Rebuttal Testimony and Schedules
James M. Coyne

Before the South Dakota Public Utilities Commission
State of South Dakota

In the Matter of the Application of Northern States Power Company,
a Minnesota corporation
for Authority to Increase Rates for Electric Service in South Dakota

Docket No. EL11-019
Exhibit___

Rate of Return and Return on Equity

April 27, 2012

TABLE OF CONTENTS

I. INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is James M. Coyne, and I am a Senior Vice President of Concentric Energy Advisors, Inc. ("Concentric").

Q. ON WHOSE BEHALF ARE YOU SUBMITTING THIS TESTIMONY?

A. I am submitting this testimony on behalf of Northern States Power Company, a Minnesota corporation operating in South Dakota ("NSP" or the "Company"). NSP is a wholly owned subsidiary of Xcel Energy Inc. ("XEI").

Q. PLEASE DESCRIBE YOUR EXPERIENCE IN THE ENERGY AND UTILITY INDUSTRIES AND YOUR EDUCATIONAL AND PROFESSIONAL QUALIFICATIONS.

A. I provide expert testimony before federal, state and Canadian provincial agencies on matters pertaining to economics, finance, and public policy in the energy industry. I regularly advise utilities, generating companies, public bodies and private equity investors on business issues pertaining to the utilities industry. This work includes calculating the cost of capital for the purpose of ratemaking and providing expert testimony and studies on matters pertaining to rate policy, valuation, capital costs, demand side management, low-income programs, fuels and power markets. In addition, I work for utilities, independent developers and public bodies on issues pertaining to the management and development of power generation, distribution and transmission facilities. I have authored numerous articles on the energy industry and provided testimony before the FERC and jurisdictions in Alberta, British Columbia, California, Connecticut,

Massachusetts, New Jersey, Ontario, Maine, Texas, Vermont, and Wisconsin.

Prior to joining Concentric, I was Senior Managing Director in the Corporate Economics Practice for FTI/Lexecon, and Managing Director for Arthur Andersen's Energy & Utilities Corporate Finance Practice. I was also Managing Director for Navigant Consulting and Senior Economist for the Massachusetts Energy Facilities Siting Council. I also served as State Energy Economist for the Maine Office of Energy Resources.

I hold a B.S. in Business Administration from Georgetown University and a M.S. in Resource Economics from the University of New Hampshire. My background is presented in more detail in Exhibit__(JMC-1), Schedule 1 and Exhibit__(JMC-1), Schedule 2.

II. PURPOSE AND OVERVIEW OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. The purpose of my Rebuttal Testimony is to respond to the Direct Testimony of Basil L. Copeland Jr. on behalf of the South Dakota Public Utilities Commission (the "Commission") Staff with regards to the cost of capital, including the cost of equity, cost of debt, and capital structure. In responding to Mr. Copeland, I will discuss how his proposal fails to meet customary regulatory standards and will compound NSP's consistent inability to earn a fair return on equity ("ROE") from its South Dakota electric operations. My analysis and conclusions are supported by the data presented in Exhibit__(JMC-1), Schedules 3 through 12, which have been prepared by me or under my direction.

The remainder of my testimony is organized as follows:

- In Section III, I summarize my key conclusions.
- In Section IV, I provide a comparison of Mr. Copeland's 9.00 percent ROE recommendation to other ROE awards, which shows that his recommendation is an extreme outlier and a clear departure from regulatory standards.
- In Section V, I discuss the issues and implications of earnings attrition with respect to the regulatory compact and utility investments and why the Commission should take those issues into consideration.
- In Section VI, I demonstrate that Mr. Copeland's recommended ROE will have an adverse impact on the Company's ability to make investments and attract capital on fair and reasonable terms and respond to Mr. Copeland's specific analysis of ROE.
- In Section VII, I will explain why Mr. Copeland's recommendations with regard to capital structure and cost of debt should not be accepted by the Commission.
- In Section VIII, I provide updated analyses and recommendations regarding the Company's ROE, cost of debt and capital structure.
- Finally, in Section IX, I summarize my conclusions and recommendations.

III. SUMMARY OF KEY CONCLUSIONS

Q. WHAT ARE YOUR KEY CONCLUSIONS?

A. My key conclusions are:

- The Company currently does not have a reasonable opportunity to earn its authorized ROE for its South Dakota electric operations, and Mr. Copeland's recommendations would put even greater strain on the Company's financial health at a time of increasing capital investments.
- A primary cause of the Company's inability to earn its authorized ROE is regulatory lag, which causes a permanent loss of earnings and inadequate ongoing revenue in a period of increasing costs.
- Mr. Copeland's recommended 9.00 percent ROE is lower than any ROE awarded in the U.S. for integrated electric utilities over the past three years, is inconsistent with the standards of *Hope* and *Bluefield*, and would create obstacles to investment in South Dakota.

Q. ARE YOU PROVIDING AN UPDATED ASSESSMENT REGARDING THE APPROPRIATE COST OF CAPITAL FOR THE COMPANY?

A. Yes, I am. I have updated the Constant Growth Discounted Cash Flow ("DCF") analysis, and the Bond Yield Plus Risk Premium analysis presented by Company witness Daniel S. Dane in his Direct Testimony, as well as performed certain additional analyses in response to Mr. Copeland. Based on those analyses, it is my view that the ROE for the Company has decreased moderately since the filing of the Company's petition in June 2011. Specifically, my revised recommendation for the Company's ROE is 10.65 percent, within a range of 10.40 percent to 10.90 percent.

Q. PLEASE SUMMARIZE THE UPDATED COST OF CAPITAL FOR THE COMPANY.

A. The updated cost of capital is summarized in Table 1. The capital structure and cost of debt reflect updated amounts through December 31, 2011:[1]

Table 1: Capital Structure and Cost of Capital

	Percent	Cost Rate	Weighted Cost
Common Equity	52.90%	10.65%	5.63%
Long-term debt	47.10%	6.13%	2.89%
Total Capitalization	100.00%		8.52%

IV. COMPARISON TO PREVAILING LEVELS OF AUTHORIZED ROES

Q. DO THE ROES AUTHORIZED IN OTHER JURISDICTIONS PROVIDE A PRACTICAL BENCHMARK FOR ASSESSING ROE RECOMMENDATIONS?

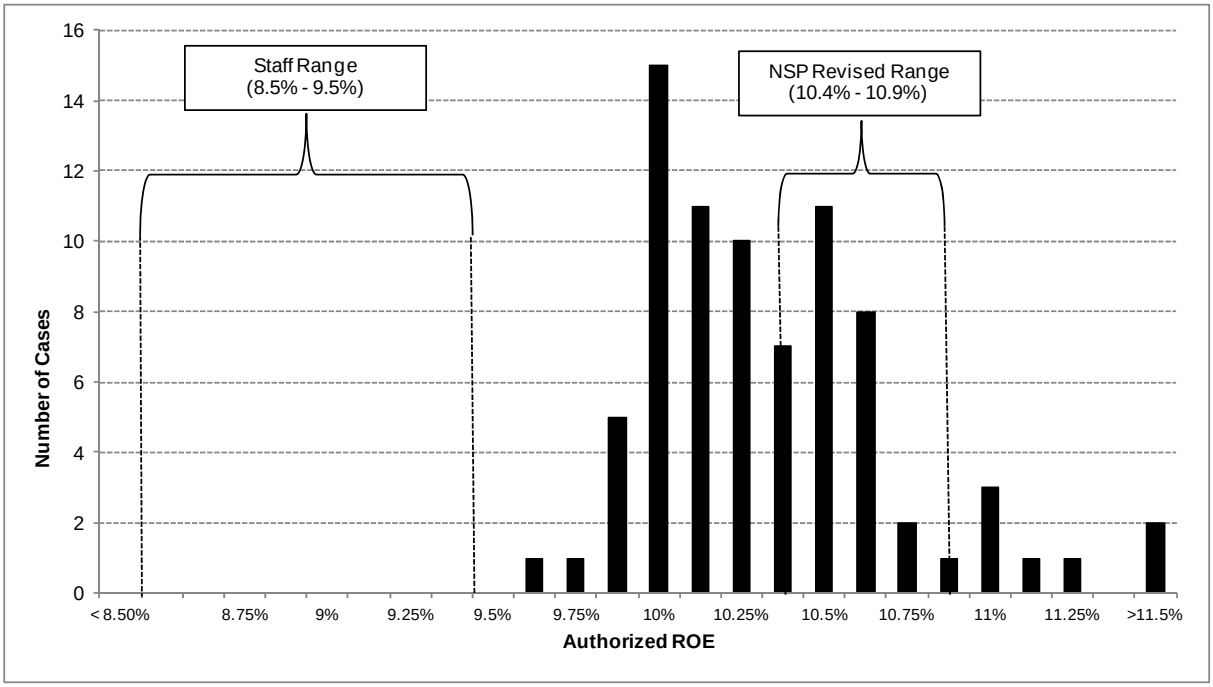
A. Yes. While the ROEs authorized in other jurisdictions do not determine the appropriate ROE in this proceeding, those ROEs provide a useful benchmark to assist in assessing overall reasonableness.

Q. HOW DOES MR. COPELAND'S RECOMMENDATION COMPARE TO OTHER AUTHORIZED ROES?

A. Data from Regulatory Research Associates ("RRA") shown on Chart 1 (below) demonstrates that Mr. Copeland's ROE recommendation is well below the bottom of the range of authorized ROEs between January 1, 2010 and March 31, 2012. Moreover, during that period, there have been no authorized ROEs of 9.00 percent or lower for integrated electric utilities, and the average authorized return has been 10.39 percent.

[1] *See*, Response to SDPUC DR2-12, January 5, 2012.

Chart 1: Authorized ROEs for Integrated Electric Utilities
January 1, 2010 – March 31, 2012[2]



Q. ARE AWARDED ROES SIGNIFICANT TO INVESTORS?

A. Yes. The authorized ROE sends an important signal to investors regarding whether there is regulatory support for financial integrity, dividends, and financial growth.

Q. DO THE ROES AWARDED BY DIFFERENT JURISDICTIONS HAVE AN EFFECT ON INVESTORS' ABILITY AND WILLINGNESS TO MAKE INVESTMENTS?

A. Yes. The cost of capital represents an opportunity cost to investors. If higher returns are available for other investments of comparable risk, investors have the incentive to divert their capital to those investments. Thus, an ROE that is significantly below authorized ROEs in other

[2] Source: Regulatory Research Associates.

jurisdictions can be an impediment to the Company's ability to attract capital for investment in South Dakota.

V. IMPLICATIONS OF EARNINGS ATTRITION

Q. HAS NSP BEEN ABLE TO EARN ITS AUTHORIZED ROE FOR ITS SOUTH DAKOTA ELECTRIC OPERATIONS?

A. No. The Direct Testimony of Company witness Laura McCarten discussed how the Company has experienced an actual ROE of 3.38 percent in 2009 (4.23 percent weather normalized), and 2.95 percent in 2010 (2.64 percent weather normalized) from its South Dakota operations. Those actual ROE results reflect earnings attrition.

Q. WHAT IS EARNINGS ATTRITION?

A. Earnings attrition arises when there are systematic conditions that make it difficult for a regulated utility to earn a its authorized return. For NSP's South Dakota electric operations, these conditions include: (1) the use of an historical average test year, which leads to regulatory lag; (2) the leveling off of sales growth in the last few years, as reflected in Ms. McCarten's Rebuttal Testimony; and (3) the fact that rate base is growing at a much faster rate than revenues, as also reflected in Ms. McCarten's Rebuttal Testimony.

Q. WHAT IS REGULATORY LAG?

A. As noted above, regulatory lag refers to the delay between the time when a utility incurs costs to serve its customers (*e.g.*, when it places new plant in service) and when it later begins to recover the associated costs through rates. In spite of its name, regulatory lag does not refer merely to a delay in

the recovery of costs. Costs that are not recovered through rates as a result of regulatory lag are lost forever to the utility. These costs are incurred when new plant is placed in service and include both the return of invested capital (depreciation expense) and the return on invested capital.

Q. HOW WOULD ADOPTING MR. COPELAND'S ROE RECOMMENDATION OF 9.00 PERCENT AFFECT NSP'S ABILITY TO MAINTAIN ITS FINANCIAL INTEGRITY AND TO EARN ITS AUTHORIZED RETURN IN SOUTH DAKOTA?

A. Adopting Mr. Copeland's 9.00 percent ROE recommendation, in conjunction with the persistent regulatory lag and earnings attrition in South Dakota, would be detrimental to the Company's financial integrity during a period in which it must make substantial capital expenditures in order to maintain system reliability and meet its service obligations.

Q. WHAT CIRCUMSTANCES IS NSP FACING IN SOUTH DAKOTA?

A. As explained in Ms. McCarten's Direct Testimony, NSP's current request for rate relief is driven by the need to:

- Maintain, improve, and replace infrastructure;
- Manage cost increases at a time of anticipated sales decline; and
- Comply with new and increasing regulatory requirements.[3]

As also discussed in Mr. Dane's Direct Testimony, the Company is currently investing in a very significant capital program.[4] The Company estimates that it will invest approximately $5.9 billion during the period 2012 to 2016.[5]

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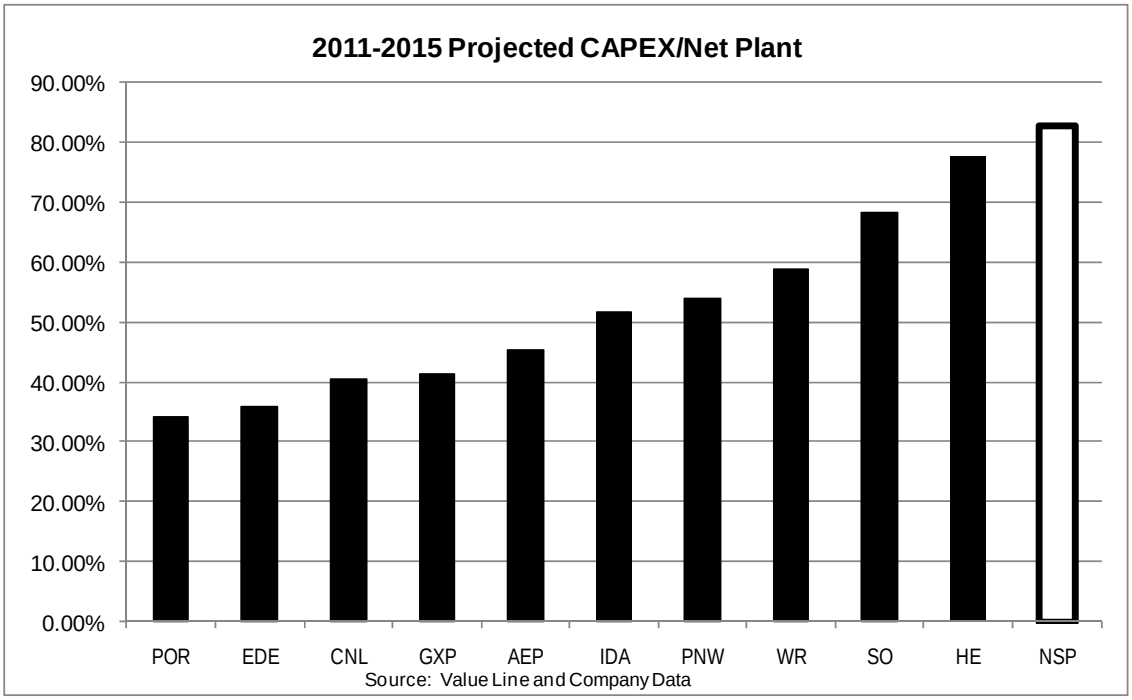
3 Direct Testimony of Laura McCarten, at 3.
4 Direct Testimony of Daniel Dane, at 31.
5 Xcel Energy Investor Presentation, March 21, 2012.

Q. HOW DO THE COMPANY'S INVESTMENT LEVELS COMPARE TO OTHER UTILITIES?

A. The Company is investing at a very high level as reflected in Chart 2 from Mr. Dane's Direct Testimony, which I have included here for convenience:

Chart 2: Comparison of Capital Expenditures[6]



Q. HOW DO RATES OF RETURN RELATE TO UTILITY INVESTMENTS?

A. The rates of return awarded by regulators must be compensatory and fair in relation to investments of comparable risks and enable the Company to maintain its financial health and continued access to capital markets at a reasonable cost. In return, the utility must provide safe and reliable service for its customers. This is the core of the regulatory compact. To meet the

regulatory compact, it is necessary that the three standards of a fair return provided in *Hope* and *Bluefield* (*i.e.*, comparability, capital attraction, and financial integrity) be met for a return to indeed be "fair."

Q. HOW DO INVESTMENT PRINCIPLES RELATE TO THE REGULATORY COMPACT AND UTILITY INVESTMENTS?

A. Two fundamental investment principles are at play – capital attraction and capital allocation. Investors have incentives to select investments that offer the best return, with best being defined in consideration of return opportunity and risk. If a utility is not afforded the opportunity to earn its allowed ROE (or if the allowed ROE does not reflect the true cost of equity for the utility), rates are not just and reasonable, and the utility's ability to attract capital is impaired.

Q. HOW IS THE ABILITY TO ATTRACT CAPITAL IMPAIRED?

A. Utilities compete in capital markets for investment capital, and those dollars will flow to investments that provide the most certainty around earnings, provided that those earnings are on par with comparable investments of similar risk. Investors, be they shareholders in a publicly traded company or the parent of a utility affiliate, will have incentives to simply allocate their investment capital elsewhere. The same incentives apply when capital investments decisions are made by utilities. If the return is not adequate to provide a reasonable return to shareholders, an incentive is created for the utility to defer that investment and redirect its capital elsewhere.

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[6] Sources: Value Line, SEC Form 10-K, Xcel Energy, Inc, for the year ending December 31, 2010, at 75, and FERC Form 1, Northern States Power Company (Minnesota), for the period ending December 31, 2010, at 110. The capital expenditure estimate for Empire District Electric excludes any restoration costs that may

VI. RESPONSE TO STAFF WITNESS COPELAND

Q. PLEASE SUMMARIZE MR. COPELAND'S ANALYSES AND RECOMMENDATIONS.

A. Mr. Copeland recommends an ROE for NSP of 9.00 percent, which is the midpoint of a range from 8.50 percent to 9.50 percent. Mr. Copeland's recommendation is based on the Constant Growth DCF model and the Dividend Discount Model ("DDM"). Mr. Copeland also performs a Capital Asset Pricing Model ("CAPM") analysis, but does not use those results in establishing his recommended ROE range. Mr. Copeland also does not accept the Company's proposed cost of debt and capital structure.

Q. IS MR. COPELAND'S 9.00 PERCENT ROE RECOMMENDATION FAIR AND REASONABLE FOR NSP, AND ADEQUATE TO SUPPORT CREDIT QUALITY AND ACCESS TO CAPITAL?

A. No, his 9.00 percent ROE recommendation is not fair and reasonable because it is not comparable to returns available from other investments of comparable risk and it would have a detrimental effect on the financial integrity of the Company and its ability access to capital on reasonable terms. A 9.00 percent ROE will impair NSP's ability to produce cash flow needed to fund operations and meet financial obligations. As discussed in Mr. Dane's Direct Testimony, the ROE and allowed return directly influence a utility's ability to produce the cash flow required to fund operations and meet financial obligations.[7]

be required within its service territory as a result of the tornado damage suffered in May 2011.

[7] Direct Testimony of Daniel S. Dane, at 6-7.

The rates set in this case, including the ROE and capital structure, will directly affect the Company's cash flows in the period in which rates are in effect. The Company's cash flows in turn have a bearing on its credit quality and investors' perception of the riskiness of the enterprise. Given this, Mr. Copeland's recommended ROE and capital structure will exert pressure on the metrics that are of the greatest concern to both debt and equity investors. Mr. Copeland's recommendations are thus not consistent with the comparability and capital attraction standards established in *Hope* and *Bluefield*.[8] In addition, the entire range of ROEs recommended by Mr. Copeland is significantly below all other authorized ROEs for integrated electric companies in the past three years, including all ROEs recently authorized in NSP's other jurisdictions.

Q. IS MR. COPELAND'S RECOMMENDATION BASED ON SOUND ANALYSIS?

A. No. Mr. Copeland's 9.00 percent recommended ROE is based on flawed analyses and assumptions. However, as I will demonstrate in my Rebuttal Testimony, when reasonable modifications are made or alternatives are provided to Mr. Copeland's analyses, the results are significantly more in line with the range of results presented in my Rebuttal Testimony, as well as prevailing levels of authorized returns.

Q. PLEASE SUMMARIZE YOUR CONCLUSIONS REGARDING MR. COPELAND'S ROE ANALYSIS.

A. Mr. Copeland's ROE analysis is affected by three primary flaws: (1) his choice of growth rates to be used in the DCF and DDM models; (2) his

[8] Bluefield Waterworks & Improvement Co., v. Public Service Commission of West Virginia, 262 U.S. 679

failure to reflect flotation costs in developing the cost of equity for the Company; and (3) his application of the CAPM and his assessment of the Equity Risk Premium ("ERP").

A. Application of the Constant Growth DCF Model

Q. WHAT ARE THE EFFECTS OF MR. COPELAND'S GROWTH RATES AND APPROACH TO FLOTATION COSTS ON HIS CONSTANT GROWTH DCF ANALYSIS?

A. Mr. Copeland's selection of growth rates and approach to flotation costs are the main drivers of Mr. Copeland's unreasonably low Constant Growth DCF results of a 9.04 percent mean and 8.95 percent median.[9]

Q. PLEASE DESCRIBE MR. COPELAND'S ANALYSIS AS TO GROWTH RATES.

A. As to growth rates, Mr. Copeland averages the Zacks consensus estimate of projected earnings per share growth with Value Line estimates of dividend per share growth, book value per share growth, and the "% Retained to Common Equity" rate (sometimes referred to as the "sustainable growth rate" or the "retention growth rate") to arrive at his growth rate for each proxy group company. Rather than also utilizing EPS from Value Line to be consistent with his use of EPS from Zack's, Mr. Copeland takes the unorthodox step of using EPS from one source and those other measures from Value Line, when he could have used a comparable measure from both sources. Exclusive reliance on EPS growth rates is theoretically sound and there are academic findings demonstrating the relationship between stock

(1923) (*Bluefield*); Federal Power Commission v. Hope Natural Gas Co., 320 U.S. 591 (1944) (*Hope*).

[9] Direct Testimony of Basil L. Copeland, Jr., at 27.

prices and earnings growth rates.

Q. IS MR. COPELAND'S METHOD THE "BEST WAY TO ESTIMATE THE CONSTANT GROWTH DCF" AS HE CONTENDS?

A. No. Mr. Copeland averages three inputs from Value Line and averages those growth rates with EPS estimates from Zack's, when he had comparable EPS estimates from Value Line that he did not use.

Q. DOES MR. COPELAND PROVIDE SUFFICIENT SUPPORT FOR HIS RELIANCE ON DPS, BVPS, AND "% RETAINED TO COMMON EQUITY" IN HIS ANALYSIS?

A. No. Mr. Copeland's position to include other growth rates is not supported by any analysis of what growth rates investors incorporate into their valuations. Further, he erroneously compares the EPS median growth rate from Zack's for the proxy group (5.70 percent) with the median DPS growth rate from Value Line (3.68 percent) and concludes that the "projected earnings growth rate is unsustainable in the long term."[10] Those are projections for different parameters from different sources, allowing no such conclusion. Nonetheless, had he compared the means, which I rely upon for DCF estimation, they are nearly identical (5.88 percent vs. 5.49 percent). Another concern I have is the variability in the Value Line DPS data Mr. Copeland uses, ranging from 17.02 percent per year for Empire District Electric to 1.19 percent per year for Hawaii Electric. Those variations are extreme and should raise caution flags.

[10] *Ibid.*, at 25-26.

Q. HAVE YOU RELIED EXCLUSIVELY ON EARNINGS GROWTH AS THE GROWTH RATE IN THE CONSTANT GROWTH DCF MODEL?

A. Yes. I rely exclusively on consensus forecasts of earnings per share growth from Zacks and First Call, as well as earnings growth projections from Value Line. I have relied exclusively on earnings growth because earnings are the fundamental determinant of a company's ability to pay dividends. As noted by Brigham and Houston:

> Growth in dividends occurs primarily as a result of growth in *earnings per share* (EPS). Earnings growth, in turn, results from a number of factors, including (1) inflation, (2) the amount of earnings the company retains and invests, and (3) the rate of return the company earns on its equity (ROE).[11]

As noted previously, dividends are derived from earnings. Further, both dividends and book value per share may be directly affected by short run management decisions on cash management. As a result, dividend growth rates and book value growth rates may not accurately reflect a company's long-term growth. In contrast, earnings growth is not affected by short run cash management decisions.

Q. ARE DIVIDEND PER SHARE AND BOOK VALUE PER SHARE GROWTH RATES WIDELY REPORTED?

A. No. Value Line is the only service that provides dividend and book value growth projections. The Value Line growth rate estimates are not consensus estimates and, therefore, relying on a single source may introduce bias into

[11] Eugene F. Brigham and Joel F. Houston, *Fundamentals of Financial Management*, at 317 (Concise Fourth Edition, Thomson South-Western).

the analysis. Thus, earnings growth rates, which are available from several sources, are a more reliable measure of a company's long-term growth.

Q. HAS THE RELATIONSHIP BETWEEN EARNINGS GROWTH RATES AND STOCK VALUES BEEN DEMONSTRATED?

A. Yes. Professors Carleton and Vander Weide conducted a comparison of the predictive capability of historical growth estimates and analysts' consensus forecasts of five-year earnings growth for the stock prices of sixty-five utility companies.[12] Their research demonstrates that earnings growth projections are superior in their predictive quality for stock prices to other measures of growth. Those findings suggest that investors form their investment decisions based on expectations of growth in earnings, not dividends. Consequently, earnings growth is the appropriate estimate for the purpose of the Constant Growth DCF model.

Q. DID YOU REPLICATE MR. COPELAND'S DCF ANALYSIS USING FORECASTED EARNINGS GROWTH AS THE MEASURE OF GROWTH?

A. Yes, I did. As shown in Exhibit__(JMC-1), Schedule 6, I replicated Mr. Copeland's DCF analysis using analysts' consensus forecasted EPS growth rates, as reported by Mr. Copeland in Exhibit__(BLC-1), Schedule 4. Based on that analysis, the mean and median DCF results were 10.18 percent and 10.19 percent, respectively, before consideration of flotation costs. In comparison, Mr. Copeland's mean and median DCF results are 9.04 percent

[12] Vander Weide and Carleton, *Investor Growth Expectations: Analysts vs. History*, The Journal of Portfolio Management, Spring 1988, at 81. Please note that while the original study was published in 1988, it was updated in 2004 under the direction of Dr. Vander Weide. The results of that updated study are consistent with Vander Weide and Carlton's original conclusions.

and 8.95 percent, respectively.[13] In addition, the 10.18 percent mean ROE estimate resulting from the use of forecasted EPS growth rates, once adjusted for flotation costs of 25 basis points (*i.e.*, 0.25 percent), is 10.43 percent, which is within the low end of my estimated range of returns, and is significantly more consistent with the current level of authorized ROEs for integrated electric utilities.

Q. PLEASE EXPLAIN THE PROBLEM WITH MR. COPELAND'S USE OF THE "% RETAINED TO COMMON EQUITY" GROWTH RATE METHOD.

A. Mr. Copeland's "% Retained to Common Equity" growth method reflects only one of two sources of growth, thereby understating total growth. Value Line's "% Retained to Common Equity" (also referred to as the "sustainable growth rate") is the equivalent of the retention growth rate. The retention growth rate considers only the product of earnings retention rates and earned returns on common equity, which reflect only growth from internally generated funds.[14]

Mr. Copeland's analysis fails to recognize that earnings growth also occurs as a result of new equity issuances, or what are commonly known as externally generated funds.[15] By only considering the funds from internally-generated sources, Mr. Copeland's retention growth rate understates the prospective earnings growth rates for the proxy group.

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13 Direct Testimony of Basil L. Copeland, Jr., at 27.

14 In the retention growth formula, this is commonly referred to as the product of "b x r", where "b" is the retention ratio or the portion of net income not paid in dividends (*i.e.*, the portion of net income that is "plowed back" into the company as a means for future growth), and "r" is the expected return on equity.

B. Dividend Discount Model

Q. PLEASE DESCRIBE MR. COPELAND'S DDM ANALYSIS.

A. Mr. Copeland's DDM is a three-stage DCF model in which dividends in all three periods are the product of estimated earnings and payout ratios. In the first stage, which in Mr. Copeland's model runs from 2011 to 2015, earnings grow at the Zacks consensus EPS growth rate for each company in the proxy group. In the second stage (2016 to 2030), earnings grow at a long-term growth rate, which Mr. Copeland has designated as the proxy group median value of Value Line's "% Retained to Common Equity". The second stage is a transition period in which the retention ratio transitions from the 2015 estimate for each proxy company to a common value of 39.00 percent (*i.e.*, the median value for the proxy group in 2015). In the third stage (2031 and thereafter), constant growth assumptions (*i.e.*, 4.00 percent earnings growth and 39.00 percent earnings retention) apply. The results of Mr. Copeland's application of the DDM are a mean of 8.54 percent and a median of 8.42 percent.[16] As I will discuss below, while there are other areas of disagreement with Mr. Copeland's DDM assumptions, the most significant difference is the use of "% Retained to Common Equity" as the long-term growth rate.

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15 In the retention growth formula, this is commonly shown as the product of "s x v", where "s" represents the growth in shares outstanding and "v" is that portion of the market-to-book ratio that exceeds unity. This methodology is recognized as a common approach to calculating the retention growth rate. *See*, Roger Morin, New Regulatory Finance, at 306.

16 Direct Testimony of Basil L. Copeland, Jr., at 30.

Q. WHAT ARE THE PROBLEMS OTHER THAN THE LONG-TERM GROWTH RATE?

A. There are three problems in addition to the long term growth rate. First, Mr. Copeland assumes that dividend payments (which represent cash flows to investors) occur at the end of each year. That is inconsistent with Mr. Copeland's application of the Constant Growth DCF model, in which Mr. Copeland effectively increased the current dividend by half of a year's growth rate, in recognition that increases occur throughout the year.[17] In order to be consistent with that approach, it is appropriate to assume that dividend payments occur after six months rather than on December 31 of each year in the DDM.

Second, Mr. Copeland allows for no transition in the dividend growth rates assumed in the DDM between the near-term and the long-term measures. From a practical perspective, it is more reasonable to allow for a transition period during the second stage in which the near-term growth rate transitions to the long-term growth rate, much as Mr. Copeland has done with the retention ratio.

Third, Mr. Copeland assumes a long-term payout ratio of 61.00 percent based on the median projected 2015 payout ratio from Value Line for the proxy group. However, the long-term (1990 to the present) industry average dividend payout ratio has been approximately 66.55 percent,[18] and it is reasonable to assume that the companies in the proxy group will revert to the long-term payout ratio after the current capital construction cycle is over. Mr. Copeland's long-term payout ratio is thus too low, as it incorporates

17 *Ibid.*, at 24.

18 Equals average of company-specific median payout ratios for 1990-2011 for the 51 electric utilities covered by the Value Line Investment Survey as of March 31, 2012.

shorter-term expectations that reflect the current high level of construction activity.

Q. WHY IS MR. COPELAND'S ASSUMPTION REGARDING LONG-TERM GROWTH IN THE DDM INCORRECT?

A. The five-year "% Retained to Common Equity" growth rate of 4.00 percent that Mr. Copeland uses as the measure of long-term growth differs significantly from long-term estimates of overall economic growth in the U.S., and thus is not indicative of the long-term growth prospects of electric utilities.

Q. HOW DO YOU CALCULATE THE LONG-TERM GDP GROWTH RATE?

A. The long-term GDP growth rate is based on real (constant dollar) GDP growth rates, and estimates for inflation. Blue Chip Financial Forecast provides a consensus forecast of the real GDP growth rate. I applied two alternative estimates for inflation to develop the nominal (post-inflation) GDP growth rate. I have averaged two alternative estimates for inflation: 1) the GDP Chained Price Index; and 2) the 30-day average spread between the 30-year Treasury bond and the 30-year Treasury Inflation-Protected Securities ("TIPS") bond.[19] The estimates of nominal GDP growth that I have utilized are summarized below:

[19] The TIPS is an inflation-indexed bond that presents the broader market's view of forward-looking inflation.

Table 2: Estimates of Nominal GDP Growth

Inflation	2.27%[20]
Real GDP Growth[21]	2.60%
Nominal GDP Growth	4.93%

Q. DID YOU PERFORM A MULTI-STAGE DCF?

A. Yes. In response to Mr. Copeland's approach I developed a Multi-Stage DCF model that reflects a three stage approach: near-term, transitional, and long-term growth.

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

A. The model transitions from near-term growth, (*i.e.* the average of Value Line, Zacks, and First Call forecasts used in the Constant Growth model) for the first stage (years 1-5), to the long-term forecast of GDP growth for the third stage (years 11 and beyond). The second stage, or the transitional stage (years 6-10), connects the first stage growth with the third stage growth by decreasing the growth rate each year on a pro rata basis.

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

A. I applied the Multi-Stage DCF model to the proxy group. My assumptions with respect to the various model inputs are described in Table 3.

[20] Represents the average of GDP Chained Price Index of 2.10 percent and the TIPS spread of 2.68 percent.
[21] Blue Chip Financial Forecasts, for 2017 – 2021, December 1, 2010.

Table 3: Multi-Stage DCF Model Assumptions

Model Input		Stage 1	Stage 2	Stage3
Years	**Start**	**1 – 5**	**6 – 10**	**>11**
Stock Price and Dividend Yields	30, 90 and 180 day average			
Earnings Growth		EPS growth as average of Value Line, Zacks, and First Call projected growth rates	Transition to Long-term GDP growth on geometric average basis	Long-term GDP Growth

Q. PLEASE DESCRIBE THE MULTI-STAGE DCF ANALYSIS YOU HAVE PERFORMED.

A. To apply the Multi-Stage DCF analysis, I determined the cash dividend receipt each year by multiplying the applicable period's growth rate (applying the three stages of growth rates described above) to annual estimated earnings per share. To that result I applied an estimated dividend payout ratio to arrive at annual investor cash flows. I estimated the payout ratios for years 1–10, as those projected by Value Line for each of the proxy group companies. I then assumed that by the end of the second period (*i.e.*, the end of year 10), the payout ratio will converge to the long-term industry median payout ratio, for the reasons discussed above.

Q. WHAT ARE THE RESULTS OF YOUR MULTI-STAGE DCF ANALYSIS?

A. As provided in Exhibit__(JMC-1), Schedule 7, the Multi-Stage DCF results are summarized in Table 4 below:

Table 4: Multi-Stage DCF Results (excludes flotation costs)

30-day Average	9.98%
90-day Average	9.94%
180-day Average	10.08%
Average	10.00%

Q. WHAT COMMENT DO YOU HAVE REGARDING THE REASONABLENESS OF THOSE RESULTS?

A. The results of the Multi-Stage DCF Model, which are presented before any consideration of flotation costs, are generally lower than the results of the Constant Growth DCF. It is quite clear that the Multi-Stage DCF will produce comparatively lower results than historical norms based on real GDP growth projections that are considerably below the historical long-term growth rate of the U.S. economy, which averaged 3.24 percent over the 1929 – 2011 period.[22] However, it is also clear that, based on the flawed assumptions in Mr. Copeland's DDM, his results are unreasonably low. My Multi-Stage DCF, which corrects for those flawed assumptions, provides more reliable results that, while below my recommended range, are considerably more in line with current levels of authorized returns for integrated electric utilities.

[22] Bureau of Economic Analysis, National Economic Accounts, March 29, 2012 update.

C. Flotation Costs

Q. PLEASE SUMMARIZE MR. COPELAND'S TESTIMONY REGARDING FLOTATION COSTS.

A. Mr. Copeland states that flotation costs are generally not a "significant element" of the required rate of return and that he believes the "double leverage impact" of XEI's preferred stock offsets any potential cost due to flotation expenses. Mr. Copeland argues that the flotation cost adjustment in Mr. Dane's Direct Testimony overstates the necessary adjustment because not all common equity is raised through public offerings, common stock is not issued annually, and NSP does not issue its own shares. Mr. Copeland's quantification of the flotation cost adjustment leads Mr. Copeland to conclude that flotation costs are the equivalent of a "rounding error."[23]

Q. IS MR. COPELAND CORRECT?

A. No. Flotation costs are a part of the cost of capital of a utility, like the issuance costs for long term debt. These costs are not like operating expenses and are reflected in the balance sheet, not the income statement. Flotation costs resulting from stock issuances are permanent reductions in common equity for the issuing company. In Exhibit__(JMC-1), Schedule 8, I have demonstrated why a flotation cost allowance is required in every year subsequent to an equity issuance, not just a year in which shares are offered. Specifically, Table 3 of Exhibit__(JMC-1), Schedule 8 shows, under the restrictive assumptions of the Constant Growth DCF model (*i.e.*, constant growth rate, stable dividend payout ratio, and constant price/earnings ratio) that if a company is authorized to earn a return that does not reflect flotation

[23] Direct Testimony of Basil L. Copeland. Jr., at 48.

costs, the result will be a return to shareholders that is below their required return and a capital loss to shareholders. Table 2 in that schedule also demonstrates that a flotation cost adjustment is required annually, not just in the year following a stock issuance, in order for shareholders to earn their required return. Thus, counter to Mr. Copeland's assertion, the fact that common stock is not issued annually does not negate the need for an annual adjustment to the ROE for flotation costs.

Q. IS THE NEED TO RECOVER FLOTATION COSTS AFFECTED BY THE ISSUANCE OF STOCK BY XEI SINCE 2000, INSTEAD OF NSP?

A. No. As shown on Exhibit__(DSD-1), Schedule 3, a substantial portion of the stock issuances upon which flotation costs were incurred was issued directly by NSP prior to the 2000 merger that resulted in XEI. Further, to the extent that NSP is not allowed to recover legitimate flotation costs, even if those costs were borne at the parent level, the Company does not have the opportunity to earn its authorized ROE. Flotation costs are no different than costs associated with debt issuances, which are traditionally allowed in a utility's revenue requirement, and NSP should be allowed to fully recover those costs in rates.

Q. DOES THE ISSUANCE OF SOME COMMON STOCK THROUGH NON-PUBLIC SOURCES ELIMINATE THE NEED TO RECOVER FLOTATION COSTS?

A. No. The flotation cost adjustment presented by Mr. Dane represents the cost to publicly issue shares. Given the significant capital program that NSP is undertaking, public issuances are likely to be a much more significant source of common equity to support the Company's capital program than

are non-public issuances. As such, recovery of those costs during a period of elevated capital spending becomes even more important to the Company's financial integrity and its ability to earn its allowed ROE. However, if the Commission were to decide that reflection of non-publicly issued shares in the flotation cost adjustment were appropriate, I strongly disagree that such an adjustment would result in no adjustment at all, as suggested by Mr. Copeland.

Q. WHAT IS THE RESULT IF THE COMMISSION DETERMINES THAT THE LOW COST OF NON-PUBLIC ISSUANCES SHOULD BE REFLECTED IN FLOTATION COSTS?

A. While the reflection of common stock issued through the Company's dividend reinvestment plan ("DRIP") and Employee Stock Ownership Plan ("ESOP") would somewhat decrease the flotation costs adjustment, it is not to the degree suggested by Mr. Copeland. To that point, I have provided an estimate of the flotation cost adjustment excluding non-publicly issued shares. As shown in Exhibit__(JMC-1), Schedule 9, the result of that modification is an adjustment to the Constant Growth DCF model results of 14 basis points (*i.e.*, 0.14 percent).

Q. IS MR. COPELAND CORRECT IN CLAIMING THAT NSP'S FLOTATION COSTS ARE ESSENTIALLY OFFSET BY "DOUBLE LEVERAGE"?

A. No. Mr. Copeland's position is incorrect for two main reasons. First, the reflection of XEI's preferred stock in the Company's capital structure, even implicitly, goes against long-standing regulatory principles with regards to stand-alone ratemaking and financial theory, and is inconsistent with the basis on which NSP issues its own debt. Second, on a practical level, Mr.

Copeland's use of XEI's December 31, 2010 balance of preferred equity (NSP's parent company had no preferred debt as of December 31, 2011) directly conflicts with his position regarding the appropriate capital structure balances for the Company.

Q. ARE MR. COPELAND'S ASSERTIONS REGARDING "DOUBLE LEVERAGE" CONSISTENT WITH NSP'S STAND-ALONE ISSUANCE OF DEBT?

A. No. Mr. Copeland's implicit use of elements of XEI's consolidated capital structure would be inconsistent with: (1) the basis on which NSP has issued approximately $3.4 billion of long-term debt; and (2) the financial theory that establishes that it is the risk of the investment that determines the investor's required return, not the source of the investor's investment capital.

Q. PLEASE EXPLAIN THE INCONSISTENCY WITH THE BASIS ON WHICH NSP HAS ISSUED ITS LONG-TERM DEBT?

A. NSP-MN is a separate corporate entity with a total capitalization of $7.1 billion, including $3.3 billion of stand-alone, publicly-issued debt.[24] NSP also files its stand-alone financial statements with the Securities and Exchange Commission ("SEC"), and is rated separately by S&P, Moody's and Fitch. S&P provides specific guidance on the credit ratings criteria for the Company to achieve ratings objectives. Using those criteria, the Company has a corporate credit rating of A-, from S&P. Therefore, relying on components of XEI's capital structure ignores the basis on which the Company has issued its existing debt and the way in which the investing community views the Company.

[24] SEC Form 10-K, Northern States Power Company, for the year ending December 31, 2011, at 38 and 40.

Q. HOW IS MR. COPELAND'S PROPOSAL INCONSISTENT WITH FINANCIAL THEORY?

A. Financial theory provides that it is the risk inherent in an investment that determines the cost of capital, not the source of the funds used to make an investment. Furthermore, the return required on an investment depends only on the risks of that investment, not on the risks of the investor's other investments. In this proceeding, we are establishing the cost of equity for NSP's South Dakota operations. The returns investors require for NSP's South Dakota operations are not based on the source of their capital; the risk (and required return) for an equity investment in NSP's South Dakota operations does not change based on the source of funds to make that investment.

As Dr. Roger Morin states in New Regulatory Finance, "[e]quity is equity, irrespective of its source, and the cost of equity is governed by its use, by the risk to which it is exposed."[25] The Maryland Public Service Commission came to a similar conclusion in a 2007 rate proceeding, stating:

> We reject People's Counsel's proposed capital structure [reflecting a double leverage adjustment] because it suffers from numerous flaws. First, it assumes that the rate of return depends on the source of capital rather than the risks faced by the capital.[26]

Those findings confirm that Mr. Copeland's analysis of the preferred equity held at XEI is irrelevant to the determination of NSP's cost of capital.

[25] Morin, Roger A., New Regulatory Finance, Public Utilities Reports, Inc., 2006, at 523.

[26] Maryland Public Service Commission, Order No. 81517; Case No. 9092, *In the Matter of the Application of Potomac Electric Power Company for Authority to Revise its Rate and Charges for Electric Service and for Certain Rate Design Changes*, July 19, 2007. Clarification added.

Q. DOES MR. COPELAND'S THEORY ALSO COMPROMISE THE SEPARATION OF UTILITY AND NON-UTILITY COSTS AND OPERATIONS?

A. Yes. Mr. Copeland's approach would compromise the traditional separation of utility and non-utility costs and operations that are reflected in the stand-alone principle.

Q. WHAT DO YOU MEAN BY THE "STAND-ALONE PRINCIPLE"?

A. For ratemaking purposes, the stand alone principle provides that only the revenues and expenses of the regulated utility be considered for purposes of determining the revenue requirement, not those of either the holding company within which a utility is held or the utility's affiliates. The utility is thus treated as a stand-alone entity.

Q. HAS THE VALUE OF THE STAND-ALONE PRINCIPLE BEEN RECOGNIZED BY REGULATORY COMMISSIONS?

A. Yes. The stand-alone principle is fundamental to traditional utility ratemaking in North America and has been applied consistently. Application of the stand-alone principle to the determination of the cost of capital requires that the specific risks of regulated utility operations be considered, not those of the larger consolidated entity. Mr. Copeland's arguments regarding "double leverage" clearly violate the stand-alone principle.

Q. HAVE OTHER COMMISSIONS REJECTED THE USE OF DOUBLE LEVERAGE?

A. Yes. For example, the Washington Utilities and Transportation Commission ("WUTC") rejected the application of a double leverage adjustment for PacifiCorp. In that case, intervening parties presented positions that the

acquiring company's debt should be considered in establishing the operating subsidiary's capital structure. In that case, the WUTC rejected the use of double leverage stating:

> The ring fencing provisions required by our final order in Docket UE-051090 insulate PacifiCorp and its customers from risks and financial distress at the MEHC level.
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> ***
>
> Nonetheless, after having insulated PacifiCorp and its customers from the risks of leveraged financing at the parent, Staff and Public Counsel seek to secure for customers the cost and tax benefits of that financing. The Company's expert witness argues this may violate the familiar principle in utility law that financial benefits should follow burden of risks. We agree. If the risks and costs of activities at the parent-level are born exclusively by shareholders—because customers are insulated from them by the ring fence—then it is fair and appropriate for the shareholders, and not the customers, to receive the benefits that result from those activities.[27]

D. Application of Capital Asset Pricing Model and the Equity Risk Premium

Q. PLEASE SUMMARIZE MR. COPELAND'S CAPM ANALYSIS AND RESULTS.

A. Based on his CAPM analysis, Mr. Copeland estimates an ROE for NSP of 5.65 percent, with a range of results for his proxy group between 5.13 percent and 5.83 percent.[28] Mr. Copeland's analysis relies on a risk-free rate of 3.20 percent, an average Beta of 0.70, and an ERP of 3.50 percent.[29] Despite the fact that Mr. Copeland dedicates 18 pages of his testimony to derivation of the ERP, summarizing references ranging from academic journals to the Social Security Administration, and another eight pages

[27] Washington Utilities Transportation Commission, Docket No. UE 050684, Order No. 4, p. 103-104.
[28] *See*, Exhibit_(BLC-1), Schedule 6.
[29] *Ibid.*

deriving his resulting CAPM, Mr. Copeland does not rely on his CAPM results due to what he describes as "abnormalities in the Treasury bill and bond market that probably makes the 30-year Treasury bond yield, here 3.20 percent, a poor estimate of the 'risk-free' rate in the current market environment."[30] Instead, Mr. Copeland dismisses nearly half of his entire testimony and relies on the DCF method, to which he dedicates only seven pages of his testimony. Even though Mr. Copeland dismisses the results of the CAPM, I am compelled to address many issues he has raised to present a balanced perspective on his conclusions.

Q. DO YOU AGREE WITH MR. COPELAND'S DECISION TO NOT RELY ON HIS CAPM ANALYSIS?

A. Yes, I do. Mr. Copeland's CAPM result of 5.65 percent is not reasonable in the context of authorized ROEs for other integrated electric utilities, as well as current utility bond yields. Specifically, the average authorized ROE for integrated electric utilities from January 2010 through March 31, 2012 has been 10.39 percent.[31] In addition, there has not been an authorized ROE for an integrated electric utility as low as Mr. Copeland's 9.00 percent in at least the last 20 years.[32]

Further, the average yield on the Moody's A-rated utility bond index for the past twelve months has been 4.74 percent. Mr. Copeland's CAPM estimate is only 91 basis points above that level, which would provide a *de minimis* premium to compensate equity holders for the incremental risks associated with ownership.

30 Direct Testimony of Basil L. Copeland, Jr., at 36.
31 Source: Regulatory Research Associates.
32 *Ibid.*

Q. WHAT REASONS DOES MR. COPELAND PROVIDE FOR HIS LACK OF RELIANCE ON HIS CAPM RESULTS?

A. As stated above, Mr. Copeland cites "abnormalities in the Treasury bill and bond market."[33] While Mr. Copeland is correct that there currently are "abnormalities" in the Treasury market, Mr. Copeland fails to consider the underlying causes of prevailing low interest rates, and he also fails to take into account the well-established inverse relationship between interest rates and the ERP.[34] As discussed in the Direct Testimony of Company witness Dane, current interest rates remain near historic lows due to federal intervention in financial markets, as well as the flight to quality due to continued investor risk aversion.[35] I agree with Mr. Copeland that the CAPM is currently not providing reliable results. However, I disagree with his reasoning, and in particular his view that the ERP has fallen precipitously.

Q. HAVE YOU EXAMINED THE EFFECT OF MAKING REASONABLE MODIFICATIONS TO THE INPUTS AND ASSUMPTIONS OF MR. COPELAND'S CAPM ANALYSIS?

A. Yes. I have modified Mr. Copeland's CAPM analysis to include a risk free rate of 5.10 percent based on the projected 30-year Treasury yield for the

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33 Direct Testimony of Basil L. Copeland, Jr., at 36.

34 Robert S. Harris and Felicia C. Marston, *Estimating Shareholder Risk Premia Using Analysts' Growth Forecasts*, Financial Management, Summer 1992, at 63-70; Eugene F. Brigham, Dilip K. Shome, and Steve R. Vinson, *The Risk Premium Approach to Measuring a Utility's Cost of Equity*, Financial Management, Spring 1985, at 33-45; and Farris M. Maddox, Donna T. Pippert, and Rodney N. Sullivan, *An Empirical Study of Ex Ante Risk Premiums for the Electric Utility Industry*, Financial Management, Autumn 1995, at 89-95.

35 Direct Testimony of Daniel S. Dane, at 8.

period 2013 through 2017,[36] and an ERP of 8.09 percent, based on the market DCF method using the S&P 500 index less the projected yield on 30-year Treasury securities, as described further below. As shown on Exhibit__(JMC-1), Schedule 10, with those reasonable adjustments to Mr. Copeland's analysis, the CAPM produces an estimated cost of equity of 10.76 percent, which is well within my recommended range for NSP's ROE.

Q. PLEASE SUMMARIZE MR. COPELAND'S POSITION WITH RESPECT TO THE ERP.

A. Although Mr. Copeland does not rely on his CAPM analysis to establish his range of results or ROE recommendation for NSP, he suggests that "knowledge of the market risk premium provides a benchmark for assessing the plausibility of cost of equity estimates."[37] Mr. Copeland estimates that the current ERP is approximately 3.50 percent.

Q. IS MR. COPELAND'S ESTIMATED 3.50 PERCENT ERP WELL FOUNDED?

A. No. The methods by which Mr. Copeland developed his ERP contain a number of flaws, which I will briefly summarize. First, Mr. Copeland relies on a number of dated academic and journal articles that preceded the recent financial crisis and thus are not relevant to current market conditions. In addition, by referencing studies that were published at least ten years ago, Mr. Copeland fails to recognize that the ERP changes over time with the prevailing level of interest rates, investor risk perceptions and current economic conditions. To that point, Dr. Damodoran, who is cited by Mr. Copeland in his discussion of the ERP, published a paper in February 2011,

[36] Source: Blue Chip Financial Forecast, December 1, 2011, at 14.
[37] Direct Testimony of Basil L. Copeland, Jr., at 7.

in which he acknowledges that the financial crisis changed his view on whether the ERP remains static. Dr. Damodoran states:

> Though I believe that mean reversion is a powerful force, I think that the banking and financial crisis of 2008 has created a new reality, *i.e.*, that equity risk premiums can change quickly and by large amounts even in mature equity markets. Consequently, I have forsaken my practice of staying with a fixed equity risk premium for mature markets, year after year and vary it year to year, and even on an intra-year basis, if conditions warrant.[38]

According to Dr. Damodoran, the average ERP from October 1, 2011 through April 1, 2012 has been 6.94 percent, or 344 basis points higher than Mr. Copeland's estimate of 3.50 percent.[39]

Second, the results of Mr. Copeland's "supply-side" approach are very sensitive to the holding period used in the calculation, as shown in the table on page 32 of his Direct Testimony. That same criticism applies to all historical estimates of the ERP. For that reason, as discussed below, it is more appropriate to rely on forward-looking equity risk premia that are based on observable market information.

Third, Mr. Copeland relies on studies and reports (*e.g.*, the Social Security Administration, the Congressional Budget Office, and surveys of financial executives) that are developed outside of the context of the derivation of a market-based ROE for utilities and provide no insight in investors' required returns for investments of comparable risk to the Company. While there are several issues with relying on those sources and surveys in this proceeding, one significant problem is the fact that those

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38 Aswath Damodoran, "Equity Risk Premiums: Determinants, Estimation, and Implications – The 2011 Edition, Stern School of Business, Updated February 2011, at 70.

39 See http://pages.stern.nyu.edu/~adamodar/.

reports, studies, and surveys provide policymakers' and executives' expectations regarding broad market returns, and provide no information regarding investors' required returns on invested capital. That is a crucial distinction and is one that Mr. Copeland ignores.

Q. IS THERE A MORE REASONABLE METHOD TO ESTIMATE A FORWARD-LOOKING ERP?

A. Yes. A reasonable method to estimate a forward-looking ERP would be to subtract the projected 30-year Treasury bond yield from the expected return on the S&P 500 Index. The expected return on the S&P 500 can be calculated using the Constant Growth DCF model for the companies in the S&P 500 index for which long-term earnings projections are available. Based on an estimated weighted-index dividend yield of 2.09 percent and a weighted-index long-term growth rate of 10.99 percent, the estimated required market return for the S&P 500 index is approximately 13.19 percent. The implied ERP over the projected 30-year Treasury yield is 8.09 percent, as shown in Exhibit __(JMC-1), Schedule 10, or 459 basis points higher than Mr. Copeland's estimate of 3.50 percent.

Q. IS THAT ESTIMATE OF THE FORWARD LOOKING ERP CONSISTENT WITH EQUITY RISK PREMIA ASSUMED IN THE INVESTMENT COMMUNITY?

A. Yes. For instance, Bank of America Merrill Lynch ("BofA") publishes a monthly report titled *Quantitative Profiles – Monthly insights for equity management* that presents the implied and required returns for the S&P 500 on a monthly basis. As of January 2012, the implied and required returns for the S&P 500

were both 12.10 percent,[40] which, when compared to the projected 30-year treasury yield, implies an ERP of 7.00 percent. Moreover, the implied and required returns reported by BofA are significantly greater than the market return implied by Mr. Copeland's CAPM analysis of 6.70 percent, which is the risk-free rate of 3.20 percent plus the ERP of 3.50 percent.[41] In this instance, therefore, the market return assumed by BofA is nearly twice that assumed by Mr. Copeland.

Q. HAS MR. DANE TAKEN OUT OF CONTEXT THE FEDERAL RESERVE QUOTE ABOUT THE ELEVATED RISK PREMIUM?

A. No. Contrary to Mr. Copeland's argument, the Fed has stated in the past that it calculates its estimate of the ERP as, "[t]he spread between the forward trend earnings-price ratio for S&P 500 firms and an estimate of the real *long-run* Treasury yield."[42] While long-term interest rates are also near historic lows, the Fed discusses its ERP calculations in the context of option-implied volatility on the S&P 500, which, it notes in the report cited by Mr. Dane, "rose sharply" during the period under discussion. Increased investor-perceptions of market volatility implies greater levels of risk aversion, which are consistent with an ERP that is "quite elevated relative to long-term norms."[43]

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40 Bank of America Merrill Lynch, Quantitative Profiles, Monthly insights for equity management, January 11, 2012, at 59. Elsewhere in that report, BofA reports an S&P 500 risk premium over AAA corporate bond rates of 817 basis points. Given that corporate bonds generally provided higher yields than similarly tenured government bonds, that suggests the ERP implied by BofA is reasonably consistent with that which I have calculated in my Rebuttal Testimony.

41 Direct Testimony of Basil L. Copeland, Jr., at 35.

42 Federal Open Market Committee, Minutes of the Meeting of April 28-29, 2009, at 5.

43 Federal Open Market Committee, Minutes of the Meeting of March 15, 2011, at 4.

Q. WHAT ARE YOUR CONCLUSIONS REGARDING MR. COPELAND'S ASSESSMENT OF THE ERP?

A. Mr. Copeland's ERP of 3.50 percent is not consistent with current market-based evidence. Consequently, Mr. Copeland's CAPM analysis and his discussion of the ERP provide no meaningful insight into the cost of equity for NSP in this proceeding.

E. Bond Yield Plus Risk Premium

Q. PLEASE BRIEFLY SUMMARIZE MR. COPELAND'S RESPONSE TO THE BOND YIELD PLUS RISK PREMIUM ANALYSIS PROVIDED BY MR. DANE.

A. Mr. Copeland believes there are "issues" with Mr. Dane's risk premium analysis based on the fact that the analysis uses allowed returns as a proxy for the required rate of return and due to what Mr. Copeland believes to be statistical flaws in the analysis.

Q. WHAT IS YOUR RESPONSE TO MR. COPELAND ON THOSE POINTS?

A. What Mr. Copeland fails to understand is that the Bond Yield Plus Risk Premium analysis uses allowed returns as a proxy for required returns, under the presumption that the presiding commissions based their decisions on market-based data, much as the cost of capital witnesses are doing in this proceeding. As to Mr. Copeland's assertion that the ROEs in the sample set may reflect the product of "concessions" made in the ratemaking process, it is my view that the more than 500 cases used in the analysis provide a very robust sample from which to derive meaningful analyses.

Additionally, Mr. Copeland incorrectly states that the bond yield in the analysis is not an independent variable. However, despite what Mr.

Copeland attempts to prove mathematically, it is incorrect to state that bond yields are equal to allowed returns less the risk premium. Bond yields are determined by a number of economic and market-driven factors, not including ROEs awarded to utilities in regulatory proceedings.

Furthermore, while Mr. Copeland claims to prove that there is no relationship between the ERP and bond yields, he subsequently states that Federal Reserve comments about an elevated ERP are in regards to currently low Treasury yields. In fact, Mr. Copeland states, "normally, [Treasury yields] will be higher, implying a lower risk premium all other things equal."[44] Thus, Mr. Copeland appears to accept that there is an inverse relationship between bond yields and the ERP, despite what his analysis purports to show. In fact, the notion that there is an inverse relationship between bond yields and the ERP is supported by academic research, as discussed above.

Finally, it should be noted that Mr. Dane used the Bond Yield Plus Risk Premium only as a corroborating method to the DCF analysis, upon which he primarily based his conclusions. It is my view that this method continues to be a sound approach to assess the reasonableness of other cost of capital estimation models, and I have provided updated results for that analysis in my Rebuttal Testimony (*see*, Exhibit__(JMC-1), Schedule 5).

F. Other Issues

Q. WHAT IS MR. COPELAND'S POSITION REGARDING PENSION FUND RETURN ASSUMPTIONS IN RELATION TO THE ROE IN THIS CASE?

A. Mr. Copeland claims that Mr. Dane's recommendation and NSP's ROE request are not consistent with assumptions built into XEI's pension fund

projections and infers an inconsistency on the part of NSP.[45] Specifically, Mr. Copeland relies on the fact that XEI's pension plan projects an expected return for "large cap" equities "in the single digits," and that the Company's proposal is inconsistent with those assumptions.[46]

Q. IS MR. COPELAND'S POSITION SOUND?

A. No. For several reasons, Mr. Copeland's position is misplaced and not relevant to the determination of the Company's cost of equity. One of the primary flaws, as with certain of the published reports and studies regarding policymakers' and executives' views on future market returns (discussed above in my response to Mr. Copeland's ERP), is that Mr. Copeland has relied on *expectations* of returns on the broader market, rather than investors' *required* returns. Expected returns represent participants' forecasts regarding future returns, and say nothing regarding whether those expectations are lower than, equal to, or greater than required returns. Thus, while companies such as XEI must disclose the return they expect on pension assets in order to demonstrate the degree to which they will be able to fund pension liabilities, those disclosures provide no insight into whether an investor seeking to maximize a risk-adjusted return would invest their capital at those expected levels of return. Relying on such sources in an assessment of a utility's ROE is thus inconsistent with the capital attraction standard of *Hope* and *Bluefield*. Moreover, the distinction between expected and required returns is reflected in the fact that many investors currently are avoiding stock investments because the returns they *expect* from stocks are less than

44 Direct Testimony of Basil L. Copeland, Jr., at 54.
45 *Ibid.*
46 *Ibid.*, at 55.

the returns they *require* to make a stock investment, given prevailing levels of risk.

Q. IS THIS DISTINCTION BETWEEN EXPECTED AND REQUIRED RETURNS WELL RECOGNIZED?

A. Yes. The distinction between expected and required returns, and the time horizon of the liabilities being funded by pension assets, was noted by the Arkansas Public Service Commission (the "APSC"). The APSC rejected the Attorney General witness' position that expected returns disclosed in the context of pension fund assumptions could be used in determining the ROE for a regulated utility, and noted that:

> There are two major problems with this sort of analysis: (1) it is unclear how long the time horizon is; and (2) these returns are expected, not required. It is well-established that expected returns may be less than, equal to, or greater than required returns. For that reason, expected returns cannot be used directly as a proxy for required returns, which is the information sought in a general rate case.[47]

Q. IF EXPECTED PENSION RETURNS WERE RELEVANT TO A REQUIRED ROE, WOULD MR. COPELAND'S COMPARISON BE ON POINT?

A. No. NSP is not large enough to fit the definition of a "large cap" investment. Exhibit__(JMC-1), Schedule 12 demonstrates that NSP would be a "mid-cap" investment based on market capitalization ranges published in the Ibbotson SBBI 2012 Valuation Yearbook. In order to determine an implied market capitalization for NSP, I applied the median price-to-book ratio for the proxy group to NSP's common equity balance as of December

[47] Docket No. 04-121-U, Order No. 16, Arkansas Public Service Commission, September 19, 2005, at 19.

31, 2011. That produced an implied market capitalization for NSP of $4.7 billion which falls within Ibbotson's "mid-cap" range. NSP's South Dakota operations, which is the utility whose ROE is being determined in this proceeding, is a substantially smaller entity, suggesting that the proper point of comparison would be "small cap" investments, on which investors generally require a significantly higher return than on "large cap" investments.

Q. WHAT ARE YOUR CONCLUSIONS REGARDING THE USE OF PENSION FUND RETURN ASSUMPTIONS TO MEASURE THE REASONABLENESS OF ROE RECOMMENDATIONS?

A. The use of pension fund return assumptions to measure the reasonableness of ROE recommendations fails to recognize the distinction between expected and required returns and has been rejected by other regulatory commissions. For those reasons, Mr. Copeland's reference to pension fund return assumptions is misplaced and not relevant to the determination of NSP's cost of equity.

VII. CAPITAL STRUCTURE AND COST OF DEBT

Q. DOES MR. COPELAND ACCEPT THE COMPANY'S PROPOSED CAPITAL STRUCTURE AND COST OF DEBT?

A. No. Specifically, Mr. Copeland recommends a capital structure consisting of 47.27 percent long-term debt and 52.73 percent equity,[48] whereas the Company's 13-month average capital structure as of December 31, 2011 consisted of 47.10 percent long-term debt and 52.90 percent equity. Mr.

Copeland recommends a debt cost of 6.02 percent, as compared to the Company's debt cost at December 31, 2011 of 6.13 percent.

Q. WHAT CAUSES THE DIFFERENCE BETWEEN MR. COPELAND'S RECOMMENDATIONS AND THE COMPANY'S PROPOSAL?

A. There are two differences between Mr. Copeland's approach and that used by the Company. Mr. Copeland uses the year-end balances of debt and equity, whereas the Company uses the 13-month average of those balances. He also mistakenly asserts that there is a double counting of debt issuance costs.

Q. IS MR. COPELAND'S USE OF YEAR-END BALANCES APPROPRIATE?

A. No. Mr. Copeland's use of year-end balances for the capital structure would be inconsistent with the 13-month average basis of the Company's rate base. NSP calculates its revenue requirement based on a 13-month average rate base, with which the Company's reflection of 13-month average balances of its capital structure is consistent. In other words, it is consistent to use the same convention for capital costs as is used for the Company's investment in property, plant, and equipment. Otherwise, the inconsistency would lead to a mismatch of the closely related rate base and the capital used to finance the rate base. Mr. Copeland asserts that there is a "general 'rule'" that end-of-test-year balances are the most accurate estimate of the capital structure.[49] However, while the test period ending balance may be a more accurate estimate of the capital structure at a point in time, it is not a more accurate

[48] Direct Testimony of Basil L. Copeland, Jr., at 38.
[49] *Ibid.*, at 39.

estimate of the cost incurred to finance the Company's rate base, upon which the Company will earn its return.

Q. IS MR. COPELAND CORRECT THAT THE COMPANY IS "DOUBLE COUNTING" DEBT COSTS?[50]

A. No. Mr. Copeland's incorrect assertion appears to stem from a misunderstanding regarding the way NSP determines its capital structure. The Company calculates its debt expenses as a percentage of "Capital Employed" (*i.e.*, the net amount available to the Company determined by the face amount of debt issuances plus premiums and less discounts and expenses). However, Mr. Copeland appears to not understand whether the Company uses: (i) the face amounts of long term debt to determine its capital structure (thereby collecting debt costs on a higher amount of long term debt); or (ii) the net amount (*i.e.*, Capital Employed). Specifically, Mr. Copeland's testimony first states, "[t]he company is being allowed to include the full amount of the face value in its capital structure,"[51] but later states, "NSP's approach…is to include only the 'capital employed' amount in the debt ratio."[52] For clarification, the Company uses the net amount (*i.e.*, Capital Employed) to determine its long-term debt balance and the percentage of long-term debt in the regulated capital structure, and that is the correct approach.

50 *Ibid.*, at 40.
51 *Ibid.*, at 42.
52 *Ibid.*

Q. PLEASE EXPLAIN THE LONG TERM DEBT BALANCE MORE FULLY.

A. As of December 31, 2011, the 13-month average long-term debt Capital Employed in the Company's capital structure was $3,286,263,000, as compared to a face amount of $3,346,916,000.[53] The $3,286,263,000 Capital Employed amount can be traced to the Company's capital structure calculation.[54] The $60,653,000 reduction from the face amount to Capital Employed reflects issuance costs.

Q. HAS THE COMPANY DOUBLE-COUNTED THE COST OF LONG TERM DEBT?

A. No. The total amount of issuance costs recovered by the Company under its calculation is equal to the total amount of issuance costs incurred by the Company. There is no double counting of debt issuance costs.

Q. CAN YOU DEMONSTRATE THAT THE COMPANY'S PROPOSAL RESULTS IN NO "DOUBLE COUNTING"?

A. Yes. In Exhibit__(JMC-1), Schedule 11, I have modified the example provided by Mr. Copeland on page 41 of his Direct Testimony to demonstrate the amount of debt expense recovered under the Company's proposal. As the example shows, there is no over-recovery of debt expense.

Q. IS MR. COPELAND CORRECT THAT THE COMPANY "INCLUDES THE FULL 'FACE VALUE' OF EQUITY ISSUED, NOT JUST 'CAPITAL EMPLOYED'"?[55]

A. No. The equity balance in the NSP's regulatory capital structure represents amounts net of issuance costs, which is consistent with the Capital

53 Response to SDPUC DR2-12, January 5, 2012. Attachment B.
54 *Ibid.*, Attachment A.
55 Direct Testimony of Basil L. Copeland, Jr., at 42.

Employed amount that the Company uses in calculating its debt balance in its regulatory capital structure. Thus, contrary to Mr. Copeland's assertions, there is no "overstatement of the equity ratio relative to the debt ratio."[56] Both are based on the same approach.

Q. HAS MR. COPELAND MISTAKENLY INCLUDED THE NET AMOUNT OF EQUITY IN HIS PROPOSED CAPITAL STRUCTURE?

A. Yes. What Mr. Copeland understands to be the full face amount of the Company's equity actually represents the equity balance net of issuance costs. Since Mr. Copeland has used that net amount of equity in the capital structure while using the full face amount of NSP's debt, he has presented a mismatch of equity and debt balances, and overstated the debt balance relative to the equity balance.

Q. IS MR. COPELAND CORRECT IN STATING THAT NSP SHOULD INCLUDE THE FULL FACE AMOUNT OF ITS DEBT AND EQUITY BALANCES IN ITS CAPITAL STRUCTURE?

A. No. Using the full face amount of issued equity would be inconsistent with the way in which NSP records such issuances on its books, and also inconsistent with accounting guidance. As provided in the Securities Exchange Commission's Staff Accounting Bulletin Topic 5.A: "Specific incremental costs directly attributable to a proposed or actual offering of

56 *Ibid.*

securities may properly be deferred and *charged against* the gross proceeds of the offering."[57]

In other words, common equity balances that appear on a company's financial statements are net of issuance costs. Therefore, I disagree that it would be appropriate to include the full face amount of equity in the capital structure.

VIII. UPDATED ANALYSES

Q. HAVE YOU UPDATED THE ANALYSES CONTAINED IN COMPANY WITNESS DANE'S DIRECT TESTIMONY?

A. Yes. I have updated the analyses contained in Mr. Dane's Direct Testimony based on data through March 31, 2012, for the same electric utility proxy group that Mr. Dane established.

Q. WHAT GROWTH RATES HAVE YOU USED IN YOUR UPDATED CONSTANT GROWTH DCF ANALYSIS?

A. I have maintained the use of earnings growth estimates from Zacks, First Call and Value Line as the relevant measure of growth.

Q. WHAT AVERAGING PERIODS HAVE YOU USED IN YOUR UPDATED ANALYSES TO CALCULATE THE DIVIDEND YIELD COMPONENT OF THE DCF MODEL?

A. Consistent with Mr. Dane's Direct Testimony, I have continued to present results for the most recent 30, 90 and 180-trading days as of March 31, 2012.

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[57] Securities Exchange Commission's Staff Accounting Bulletin Topic 5.A. Emphasis added. *See also*, Kieso, Donald E., Weygandt, Jerry J., and Warfield, Terry D., Intermediate Accounting, 10th ed., John Wiley & Sons, Inc., 2001, at 781, which states: "Direct costs incurred to sell stock, such as underwriting costs, accounting and legal fees, printing costs, and taxes, should be reported as a reduction of the amounts paid in. Issue costs are therefore debited to Additional Paid-in Capital because they are unrelated to corporate operations."

Q. PLEASE SUMMARIZE YOUR UPDATED CONSTANT GROWTH DCF RESULTS.

A. As shown in Table 5 (below, see also Exhibit __(JMC-1), Schedule 3), the updated mean results of my Constant Growth DCF analysis for the electric utility proxy group, which include flotation costs, support the Company's revised ROE request of 10.65 percent.

Table 5: Updated Constant Growth DCF Results with Flotation Cost Adjustment

	Mean Low	Mean	Mean High
30-Day Average	9.48%	10.68%	11.89%
90-Day Average	9.44%	10.64%	11.85%
180-Day Average	9.57%	10.76%	11.97%

Q. HAVE YOU PERFORMED A CAPM ANALYSIS IN YOUR REBUTTAL TESTIMONY?

A. No, I have not. However, as noted in my response to Mr. Copeland, reasonable adjustments to his inputs and assumptions would produce a CAPM result of 10.76 percent, which is well within my recommended range.

Q. PLEASE SUMMARIZE THE UPDATED BOND YIELD PLUS RISK PREMIUM ANALYSIS.

A. The updated Bond Yield Plus Risk Premium analysis includes authorized ROEs as reported by Regulatory Research Associates through March 31, 2012, for electric utilities. For the purpose of calculating the expected risk premium and ROE, I have used projected yields of the 30-Year Treasury. As shown in Exhibit__(JMC-1), Schedule 5, my updated risk premium results using the Blue Chip projected 30-year Treasury yield range from 10.17 percent to 10.92 percent.

Q. WHAT USE HAVE YOU MADE OF THE UPDATED RISK PREMIUM ANALYSIS?

A. I have used the risk premium analysis only to test the reasonableness of my DCF results.

IX. SUMMARY AND RECOMMENDATION

Q. PLEASE SUMMARIZE YOUR ANALYTICAL RESULTS AND CONCLUSIONS.

A. Based on the results of my updated analysis, I recommend a revised ROE range to between 10.40 percent and 10.90 percent, with an ROE recommendation of 10.65 percent. The low end of the range is based on the mean DCF results, before consideration of flotation costs, and the high end of the range is based on the mean DCF results with flotation costs, and considers that the Company has the need for a very substantial and relatively high level of capital expenditures, and faces somewhat greater business risks than the proxy group. As a result of the updated analyses, Table 6 (below) demonstrates that my recommended range is well within the broader range of my analytical results, and is corroborated by the Bond Yield Plus Risk Premium analysis.

Table 6: Summary of Analytical Results

Constant Growth DCF Including Flotation Cost Adjustment			
	Mean Low	Mean	Mean High
30-Day Average	9.48%	10.68%	11.89%
90-Day Average	9.44%	10.64%	11.85%
180-Day Average	9.57%	10.76%	11.97%
Bond Yield Plus Risk Premium			
Blue Chip Financial Forecast Q1 2012 – Q2 2013 30-Year Treasury Projection (*3.42%*)			10.17%
Blue Chip Financial Forecast 2013 – 2022 30-Year Treasury Projection (*5.30%*)			10.92%
Mean			10.54%

Q. WHAT IS YOUR RECOMMENDATION WITH REGARDS TO THE COMPANY'S COST OF DEBT AND CAPITAL STRUCTURE?

A. As discussed above, it is my view that the Company's approach to developing its capital structure and cost of debt is reasonable. As such, I support the Company's revised proposal regarding capital structure (*i.e.*, 52.90 percent equity, 47.10 percent debt) and cost of debt (*i.e.*, 6.13 percent).

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.