51.56%	51.39%	51.15%	50.95%	51.70%	51.31%
23	Minimum		30.39%	32.28%	30.56%	34.62%	37.41%	37.06%	36.22%	36.45%	34.37%
24	Maximum		59.08%	58.83%	58.04%	58.01%	58.93%	58.70%	57.54%	58.43%	58.09%

## Operating Company Capital Structure

			% Common Equity								
26	Company	Ticker	2016Q2	2016Q1	2015Q4	2015Q3	2015Q2	2015Q1	2014Q4	2014Q3	Average
28	Ameren Illinois Company	AEE	54.47%	53.06%	52.81%	54.87%	53.99%	53.71%	53.22%	56.14%	54.03%
29	Union Electric Company	AEE	50.56%	51.42%	50.51%	50.73%	49.69%	50.83%	51.20%	51.63%	50.82%
30	AEP Texas Central Company	AEP	45.01%	44.18%	43.63%	43.32%	47.46%	45.01%	42.39%	43.93%	44.37%
31	AEP Texas North Company	AEP	42.84%	42.64%	42.36%	45.03%	48.87%	47.15%	46.96%	47.06%	45.36%
32	Appalachian Power Company	AEP	46.41%	47.20%	46.77%	46.66%	46.50%	46.52%	45.83%	46.29%	46.52%
33	Indiana Michigan Power Company	AEP	48.50%	48.26%	52.65%	52.41%	52.08%	51.94%	51.36%	51.45%	51.08%
34	Kentucky Power Company	AEP	43.50%	43.58%	43.26%	43.72%	43.87%	44.19%	44.74%	46.25%	44.14%
35	Kingsport Power Company	AEP	64.34%	65.21%	59.70%	59.76%	60.44%	60.77%	61.00%	60.55%	61.47%
36	Ohio Power Company	AEP	54.87%	50.03%	50.09%	50.36%	50.33%	49.30%	48.96%	46.03%	49.99%
37	Public Service Company of Oklahoma	AEP	47.42%	46.80%	46.45%	46.30%	45.29%	44.66%	49.69%	49.43%	47.00%
38	Southwestern Electric Power Company	AEP	49.66%	49.51%	49.59%	49.88%	47.62%	46.25%	50.46%	50.60%	49.20%
39	Wheeling Power Company	AEP	54.08%	53.90%	53.73%	53.89%	53.82%	86.56%	79.75%	81.14%	64.61%
40	ALLETE (Minnesota Power)	ALE	56.63%	56.60%	55.86%	55.62%	57.67%	57.56%	55.24%	53.98%	56.15%
41	Superior Water, Light and Power Company	ALE	61.52%	61.06%	60.23%	60.40%	60.19%	59.83%	58.72%	58.39%	60.04%
42	Alaska Electric Light and Power Company	AVA	59.10%	58.86%	58.18%	58.09%	58.07%	57.83%	NA	NA	58.35%
43	Avista Corporation	AVA	51.82%	51.39%	50.41%	51.80%	51.90%	51.78%	51.39%	52.62%	51.64%
44	Consumers Energy Company	CMS	52.14%	51.25%	50.46%	51.26%	50.97%	51.17%	50.03%	49.81%	50.89%
45	CenterPoint Energy, Inc.	CNP	30.39%	32.28%	30.56%	34.62%	37.41%	37.06%	36.22%	36.45%	34.37%
46	DTE Electric Company	DTE	49.35%	50.53%	50.39%	50.32%	49.81%	48.42%	50.39%	49.32%	49.82%
47	El Paso Electric Company	EE	46.22%	45.95%	49.86%	49.94%	49.04%	48.79%	49.01%	53.63%	49.05%
48	Connecticut Light and Power Company	ES	53.66%	53.43%	52.03%	52.31%	51.21%	52.16%	52.02%	51.63%	52.31%
49	NSTAR Electric Company	ES	53.48%	55.24%	55.59%	58.60%	57.95%	57.64%	57.26%	56.59%	56.55%
50	Public Service Company of New Hampshire	ES	55.63%	54.04%	53.48%	53.56%	53.44%	53.40%	53.29%	53.92%	53.84%
51	Western Massachusetts Electric Company	ES	53.06%	53.78%	53.46%	53.25%	50.70%	50.48%	50.31%	49.97%	51.87%
52	Idaho Power Co.	IDA	52.46%	50.70%	52.34%	52.25%	51.61%	49.38%	52.94%	52.92%	51.82%
53	Interstate Power and Light Company	LNT	48.15%	49.04%	48.44%	48.43%	49.06%	47.49%	47.30%	51.00%	48.61%
54	Wisconsin Power and Light Company	LNT	51.89%	51.78%	51.56%	51.63%	50.65%	50.54%	50.32%	54.45%	51.60%
55	NorthWestern Corporation	NWE	47.66%	47.54%	47.31%	46.01%	46.97%	47.54%	47.06%	47.78%	47.24%
56	Oklahoma Gas and Electric Company	OGE	55.50%	55.17%	54.30%	54.38%	53.31%	52.98%	53.08%	55.43%	54.27%
57	Otter Tail Power Company	OTTR	54.15%	53.10%	52.75%	52.51%	52.32%	51.13%	49.80%	49.32%	51.89%
58	Arizona Public Service Company	PNW	53.13%	55.54%	55.50%	57.11%	55.72%	55.86%	57.54%	58.43%	56.10%
59	Portland General Electric Company	POR	49.64%	50.89%	50.61%	50.31%	49.57%	44.11%	43.31%	44.86%	47.91%
60	South Carolina Electric & Gas Co.	SCG	50.84%	52.77%	52.57%	52.55%	52.08%	53.72%	53.46%	53.47%	52.68%
61	Wisconsin Electric Power Company	WEC	56.87%	56.67%	56.97%	56.79%	56.48%	58.72%	58.26%	58.14%	57.36%
62	Wisconsin Public Service Corporation	WEC	54.61%	54.65%	53.53%	55.31%	54.04%	53.74%	53.55%	53.26%	54.09%
63	Northern States Power Company - MN	XEL	51.86%	53.68%	53.26%	51.95%	53.34%	53.03%	52.89%	52.84%	52.86%
64	Northern States Power Company - WI	XEL	54.57%	54.43%	54.27%	52.92%	52.53%	56.36%	55.18%	55.01%	54.41%
65	Public Service Company of Colorado	XEL	55.93%	56.49%	56.34%	56.00%	55.55%	56.94%	56.79%	56.51%	56.32%
66	Southwestern Public Service Company	XEL	54.30%	54.13%	53.83%	51.20%	54.08%	53.54%	53.62%	53.81%	53.56%

## Proxy Group Capital Structure

Line No.			% Long-Term Debt								
1											
2	Company	Ticker	2016Q2	2016Q1	2015Q4	2015Q3	2015Q2	2015Q1	2014Q4	2014Q3	Average
3	ALLETE, Inc.	ALE	40.92%	41.17%	41.96%	41.99%	41.07%	41.30%	43.02%	43.82%	41.91%
4	Alliant Energy Corporation	LNT	47.61%	47.19%	47.57%	47.54%	47.58%	48.39%	48.59%	44.49%	47.37%
5	Ameren Corporation	AEE	46.37%	46.66%	47.26%	46.08%	47.02%	46.58%	46.64%	44.92%	46.44%
6	American Electric Power Company, Inc.	AEP	50.34%	50.87%	51.18%	50.87%	50.37%	47.77%	47.89%	47.73%	49.63%
7	Avista Corporation	AVA	44.54%	44.87%	45.70%	45.05%	45.02%	45.19%	48.61%	47.38%	45.80%
8	CenterPoint Energy, Inc.	CNP	69.61%	67.72%	69.44%	65.38%	62.59%	62.94%	63.78%	63.55%	65.63%
9	CMS Energy Corporation	CMS	47.53%	48.41%	49.20%	48.39%	48.68%	48.48%	49.61%	49.83%	48.77%
10	DTE Energy Company	DTE	50.65%	49.47%	49.61%	49.68%	50.19%	51.58%	49.61%	50.68%	50.18%
11	El Paso Electric Company	EE	53.78%	54.05%	50.14%	50.06%	50.96%	51.21%	50.99%	46.37%	50.95%
12	Eversource Energy	ES	45.34%	45.18%	45.65%	44.84%	45.93%	45.82%	46.02%	46.20%	45.62%
13	IDACORP, Inc.	IDA	47.54%	49.30%	47.66%	47.75%	48.39%	50.62%	47.06%	47.08%	48.18%
14	NorthWestern Corporation	NWE	52.34%	52.46%	52.69%	53.99%	53.03%	52.46%	52.94%	52.22%	52.76%
15	OGE Energy Corp.	OGE	44.50%	44.83%	45.70%	45.62%	46.69%	47.02%	46.92%	44.57%	45.73%
16	Otter Tail Corporation	OTTR	45.85%	46.90%	47.25%	47.49%	47.68%	48.87%	50.20%	50.68%	48.11%
17	Pinnacle West Capital Corporation	PNW	46.87%	44.46%	44.50%	42.89%	44.28%	44.14%	42.46%	41.57%	43.90%
18	Portland General Electric Company	POR	50.36%	49.11%	49.39%	49.69%	50.43%	55.89%	56.69%	55.14%	52.09%
19	SCANA Corporation	SCG	49.16%	47.23%	47.43%	47.44%	47.92%	46.28%	46.54%	46.53%	47.32%
20	Wisconsin Energy Corporation	WEC	44.02%	44.10%	44.51%	42.77%	43.53%	42.55%	42.86%	43.06%	43.42%
21	Xcel Energy Inc.	XEL	45.83%	45.32%	45.57%	46.98%	46.12%	45.03%	45.38%	45.46%	45.71%
22	Mean		48.59%	48.38%	48.55%	48.13%	48.29%	48.53%	48.73%	47.96%	48.39%
23	Minimum		40.92%	41.17%	41.96%	41.99%	41.07%	41.30%	42.46%	41.57%	41.91%
24	Maximum		69.61%	67.72%	69.44%	65.38%	62.59%	62.94%	63.78%	63.55%	65.63%

## Operating Company Capital Structure

Line No.			% Long-Term Debt								
26											
27	Company	Ticker	2016Q2	2016Q1	2015Q4	2015Q3	2015Q2	2015Q1	2014Q4	2014Q3	Average
28	Ameren Illinois Company	AEE	44.36%	45.80%	46.04%	43.91%	44.77%	45.04%	45.52%	42.50%	44.74%
29	Union Electric Company	AEE	48.39%	47.51%	48.47%	48.26%	49.27%	48.12%	47.76%	47.34%	48.14%
30	AEP Texas Central Company	AEP	54.99%	55.82%	56.37%	56.68%	52.54%	54.99%	57.61%	56.07%	55.63%
31	AEP Texas North Company	AEP	57.16%	57.36%	57.64%	54.97%	51.13%	52.85%	53.04%	52.94%	54.64%
32	Appalachian Power Company	AEP	53.59%	52.80%	53.23%	53.34%	53.50%	53.48%	54.17%	53.71%	53.48%
33	Indiana Michigan Power Company	AEP	51.50%	51.74%	47.35%	47.59%	47.92%	48.06%	48.64%	48.55%	48.92%
34	Kentucky Power Company	AEP	56.50%	56.42%	56.74%	56.28%	56.13%	55.81%	55.26%	53.75%	55.86%
35	Kingsport Power Company	AEP	35.66%	34.79%	40.30%	40.24%	39.56%	39.23%	39.00%	39.45%	38.53%
36	Ohio Power Company	AEP	45.13%	49.97%	49.91%	49.64%	49.67%	50.70%	51.04%	53.97%	50.01%
37	Public Service Company of Oklahoma	AEP	52.58%	53.20%	53.55%	53.70%	54.71%	55.34%	50.31%	50.57%	53.00%
38	Southwestern Electric Power Company	AEP	50.34%	50.49%	50.41%	50.12%	52.38%	53.75%	49.54%	49.40%	50.80%
39	Wheeling Power Company	AEP	45.92%	46.10%	46.27%	46.11%	46.18%	13.44%	20.25%	18.86%	35.39%
40	ALLETE (Minnesota Power)	ALE	43.37%	43.40%	44.14%	44.38%	42.33%	42.44%	44.76%	46.02%	43.85%
41	Superior Water, Light and Power Company	ALE	38.48%	38.94%	39.77%	39.60%	39.81%	40.17%	41.28%	41.61%	39.96%
42	Alaska Electric Light and Power Company	AVA	40.90%	41.14%	41.82%	41.91%	41.93%	42.17%	NA	NA	41.65%
43	Avista Corporation	AVA	48.18%	48.61%	49.59%	48.20%	48.10%	48.22%	48.61%	47.38%	48.36%
44	Consumers Energy Company	CMS	47.53%	48.41%	49.20%	48.39%	48.68%	48.48%	49.61%	49.83%	48.77%
45	CenterPoint Energy, Inc.	CNP	69.61%	67.72%	69.44%	65.38%	62.59%	62.94%	63.78%	63.55%	65.63%
46	DTE Electric Company	DTE	50.65%	49.47%	49.61%	49.68%	50.19%	51.58%	49.61%	50.68%	50.18%
47	El Paso Electric Company	EE	53.78%	54.05%	50.14%	50.06%	50.96%	51.21%	50.99%	46.37%	50.95%
48	Connecticut Light and Power Company	ES	44.48%	44.70%	46.05%	45.74%	46.80%	45.79%	45.92%	46.30%	45.72%
49	NSTAR Electric Company	ES	45.58%	43.83%	43.49%	40.43%	41.06%	41.37%	41.74%	42.39%	42.49%
50	Public Service Company of New Hampshire	ES	44.37%	45.96%	46.52%	46.44%	46.56%	46.60%	46.71%	46.08%	46.16%
51	Western Massachusetts Electric Company	ES	46.94%	46.22%	46.54%	46.75%	49.30%	49.52%	49.69%	50.03%	48.13%
52	Idaho Power Co.	IDA	47.54%	49.30%	47.66%	47.75%	48.39%	50.62%	47.06%	47.08%	48.18%
53	Interstate Power and Light Company	LNT	47.12%	46.16%	46.71%	46.71%	45.80%	47.31%	47.49%	43.42%	46.34%
54	Wisconsin Power and Light Company	LNT	48.11%	48.22%	48.44%	48.37%	49.35%	49.46%	49.68%	45.55%	48.40%
55	NorthWestern Corporation	NWE	52.34%	52.46%	52.69%	53.99%	53.03%	52.46%	52.94%	52.22%	52.76%
56	Oklahoma Gas and Electric Company	OGE	44.50%	44.83%	45.70%	45.62%	46.69%	47.02%	46.92%	44.57%	45.73%
57	Otter Tail Power Company	OTTR	45.85%	46.90%	47.25%	47.49%	47.68%	48.87%	50.20%	50.68%	48.11%
58	Arizona Public Service Company	PNW	46.87%	44.46%	44.50%	42.89%	44.28%	44.14%	42.46%	41.57%	43.90%
59	Portland General Electric Company	POR	50.36%	49.11%	49.39%	49.69%	50.43%	55.89%	56.69%	55.14%	52.09%
60	South Carolina Electric & Gas Co.	SCG	49.16%	47.23%	47.43%	47.44%	47.92%	46.28%	46.54%	46.53%	47.32%
61	Wisconsin Electric Power Company	WEC	42.64%	42.84%	42.55%	42.72%	43.03%	40.77%	41.22%	41.34%	42.14%
62	Wisconsin Public Service Corporation	WEC	45.39%	45.35%	46.47%	42.82%	44.04%	44.33%	44.51%	44.79%	44.71%
63	Northern States Power Company - MN	XEL	48.14%	46.32%	46.74%	48.05%	46.66%	46.97%	47.11%	47.16%	47.14%
64	Northern States Power Company - WI	XEL	45.43%	45.57%	45.73%	47.08%	47.47%	43.64%	44.82%	44.99%	45.59%
65	Public Service Company of Colorado	XEL	44.07%	43.51%	43.66%	44.00%	44.45%	43.06%	43.21%	43.49%	43.68%
66	Southwestern Public Service Company	XEL	45.70%	45.87%	46.17%	48.80%	45.92%	46.46%	46.38%	46.19%	46.44%

## Line No.

No.	Company	Ticker	2016Q2	2016Q1	2015Q4	% Preferred Equity					
						2015Q3	2015Q2	2015Q1	2014Q4	2014Q3	Average
3	ALLETE, Inc.	ALE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
4	Alliant Energy Corporation	LNT	2.36%	2.40%	2.43%	2.43%	2.57%	2.60%	2.61%	2.79%	2.52%
5	Ameren Corporation	AEE	1.11%	1.11%	1.08%	1.12%	1.14%	1.15%	1.15%	1.20%	1.13%
6	American Electric Power Company, Inc.	AEP	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
7	Avista Corporation	AVA	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
8	CenterPoint Energy, Inc.	CNP	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
9	CMS Energy Corporation	CMS	0.33%	0.34%	0.34%	0.35%	0.35%	0.35%	0.36%	0.36%	0.35%
10	DTE Energy Company	DTE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
11	El Paso Electric Company	EE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
12	Eversource Energy	ES	0.70%	0.70%	0.71%	0.73%	0.74%	0.76%	0.76%	0.77%	0.73%
13	IDACORP, Inc.	IDA	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
14	NorthWestern Corporation	NWE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
15	OGE Energy Corp.	OGE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
16	Otter Tail Corporation	OTTR	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
17	Pinnacle West Capital Corporation	PNW	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
18	Portland General Electric Company	POR	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
19	SCANA Corporation	SCG	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
20	Wisconsin Energy Corporation	WEC	0.24%	0.25%	0.24%	1.18%	1.21%	1.22%	1.23%	1.24%	0.85%
21	Xcel Energy Inc.	XEL	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
22	Mean		0.25%	0.25%	0.25%	0.31%	0.32%	0.32%	0.32%	0.33%	0.29%
23	Minimum		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
24	Maximum		2.36%	2.40%	2.43%	2.43%	2.57%	2.60%	2.61%	2.79%	2.52%

## 25

			% Preferred Equity								
27	Company	Ticker	2016Q2	2016Q1	2015Q4	2015Q3	2015Q2	2015Q1	2014Q4	2014Q3	Average
28	Ameren Illinois Company	AEE	1.17%	1.14%	1.15%	1.22%	1.24%	1.25%	1.26%	1.36%	1.22%
29	Union Electric Company	AEE	1.05%	1.07%	1.02%	1.01%	1.04%	1.05%	1.04%	1.03%	1.04%
30	AEP Texas Central Company	AEP	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
31	AEP Texas North Company	AEP	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
32	Appalachian Power Company	AEP	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
33	Indiana Michigan Power Company	AEP	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
34	Kentucky Power Company	AEP	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
35	Kingsport Power Company	AEP	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
36	Ohio Power Company	AEP	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
37	Public Service Company of Oklahoma	AEP	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
38	Southwestern Electric Power Company	AEP	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
39	Wheeling Power Company	AEP	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
40	ALLETE (Minnesota Power)	ALE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
41	Superior Water, Light and Power Company	ALE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
42	Alaska Electric Light and Power Company	AVA	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	NA	NA	0.00%
43	Avista Corporation	AVA	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
44	Consumers Energy Company	CMS	0.33%	0.34%	0.34%	0.35%	0.35%	0.35%	0.36%	0.36%	0.35%
45	CenterPoint Energy, Inc.	CNP	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
46	DTE Electric Company	DTE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
47	EI Paso Electric Company	EE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
48	Connecticut Light and Power Company	ES	1.86%	1.87%	1.92%	1.95%	1.99%	2.05%	2.06%	2.07%	1.97%
49	NSTAR Electric Company	ES	0.94%	0.92%	0.92%	0.97%	0.98%	0.99%	1.00%	1.02%	0.97%
50	Public Service Company of New Hampshire	ES	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
51	Western Massachusetts Electric Company	ES	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
52	Idaho Power Co.	IDA	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
53	Interstate Power and Light Company	LNT	4.73%	4.80%	4.85%	4.86%	5.14%	5.20%	5.21%	5.58%	5.05%
54	Wisconsin Power and Light Company	LNT	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
55	NorthWestern Corporation	NWE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
56	Oklahoma Gas and Electric Company	OGE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
57	Otter Tail Power Company	OTTR	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
58	Arizona Public Service Company	PNW	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
59	Portland General Electric Company	POR	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
60	South Carolina Electric & Gas Co.	SCG	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
61	Wisconsin Electric Power Company	WEC	0.49%	0.49%	0.49%	0.49%	0.49%	0.51%	0.52%	0.52%	0.50%
62	Wisconsin Public Service Corporation	WEC	0.00%	0.00%	0.00%	1.87%	1.92%	1.93%	1.94%	1.95%	1.20%
63	Northern States Power Company - MN	XEL	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
64	Northern States Power Company - WI	XEL	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
65	Public Service Company of Colorado	XEL	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
66	Southwestern Public Service Company	XEL	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Recently Authorized ROEs for Vertically-Integrated Electric Utilities

# PNM Exhibit RBH-9

Is contained in the following 1 page

## 2014-2016 Reported Authorized Returns on Equity, Vertically Integrated Electric Utility Rate Cases

Line No.	State	Utility	Parent Company Ticker	Case Identification	Date Authorized	Authorized ROE
1	North Dakota	Northern States Power Co. - MN	XEL	C-PU-12-813	2/26/2014	9.75
2	New Mexico	Southwestern Public Service Co	XEL	C-12-00350-UT	3/26/2014	9.96
3	Texas	Entergy Texas Inc.	ETR	D-41791	5/16/2014	9.80
4	Wisconsin	Wisconsin Power and Light Co	LNT	D-6680-UR-119 (Elec)	6/6/2014	10.40
5	Louisiana	Entergy Louisiana LLC	ETR	D-UD-13-01	7/10/2014	9.95
6	Wyoming	Cheyenne Light Fuel Power Co.	BKH	D-20003-132-ER-13	7/31/2014	9.90
7	Vermont	Green Mountain Power Corp	-	D-8190, 8191	8/25/2014	9.60
8	Utah	PacifiCorp	BRKA	D-13-035-184	8/29/2014	9.80
9	Florida	Florida Public Utilities Co.	CPK	D-140025-EI	9/15/2014	10.25
10	Nevada	Nevada Power Co.	BRKA	D-14-05004	10/9/2014	9.80
11	Illinois	MidAmerican Energy Co.	BRKA	D-14-0066	11/6/2014	9.56
12	Wisconsin	Wisconsin Public Service Corp.	WEC	D-6690-UR-123 (Elec)	11/6/2014	10.20
13	Wisconsin	Wisconsin Electric Power Co.	WEC	D-05-UR-107 (WEP-Elec)	11/14/2014	10.20
14	Virginia	Appalachian Power Co.	AEP	C-PUE-2014-00026	11/26/2014	9.70
15	Wisconsin	Madison Gas and Electric Co.	MGEE	D-3270-UR-120 (Elec)	11/26/2014	10.20
16	Oregon	Portland General Electric Co.	POR	D-UE-283	12/4/2014	9.68
17	Mississippi	Entergy Mississippi Inc.	ETR	D-2014-UN-0132	12/11/2014	10.07
18	Wisconsin	Northern States Power Co - WI	XEL	D-4220-UR-120 (Elec)	12/12/2014	10.20
19	Colorado	Black Hills Colorado Electric	BKH	D-14AL-0393E	12/18/2014	9.83
20	Wyoming	PacifiCorp	BRKA	D-20000-446-ER-14	1/23/2015	9.50
21	Colorado	Public Service Co. of CO	XEL	D-14AL-0660E	2/24/2015	9.83
22	Washington	PacifiCorp	BRKA	D-UE-140762	3/25/2015	9.50
23	Minnesota	Northern States Power Co. - MN	XEL	D-E-002/GR-13-868	3/26/2015	9.72
24	Michigan	Wisconsin Public Service Corp.	WEC	C-U-17669	4/23/2015	10.20
25	Missouri	Union Electric Co.	AEE	C-ER-2014-0258	4/29/2015	9.53
26	West Virginia	Appalachian Power Co.	AEP	C-14-1152-E-42T	5/26/2015	9.75
27	Missouri	Kansas City Power & Light	GXP	C-ER-2014-0370	9/2/2015	9.50
28	Kansas	Kansas City Power & Light	GXP	D-15-KCPE-116-RTS	9/10/2015	9.30
29	Wisconsin	Wisconsin Public Service Corp.	WEC	D-6690-UR-124 (Elec)	11/19/2015	10.00
30	Michigan	Consumers Energy Co.	CMS	C-U-17735	11/19/2015	10.30
31	Wisconsin	Northern States Power Co - WI	XEL	D-4220-UR-121 (Elec)	12/3/2015	10.00
32	Michigan	DTE Electric Co.	DTE	C-U-17767	12/11/2015	10.30
33	Oregon	Portland General Electric Co.	POR	D-UE-294	12/15/2015	9.60
34	Texas	Southwestern Public Service Co	XEL	D-43695	12/17/2015	9.70
35	Idaho	Avista Corp.	AVA	C-AVU-E-15-05	12/18/2015	9.50
36	Wyoming	PacifiCorp	BRKA	D-20000-469-ER-15	12/30/2015	9.50
37	Washington	Avista Corp.	AVA	D-UE-150204	1/6/2016	9.50
38	Arkansas	Entergy Arkansas Inc.	ETR	D-15-015-U	2/23/2016	9.75
39	Indiana	Indianapolis Power & Light Co.	AES	Ca-44576	3/16/2016	9.85
40	New Mexico	El Paso Electric Co.	EE	C-15-00127-UT	6/8/2016	9.48
41	Indiana	Northern IN Public Svc Co.	NI	Ca-44688	7/18/2016	9.98
42	Tennessee	Kingsport Power Company	AEP	D-16-00001	8/9/2016	9.85
43	Arizona	UNS Electric Inc.	FTS	D-E-04204A-15-0142	8/18/2016	9.50
44	Washington	PacifiCorp	BRKA	D-UE-152253	9/1/2016	9.50
45	Michigan	Upper Peninsula Power Co.	-	C-U-17895	9/8/2016	10.00
46	New Mexico	Public Service Co. of NM	PNM	C-15-00261-UT	9/28/2016	9.58
47	Source: SNL Financial					Average 9.82
48						Median 9.80
49						Minimum 9.30
50						Maximum 10.40



DuPont Analysis

# PNM Exhibit RBH-10

Is contained in the following 6 pages

Change in Net Plant and Asset Turnover  
Proxy Group - Annual Average

Line No.	Year	Average Revenue/Net Plant	Change in Net Plant	Cumulative Change in Net Plant
1	2008	66.23%	10.69%	10.69%
2	2009	53.58%	7.83%	19.35%
3	2010	52.98%	6.46%	27.06%
4	2011	50.82%	5.57%	34.13%
5	2012	44.97%	8.98%	46.18%
6	2013	46.14%	2.71%	50.14%
7	2014	44.60%	9.62%	64.58%
8	2015	38.30%	12.60%	85.31%
9	3-5 Year Projection	36.34%	23.05%	128.03%

Change in Net Plant and Asset Turnover  
Proxy Group - Individual Company Results

Ticker	Year	Revenue	Net Plant	Revenue/Net Plant	Change in Net Plant	Change in Revenue/Net Plant
10 ALE	2007 \$	841.70	\$ 1,104.50	76.21%		
11 ALE	2008 \$	801.00	\$ 1,387.30	57.74%	25.60%	-24.23%
12 ALE	2009 \$	759.10	\$ 1,622.70	46.78%	16.97%	-18.98%
13 ALE	2010 \$	907.00	\$ 1,805.60	50.23%	11.27%	7.38%
14 ALE	2011 \$	928.20	\$ 1,982.70	46.81%	9.81%	-6.80%
15 ALE	2012 \$	961.20	\$ 2,347.60	40.94%	18.40%	-12.54%
16 ALE	2013 \$	1,018.40	\$ 2,576.50	39.53%	9.75%	-3.46%
17 ALE	2014 \$	1,136.80	\$ 3,286.40	34.59%	27.55%	-12.49%
18 ALE	2015 \$	1,486.40	\$ 3,669.10	40.51%	11.64%	17.11%
19 ALE	2019-2021 \$	1,540.00	\$ 3,825.00	40.26%	4.25%	-0.62%
20 LNT	2007 \$	3,437.60	\$ 4,679.90	73.45%		
21 LNT	2008 \$	3,681.70	\$ 5,353.50	68.77%	14.39%	-6.38%
22 LNT	2009 \$	3,432.80	\$ 6,203.00	55.34%	15.87%	-19.53%
23 LNT	2010 \$	3,416.10	\$ 6,730.60	50.75%	8.51%	-8.29%
24 LNT	2011 \$	3,665.30	\$ 7,037.10	52.09%	4.55%	2.62%
25 LNT	2012 \$	3,094.50	\$ 7,838.00	39.48%	11.38%	-24.20%
26 LNT	2013 \$	3,276.80	\$ 7,147.30	45.85%	-8.81%	16.12%
27 LNT	2014 \$	3,350.30	\$ 6,442.00	52.01%	-9.87%	13.44%
28 LNT	2015 \$	3,253.60	\$ 8,970.20	36.27%	39.25%	-30.26%
29 LNT	2019-2021 \$	4,100.00	\$ 8,800.00	46.59%	-1.90%	28.45%
30 AEE	2007 \$	7,546.00	\$ 15,069.00	50.08%		
31 AEE	2008 \$	7,839.00	\$ 16,567.00	47.32%	9.94%	-5.51%
32 AEE	2009 \$	7,090.00	\$ 17,610.00	40.26%	6.30%	-14.91%
33 AEE	2010 \$	7,638.00	\$ 17,853.00	42.78%	1.38%	6.26%
34 AEE	2011 \$	7,531.00	\$ 18,127.00	41.55%	1.53%	-2.89%
35 AEE	2012 \$	6,828.00	\$ 16,096.00	42.42%	-11.20%	2.11%
36 AEE	2013 \$	5,838.00	\$ 16,205.00	36.03%	0.68%	-15.07%
37 AEE	2014 \$	6,053.00	\$ 17,424.00	34.74%	7.52%	-3.57%
38 AEE	2015 \$	6,098.00	\$ 18,799.00	32.44%	7.89%	-6.63%
39 AEE	2019-2021 \$	6,850.00	\$ 24,300.00	28.19%	29.26%	-13.10%
40 AEP	2007 \$	13,380.00	\$ 29,870.00	44.79%		
41 AEP	2008 \$	14,440.00	\$ 32,987.00	43.77%	10.44%	-2.28%

						Change in Revenue/Net	
Ticker	Year	Revenue	Net Plant	Revenue/Net Plant	Change in Net Plant	Plant	
10 ALE	2007 \$	841.70	\$ 1,104.50	76.21%			
11 ALE	2008 \$	801.00	\$ 1,387.30	57.74%	25.60%		-24.23%
42 AEP	2009 \$	13,489.00	\$ 34,344.00	39.28%	4.11%		-10.28%
43 AEP	2010 \$	14,427.00	\$ 35,674.00	40.44%	3.87%		2.97%
44 AEP	2011 \$	15,116.00	\$ 36,971.00	40.89%	3.64%		1.10%
45 AEP	2012 \$	14,945.00	\$ 38,763.00	38.55%	4.85%		-5.70%
46 AEP	2013 \$	15,357.00	\$ 40,997.00	37.46%	5.76%		-2.84%
47 AEP	2014 \$	17,020.00	\$ 44,117.00	38.58%	7.61%		2.99%
48 AEP	2015 \$	16,453.00	\$ 46,133.00	35.66%	4.57%		-7.56%
49 AEP	2019-2021 \$	17,500.00	\$ 59,500.00	29.41%	28.97%		-17.53%
50 AVA	2007 \$	1,417.80	\$ 2,351.30	60.30%			
51 AVA	2008 \$	1,676.80	\$ 2,492.20	67.28%	5.99%		11.58%
52 AVA	2009 \$	1,512.60	\$ 2,607.00	58.02%	4.61%		-13.76%
53 AVA	2010 \$	1,558.70	\$ 2,714.20	57.43%	4.11%		-1.02%
54 AVA	2011 \$	1,619.80	\$ 2,860.80	56.62%	5.40%		-1.41%
55 AVA	2012 \$	1,547.00	\$ 3,023.70	51.16%	5.69%		-9.64%
56 AVA	2013 \$	1,618.50	\$ 3,202.40	50.54%	5.91%		-1.22%
57 AVA	2014 \$	1,472.60	\$ 3,620.00	40.68%	13.04%		-19.51%
58 AVA	2015 \$	1,484.80	\$ 3,898.60	38.09%	7.70%		-6.38%
59 AVA	2019-2021 \$	1,650.00	\$ 5,000.00	33.00%	28.25%		-13.35%
60 CNP	2007 \$	9,623.00	\$ 9,740.00	98.80%			
61 CNP	2008 \$	11,322.00	\$ 10,296.00	109.97%	5.71%		11.30%
62 CNP	2009 \$	8,281.00	\$ 10,788.00	76.76%	4.78%		-30.19%
63 CNP	2010 \$	8,785.00	\$ 11,732.00	74.88%	8.75%		-2.45%
64 CNP	2011 \$	8,450.00	\$ 12,402.00	68.13%	5.71%		-9.01%
65 CNP	2012 \$	7,452.00	\$ 13,597.00	54.81%	9.64%		-19.56%
66 CNP	2013 \$	8,106.00	\$ 9,593.00	84.50%	-29.45%		54.18%
67 CNP	2014 \$	9,226.00	\$ 10,502.00	87.85%	9.48%		3.97%
68 CNP	2015 \$	7,386.00	\$ 11,537.00	64.02%	9.86%		-27.13%
69 CNP	2019-2021 \$	8,100.00	\$ 13,200.00	61.36%	14.41%		-4.15%
70 CMS	2007 \$	6,519.00	\$ 8,728.00	74.69%			
71 CMS	2008 \$	6,821.00	\$ 9,190.00	74.22%	5.29%		-0.63%
72 CMS	2009 \$	6,205.00	\$ 9,682.00	64.09%	5.35%		-13.65%
73 CMS	2010 \$	6,432.00	\$ 10,069.00	63.88%	4.00%		-0.33%
74 CMS	2011 \$	6,503.00	\$ 10,633.00	61.16%	5.60%		-4.26%
75 CMS	2012 \$	6,312.00	\$ 11,551.00	54.64%	8.63%		-10.65%
76 CMS	2013 \$	6,566.00	\$ 12,246.00	53.62%	6.02%		-1.88%
77 CMS	2014 \$	7,179.00	\$ 13,412.00	53.53%	9.52%		-0.17%
78 CMS	2015 \$	6,456.00	\$ 14,705.00	43.90%	9.64%		-17.98%
79 CMS	2019-2021 \$	7,150.00	\$ 18,600.00	38.44%	26.49%		-12.44%
80 DTE	2007 \$	8,861.00	\$ 11,408.00	77.67%			
81 DTE	2008 \$	9,329.00	\$ 12,231.00	76.27%	7.21%		-1.80%
82 DTE	2009 \$	8,014.00	\$ 12,431.00	64.47%	1.64%		-15.48%
83 DTE	2010 \$	8,557.00	\$ 12,992.00	65.86%	4.51%		2.17%
84 DTE	2011 \$	8,897.00	\$ 13,746.00	64.72%	5.80%		-1.73%
85 DTE	2012 \$	8,791.00	\$ 14,684.00	59.87%	6.82%		-7.50%
86 DTE	2013 \$	9,661.00	\$ 15,800.00	61.15%	7.60%		2.13%

	Ticker	Year	Revenue	Net Plant	Revenue/Net Plant	Change in Net Plant	Change in Revenue/Net Plant
10	ALE	2007	\$ 841.70	\$ 1,104.50	76.21%		
11	ALE	2008	\$ 801.00	\$ 1,387.30	57.74%	25.60%	-24.23%
87	DTE	2014	\$ 12,301.00	\$ 16,820.00	73.13%	6.46%	19.61%
88	DTE	2015	\$ 10,337.00	\$ 18,034.00	57.32%	7.22%	-21.62%
89	DTE	2019-2021	\$ 12,600.00	\$ 25,100.00	50.20%	39.18%	-12.42%
90	EE	2007	\$ 877.40	\$ 1,450.60	60.49%		
91	EE	2008	\$ 1,038.90	\$ 1,595.60	65.11%	10.00%	7.65%
92	EE	2009	\$ 828.00	\$ 1,756.00	47.15%	10.05%	-27.58%
93	EE	2010	\$ 877.30	\$ 1,865.80	47.02%	6.25%	-0.28%
94	EE	2011	\$ 918.00	\$ 1,947.10	47.15%	4.36%	0.27%
95	EE	2012	\$ 852.90	\$ 2,102.30	40.57%	7.97%	-13.95%
96	EE	2013	\$ 890.40	\$ 2,257.50	39.44%	7.38%	-2.78%
97	EE	2014	\$ 917.50	\$ 2,488.40	36.87%	10.23%	-6.52%
98	EE	2015	\$ 849.90	\$ 2,695.50	31.53%	8.32%	-14.48%
99	EE	2019-2021	\$ 975.00	\$ 3,250.00	30.00%	20.57%	-4.85%
100	IDA	2007	\$ 879.40	\$ 2,616.60	33.61%		
101	IDA	2008	\$ 960.40	\$ 2,758.20	34.82%	5.41%	3.60%
102	IDA	2009	\$ 1,049.80	\$ 2,917.00	35.99%	5.76%	3.36%
103	IDA	2010	\$ 1,036.00	\$ 3,161.40	32.77%	8.38%	-8.94%
104	IDA	2011	\$ 1,026.80	\$ 3,406.60	30.14%	7.76%	-8.02%
105	IDA	2012	\$ 1,080.70	\$ 3,536.00	30.56%	3.80%	1.40%
106	IDA	2013	\$ 1,246.20	\$ 3,665.00	34.00%	3.65%	11.26%
107	IDA	2014	\$ 1,282.50	\$ 3,833.50	33.46%	4.60%	-1.61%
108	IDA	2015	\$ 1,270.30	\$ 3,992.40	31.82%	4.15%	-4.89%
109	IDA	2019-2021	\$ 1,350.00	\$ 4,675.00	28.88%	17.10%	-9.24%
110	ES	2007	\$ 5,822.20	\$ 7,229.90	80.53%		
111	ES	2008	\$ 5,800.10	\$ 8,207.90	70.66%	13.53%	-12.25%
112	ES	2009	\$ 5,439.40	\$ 8,840.00	61.53%	7.70%	-12.92%
113	ES	2010	\$ 4,898.20	\$ 9,567.70	51.20%	8.23%	-16.80%
114	ES	2011	\$ 4,465.70	\$ 10,403.00	42.93%	8.73%	-16.15%
115	ES	2012	\$ 6,273.80	\$ 16,605.00	37.78%	59.62%	-11.98%
116	ES	2013	\$ 7,301.20	\$ 17,576.00	41.54%	5.85%	9.95%
117	ES	2014	\$ 7,741.90	\$ 18,647.00	41.52%	6.09%	-0.05%
118	ES	2015	\$ 7,954.80	\$ 19,892.00	39.99%	6.68%	-3.68%
119	ES	2019-2021	\$ 8,200.00	\$ 27,900.00	29.39%	40.26%	-26.50%
120	NWE	2007	\$ 1,200.10	\$ 1,770.90	67.77%		
121	NWE	2008	\$ 1,260.80	\$ 1,839.70	68.53%	3.89%	1.13%
122	NWE	2009	\$ 1,141.90	\$ 1,964.10	58.14%	6.76%	-15.17%
123	NWE	2010	\$ 1,110.70	\$ 2,118.00	52.44%	7.84%	-9.80%
124	NWE	2011	\$ 1,117.30	\$ 2,213.30	50.48%	4.50%	-3.74%
125	NWE	2012	\$ 1,070.30	\$ 2,435.60	43.94%	10.04%	-12.95%
126	NWE	2013	\$ 1,154.50	\$ 2,690.10	42.92%	10.45%	-2.34%
127	NWE	2014	\$ 1,204.90	\$ 3,758.00	32.06%	39.70%	-25.29%
128	NWE	2015	\$ 1,214.30	\$ 4,059.50	29.91%	8.02%	-6.70%
129	NWE	2019-2021	\$ 1,485.00	\$ 4,850.00	30.62%	19.47%	2.36%

	Ticker	Year	Revenue	Net Plant	Revenue/Net Plant	Change in Net Plant	Change in Revenue/Net Plant
10	ALE	2007	\$ 841.70	\$ 1,104.50	76.21%		
11	ALE	2008	\$ 801.00	\$ 1,387.30	57.74%	25.60%	-24.23%
130	OGE	2007	\$ 3,797.60	\$ 4,246.30	89.43%		
131	OGE	2008	\$ 4,070.70	\$ 5,249.80	77.54%	23.63%	-13.30%
132	OGE	2009	\$ 2,869.70	\$ 5,911.60	48.54%	12.61%	-37.40%
133	OGE	2010	\$ 3,716.90	\$ 6,464.40	57.50%	9.35%	18.45%
134	OGE	2011	\$ 3,915.90	\$ 7,474.00	52.39%	15.62%	-8.88%
135	OGE	2012	\$ 3,671.20	\$ 8,344.80	43.99%	11.65%	-16.03%
136	OGE	2013	\$ 2,867.70	\$ 6,672.80	42.98%	-20.04%	-2.31%
137	OGE	2014	\$ 2,453.10	\$ 6,979.90	35.15%	4.60%	-18.22%
138	OGE	2015	\$ 2,196.90	\$ 7,322.40	30.00%	4.91%	-14.63%
139	OGE	2019-2021	\$ 2,600.00	\$ 8,800.00	29.55%	20.18%	-1.52%
140	OTTR	2007	\$ 1,238.90	\$ 854.00	145.07%		
141	OTTR	2008	\$ 1,311.20	\$ 1,037.60	126.37%	21.50%	-12.89%
142	OTTR	2009	\$ 1,039.50	\$ 1,098.60	94.62%	5.88%	-25.12%
143	OTTR	2010	\$ 1,119.10	\$ 1,108.70	100.94%	0.92%	6.68%
144	OTTR	2011	\$ 1,077.90	\$ 1,077.50	100.04%	-2.81%	-0.89%
145	OTTR	2012	\$ 859.20	\$ 1,049.50	81.87%	-2.60%	-18.16%
146	OTTR	2013	\$ 893.30	\$ 1,167.00	76.55%	11.20%	-6.50%
147	OTTR	2014	\$ 799.30	\$ 1,268.50	63.01%	8.70%	-17.68%
148	OTTR	2015	\$ 779.80	\$ 1,387.80	56.19%	9.40%	-10.83%
149	OTTR	2019-2021	\$ 1,100.00	\$ 1,900.00	57.89%	36.91%	3.03%
150	PNW	2007	\$ 3,523.60	\$ 8,436.40	41.77%		
151	PNW	2008	\$ 3,367.10	\$ 8,916.70	37.76%	5.69%	-9.59%
152	PNW	2009	\$ 3,297.10	\$ 9,257.80	35.61%	3.83%	-5.69%
153	PNW	2010	\$ 3,263.60	\$ 9,578.80	34.07%	3.47%	-4.33%
154	PNW	2011	\$ 3,241.40	\$ 9,962.30	32.54%	4.00%	-4.50%
155	PNW	2012	\$ 3,301.80	\$ 10,396.00	31.76%	4.35%	-2.39%
156	PNW	2013	\$ 3,454.60	\$ 10,889.00	31.73%	4.74%	-0.11%
157	PNW	2014	\$ 3,491.60	\$ 11,194.00	31.19%	2.80%	-1.68%
158	PNW	2015	\$ 3,495.40	\$ 11,809.00	29.60%	5.49%	-5.10%
159	PNW	2019-2021	\$ 4,250.00	\$ 14,575.00	29.16%	23.42%	-1.49%
160	POR	2007	\$ 1,743.00	\$ 3,066.00	56.85%		
161	POR	2008	\$ 1,745.00	\$ 3,301.00	52.86%	7.66%	-7.01%
162	POR	2009	\$ 1,804.00	\$ 3,858.00	46.76%	16.87%	-11.54%
163	POR	2010	\$ 1,783.00	\$ 4,133.00	43.14%	7.13%	-7.74%
164	POR	2011	\$ 1,813.00	\$ 4,285.00	42.31%	3.68%	-1.92%
165	POR	2012	\$ 1,805.00	\$ 4,392.00	41.10%	2.50%	-2.87%
166	POR	2013	\$ 1,810.00	\$ 4,880.00	37.09%	11.11%	-9.75%
167	POR	2014	\$ 1,900.00	\$ 5,679.00	33.46%	16.37%	-9.80%
168	POR	2015	\$ 1,898.00	\$ 6,012.00	31.57%	5.86%	-5.64%
169	POR	2019-2021	\$ 2,200.00	\$ 6,200.00	35.48%	3.13%	12.40%

	Ticker	Year	Revenue	Net Plant	Revenue/Net Plant	Change in Net Plant	Change in Revenue/Net Plant
10	ALE	2007	\$ 841.70	\$ 1,104.50	76.21%		
11	ALE	2008	\$ 801.00	\$ 1,387.30	57.74%	25.60%	-24.23%
170	SCG	2007	\$ 4,621.00	\$ 7,538.00	61.30%		
171	SCG	2008	\$ 5,319.00	\$ 8,305.00	64.05%	10.18%	4.47%
172	SCG	2009	\$ 4,237.00	\$ 9,009.00	47.03%	8.48%	-26.57%
173	SCG	2010	\$ 4,601.00	\$ 9,662.00	47.62%	7.25%	1.25%
174	SCG	2011	\$ 4,409.00	\$ 10,047.00	43.88%	3.98%	-7.85%
175	SCG	2012	\$ 4,176.00	\$ 10,896.00	38.33%	8.45%	-12.66%
176	SCG	2013	\$ 4,495.00	\$ 11,643.00	38.61%	6.86%	0.73%
177	SCG	2014	\$ 4,951.00	\$ 12,232.00	40.48%	5.06%	4.84%
178	SCG	2015	\$ 4,380.00	\$ 13,425.00	32.63%	9.75%	-19.39%
179	SCG	2019-2021	\$ 4,750.00	\$ 19,325.00	24.58%	43.95%	-24.66%
180	WEC	2007	\$ 4,327.80	\$ 7,681.20	56.34%		
181	WEC	2008	\$ 4,431.00	\$ 8,517.00	52.03%	10.88%	-7.66%
182	WEC	2009	\$ 4,127.90	\$ 9,070.50	45.51%	6.50%	-12.53%
183	WEC	2010	\$ 4,202.50	\$ 9,601.50	43.77%	5.85%	-3.82%
184	WEC	2011	\$ 4,486.40	\$ 10,160.00	44.16%	5.82%	0.89%
185	WEC	2012	\$ 4,246.40	\$ 10,572.00	40.17%	4.06%	-9.04%
186	WEC	2013	\$ 4,519.00	\$ 10,907.00	41.43%	3.17%	3.15%
187	WEC	2014	\$ 4,997.10	\$ 11,258.00	44.39%	3.22%	7.13%
188	WEC	2015	\$ 5,926.10	\$ 19,190.00	30.88%	70.46%	-30.43%
189	WEC	2019-2021	\$ 8,550.00	\$ 23,225.00	36.81%	21.03%	19.21%
190	XEL	2007	\$ 10,034.00	\$ 16,676.00	60.17%		
191	XEL	2008	\$ 11,203.00	\$ 17,689.00	63.33%	6.07%	5.26%
192	XEL	2009	\$ 9,644.30	\$ 18,508.00	52.11%	4.63%	-17.72%
193	XEL	2010	\$ 10,311.00	\$ 20,663.00	49.90%	11.64%	-4.24%
194	XEL	2011	\$ 10,655.00	\$ 22,353.00	47.67%	8.18%	-4.48%
195	XEL	2012	\$ 10,128.00	\$ 23,809.00	42.54%	6.51%	-10.76%
196	XEL	2013	\$ 10,915.00	\$ 26,122.00	41.78%	9.71%	-1.77%
197	XEL	2014	\$ 11,686.00	\$ 28,757.00	40.64%	10.09%	-2.75%
198	XEL	2015	\$ 11,024.00	\$ 31,206.00	35.33%	8.52%	-13.07%
199	XEL	2019-2021	\$ 11,750.00	\$ 38,400.00	30.60%	23.05%	-13.38%

200

201 Source: Value Line Investment Reports as of October 28, 2016

Change in Net Plant and Asset Turnover  
Regression Analysis

Line

No. SUMMARY OUTPUT

1	<i>Regression Statistics</i>	
2	Multiple R	0.46801103
3	R Square	0.219034325
4	Adjusted R Square	0.214413226
5	Standard Error	0.103105212
6	Observations	171

7	<i>ANOVA</i>					
8		<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
9	Regression	1	0.503881228	0.503881228	47.39875518	1.08609E-10
10	Residual	169	1.796585738	0.010630685		
11	Total	170	2.300466966			

12		<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
13	Intercept	-0.01268747	0.010403347	-1.219556495	0.224332337	-0.033224722	0.007849783
14	Change in Net Plant	-0.486640009	0.070684525	-6.884675386	1.08609E-10	-0.626178361	-0.347101657

Size Premium Analysis

# PNM Exhibit RBH-11

Is contained in the following 1 page



## Small Size Premium

Line  
No.

	[1]	[2]
	Customers (Mil)	(\$Mil)
1		
2	0.5	\$1,181.31
3		1.83
4		\$2,158.35

		[3]	[4]	[5]	
	Company Name	Ticker	Market Cap Customers (Mil) (\$Mil)	Market to Book Ratio	
5	ALLETE, Inc.	ALE	0.2	\$2,933.09	1.58
6	Alliant Energy Corporation	LNT	1.0	\$8,600.87	2.27
7	Ameren Corporation	AEE	2.4	\$11,886.92	1.72
8	American Electric Power Company, Inc.	AEP	4.3	\$31,290.09	1.70
9	Avista Corporation	AVA	0.4	\$2,601.31	1.61
10	CenterPoint Energy, Inc.	CNP	2.3	\$9,851.27	2.90
11	CMS Energy Corporation	CMS	1.8	\$11,659.31	2.75
12	DTE Energy Company	DTE	2.2	\$16,776.61	1.86
13	El Paso Electric Company	EE	0.4	\$1,830.35	1.80
14	Eversource Energy	ES	3.1	\$17,143.35	1.63
15	IDACORP, Inc.	IDA	0.5	\$3,864.33	1.81
16	NorthWestern Corporation	NWE	0.4	\$2,739.40	1.79
17	OGE Energy Corp.	OGE	0.8	\$6,208.14	1.87
18	Otter Tail Corporation	OTTR	0.1	\$1,344.95	2.11
19	Pinnacle West Capital Corporation	PNW	1.2	\$8,377.80	1.83
20	Portland General Electric Company	POR	0.8	\$3,744.93	1.62
21	SCANA Corporation	SCG	0.7	\$10,195.55	2.17
22	Wisconsin Energy Corporation	WEC	1.6	\$18,648.83	2.10
23	Xcel Energy Inc.	XEL	3.5	\$20,733.96	1.90
24	MEDIAN		0.98	\$8,600.87	1.83
25	MEAN		1.5	\$10,022.69	1.95

	Market Capitalization (\$Mil) [6]			
	Decile	Low	High	Size Premium
26				
27				
28	2	\$ 9,618.053	\$ 21,809.433	0.57%
29	3	\$ 5,205.841	\$ 9,611.187	0.86%
30	4	\$ 3,195.898	\$ 5,199.952	0.99%
31	5	\$ 2,090.566	\$ 3,187.480	1.49%
32	6	\$ 1,400.931	\$ 2,083.642	1.63%
33	7	\$ 845.509	\$ 1,400.208	1.62%
34	8	\$ 448.502	\$ 844.475	2.04%
35	9	\$ 209.880	\$ 448.079	2.54%
36	10	\$ 1.963	\$ 209.406	5.60%
37	Proxy Group Median		\$ 8,600.869	0.86%
38	5th Decile Size Premium		\$ 2,158.354	1.49%
39	Difference from Proxy Group Median			0.63%

## Notes:

- [1]PNMR, SEC Form 10-K, For the Fiscal Year December 31, 2015, at A29  
 [2] PNM's proposed ratebase of \$2,381,200,287 multiplied by the proposed equity ratio of 49.61%.  
 [3] Source: SNL Financial.  
 [4] Source: Bloomberg Professional Services, 30-day average  
 [5] Source: Bloomberg Professional Services, 30-day average  
 [6] Source: Duff & Phelps 2016 Valuation Handbook, Appendix 3

Rate Mechanisms

# PNM Exhibit RBH-12

Is contained in the following 3 pages

## Summary of Adjustment Clauses &amp; Alternative Regulation/Incentive Plans

			Adjustment Clauses						
Company	Parent	State	Fuel/ Purchased Power	Decoupling (F/P) [1]	New Capital Investment [2]	Energy Efficiency [3]	Renewables & RPS [4]	Environmental [5]	Other [6]
Ameren Illinois Company	AEE	Illinois	✓			✓	✓	✓	✓
Union Electric Company	AEE	Missouri	✓	P	✓			✓	✓
ALLETE (Minnesota Power)	ALE	Minnesota	✓			✓	✓	✓	✓
Superior Water, Light and Power Company	ALE	Wisconsin	✓						✓
Southwestern Electric Power Company	AEP	Arkansas	✓	P	✓	✓			✓
Indiana Michigan Power Company	AEP	Indiana	✓	P		✓		✓	✓
Kentucky Power Company	AEP	Kentucky	✓	P	✓	✓		✓	✓
Southwestern Electric Power Company	AEP	Louisiana	✓	P		✓		✓	✓
Indiana Michigan Power Company	AEP	Michigan	✓			✓	✓		
Ohio Power Company	AEP	Ohio	✓	P	✓	✓	✓		✓
Public Service Company of Oklahoma	AEP	Oklahoma	✓	P	✓	✓			✓
Kingsport Power Company	AEP	Tennessee	✓						
AEP Texas Central Company	AEP	Texas	NA		✓	✓			✓
AEP Texas North Company	AEP	Texas	NA		✓	✓			✓
Southwestern Electric Power Company	AEP	Texas	✓		✓	✓			
Appalachian Power Company	AEP	Virginia	✓		✓	✓	✓	✓	✓
Appalachian Power Company	AEP	West Virginia	✓						✓
Wheeling Power Company	AEP	West Virginia	✓						✓
Alaska Electric Light and Power Company	AVA	Alaska	✓						✓
Avista Corporation	AVA	Idaho	✓	P		✓			✓
Avista Corporation	AVA	Washington	✓	F		✓			✓
CenterPoint Energy Houston Electric	CNP	Texas	NA		✓	✓			✓
Consumers Energy Company	CMS	Michigan	✓			✓	✓		✓
DTE Electric Company	DTE	Michigan	✓			✓	✓	✓	✓
El Paso Electric Company	EE	Texas	✓		✓	✓			✓
El Paso Electric Company	EE	New Mexico	✓			✓			✓
Connecticut Light and Power Company	ES	Connecticut	✓	F		✓	✓		✓
NSTAR Electric Company	ES	Massachusetts	✓	P	✓	✓	✓		✓
Public Service Company of New Hampshire	ES	New Hampshire	✓	P	✓	✓			✓
Western Massachusetts Electric Company	ES	Massachusetts	✓	F	✓	✓	✓		✓
Idaho Power Co.	IDA	Idaho	✓	F		✓			✓
Idaho Power Co.	IDA	Oregon	✓			✓	✓		✓
Interstate Power and Light Company	LNT	Iowa	✓			✓	✓	✓	✓
Wisconsin Power and Light Company	LNT	Wisconsin	✓						✓
NorthWestern Energy	NWE	Montana	✓	P		✓			✓
NorthWestern Energy	NWE	South Dakota	✓			✓			✓
Oklahoma Gas and Electric Company	OGE	Arkansas	✓	P	✓	✓	✓		✓
Oklahoma Gas and Electric Company	OGE	Oklahoma	✓	P	✓	✓	✓	✓	✓
Otter Tail Power Company	OTTR	Minnesota	✓			✓	✓	✓	✓
Otter Tail Power Company	OTTR	North Dakota	✓		✓	✓	✓	✓	✓
Arizona Public Service Company	PNW	Arizona	✓	P	✓	✓	✓	✓	✓
Portland General Electric Company	POR	Oregon	✓	P	✓	✓	✓	✓	✓
South Carolina Electric & Gas Co.	SCG	South Carolina	✓	P	✓			✓	✓
Wisconsin Electric Power Company	WEC	Michigan	✓			✓	✓		
Wisconsin Public Service Corporation	WEC	Michigan	✓			✓			
Wisconsin Electric Power Company	WEC	Wisconsin	✓						✓
Wisconsin Public Service Corporation	WEC	Wisconsin	✓						✓
Public Service Company of Colorado	XEL	Colorado	✓		✓	✓		✓	✓
Northern States Power Company - MN	XEL	Minnesota	✓	F		✓	✓	✓	✓
Southwestern Public Service Company	XEL	New Mexico	✓		✓	✓	✓		✓
Northern States Power Company - MN	XEL	North Dakota	✓				✓		✓
Northern States Power Company - MN	XEL	South Dakota	✓	P	✓	✓		✓	✓
Southwestern Public Service Company	XEL	Texas	✓			✓			✓
Northern States Power Company - WI	XEL	Wisconsin	✓						✓

Company	Parent	State	Alternative Regulation / Incentive Plans				
			Formula- Based Rates	Price Freeze/ Cap	Earnings Sharing	Formula- Based ROE	Service Quality/ Performance
Ameren Illinois Company	AEE	Illinois	✓		✓	✓	✓
Union Electric Company	AEE	Missouri					
ALLETE (Minnesota Power)	ALE	Minnesota					
Superior Water, Light and Power Company	ALE	Wisconsin					
Southwestern Electric Power Company	AEP	Arkansas					
Indiana Michigan Power Company	AEP	Indiana					
Kentucky Power Company	AEP	Kentucky					
Southwestern Electric Power Company	AEP	Louisiana	✓	✓	✓		
Indiana Michigan Power Company	AEP	Michigan					
Ohio Power Company	AEP	Ohio		✓	✓		
Public Service Company of Oklahoma	AEP	Oklahoma					
Kingsport Power Company	AEP	Tennessee					
AEP Texas Central Company	AEP	Texas					
AEP Texas North Company	AEP	Texas					
Southwestern Electric Power Company	AEP	Texas					
Appalachian Power Company	AEP	Virginia			✓	✓	✓
Appalachian Power Company	AEP	West Virginia					
Wheeling Power Company	AEP	West Virginia					
Alaska Electric Light and Power Company	AVA	Alaska					
Avista Corporation	AVA	Idaho		✓			
Avista Corporation	AVA	Washington		✓			
CenterPoint Energy Houston Electric	CNP	Texas					
Consumers Energy Company	CMS	Michigan					
DTE Electric Company	DTE	Michigan					
El Paso Electric Company	EE	Texas					
El Paso Electric Company	EE	New Mexico					
Connecticut Light and Power Company	ES	Connecticut					
NSTAR Electric Company	ES	Massachusetts					
Public Service Company of New Hampshire	ES	New Hampshire					
Western Massachusetts Electric Company	ES	Massachusetts					
Idaho Power Co.	IDA	Idaho					
Idaho Power Co.	IDA	Oregon					
Interstate Power and Light Company	LNT	Iowa		✓			
Wisconsin Power and Light Company	LNT	Wisconsin		✓	✓		
NorthWestern Energy	NWE	Montana					
NorthWestern Energy	NWE	South Dakota					
Oklahoma Gas and Electric Company	OGE	Arkansas					
Oklahoma Gas and Electric Company	OGE	Oklahoma					
Otter Tail Power Company	OTTR	Minnesota					
Otter Tail Power Company	OTTR	North Dakota					
Arizona Public Service Company	PNW	Arizona		✓			
Portland General Electric Company	POR	Oregon					
South Carolina Electric & Gas Co.	SCG	South Carolina		✓			
Wisconsin Electric Power Company	WEC	Michigan					
Wisconsin Public Service Corporation	WEC	Michigan					
Wisconsin Electric Power Company	WEC	Wisconsin					
Wisconsin Public Service Corporation	WEC	Wisconsin					
Public Service Company of Colorado	XEL	Colorado		✓	✓		
Northern States Power Company - MN	XEL	Minnesota					
Southwestern Public Service Company	XEL	New Mexico		✓			
Northern States Power Company - MN	XEL	North Dakota					
Northern States Power Company - MN	XEL	South Dakota		✓			
Southwestern Public Service Company	XEL	Texas		✓			
Northern States Power Company - WI	XEL	Wisconsin					

Notes:

*Note: Texas T&D-only utilities do not have provider of last resort obligations, therefore fuel/power cost recovery is not applicable. A mechanism may cover one or more cost categories; therefore, designations may not indicate separate mechanisms for each category.*

[1] Full or partial decoupling (such as Straight-Fixed Variable rate design, weather normalization clauses, and recovery of lost revenues as a result of Energy Efficiency programs).

[2] Includes recovery of costs related to targeted new generation projects, infrastructure replacement, system integrity/hardening, Smart Grid, AMI metering, and other capital expenditures.

[3] Utility-sponsored conservation, energy efficiency, load control, or other demand side management programs.

[4] Recovers costs associated with renewable energy projects, Distributed Energy Resources, REC purchases, net metering, RPS expense, and renewable PPAs.

[5] EPA upgrade costs, emissions control & allowance purchase costs, nuclear decommissioning, and other costs to comply with state and federal environmental mandates.

[6] Pension expenses, bad debt costs, storm costs, vegetation management, RTO/Transmission Expense, capacity costs, transmission costs, government & franchise fees and taxes, economic development, and low income programs.

Sources: Company SEC Form 10-Ks; Operating company tariffs; Regulatory Research Associates, *Alternative Regulation/Incentive Plans: A State-by-State Overview*, November 19, 2013; Regulatory Research Associates, *Adjustment Clauses: A State-by-State Overview*, August 22, 2016.

**BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION**

**IN THE MATTER OF THE APPLICATION )  
OF PUBLIC SERVICE COMPANY OF NEW )  
MEXICO FOR REVISION OF ITS RETAIL )  
ELECTRIC RATES PURSUANT TO ADVICE )  
NOTICE NO. 533 )**

**Case No. 16-00276-UT**

**PUBLIC SERVICE COMPANY OF NEW )  
MEXICO, )**

**Applicant )**

**AFFIDAVIT**

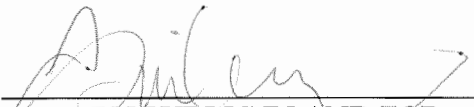
STATE OF MASSACHUSETTS )  
 ) ss  
COUNTY OF MIDDLESEX )

**ROBERT B. HEVERT, Managing Partner of Sussex Economic, LLC**, upon being duly sworn according to law, under oath, deposes and states: I have read the foregoing **Direct Testimony of Robert B. Hevert** and it is true and accurate based on my own personal knowledge and belief.

SIGNED this 8th day of November, 2016.

  
\_\_\_\_\_  
**ROBERT B. HEVERT**

**SUBSCRIBED AND SWORN** to before me this 8th day of November, 2016.

  
\_\_\_\_\_  
**NOTARY PUBLIC IN AND FOR  
THE COMMONWEALTH OF  
MASSACHUSETTS**

My Commission Expires:

March 11, 2022

