BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Union Electric Company, d/b/a Ameren Missouri's Tariff to Increase Its Revenues for Electric Service	))))) **Case No. ER-2014-0258**

Direct Testimony and Schedules of

Michael P. Gorman

On behalf of

Missouri Industrial Energy Consumers

December 5, 2014

BAI

BRUBAKER & ASSOCIATES, INC.

Project 9913

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

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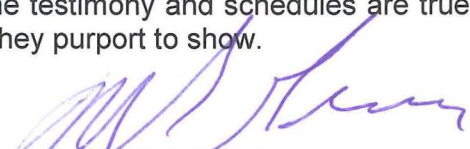|		
STATE OF MISSOURI	)	
	)	SS
COUNTY OF ST. LOUIS	)	

Affidavit of Michael P. Gorman

Michael P. Gorman, being first duly sworn, on his oath states:

1.   My name is Michael P. Gorman. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 16690 Swingley Ridge Road, Suite 140, Chesterfield, Missouri 63017. We have been retained by the Missouri Industrial Energy Consumers in this proceeding on their behalf.

2.   Attached hereto and made a part hereof for all purposes are my direct testimony and schedules which were prepared in written form for introduction into evidence in Missouri Public Service Commission Case No. ER-2014-0258.
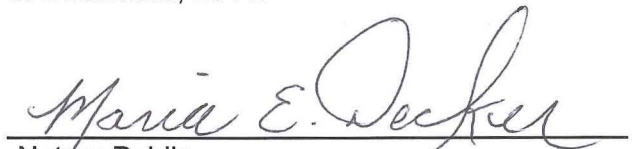
3.   I hereby swear and affirm that the testimony and schedules are true and correct and that they show the matters and things that they purport to show.

_____
Michael P. Gorman

Subscribed and sworn to before me this 4th day of December, 2014.

_____
Notary Public

MARIA E. DECKER
Notary Public - Notary Seal
STATE OF MISSOURI
St. Louis City
My Commission Expires: May 5. 2017
Commission # 13706793

BRUBAKER & ASSOCIATES, INC.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

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Table of Contents to the
Direct Testimony of Michael P. Gorman

Schedules MPG-1 through MPG-17

Michael P. Gorman
Table of Contents

BEFORE THE PUBLIC SERVICE COMMISSION
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In the Matter of Union Electric Company, d/b/a Ameren Missouri's Tariff to Increase Its Revenues for Electric Service	))))) Case No. ER-2014-0258

Direct Testimony of Michael P. Gorman

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

2 A Michael P. Gorman. My business address is 16690 Swingley Ridge Road, Suite 140,

3 Chesterfield, MO 63017.

4 **Q** **WHAT IS YOUR OCCUPATION?**

5 A I am a consultant in the field of public utility regulation and a Managing Principal of

6 Brubaker & Associates, Inc., energy, economic and regulatory consultants.

7 **Q** **PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.**

8 A This information is included in Appendix A to this testimony.

9 **Q** **ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?**

10 A This testimony is presented on behalf of the Missouri Industrial Energy Consumers

11 ("MIEC").

12 **Q** **WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

13 A My testimony will address Union Electric Company d/b/a Ameren Missouri's ("Ameren

14 Missouri" or "Company") overall rate of return including return on equity, embedded

15 debt cost, and capital structure.

I. SUMMARY

1

2 **Q** **PLEASE SUMMARIZE YOUR RATE OF RETURN RECOMMENDATIONS AND**

3 **CONCLUSIONS ON AMEREN MISSOURI'S RATE OF RETURN.**

4 A I recommend the Missouri Public Service Commission (the "Commission') award

5 Ameren Missouri a return on common equity of 9.30%, which is at the midpoint of my

6 recommended range of 9.00% to 9.60%. My recommended return on equity will fairly

7 compensate Ameren Missouri for its current market cost of common equity, and it will

8 mitigate the claimed revenue deficiency in this proceeding by providing Ameren

9 Missouri fair compensation with the lowest cost to customers.

10 My recommended return on equity is developed on my Schedule MPG-1, and

11 produces an overall rate of return of 7.48%. This rate of return is based on my

12 recommended return on equity, and the Company's capital structure and embedded

13 cost of debt.

14 **Q** **WHY ARE YOU RECOMMENDING THE MIDPOINT OF YOUR RECOMMENDED**

15 **RANGE?**

16 A My estimated range represents a reasonable estimate of the current cost of equity.

17 But for rate-setting purposes, the most balanced and reasonable return on equity is

18 the midpoint of the range, which is my recommendation in this case. Rate setting is

19 intended to balance the interests of customers and shareholders. The high end of the

20 range would tilt the balance in favor of investors, and the low end of the range would

21 tilt the balance in favor of customers. The midpoint is a balanced authorized return

22 on equity estimate, and should be used unless there are extenuating circumstances

23 which justify moving above or below the midpoint. For example, if the Commission

1 authorized a new rider mechanism which would reduce the utility company's

2 operating risk, it would be appropriate to move below the midpoint.

3 ## II. RATE OF RETURN

4 **Q** **PLEASE DESCRIBE THIS SECTION OF YOUR TESTIMONY.**

5 A I begin my estimate of a fair return on equity for Ameren Missouri by reviewing the

6 market's assessment of the regulated utility industry investment risk, credit standing,

7 and stock price performance. I used this information to get a sense of the market's

8 perception of the risk characteristics of regulated utility investments in general, which

9 is then used to produce a refined estimate of the market's return requirement for

10 assuming investment risk similar to Ameren Missouri's utility operations.

11 As described below, I find the credit rating outlook of the industry to be strong,

12 supportive of the industry's financial integrity and access to capital. Further,

13 regulated utilities' stocks have exhibited strong price performance over the last

14 several years, which is evidence of utility access to capital.

15 Based on this review of credit outlooks and stock price performance, I

16 conclude that the market continues to embrace the regulated utility industry as a

17 safe-haven investment, and views utility equity and debt investments as low-risk

18 securities.

19 ## II.A. Regulated Utility Industry Market Outlook

20 **Q** **PLEASE DESCRIBE REGULATED UTILITIES' CREDIT RATING OUTLOOK.**

21 A Utilities' credit ratings have improved over the recent past and the credit outlook is

22 Stable to Improving. Further, credit analysts have observed that utilities currently

23 have strong access to capital at attractive pricing (i.e., low capital costs).

1   Standard & Poor's ("S&P") recently published a report titled "U.S. Regulated

2   Utilities On Stable Trajectory Amid Moderate Economic Growth." In that report, S&P

3   noted the following:

4   **Effect on ratings**
5   Rating activity since the beginning of the year was relatively quiet
6   compared with the large number of rating changes in 2013 (42
7   upgrades and six downgrades).

8   *   *   *

9   **Industry Ratings Outlook**
10   The prospective rating movement for U.S. regulated utilities, as
11   measured by outlooks and CreditWatch listings, is limited, with nearly
12   9% of companies having positive outlooks or positive CreditWatch
13   listings and about 6% carrying negative outlooks. One company
14   (0.5%) has a developing outlook. (Importantly, outlooks and
15   CreditWatch placements do not predict rating changes. Rather, they
16   highlight the potential for rating changes and their direction.) With the
17   remaining <u>85% of the industry having stable outlooks</u>, and with a
18   moderate influence on the sector's business risk and financial risk
19   profiles as a result of economic volatility, we expect few rating changes
20   in the sector in the near-to-intermediate term.

21   *   *   *

22   We have seen that investors have been <u>responsive to regulated utility</u>
23   <u>debt under all market conditions</u> and we expect <u>pricing and demand to</u>
24   <u>remain robust</u>. The amount of medium- to long-term debt and hybrid
25   securities issued during the first four months of the year was about $11
26   billion. Most utilities continue to proactively manage their liquidity
27   needs by increasing the size and extending the tenor of their revolving
28   credit facilities with maturity dates well into 2018 and beyond. And,
29   several companies have issued common stock to partially fund
30   construction programs, which has helped to support capital structure
31   balance. In addition, many utilities are accessing short-term credit
32   markets and issuing commercial paper at very low rates. <u>The relative</u>
33   <u>certainty of financial performance by utilities operating under relatively</u>
34   <u>predictable regulatory frameworks, an effective monopoly position, and</u>
35   <u>long-lived assets continue to make the utility sector attractive to</u>
36   <u>investors</u>. We believe that utilities will continue to tap the short-term
37   debt markets with relative ease and, as a result, we expect liquidity to
38   remain adequate for most utilities under our criteria. The ability of
39   utilities to issue short-term debt and access liquidity is critical,
40   especially in light of significant capital budgets for aging infrastructure,

1   environmental compliance, plant improvements, and ongoing
2   transmission and distribution investments.[1]

3   Similarly, Fitch states:

4   **Rating Outlook Stable Ratings Outlook:** Fitch Ratings expects the
5   ratings and ratings outlook for the overall U.S. Utilities, Power, and
6   Gas (UPG) sector to remain <u>stable in 2014</u>. Fitch expects modest
7   earnings growth from recent rate base additions and continued
8   maturation of capex projects. Broad macroeconomic conditions
9   remain favorable for the sector; Fitch expects modest economic
10   growth, tepid inflation, low natural gas prices, and a favorable interest
11   rate environment.

12   *   *   *

13   **Stable Utility and Utility Parent Company Ratings**
14   Within the context of gradual recovery, low inflation, and stable
15   commodity prices, Fitch expects regulated utilities to maintain their
16   solid investment-grade credit profile. Issuer Default Ratings (IDRs)
17   should remain on the cusp of 'BBB+' to 'A–', with more than 90% of
18   debt issuances being rated in the 'A' category. Long-term debt
19   instrument ratings of Fitch's entire universe of regulated utilities carry
20   investment-grade ratings, a testament to the sound credit profile of the
21   industry.[2]

22   Moody's recent credit upgrade to the U.S. Utility Sector states as follows:

23   »   We recently upgraded most US investor-owned utilities and many of
24   their holding companies due to our view <u>that the US regulatory</u>
25   <u>environment has improved over the past several years</u>. Most of the
26   companies placed on review for upgrade in November
27   2013[footnote omitted] were upgraded in late January 2014, and
28   most by one notch. Please see Appendix A for a list of companies
29   that were upgraded.

30   »   US regulated utilities appear financially secure, thanks to their suite
31   of transparent and timely cost and investment recovery
32   mechanisms. When compared with other regulatory environments
33   in developed countries[footnote omitted], the overall regulatory
34   environment for US utilities has steadily improved over the past few
35   years and is expected to remain supportive and constructive for at
36   least the next 3-5 years.

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[1] *Standard & Poor's RatingsDirect*: "Industry Economic And Ratings Outlook: U.S. Regulated Utilities On Stable Trajectory Amid Moderate Economic Growth," May 22, 2014 at 4-5, emphasis added.
[2] *FitchRatings*: "2014 Outlook: Utilities, Power, and Gas," December 12, 2013 at 1-2, emphasis added.

1   » A more favorable regulatory environment allows US regulated
2   utilities to generate relatively stable and predictable revenue and
3   cash flow, which can support a material amount of leverage. But
4   most US utilities maintain a conservative capital structure, where
5   the ratios of debt to EBITDA and cash flow to debt hover in the 4.0x
6   and 20% range, respectively. Key financial ratios are likely to
7   decline over the next few years, as interest rates rise and tax
8   payments increase with the expiration of bonus depreciation.

9   *   *   *

10   » Utilities have demonstrated strong, stable access to the capital
11   markets. Utilities do not maintain high cash balances, but their
12   committed credit facilities are typically syndicated across several
13   banks and contain few, if any, borrowing constraints. However, a
14   combination of significant capital investments and sizable
15   shareholder dividends that are typically well beyond the cash
16   generated from operations means that utilities are generally in a
17   negative free cash flow position.[3]

18 **Q PLEASE DESCRIBE UTILITY STOCK PRICE PERFORMANCE OVER THE LAST**

19 **SEVERAL YEARS.**

20 A As shown in the graph below, the Edison Electric Institute ("EEI") has recorded utility

21 stock price performance compared to the market. The EEI data shows that its Utility

22 Index has outperformed the market in downturns and trailed the market during

23 recovery. This supports my conclusion that utility stock investments are regarded by

24 market participants as a moderate- to low-risk investment.

---

[3] *Moody's Investors Service*: "Sector Comment: US utility sector upgrades driven by stable and transparent regulatory frameworks," February 3, 2014 at 1, emphasis added, provided by Ameren Missouri in response to MIEC Data Request 4.4.

FIGURE 1

Index Comparison

* through June 2014

Source: EEI Q2 2014 Stock Performance Financial Update, at Page 1.
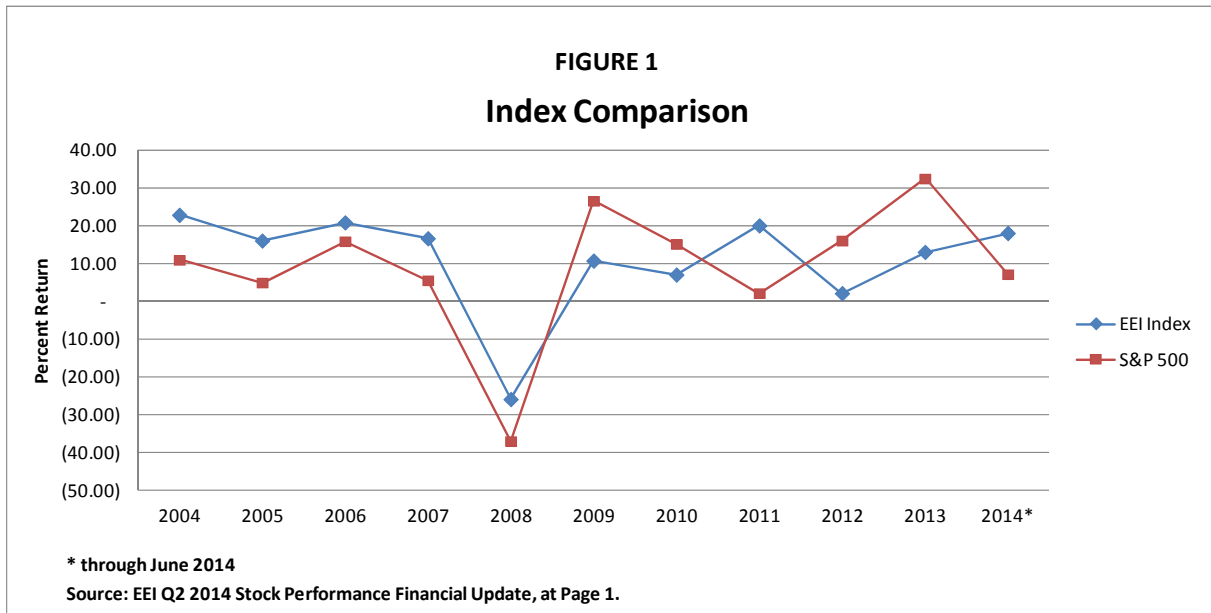
1 **Q   WHAT ARE THE IMPORTANT TAKEAWAY POINTS FROM THIS ASSESSMENT**

2 **OF UTILITY INDUSTRY CREDIT AND INVESTMENT RISK OUTLOOKS?**

3 A   Credit rating agencies consider the regulated utility industry to be stable and believe

4 investors will continue to provide an abundance of capital to support utilities' large

5 capital programs at moderate capital costs. All of this supports the continued belief

6 that utility investments are generally regarded as safe-haven or low-risk investments,

7 and the market embraces low-risk investments, such as utility investments.   The

8 demand for low-risk investments will provide funding for regulated utilities in general.

9 **II.B. Ameren Missouri Investment Risk**

10 **Q   PLEASE DESCRIBE THE MARKET'S ASSESSMENT OF THE INVESTMENT RISK**

11 **OF AMEREN MISSOURI.**

12 A   The market's assessment of Ameren Missouri's investment risk is described by credit

13 rating analysts' reports.   Ameren Missouri's current corporate and senior secured

1	bond ratings from S&P and Moody's are "BBB+" and "A," and "Baa1" and "A2,"

1   bond ratings from S&P and Moody's are "BBB+" and "A," and "Baa1" and "A2,"

2   respectively.[4] Both rating agencies have a Stable outlook for Ameren Missouri.

3   Specifically, S&P states the following:

Business Risk: Excellent
We consider AM business risk profile as "excellent", reflecting its lower-risk, monopolistic rate-regulated utility businesses that provide an essential service. AM is a rate-regulated utility that serves about 1.2 million electric and more than 120,000 gas customers in portions of central and eastern Missouri. The company also has about 10,300 megawatts (MW) of generating capacity, generating about 75% of its electricity from coal and 20% from nuclear. We view the Missouri regulatory jurisdiction as "strong/adequate" (see "Utility Regulatory Assessments For U.S. Investor-Owned Utilities," Jan. 7, 2014) and we view AM's management of regulatory risk as average compared with peers. This reflects the company's use of various riders and trackers that include a fuel adjustment clause and pension and storm trackers. However, under our base case scenario of slower-than-average economic growth, continued regulatory lag, and higher capital spending, we view the company's ability to consistently earn its allowed return on equity as challenging.

* * *

Financial Risk: Significant
For AM, we use the medial volatility table, reflecting the company's lower-risk regulated utility business model that includes the higher operating risk of regulated generation.

We view AM's stand-alone financial risk profile as "intermediate", reflecting our expectations that the core financial measures will continue to remain at the lower end of the range for the intermediate financial risk profile category.[5]

31   Moody's recent upgrade to Ameren Missouri's credit rating included

32   the following rationale:

Approximately $4.8 Billion of Debt Affected

New York, January 31, 2014 -- Moody's Investors Service upgraded the ratings of Ameren Corporation to Baa2 from

---

[4] *SNL Financial*, October 21, 2014.
[5] *Standard & Poor's RatingsDirect:* "Summary: Union Electric Co. d/b/a Ameren Missouri," May 8, 2014 at 3-4.

1   Baa3, Union Electric Company to Baa1 from Baa2, and
2   Ameren Illinois Company to Baa1 from Baa2. Concurrently, we
3   upgraded Ameren Corporation's commercial paper rating to
4   Prime-2 from Prime-3. This rating action completes our review
5   initiated on November 8, 2013. The outlooks are stable.

6   RATING RATIONALE

7   The primary driver of today's rating action was Moody's more
8   favorable view of the relative credit supportiveness of the US
9   regulatory environment, as detailed in our September 2013
10   Request for Comment titled "Proposed Refinements to the
11   Regulated Utilities Rating Methodology and our Evolving View
12   of US Utility Regulation."

13   Ameren's rating reflects improving regulatory environment in
14   both Missouri and Illinois and financial metrics that are
15   supportive of its ratings. Ameren's rating also reflects its
16   position as a parent holding company that is diversified with
17   regulated utilities operating in two states, and the modest
18    $425 million of long-term debt at the parent company level.
19   The sale of the merchant operation, which was completed in
20   December of 2013, eliminates a significant credit overhang.[6]

21   Fitch's recent comments of Ameren Missouri included the following:

22   **Key Rating Drivers**

23   **Balanced Regulatory Framework:** Missouri rate design
24   features various trackers for major operating expenses,
25   including pension expense and storm restoration costs, and a
26   fuel adjustment clause that contributes to earnings predictability
27   and stability. Regulatory lag remains a credit concern. Use of
28   a historical test year, a prohibition on allowing construction
29   work in progress in rate base, and an extended rate review
30   period account for the lag.

31   **Solid Credit Metrics:** New electric base rates effective in
32   January 2013 support Union Electric Co.'s (UE) sound financial
33   performance. The ratios of adjusted debt/EBITDAR, FFO
34   lease-adjusted leverage, and FFO fixed-charge coverage were
35   2.9x, 2.9x and 5.6x, respectively, for the fiscal year ended Dec.
36   31, 2013. Fitch Ratings projects credit metrics will remain
37   strong for the current rating category with adjusted
38   debt/EBITDAR, FFO lease-adjusted leverage and FFO fixed-

---

[6] *Moody's Investors Service*: "Rating Action: Moody's upgrades Ameren Corp and subsidiary ratings by one notch; Outlooks stable," January 31, 2014 at 1, provided by Ameren Missouri in response to MIEC Data Request 4.3.

1   charge coverage to average 3.0x, 3.0x, and 5.3x, respectively,
2   over 2014–2016.[7]

3   II.C. Ameren Missouri's Proposed Capital Structure

4   **Q**   **WHAT IS AMEREN MISSOURI'S PROPOSED CAPITAL STRUCTURE?**

5   A   Ameren Missouri's proposed capital structure is shown in Table 1 below:

TABLE 1

Ameren Missouri's Proposed Capital Structure
(December 31, 2014)

Description	Weight
Long-Term Debt	47.34%
Preferred Stock	1.07%
Common Equity	51.59%
Total Regulatory Capital Structure	100.00%

Source: Schedule RJM-1.

6   Ameren Missouri's proposed capital structure is Ameren Missouri witness

7   Ryan Martin's projected capital structure at the true-up – December 31, 2014. As

8   outlined in Mr. Martin's testimony, the true-up capital structure reflects a decline in the

9   common equity ratio from March 31, 2014 through year-end 2014, based on the

10   expectation of dividend payments up to the parent company and issuances of

11   long-term debt during calendar year 2014.

---

[7] *Fitch Ratings*: "Corporates: Union Electric Co.," April 25, 2014 at 1, provided by Ameren Missouri in response to MIEC Data Request 4.3.

II.D. Embedded Cost of Debt

1

2 **Q   WHAT IS THE EMBEDDED COST OF DEBT THAT THE COMPANY IS**

3 **PROPOSING IN THIS PROCEEDING?**

4 A   The Company is proposing an embedded debt cost of 5.565%. The embedded debt

5   cost is sponsored by Company witness Mr. Martin, who supports the proposed

6   embedded cost of debt on his Schedule RJM-2.

7 **Q   DO YOU HAVE ANY ISSUES WITH THE COMPANY'S PROPOSED EMBEDDED**

8 **COST OF DEBT OF 5.565%?**

9 A   The Company's proposed embedded cost of debt appears to reflect all refinancing

10   opportunities available to it up through the filing of its original testimony. To the

11   extent the Company issues new debt, or is able to refinance embedded debt

12   structures, then the embedded cost of debt should be updated at the time of the

13   true-up filing.

II.E. Return on Equity

14

15 **Q   PLEASE DESCRIBE WHAT IS MEANT BY A "UTILITY'S COST OF COMMON**

16 **EQUITY."**

17 A   A utility's cost of common equity is the return investors require on an investment in

18   the utility. Investors expect to achieve their return requirement from receiving

19   dividends and stock price appreciation.

1 **Q** **PLEASE DESCRIBE THE FRAMEWORK FOR DETERMINING A REGULATED**
2 **UTILITY'S COST OF COMMON EQUITY.**

3 A In general, determining a fair cost of common equity for a regulated utility has been
4 framed by two hallmark decisions of the U.S. Supreme Court: <u>Bluefield Water Works</u>
5 <u>& Improvement Co. v. Pub. Serv. Comm'n of W. Va.</u>, 262 U.S. 679 (1923) and <u>Fed.</u>
6 <u>Power Comm'n v. Hope Natural Gas Co.</u>, 320 U.S. 591 (1944).

7 These decisions identify the general standards to be considered in
8 establishing the cost of common equity for a public utility. Those general standards
9 provide that the authorized return should: (1) be sufficient to maintain financial
10 integrity; (2) attract capital under reasonable terms; and (3) be commensurate with
11 returns investors could earn by investing in other enterprises of comparable risk.

12 **Q** **PLEASE DESCRIBE THE METHODS YOU HAVE USED TO ESTIMATE AMEREN**
13 **MISSOURI'S COST OF COMMON EQUITY.**

14 A I have used several models based on financial theory to estimate Ameren Missouri's
15 cost of common equity. These models are: (1) a constant growth Discounted Cash
16 Flow ("DCF") model using consensus analysts' growth rate projections; (2) a constant
17 growth DCF using sustainable growth rate estimates; (3) a multi-stage growth DCF
18 model; (4) a Risk Premium model; and (5) a Capital Asset Pricing Model ("CAPM"). I
19 have applied these models to a group of publicly traded utilities that have investment
20 risk similar to Ameren Missouri.

II.F. Risk Proxy Group

1   **II.F. Risk Proxy Group**

2   **Q   HOW DID YOU SELECT A UTILITY PROXY GROUP SIMILAR IN INVESTMENT**

3   **RISK TO AMEREN MISSOURI TO ESTIMATE ITS CURRENT MARKET COST OF**

4   **EQUITY?**

5   A   I relied on an electric utility proxy group that I determined to be comparable in

6   investment risk to Ameren Missouri. My recommended proxy group is based on the

7   same proxy group used by Ameren Missouri witness Mr. Robert Hevert to estimate

8   Ameren Missouri's return on equity.

9   I started with the same proxy group used by Ameren Missouri witness

10   Mr. Hevert, however, I excluded two companies from Mr. Hevert's proxy group which

11   are not reasonable risk proxy companies: Duke Energy Corporation and Cleco

12   Corporation. Both of these companies were excluded because they are involved in

13   merger and acquisition activity,[8] and therefore are not appropriate for including in my

14   proxy group.

15   **Q   WHY IS IT APPROPRIATE TO EXCLUDE COMPANIES WHICH ARE INVOLVED**

16   **IN MERGER AND ACQUISITION ACTIVITY FROM THE PROXY GROUP?**

17   A   Companies generally enter into merger and acquisitions in order to produce greater

18   shareholder value by combining companies. The enhanced shareholder value

19   normally could not be realized had the two companies not combined.

20   When companies announce a merger and acquisition, the public assesses the

21   proposed merger and develops outlooks on the value of the two companies after the

---

[8]For example, Duke Energy Corporation is in the process of acquiring and divesting $4 billion of generation assets. The acquisition transaction was announced on July 28, 2014, and the divesting transaction was announced on August 22, 2014. Cleco Corporation has been seeking a purchaser since earlier this summer, and on October 20, 2014, Cleco Corporation entered into a definitive agreement to be acquired by an investor group.

1   combination based on expected synergies or other value adds created by the

2   merger/acquisition.

3   As a result, the stock value before the merger is completed may not reflect the

4   forward-looking earnings and dividend payments for the company absent the merger

5   or on a stand-alone basis. Therefore, an accurate DCF return estimate on

6   companies involved in merger and acquisition activities cannot be produced because

7   their stock prices do not reflect the stand-alone investment characteristics of the

8   companies. Rather, the stock price more likely reflects the shareholder enhancement

9   produced by the proposed transaction. Therefore, it is appropriate to remove

10   companies involved in merger and acquisition activity from a proxy group used to

11   estimate a fair return on equity for a utility.

12 **Q   DOES MR. HEVERT EXCLUDE PROXY GROUP COMPANIES THAT ARE**

13   **INVOLVED IN MERGER AND ACQUISITION ACTIVITY?**

14 A   Yes. Mr. Hevert states at pages 9-10 of his direct testimony, that proxy group

15   selection criteria include removing companies that are currently involved in merger

16   and acquisition activity.[9]

17 **Q   PLEASE DESCRIBE WHY YOU BELIEVE YOUR PROXY GROUP IS**

18   **REASONABLY COMPARABLE IN INVESTMENT RISK TO AMEREN MISSOURI.**

19 A   The proxy group is shown in Schedule MPG-2. The proxy group has an average

20   corporate credit rating from S&P of "BBB+," which is the same as S&P's corporate

21   credit rating for Ameren Missouri. The proxy group's average corporate credit rating

---

[9]Hevert Direct Testimony at 9-10.

1   from Moody's of "Baa1" is also the same as Ameren Missouri's corporate credit rating

2   from Moody's.

3   The proxy group has an average common equity ratio of 48.2% (including

4   short-term debt) from SNL Financial ("SNL") and 51.3% (excluding short-term debt)

5   from *The Value Line Investment Survey* ("*Value Line*") in 2013.

6   Ameren Missouri is requesting a 51.6% common equity ratio in this

7   proceeding. This is marginally higher than the proxy group's average common equity

8   ratio from *Value Line*. I believe the financial risk of the proxy group is a reasonable

9   proxy for Ameren Missouri.

10   **II.G. Discounted Cash Flow Model**

11   **Q   PLEASE DESCRIBE THE DCF MODEL.**

12   A   The DCF model posits that a stock price is valued by summing the present value of

13   expected future cash flows discounted at the investor's required rate of return or cost

14   of capital. This model is expressed mathematically as follows:

15           $$P_0 = \frac{D_1}{(1+K)^1} + \frac{D_2}{(1+K)^2} \; \ldots \; \frac{D_\infty}{(1+K)^\infty} \qquad \text{(Equation 1)}$$
16

17   P_0 = Current stock price
18   D = Dividends in periods 1 - ∞
19   K = Investor's required return

20   This model can be rearranged in order to estimate the discount rate or

21   investor-required return, "K." If it is reasonable to assume that earnings and

22   dividends will grow at a constant rate, then Equation 1 can be rearranged as follows:

23           $K = D_1/P_0 + G$ (Equation 2)

24   K = Investor's required return
25   D_1 = Dividend in first year
26   P_0 = Current stock price
27   G = Expected constant dividend growth rate

                                                            Michael P. Gorman
                                                            Page 15

1   Equation 2 is referred to as the annual "constant growth" DCF model.

2 **Q   PLEASE DESCRIBE THE INPUTS TO YOUR CONSTANT GROWTH DCF MODEL.**

3 A   As shown in Equation 2 above, the DCF model requires a current stock price,

4   expected dividend, and expected growth rate in dividends.

5 **Q   WHAT STOCK PRICE HAVE YOU RELIED ON IN YOUR CONSTANT GROWTH**

6   **DCF MODEL?**

7 A   I relied on the average of the weekly high and low stock prices of the utilities in the

8   proxy group over a 13-week period ending on November 7, 2014. An average stock

9   price is less susceptible to market price variations than a spot price. Therefore, an

10   average stock price is less susceptible to aberrant market price movements, which

11   may not reflect the stock's long-term value.

12   A 13-week average stock price reflects a period that is still short enough to

13   contain data that reasonably reflects current market expectations, but the period is

14   not so short as to be susceptible to market price variations that may not reflect the

15   stock's long-term value. In my judgment, a 13-week average stock price is a

16   reasonable balance between the need to reflect current market expectations and the

17   need to capture sufficient data to smooth out aberrant market movements.

18 **Q   WHAT DIVIDEND DID YOU USE IN YOUR CONSTANT GROWTH DCF MODEL?**

19 A   I used the most recently paid quarterly dividend, as reported in *Value Line*.[10] This

20   dividend was annualized (multiplied by 4) and adjusted for next year's growth to

21   produce the D_1 factor for use in Equation 2 above.

---

[10] *The Value Line Investment Survey*, August 22, September 19, and October 31, 2014.

1   **Q   WHAT DIVIDEND GROWTH RATES HAVE YOU USED IN YOUR CONSTANT**

2   **GROWTH DCF MODEL?**

3   A   There are several methods that can be used to estimate the expected growth in

4   dividends.   However, regardless of the method, for purposes of determining the

5   market-required return on common equity, one must attempt to estimate investors'

6   consensus about what the dividend or earnings growth rate will be, and not what an

7   individual investor or analyst may use to make individual investment decisions.

8   As predictors of future returns, security analysts' growth estimates have been

9   shown to be more accurate than growth rates derived from historical data.[11]   That is,

10   assuming the market generally makes rational investment decisions, analysts' growth

11   projections are more likely to influence investors' decisions which are captured in

12   observable stock prices than growth rates derived only from historical data.

13   For my constant growth DCF analysis, I have relied on a consensus, or mean,

14   of professional security analysts' earnings growth estimates as a proxy for investor

15   consensus dividend growth rate expectations.   I used the average of analysts' growth

16   rate estimates from three sources: Zacks, SNL, and Reuters.   All such projections

17   were available on November 7, 2014, and all were reported online.

18   Each consensus growth rate projection is based on a survey of security

19   analysts.   There is no clear evidence whether a particular analyst is most influential

20   on general market investors.   Therefore, a single analyst's projection does not as

21   reliably predict consensus investor outlooks as does a consensus of market analysts'

22   projections.   The consensus estimate is a simple arithmetic average, or mean, of

23   surveyed analysts' earnings growth forecasts.   A simple average of the growth

24   forecasts gives equal weight to all surveyed analysts' projections.   Therefore, a

---

[11] *See, e.g.,* David Gordon, Myron Gordon, and Lawrence Gould, "Choice Among Methods of Estimating Share Yield," *The Journal of Portfolio Management*, Spring 1989.

1   simple average, or arithmetic mean, of analyst forecasts is a good proxy for market

2   consensus expectations.

3 **Q**   **WHAT ARE THE GROWTH RATES YOU USED IN YOUR CONSTANT GROWTH**

4   **DCF MODEL?**

5 A   The growth rates I used in my DCF analysis are shown in Schedule MPG-3. The

6   average growth rate for my proxy group is 5.05%.

7 **Q**   **WHAT ARE THE RESULTS OF YOUR CONSTANT GROWTH DCF MODEL?**

8 A   As shown in Schedule MPG-4, the average and median constant growth DCF returns

9   for my proxy group are 8.95% and 8.87%, respectively.

10 **Q**   **DO YOU HAVE ANY COMMENTS ON THE RESULTS OF YOUR CONSTANT**

11   **GROWTH DCF ANALYSIS?**

12 A   Yes. The constant growth DCF analysis for my proxy group is based on a long-term

13   sustainable growth rate of 5.05%. This growth rate is higher than my estimate of a

14   maximum long-term sustainable growth rate of 4.6%. Therefore, I believe the

15   constant growth DCF analysis produces slightly overstated return estimates.

16 **Q**   **WHAT IS YOUR ESTIMATE OF A MAXIMUM LONG-TERM SUSTAINABLE**

17   **GROWTH RATE?**

18 A   A long-term sustainable growth rate for a utility stock cannot exceed the growth rate

19   of the economy in which it sells its goods and services. Hence, a reasonable proxy

20   for the long-term maximum sustainable growth rate for a utility investment is best

21   proxied by the projected long-term Gross Domestic Product ("GDP"). *Blue Chip*

1   *Economic Indicators* projects that over the next 5 and 10 years, the U.S. nominal

2   GDP will grow in the range of 4.8% to 4.4%. As such, the average growth rate over

3   the next 10 years is around 4.6%, which I believe is a reasonable proxy of long-term

4   sustainable growth.[12]

5   I discuss in my multi-stage growth DCF analysis[13] academic and investment

6   practitioner evidence that accepts the projected long-term GDP growth outlook as a

7   maximum sustainable growth rate projection. Hence, recognizing the long-term GDP

8   growth rate as a maximum sustainable growth is logical, and generally consistent with

9   academic and economic practitioner accepted practices.

10   ## II.H. Sustainable Growth DCF

11   **Q   PLEASE DESCRIBE HOW YOU ESTIMATED A SUSTAINABLE LONG-TERM**

12   **GROWTH RATE FOR YOUR SUSTAINABLE GROWTH DCF MODEL.**

13   A   A sustainable growth rate is based on the percentage of the utility's earnings that is

14   retained and reinvested in utility plant and equipment. These reinvested earnings

15   increase the earnings base (rate base). Earnings grow when plant funded by

16   reinvested earnings is put into service, and the utility is allowed to earn its authorized

17   return on such additional rate base investment.

18   The internal growth methodology is tied to the percentage of earnings retained

19   in the company and not paid out as dividends. The earnings retention ratio is 1 minus

20   the dividend payout ratio. As the payout ratio declines, the earnings retention ratio

21   increases. An increased earnings retention ratio will fuel stronger growth because

22   the business funds more investments with retained earnings.

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[12] *Blue Chip Economic Indicators,* October 10, 2014, at 14.
[13] Page 23, line 1 to line 24 of this testimony.

1   The payout ratios of the proxy group are shown in my Schedule MPG-5.

2   These dividend payout ratios and earnings retention ratios then can be used to

3   develop a sustainable long-term earnings retention growth rate.   A sustainable

4   long-term earnings retention ratio will help gauge whether analysts' current three- to

5   five-year growth rate projections can be sustained over an indefinite period of time.

6   The data used to estimate the long-term sustainable growth rate is based on

7   the Company's current market-to-book ratio and on *Value Line*'s three- to five-year

8   projections of earnings, dividends, earned returns on book equity, and stock

9   issuances.

10   As shown in Schedule MPG-6, pages 1 and 2, the average sustainable growth

11   rate for the proxy group using this internal growth rate model is 4.77%.

12 **Q   WHAT IS THE DCF ESTIMATE USING THESE SUSTAINABLE LONG-TERM**

13   **GROWTH RATES?**

14 A   A DCF estimate based on these sustainable growth rates is developed in Schedule

15   MPG-7. As shown there, a sustainable growth DCF analysis produces proxy group

16   average and median DCF results of 8.71% and 8.24%, respectively.

17 ## II.I. Multi-Stage Growth DCF Model

18 **Q   HAVE YOU CONDUCTED ANY OTHER DCF STUDIES?**

19 A   Yes. My first constant growth DCF is based on consensus analysts' growth rate

20   projections, so it is a reasonable reflection of rational investment expectations over

21   the next three to five years. The limitation on the constant growth DCF model is that

22   it cannot reflect a rational expectation that a period of high/low short-term growth can

23   be followed by a change in growth to a rate that is more reflective of long-term

1   sustainable growth. Hence, I performed a multi-stage growth DCF analysis to reflect

2   this outlook of changing growth expectations.

3 **Q**   **WHY DO YOU BELIEVE GROWTH RATES CAN CHANGE OVER TIME?**

4 A   Analyst projected growth rates over the next three to five years will change as utility

5   earnings growth outlooks change. Utility companies go through cycles in making

6   investments in their systems. When utility companies are making large investments,

7   their rate base grows rapidly, which accelerates their earnings growth. Once a major

8   construction cycle is completed or levels off, growth in the utility rate base slows, and

9   its earnings growth slows from an abnormally high three- to five-year rate to a lower

10   sustainable growth rate.

11   As major construction cycles extend over longer periods of time, even with an

12   accelerated construction program, the growth rate of the utility will slow simply

13   because rate base growth will slow and the utility has limited human and capital

14   resources available to expand its construction program. Hence, the three- to five-

15   year growth rate projection should be used as a long-term sustainable growth rate but

16   not without making a reasonable informed judgment to determine whether it

17   considers the current market environment, the industry, and whether the three- to

18   five-year growth outlook is sustainable.

19 **Q**   **PLEASE DESCRIBE YOUR MULTI-STAGE GROWTH DCF MODEL.**

20 A   The multi-stage growth DCF model reflects the possibility of non-constant growth for

21   a company over time. The multi-stage growth DCF model reflects three growth

22   periods: (1) a short-term growth period, which consists of the first five years; (2) a

1   transition period, which consists of the next five years (6 through 10); and (3) a

2   long-term growth period, starting in year 11 through perpetuity.

3   For the short-term growth period, I relied on the consensus analysts' growth

4   projections described above in relationship to my constant growth DCF model. For

5   the transition period, the growth rates were reduced or increased by an equal factor,

6   which reflects the difference between the analysts' growth rates and the long-term

7   sustainable growth rate. For the long-term growth period, I assumed each company's

8   growth would converge to the maximum sustainable long-term growth rate.

9 **Q   WHY IS THE GDP GROWTH PROJECTION A REASONABLE PROXY FOR THE**

10   **MAXIMUM SUSTAINABLE LONG-TERM GROWTH RATE?**

11 A   Utilities cannot indefinitely sustain a growth rate that exceeds the growth rate of the

12   economy in which they sell services. Utilities' earnings/dividend growth is created by

13   increased utility investment or rate base. Such investment, in turn, is driven by

14   service area economic growth and demand for utility service. In other words, utilities

15   invest in plant to meet sales demand growth, and sales growth, in turn, is tied to

16   economic growth in their service areas.

17   The Energy Information Administration ("EIA") has observed that utility sales

18   growth tracks the U.S. GDP growth, albeit at a lower level, as shown in Schedule

19   MPG-8. Utility sales growth has lagged behind GDP growth for more than a decade.

20   As a result, nominal GDP growth is a very conservative proxy for utility sales growth,

21   rate base growth, and earnings growth. Therefore, the U.S. GDP nominal growth rate

22   is a conservative proxy for the highest sustainable long-term growth rate of a utility.

1   **Q   IS THERE RESEARCH THAT SUPPORTS YOUR POSITION THAT, OVER THE**

2   **LONG TERM, A COMPANY'S EARNINGS AND DIVIDENDS CANNOT GROW AT**

3   **A RATE GREATER THAN THE GROWTH OF THE U.S. GDP?**

4   A   Yes. This concept is supported in both published analyst literature and academic

5   work. Specifically, in a textbook entitled "Fundamentals of Financial Management,"

6   published by Eugene Brigham and Joel F. Houston, the authors state as follows:

7   The constant growth model is most appropriate for mature companies
8   with a stable history of growth and stable future expectations.
9   Expected growth rates vary somewhat among companies, but
10   dividends for mature firms are often expected to grow in the future at
11   about the same rate as nominal gross domestic product (real GDP
12   plus inflation).[14]

13 **Q   IS THERE ANY ACTUAL INVESTMENT HISTORY THAT SUPPORTS THE**

14 **NOTION THAT THE CAPITAL APPRECIATION FOR STOCK INVESTMENTS WILL**

15 **NOT EXCEED THE NOMINAL GROWTH OF THE U.S. GDP?**

16 A   Yes. This is evident by a comparison of the compound annual growth of the U.S.

17 GDP compared to the geometric growth of the U.S. stock market. Morningstar

18 measures the historical geometric growth of the U.S. stock market over the period

19 1926-2013 to be approximately 5.8%. During this same time period, the U.S. nominal

20 compound annual growth of the U.S. GDP was approximately 6.2%.[15]

21   As such, the compound geometric growth of the U.S. nominal GDP has been

22 higher but comparable to the nominal growth of the U.S. stock market capital

23 appreciation. This historical relationship indicates the U.S. GDP growth outlook is a

24 conservative estimate of the long-term sustainable growth of U.S. stock investments.

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[14]*"Fundamentals of Financial Management*," Eugene F. Brigham and Joel F. Houston, Eleventh Edition 2007, Thomson South-Western, a Division of Thomson Corporation at 298.
    [15]*Morningstar, Inc., Ibbotson SBBI 2014 Classic Yearbook* inflation rate of 3.0%, and U.S. Bureau of Economic Analysis, April 30, 2014.

Michael P. Gorman
Page 23

1 **Q** **HOW DID YOU DETERMINE A SUSTAINABLE LONG-TERM GROWTH RATE**

2 **THAT REFLECTS THE CURRENT CONSENSUS OUTLOOK OF THE MARKET?**

3 A I relied on the consensus analysts' projections of long-term GDP growth. *Blue Chip*

4 *Economic Indicators* publishes consensus economists' GDP growth projections twice

5 a year. These consensus analysts' GDP growth outlooks are the best available

6 measure of the market's assessment of long-term GDP growth. These analyst

7 projections reflect all current outlooks for GDP, as reflected in analyst projections, and

8 are likely the most influential on investors' expectations of future growth outlooks.

9 The consensus economists' published GDP growth rate outlook is 4.8% to 4.4% over

10 the next 10 years.[16]

11 Therefore, I propose to use the consensus economists' projected 5- and

12 10-year average GDP consensus growth rates of 4.8% and 4.4%, respectively, as

13 published by *Blue Chip Economic Indicators*, as an estimate of long-term sustainable

14 growth. *Blue Chip Economic Indicators* projections provide real GDP growth

15 projections of 2.6% and 2.3%, and GDP inflation of 2.1%[17] over the 5-year and

16 10-year projection periods, respectively. These consensus GDP growth forecasts

17 represent the most likely views of market participants because they are based on

18 published consensus economist projections.

19 **Q** **DO YOU CONSIDER OTHER SOURCES OF PROJECTED LONG-TERM GDP**

20 **GROWTH?**

21 A Yes, and these sources corroborate my consensus analysts' projections. The U.S.

22 EIA in its *Annual Energy Outlook* projects real GDP out until 2040. In its 2014 Annual

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[16] *Blue Chip Economic Indicators*, October 10, 2014 at 14.
[17] *Id.*

1   Report, the EIA projects real GDP through 2040 to be in the range of 1.9% to 2.8%,

2   with a midpoint or reference case of 2.4%.[18]

3   Also, the Congressional Budget Office ("CBO") makes long-term economic

4   projections. The CBO is projecting real GDP growth of 2.8% to 2.1% during the next

5   5 and 10 years, respectively, with GDP price inflation of 2.0%.[19] The CBO's real GDP

6   and GDP inflation projections are slightly lower than the consensus economists.

7   The real GDP and nominal GDP growth projections made by the EIA and

8   those made by the CBO support the use of the consensus analyst 5-year and 10-year

9   projected GDP growth outlooks as a reasonable estimate of market participants'

10   long-term GDP growth outlooks.

11 **Q   WHAT STOCK PRICE, DIVIDEND, AND GROWTH RATES DID YOU USE IN YOUR**

12   **MULTI-STAGE GROWTH DCF ANALYSIS?**

13 A   I relied on the same 13-week stock price and the most recent quarterly dividend

14   payment data discussed above. For stage one growth, I used the consensus

15   analysts' growth rate projections discussed above in my constant growth DCF model.

16   The first stage growth covers the first five years, consistent with the term of the

17   analyst growth rate projections. The second stage, or transition stage, begins in year

18   6 and extends through year 10. The second stage growth transitions the growth rate

19   from the first stage to the third stage using a linear trend. For the third stage, or

20   long-term sustainable growth stage, which starts in year 11, I used a 4.6% long-term

21   sustainable growth rate, which is based on the consensus economists' long-term

22   projected nominal GDP growth rate.

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[18] *DOE/EIA Annual Energy Outlook 2014 With Projections to 2040*, April 2014 at MT-2.
[19] *CBO: The Budget and Economic Outlook:* Fiscal Years 2014 to 2024, February 2014 at 152.

1 **Q**   **WHAT ARE THE RESULTS OF YOUR MULTI-STAGE GROWTH DCF MODEL?**

2 A   As shown in Schedule MPG-9, the average and median DCF returns on equity for my

3   proxy group are 8.57% and 8.54%, respectively.

4 **Q**   **PLEASE SUMMARIZE THE RESULTS FROM YOUR DCF ANALYSES.**

5 A   The results from my DCF analyses are summarized in Table 2 below:

TABLE 2

Summary of DCF Results

Description	Proxy Group Average
Constant Growth DCF Model (Analysts' Growth)	8.95%
Constant Growth DCF Model (Sustainable Growth)	8.71%
Multi-Stage Growth DCF Model	<u>8.57%</u>
Average	8.74%

6   I concluded that my DCF studies indicate a return on equity of 8.95%, which I

7   rounded to 9.00%. This conclusion is at the upper-end of my estimated DCF range of

8   8.57% to 8.95%.   I propose to go to the high-end of my DCF range in this

9   environment because of the recent drop in dividend yields for utility stocks, along with

10 a decline in Treasury bond yields and utility bond yields. This drop in dividend yields

11 may be temporary and therefore I believe requires a conservative interpretation of my

12 model results in this marketplace.

II.J. Risk Premium Model

2 **Q**   **PLEASE DESCRIBE YOUR BOND YIELD PLUS RISK PREMIUM MODEL.**

3 A   This model is based on the principle that investors require a higher return to assume

4   greater risk. Common equity investments have greater risk than bonds because

5   bonds have more security of payment in bankruptcy proceedings than common equity

6   and the coupon payments on bonds represent contractual obligations. In contrast,

7   companies are not required to pay dividends or guarantee returns on common equity

8   investments. Therefore, common equity securities are considered to be more risky

9   than bond securities.

10   This risk premium model is based on two estimates of an equity risk premium.

11   First, I estimated the difference between the required return on utility common equity

12   investments and U.S. Treasury bonds. The difference between the required return on

13   common equity and the Treasury bond yield is the risk premium. I estimated the risk

14   premium on an annual basis for each year over the period 1986 through September

15   2014. The common equity required returns were based on regulatory commission-

16   authorized returns for electric utility companies. Authorized returns are typically

17   based on expert witnesses' estimates of the contemporary investor-required return.

18   The second equity risk premium estimate is based on the difference between

19   regulatory commission-authorized returns on common equity and contemporary

20   "A" rated utility bond yields by Moody's.   I selected the period 1986 through

21   September 2014 because public utility stocks consistently traded at a premium to

22   book value during that period. This is illustrated in Schedule MPG-10, which shows

23   that the market to book ratio since 1986 for the electric utility industry was

24   consistently above a multiple of 1.0x. Over this period, regulatory authorized returns

25   were sufficient to support market prices that at least exceeded book value. This is an

1   indication that regulatory authorized returns on common equity supported a utility's

2   ability to issue additional common stock without diluting existing shares. It further

3   demonstrates that utilities were able to access equity markets without a detrimental

4   impact on current shareholders.

5   Based on this analysis, as shown in Schedule MPG-11, the average indicated

6   equity risk premium over U.S. Treasury bond yields has been 5.36%. Of the 29

7   observations, 23 indicated risk premiums fall in the range of 4.41% to 6.28%. Since

8   the risk premium can vary depending upon market conditions and changing investor

9   risk perceptions, I believe using an estimated range of risk premiums provides the

10   best method to measure the current return on common equity using this

11   methodology.

12   As shown in Schedule MPG-12, the average indicated equity risk premium

13   over contemporary Moody's utility bond yields was 3.98% over the period 1986

14   through September 2014. The indicated equity risk premium estimates based on this

15   analysis primarily fall in the range of 3.03% to 5.03% over this time period.

16   **Q   DO YOU BELIEVE THAT THESE EQUITY RISK PREMIUM ESTIMATES ARE**

17   **BASED ON A TIME PERIOD THAT IS TOO LONG OR TOO SHORT TO DRAW**

18   **ACCURATE   CONCLUSIONS   CONCERNING   CONTEMPORARY   MARKET**

19   **CONDITIONS?**

20   A   No. The time period I use in this risk premium study is a generally accepted period to

21   develop a risk premium study using "expectational" data.

22   Contemporary market conditions can change dramatically during the period

23   that rates determined in this proceeding will be in effect. A relatively long period of

24   time where stock valuations reflect premiums to book value is an indication that the

1   authorized returns on equity and the corresponding equity risk premiums were

2   supportive of investors' return expectations and provided utilities access to the equity

3   markets under reasonable terms and conditions. Further, this time period is long

4   enough to smooth abnormal market movement that might distort equity risk

5   premiums. While market conditions and risk premiums do vary over time, this

6   historical time period is a reasonable period to estimate contemporary risk premiums.

7   Alternatively, studies have recommended that use of "actual achieved

8   investment return data" in a risk premium study should be based on long historical

9   time periods. The studies find that achieved returns over short time periods may not

10   reflect investors' expected returns due to unexpected and abnormal stock price

11   performance. Short-term abnormal actual returns would be smoothed over time and

12   the achieved actual investment returns over long time periods would approximate

13   investors' expected returns. Therefore, it is reasonable to assume that averages of

14   annual achieved returns over long time periods will generally converge on the

15   investors' expected returns.

16   My risk premium study is based on expectational data, not actual investment

17   returns, and, thus, need not encompass a very long historical time period.

18 **Q   BASED ON HISTORICAL DATA, WHAT RISK PREMIUM HAVE YOU USED TO**

19   **ESTIMATE AMEREN MISSOURI'S COST OF COMMON EQUITY IN THIS**

20   **PROCEEDING?**

21 A The equity risk premium should reflect the relative market perception of risk in the

22   utility industry today. I have gauged investor perceptions in utility risk today in

23   Schedule MPG-13. In that exhibit, I show the yield spread between utility bonds and

24   Treasury bonds over the last 35 years. As shown in this exhibit, the average utility

1 bond yield spreads over Treasury bonds for "A" and "Baa" rated utility bonds for this

2 historical period are 1.53% and 1.95%, respectively. The utility bond yield spreads

3 over Treasury bonds for "A" and "Baa" rated utilities during January-September 2014

4 are 0.90% and 1.37%, respectively. The current average "A" and "Baa" rated utility

5 bond yield spreads over Treasury bond yields are now lower than the 35-year

6 average spreads.

7   A current 13-week average "A" rated utility bond yield of 4.13%, when

8 compared to the current Treasury bond yield of 3.14% as shown in Schedule

9 MPG-14, page 1, implies a yield spread of around 99 basis points. This current utility

10 bond yield spread is lower than the 35-year average spread for "A" utility bonds of

11 1.53%. Similarly, the current spread for the "Baa" utility yield of 1.57% is lower than

12 the 35-year average spread of 1.95%.

13   These utility bond yield spreads are clear evidence that the market considers

14 the utility industry to be a relatively low-risk investment and demonstrates that utilities

15 continue to have strong access to capital.

16 **Q   HOW DID YOU ESTIMATE AMEREN MISSOURI'S COST OF COMMON EQUITY**

17 **WITH THIS RISK PREMIUM MODEL?**

18 A   I added a projected long-term Treasury bond yield to my estimated equity risk

19 premium over Treasury yields. The 13-week average 30-year Treasury bond yield,

20 ending November 7, 2014, was 3.14%, as shown in Schedule MPG-14, page 1. *Blue*

21 *Chip Financial Forecasts* projects the 30-year Treasury bond yield to be 4.10%, and a

22 10-year Treasury bond yield to be 3.40%.[20] Using the projected 30-year Treasury

23 bond yield of 4.10%, and a Treasury bond risk premium of 4.41% to 6.28%, as

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[20]*Blue Chip Financial Forecasts*, November 1, 2014 at 2.

1   developed above, produces an estimated common equity return in the range of

2   8.51% (4.10% + 4.41%) to 10.38% (4.10% + 6.28%). My risk premium estimates fall

3   in the range of 8.51% to 10.38%.

4   I next added my equity risk premium over utility bond yields to a current

5   13-week average yield on "Baa" rated utility bonds for the period ending November 7,

6   2014 of 4.71%.   Adding the utility equity risk premium of 3.03% to 5.03%, as

7   developed above, to a "Baa" rated bond yield of 4.71%, produces a cost of equity in

8   the range of 7.74% (4.71% + 3.03%) to 9.74% (4.71% + 5.03%).

9 **Q   WHAT IS YOUR RECOMMENDED RETURN FOR AMEREN MISSOURI BASED ON**

10   **YOUR RISK PREMIUM STUDY?**

11 A   My recommendation considers both utility security risk and market interest rate risk.

12   Current interest rate spreads suggest the market is embracing utility investments as

13   relatively low-risk investment alternatives. This is clearly evident from the low utility

14   bond spreads relative to Treasury bonds currently compared to the historical time

15   period studied.[21]   Also, the market is pricing "Baa" utility bonds to produce lower

16   yields compared to general corporate "Baa" bonds. On average over time, "Baa"

17   utility bond yields are higher than "Baa" corporate bond yields, but not currently.[22] All

18   of this supports my conclusion that the utility industry is perceived as a low-risk stable

19   investment.

20   On the other hand, the Federal Reserve has been procuring long-term

21   Treasury and collateralized bonds in an effort to stimulate the U.S. economy. This

22   stimulus has reduced long-term interest rates. This government stimulus initiative

23   was terminated in October 2014. The termination of the Federal Reserve's stimulus

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[21]*See* Schedules MPG-13 and MPG-14*.*
[22]*Id.*

1   has not caused long-term interest rates to increase; however, I believe there

2   continues to be risk in long-term interest rate markets.

3   I recommend giving more weight to the high-end of my risk premium results to

4   reflect the greater current market interest rate risk. I propose to provide 75% weight

5   to the high-end of my risk premium estimates and 25% to the low-end of my risk

6   premium estimates. Providing more weight to the high-end risk premium captures the

7   greater market interest rate risk.   This results in a risk premium estimate over

8   Treasury bond yields of 9.91%,[23] and a risk premium estimate over "Baa" utility bond

9   yields of 9.24%.[24]

10   My risk premium analyses produce a return estimate in the range of 9.24% to

11   9.91%, with a midpoint of 9.58%, rounded to 9.60%.

12   ## II.K. Capital Asset Pricing Model ("CAPM")

13   **Q   PLEASE DESCRIBE THE CAPM.**

14   A   The CAPM method of analysis is based upon the theory that the market-required rate

15   of return for a security is equal to the risk-free rate, plus a risk premium associated

16   with the specific security. This relationship between risk and return can be expressed

17   mathematically as follows:

18            $R_i = R_f + B_i \times (R_m - R_f)$ where:

19   R_i = Required return for stock i
20   R_f = Risk-free rate
21   R_m = Expected return for the market portfolio
22   B_i = Beta - Measure of the risk for stock

23   The stock-specific risk term in the above equation is beta. Beta represents

24   the investment risk that cannot be diversified away when the security is held in a

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[23]75% (10.38%) + 25% (8.51%) = 9.91%.
[24]75% (9.74%) + 25% (7.74%) = 9.24%.

1   diversified portfolio. When stocks are held in a diversified portfolio, firm-specific risks

2   can be eliminated by balancing the portfolio with securities that react in the opposite

3   direction to firm-specific risk factors (e.g., business cycle, competition, product mix,

4   and production limitations).

5   The risks that cannot be eliminated when held in a diversified portfolio are

6   non-diversifiable risks. Non-diversifiable risks are related to the market in general

7   and are referred to as systematic risks. Risks that can be eliminated by diversification

8   are regarded as non-systematic risks. In a broad sense, systematic risks are market

9   risks, and non-systematic risks are business risks. The CAPM theory suggests that

10   the market will not compensate investors for assuming risks that can be diversified

11   away. Therefore, the only risk that investors will be compensated for are systematic

12   or non-diversifiable risks.   The beta is a measure of the systematic or

13   non-diversifiable risks.

14   **Q   PLEASE DESCRIBE THE INPUTS TO YOUR CAPM.**

15   A   The CAPM requires an estimate of the market risk-free rate, the company's beta, and

16   the market risk premium.

17   **Q   WHAT DID YOU USE AS AN ESTIMATE OF THE MARKET RISK-FREE RATE?**

18   A   As previously noted, *Blue Chip Financial Forecasts*' projected 30-year Treasury bond

19   yield is 4.10%.[25]   The current 30-year Treasury bond yield is 3.14%, as shown in

20   Schedule MPG-14, page 1. I used *Blue Chip Financial Forecasts*' projected 30-year

21   Treasury bond yield of 4.10% for my CAPM analysis.

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[25]*Blue Chip Financial Forecasts*, November 1, 2014 at 2.

1	**Q**	**WHY DID YOU USE LONG-TERM TREASURY BOND YIELDS AS AN ESTIMATE**
2		**OF THE RISK-FREE RATE?**
3	A	Treasury securities are backed by the full faith and credit of the United States
4		government, so long-term Treasury bonds are considered to have negligible credit
5		risk. Also, long-term Treasury bonds have an investment horizon similar to that of
6		common stock. As a result, investor-anticipated long-run inflation expectations are
7		reflected in both common-stock required returns and long-term bond yields.
8		Therefore, the nominal risk-free rate (or expected inflation rate and real risk-free rate)
9		included in a long-term bond yield is a reasonable estimate of the nominal risk-free
10		rate included in common stock returns.
11		Treasury bond yields, however, do include risk premiums related to
12		unanticipated future inflation and interest rates. A Treasury bond yield is not a
13		risk-free rate. Risk premiums related to unanticipated inflation and interest rates are
14		systematic or market risks. Consequently, for companies with betas less than 1.0,
15		using the Treasury bond yield as a proxy for the risk-free rate in the CAPM analysis
16		can produce an overstated estimate of the CAPM return.
17	**Q**	**WHAT BETA DID YOU USE IN YOUR ANALYSIS?**
18	A	As shown in Schedule MPG-15, the proxy group average *Value Line* beta estimate is
19		0.76.
20	**Q**	**HOW DID YOU DERIVE YOUR MARKET RISK PREMIUM ESTIMATE?**
21	A	I derived two market risk premium estimates, a forward-looking estimate and one
22		based on a long-term historical average.

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1   The forward-looking estimate was derived by estimating the expected return

2   on the market (as represented by the S&P 500) and subtracting the risk-free rate from

3   this estimate. I estimated the expected return on the S&P 500 by adding an expected

4   inflation rate to the long-term historical arithmetic average real return on the market.

5   The real return on the market represents the achieved return above the rate of

6   inflation.

7   Morningstar's *Stocks, Bonds, Bills and Inflation 2014 Classic Yearbook*

8   estimates the historical arithmetic average real market return over the period 1926 to

9   2013 as 8.9%.[26] A current consensus analysts' inflation projection, as measured by

10   the Consumer Price Index, is 2.3%.[27] Using these estimates, the expected market

11   return is 11.40%.[28] The market risk premium then is the difference between the

12   11.40% expected market return, and my 4.10% risk-free rate estimate, or

13   approximately 7.3%.

14   The historical estimate of the market risk premium was also estimated by

15   Morningstar in *Stocks, Bonds, Bills and Inflation 2014 Classic Yearbook*. Over the

16   period 1926 through 2013, Morningstar's study estimated that the arithmetic average

17   of the achieved total return on the S&P 500 was 12.1%,[29] and the total return on

18   long-term Treasury bonds was 5.9%.[30] The indicated market risk premium is 6.2%

19   (12.1% - 5.9% = 6.2%). The average of my market risk premium estimates is 6.75%

20   (6.2% to 7.3%).

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[26] *Morningstar, Inc., Ibbotson SBBI 2014 Classic Yearbook* at 92.
[27] *Blue Chip Financial Forecasts*, November 1, 2014 at 2.
[28] $\{ \ [\,(1 + 0.089) * (1 + 0.023)\,] - 1 \,\} * 100$.
[29] *Morningstar, Inc., Ibbotson SBBI 2014 Classic Yearbook* at 91.
[30] *Id.*

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1 Q   HOW DOES YOUR ESTIMATED MARKET RISK PREMIUM RANGE COMPARE TO

2   THAT ESTIMATED BY MORNINGSTAR?

3 A   Morningstar's analysis indicates that a market risk premium falls somewhere in the

4   range of 6.2% to 7.0%. My market risk premium falls in the range of 6.2% to 7.3%.

5   My average market risk premium of 6.75% is within Morningstar's range.

6   Morningstar estimates a forward-looking market risk premium based on actual

7   achieved data from the historical period of 1926 through 2013. Using this data,

8   Morningstar estimates a market risk premium derived from the total return on large

9   company stocks (S&P 500), less the income return on Treasury bonds. The total

10   return includes capital appreciation, dividend or coupon reinvestment returns, and

11   annual yields received from coupons and/or dividend payments. The income return,

12   in contrast, only reflects the income return received from dividend payments or

13   coupon yields. Morningstar argues that the income return is the only true risk-free

14   rate associated with Treasury bonds and is the best approximation of a truly risk-free

15   rate.[31] I disagree with this assessment from Morningstar, because it does not reflect a

16   true investment option available to the marketplace and therefore does not produce a

17   legitimate estimate of the expected premium of investing in the stock market versus

18   that of Treasury bonds. Nevertheless, I will use Morningstar's conclusion to show the

19   reasonableness of my market risk premium estimates.

20   Morningstar's range is based on several methodologies. First, Morningstar

21   estimates a market risk premium of 7.0% based on the difference between the total

22   market return on common stocks (S&P 500) less the income return on Treasury bond

23   investments. Second, Morningstar found that if the New York Stock Exchange

24   ("NYSE") was used as the market index rather than the S&P 500, that the market risk

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[31] *Id.* at 153.

Michael P. Gorman
Page 36

BRUBAKER & ASSOCIATES, INC.

1   premium would be 6.8%, not 7.0%. Third, if only the two deciles of the largest

2   companies included in the NYSE were considered, the market risk premium would be

3   6.2%.[32]

4   Finally, Morningstar found that the 7.0% market risk premium based on the

5   S&P 500 was influenced by an abnormal expansion of price-to-earnings ("P/E") ratios

6   relative to earnings and dividend growth during the period 1980 through 2001.

7   Morningstar believes this abnormal P/E expansion is not sustainable.[33]   Therefore,

8   Morningstar adjusted this market risk premium estimate to normalize the growth in the

9   P/E ratio to be more in line with the growth in dividends and earnings. Based on this

10   alternative methodology, Morningstar published a long-horizon supply-side market

11   risk premium of 6.1%.[34]

12   **Q   WHAT ARE THE RESULTS OF YOUR CAPM ANALYSIS?**

13   A   As shown in Schedule MPG-16, based on Morningstar's market risk premium of 6.2%

14   and my market risk premium of 7.3%, a risk-free rate of 4.10%, and a beta of 0.76,

15   my CAPM analysis produces a return of 8.82% to 9.66% with a midpoint of

16   approximately 9.24%.

17   This CAPM estimate reflects a projected risk-free rate that is 96 basis points

18   higher than the current long-term risk-free rate as proxied by the U.S. Treasury

19   security. Using this projected Treasury bond yield largely captures the additional risk

20   in the marketplace related to the uncertainty of long-term interest rates after the

21   Federal Reserve discontinues its economic stimulus intervention.

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[32]Morningstar observes that the S&P 500 and the NYSE Decile 1-2 are both large capitalization benchmarks. *Id.* at 152.
[33]*Id.* at 156.
[34]*Id.* at 157.

1   **II.L. Return on Equity Summary**

2   **Q   BASED ON THE RESULTS OF YOUR RETURN ON COMMON EQUITY**

3   **ANALYSES DESCRIBED ABOVE, WHAT RETURN ON COMMON EQUITY DO**

4   **YOU RECOMMEND FOR AMEREN MISSOURI?**

5   A   Based on my analyses, I estimate Ameren Missouri's current market cost of equity to

6   be 9.30%.

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TABLE 3

Return on Common Equity Summary

Description	Results
DCF	9.00%
Risk Premium	9.60%
CAPM	9.24%

</div>

7   My recommended return on common equity of 9.30% is the approximate

8   midpoint of my estimated range of 9.00% to 9.60%. The high-end of my estimated

9   range is based on my risk premium studies, and the low-end is based on my DCF

10 studies. The midpoint of this range reflects current market capital costs, increased

11 interest rate risk in the current market due to Federal Reserve policies and other

12 factors, and represents fair compensation to Ameren Missouri's investors for the total

13 investment risk of its regulated utility.

II.M. Financial Integrity

1

Q   **WILL YOUR RECOMMENDED OVERALL RATE OF RETURN SUPPORT AN INVESTMENT GRADE BOND RATING FOR AMEREN MISSOURI?**

A   Yes. I have reached this conclusion by comparing the key credit rating financial ratios for Ameren Missouri, at my proposed return on equity, and the Company's proposed capital structure, to S&P's benchmark financial ratios using S&P's new credit metric ranges.

Q   **PLEASE DESCRIBE THE MOST RECENT S&P FINANCIAL RATIO CREDIT METRIC METHODOLOGY.**

A   S&P publishes a matrix of financial ratios that correspond to its assessment of the business risk of utility companies and related bond ratings. On May 27, 2009, S&P expanded its matrix criteria by including additional business and financial risk categories. [35]

Based on S&P's most recent credit matrix, the business risk profile categories are "Excellent," "Strong," "Satisfactory," "Fair," "Weak," and "Vulnerable." Most utilities have a business risk profile of "Excellent" or "Strong."

The financial risk profile categories are "Minimal," "Modest," "Intermediate," "Significant," "Aggressive," and "Highly Leveraged." Most of the utilities have a financial risk profile of "Aggressive." Ameren Missouri has an "Excellent" business risk profile and an "Intermediate" financial risk profile.

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[35]S&P updated its 2008 credit metric guidelines in 2009, and incorporated utility metric benchmarks with the general corporate rating metrics. *Standard & Poor's RatingsDirect*: "Criteria Methodology: Business Risk/Financial Risk Matrix Expanded," May 27, 2009.

1 **Q   PLEASE DESCRIBE S&P'S USE OF THE FINANCIAL BENCHMARK RATIOS IN**

2 **ITS CREDIT RATING REVIEW.**

3 A   S&P evaluates a utility's credit rating based on an assessment of its financial and

4 business risks. A combination of financial and business risks equates to the overall

5 assessment of Ameren Missouri's total credit risk exposure. On November 19, 2013,

6 S&P updated its methodology. In its update, S&P published a matrix of financial

7 ratios that defines the level of financial risk as a function of the level of business risk.

8 S&P publishes ranges for three primary financial ratios that it uses as

9 guidance in its credit review for utility companies. The two core financial ratio

10 benchmarks it relies on in its credit rating process include: (1) Debt to Earnings

11 Before Interest, Taxes, Depreciation and Amortization ("EBITDA"); and (2) Funds

12 From Operations ("FFO") to Total Debt.[36]

13 **Q   HOW   DID   YOU   APPLY   S&P'S   FINANCIAL   RATIOS   TO   TEST   THE**

14 **REASONABLENESS OF YOUR RATE OF RETURN RECOMMENDATIONS?**

15 A   I calculated each of S&P's financial ratios based on Ameren Missouri's cost of service

16 for its retail jurisdictional operations. While S&P would normally look at total

17 consolidated Ameren Missouri financial ratios in its credit review process, my

18 investigation in this proceeding is not the same as S&P's. I am attempting to judge

19 the reasonableness of my proposed cost of capital for rate-setting in Ameren

20 Missouri's retail regulated utility operations. Hence, I am attempting to determine

21 whether my proposed rate of return will in turn support cash flow metrics, balance

22 sheet strength, and earnings that will support an investment grade bond rating and

23 Ameren Missouri's financial integrity.

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[36] *Standard & Poor's RatingsDirect*: "Criteria: Corporate Methodology," November 19, 2013.

| 1 | Q | DID YOU INCLUDE ANY OFF-BALANCE SHEET DEBT EQUIVALENTS? |

2 A Yes. As shown on page 3 of my Schedule MPG-17, I included $78 million of

3 off-balance sheet debt equivalents including PPAs and operating leases and their

4 associated interest and depreciation expenses. I did not include some of the

5 off-balance sheet debt equivalents that S&P includes in its credit rating review.

6 Certain off-balance sheet debt equivalents, such as pension and other post-

7 employment benefits ("OPEB") accrued interest expense, were excluded from my

8 jurisdictional metric study because these items are controllable by utility management

9 or do not relate to regulated cost of service.

10 Q PLEASE DESCRIBE THE RESULTS OF THIS CREDIT METRIC ANALYSIS FOR

11 AMEREN MISSOURI'S ELECTRIC RETAIL OPERATIONS.

12 A The S&P financial metric calculations for Ameren Missouri at a 9.30% return are

13 developed on Schedule MPG-17, page 1.

14 Ameren Missouri's adjusted total debt ratio is approximately 47.9%. This

15 adjusted total debt ratio will support an investment grade bond rating.

16 Based on an equity return of 9.30%, Ameren Missouri will be provided an

17 opportunity to produce a debt to EBITDA ratio of 2.7x. This is within S&P's

18 "Intermediate" guideline range of 2.5x to 3.5x.[37] This ratio also supports an

19 investment grade credit rating.

20 Ameren Missouri's retail operations FFO to total debt coverage at a 9.30%

21 equity return is 25%, which is within S&P's "Intermediate" metric guideline range of

22 23% to 35%. This FFO/total debt ratio will support an investment grade bond rating.

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[37] *Id.*

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Michael P. Gorman
Page 41
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1   At my recommended return on equity of 9.30% and the Company's proposed

2   embedded debt cost and capital structure, Ameren Missouri's financial credit metrics

3   are supportive of its investment grade utility bond rating.

4   **Q   DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

5   A   Yes.

<u>Qualifications of Michael P. Gorman</u>

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

2   A   Michael P. Gorman. My business address is 16690 Swingley Ridge Road, Suite 140,

3   Chesterfield, MO 63017.

4   **Q**   **PLEASE STATE YOUR OCCUPATION.**

5   A   I am a consultant in the field of public utility regulation and a Managing Principal with

6   Brubaker & Associates, Inc. ("BAI"), energy, economic and regulatory consultants.

7   **Q**   **PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND WORK**

8   **EXPERIENCE.**

9   A   In 1983 I received a Bachelors of Science Degree in Electrical Engineering from

10   Southern Illinois University, and in 1986, I received a Masters Degree in Business

11   Administration with a concentration in Finance from the University of Illinois at

12   Springfield. I have also completed several graduate level economics courses.

13   In August of 1983, I accepted an analyst position with the Illinois Commerce

14   Commission ("ICC"). In this position, I performed a variety of analyses for both formal

15   and informal investigations before the ICC, including: marginal cost of energy, central

16   dispatch, avoided cost of energy, annual system production costs, and working

17   capital. In October of 1986, I was promoted to the position of Senior Analyst. In this

18   position, I assumed the additional responsibilities of technical leader on projects, and

19   my areas of responsibility were expanded to include utility financial modeling and

20   financial analyses.

1   In 1987, I was promoted to Director of the Financial Analysis Department. In

2   this position, I was responsible for all financial analyses conducted by the Staff.

3   Among other things, I conducted analyses and sponsored testimony before the ICC

4   on rate of return, financial integrity, financial modeling and related issues. I also

5   supervised the development of all Staff analyses and testimony on these same

6   issues. In addition, I supervised the Staff's review and recommendations to the

7   Commission concerning utility plans to issue debt and equity securities.

8   In August of 1989, I accepted a position with Merrill-Lynch as a financial

9   consultant. After receiving all required securities licenses, I worked with individual

10   investors and small businesses in evaluating and selecting investments suitable to

11   their requirements.

12   In September of 1990, I accepted a position with Drazen-Brubaker &

13   Associates, Inc. ("DBA"). In April 1995, the firm of Brubaker & Associates, Inc. was

14   formed. It includes most of the former DBA principals and Staff. Since 1990, I have

15   performed various analyses and sponsored testimony on cost of capital, cost/benefits

16   of utility mergers and acquisitions, utility reorganizations, level of operating expenses

17   and rate base, cost of service studies, and analyses relating to industrial jobs and

18   economic development. I also participated in a study used to revise the financial

19   policy for the municipal utility in Kansas City, Kansas.

20   At BAI, I also have extensive experience working with large energy users to

21   distribute and critically evaluate responses to requests for proposals ("RFPs") for

22   electric, steam, and gas energy supply from competitive energy suppliers. These

23   analyses include the evaluation of gas supply and delivery charges, cogeneration

24   and/or combined cycle unit feasibility studies, and the evaluation of third-party

25   asset/supply management agreements. I have participated in rate cases on rate

1   design and class cost of service for electric, natural gas, water and wastewater

2   utilities. I have also analyzed commodity pricing indices and forward pricing methods

3   for third party supply agreements, and have also conducted regional electric market

4   price forecasts.

5   In addition to our main office in St. Louis, the firm also has branch offices in

6   Phoenix, Arizona and Corpus Christi, Texas.

7 **Q**   **HAVE YOU EVER TESTIFIED BEFORE A REGULATORY BODY?**

8 A   Yes. I have sponsored testimony on cost of capital, revenue requirements, cost of

9   service and other issues before the Federal Energy Regulatory Commission and

10   numerous state regulatory commissions including: Arkansas, Arizona, California,

11   Colorado, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas,

12   Louisiana, Michigan, Missouri, Montana, New Jersey, New Mexico, New York, North

13   Carolina, Ohio, Oklahoma, Oregon, South Carolina, Tennessee, Texas, Utah,

14   Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming, and before the

15   provincial regulatory boards in Alberta and Nova Scotia, Canada. I have also spon-

16   sored testimony before the Board of Public Utilities in Kansas City, Kansas;

17   presented rate setting position reports to the regulatory board of the municipal utility

18   in Austin, Texas, and Salt River Project, Arizona, on behalf of industrial customers;

19   and negotiated rate disputes for industrial customers of the Municipal Electric

20   Authority of Georgia in the LaGrange, Georgia district.

1   **Q   PLEASE   DESCRIBE   ANY   PROFESSIONAL   REGISTRATIONS   OR**

2   **ORGANIZATIONS TO WHICH YOU BELONG.**

3   A   I earned the designation of Chartered Financial Analyst ("CFA") from the CFA

4   Institute.   The CFA charter was awarded after successfully completing three

5   examinations which covered the subject areas of financial accounting, economics,

6   fixed income and equity valuation and professional and ethical conduct.   I am a

7   member of the CFA Institute's Financial Analyst Society.

Ameren Missouri

<u>Rate of Return</u>

Line	Description	Amount[1] (1)	Weight[1] (2)	Cost [2/1] (3)	Weighted Cost (4)
1	Common Equity	$ 3,938,891	51.59%	**9.30%**	4.80%
2	Preferred Stock	$ 81,828	1.07%	**4.18%**	0.04%
3	Long-Term Debt	$ 3,614,609	47.34%	**5.57%**	2.63%
4	**Total**	$ 7,635,327	**100.00%**		7.48%

Source:
[1]Schedule RJM-1.
[2]Gorman Direct Testimony, at 2.

Ameren Missouri

Proxy Group

Line	Company	Credit Ratings[1]		Common Equity Ratios	
		S&P (1)	Moody's (2)	SNL[1] (3)	Value Line[2] (4)
1	American Electric Power Company, Inc.	BBB	Baa1	45.0%	48.9%
2	Empire District Electric Company	BBB	Baa1	50.1%	50.2%
3	Great Plains Energy Inc.	BBB+	Baa2	47.4%	49.4%
4	Hawaiian Electric Industries, Inc.	BBB-	N/A	49.9%	55.0%
5	IDACORP, Inc.	BBB	Baa1	52.5%	53.4%
6	NextEra Energy, Inc.	A-	Baa1	38.8%	42.9%
7	Northeast Utilities	A-	Baa1	50.1%	54.8%
8	Otter Tail Corporation	BBB	Baa2	54.8%	57.9%
9	Pinnacle West Capital Corporation	A-	Baa1	53.6%	60.0%
10	PNM Resources, Inc.	BBB	Baa3	45.8%	49.7%
11	Portland General Electric Company	BBB	A3	48.7%	48.7%
12	Southern Company	A	Baa1	43.8%	45.8%
13	Westar Energy, Inc.	BBB+	Baa1	45.7%	50.0%
14	**Average**	**BBB+**	**Baa1**	**48.2%**	**51.3%**
15	**Ameren Missouri**	**BBB+**[3]	**Baa1**[3]		**51.6%**[3]

Sources:

[1] SNL Financial, Downloaded on November 7, 2014.

[2] *The Value Line Investment Survey*, August 22, September 19, and October 31, 2014.

[3] Schedule RJM-1

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<u>Consensus Analysts' Growth Rates</u>

Line	Company	Zacks		SNL		Reuters		Average of Growth Rates
		Estimated Growth %[1]	Number of Estimates	Estimated Growth %[2]	Number of Estimates	Estimated Growth %[3]	Number of Estimates	
		(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	American Electric Power Company, Inc.	4.90%	N/A	5.20%	4	4.97%	4	5.02%
2	Empire District Electric Company	3.00%	N/A	3.00%	1	NA	NA	3.00%
3	Great Plains Energy Inc.	5.00%	N/A	5.00%	4	5.00%	2	5.00%
4	Hawaiian Electric Industries, Inc.	4.00%	N/A	4.00%	1	4.00%	1	4.00%
5	IDACORP, Inc.	4.00%	N/A	4.00%	1	4.00%	1	4.00%
6	NextEra Energy, Inc.	6.60%	N/A	6.30%	3	6.47%	6	6.46%
7	Northeast Utilities	6.50%	N/A	6.50%	2	6.31%	4	6.44%
8	Otter Tail Corporation	NA	N/A	N/A	N/A	NA	NA	N/A
9	Pinnacle West Capital Corporation	4.00%	N/A	4.00%	4	3.95%	4	3.98%
10	PNM Resources, Inc.	8.50%	N/A	7.80%	5	8.34%	3	8.21%
11	Portland General Electric Company	7.80%	N/A	7.80%	3	7.83%	3	7.81%
12	Southern Company	3.50%	N/A	3.70%	6	3.62%	6	3.61%
13	Westar Energy, Inc.	3.80%	N/A	2.10%	3	3.20%	2	3.03%
14	**Average**	**5.13%**	**N/A**	**4.95%**	**3**	**5.24%**	**3**	**5.05%**

Sources:

[1] Zacks Elite, http://www.zackselite.com/, downloaded on November 7, 2014.

[2] SNL Interactive, http://www.snl.com/, downloaded on November 7, 2014.

[3] Reuters, http://www.reuters.com/, downloaded on November 7, 2014.

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Constant Growth DCF Model
(Consensus Analysts' Growth Rates)

Line	Company	13-Week AVG Stock Price[1] (1)	Analysts' Growth[2] (2)	Annualized Dividend[3] (3)	Adjusted Yield (4)	Constant Growth DCF (5)
1	American Electric Power Company, Inc.	$53.81	5.02%	$2.00	3.90%	8.93%
2	Empire District Electric Company	$25.71	3.00%	$1.02	4.09%	7.09%
3	Great Plains Energy Inc.	$25.33	5.00%	$0.92	3.81%	8.81%
4	Hawaiian Electric Industries, Inc.	$26.09	4.00%	$1.24	4.94%	8.94%
5	IDACORP, Inc.	$56.59	4.00%	$1.88	3.45%	7.45%
6	NextEra Energy, Inc.	$96.32	6.46%	$2.90	3.21%	9.66%
7	Northeast Utilities	$46.18	6.44%	$1.57	3.62%	10.06%
8	Otter Tail Corporation	$28.39	N/A	$1.21	N/A	N/A
9	Pinnacle West Capital Corporation	$56.95	3.98%	$2.38	4.35%	8.33%
10	PNM Resources, Inc.	$26.46	8.21%	$0.74	3.03%	11.24%
11	Portland General Electric Company	$33.93	7.81%	$1.12	3.56%	11.37%
12	Southern Company	$44.75	3.61%	$2.10	4.86%	8.47%
13	Westar Energy, Inc.	$35.96	3.03%	$1.40	4.01%	7.04%
14	**Average**	**$42.80**	**5.05%**	**$1.58**	**3.90%**	**8.95%**
15	**Median**					**8.87%**

Sources:
[1] SNL Financial, Downloaded on November 10, 2014.
[2] Schedule MPG-3.
[3] *The Value Line Investment Survey*, August 22, September 19, and October 31, 2014.

Schedule MPG-4

Ameren Missouri

Payout Ratios

Line		Dividends Per Share		Earnings Per Share		Payout Ratio	
		2013 (1)	Projected (2)	2013 (3)	Projected (4)	2013 (5)	Projected (6)
1	American Electric Power Company, Inc.	$1.95	$2.50	$3.18	$4.00	61.32%	62.50%
2	Empire District Electric Company	$1.01	$1.15	$1.48	$1.75	68.24%	65.71%
3	Great Plains Energy Inc.	$0.88	$1.20	$1.62	$2.00	54.32%	60.00%
4	Hawaiian Electric Industries, Inc.	$1.24	$1.30	$1.62	$2.00	76.54%	65.00%
5	IDACORP, Inc.	$1.57	$2.20	$3.64	$3.75	43.13%	58.67%
6	NextEra Energy, Inc.	$2.64	$3.90	$4.83	$6.75	54.66%	57.78%
7	Northeast Utilities	$1.47	$2.00	$2.49	$3.50	59.04%	57.14%
8	Otter Tail Corporation	$1.19	$1.30	$1.37	$2.30	86.86%	56.52%
9	Pinnacle West Capital Corporation	$2.23	$2.80	$3.66	$4.25	60.93%	65.88%
10	PNM Resources, Inc.	$0.68	$1.15	$1.41	$2.35	48.23%	48.94%
11	Portland General Electric Company	$1.10	$1.40	$1.77	$2.50	62.15%	56.00%
12	Southern Company	$2.01	$2.36	$2.70	$3.25	74.44%	72.62%
13	Westar Energy, Inc.	$1.36	$1.60	$2.27	$2.90	59.91%	55.17%
14	**Average**	**$1.49**	**$1.91**	**$2.46**	**$3.18**	**62.29%**	**60.15%**

Source:
The Value Line Investment Survey, August 22, September 19, and October 31, 2014.

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Sustainable Growth Rate

Line		Dividends Per Share (1)	Earnings Per Share (2)	Book Value Per Share (3)	Book Value Growth (4)	ROE (5)	Adjustment Factor (6)	Adjusted ROE (7)	Payout Ratio (8)	Retention Rate (9)	Internal Growth Rate (10)	Sustainable Growth Rate (11)
					3 to 5 Year Projections							
1	American Electric Power Company, Inc.	$2.50	$4.00	$40.50	4.19%	9.88%	1.02	10.08%	62.50%	37.50%	3.78%	4.04%
2	Empire District Electric Company	$1.15	$1.75	$20.25	3.04%	8.64%	1.01	8.77%	65.71%	34.29%	3.01%	3.85%
3	Great Plains Energy Inc.	$1.20	$2.00	$26.00	2.86%	7.69%	1.01	7.80%	60.00%	40.00%	3.12%	3.16%
4	Hawaiian Electric Industries, Inc.	$1.30	$2.00	$20.50	3.74%	9.76%	1.02	9.94%	65.00%	35.00%	3.48%	4.46%
5	IDACORP, Inc.	$2.20	$3.75	$44.90	4.04%	8.35%	1.02	8.52%	58.67%	41.33%	3.52%	3.52%
6	NextEra Energy, Inc.	$3.90	$6.75	$57.25	6.66%	11.79%	1.03	12.17%	57.78%	42.22%	5.14%	7.20%
7	Northeast Utilities	$2.00	$3.50	$36.50	3.66%	9.59%	1.02	9.76%	57.14%	42.86%	4.18%	4.50%
8	Otter Tail Corporation	$1.30	$2.30	$18.15	4.25%	12.67%	1.02	12.94%	56.52%	43.48%	5.62%	7.45%
9	Pinnacle West Capital Corporation	$2.80	$4.25	$45.25	3.52%	9.39%	1.02	9.55%	65.88%	34.12%	3.26%	3.90%
10	PNM Resources, Inc.	$1.15	$2.35	$24.50	3.26%	9.59%	1.02	9.75%	48.94%	51.06%	4.98%	5.00%
11	Portland General Electric Company	$1.40	$2.50	$29.00	4.47%	8.62%	1.02	8.81%	56.00%	44.00%	3.88%	5.19%
12	Southern Company	$2.36	$3.25	$26.25	4.14%	12.38%	1.02	12.63%	72.62%	27.38%	3.46%	4.73%
13	Westar Energy, Inc.	$1.60	$2.90	$29.65	4.42%	9.78%	1.02	9.99%	55.17%	44.83%	4.48%	5.00%
14	**Average**	**$1.91**	**$3.18**	**$32.21**	**4.02%**	**9.86%**	**1.02**	**10.05%**	**60.15%**	**39.85%**	**3.99%**	**4.77%**

Sources and Notes:

Cols. (1), (2) and (3):   *The Value Line Investment Survey*, August 22, September 19, and October 31, 2014.

Col. (4): [Col. (3) / Page 2 Col. (2)] ^ (1/5) - 1.

Col. (5): Col. (2) / Col. (3).

Col. (6): [2 * (1 + Col. (4))] / (2 + Col. (4)).

Col. (7): Col. (6) * Col. (5).

Col. (8): Col. (1) / Col. (2).

Col. (9): 1 - Col. (8).

Col. (10): Col. (9) * Col. (7).

Col. (11): Col. (10) + Page 2 Col. (9).

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Sustainable Growth Rate

Line	Company	13-Week Average Stock Price[1] (1)	2013 Book Value Per Share[2] (2)	Market to Book Ratio (3)	Common Shares Outstanding (in Millions)[2] 2013 (4)	3-5 Years (5)	Growth (6)	S Factor[3] (7)	V Factor[4] (8)	S * V (9)
1	American Electric Power Company, Inc.	$53.81	$32.98	1.63	487.78	498.00	0.42%	0.68%	38.71%	0.26%
2	Empire District Electric Company	$25.71	$17.43	1.48	43.04	47.00	1.78%	2.62%	32.21%	0.84%
3	Great Plains Energy Inc.	$25.33	$22.58	1.12	153.87	156.50	0.34%	0.38%	10.85%	0.04%
4	Hawaiian Electric Industries, Inc.	$26.09	$17.06	1.53	101.26	111.00	1.85%	2.84%	34.62%	0.98%
5	IDACORP, Inc.	$56.59	$36.84	1.54	50.23	50.20	-0.01%	-0.02%	34.90%	-0.01%
6	NextEra Energy, Inc.	$96.32	$41.47	2.32	435.00	470.00	1.56%	3.62%	56.94%	2.06%
7	Northeast Utilities	$46.18	$30.49	1.51	315.27	325.00	0.61%	0.92%	33.97%	0.31%
8	Otter Tail Corporation	$28.39	$14.74	1.93	36.27	40.00	1.98%	3.81%	48.08%	1.83%
9	Pinnacle West Capital Corporation	$56.95	$38.07	1.50	110.18	117.50	1.29%	1.94%	33.15%	0.64%
10	PNM Resources, Inc.	$26.46	$20.87	1.27	79.65	80.00	0.09%	0.11%	21.12%	0.02%
11	Portland General Electric Company	$33.93	$23.30	1.46	78.09	90.00	2.88%	4.19%	31.33%	1.31%
12	Southern Company	$44.75	$21.43	2.09	887.09	940.00	1.17%	2.43%	52.11%	1.27%
13	Westar Energy, Inc.	$35.96	$23.88	1.51	128.25	135.00	1.03%	1.55%	33.60%	0.52%
14	**Average**	**$42.80**	**$26.24**	**1.61**	**223.54**	**235.40**	**1.25%**	**2.09%**	**35.51%**	**0.84%**

Sources and Notes:

[1] SNL Financial, Downloaded on November 10, 2014.

[2] *The Value Line Investment Survey*, August 22, September 19, and October 31, 2014.

[3] Expected Growth in the Number of Shares, Column (3) * Column (6).

[4] Expected Profit of Stock Investment, [1 - 1 / Column (3)].

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Constant Growth DCF Model
(Sustainable Growth Rate)

Line	Company	13-Week AVG Stock Price[1] (1)	Sustainable Growth[2] (2)	Annualized Dividend[3] (3)	Adjusted Yield (4)	Constant Growth DCF (5)
1	American Electric Power Company, Inc.	$53.81	4.04%	$2.00	3.87%	7.91%
2	Empire District Electric Company	$25.71	3.85%	$1.02	4.12%	7.97%
3	Great Plains Energy Inc.	$25.33	3.16%	$0.92	3.75%	6.91%
4	Hawaiian Electric Industries, Inc.	$26.09	4.46%	$1.24	4.96%	9.42%
5	IDACORP, Inc.	$56.59	3.52%	$1.88	3.44%	6.96%
6	NextEra Energy, Inc.	$96.32	7.20%	$2.90	3.23%	10.43%
7	Northeast Utilities	$46.18	4.50%	$1.57	3.55%	8.05%
8	Otter Tail Corporation	$28.39	7.45%	$1.21	4.59%	12.04%
9	Pinnacle West Capital Corporation	$56.95	3.90%	$2.38	4.34%	8.24%
10	PNM Resources, Inc.	$26.46	5.00%	$0.74	2.94%	7.94%
11	Portland General Electric Company	$33.93	5.19%	$1.12	3.47%	8.66%
12	Southern Company	$44.75	4.73%	$2.10	4.91%	9.64%
13	Westar Energy, Inc.	$35.96	5.00%	$1.40	4.09%	9.09%
14	**Average**	**$42.80**	**4.77%**	**$1.58**	**3.94%**	**8.71%**
15	**Median**					**8.24%**

Sources:

[1] SNL Financial, Downloaded on November 10, 2014.

[2] Schedule MPG-6.

[3] *The Value Line Investment Survey*, August 22, September 19, and October 31, 2014.

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Electricity Sales Are Linked to U.S. Economic Growth

Note:
1988 represents the base year. Graph depicts increases or decreases from the base year.

Sources:
U.S. Department of Energy, Energy Information Administration.
Edison Electric Institute, http://www.eei.org.

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Multi-Stage Growth DCF Model

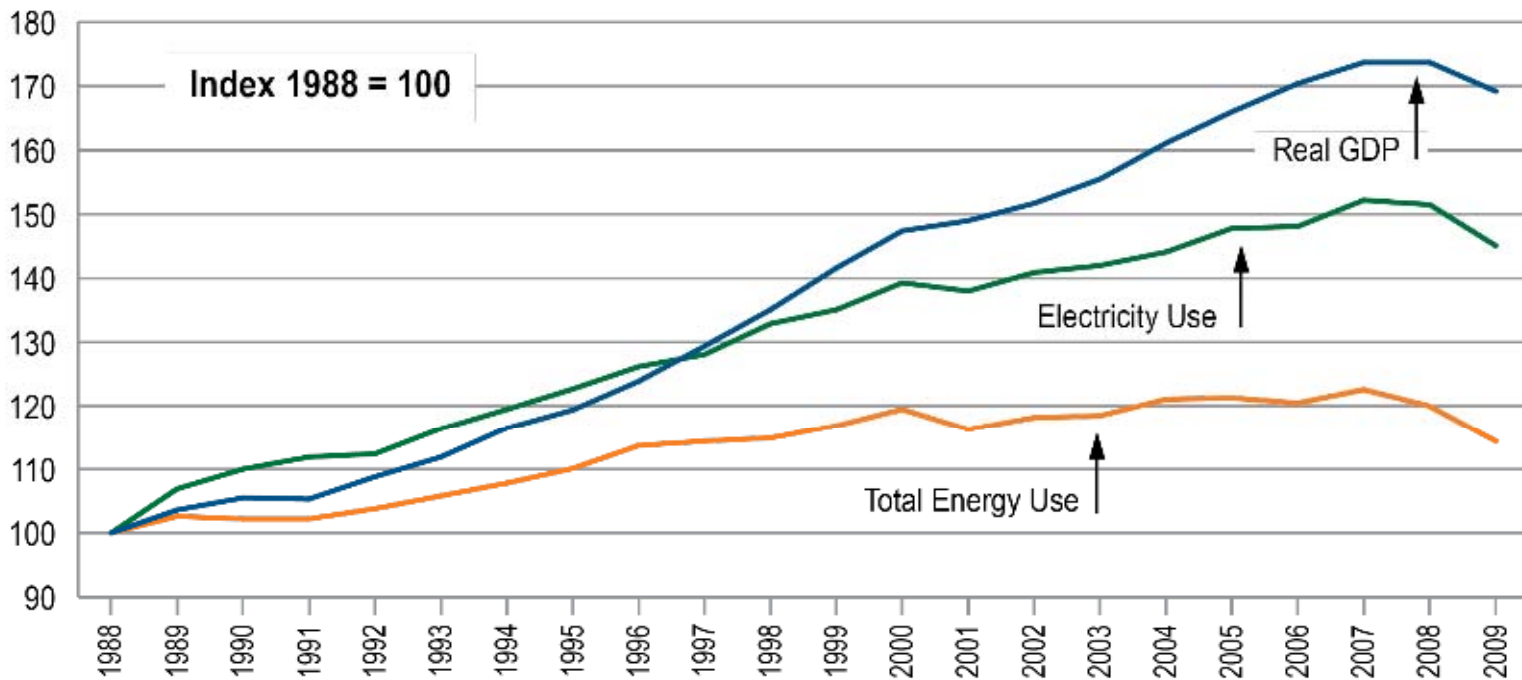| Line	Company	13-Week AVG Stock Price[1] (1)	Annualized Dividend[2] (2)	First Stage Growth[3] (3)	Second Stage Growth					Third Stage Growth[4] (9)	Multi-Stage Growth DCF (10)
					Year 6 (4)	Year 7 (5)	Year 8 (6)	Year 9 (7)	Year 10 (8)		
1	American Electric Power Company, Inc.	$53.81	$2.00	5.02%	4.95%	4.88%	4.81%	4.74%	4.67%	4.60%	8.59%
2	Empire District Electric Company	$25.71	$1.02	3.00%	3.27%	3.53%	3.80%	4.07%	4.33%	4.60%	8.34%
3	Great Plains Energy Inc.	$25.33	$0.92	5.00%	4.93%	4.87%	4.80%	4.73%	4.67%	4.60%	8.49%
4	Hawaiian Electric Industries, Inc.	$26.09	$1.24	4.00%	4.10%	4.20%	4.30%	4.40%	4.50%	4.60%	9.39%
5	IDACORP, Inc.	$56.59	$1.88	4.00%	4.10%	4.20%	4.30%	4.40%	4.50%	4.60%	7.94%
6	NextEra Energy, Inc.	$96.32	$2.90	6.46%	6.15%	5.84%	5.53%	5.22%	4.91%	4.60%	8.14%
7	Northeast Utilities	$46.18	$1.57	6.44%	6.13%	5.82%	5.52%	5.21%	4.91%	4.60%	8.59%
8	Otter Tail Corporation	$28.39	$1.21	N/A	N/A	N/A	N/A	N/A	N/A	4.60%	N/A
9	Pinnacle West Capital Corporation	$56.95	$2.38	3.98%	4.09%	4.19%	4.29%	4.39%	4.50%	4.60%	8.80%
10	PNM Resources, Inc.	$26.46	$0.74	8.21%	7.61%	7.01%	6.41%	5.80%	5.20%	4.60%	8.28%
11	Portland General Electric Company	$33.93	$1.12	7.81%	7.28%	6.74%	6.21%	5.67%	5.14%	4.60%	8.82%
12	Southern Company	$44.75	$2.10	3.61%	3.77%	3.94%	4.10%	4.27%	4.43%	4.60%	9.21%
13	Westar Energy, Inc.	$35.96	$1.40	3.03%	3.29%	3.56%	3.82%	4.08%	4.34%	4.60%	8.28%
14	**Average**	**$42.80**	**$1.58**	**5.05%**	**4.97%**	**4.90%**	**4.82%**	**4.75%**	**4.67%**	**4.60%**	**8.57%**
15	**Median**										**8.54%**

Sources:

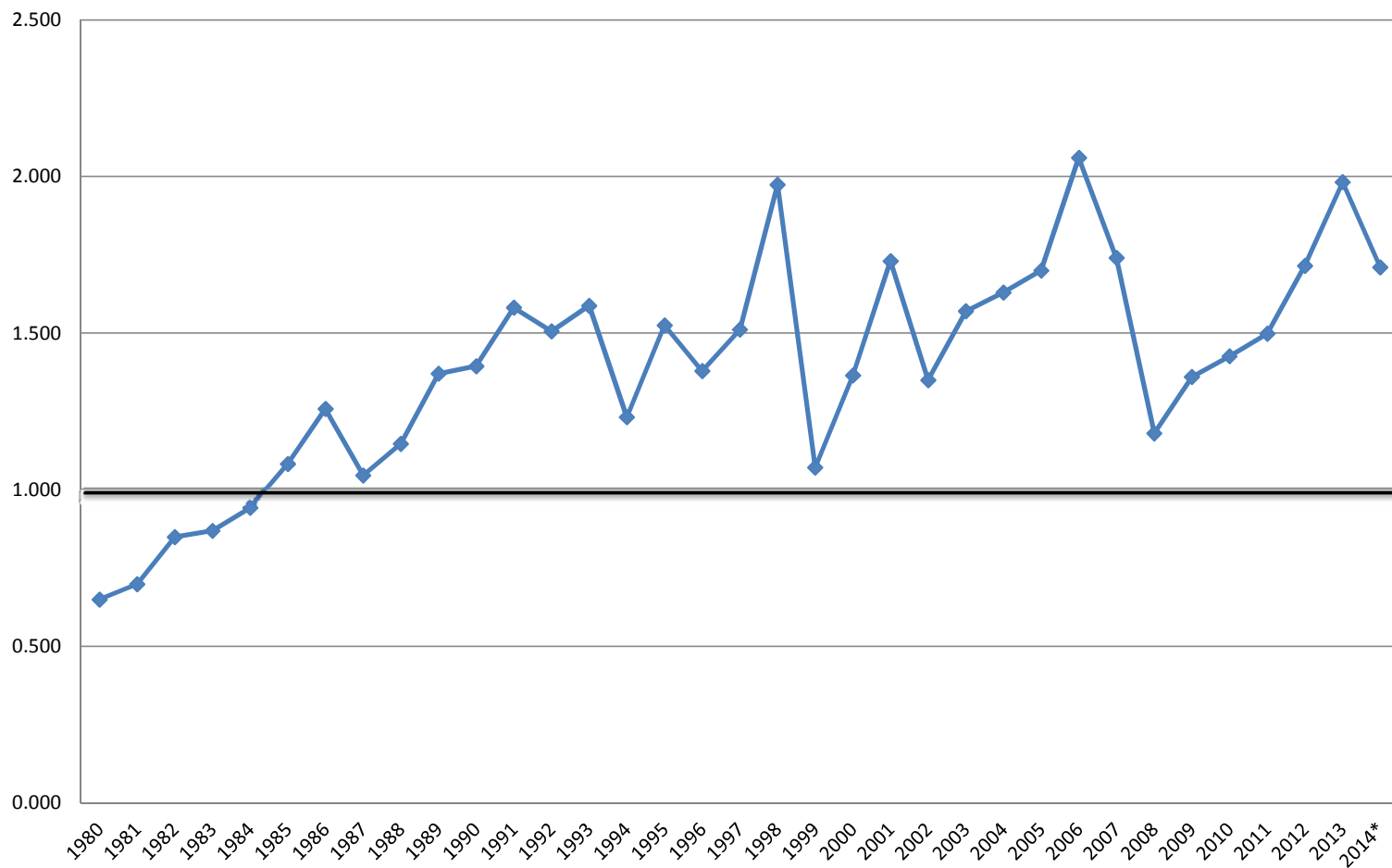[1] SNL Financial, Downloaded on November 10, 2014.

[2] *The Value Line Investment Survey*, August 22, September 19, and October 31, 2014.

[3] Schedule MPG-4.

[4] *Blue Chip Economic Indicators*, October 10, 2014 at 14.

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Common Stock Market/Book Ratio

* through June 2014

Source:
AUS Utility Reports, various dates.

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Equity Risk Premium - Treasury Bond

Line	Year	Authorized Electric Returns[1] (1)	Treasury Bond Yield[2] (2)	Indicated Risk Premium (3)
1	1986	13.93%	7.80%	6.13%
2	1987	12.99%	8.58%	4.41%
3	1988	12.79%	8.96%	3.83%
4	1989	12.97%	8.45%	4.52%
5	1990	12.70%	8.61%	4.09%
6	1991	12.55%	8.14%	4.41%
7	1992	12.09%	7.67%	4.42%
8	1993	11.41%	6.60%	4.81%
9	1994	11.34%	7.37%	3.97%
10	1995	11.55%	6.88%	4.67%
11	1996	11.39%	6.70%	4.69%
12	1997	11.40%	6.61%	4.79%
13	1998	11.66%	5.58%	6.08%
14	1999	10.77%	5.87%	4.90%
15	2000	11.43%	5.94%	5.49%
16	2001	11.09%	5.49%	5.60%
17	2002	11.16%	5.43%	5.73%
18	2003	10.97%	4.96%	6.01%
19	2004	10.75%	5.05%	5.70%
20	2005	10.54%	4.65%	5.89%
21	2006	10.36%	4.99%	5.37%
22	2007	10.36%	4.83%	5.53%
23	2008	10.46%	4.28%	6.18%
24	2009	10.48%	4.07%	6.41%
25	2010	10.24%	4.25%	5.99%
26	2011	10.07%	3.91%	6.16%
27	2012	10.01%	2.92%	7.09%
28	2013	9.79%	3.45%	6.34%
29	2014 [3]	9.74%	3.46%	6.28%
30	**Average**	**11.28%**	**5.91%**	**5.36%**

Sources:

[1] Regulatory Research Associates, Inc., Regulatory Focus, Jan. 1985 - Dec. 1996, and October 10, 2014, excluding the Virginia cases, which are subject to an adjustment for certain generation assets up to 200 basis points.

[2] St. Louis Federal Reserve: Economic Research, http://research.stlouisfed.org/. The yields from 2002 to 2005 represent the 20-Year Treasury yields obtained from the Federal Reserve Bank.

[3] The data includes the period Jan - Sep 2014.

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Equity Risk Premium - Utility Bond

Line	Year	Authorized Electric Returns[1] (1)	Average "A" Rated Utility Bond Yield[2] (2)	Indicated Risk Premium (3)
1	1986	13.93%	9.58%	4.35%
2	1987	12.99%	10.10%	2.89%
3	1988	12.79%	10.49%	2.30%
4	1989	12.97%	9.77%	3.20%
5	1990	12.70%	9.86%	2.84%
6	1991	12.55%	9.36%	3.19%
7	1992	12.09%	8.69%	3.40%
8	1993	11.41%	7.59%	3.82%
9	1994	11.34%	8.31%	3.03%
10	1995	11.55%	7.89%	3.66%
11	1996	11.39%	7.75%	3.64%
12	1997	11.40%	7.60%	3.80%
13	1998	11.66%	7.04%	4.62%
14	1999	10.77%	7.62%	3.15%
15	2000	11.43%	8.24%	3.19%
16	2001	11.09%	7.76%	3.33%
17	2002	11.16%	7.37%	3.79%
18	2003	10.97%	6.58%	4.39%
19	2004	10.75%	6.16%	4.59%
20	2005	10.54%	5.65%	4.89%
21	2006	10.36%	6.07%	4.29%
22	2007	10.36%	6.07%	4.29%
23	2008	10.46%	6.53%	3.93%
24	2009	10.48%	6.04%	4.44%
25	2010	10.24%	5.46%	4.78%
26	2011	10.07%	5.04%	5.03%
27	2012	10.01%	4.13%	5.88%
28	2013	9.79%	4.48%	5.31%
29	2014 [3]	9.74%	4.36%	5.38%
30	**Average**	**11.28%**	**7.30%**	**3.98%**

Sources:

[1] Regulatory Research Associates, Inc., Regulatory Focus, Jan. 85 - Dec. 06, and October 10, 2014, excluding the Virginia cases, which are subject to an adjustment for certain generation assets up to 200 basis points.

[2] Mergent Public Utility Manual, Mergent Weekly News Reports, 2003. The utility yields for the period 2001-2009 were obtained from the Mergent Bond Record. The utility yields from 2010-2013 were obtained from http://credittrends.moodys.com/.
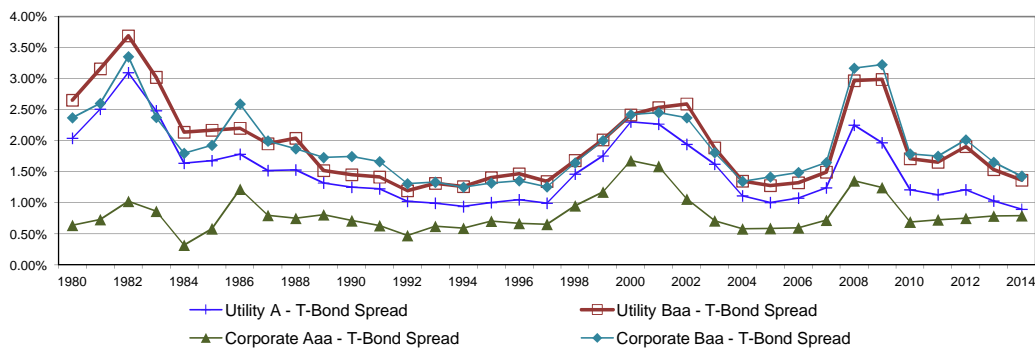
[3] The data includes the period Jan - Sep 2014.

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Bond Yield Spreads

		T-Bond Yield[1]	Public Utility Bond				Corporate Bond				Utility to Corporate	
Line	Year	(1)	A[2] (2)	Baa[2] (3)	A-T-Bond Spread (4)	Baa-T-Bond Spread (5)	Aaa1 (6)	Baa1 (7)	Aaa-T-Bond Spread (8)	Baa-T-Bond Spread (9)	Baa Spread (10)	A-Aaa Spread (11)
1	1980	11.30%	13.34%	13.95%	2.04%	2.65%	11.94%	13.67%	0.64%	2.37%	0.28%	1.40%
2	1981	13.44%	15.95%	16.60%	2.51%	3.16%	14.17%	16.04%	0.73%	2.60%	0.56%	1.78%
3	1982	12.76%	15.86%	16.45%	3.10%	3.69%	13.79%	16.11%	1.03%	3.35%	0.34%	2.07%
4	1983	11.18%	13.66%	14.20%	2.48%	3.02%	12.04%	13.55%	0.86%	2.38%	0.65%	1.62%
5	1984	12.39%	14.03%	14.53%	1.64%	2.14%	12.71%	14.19%	0.32%	1.80%	0.34%	1.32%
6	1985	10.79%	12.47%	12.96%	1.68%	2.17%	11.37%	12.72%	0.58%	1.93%	0.24%	1.10%
7	1986	7.80%	9.58%	10.00%	1.78%	2.20%	9.02%	10.39%	1.22%	2.59%	-0.39%	0.56%
8	1987	8.58%	10.10%	10.53%	1.52%	1.95%	9.38%	10.58%	0.80%	2.00%	-0.05%	0.72%
9	1988	8.96%	10.49%	11.00%	1.53%	2.04%	9.71%	10.83%	0.75%	1.87%	0.17%	0.78%
10	1989	8.45%	9.77%	9.97%	1.32%	1.52%	9.26%	10.18%	0.81%	1.73%	-0.21%	0.51%
11	1990	8.61%	9.86%	10.06%	1.25%	1.45%	9.32%	10.36%	0.71%	1.75%	-0.29%	0.54%
12	1991	8.14%	9.36%	9.55%	1.22%	1.41%	8.77%	9.80%	0.63%	1.67%	-0.25%	0.59%
13	1992	7.67%	8.69%	8.86%	1.02%	1.19%	8.14%	8.98%	0.47%	1.31%	-0.12%	0.55%
14	1993	6.60%	7.59%	7.91%	0.99%	1.31%	7.22%	7.93%	0.62%	1.33%	-0.02%	0.37%
15	1994	7.37%	8.31%	8.63%	0.94%	1.26%	7.96%	8.62%	0.59%	1.25%	0.01%	0.35%
16	1995	6.88%	7.89%	8.29%	1.01%	1.41%	7.59%	8.20%	0.71%	1.32%	0.09%	0.30%
17	1996	6.70%	7.75%	8.17%	1.05%	1.47%	7.37%	8.05%	0.67%	1.35%	0.12%	0.38%
18	1997	6.61%	7.60%	7.95%	0.99%	1.34%	7.26%	7.86%	0.66%	1.26%	0.09%	0.34%
19	1998	5.58%	7.04%	7.26%	1.46%	1.68%	6.53%	7.22%	0.95%	1.64%	0.04%	0.51%
20	1999	5.87%	7.62%	7.88%	1.75%	2.01%	7.04%	7.87%	1.18%	2.01%	0.01%	0.58%
21	2000	5.94%	8.24%	8.36%	2.30%	2.42%	7.62%	8.36%	1.68%	2.42%	-0.01%	0.62%
22	2001	5.49%	7.76%	8.03%	2.27%	2.54%	7.08%	7.95%	1.59%	2.45%	0.08%	0.68%
23	2002	5.43%	7.37%	8.02%	1.94%	2.59%	6.49%	7.80%	1.06%	2.37%	0.22%	0.88%
24	2003	4.96%	6.58%	6.84%	1.62%	1.89%	5.67%	6.77%	0.71%	1.81%	0.08%	0.91%
25	2004	5.05%	6.16%	6.40%	1.11%	1.35%	5.63%	6.39%	0.58%	1.35%	0.00%	0.53%
26	2005	4.65%	5.65%	5.93%	1.00%	1.28%	5.24%	6.06%	0.59%	1.42%	-0.14%	0.41%
27	2006	4.99%	6.07%	6.32%	1.08%	1.32%	5.59%	6.48%	0.60%	1.49%	-0.16%	0.48%
28	2007	4.83%	6.07%	6.33%	1.24%	1.50%	5.56%	6.48%	0.72%	1.65%	-0.15%	0.52%
29	2008	4.28%	6.53%	7.25%	2.25%	2.97%	5.63%	7.45%	1.35%	3.17%	-0.20%	0.90%
30	2009	4.07%	6.04%	7.06%	1.97%	2.99%	5.31%	7.30%	1.24%	3.23%	-0.24%	0.72%
31	2010	4.25%	5.46%	5.96%	1.21%	1.71%	4.94%	6.04%	0.69%	1.79%	-0.08%	0.52%
32	2011	3.91%	5.04%	5.56%	1.13%	1.65%	4.64%	5.66%	0.73%	1.75%	-0.10%	0.40%
33	2012	2.92%	4.13%	4.83%	1.21%	1.91%	3.67%	4.94%	0.75%	2.01%	-0.11%	0.46%
34	2013	3.45%	4.48%	4.98%	1.03%	1.53%	4.24%	5.10%	0.79%	1.65%	-0.12%	0.24%
35	2014 [3]	3.46%	4.36%	4.83%	0.90%	1.37%	4.26%	4.89%	0.79%	1.43%	-0.06%	0.10%
36	**Average**	**6.95%**	**8.48%**	**8.90%**	**1.53%**	**1.95%**	**7.78%**	**8.88%**	**0.82%**	**1.93%**	**0.02%**	**0.71%**

Yield Spreads
Treasury Vs. Corporate & Treasury Vs. Utility

Legend:
- Utility A - T-Bond Spread
- Utility Baa - T-Bond Spread
- Corporate Aaa - T-Bond Spread
- Corporate Baa - T-Bond Spread

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Treasury and Utility Bond Yields

Line	Date	Treasury Bond Yield[1] (1)	"A" Rated Utility Bond Yield[2] (2)	"Baa" Rated Utility Bond Yield[2] (3)
1	11/07/14	3.04%	4.08%	4.71%
2	10/31/14	3.07%	4.10%	4.71%
3	10/24/14	3.05%	4.09%	4.71%
4	10/17/14	2.98%	4.02%	4.64%
5	10/10/14	3.03%	4.03%	4.65%
6	10/03/14	3.13%	4.13%	4.72%
7	09/26/14	3.22%	4.20%	4.77%
8	09/19/14	3.29%	4.28%	4.83%
9	09/12/14	3.35%	4.33%	4.88%
10	09/05/14	3.23%	4.21%	4.74%
11	08/29/14	3.09%	4.05%	4.57%
12	08/22/14	3.16%	4.10%	4.64%
13	08/15/14	3.13%	4.06%	4.60%
14	**Average**	**3.14%**	**4.13%**	**4.71%**
15	**Spread To Treasury**		**0.99%**	**1.57%**

Sources:

[1] St. Louis Federal Reserve: Economic Research, http://research.stlouisfed.org.

[2] http://credittrends.moodys.com/.

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Trends in Bond Yields
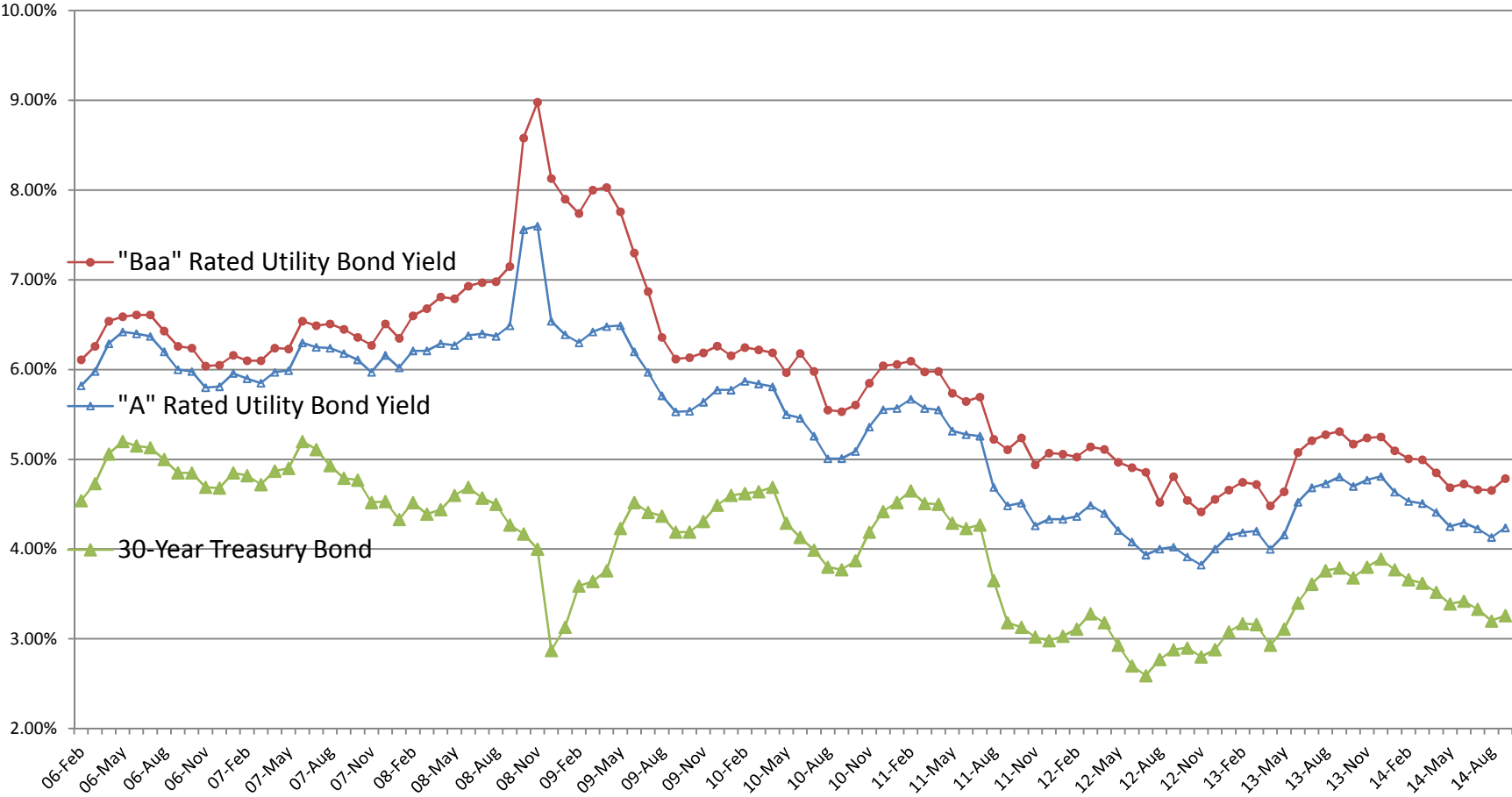
"Baa" Rated Utility Bond Yield

"A" Rated Utility Bond Yield

30-Year Treasury Bond

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Yield Spread Between Utility Bonds and 30-Year Treasury Bonds
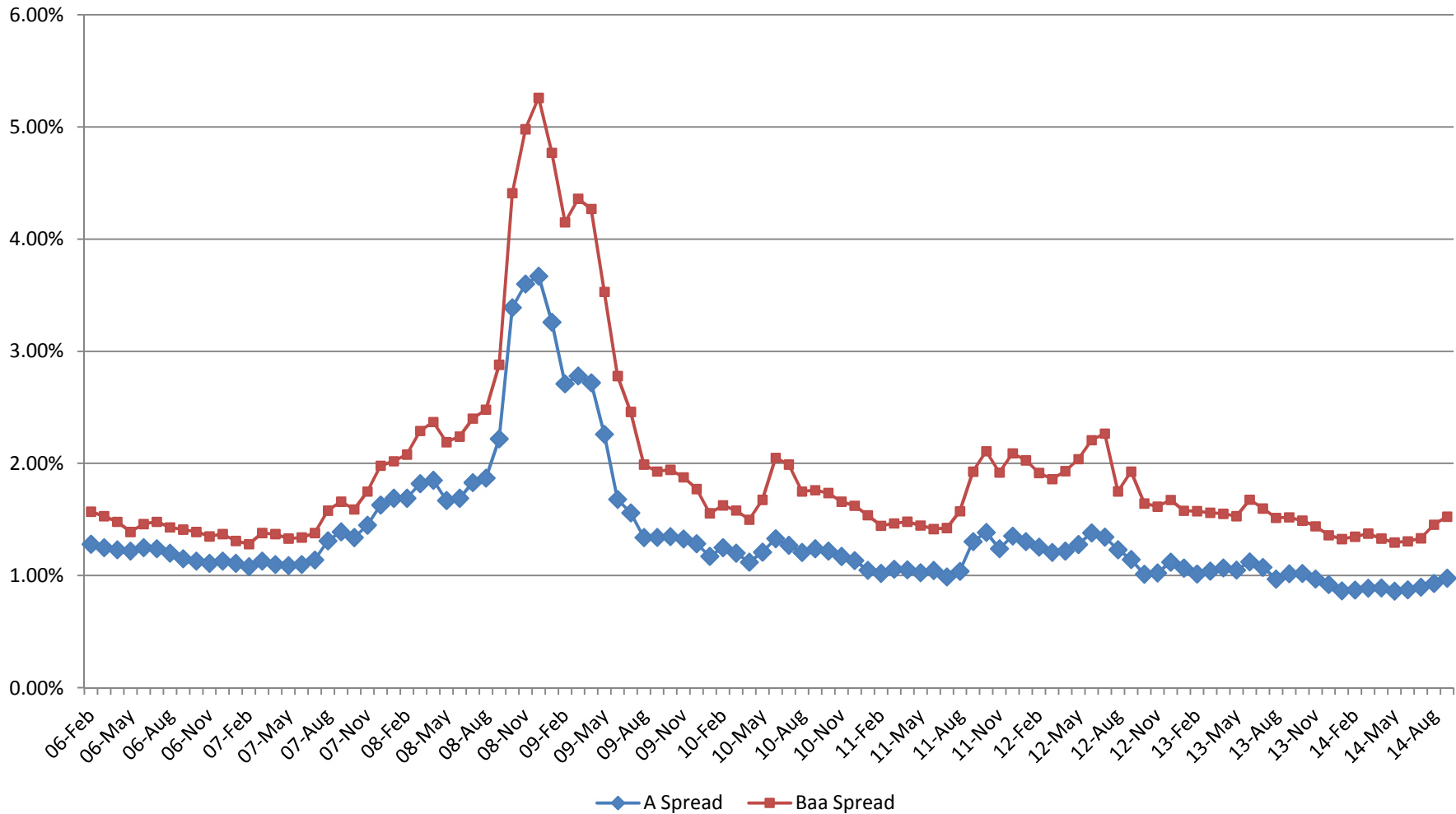
MPG-14

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<u>Value Line Beta</u>

<u>Line</u>	<u>Company</u>	<u>Beta</u>
1	American Electric Power Company, Inc.	0.70
2	Empire District Electric Company	0.65
3	Great Plains Energy Inc.	0.85
4	Hawaiian Electric Industries, Inc.	0.80
5	IDACORP, Inc.	0.80
6	NextEra Energy, Inc.	0.70
7	Northeast Utilities	0.75
8	Otter Tail Corporation	0.95
9	Pinnacle West Capital Corporation	0.70
10	PNM Resources, Inc.	0.85
11	Portland General Electric Company	0.80
12	Southern Company	0.60
13	Westar Energy, Inc.	0.75
14	**Average**	**0.76**

Source:
The Value Line Investment Survey,
August 22, September 19, and October 31, 2014.

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CAPM Return

Line	Description	High Market Risk Premium (1)	Low Market Risk Premium (2)
1	Risk-Free Rate[1]	4.10%	4.10%
2	Risk Premium[2]	7.30%	6.20%
3	Beta[3]	0.76	0.76
4	**CAPM**	**9.66%**	**8.82%**
5	**Average**	**9.24%**	

Sources:

[1] *Blue Chip Financial Forecasts*; November 1, 2014, at 2.

[2] Morningstar, Inc. *Ibbotson SBBI 2014 Classic Yearbook* at 91 and 152.

[3] Schedule MPG-15.

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<u>Standard & Poor's Credit Metrics</u>
Thousands of Dollars

Line	Description	Retail Cost of Service Amount (1)	S&P Benchmark (Medial Volatility)[1/2] Intermediate (2)	Significant (3)	Aggressive (4)	Reference (5)
1	Rate Base	$ 7,317,909				Schedule LMM-16
2	Weighted Common Return	4.80%				Page 2, Line 1, Col. 3.
3	Pre-Tax Rate of Return	10.43%				Page 2, Line 4, Col. 4.
4	Income to Common	$ 351,088				Line 1 x Line 2.
5	EBIT	$ 763,403				Line 1 x Line 3.
6	Depreciation & Amortization	$ 529,415				Schedule LMM-16
7	Imputed Amortization	$ 5,692				S&P RatingsDirect, November 19, 2014
8	Deferred Income Taxes & ITC	$ (6,371)				Schedule LMM-16
9	Funds from Operations (FFO)	$ 879,824				Sum of Line 4 and Lines 6 through 8.
10	Imputed & Capitalized Interest Expense	$ 21,808				S&P RatingsDirect, November 19, 2014
11	EBITDA	$ 1,320,318				Sum of Lines 5 through 7 and Line 10.
12	Total Adjusted Debt Ratio	47.9%				Page 3, Line 4, Col. 2.
13	Debt to EBITDA	2.7x	2.5x - 3.5x	3.5x - 4.5x	4.5x - 5.5x	(Line 1 x Line 12) / Line 11.
14	FFO to Total Debt	25%	23% - 35%	13% - 23%	9% - 13%	Line 9 / (Line 1 x Line 12).

Sources:

[1] Standard & Poor's: "Criteria: Corporate Methodology," November 19, 2013.

[2] Ratings Direct: "Summary: Union Electric Co. d/b/a Ameren Missouri," May 8, 2014.

Note:

Based on the May 2014 S&P report, Ameren Missouri has an "Excellent" business profile and an "Intermediate" financial profile, and falls under the 'Medial Volatility' matrix.

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Standard & Poor's Credit Metrics
(Pre-Tax Rate of Return)

Line	Description	Weight[1] (1)	Cost (2)	Weighted Cost (3)	Pre-Tax Weighted Cost (4)
1	Common Equity	51.6%	**9.30%**	4.80%	7.75%
2	Preferred Stock	1.1%	**4.18%**	0.04%	0.04%
3	Long-Term Debt	47.3%	**5.57%**	2.63%	2.63%
4	**Total**	**100.0%**		**7.48%**	**10.43%**
5	Tax Conversion Factor[2]				1.6159296

Sources:
[1]Schedule MPG-1.
[2]Workpapers of Laura Moore.

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Standard & Poor's Credit Metrics
(Financial Capital Structure)
Thousands of Dollars

Line	Description	Amount[1] (1)		Weight (2)
1	Long-Term Debt	$	3,614,609	46.9%
2	Off-Balance Sheet Debt for Operating Leases[2]	$	78,022	1.0%
3	Off-Balance Sheet Debt for PPAs[2]	$	-	0.0%
4	Total Long-Term Debt	$	3,692,631	47.9%
	Preferred Stock	$	81,828	1.1%
5	Common Equity	$	3,938,891	51.1%
6	**Total**	$	**7,713,349**	**100.0%**

Sources:
[1]Schedule MPG-1.
[2]S&P RatingsDirect, November 19, 2014.