

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

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1 **I. INTRODUCTION AND QUALIFICATIONS**

2 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

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

5
6 Q. ARE YOU THE SAME JAMES M. COYNE WHO FILED REBUTTAL TESTIMONY IN
7 THIS PROCEEDING?

8 A. Yes, I am. On April 27, 2012, I filed Rebuttal Testimony on behalf of
9 Northern States Power Company, a Minnesota corporation operating in
10 South Dakota (“NSP” or the “Company”). NSP is a wholly owned
11 subsidiary of Xcel Energy Inc. (“XEI”).

12
13 Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

14 A. The purpose of my Surrebuttal Testimony is to respond to the Rebuttal
15 Testimony of Basil L. Copeland Jr. on behalf of the South Dakota Public
16 Utilities Commission (the “Commission”) Staff with regards to the cost of
17 capital, including the cost of equity, cost of debt, and capital structure. I
18 note that Mr. Copeland now accepts the Company’s calculation of the cost
19 of debt, so that appears to no longer be an issue in this case.

20
21 **II. RESPONSE TO STAFF WITNESS COPELAND**

22 Q. PLEASE SUMMARIZE YOUR RESPONSE TO MR. COPELAND’S REBUTTAL
23 TESTIMONY?

24 A. Mr. Copeland’s Rebuttal Testimony continues to reflect a number of
25 inaccuracies and errors. I will focus on the most important to the

1 determination of a fair return on equity (“ROE”) for NSP in this
2 proceeding, including:

- 3 1. Mr. Copeland does not adhere to applicable standards of regulation
4 for determining a fair and reasonable return.
- 5 2. Contrary to Mr. Copeland’s speculation, regulatory lag is a substantial
6 problem for NSP and provides no benefits for shareholders.
- 7 3. Mr. Copeland’s assumptions distort his results and lead to a
8 recommended ROE well below any allowed ROE by any U.S.
9 regulator for an integrated electric utility in the past three years,
10 including any authorized ROE in 2012.
- 11 4. Mr. Copeland’s claims based on market-to-book ratios are unsound in
12 principle and contrary to results of ongoing regulation of the U.S.
13 electric industry.
- 14 5. Contrary to his position, use of long-term GDP growth in the Multi-
15 Stage DCF model is consistent with both sound practice and the
16 approach taken by numerous regulatory agencies.
- 17 6. The ROE being determined in this case is the ROE of NSP’s South
18 Dakota electric operations, not the ROE of NSP’s parent.
- 19 7. Surveys of financial executives regarding expected returns on the S&P
20 500 and pension fund investment disclosures are not relevant to the
21 determination of the ROE for NSP.
- 22 8. Mr. Copeland’s claims of a declining Equity Risk Premium do not
23 reflect current measures of investor risk aversion.
- 24 9. Nothing in Mr. Copeland’s Rebuttal Testimony changes the fact that
25 his recommended 9.00 percent ROE would impose substantial

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

3
4 Q. WHAT ARE THE STANDARDS FOR DETERMINING A FAIR RETURN IN THIS
5 PROCEEDING?

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

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

18 Q. DOES MR. COPELAND’S RECOMMENDATION MEET THOSE STANDARDS?

19 A. Mr. Copeland’s recommendation fails to meet the standards for a “fair”
20 return, as demonstrated by the wide divergence between Mr. Copeland’s
21 recommendation and prevailing levels of authorized ROEs for vertically-
22 integrated electric utilities. That wide divergence continues into 2012, where
23 the average of reported authorized ROEs is 10.15 percent with a range of
24 9.80 percent to 10.50.² Mr. Copeland’s recommended ROE is 80 basis
25 points below the lowest of those allowed ROEs.

26

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.

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

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

5

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

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

23

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

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

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

14
15 In addition, the only forward-looking growth rates that are available on a
16 consensus basis are analysts’ EPS growth rates. In contrast, Value Line is
17 the only service that provides the other growth projections used by Mr.
18 Copeland. The fact the earnings growth projections are the only widely
19 reported estimates of growth provides further support that earnings growth
20 is the most meaningful measure of growth in the investment community.

21
22 Lastly, Mr. Copeland’s reliance on Value Line’s forecasts of dividend and
23 book value growth unnecessarily introduces “sole source” bias into his
24 calculations under which a single source of information has undue impact
25 and raises the risk of reliance on faulty data.

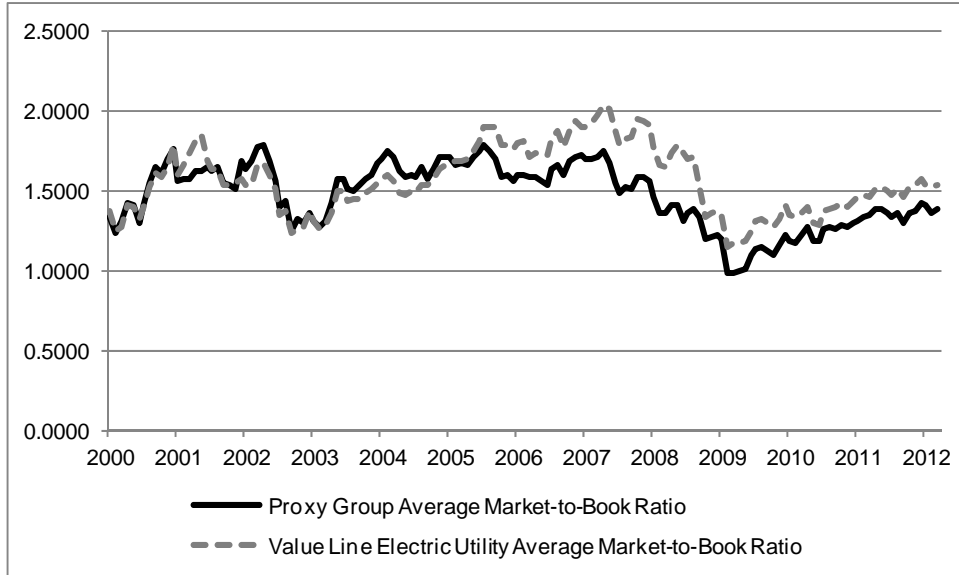
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Q. IS MR. COPELAND CORRECT IN STATING THAT EFFECTIVE REGULATION SHOULD LEAD TO MARKET-TO-BOOK RATIOS OF JUST OVER 1.0 OVER LONG PERIODS OF TIME?

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.

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

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



4
5 The only time that market-to-book ratios were close to 1.0 was during the
6 financial crisis of 2009. Thus, over the long term, there is no support for
7 Mr. Copeland's claim that effective regulation should lead to a market-to-
8 book ratio of just over 1.0.

9
10 Q. WHAT WOULD BE THE EFFECT OF ADOPTING A REGULATORY GOAL OF A
11 MARKET-TO-BOOK RATIO OF JUST OVER 1.0?

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

1 1.47 (*i.e.*, the proxy group average), that investor would incur a loss of
2 approximately 31.97 percent if the market-to-book ratio declined to 1.0.
3 Further, using ROE to achieve a market-to-book ratio of 1.0 would imply
4 dramatic reductions from prevailing levels. There is no basis to believe that
5 investors would make investments in those conditions.

6
7 Q. IS MR. COPELAND CORRECT THAT YOU HAVE MISUNDERSTOOD HIS
8 DIVIDEND DISCOUNT MODEL (“DDM”)?

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

15
16 Q. WHAT ABOUT MR. COPELAND CRITICISMS OF USING FORECASTED NOMINAL
17 GDP GROWTH IN THE MULTI-STAGE DCF MODEL?

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

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

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

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

9
10 Q. DOES A NOMINAL LONG-TERM GDP GROWTH RATE OF 4.93 PERCENT
11 REPRESENT “AN HEROIC ASSUMPTION” AS MR. COPELAND CLAIMS?

12 A. No. As discussed in my Rebuttal Testimony, I used consensus projections
13 from economists regarding the real GDP growth rate, and applied to that
14 two alternative estimates for inflation, including a broad market view of
15 forward-looking inflation to obtain my 4.93 percent nominal (*i.e.*, inflation
16 adjusted) long-term growth rate. In addition, *Blue Chip Economic Indicators*³
17 most recent report of economists’ consensus expectations with regards to
18 five and ten-year nominal growth in GDP are 5.10 percent and 4.70 percent,
19 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.

1 estimate of nominal GDP growth.⁵ Thus, what may appear to Mr. Copeland
2 as an overstated growth rate assumption is in fact quite in line with market
3 views and economists' consensus forecasts.
4

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

7 A. No. Mr. Copeland's testimony is misleading and lacks meaningful
8 comparisons. Specifically, Mr. Copeland states that our respective
9 assumptions regarding long-term growth and payout ratio results in "the
10 difference between a realized return on 13.84 percent, and a realized return
11 of 8.6 to 9.6 percent."⁶ My application of the Multi-Stage DCF resulted in
12 an average result of 10.00 percent for the proxy group. As stated in my
13 Rebuttal Testimony, while that average result is below my recommended
14 range of ROE for NSP, it is considerably more in line with current levels of
15 authorized returns for integrated electric utilities than are the results of Mr.
16 Copeland's DDM.⁷
17

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

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

23 The double leverage approach contradicts the core of the
24 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.

1 that the cost of equity is the risk-adjusted opportunity cost
2 to the investors and not the specific capital sources
3 employed by the investors. The true cost of capital
4 depends on the use to which the capital is put and not on
5 its source. The *Hope* and *Bluefield* doctrines have made clear
6 that the relevant considerations in calculating a company's
7 cost of capital are the alternatives available to investors and
8 the returns and risks associated with those alternatives. The
9 specific source of funding and the cost of those funds to
10 the investor are irrelevant considerations.⁸
11

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

14 A. No. Mr. Copeland is incorrect in stating, at page 25, that "[w]e are not here
15 estimating a cost of equity specifically for NSP or South Dakota" and "it is
16 ultimately the cost of equity capital for Xcel (or XEL) that is our concern
17 here." The cost of equity of NSP's parent is the result of a number of
18 investments made by XEI in other states and through other operating
19 companies. The risks of those investments may be higher or lower than
20 NSP's South Dakota operations. Further, a parent company may invest in a
21 range of regulated and non-regulated businesses that impact its cost of
22 capital, as XEI has done in the past. The cost of providing electric service in
23 South Dakota is separate from those risks. That is why the stand-alone
24 principle is standard practice in most jurisdictions, and why the Commission
25 should focus on the cost of equity for NSP's South Dakota operations.
26 Finally, there is no support for Mr. Copeland's speculation that promises of
27 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.

1 merger of Northern States Power Company and New Century Energy in
2 2000.

3
4 Q. DOES MR. COPELAND'S CONTINUED RELIANCE ON CFO'S EXPECTATIONS OF
5 BROAD MARKET RETURNS SUPPORT HIS LOW ESTIMATE OF THE EQUITY RISK
6 PREMIUM?

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

16
17 The mean weighted average cost of capital in the December 2011 Duke
18 CFO survey was 8.80 percent.⁹ That average would have included the
19 weighted costs of each firm's debt and equity, and is 250 basis points higher
20 than the mean 6.30 percent expected 10-year return on the S&P 500.¹⁰ Since
21 the weighted average cost of capital reflects at least some portion of debt
22 and is 250 basis points above the mean expected return on the S&P 500, it
23 follows that the cost of equity for those respondents exceeds their expected
24 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.

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

5
6 Q. DID MR. COPELAND CORRECTLY INTERPRET THE CHICAGO BOARD
7 OPTIONS EXCHANGE VOLATILITY INDEX (“VIX”)?

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

17
18 Specifically, the VIX represents the forward-looking implied (one-month)
19 volatility of the S&P 500 Index. As such, it is an observable measure of
20 investors’ expectations of volatility and, therefore, risk. While the VIX has
21 declined since 2008 and 2009, it remains significantly higher than in prior
22 periods. Since the inception of the VIX in 1990, its average has been
23 approximately 20.54. In contrast, forward-looking estimates of volatility as
24 of March 31, 2011 (as measured by futures prices on the VIX and the CBOE
25 S&P 500 VXV index, which is a three-month volatility index) average
26 approximately 25.33. The currently anticipated level of volatility is

1 significantly higher than in the pre-recessionary period (*i.e.*, January 2006 to
2 November 2007) during which the VIX averaged 14.90, and also is 2.81
3 percent higher than during the market contraction in 2002 and 2003, when
4 the VIX averaged 24.64.

5
6 Q. IS THERE A CONNECTION BETWEEN PENSION FUND MANAGERS AND THE
7 APPROPRIATE ROE IN THIS CASE, AS MR. COPELAND CLAIMS?

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

20
21 The Arkansas Public Service Commission recognized those flaws and
22 rejected a similar argument. Mr. Copeland asserts that the Arkansas
23 Commission's "reasoning here is defective."¹¹ To the contrary that
24 reasoning is sound and applies in this proceeding as well.

25

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

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

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

9

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

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

16

17 Q. DOES THAT CONCLUDE YOUR SURREBUTTAL TESTIMONY?

18 A. Yes, it does.