Surrebuttal 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

June 4, 2012

EXHIBIT
Xcel Energy
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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. ARE YOU THE SAME JAMES M. COYNE WHO FILED REBUTTAL TESTIMONY IN THIS PROCEEDING?

A. Yes, I am. On April 27, 2012, I filed Rebuttal 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. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

A. The purpose of my Surrebuttal Testimony is to respond to the Rebuttal 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. I note that Mr. Copeland now accepts the Company's calculation of the cost of debt, so that appears to no longer be an issue in this case.

II. RESPONSE TO STAFF WITNESS COPELAND

Q. PLEASE SUMMARIZE YOUR RESPONSE TO MR. COPELAND'S REBUTTAL TESTIMONY?

A. Mr. Copeland's Rebuttal Testimony continues to reflect a number of inaccuracies and errors. I will focus on the most important to the determination of a fair return on equity ("ROE") for NSP in this proceeding, including:

1. Mr. Copeland does not adhere to applicable standards of regulation for determining a fair and reasonable return.
2. Contrary to Mr. Copeland's speculation, regulatory lag is a substantial problem for NSP and provides no benefits for shareholders.
3. Mr. Copeland's assumptions distort his results and lead to a recommended ROE well below any allowed ROE by any U.S. regulator for an integrated electric utility in the past three years, including any authorized ROE in 2012.
4. Mr. Copeland's claims based on market-to-book ratios are unsound in principle and contrary to results of ongoing regulation of the U.S. electric industry.
5. Contrary to his position, use of long-term GDP growth in the Multi-Stage DCF model is consistent with both sound practice and the approach taken by numerous regulatory agencies.
6. The ROE being determined in this case is the ROE of NSP's South Dakota electric operations, not the ROE of NSP's parent.
7. Surveys of financial executives regarding expected returns on the S&P 500 and pension fund investment disclosures are not relevant to the determination of the ROE for NSP.
8. Mr. Copeland's claims of a declining Equity Risk Premium do not reflect current measures of investor risk aversion.
9. Nothing in Mr. Copeland's Rebuttal Testimony changes the fact that his recommended 9.00 percent ROE would impose substantial

disincentives and disadvantages in relation to raising capital for necessary investments in South Dakota.

Q. WHAT ARE THE STANDARDS FOR DETERMINING A FAIR RETURN IN THIS PROCEEDING?

A. The standards for a fair return have been stated by the South Dakota Supreme Court:

> From the investor or company point of view it is important that there be enough revenue not only for operating expenses but also for the capital costs of the business. These include service on the debt and dividends on the stock. *By that standard the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks.* That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.[1]

Q. DOES MR. COPELAND'S RECOMMENDATION MEET THOSE STANDARDS?

A. Mr. Copeland's recommendation fails to meet the standards for a "fair" return, as demonstrated by the wide divergence between Mr. Copeland's recommendation and prevailing levels of authorized ROEs for vertically-integrated electric utilities. That wide divergence continues into 2012, where the average of reported authorized ROEs is 10.15 percent with a range of 9.80 percent to 10.50.[2] Mr. Copeland's recommended ROE is 80 basis points below the lowest of those allowed ROEs.

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1 *Northwestern Public Service v. Cities of Chamberlain, etc.*, 265 N.W.2d 867, 873 (S.D. 1978), quoting *Bluefield Waterworks Improvement Co. v. Public Service Commission of West Virginia*, 262 U.S. 679, 693 (1923 (Emphasis added); the same quotation and standard was applied in *Application of Northwestern Bell Tel. Co.*, 98 N.W.2d 170, 179-180 (S.D. 1959). Emphasis added.

Q. IS MR. COPELAND CORRECT IN SAYING YOU "MAY SHARE A POPULAR MISCONCEPTION" ABOUT THE REGULATORY STANDARD FOR THE ROE?

A. No. The standard that I have applied is consistent with the principles applied by the South Dakota Supreme Court, as described above.

Q. DO NSP'S INVESTORS BENEFIT FROM REGULATORY LAG, AS MR. COPELAND SUGGESTS?

A. No. Mr. Copeland's general discussion of utilities' ability to control regulatory lag through the timing of rate cases does not apply to the Company's situation. While Mr. Copeland warns that utilities can potentially earn ROEs in excess of authorized returns, "[w]here conditions are favorable to the investor," he ignores the fact of the current environment of rising costs and essentially flat or declining sales volumes per customer. As described in the Direct Testimony of Company witness Laura McCarten, the Company has experienced earned ROEs that are significantly below its authorized return, and Ms. McCarten's Rebuttal Testimony demonstrates that the Company will continue to do so. Utilities are now devoting large portions of their capital expenditures to investments that do not result in an increase in revenues (*i.e.*, investments to meet reliability, service quality, and environmental objectives). That pattern worsens the problem of regulatory lag, and is inconsistent with the circumstances described by Mr. Copeland. The effect is demonstrated by NSP's actual experience.

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2 Source: RRA. *See*, Exhibit__(JMC-2), Schedule 1.

Q. WHAT ABOUT MR. COPELAND'S CRITICISMS OF USING ONLY EPS GROWTH RATES IN THE CONSTANT GROWTH DCF MODEL?

A. Mr. Copeland is incorrect when he states that the Vander Weide and Carleton study that I cite is not "on point" to the proper growth rate to be used in the Constant Growth DCF model. The authors use forecasts of *earnings* growth in their analysis, as opposed to other forecasted measures of growth such as those used by Mr. Copeland, and conclude that those growth rates (*i.e.*, forecasted EPS growth) are superior to historical growth rates in predicting stock prices.[3] Further, the Constant Growth DCF model is a valuation model that assumes that investors' expectations of returns on investment are implied by the investment's share price. Thus, studies that are concerned with the growth estimates that are incorporated into share prices are relevant for consideration in this context.

In addition, the only forward-looking growth rates that are available on a consensus basis are analysts' EPS growth rates. In contrast, Value Line is the only service that provides the other growth projections used by Mr. Copeland. The fact the earnings growth projections are the only widely reported estimates of growth provides further support that earnings growth is the most meaningful measure of growth in the investment community.

Lastly, Mr. Copeland's reliance on Value Line's forecasts of dividend and book value growth unnecessarily introduces "sole source" bias into his calculations under which a single source of information has undue impact and raises the risk of reliance on faulty data.

Q. IS MR. COPELAND CORRECT IN STATING THAT EFFECTIVE REGULATION SHOULD LEAD TO MARKET-TO-BOOK RATIOS OF JUST OVER 1.0 OVER LONG PERIODS OF TIME?

A. No. Mr. Copeland's position is inconsistent with the approach taken by most, if not all, utility regulators in the U.S. Regulation across the U.S. has not led to the market-to-book ratios that he supports. As shown in Chart 1 (below), the market–to-book ratio for companies in the proxy group and the broader electric utility industry for the period January 1, 2000 through March 31, 2012 (*i.e.*, the date through which I performed updated analyses in my Rebuttal Testimony) are all currently well above 1.0. As that chart indicates, since 2000 the proxy group averaged approximately 1.47, and the broader electric utility group averaged approximately 1.57. For the market as a whole (as indicated by the companies in the S&P 500 index), the current 30-day average market-to-book ratio as of March 31, 2012 is 2.25.

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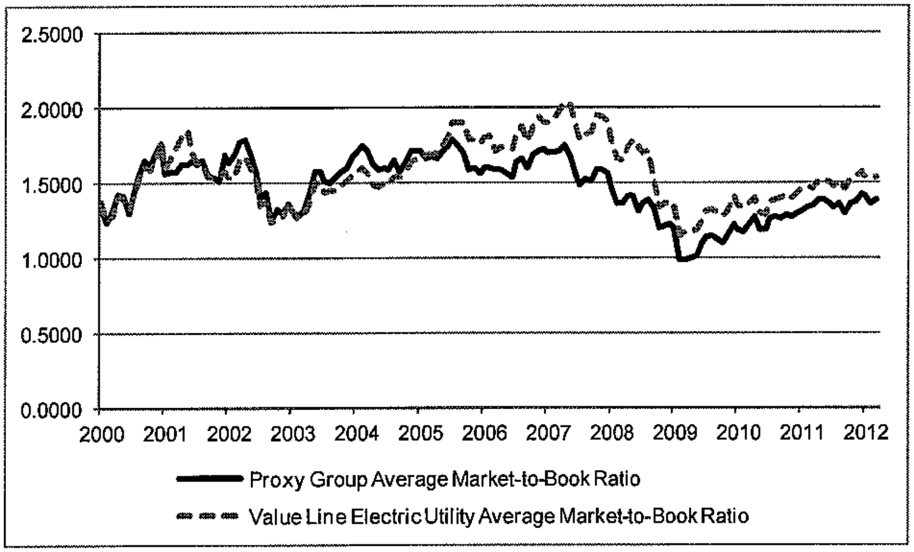
3 James H. Vander Weide, Willard T. Carleton, *Investor Growth Expectations: Analysts vs. history,* <u>The Journal of Portfolio Management</u>, Spring, 1988.

Chart 1: Proxy Group and Broader Electric Utility Group Average Market-to-Book Ratio



The only time that market-to-book ratios were close to 1.0 was during the financial crisis of 2009. Thus, over the long term, there is no support for Mr. Copeland's claim that effective regulation should lead to a market–to-book ratio of just over 1.0.

Q. WHAT WOULD BE THE EFFECT OF ADOPTING A REGULATORY GOAL OF A MARKET-TO-BOOK RATIO OF JUST OVER 1.0?

A. No rational investor would invest in utility stocks if they believed that utility commissions would set rates in an effort to move the market-to-book ratio to 1.0 or just over 1.0. In fact, ratemaking policy designed to cause a decrease in the market–to-book ratio certainly would impede a utility's ability to attract the capital required to support its operations, and conflicts with ratemaking capital attraction standards. If, for example, an investor purchased a utility stock at the long-term average market–to-book ratio of

1.47 (*i.e.*, the proxy group average), that investor would incur a loss of approximately 31.97 percent if the market–to-book ratio declined to 1.0. Further, using ROE to achieve a market-to-book ratio of 1.0 would imply dramatic reductions from prevailing levels. There is no basis to believe that investors would make investments in those conditions.

Q. IS MR. COPELAND CORRECT THAT YOU HAVE MISUNDERSTOOD HIS DIVIDEND DISCOUNT MODEL ("DDM")?

A. No. Nothing in Mr. Copeland's response changes my opinion about the methodological errors in his DDM that I discussed in my Rebuttal Testimony. However, the most meaningful differences between my application of the Multi-Stage DCF model and Mr. Copeland's analysis are our respective assumptions with regards to the long-term payout ratios and growth rates.

Q. WHAT ABOUT MR. COPELAND CRITICISMS OF USING FORECASTED NOMINAL GDP GROWTH IN THE MULTI-STAGE DCF MODEL?

A. While Mr. Copeland claims that use of long-term nominal GDP growth "doesn't make any sense when applied to utilities," such an assumption is well accepted by experts and regulators in determining the ROE for regulated utilities. Utility commissions in Alabama, Arizona, Illinois, Missouri, Montana, New York, Pennsylvania, Washington, and the Federal Energy Regulatory Commission have all considered or relied on growth in GDP in their evaluations of the cost of equity. As stated by the Pennsylvania Public Utility Commission:

> We can think of no other industry that is more closely and inexorably linked to the long-term growth of our economy,

and therefore GDP, as is the electric utility industry.[4]

In addition, while Mr. Copeland disagrees with my use of the long-term average payout ratio, he has provided no persuasive analysis supporting his claim that the use of a 2015 expected proxy group median is superior. As discussed above, the utility industry is currently in an era of significant capital investment. Such circumstances warrant the assumption of lower payout ratios in the short-term, but it is incorrect to assume that level of earnings retention will last infinitely, as Mr. Copeland has done.

Q. DOES A NOMINAL LONG-TERM GDP GROWTH RATE OF 4.93 PERCENT REPRESENT "AN HEROIC ASSUMPTION" AS MR. COPELAND CLAIMS?

A. No. As discussed in my Rebuttal Testimony, I used consensus projections from economists regarding the real GDP growth rate, and applied to that two alternative estimates for inflation, including a broad market view of forward-looking inflation to obtain my 4.93 percent nominal (*i.e.*, inflation adjusted) long-term growth rate. In addition, *Blue Chip Economic Indicators'* most recent report of economists' consensus expectations with regards to five and ten-year nominal growth in GDP are 5.10 percent and 4.70 percent, respectively, which are highly consistent with my 4.93 percent long-term

4 Pennsylvania Public Utility Commission, et al. v. West Penn Power Company; Application of West Penn Power Company pursuant to 66 Pa. C.S. § 2102 for prior written approval of contracts between or among West Penn Power Company and its affiliated interests; Pennsylvania Public Utility Commission v. West Penn Power Company Relating to Energy Cost Rate Statement No. 18 to become effective April 1, 1994; Petition of West Penn Power Company for Declaratory Order to Return to Operation Mitchell Power Station Unit No. 1 and Associated Boilers; Petition of West Penn Power Company for Declaratory Order for Recovery of Revenue Requirements for Environmental Projects; Allegheny Ludlum Corporation v. West Penn Power Company; Docket Nos. R-00942986; R-00942986C0001-C0052; Docket No. G-00940382; Docket No. M-00940523; Docket No. P-00940788; Docket No. P-00910512; Docket No. P-00910512C001; Pennsylvania Public Utility Commission, December 29, 1994.

estimate of nominal GDP growth.[5] Thus, what may appear to Mr. Copeland as an overstated growth rate assumption is in fact quite in line with market views and economists' consensus forecasts.

Q. IS MR. COPELAND CORRECT IN REGARDS TO THE REALIZED RETURNS THAT WOULD RESULT FROM YOUR MULTI-STAGE DCF MODEL?

A. No. Mr. Copeland's testimony is misleading and lacks meaningful comparisons. Specifically, Mr. Copeland states that our respective assumptions regarding long-term growth and payout ratio results in "the difference between a realized return on 13.84 percent, and a realized return of 8.6 to 9.6 percent."[6] My application of the Multi-Stage DCF resulted in an average result of 10.00 percent for the proxy group. As stated in my Rebuttal Testimony, while that average result is below my recommended range of ROE for NSP, it is considerably more in line with current levels of authorized returns for integrated electric utilities than are the results of Mr. Copeland's DDM.[7]

Q. WHAT OF MR. COPELAND'S CLAIMS REGARDING DOUBLE LEVERAGE?

A. Mr. Copeland's claims are fundamentally incorrect because he is, in effect, stating that the return an investor requires changes depending on the source of their financing. The flaw in Mr. Copeland's proposal was summarized by Dr. Roger Morin in <u>New Regulatory Finance</u>, who stated:

> The double leverage approach contradicts the core of the cost of capital concept. Financial theory clearly establishes

5 Blue Chip Economic Indicators, Vol. 37, No. 3 March 10, 2012, at 14.

6 Rebuttal Testimony of Basil L. Copeland, at 15.

7 Rebuttal Testimony of James C. Coyne, at 23.

> that the cost of equity is the risk-adjusted opportunity cost to the investors and not the specific capital sources employed by the investors. The true cost of capital depends on the use to which the capital is put and not on its source. The *Hope* and *Bluefield* doctrines have made clear that the relevant considerations in calculating a company's cost of capital are the alternatives available to investors and the returns and risks associated with those alternatives. The specific source of funding and the cost of those funds to the investor are irrelevant considerations.[8]

Q. SHOULD THE ROE IN THIS CASE BE BASED ON THE ROE OF NSP'S PARENT, AS MR. COPELAND RECOMMENDS?

A. No. Mr. Copeland is incorrect in stating, at page 25, that "[w]e are not here estimating a cost of equity specifically for NSP or South Dakota" and "it is ultimately the cost of equity capital for Xcel (or XEL) that is our concern here." The cost of equity of NSP's parent is the result of a number of investments made by XEI in other states and through other operating companies. The risks of those investments may be higher or lower than NSP's South Dakota operations. Further, a parent company may invest in a range of regulated and non-regulated businesses that impact its cost of capital, as XEI has done in the past. The cost of providing electric service in South Dakota is separate from those risks. That is why the stand-alone principle is standard practice in most jurisdictions, and why the Commission should focus on the cost of equity for NSP's South Dakota operations. Finally, there is no support for Mr. Copeland's speculation that promises of lower cost equity were made to the Commission in connection with the

8 Morin, Roger A., New Regulatory Finance, Public Utilities Reports, Inc., 2006, at 523.

merger of Northern States Power Company and New Century Energy in 2000.

Q. DOES MR. COPELAND'S CONTINUED RELIANCE ON CFO'S EXPECTATIONS OF BROAD MARKET RETURNS SUPPORT HIS LOW ESTIMATE OF THE EQUITY RISK PREMIUM?

A. No. His reliance on CFO surveys is unsound for the reasons explained in my Rebuttal Testimony, including the fact that the expected return is not the same as the required return (which determines the ROE). If an investor's expected return is lower than the investor's required return, the investor will not make the investment. The results of CFO responses demonstrate the distinction. Prior Duke CFO surveys have asked participants for their firm's weighted average cost of capital, as well as their expectations regarding the return on the S&P 500. The cost of capital reflects the required return and the return on the S&P 500 is an expected return.

The mean weighted average cost of capital in the December 2011 Duke CFO survey was 8.80 percent.[9] That average would have included the weighted costs of each firm's debt and equity, and is 250 basis points higher than the mean 6.30 percent expected 10-year return on the S&P 500.[10] Since the weighted average cost of capital reflects at least some portion of debt and is 250 basis points above the mean expected return on the S&P 500, it follows that the cost of equity for those respondents exceeds their expected return on the broad equity market by substantially more than 250 basis

9 Duke CFO Magazine Global Business Outlook Survey - U.S. - Fourth Quarter, 2011, at 33.

10 *Ibid.*, at 28.

points. My point here is not that the cost of equity from the survey should be used in this proceeding, but rather that the *required* return of those respondents significantly exceeds the *expected* returns relied on by Mr. Copeland.

Q. DID MR. COPELAND CORRECTLY INTERPRET THE CHICAGO BOARD OPTIONS EXCHANGE VOLATILITY INDEX ("VIX")?

A. No. While Mr. Copeland recognized the significance of the VIX, he misinterpreted the meaningfulness of recent levels of equity market volatility, as indicated by the VIX. As noted by Mr. Copeland, there is a direct relationship between market volatility and the Equity Risk Premium and, as such, the comparatively high forward-looking volatility measures indicate higher, not lower, required equity returns. His conclusion that the Equity Risk Premium has declined implies that investor risk aversion has declined as well. However, current forward-looking measures of the VIX as a measure of investor risk aversion demonstrate the opposite.

Specifically, the VIX represents the forward-looking implied (one-month) volatility of the S&P 500 Index. As such, it is an observable measure of investors' expectations of volatility and, therefore, risk. While the VIX has declined since 2008 and 2009, it remains significantly higher than in prior periods. Since the inception of the VIX in 1990, its average has been approximately 20.54. In contrast, forward-looking estimates of volatility as of March 31, 2011 (as measured by futures prices on the VIX and the CBOE S&P 500 VXV index, which is a three-month volatility index) average approximately 25.33. The currently anticipated level of volatility is significantly higher than in the pre-recessionary period (*i.e.*, January 2006 to November 2007) during which the VIX averaged 14.90, and also is 2.81 percent higher than during the market contraction in 2002 and 2003, when the VIX averaged 24.64.

Q. IS THERE A CONNECTION BETWEEN PENSION FUND MANAGERS AND THE APPROPRIATE ROE IN THIS CASE, AS MR. COPELAND CLAIMS?

A. No. In attempting to link pension fund assumptions with the required ROE for a regulated utility, Mr. Copeland is unreasonably equating potential utility investors with pension fund managers who are under a fiduciary responsibility to ensure adequate funding to meet pension obligations. Pension asset managers are concerned with investing funds at an expected return in order to meet expected liabilities, all within the context of the plan's objectives and Federal requirements regarding fiduciary responsibilities. An individual investor, on the other hand, decides whether or not to commit capital to a security based on the return that they require in order to be compensated for the risks associated with the ownership of that security. Mr. Copeland is also continuing to confuse expected returns (for pension fund portfolios) with required returns (for utility investment).

The Arkansas Public Service Commission recognized those flaws and rejected a similar argument. Mr. Copeland asserts that the Arkansas Commission's "reasoning here is defective."[11] To the contrary that reasoning is sound and applies in this proceeding as well.

[11] Rebuttal Testimony of Basil L. Copeland, at 24.

Q. MR. COPELAND CLAIMS YOU HAVE MISINTERPRETED HIS PROPOSAL REGARDING FLOTATION COSTS. IS HE CORRECT?

A. No. While Mr. Copeland responded to the flotation cost adjustment in Company witness Daniel Dane's Direct Testimony by providing an alternative calculation of the adjustment, in the end Mr. Copeland did not incorporate a flotation adjustment into his ROE recommendation. A flotation cost adjustment continues to be warranted for the reasons I explain in my Rebuttal Testimony.

Q. MR. COPELAND CONTINUES TO PROPOSE THAT THE END-OF-TEST-YEAR CAPITAL STRUCTURE BE USED FOR SETTING RATES. DO YOU AGREE.

A. I do not agree, for the reasons set forth in my Rebuttal Testimony. However, I would note that NSP's and Mr. Copeland's proposals result in reasonably similar capital structures. In addition, I note that Mr. Copeland now accepts the Company's calculation of the cost of debt.

Q. DOES THAT CONCLUDE YOUR SURREBUTTAL TESTIMONY?

A. Yes, it does.