

Direct Testimony and Schedules
Daniel S. Dane

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-____
Exhibit____ (DSD-1)

**Rate of Return and
Return on Equity**

June 30, 2011



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I. INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Daniel S. Dane. I am a Senior Project Manager at Concentric Energy Advisors, Inc. ("Concentric"), located at 293 Boston Post Road West, Suite 500, Marlborough, Massachusetts 01752. I also serve as the Financial and Operations Principal of CE Capital Advisors, a FINRA-member firm and a subsidiary of 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 CONCENTRIC'S ACTIVITIES IN ENERGY AND UTILITY ENGAGEMENTS.

A. Concentric provides financial and economic advisory services to a large number of energy and utility clients across North America. Our regulatory, economic and market analysis services include utility ratemaking and regulatory advisory services, energy market assessments, market entry and exit analysis, corporate and business unit strategy development, and energy contract negotiations. Our financial advisory activities include merger, acquisition, and divestiture assignments; due diligence and valuation assignments; project and corporate finance services; and transaction support services. In addition, we provide litigation support services on a wide range of financial and economic issues for clients throughout North America.

1

2 Q. WHAT ARE YOUR RESPONSIBILITIES IN YOUR CURRENT POSITION?

3 A. As a consultant, my responsibilities include assisting clients in identifying and
4 addressing business issues. I have advised numerous energy and utility
5 clients on a wide range of financial and economic issues with primary
6 concentrations in valuation and utility rate matters. Many of those
7 assignments have included the determination of the cost of capital for
8 valuation purposes. I have included my résumé as Exhibit__(DSD-1),
9 Schedule 1.

10

11 Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.

12 A. I have an MBA from Boston College in Chestnut Hill, Massachusetts and a
13 BA in Economics from Colgate University in Hamilton, New York. I am a
14 certified public accountant, and am a member of the Massachusetts Society
15 of Certified Public Accountants. I am also a licensed securities professional
16 (Series 7, 28, 63, and 79).

17

18 **II. PURPOSE AND OVERVIEW OF TESTIMONY**

19 Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

20 A. The purpose of my Direct Testimony is to present evidence and provide an
21 opinion regarding the proposed return on equity ("ROE") for the Company,
22 as well as the Company's proposed capital structure and cost of debt for
23 ratemaking purposes. My analysis and conclusions are supported by the data
24 presented in Exhibit__(DSD-1), Schedules 2 through 8, which have been
25 prepared by me or under my direction in connection with my Direct
26 Testimony.

1

2 Q. PLEASE PROVIDE A BRIEF OVERVIEW OF NSP'S SOUTH DAKOTA
3 OPERATIONS.

4 A. NSP's South Dakota operations serve electric residential and business
5 customers in eastern South Dakota. The Company's customer base is largely
6 comprised of commercial and industrial customers. NSP's credit ratings are
7 A-, A3, and A- from Standard & Poor's ("S&P"), Moody's, and Fitch
8 Ratings ("Fitch"), respectively. Table 1 (below) provides operating and
9 financial results for NSP's South Dakota operations from 2008 through
10 2010.

11 **Table 1: NSP - 2008 to 2010 Electric Operating and Financial Results,**
12 **South Dakota Operations¹**

	2008	2009	2010
Operating Revenues (\$000s)	\$183,384	\$175,581	\$196,286
Regulated Operating Income (\$000s)	\$16,085	\$13,632	\$13,697
Average Electric Customers	80,585	82,037	83,182
Total Electric (kWh) (000s)	1,942,545	1,918,434	2,000,289

13

14 Q. PLEASE SUMMARIZE YOUR PRINCIPLE CONCLUSIONS REGARDING THE
15 APPROPRIATE COST OF CAPITAL FOR THE COMPANY.

16 A. Based on the analyses I have performed and that are discussed herein, I find
17 a reasonable range for the ROE for NSP to be from 10.75 percent to 11.25
18 percent. Within that range, I recommend that the South Dakota Public
19 Utilities Commission (the "Commission") authorize the Company the
20 opportunity to earn an ROE of 11.00 percent. As described in greater detail
21 later in my testimony, that recommendation is based on the use of several

¹ South Dakota Jurisdictional reports; Company data.

1 well-accepted methodologies, and reflects market data from companies
2 directly comparable to NSP. I also have concluded that the Company's
3 proposed cost of debt, and NSP's proposed capital structure of 52.48
4 percent common equity and 47.52 percent long-term debt, are reasonable.
5 The proposed overall rate of return is summarized in Table 2:

6 **Table 2: Capital Structure and Cost of Capital**

	Percent	Cost Rate	Weighted Cost
Common Equity	52.48%	11.00%	5.77%
Long-term debt	47.52%	6.33%	3.01%
Total Capitalization	100.00%		8.78%

7
8 Q. PLEASE PROVIDE A BRIEF OVERVIEW OF THE ANALYSIS THAT LED TO YOUR
9 CONCLUSIONS.

10 A. My recommendation of the appropriate ROE for the Company is based
11 primarily on the results of the Discounted Cash Flow ("DCF") approach,
12 adjusted for flotation costs, and is corroborated by the results of a risk
13 premium approach. I also considered current economic trends and business
14 risks specific to the Company in making my recommendation, although I did
15 not make an explicit adjustment for those factors.

16
17 Q. HOW IS THE REMAINDER OF YOUR TESTIMONY ORGANIZED?

18 A. The remainder of my Direct Testimony is organized into six sections.
19 Section III discusses the regulatory guidelines and financial considerations
20 pertinent to the development of the cost of capital, as well as current
21 underlying economic conditions and their effect on the cost of capital;
22 Section IV explains my selection of a proxy group of integrated electric
23 utilities; Section V explains my analysis and the analytical basis for my
24 recommendation of the appropriate ROE for the Company; Section VI

1 provides a discussion of specific business risks and other factors that have a
2 direct bearing on the ROE to be authorized for the Company in this
3 proceeding; Section VII provides a discussion of the analysis that supports
4 the Company's proposed capital structure and cost of long-term debt; and
5 Section VIII summarizes my conclusions and recommendations.

6
7 **III. REGULATORY GUIDELINES AND FINANCIAL**
8 **CONSIDERATIONS**

9 Q. PLEASE DESCRIBE THE GUIDING PRINCIPLES TO BE USED IN ESTABLISHING
10 THE ROE FOR A REGULATED UTILITY.

11 A. The United States Supreme Court's *Hope* and *Bluefield* cases established the
12 standards for determining the fairness or reasonableness of a utility's allowed
13 ROE. In those cases the Court established standards: (1) that authorized
14 returns be consistent with other businesses having similar or comparable
15 risks; (2) that the return be adequate to support credit quality and access to
16 capital; and (3) that the means of arriving at a fair return are not important,
17 only that the end result leads to just and reasonable rates.²

18
19 Based on the standards established in *Hope* and *Bluefield*, the Commission's
20 order in this proceeding should provide the Company with the opportunity
21 to earn an ROE that is:

- 22 • Adequate to allow the Company to attract the capital that is
23 necessary to provide safe and reliable service;

² *Bluefield Waterworks & Improvement Co., v. Public Service Commission of West Virginia*, 262 U.S. 679 (1923); *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591 (1944).

- 1 • Sufficient to ensure the Company's ability to maintain its financial
- 2 integrity; and
- 3 • At a level that is comparable to returns required on investments of
- 4 similar risk.

5

6 Q. WHY IS IT IMPORTANT FOR A UTILITY TO BE ALLOWED THE OPPORTUNITY TO

7 EARN A RETURN ADEQUATE TO ATTRACT EQUITY CAPITAL AT REASONABLE

8 TERMS?

9 A. The allowed ROE should be sufficient to enable the Company to finance

10 capital expenditures and working capital requirements at reasonable rates

11 and maintain financial integrity during a variety of economic and capital

12 market conditions. A return that is adequate to attract capital at reasonable

13 terms enables the subject company to provide safe, reliable service while

14 maintaining its financial integrity. While the "capital attraction" and

15 "financial integrity" standards are important principles in normal economic

16 conditions, the practical implications of those standards are even more

17 pronounced when, as discussed in more detail below and in the Direct

18 Testimony of Ms. Laura McCarten, the Company is making very substantial

19 capital investments and when considered in the context of the recent

20 financial environment.

21

22 In addition, the rates set in this case, including the ROE and capital

23 structure, will directly affect the Company's cash flows during the period in

24 which rates are in effect. Since credit ratings are intended to reflect a

25 company's ability to fund financial obligations, the ability to generate

26 internally the cash flows required to meet those obligations (and to provide

27 an additional amount for unexpected events) is of critical importance to debt

1 investors; thus, cash flows have a bearing on credit quality, which in turn
2 affects the terms at which a company can raise capital.

3
4 Lastly, the deemed supportiveness of the regulatory environment within
5 which a utility operates is a key consideration for ratings agencies such as
6 Moody's, S&P, and Fitch, as well as equity investors. As stated by S&P,
7 "[t]he assessment of regulatory risk is perhaps the most important factor in
8 Standard & Poor's Ratings Services' analysis of a U.S. regulated, investor-
9 owned utility's business risk."³ Further, as noted by Moody's, "the
10 predictability and supportiveness of the regulatory framework in which a
11 regulated utility operates is a key credit consideration and the one that
12 differentiates the industry from most other corporate sectors."⁴ From the
13 equity investor's viewpoint, Barclays Capital stated, "[t]he heightened
14 importance of regulatory lag throughout the capital investment cycle
15 continues to increase the importance of which regulatory jurisdiction a utility
16 operates within and how its cost of capital is impacted as a result."⁵

17
18 Q. WHAT ARE YOUR CONCLUSIONS REGARDING REGULATORY GUIDELINES AND
19 CAPITAL MARKET EXPECTATIONS?

20 A. The Company's ability to fund capital investments will be dependent on its
21 ability to access external capital on reasonable terms. Consequently, it is
22 important for the ROE authorized in this proceeding to take into
23 consideration not only returns required on investments of comparable risk,
24 but also the Company's substantial capital investment plans, the economic

³ Standard & Poor's, *Assessing U.S. Utility Regulatory Environments*, March 11, 2010, at 2.

⁴ Moody's Global Infrastructure Finance, *Regulated Electric and Gas Utilities*, August 2009, at 6.

⁵ Barclays Capital, *Capital Appreciation*, June 24, 2010, at 21.

1 environment in which it operates, and investors' expectations relative to
2 both risks and returns.

3

4 Q. DO YOU HAVE ANY OBSERVATIONS REGARDING CURRENT ECONOMIC
5 CONDITIONS AND THEIR INFLUENCE ON THE COST OF CAPITAL AND THE
6 COST OF EQUITY?

7 A. Yes, I do. The U.S. economy is currently recovering from an 18-month
8 recession that saw several high profile bankruptcies, a sharp drop off in
9 lending, a historically high degree of investor uncertainty and risk aversion,
10 and an unprecedented level of government intervention in the markets.
11 Although the recent market turmoil seen in 2008 and 2009 has moderated,
12 we are still in a period of elevated uncertainty that pervades both debt and
13 equity markets. As stated by the Federal Open Market Committee
14 ("FOMC") in the minutes to its March 2011 meeting:

15 The staff's estimate of the spread between the expected real
16 equity return for S&P 500 firms and the real 10-year
17 Treasury yield—a measure of the equity risk premium—
18 narrowed a bit more over the intermeeting period *but*
19 *continued to be quite elevated relative to longer-term norms.*⁶

20 In addition, while current interest rates are at historic lows due to federal
21 policies as well as a flight to quality due to the recent market turmoil,
22 economists expect long-term interest rates to rise over the next few years,
23 putting upwards pressure on borrowers.⁷ Costs in the electric utility sector

⁶ Federal Open Market Committee, Minutes of the Meeting of March 15, 2011, at 4. Emphasis added.

⁷ The Blue Chip Financial Forecasts projects the 30-year Treasury bond to yield 5.40 percent by 2014 (*see, Blue Chip Financial Forecasts*, Vol. 29, No. 12, December 1, 2010, at 14). Since the 30-day average yield on 30-year Treasury securities was approximately 4.34 percent as of May 31, 2011, the consensus estimate reported by Blue Chip Financial Forecasts projects an increase of approximately 106 basis points.

1 are threatened by inflation and are also on an increasing trajectory due to the
2 replacement of aging infrastructure, environmental spending, reliability
3 projects, and investments in "smart grid," energy efficiency, and
4 transmission projects. These trends have a bearing on the risks faced by
5 utilities as well as on investors' required returns.

6
7 Consistent with the *Hope* and *Bluefield* decisions, the authorized ROE for a
8 public utility should allow the company to attract investor capital at a
9 reasonable cost under a variety of economic and financial market conditions.
10 Thus, the conditions discussed above need to be considered not only in the
11 context of their effect on investors' return requirements, but also for their
12 effect on the results of traditionally accepted methodologies for estimating
13 the cost of equity.

14 15 IV. PROXY GROUP SELECTION

16 Q. PLEASE EXPLAIN WHY YOU HAVE USED A GROUP OF PROXY COMPANIES TO
17 DETERMINE THE COST OF EQUITY FOR NSP.

18 A. Consistent with the *Hope* and *Bluefield* decisions, the authorized ROE for a
19 public utility should be commensurate with the equity return required on
20 investments of similar risk. Investments in enterprises of similar risk thus
21 represent opportunity costs with a direct bearing on the ROE of the subject
22 utility.

23
24 In addition, in this proceeding we are focused on estimating the cost of
25 equity for the South Dakota operations of NSP, a rate-regulated, wholly-
26 owned subsidiary of XEI. Since the ROE is a market-based concept, and

1 given that the Company is not publicly traded, it is necessary to establish a
2 group of companies that are both publicly traded and comparable to the
3 Company in certain fundamental business and financial respects to serve as
4 its "proxy" in the ROE estimation process.

5
6 Q. HOW DID YOU SELECT THE COMPANIES INCLUDED IN YOUR PROXY GROUP?

7 A. I began with the companies that Value Line classifies as "Electric Utilities,"
8 which comprise a group of 53 domestic U.S. utilities. I then simultaneously
9 applied the following screening criteria:

- 10 • I excluded companies that do not pay consistent quarterly cash
11 dividends.
- 12 • I excluded companies that have not been covered by at least two
13 generally recognized utility industry equity analysts.
- 14 • All of the companies in my proxy group had investment grade senior
15 bond and/or corporate ratings from S&P (*i.e.*, BBB- to AAA).
- 16 • I excluded companies that do not own regulated generation assets.
- 17 • I excluded companies whose average regulated net income for the
18 period 2008 through 2010 comprised less than 60.00 percent of the
19 total for the company.
- 20 • To ensure a focus on companies whose net income is derived
21 primarily from electric operations, I excluded companies whose
22 average regulated electric net income for the period 2008 though 2010
23 represented less than 90 percent of total regulated net income.
- 24 • Finally, I eliminated any companies that are currently known to be
25 party to a merger or other transforming transaction.

26

1 Q. DID YOU INCLUDE XEI IN YOUR ANALYSIS?

2 A. No. In order to avoid the circular logic that otherwise would occur, I
3 excluded XEI from the proxy group.

4

5 Q. HOW MANY COMPANIES MET YOUR SCREENING CRITERIA?

6 A. The criteria discussed above resulted in a group of the following 13
7 companies:

8 **Table 3: Screening Results**

Company	Ticker
American Electric Power Company, Inc.	AEP
Cleco Corp.	CNL
Edison International	EIX
Empire District Electric	EDE
Great Plains Energy Inc.	GXP
Hawaiian Electric	HE
IDACORP, Inc.	IDA
Integrys/WPS Resources	TEG
Otter Tail Corp.	OTTR
Pinnacle West Capital Corp.	PNW
Portland General Electric Company	POR
Southern Company	SO
Westar Energy, Inc.	WR

9

10 Q. DO THOSE 13 COMPANIES CONSTITUTE YOUR FINAL PROXY GROUP?

11 A. No, they do not. As discussed above, to ensure that the proxy group
12 contains companies with significant rate-regulated electric operations, I set a
13 minimum threshold in my screening criteria for net income derived from
14 that segment. While strict adherence to those screening criteria resulted in
15 the group of 13 companies in Table 3, events at some of the companies'
16 non-regulated or non-electric operations segments potentially skew the

1 relative ratio of regulated electric operations to total company performance,
2 and make it difficult to discern the long-term contribution of those
3 operations to each company's results. For the reasons discussed below, I
4 have excluded Edison International ("EIX"), Integrys/WPS Resources
5 ("Integrys") and Otter Tail Corp. ("Otter Tail") from the final proxy group.

6
7 First, EIX reported significant unregulated losses in 2009; those losses were
8 in excess of 45.00 percent of EIX's regulated utility operating income.
9 According to EIX's 2009 Securities and Exchange Commission ("SEC")
10 Form 10-K, those significant operating losses were the result of a global tax
11 settlement with the Internal Revenue Service and termination of cross-
12 border leases, which caused EIX's unregulated competitive power and
13 financial services segment to record an approximately \$920 million pre-tax
14 loss.⁸ Given the extent of those losses, it is difficult to assess the relative
15 degree to which regulated electric utility operations would be expected to
16 contribute to the company's consolidated financial performance in the near
17 and longer terms. Consequently, I have excluded EIX from my final proxy
18 group.

19
20 Second, Integrys also experienced significant losses during the three year
21 period that I relied on to develop my proxy group. In 2008, the company
22 posted operating losses of \$118.30 million in Integrys Energy Services Non-
23 regulated Segment Operations.⁹ In 2009, the Natural Gas Utility Segment
24 reported an operating loss of \$114.6 million that was primarily the result of a

⁸ Edison International, 2009 SEC Form 10-K, at 71, 104.

⁹ Integrys 2010 SEC Form 10-K, at 40.

1 non-cash goodwill impairment loss of \$284.6 million.¹⁰ The company noted
2 that:

3 Key factors contributing to the impairment charge included
4 disruptions in the global credit and equity markets and the
5 resulting increase in the weighted-average cost of capital
6 used to value the natural gas utility operations, and the
7 negative impact that the global decline in equity markets
8 had on the valuation of natural gas distribution companies
9 in general.¹¹

10
11 This large accounting loss reported by an affiliate potentially skews the
12 relative contribution of the company's electric operations. For this reason, I
13 have excluded Integrys from the final proxy group.

14
15 Lastly, Otter Tail reported significant losses in the operating income of
16 several non-regulated business segments in 2009 and 2010. In fact, Otter
17 Tail reported operating losses in its non-electric business segments in 2010
18 that, in total, exceeded 75.00 percent of its regulated electric operating
19 income.¹² As a consequence, operating income from regulated operations
20 constituted the majority of the reported operating income in those years.
21 Reviewing Otter Tail's SEC Form 10-K, the \$14.3 million operating loss
22 experienced in 2010 in the Manufacturing segment was due to economic
23 conditions and a \$19.7 million asset impairment.¹³ In addition, the Wind
24 Energy segment, which is engaged in the manufacturing of wind towers and
25 trucking, experienced an operating loss of \$14.2 million in 2010.¹⁴ Looking
26 forward, Value Line projects a significant increase in the earnings from the

¹⁰ Integrys 2009 SEC Form 10-K, at 35.

¹¹ *Ibid.*, at 107.

¹² Otter Tail Corporation, SEC Form 10-K, February 28, 2011, at 44.

¹³ *Ibid.*, at 48.

¹⁴ *Ibid.*, at 47.

1 Manufacturing subsidiary in 2011, noting that the backlog for this business is
2 37.00 percent higher than the year prior.¹⁵ Value Line also projects growth
3 in Otter Tail's Construction segment, with a backlog that is nearly double
4 that of the prior year.

5
6 Given the extent of the 2010 losses, and analyst projections for 2011, it is
7 difficult to assess the degree to which regulated electric utility operations
8 would be expected to contribute to Otter Tail's consolidated financial
9 performance in the near and longer terms. Therefore, as with EIX and
10 Integrys, I have excluded Otter Tail from the final proxy group.

11
12 Q. WHAT IS YOUR FINAL PROXY GROUP?

13 A. Excluding EIX, Integrys, and Otter Tail from the group results in a proxy
14 group of the following ten companies (also presented in Exhibit___(DSD-1),
15 Schedule 2):

¹⁵ Value Line Report on Otter Tail Corp, March 25, 2011.

1 **Table 4: Final Proxy Group**

Company	Ticker
American Electric Power Company, Inc.	AEP
Cleco Corp.	CNL
Empire District Electric	EDE ¹⁶
Great Plains Energy Inc.	GXP
Hawaiian Electric	HE
IDACORP, Inc.	IDA
Pinnacle West Capital Corp.	PNW
Portland General Electric Company	POR
Southern Company	SO
Westar Energy, Inc.	WR

2

3 **V. DETERMINATION OF THE APPROPRIATE COST OF EQUITY**

4 Q. HOW IS THE REQUIRED ROE DETERMINED?

5 A. The cost of equity is not directly observable, and, therefore, must be inferred
6 by using one or more analytical techniques that rely on market-based data to
7 quantify investor expectations regarding required equity returns, adjusted for
8 certain incremental costs and risks. Informed judgment is applied, based on
9 the results of those analyses, to determine where within the range of results
10 the cost of equity for the Company falls. The resulting adjusted cost of
11 equity serves as the recommended ROE for ratemaking purposes. As a
12 general proposition, the key consideration in determining the cost of equity
13 is to ensure that the methodologies employed reasonably reflect investors'

¹⁶ On May 22, 2011, Empire District Electric ("EDE") sustained significant storm damage in its service territory. While EDE subsequently paid its dividend on May 27, 2011, it also announced a two-quarter temporary dividend suspension for the remainder of the year on May 26, 2011 (*see*, Empire District Electric press release, "The Empire District Electric Company Announces Temporary Suspension of Dividend," May 26, 2011). Given that there were only three trading days within my study period (*i.e.*, the 30, 90, and 180 trading days through May 31, 2011, as discussed below) following EDE's announcement, these events did not have a significant effect on the overall results of my analyses.

1 view of the financial markets as well as the subject company's common
2 stock.

3
4 Q. WHAT METHODS DID YOU USE TO DETERMINE THE COMPANY'S ROE?

5 A. I primarily relied on the results of the DCF model corroborated by the
6 results of a risk premium approach. I also considered the Capital Asset
7 Pricing Model ("CAPM"). However, as discussed further below, the
8 historical assumptions commonly relied on in the CAPM do not adequately
9 reflect current market conditions and investor sentiment. As such, I did not
10 rely on the CAPM in developing my recommendation.

11
12 **A. Constant Growth DCF Model**

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

15 A. Yes. DCF models are widely used in regulatory proceedings and have sound
16 theoretical bases, although neither the DCF model nor any other model can
17 be applied without considerable judgment in the selection of data and the
18 interpretation of results. In its simplest form, the DCF model expresses the
19 cost of equity as the sum of the expected dividend yield and long-term
20 growth rate.

21
22 Q. PLEASE DESCRIBE THE CONSTANT GROWTH DCF APPROACH.

23 A. The DCF approach is based on the theory that a stock's current price
24 represents the present value of all expected future cash flows, which, for
25 purposes of the model, are assumed to be equal to all expected future
26 dividends. Thus, the return required by investors is implied by the per share

1 price of a company's common stock. In its most general form, the DCF
2 model is expressed as follows:

$$3 \quad P_0 = \frac{D_1}{(1+k)} + \frac{D_2}{(1+k)^2} + \dots + \frac{D_\infty}{(1+k)^\infty} \quad [1]$$

4 Where P_0 represents the current stock price, $D_1 \dots D_\infty$ are all expected future
5 dividends, and k is the discount rate, or required ROE. Equation [1] is a
6 standard present value calculation, which can be simplified and rearranged
7 into the following formula:

$$8 \quad k = \frac{D(1+g)}{P_0} + g \quad [2]$$

9 Equation [2] is often referred to as the "Constant Growth DCF" model in
10 which the first term is the expected dividend yield and the second term is the
11 expected long-term growth rate.

12
13 Q. WHAT ASSUMPTIONS ARE REQUIRED FOR THE CONSTANT GROWTH DCF
14 MODEL?

15 A. The Constant Growth DCF model requires the following assumptions: (1) a
16 constant growth rate for earnings and dividends; (2) a stable dividend payout
17 ratio; (3) a constant price-to-earnings multiple; and (4) a discount rate that is
18 greater than the expected growth rate. To the extent that any of these
19 assumptions do not hold true, considered judgment and/or specific
20 adjustments should be made to the results.

21

1 **B. Dividend Yield for the DCF Model**

2 Q. WHAT DATA DID YOU USE TO CALCULATE THE DIVIDEND YIELD IN YOUR
3 DCF MODEL?

4 A. I used readily available market data to calculate the dividend yield
5 component of the DCF model. Specifically, the dividend yield is based on
6 the proxy companies' current annualized dividend, and average closing stock
7 prices over the 30-, 90-, and 180-trading days ended May 31, 2011.

8

9 Q. WHY DID YOU USE 30-DAY, 90-DAY, AND 180-DAY AVERAGING PERIODS?

10 A. I used multi-day averaging periods to calculate the term P_0 in the DCF
11 model to ensure that the calculated ROE is not skewed by anomalous events
12 that may affect stock prices on any given trading day. In addition, the
13 averaging period should be reasonably representative of expected capital
14 market conditions over the long term while at the same time reflecting the
15 extraordinary conditions that have defined the financial markets over the
16 recent past. In my view, the use of the 30, 90, and 180-day averaging periods
17 reasonably balances those concerns.

18

19 Q. DID YOU MAKE ANY ADJUSTMENTS TO THE DIVIDEND YIELD TO ACCOUNT
20 FOR PERIODIC GROWTH IN DIVIDENDS?

21 A. Yes, I did. Since current dividend data reflects the last dividend paid (*i.e.*,
22 D_0) by each proxy company, the dividend must be adjusted to reflect the
23 next dividend expected by investors (*i.e.*, D_1). Since utility companies tend to
24 increase their quarterly dividends at different times throughout the year, it is
25 reasonable to assume that dividend increases will be evenly distributed over
26 calendar quarters. Given that assumption, I applied one-half of the expected
27 annual dividend growth for the purposes of calculating the expected

1 dividend yield component of the DCF model, as shown in Exhibit__ (DSD-
2 1), Schedule 2. This adjustment ensures that the expected dividend yield is,
3 on average, representative of the coming twelve-month period and does not
4 overstate the aggregate dividends to be paid during that time.
5

6 C. Growth Rates for the DCF Model

7 Q. WHAT GROWTH RATE ASSUMPTION DID YOU USE IN THE DCF ANALYSIS?

8 A. I used analysts' expected earnings growth rates for each proxy group
9 company. Since the cost of equity is a forward-looking concept, and since
10 the DCF model is based on the premise that today's stock price is based on
11 expected cash flows, it is important to use forecasted, as opposed to
12 historical, estimates of proxy company growth. Analysts' expected earnings-
13 per-share growth rates are widely relied upon by investors and likely
14 incorporate all the public information available to the investment
15 community. In addition, over the long run, dividend growth can only be
16 sustained by earnings growth. Thus, it is common to use the long-term
17 expected earnings growth rate as the measure of growth in the constant
18 growth DCF model. There is also academic research supporting the use of
19 analysts' forecasts as the source of DCF growth rates.¹⁷
20

¹⁷ See, e.g., Harris and Marston, *Estimating Shareholder Risk Premia Using Analysts Growth Forecasts*, Financial Management, 21 (Summer 1992), and Vander Weide and Carleton, *Investor Growth Expectations: Analysts vs. History*, The Journal of Portfolio Management, Spring 1988, 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 this updated study are consistent with the Vander Weide and Carlton's original conclusions.

1 **D. Summary of Application of the Constant Growth DCF Model**

2 Q. PLEASE SUMMARIZE YOUR APPLICATION OF THE CONSTANT GROWTH DCF
3 MODEL.

4 A. I applied the DCF model to the proxy group of ten electric utility
5 companies, using the following inputs for the price and dividend terms:

- 6 1. The average daily closing prices for the 30-trading days, 90-trading
7 days, and 180-trading days ended May 31, 2011 for the term P_0 ; and
- 8 2. The annualized dividend per share as of May 31, 2011, for the term
9 D_0 .

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

- 11 1. The Zacks consensus long-term earnings growth estimates;
- 12 2. The First Call consensus long-term earnings growth estimates; and
- 13 3. The Value Line earnings per share growth estimates.

14

15 Q. HOW DID YOU CALCULATE THE RANGE OF DCF RESULTS?

16 A. I used the mean of all three growth rates in combination with the dividend
17 yield to determine the mean DCF result. I calculated the mean high DCF
18 result using the maximum growth rate (*i.e.*, the maximum of the Value Line,
19 Zack's, and First Call EPS growth rates) in combination with the dividend
20 yield for each of the proxy group companies. Thus, the mean high result
21 reflects the average maximum DCF result for the proxy group. I used a
22 similar approach to calculate the mean low results, using the minimum
23 growth rate for each proxy group company.

24

1 Q. ARE THE RESULTS OF THE DCF ANALYSIS PRESENTED IN THE SCHEDULES TO
2 YOUR DIRECT TESTIMONY?

3 A. Yes. The results of the Constant Growth DCF analysis are presented in
4 Exhibit_(DSD-1), Schedule 2.
5

6 **E. Flotation Cost Recovery**

7 Q. DID YOUR ANALYSIS PROVIDE FOR RECOVERY OF FLOTATION COSTS?

8 A. Yes. My analysis provided for recovery of flotation costs.
9

10 Q. WHAT ARE FLOTATION COSTS?

11 A. Flotation costs are the costs associated with the sale of new issues of
12 common stock. These costs include underwriter discounts; audit, legal and
13 listing fees; printing costs; and other direct issuance expenses. Such flotation
14 costs are similar to debt issuance costs in that they are necessary for the
15 issuance of the securities, and they reduce the net proceeds available to the
16 issuing company. As an example, whereas a company's share price at the
17 time of a stock issuance may be \$22.00, if flotation costs are equal to \$0.50
18 per share, the Company will receive only \$21.50 per share. In order to
19 compensate investors for the return they require (implied by the \$22.00 price
20 at the time of the issuance), the enterprise must earn a higher ROE on the
21 reduced proceeds.
22

23 Q. SHOULD FLOTATION COSTS BE REFLECTED IN THE ALLOWED ROE?

24 A. Yes. Flotation costs are not expenses that flow through the income
25 statement, but instead reduce the proceeds of the issuance, resulting in a
26 permanent net reduction to the common equity portion of the balance sheet.

1 As a result, flotation costs should be recovered through a return adjustment,
2 regardless of whether an issuance occurs during, or is planned for, the test
3 year. Recovery of investments is not limited to the year in which the
4 investment is made, and neither should the recovery of legitimately incurred,
5 direct flotation costs. According to Dr. Shannon Pratt:

6 Flotation costs occur when new issues of stock or debt are
7 sold to the public. The firm usually incurs several kinds of
8 flotation or transaction costs, which reduce the actual
9 proceeds received by the firm. Some of these are direct
10 out-of-pocket outlays, such as fees paid to underwriters,
11 legal expenses, and prospectus preparation costs. Because
12 of this reduction in proceeds, the firm's required returns on
13 these proceeds equate to a higher return to compensate for
14 the additional costs. Flotation costs can be accounted for
15 either by amortizing the cost, thus reducing the cash flow
16 to discount, or by incorporating the cost into the cost of
17 capital. Because flotation costs are not typically applied to
18 operating cash flow, one must incorporate them into the
19 cost of capital.¹⁸
20

21 In addition, in order to attract and retain new investors, a regulated utility
22 must have the opportunity to earn a return that is both competitive and
23 compensatory. To the extent that a company is denied the opportunity to
24 recover prudently incurred flotation costs, actual returns will fall short of
25 expected (or required) returns, thereby diminishing the company's ability to
26 attract adequate capital on reasonable terms.
27

¹⁸ Shannon P. Pratt, Cost of Capital Estimation and Applications, Second Edition, at 220-221.

1 Q. ARE FLOTATION COSTS PART OF THE UTILITY'S INVESTED COSTS OR PART OF
2 THE UTILITY'S EXPENSES?

3 A. Flotation costs are part of the invested cost of the utility, which are reflected
4 on the balance sheet under "paid in capital." As a result, the great majority
5 of a utility's flotation costs is incurred prior to the test year, but remain part
6 of the cost structure that exists during the test year and beyond, and as such,
7 should be recognized for ratemaking purposes. Therefore, this adjustment is
8 appropriate even if no new issuances are planned in the near future because
9 failure to allow such an adjustment may deny the Company the opportunity
10 to earn its required rate of return in the future.

11

12 Q. HAS XEI RECENTLY ISSUED COMMON EQUITY?

13 A. Yes, it has. As shown in Exhibit_(DSD-1), Schedule 3, XEI issued
14 21,850,000 equity shares on August 3, 2010.

15

16 Q. WILL THE COMPANY NEED ACCESS TO THE EQUITY MARKET IN THE NEXT
17 SEVERAL YEARS?

18 A. Yes. In addition, the Company will need to access the equity market in the
19 next several years in order to finance its capital investment plan.

20

21 Q. IS THE NEED TO CONSIDER FLOTATION COSTS ELIMINATED BECAUSE THE
22 COMPANY IS A SUBSIDIARY OF XEI?

23 A. No. Although the Company is a subsidiary of XEI, it is appropriate to
24 consider flotation costs because the source of capital used by the Company
25 was the result of a public issuance by its parent organization, which led to
26 the issuance costs. To deny recovery of issuance costs associated with the
27 capital that is invested in the utility ultimately will penalize the investors that

1 fund the utility operations and will inhibit the utility's ability to obtain new
2 equity capital at a reasonable cost.

3

4 Q. DOES THE DCF MODEL ALREADY INCORPORATE INVESTOR EXPECTATIONS
5 OF A RETURN THAT COMPENSATES FOR FLOTATION COSTS?

6 A. No. All the models used to estimate the appropriate ROE assume no
7 "friction" or transaction costs, as these costs are not reflected in the market
8 price (in the case of the DCF model). Therefore, it is appropriate to
9 consider flotation costs when estimating the Company's ROE.

10

11 Q. HAVE YOU CALCULATED THE EFFECT OF FLOTATION COSTS ON THE ROE?

12 A. Yes, I have. I modified the DCF calculation to provide a dividend yield that
13 would reimburse investors for issuance costs. Based on the issuance costs
14 provided in Exhibit__(DSD-1), Schedule 3, an adjustment of 0.26 percent
15 (*i.e.*, 26 basis points) is reflective of flotation costs for the Company.

16

17 Q. DO THE RESULTS IN EXHIBIT__(DSD-1), SCHEDULE 2 INCLUDE AN
18 ADJUSTMENT FOR FLOTATION COST RECOVERY?

19 A. Yes. The results presented in Exhibit__(DSD-1), Schedule 2 include an
20 adjustment for flotation cost recovery.

21

22 F. Results for Constant Growth Model

23 Q. WHAT ARE THE RESULTS OF YOUR DCF ANALYSIS?

24 A. Table 5 (below) provides the results of my DCF analysis, including flotation
25 costs. As shown in Table 5, the mean DCF results for my proxy group
26 range from 10.97 percent to 11.22 percent.

1

Table 5: Mean DCF Results

	Mean Low	Mean	Mean High
Constant Growth DCF – including Flotation Costs			
30-Day Average	9.84%	10.97%	12.13%
90-Day Average	9.97%	11.10%	12.26%
180-Day Average	10.09%	11.22%	12.38%

2

3 Q. DID YOU UNDERTAKE ANY ADDITIONAL ANALYSES TO SUPPORT YOUR DCF
4 MODEL RESULTS?

5 A. Yes. As noted earlier, I used the Bond Yield plus Risk Premium approach as
6 a means of assessing the reasonableness of my DCF results. I also
7 considered the use of the CAPM, as also noted previously, but did not rely
8 on that model due for the reasons discussed below.

9

10 **G. Bond Yield plus Risk Premium Analysis**

11 Q. PLEASE PROVIDE AN OVERVIEW OF THE BOND YIELD PLUS RISK PREMIUM
12 APPROACH YOU EMPLOYED.

13 A. In general terms, this approach is based on the fundamental principle that
14 equity investors bear the residual risk associated with ownership and
15 therefore must be compensated for bearing that additional risk. That is,
16 since returns to equity holders are more risky than returns to bondholders,
17 equity investors require a premium over the return on less risky bonds. Risk
18 premium approaches, therefore, estimate the cost of equity as the sum of the
19 equity risk premium and the yield on a particular class of bonds. In my
20 analysis, I used actual authorized returns for electric utilities as the historical
21 measure of the cost of equity to determine the risk premium.

22

1 Q. PLEASE FURTHER DESCRIBE THE ANALYSIS.

2 A. I developed the analysis based on a regression of the risk premium (*i.e.*,
3 authorized ROEs less Treasury yields) as a function of Treasury yields.
4 More specifically, I let authorized ROEs serve as the measure of required
5 equity returns and defined the yield on the long-term Treasury bond as the
6 relevant measure of interest rates. The risk premium is simply the difference
7 between those two points.

8
9 Q. ARE THERE OTHER FACTORS THAT SHOULD BE CONSIDERED?

10 A. Yes. In addition, it is important to recognize both academic literature and
11 market evidence indicating that the equity risk premium is inversely related
12 to the level of interest rates.¹⁹ That is, as interest rates increase (decrease),
13 the equity risk premium decreases (increases). My analysis thus reflects the
14 inverse relationship between interest rates and the equity risk premium and
15 applies that relationship to expected market conditions.

16
17 Q. WHAT DID YOUR BOND YIELD PLUS RISK PREMIUM ANALYSIS REVEAL?

18 A. As shown on Chart 1, from 1992 through May 31, 2011, there was, in fact, a
19 strong negative relationship between risk premia and interest rates for
20 electric utilities. To estimate that relationship, I conducted a regression
21 analysis for electric utilities using the following equation:

22
$$RP = a + b (T) \quad [3]$$

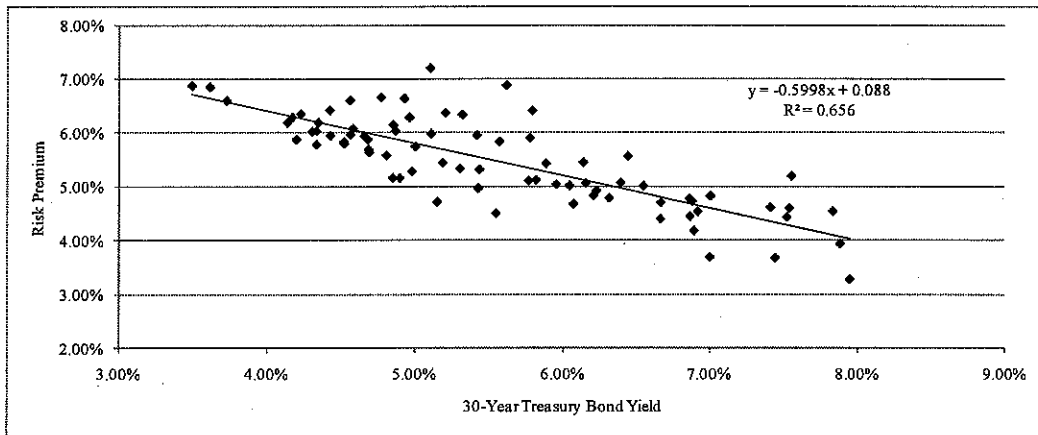
23 where:

¹⁹ See, e.g., S. Keith Berry, *Interest Rate Risk and Utility Risk Premia during 1982-93*, Managerial and Decision Economics, Vol. 19, No. 2 (March, 1998), in which the author used a methodology similar to the regression approach described here, including using allowed ROEs as the relevant data source, and came to similar conclusions regarding the inverse relationship between risk premia and interest rates. See also Robert S. Harris, *Using Analysts' Growth Forecasts to Estimate Shareholders Required Rates of Return*, Financial Management, Spring 1986, at 66.

1 RP = Risk Premium (difference between allowed ROEs and the yield
2 on 30-year Treasuries)
3 a = Intercept term
4 b = Slope term
5 T = 30-year Treasury Bond Yield

6
7 Data regarding allowed ROEs were derived from 498 rate cases from 1992
8 through May 31, 2011 as reported by Regulatory Research Associates. That
9 equation's coefficients were statistically significant at the 99.00 percent level.

10
11 **Chart 1: Electric Utilities Risk Premium vs. Interest Rates**



12
13
14 As shown on Exhibit__ (DSD-1), Schedule 4, based on the near-term (2011-
15 2012) projections of the 30-year Treasury bond yield (*i.e.*, 4.88 percent), the
16 risk premium would be 5.87 percent, resulting in an estimated ROE of 10.76
17 percent. Based on longer-term (2012-2016) projections of the 30-year
18 Treasury Bond yield (*i.e.*, 5.45 percent), the risk premium would be 5.53
19 percent, resulting in an estimated ROE of 10.98 percent. The mean of these
20 estimated ROE results is 10.87 percent. These results corroborate the DCF

1 results discussed earlier, and further support my recommended ROE of
2 11.00 percent.

3

4 Q. DID YOU CONSIDER ANY ADDITIONAL ANALYSES AS PART OF YOUR
5 DETERMINATION OF A REASONABLE ROE FOR THE COMPANY?

6 A. Yes. As noted earlier, I also considered the CAPM. The CAPM is a risk
7 premium model that is based on a required return that compensates the
8 investor for the time value of money (indicated by a risk free rate of return)
9 as well as for bearing systematic, non-diversifiable risk. However since the
10 financial market dislocation that began in 2008, the underlying assumptions
11 used in the traditional application of this model are not indicative of market
12 expectations and therefore the results from the traditional application of the
13 model are not representative of current market conditions. Therefore, I did
14 not rely on the CAPM in developing my recommended ROE.

15

16 Q. PLEASE EXPLAIN YOUR CONCERNS WITH THE TRADITIONAL APPLICATION OF
17 THE CAPM.

18 A. As shown in Equation [4], the CAPM estimate of the cost of equity is
19 calculated using three theoretically forward-looking inputs:

20
$$K_e = r_f + \beta(r_m - r_f) \quad [4]$$

21 where:

22 k_e = the current required market ROE

23 β = the expected Beta coefficient of an individual security

24 r_f = the expected risk free rate of return

25 r_m = the required return on the market as a whole.

26

1 The risk premium term of the CAPM, $(r_m - r_f)$, represents the expected risk
2 premium that investors currently require the market to provide in the future.
3 However, because the currently-expected risk premium is unknown, or
4 difficult to measure, the expected Market Risk Premium (“MRP”) is
5 commonly estimated by subtracting the risk free rate from the returns in the
6 market during a historical time period. As a result of the extraordinary loss
7 in equity values during 2008, the historical MRP decreased from the prior
8 year despite the significant elevation in the degree of uncertainty in the
9 market as well as high levels of risk aversion indicating a higher required rate
10 of return. That result is somewhat counter-intuitive. As noted earlier, the
11 FOMC currently estimates the equity risk premium to be, “quite elevated
12 relative to longer-term norms.”²⁰ While the market rally of 2009 and 2010
13 resulted in a somewhat higher historical MRP, the current estimate of the
14 MRP based on historical data still remains below its pre-financial crisis level.
15

16 In addition, the third term in the CAPM, the Beta coefficient, measures the
17 systematic risk of a particular stock relative to a broader market index, the
18 S&P 500. Beta coefficients are estimated for an individual stock by
19 regressing the company’s stock price against a market index. The Beta
20 coefficient estimates reported by Value Line and Bloomberg are calculated
21 over historical periods of 60 and 24 months, respectively. The use of such
22 longer-term measurement periods includes data from the recent financial
23 market dislocation as well as the period prior to the market dislocation and
24 results in Beta coefficient estimates based on recent history that may not be

²⁰ Federal Open Market Committee, Minutes of the Meeting of March 15, 2011, at 4.

1 reasonable measures of the level of systematic risk currently perceived by
2 investors.

3
4 Therefore, since the underlying historical market data used to develop the
5 key assumptions of the CAPM may not be reflective of current market
6 conditions and investors' current expectations, I did not rely on that model
7 to establish my recommended ROE.

8
9 **VI. BUSINESS RISKS**

10 Q. DO THE MEAN DCF RESULTS FOR THE PROXY GROUP PROVIDE AN
11 APPROPRIATE ESTIMATE OF THE COST OF EQUITY FOR THE COMPANY?

12 A. No, the mean DCF results do not necessarily provide an appropriate
13 estimate of the Company's cost of equity. There are several factors that
14 have a direct bearing on the Company's ability to earn a fair return and on
15 the Company's relative riskiness when compared to the proxy group. These
16 include the Company's planned capital investment program and risks related
17 to the Company's customer concentration. These factors should be
18 considered in terms of their overall effect on the Company's ability to earn
19 its allowed return and on its business risk when compared with the proxy
20 group.

21

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

3 A. The principle business risks facing the Company are: (1) the need for a very
4 substantial level of capital expenditures; and (2) a high dependence on
5 commercial customers.

6

7 *Capital Expenditures*

8 Q. PLEASE SUMMARIZE THE COMPANY'S CAPITAL EXPENDITURE PLAN.

9 A. The Company estimates that during the five-year period 2011-2015 it will
10 invest approximately \$6.2 billion,²¹ averaging over \$1.2 billion per year over
11 that five-year period. These expenditures represent approximately 82.65
12 percent of the Company's total net utility plant in service as of December 31,
13 2010.²²

14

15 Q. HOW IS THE COMPANY'S RISK PROFILE AFFECTED BY THE SUBSTANTIAL
16 INCREASE IN ITS PLANNED CAPITAL EXPENDITURES?

17 A. The Company's risk profile is adversely affected because the heightened level
18 of investment increases the risk of under-recovery, or the delayed recovery
19 of the invested capital, which is known as regulatory lag.

20

²¹ SEC Form 10-K, Xcel Energy, Inc, for the year ending December 31, 2010, at 75. Includes Minnesota and North Dakota jurisdictions.

²² NSP's net utility plant at December 31, 2010 was \$7.5 billion, as reported in its FERC Form 1 at 110 for the period ended December 31, 2010.

1 Q. IS THAT RISK ELIMINATED BY THE COMPANY'S TRANSMISSION COST
2 RECOVERY ("TCR") AND ENVIRONMENTAL COST RECOVERY ("ECR")
3 RIDERS?

4 A. No, it is not. While the TCR and ECR's designs reduce regulatory lag, these
5 mechanisms only cover costs incurred for NSP's transmission and
6 environmental measure expenditures. In addition, it is important to note
7 that even with these mechanisms in place, regulatory lag remains a significant
8 concern, putting pressure on working capital balances, straining cash flows,
9 and creating financial risk for vertically integrated utilities.

10

11 Q. DOES THE INVESTMENT COMMUNITY RECOGNIZE THE RISKS ASSOCIATED
12 WITH INCREASED CAPITAL EXPENDITURES?

13 A. Yes, it does. From a credit perspective, the additional pressure on cash
14 flows associated with high levels of capital expenditures exerts
15 corresponding pressure on credit metrics and, therefore, credit ratings. S&P
16 has noted several long term challenges for utilities' financial health,
17 including: heavy construction programs to address demand growth, declining
18 capacity margins, aging infrastructure, and regulatory responsiveness to
19 mounting requests for rate increases.²³ S&P specifically identified the risks
20 associated with NSP's capital expenditure plan in its July 2010 rating of the
21 Company. In that report, S&P noted that its credit rating reflects in part the
22 full cost recovery of larger construction projects. In addition, S&P notes
23 that the current stable outlook could be revised to negative if construction

²³ Standard & Poor's RatingsDirect, *Industry Report Card: Utility Sectors In the Americas Remain Stable, While Challenges Beset European, Australian, and New Zealand Counterparts*, June 27, 2008, at 4.

1 projects are not completed on time and budget or if rate recovery is less than
2 expected.²⁴

3
4 Equity investors also recognize the pressure on cash flows and earnings
5 associated with relatively high levels of capital expenditures. KeyBanc, for
6 example, noted that:

7 Credit and liquidity concerns have driven many companies
8 to revisit capital spending plans and reassess operational
9 efficiencies. The primary response has generally been to
10 delay projects, as opposed to outright cancellation. Initially,
11 reductions in capital programs were a function of lower
12 growth, which eliminated the need for growth-related
13 capital spending on items such as line extensions and new
14 substations. However, as difficult economic conditions
15 persist, the cuts have grown more extensive, with deferrals
16 in non-core maintenance spending, reevaluating the cost-
17 effectiveness of running older inefficient power plants, and
18 pursuing company restructurings or mergers.²⁵

19
20 Q. WILL THE COMPANY NEED CONTINUED ACCESS TO THE CAPITAL MARKETS
21 IN ORDER TO FINANCE ITS CAPITAL EXPENDITURE PLAN?

22 A. Yes. Given the magnitude and long-term nature of the anticipated capital
23 expenditures, the Company will require continued access to the capital
24 markets, at reasonable terms, in order to finance its capital expenditure plan.

25

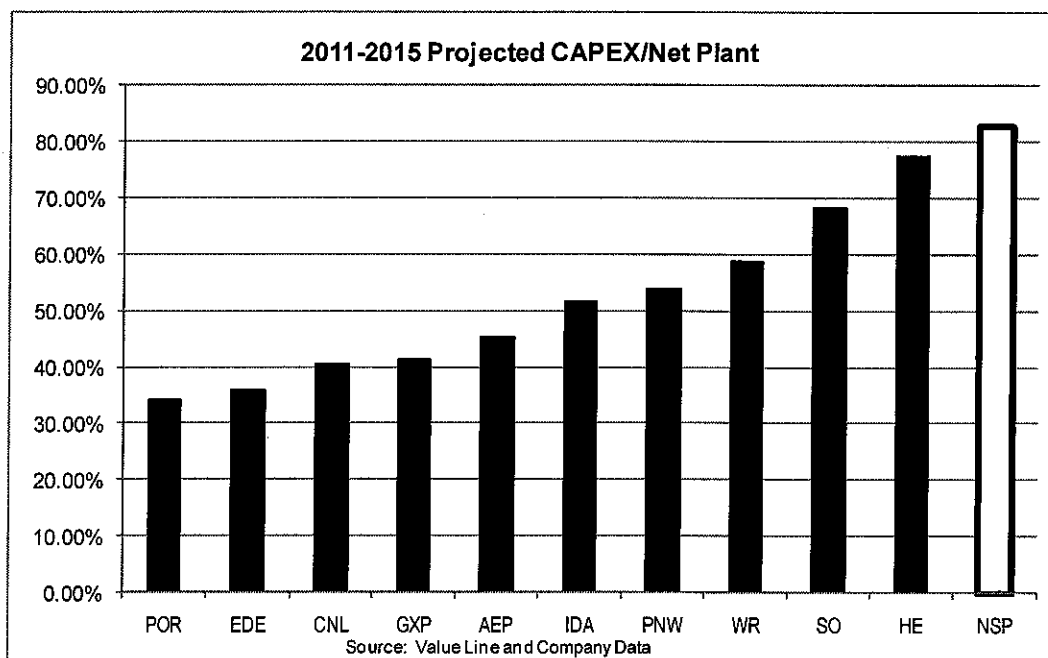
²⁴ Standard & Poor's Global Credit Portal RatingsDirect, Northern States Power Co., July 14, 2010, at 2-3.

²⁵ KeyBanc Capital Markets Inc. Equity Research, *Electric Utilities Quarterly 1Q10*, June 2010, at 7.

1 Q. HOW DOES THE LEVEL OF THE COMPANY'S EXPECTED CAPITAL
2 EXPENDITURES COMPARE TO THE PROXY GROUP?

3 A. As shown in Exhibit__(DSD-1), Schedule 5, I calculated the ratio of
4 expected capital expenditures to net assets for each of the companies in the
5 proxy group. For the projected period from 2011 to 2015, I performed that
6 calculation using the Company's projected capital expenditures and its total
7 net assets as of December 31, 2010. As shown in Schedule 5, the
8 Company's relative level of capital expenditures is 1.6 times the average
9 projected investments of the proxy group companies. Chart 2 below
10 compares the projected capital expenditures of the Company and my electric
11 utility proxy group.

12 **Chart 2: Comparison of Capital Expenditures²⁶**



13

14

²⁶ 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 be required within its service territory as a result of the tornado damage suffered in May 2011.

1 Q. WHAT ARE YOUR CONCLUSIONS REGARDING THE EFFECT OF THE
2 COMPANY'S CAPITAL INVESTMENT PLAN ON ITS RISK PROFILE AND COST OF
3 CAPITAL?

4 A. It is clear that the Company is projecting a substantial capital expenditure
5 program over the next five years that will require continued access to the
6 capital markets. It also is clear that equity investors and credit rating
7 agencies recognize the additional risks associated with substantial capital
8 expenditures. Therefore, the relative size of the Company's capital
9 expenditure plan suggests an above average risk profile for the Company as
10 compared to the proxy group.

11

12 *Customer Concentration*

13 Q. HOW DOES THE COMPANY'S CUSTOMER CONCENTRATION AFFECT ITS
14 BUSINESS RISK?

15 A. The Company's customer base is largely comprised of commercial and
16 industrial customers. Approximately 62.31 percent of its total revenues,
17 excluding sales for resale, are attributable to sales to commercial and
18 industrial customers.²⁷ The Company has the second highest commercial
19 customer concentration by percent of revenues relative to the proxy group,
20 which has an average of 53.73 percent of revenues, excluding sales for resale,
21 attributable to sales to commercial and industrials customers.²⁸ The
22 Company's dependence on sales to commercial users subjects its operations
23 to greater cash flow volatility and risk of demand destruction and bypass.
24 Although the Company currently believes its rates are sufficiently

²⁷ Source: SNL Financial Energy Service. Includes Minnesota and North Dakota jurisdictions.

²⁸ The proxy group's concentration of commercial and industrial customers ranges from 48.20 percent to 63.75 percent.

1 competitive to retain its commercial customers, it remains highly exposed to
2 these risks.

3

4 Q. BASED ON THE BUSINESS RISKS IDENTIFIED ABOVE, HOW WOULD YOU
5 CLASSIFY THE COMPANY'S RISK LEVEL RELATIVE TO THE OTHERS IN THE
6 PROXY GROUP?

7 A. As discussed above, the Company faces a higher than average level of
8 business risk relative to the companies in the proxy group associated with
9 substantially higher capital investment levels and, to a lesser extent, its
10 dependence on commercial customers. Consequently, I believe that the
11 Company has somewhat greater business risks relative to the proxy group.

12

13 VII. CAPITAL STRUCTURE AND COST OF DEBT

14 A. Capital Structure

15 Q. WHAT IS THE COMPANY'S PROPOSED CAPITAL STRUCTURE?

16 A. The Company's proposed capital structure consists of 52.48 percent
17 common equity and 47.52 percent long-term debt, which is based on the
18 thirteen month average historical test period ended December 31, 2010. The
19 calculation of the proposed capital structure is provided on Exhibit__(DSD-
20 1), Schedule 6.

21

22 Q. HAVE YOU ASSESSED THE REASONABLENESS OF THE COMPANY'S CAPITAL
23 STRUCTURE?

24 A. Yes. In order to assess the reasonableness of the Company's proposed
25 capital structure, I reviewed the average capitalization ratios for the past
26 eight quarters of the individual utility operating companies owned and

1 operated by the respective proxy group companies. As shown in
2 Exhibit__(DSD-1), Schedule 7 the Company's proposed 52.48 percent
3 equity ratio is well within the range of equity ratios for that group, and is
4 only slightly above the mean equity ratio of 51.21 percent.
5

6 **B. Cost of Long-Term Debt**

7 Q. WHAT IS THE COMPANY'S PROPOSED LONG-TERM COST OF DEBT?

8 A. The Company is proposing to use its actual long-term cost of debt of 6.33
9 percent. The calculation of the long-term cost of debt is provided on
10 Exhibit__(DSD-1), Schedule 8.
11

12 Q. IS THE COMPANY'S LONG-TERM COST OF DEBT REASONABLE?

13 A. Yes. The proposed cost of long-term debt reflects the Company's actual
14 debt costs. In addition, Exhibit__(DSD-1), Schedule 8, compares the cost
15 of each issuance to the Moody's A Utility Index (the "Moody's Index") at
16 the times of the Company's debt issuances. The weighted Moody's Index
17 based on those issuance dates was 6.53 percent, further indicating that the
18 Company's debt cost of 6.33 percent is reasonable.
19

20 **VIII. SUMMARY AND CONCLUSIONS**

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

23 A. Table 6 summarizes the results of the DCF analyses, as well as the Bond
24 Yield plus Risk Premium analyses. Based on these results, I find a
25 reasonable range of ROE results for the Company to be from 10.75 percent
26 to 11.25 percent.

1

Table 6: ROE Estimate Summary

	Mean Low	Mean	Mean High
Constant Growth DCF – including Flotation Costs			
30-Day Average	9.84%	10.97%	12.13%
90-Day Average	9.97%	11.10%	12.26%
180-Day Average	10.09%	11.22%	12.38%
Bond Yield plus Risk Premium			
Based on Blue Chip 2011-2012 30-Year Treasury Projections	10.76%		
Based on Blue Chip 2012-2016 30-Year Treasury Projections	10.98%		
Mean	10.87%		

2

3 Q.

WHAT IS YOUR CONCLUSION REGARDING A FAIR ROE FOR NSP?

4 A.

Within the range of 10.75 percent to 11.25 percent, I recommend an ROE of 11.00 percent for the Company. This recommendation is well within the bounds of the DCF results presented in Table 6, is corroborated by the Bond Yield plus Risk Premium analysis, and takes into consideration the current market environment as well as risks attendant to NSP's South Dakota operations.

10

11 Q.

WHAT IS YOUR CONCLUSION REGARDING THE APPROPRIATE CAPITAL STRUCTURE FOR THE COMPANY?

12

13 A.

I conclude that the Company's capital structure for the 13 month average test period ending December 31, 2010 which includes a 52.48 percent equity ratio, a 47.52 percent long-term debt, and an embedded debt cost of 6.33 percent are reasonable.

17

- 1 Q. PLEASE SUMMARIZE THE COMPANY'S PROPOSED OVERALL COST OF CAPITAL?
2 A. Given the recommended ROE of 11.00 percent, a cost of debt of 6.33
3 percent, and the capital structure noted above, the requested rate of return
4 for the Company is 8.78 percent, as shown in Table 7, below.

5 **Table 7: Overall Rate of Return**

	Percent	Cost Rate	Weighted Cost
Common Equity	52.48%	11.00%	5.77%
Long-term debt	47.52%	6.33%	3.01%
Total Capitalization	100.00%		8.78%

- 6
7 Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?
8 A. Yes, it does