THE STATE OF NEW HAMPSHIRE

before the

NEW HAMPSHIRE PUBLIC UTILITIES COMMISSION

EnergyNorth Natural Gas, Inc. d/b/a National Grid NH Notice of Intent to File Rate Schedules	Docket No. DG 08-009

STAFF'S POST-HEARING BRIEF
REGARDING PARTIAL SETTLEMENT AGREEMENT AND
RETURN ON EQUITY

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I. INTRODUCTION AND OVERVIEW

The Commission must decide two basic issues in this case—whether the Partial Settlement Agreement executed on behalf of EnergyNorth Natural Gas, Inc. d/b/a National Grid NH (the Company), the Office of Consumer Advocate, Pamela Locke and Staff should be approved and what return on common equity should be allowed (unless the context otherwise requires, "return on equity"). Although these issues are different, they are also necessarily inter-related since the Commission must ultimately find that the Company's rates resulting from the Partial Settlement Agreement and the Company's return on equity are just and reasonable. RSA 378:28.

In Staff's view, the result of the Partial Settlement Agreement, together with Staff's recommended return on equity, is just and reasonable and serves the public interest. Accordingly, Staff urges that both the Partial Settlement Agreement and Staff's recommended return on equity be approved.

In this docket, the Company filed for an increase in its delivery rates. The Partial Settlement Agreement establishes a method not only for determining the new delivery rates and but also the indirect gas costs (i.e., production and storage costs, miscellaneous gas costs, bad debt costs, and working capital costs)[1] recoverable through the cost of gas mechanism. After the return on equity percentage is determined, the Company's revenue requirement may then be calculated and delivery and indirect gas cost rates established.[2]

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[1] For practical purposes, indirect gas costs may be thought of as base rate items that are recoverable other than through delivery rates. Nevertheless, pursuant to the terms of the Partial Settlement Agreement, the indirect gas cost working capital percentage may change in the future before the next rate case, depending on the results of the revised lead-lag study to be performed in three years, and the indirect gas cost bad debt percentages will decrease annually over four years.

[2] The return on equity determined in this case will also be used in the calculation of the Capital Investment Allowance for Cast Iron-Bare Steel Replacement Program expenditures recoverable as a permanent increase to the Company's base delivery rates under the merger settlement agreement approved by the Commission in Order No. 24,777 (2007). See Day 2 Transcript (Tr.) at 93, lines 12-19.

II. PARTIAL SETTLEMENT AGREEMENT

It has been 18 years and two changes in ownership since the Company last filed for a delivery rate increase. Staff's primary concerns with the filing related to return on equity, construction work in progress, bad debt, cash working capital, amortization of the depreciation reserve surplus, proposed pension reconciliation mechanism, rate design and the proposed line extension policy. A very complex and comprehensive filing, the Partial Settlement Agreement appropriately resolves the concerns raised by Staff in its direct testimony, other than the return on equity. See Day 1 Tr. at 48-52.

Not only does the Partial Settlement Agreement address Staff's concerns in the immediate proceeding, it also resolves the bad debt issue related to gas supply, a contentious issue carried over from prior cost of gas proceedings. The Partial Settlement Agreement contemplates additional collection personnel and recovery of bad debt expenses substantially less than what the Company is currently experiencing. The Partial Settlement Agreement also determines the cash working requirement for both delivery and supply, with an updated study related to supply working capital to be filed every three years.

The adjustments made to rate base, revenues and expenses reflected in the Partial Settlement Agreement are based on sound ratemaking principles and have been appropriately allocated between delivery and commodity services. Although the outcome of the Commission's deliberations on return on equity will impact the return on rate base, it will not affect the amount of the rate base. The rate base adjustments encompassed in the Partial Settlement Agreement are appropriate and were made independently of the debate over the return on equity.

At the Company's recommended return on equity of 12.25%, the Partial Settlement Agreement would result in a revenue requirement increase, applicable to both delivery and

supply service,[3] of approximately $8.8 million, or $2.2 million less than the approximately $11 million increase requested in the Company's most recent testimony.[4] At the Staff's recommended return on equity of 9.33%, the Partial Settlement Agreement would result in a revenue requirement increase of approximately $5.2 million. See Appendices 1 and 2 to the Partial Settlement Agreement. The Partial Settlement Agreement reduces the rate impact on customers compared to the approximately $11 million revenue increase requested by the Company, albeit to a much more limited degree at the Company's proposed rate of return than at the Staff's proposed rate of return, and it preserves the Commission's prerogative of establishing a reasonable rate of return.

III. RETURN ON EQUITY

A. THE COMMISSION'S DECISION REGARDING THE RATE OF RETURN HAS A SIGNIFICANT IMPACT ON CUSTOMERS' BILLS AND THE COMPANY'S REVENUES.

As reflected in the Partial Settlement Agreement, the Company's weighted average cost of debt (7.02%) and the capital structure (50:50 debt to equity ratio) to be used in calculating the return on rate base were established in prior settlements approved by the Commission. Assuming the Commission chooses to stay within the bounds of the returns on equity recommended by the Company and Staff, the magnitude of the decision on return on equity may be expressed in dollar terms as the difference between the revenue requirements resulting from the Company's and Staff's return on equity recommendations, or approximately $3.6 million ($8.8 million minus $5.2 million).

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[3] Supply service refers to the indirect gas cost rates established under the Company's cost of gas mechanism.
[4] These figures and those described in the next section do not include the revenue effects of the return on equity determination on the Capital Investment Allowance described above, the Company's recovery of rate case expenses, or charge/refund resulting from the reconciliation of temporary and permanent rates.

Compared to permanent rates previously in effect, a 9.33% return on equity translates into a bill increase for a typical residential heating customer, for the delivery portion of his or her bill, of approximately 7.9% while a 12.25% increase translates into a bill increase of approximately 16%. See Day Tr. at 26, lines 1-10. In dollar terms, at a 9.33% return on equity, a typical residential heating customer will experience an increase in the delivery portion of his or her bill of approximately $37.50 per year, while at a 12.25% return on equity, he or she will see an increase of approximately $65 per year. See Day Tr. at 26, lines 13-23. Including both delivery and supply, the total bill increase for a typical residential heating customer will be approximately 2.8% at a 9.33% return on equity compared to approximately 5% at a 12.25% return on equity. See Day 1 Tr. at 27, lines 16-24 and at 28, lines 1-4.[5]

B. FOR THE REASONS SET FORTH BELOW, THE COMPANY HAS FAILED TO MEET ITS BURDEN OF PROVING THAT ITS RECOMMENDED RETURN ON EQUITY AND THE REVENUE REQUIREMENT RESULTING THEREFROM IS JUST AND REASONABLE. STAFF'S RETURN ON EQUITY RECOMMENDATION, ON THE OTHER HAND, IS REASONABLE AND IN CONJUNCTION WITH THE PARTIAL SETTLEMENT AGREEMENT WILL RESULT IN JUST AND REASONABLE RATES.

Both the Company and Staff agree that the Partial Settlement Agreement should be approved and that the standards enunciated by the United States Supreme Court in the Bluefield and Hope cases[6] apply to the return on equity decision. There, agreement largely ends, for the Company and Staff disagree about how the return on equity should be estimated and determined.

At hearing, the Company recognized that it has the burden of proof regarding return on equity. Day 2 Tr. at 30, lines 10-11 and at 34, lines 7-10; see also New England Telephone and Telegraph Co., 95 N.H. 353, 363 (1949). In this case, for the reasons set forth below, the

[5] Compared to the temporary rates currently in effect, the immediate rate impact from the return on equity decision is less noticeable. According to the Company, even at the range of Staff's initial return on equity recommendation of 9.01% and the Company's updated recommendation of 12.25%, the permanent rates would be slightly lower than the temporary rates currently in effect. Day 1 Tr. at 26, line 1 and at 27, lines 1-15.

[6] Bluefield Water Works & Improvement Co. v. P.S.C. of West Virginia, 262 U.S. 679 (1923) and F.P.C. v. Hope Natural Gas Co., 320 U.S. 591 (1944).

Company has failed to meet its burden of proving that its recommended return on equity and the revenue requirement resulting therefrom is just and reasonable. Staff's return on equity recommendation, on the other hand, is reasonable and in conjunction with the terms of the Partial Settlement Agreement will provide for just and reasonable rates.

It is well established that the determination of the rate of return on rate base, of which the return on equity is a crucial part, is peculiarly within the discretion of the Commission. New England Telephone and Telegraph Co., *supra* at 361; New England Telephone and Telegraph Co., 104 N.H. 229, 240 (1962); New England Telephone and Telegraph Co., 113 N.H. 92, 102 (1973); Appeal of Conservation Law Foundation, 127 N.H. 606, 635-636 (1986). The Commission is "bound to set a rate of return that falls within a zone of reasonableness, neither so low to result in a confiscation of company property, nor so high as to result in extortionate charges to customers. [citation omitted.] A rate falling within that zone should, at a minimum, be sufficient to yield the cost of debt and equity capital necessary to provide the assets required for the discharge of the company's responsibility." Appeal of Conservation Law Foundation, *supra* at 635; see also New England Telephone and Telegraph Co., 104 N.H. 229, 236 (1962) (Commission must consider the testimony of cost of capital witnesses reflecting the investor's point of view together with the interest of the consumer in arriving at just and reasonable rates).

C. THE RETURNS ON EQUITY AUTHORIZED IN OTHER CASES AND MR. STAVROPOLOUS'S TESTIMONY ARE OF LITTLE, IF ANY, RELEVANCE TO THE DETERMINATION OF THE RETURN ON EQUITY IN THIS CASE.

The Company has made a big deal about the returns on equity authorized in other cases. For example, Mr. Moul argued that Dr. Chattopadhyay's proposed return on equity must be too low because other commissions grant returns between 10 and 11%. See Moul pre-filed rebuttal testimony at 9 and 10, lines 1-4. Mr. Moul also stated in his rebuttal testimony (at 7, lines 15-17) that Dr. Chattopadhyay's initial return on equity recommendation would send a "negative

regulatory signal" of regulatory support for the Company. And at hearing, he maintained that investors rely on the return on equity figures authorized by commissions and thus expect returns to be in the mid-10s. Day 1 Tr. at 70, lines 18-24, at 71, at 72, and 79, lines 13-17.

All these arguments are wide of the mark. For one thing, the Commission does not establish returns on equity through a survey of what other jurisdictions allow. In contested cases, it relies on expert testimony specific to the utility whose rates are being established. If the return on equity would be determined by means of a survey, there is no need for the expert testimony of Mr. Moul or Dr. Chattopadhyay in this case. As Dr. Chattopadhyay stated, if the Commission were to rely on surveys, the results become entirely circular since the Commission would look to the return on equity figures in other states and they in turn would look to New Hampshire. Day 2 Tr. at 191, lines 18-24. If this were to happen, then the Commission would not be objectively considering what the cost of equity is, or what just and reasonable rates are, for a particular utility at a point in time. *Id.*

And if a reasonable return on equity is in the mid-10s, then Mr. Moul's recommendation of 12.25% is necessarily unreasonable. More importantly, the listing of the returns on equity authorized in electric and gas utility rate cases included in Mr. Moul's rebuttal testimony is not complete and gives a misleading impression of the returns being authorized. This listing was based on a more comprehensive list filed by the Staff of the New York Public Service Commission in a New York proceeding, introduced at hearing as Exhibit 47. The more comprehensive list shows that authorized returns on equity have been variable and that returns below 10% are not uncommon. At hearing, the Company emphasized the 10.5% return recently authorized by the Rhode Island Public Utilities Commission for a gas distribution company affiliated with the Company. Day 2 Tr. at 73, lines 3-13. Authorized returns remain variable,

however, as indicated by the 8.75% return recently authorized for United Illuminating Company by the Connecticut Department of Public Utility Control.[7]

The return on equity figure is only one piece of the much larger revenue requirement puzzle and much more should be known about the circumstances of the rate cases in other proceedings before any meaningful comparisons could be made. Mr. Moul agreed that before one can assess the significance of a particular figure such as return on equity in a rate case, it is important to consider the other elements of the case, including among others, rate base, capital structure, and operating expenses. Day 1 Tr. at 94, lines 18-24 and at 95, lines 1-11. Dr. Chattopadhyay agreed, stating that if the Commission looks at the returns on equity in other jurisdictions, it is vital to look at the totality of the circumstances in those cases. Day 2 Tr. at 219, lines 8-14.

Finally, in cross examination of Dr. Chattopadhyay, the Company suggested that if the return on equity in this case is lower than that authorized in other jurisdictions, shareholders may put pressure on National Grid to invest more in places where the return is higher. See Day 2 Tr. at 181, lines 20-24 and at 182, line 1. Of course, as a public utility the Company is required to continue to provide safe and reliable gas distribution service at reasonable cost regardless of whether the return on equity is 9.33% or 12.25%. If the revenue requirement is set too low to continue to provide adequate support for a utility's operations, a utility has the opportunity to file another rate case to remedy the problem.

The Company also discussed returns on equity approved by the Commission in several prior dockets in New Hampshire. Moul pre-filed rebuttal testimony at 10, lines 8-16 and at 11, lines 1-6. Mr. Moul stated that historically the Commission has been more restrictive in its cost

[7] Exhibit 48 is the draft decision. The Connecticut Department of Public Utility Control subsequently issued a final decision upholding the 8.75% return. See *Application of the United Illuminating Company to Increase its Rates and Charges*, Docket No. 08-07-04 (Connecticut Department of Public Utility Control, February 4, 2009).

of equity determinations than many other state regulatory commissions. Mr. Moul admitted, however, that he has not studied the financial health of the natural gas and electric utilities regulated by the Commission whose returns on equity he mentioned. Day 1 Tr. at 95, lines 17-24. Staff submits that the Commission can decide for itself whether the returns on equity between 9% and 10% authorized in past decisions have been harmful to the financial condition of those utilities.

Mr. Moul maintained that in light of changed market fundamentals since the previous returns on equity were authorized, the low returns cannot be reconciled with Dr. Chattopadhyay's recommendation. Specifically, according to Mr. Moul, at the time of his pre-filed rebuttal testimony, the yield on A-rated public utility bonds was approximately 7% and the average spread between the Commission's authorized returns on equity and those yields was 3.64%. Moul pre-filed rebuttal testimony at 10, lines 8-16 and at 11, lines 1-6. Adding those two figures together, he argued that the Company's return on equity in this case should be at least 10.64%. *Id.*

The returns on equity approved by the Commission in these cases were the result of settlement agreements, not contested return on equity determinations. Since the spread discussed by Mr. Moul is based on historically approved returns on equity emanating from settlements, such a spread is not an appropriate basis for judging the reasonableness of Staff's recommended return on equity in this case. In addition, it may be assumed that before agreeing to settle, the utilities in those cases must have concluded that the returns on equity they were agreeing to were not unduly low.

In any event, Dr. Chattopadhyay pointed out that his updated data showed that the average yield on A-rated public utility bonds is approximately 5.95%.[8] Day 2 Tr. at 47, lines 3-10. With this number, the Staff recommended return on equity produces a spread of 3.38%, which is reasonable. At hearing, Mr. Moul indicated that the January 2009 yield on A-rated utility bonds was 6.35 percent. Day 2 Tr. at 147, lines 12-13; see also Exhibit 53. Even accepting Mr. Moul's number for the average yield on A-rated public utility bonds, the Staff recommended return on equity produces a spread of around 3%, which is also reasonable.

The Company offered other evidence regarding the appropriate return on equity, including the testimony of Nick Stavropolous, the Company's President and Executive Vice President for National Grid's United States Gas Operations. Mr. Stavropolous, understandably a cheerleader for the Company, did not have anything to add to Mr. Moul's technical analysis regarding a reasonable return on equity, see Day 2 Tr. at 82, lines 4-6, and for that reason, his testimony does not add any appreciable weight to that of Mr. Moul. Claiming that Staff's return on equity estimate was too low, he stated that Staff's return on equity is only 1.45% higher than the interest rate on A-rated utility bonds. Stavropolous pre-filed rebuttal testimony at 6, lines 13-14. However, as discussed above, the facts at hearing indicated that the spread between Staff's updated return on equity recommendation and the interest rate on these bonds was approximately 3%, which is not at all unreasonable.

D. THE RETURN ON EQUITY DECISION SHOULD BE BASED ON THE SOUND APPLICATION OF APPROPRIATE ANALYTICAL APPROACHES USED TO ESTIMATE A REASONABLE RETURN ON EQUITY

Unlike the cost of debt, the cost of equity is not directly observable, Day 1 Tr. at 66, lines 5-7, and although a lot of empirical data is available for input to the various models used to estimate the cost of equity, informed judgment must be exercised in making a return on equity

[8] This was the average of the reported yields from the weekly Value Line Investment Surveys published in January 2009 prior to the hearing. Day 2 Tr. at 47, lines 3-10.

recommendation. See Day 1 Tr. at 66, line 24 and at 67, lines 1-4. Mr. Moul is a professional return on equity witness for utilities across the country, see PRM-1, attached to his pre-filed direct testimony, and Day 1 Tr. at 91, lines 11-17; Dr. Pradip Chattopadhyay is a Ph.D economist on the Commission's Staff also recognized as an expert on return on equity. See Day 2 Tr. at 7, lines 20-24 and at 8, lines 1-2. Whether or not the Commission should rely on the expert testimony presented by Staff in preference to that offered by the Company is a matter of judgment for the Commission to decide based on the evidence presented. New England Telephone and Telegraph Co., 104 N.H. 229, 236 (1962).

Mr. Moul questioned Dr. Chattopadhyay's judgment. He asserted that Dr. Chattopadhyay has apparently been operating from an inherent assumption that the Company's return on equity should be on the low side. As support, he stated that Dr. Chattopadhyay both (i) assumed a low return because the economy in New Hampshire is doing relatively well and (ii) argued for a low return because we are in a time of financial turmoil in which investors are likely to gravitate to low risk equities and bonds such as including public utilities. Moul pre-filed rebuttal testimony at 8, lines 4-16.

Dr. Chattopadhyay denied that there was any contradiction in his pre-filed testimony. According to Dr. Chattopadhyay, the operative concept is relative risk. When the economy is in a downturn or recession, regulated stocks are more attractive relative to the market portfolio, and regulated stocks tend to attract interest at the expense of riskier investments. Relatively speaking, this tends to put a downward pressure on the required returns on regulated stocks. Day 2 Tr. at 20, lines 13-20.

Dr. Chattopadhyay also stated that by ensuring his proxy group is at least as risky as the situation faced by the Company, his choice of proxy produces an estimate of the cost of equity that is conservative, i.e., on the high side. His analysis was geared toward asking whether, given

the location of its operations in New Hampshire, the Company is more risky or less risky than the situation faced by the gas companies in his proxy's footprint. He pointed out that the economic situation in New Hampshire indicates that the Company is faced with less risk compared to that faced by his proxy group. The same conservative approach is also reflected in his preferred application of the discounted cash flow (DCF) method proposed in his testimony. Finally, he stated that his objective is to balance the interests of rate payers and investors and he has endeavored to make a reasonable recommendation for the return on equity. Day 2 Tr. at 20, lines 1-18.

Mr. Moul employed four methods for estimating the return on equity, the discounted cash flow (DCF) method, the risk premium method (RPM), the capital assets pricing model (CAPM) and the comparable earnings method. In making his recommendation, however, he did not give any weight to the results of the comparable earnings approach. Day 1 Tr. at 101, lines 15-21. His return on equity recommendation was based on the average of his DCF, RPM and CAPM results (10.55%, 12.71% and 13.91%, respectively, see Moul pre-filed rebuttal testimony, PRM-21, at 30). Dr. Chattopadhyay, on the other hand, used the average of three variations of the DCF method to determine a point estimate, essentially to obtain a measure of the cost of equity based on a central tendency. Day 2 Tr. at 120, line 24 and at 121, lines 1-5. At the same time, he further applied the concept of central tendency to obtain a reasonable range of point-estimates of the cost of equity by taking into account not only the DCF average but also a market-to-book estimate and the results of two CAPM estimates (7.08% and 8.48%, respectively, see last page of Exhibit 51). *Id.* His recommended point estimate is consistent with his reasonable range of point-estimates. Though they used their updated input data for the calculations, Mr. Moul and Dr. Chattopadhyay made no changes to their proxy groups and used the same approach for both

their initial and updated recommendations. Day 1 Tr. at 65, lines 7-10 and Day 2 Tr. at 11, lines 1-5.

In 2005, the Commission had occasion to determine the return on equity of certain of Public Service Company of New Hampshire's generation assets, based on expert testimony from the utility, the Office of Consumer Advocate and Staff. In that docket, the Commission stated that its primary method of establishing the return on equity is the DCF method. *Public Service Company of New Hampshire*, Order No. 24,473 in DE 04-177, 90 NH PUC 230, 247 (2005). The Commission stated that there are other valid methods and that it has recognized that such methods may be used as a test of reasonableness to compare to the DCF result. *Id.* No persuasive reason appears in the record why the Commission's approach is not still appropriate. This approach continues to be an appropriate way of determining the return on equity and the derivation of Staff's recommendation in this case is more consistent with the Commission's approach than Mr. Moul's recommendation.

1. DISCOUNTED CASH FLOW METHOD

The DCF method relies on several basic elements. First, an appropriate proxy group of companies is chosen. The proxy group should be reasonably representative of the fundamental financial characteristics and risks faced by the company for which the return on equity is being estimated. Second, the dividend yield is determined. The yield as well the dividends expected over the next year should reasonably reflect realities facing investors in companies that compare reasonably well to the Company with respect to investment risk. Third, the growth component is estimated. The growth component is intended to reasonably reflect investors' expectations about the future long-term growth in the yield. The dividend yield and the growth component are summed to arrive at the estimated cost of equity for the company. See *Public Service Company of New Hampshire*, Order No. 24,473, *supra*.

The underlying concept of the DCF is that the value of a common stock equates to the sum of the stream of income from that stock, discounted at the cost of equity that reflects the opportunity cost associated with investment in a company's equity. See Chattopadhyay prefiled testimony at 10, lines 1-3. Thus, the DCF estimate of the cost of equity is essentially an approach to estimate the opportunity cost of equity. The DCF approach is one of the most popular of those currently being used and Mr. Moul admits that the Commission has relied on it in the past. See Chattopadhyay prefiled testimony at 10, lines 4-5. Although Mr. Moul maintained that the DCF method provides a less reliable indicator of the cost of equity in the "present economic environment"[9] than the other methods he employed, see Moul pre-filed direct testimony at 5A, lines 1-3, he agreed at hearing that the DCF method is used in a variety of economic situations, both good and bad. Day 1 Tr. at 101, lines 7-11.

a. PROXY GROUP

Dr. Chattopadhyay sought to select a proxy that reasonably reflects the pure-play regulated nature of the Company, while ensuring that the risk-attributes associated with the proxy, compared to the Company, support a conservative estimate for the return on equity. Chattopadhyay pre-filed testimony at 16, lines 15-23 and at 16, lines 1-7. To capture the pure play nature of the Company, Dr. Chattopadhyay recommended a cutoff of at least 85 percent regulated assets, as opposed to at least 60 percent recommended by the Company. Chattopadhyay pre-filed testimony at 15, line 23 and at 16, lines 1-6.

In addition, Dr. Chattopadhyay checked the long term S&P credit ratings associated with the gas utilities in his proxy group and concluded that its selection is reasonable. See Chattopadhyay pre-filed testimony at 16, lines 19-23. Dr. Chattopadhyay also found that the average common equity ratio for the Company during the period 2002-06 was more than five

[9] His view was the same both before he recognized the financial turmoil in his rebuttal testimony and afterward at hearing. Day 1 Tr. at 100, line 24 and at 101, lines 1-6.

percentage point higher than the ratio for the proxy group companies, further supporting the conservative nature of the proxy since it is understood that a firm with a lower common equity ratio has a higher financial risk. Chattopadhyay pre-filed testimony at 17, lines 1-7. Furthermore, Dr. Chattopadhyay verified that the economic conditions in New Hampshire, compared to those of the economies associated with the jurisdictions of the proxy companies, support a finding that his proxy provides a conservative DCF estimate for the Company. Chattopadhyay prefiled testimony at 17, lines 14-22, at 18, at 19.

Finally, Dr. Chattopadhyay reviewed certain other financial metrics Mr. Moul considered to be important for judging relative risk,[10] such as operating ratios and internal generation of funds. See Day 2 Tr. at 170, lines 1-13. Dr. Chattopadhyay found that, with respect to these metrics, the comparison between the Company and Staff's proxy is similar to the comparisons Mr. Moul made between the Company and his proxy group. *Id.* In using a proxy that is more pure-play than that recommended by Mr. Moul, this finding further shows that Dr. Chattopadhyay's proxy group is reasonable and more appropriate than Mr. Moul's proxy group. Day 2 Tr. at 170, lines 14-20.

Dr. Chattopadhyay's approach differs from that of Mr. Moul not only with respect to how the proxy group is selected but also with respect to how the information from the proxy companies is employed statistically to estimate the return on equity. While Mr. Moul has used the *average data* individually on the key inputs, i.e. dividend yields and growth rates, to calculate the cost of equity for his proxy group, Moul pre-filed direct testimony at 6, lines 6-12, Dr. Chattopadhyay used data *individually* for companies to calculate a company-specific cost of equity estimate, and carefully conducted a determination of outliers using an outlier-determination approach to drop companies from the proxy group that produce company-specific

[10] See Moul direct testimony at 12, lines 18-26, at 13-14, and at 15, lines 1-21.

cost of equity estimates lying outside the bandwidth of the mean plus or minus two times the variance. Chattopadhyay pre-filed testimony at 24, lines 15-19. This approach ensures that outliers that may produce statistically unrepresentative estimates are appropriately screened out.

Mr. Moul's approach, on the other hand, could hide an outlier and thus may produce an unrepresentative estimate for the cost of equity. Chattopadhyay pre-filed testimony at 24, lines 21-23. A look at estimates individually for companies in the proxy group provides a useful way to further determine whether any particular observation is truly representative or not. Chattopadhyay pre-filed testimony at 24, line 23 and at 25, lines 1-2.

b. DIVIDEND YIELD

Dr. Chattopadhyay relied on the average stock prices during the most recent four week period and the Value Line 2009 dividend projections in determining the appropriate dividend yield. Chattopadhyay pre-filed testimony at 20, lines 4-8. Much of investors' expectations about how companies will fare in the future is captured in the most recently observed price and dividend data, and it is most appropriate to use a reasonably current period for the data on prices. See Chattopadhyay pre-filed testimony at 20, lines 13-19. Dr. Chattopadhyay used four weeks of daily data as some smoothing of the price trend filters possible transitory and temporary changes that characterize daily movements in prices. *Id.* To estimate the dividend yield associated with the next period, Dr. Chattopadhyay used the Value Line 2009 projections for dividends. Chattopadhyay pre-filed testimony at 20, line 6-8. Dr. Chattopadhyay's approach stresses more recent data, consistent with the forward looking nature of the DCF estimation.

c. GROWTH COMPONENT

Reflecting his view that the growth in share value is most relevant and the DCF assumption that the price-earnings multiple does not change, Mr. Moul recommended using only the expected earnings growth rate for the growth component. See Moul pre-filed direct

testimony, PRM-5, at 61, lines 10-23 and at 62, lines 1-7. Dr. Chattopadhyay, on the other hand, relied on the fact that investors have different expectations about growth and that no single indicator captures expectations of all investors. Chattopadhyay pre-filed testimony at 21, lines 8-22 and at 22, lines 1-2. Accordingly, Dr. Chattopadhyay recommended using three different measures for the growth component in deriving three DCF cost of equity estimates forming the basis of its recommended single point estimate. *Id.* Dr. Chattopadhyay's three growth estimates are based on:

> 1) the average of the expected growth in earnings per share, dividends per share, and book value per share;
>
> 2) the sum of internal growth (i.e., the product of the dividend retention ratio (b) and the expected return on equity (r)) and external growth (i.e., the product of expected funds raised from the sale of stock as a fraction of existing equity (s) and (1-(B/P)), where B is the current book value of stock and P is current price of stock); and
>
> 3) only the expected growth in earnings. Chattopadhyay pre-filed testimony at 21, lines 21-22 and at 22, lines 1-2, and 22, lines 7-14.

Dr. Chattopadhyay's approach is more inclusive than Mr. Moul's approach since it recognizes that investors do not use the same indicator for the expected growth component. Chattopadhyay pre-filed testimony at 21, lines 6-10. In addition, Mr. Moul's approach is inconsistent with the reality that returns from stock investment in utilities largely come from dividends growth and price appreciation is not a dominant contributor to the returns that investors accrue from utility stocks. Day 2 Tr. at 158, lines 16-24 and at 159, line 1.

Furthermore, while Mr. Moul claims that the use of book value per share growth in the calculation of the DCF growth component is inappropriate because stocks do not trade at constant market-to-book ratios, see Moul pre-filed rebuttal testimony at 16, lines 12-14, he proposes to use only earnings growth in calculating the growth component because "with the constant price-earnings ("P/E") multiple assumption of the DCF, the value of the firm (i.e., its

stock price) will grow at the earnings growth rate." Moul pre-filed rebuttal testimony at 15, lines 17-18. The reality, however, is that just as stocks do not trade at constant market value-to-book value ratios, the price-earnings ratio does not remain constant over time. Day 1 Tr. at 109, lines 12-24 and at 110, lines 1-12.

In justifying the sole use of the expected growth in earnings, Mr. Moul cites an article by Professor Myron Gordon to conclude that forecasts of earnings per share growth is the best measure of growth in the DCF model, see Moul pre-filed testimony at 21, lines 10-11, even though this article merely compared the performance of expected growth in earnings with past growth rates in earnings, dividends and retention, without offering any evidence on whether forecasts of dividend per share growth or book value per share growth are inferior compared to the forecast of earnings per share growth. See Chattopadhyay pre-filed testimony at 23, lines 12-17, and Exhibit 50. Clearly, Mr. Moul has selectively justified using only the earnings growth rate while rejecting the use of book value per share growth. Thus, Mr. Moul's reason for rejecting Dr. Chattopadhyay's approach is no stronger than the reason he advances in favor of his approach.

Dr. Chattopadhyay's view about the growth component is more balanced, and even though the assumptions underlying the DCF method do not all hold true in reality,[11] consideration of different indicators for the growth component is appropriate in recognition of the diverse ways in which investors arrive at their expectations about future growth in yields.

d. DCF ESTIMATES

Despite their differences regarding how best to apply the DCF method, Mr. Moul's DCF results, before his leverage and flotation cost adjustment increases, are actually quite close to Dr. Chattopadhyay's results. Before his leverage and flotation adjustment increases, Mr. Moul's

[11] Of course, the same is true for the RPM and CAPM approaches, as the evidence at hearing made clear. See Day 1 Tr. at 65, lines 16-24 and at 66, lines 1-7; see also Exhibit 49.

initial DCF cost of equity estimate was 9.11%[12] and his updated DCF estimate was 9.77%, compared to Dr. Chattopadhyay's initial estimate of 9.01% and his updated estimate of 9.33%. Day 1 Tr. at 104-105, Chattopadhyay pre-filed testimony at 35, lines 16-18, and Day 2 Tr. at 12.

2. MR. MOUL'S PROPOSED LEVERAGE AND FLOTATION COST ADJUSTMENTS SHOULD BE REJECTED.

Mr. Moul recommended a leverage adjustment of plus 0.54% and a flotation cost adjustment of plus 0.19% to arrive at his initial DCF estimate of 9.84%. Moul pre-filed direct testimony at 27, line 10 and PRM-6 at 69. Subsequently, he recommended a leverage adjustment of plus 0.57% and a flotation cost adjustment of plus 0.21% for his updated DCF estimate of 10.55%.[13] Moul pre-filed rebuttal testimony at 30.

Both the leverage and the flotation cost adjustments are baseless and inappropriate. Mr. Moul claimed that his leverage adjustment "deals with the issue of financial risk [associated with the capital structure shown by the market capitalization] and is not intended to transform the DCF result to a book value return through a market-to-book adjustment," Moul pre-filed direct testimony at 24, lines 15-17, and at 26, lines 22-25, and he reiterated that it "has nothing to do with a market-to-book ratio." Moul pre-filed rebuttal testimony at 22, lines 22-23. But that is exactly what his leverage adjustment does. After reviewing his leverage adjustment calculations, see Moul direct testimony, PRM-5, at 67, with Staff at hearing, he conceded that his proposed leverage adjustment is driven by the difference between the book value of common equity and the market value of common equity. Day 1 Tr. at 127, lines 5-22. Alternatively, the leverage adjustment can just as well be described by a market-to-book ratio of common equity that is not equal to one. Specifically, Mr. Moul's leverage adjustment is driven by the market-to-book ratio being greater than one.

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[12] This result was within the initial range of reasonableness of 8.94% to 9.28% accepted by Dr. Chattopadhyay in his pre-filed testimony.

[13] Mr. Moul also added his leverage and flotation cost adjustments to his CAPM results.

As Staff has indicated, the use of a book value capital structure to determine a utility's cost of capital is a long-standing practice that is well understood by investors. Chattopadhyay pre-filed testimony at 11, lines 7-9. Furthermore, for any regulated company, the actual financial risks facing the company are the same regardless of whether the book value or the market value of the company is used to represent its capital structure, a point with which Mr. Moul agreed. Chattopadhyay pre-filed testimony at 11, lines 10-12; Day 1 Tr. at 129, lines 1-8.

Because the market-to-book ratio is significantly greater than one, the DCF (or other) estimate tends to exceed the market cost of equity. See Chattopadhyay pre-filed testimony at 9, lines 13-16 and Day 2 Tr. at 209, lines 8-23. Under such circumstances, permitting an upward leverage adjustment to the DCF or CAPM estimate would further inappropriately transfer wealth from ratepayers to shareholders. Chattopadhyay pre-filed testimony at 11, lines 12-19. The fallacy of Mr. Moul's leverage adjustment can also be seen when one examines the situation where the market-to-book ratio is less than one. Chattopadhyay pre-filed testimony at 11, lines 19-24, and at 12, lines 1-2. Generally, this would be the case when the allowed return on equity is less than the market cost of equity. *Id.* The adjustment that Mr. Moul proposes would imply a downward adjustment to the allowed return on equity, because the market equity-to-debt ratio would be less than the book value equity-to-debt ratio. *Id.* Perversely, this would further aggravate the situation for the utility, as it would experience even greater dilution of stocks. *Id.*

Finally, the Commission has never permitted a leverage adjustment and doing so in this case could effectively set a precedent that all other utilities may be expected to exploit. In short, the leverage adjustment should be flatly rejected.

With respect to the proposed flotation cost adjustment, Mr. Moul stated that Dr. Chattopadhyay's position regarding flotation costs is inconsistent with Value Line forecasts of new stock issuances by natural gas companies. See Moul pre-filed rebuttal testimony at 18, lines

12-14. Dr. Chattopadhyay's position, however, does not depend on whether natural gas companies in general or the Company in particular will be issuing new common stock in the future.[14] In addition, Dr. Chattopadhyay has not asserted that that if one includes external financing growth in a DCF calculation, a flotation cost adjustment is required. Dr. Chattopadhyay merely indicated that even though stock buyers are well aware that a company's receipt of funds per share is less that the price of the share, they commit to such funding, indicating that the return they expect from the company's equity capital is at least as high as the opportunity cost of equity, if not higher. Chattopadhyay pre-filed testimony at 12, lines 18-21. Furthermore, where as here the market-to-book ratio is significantly higher than one, the DCF approach produces a sufficiently upward biased estimate of the market cost of equity that dilution of stocks, which is when flotation costs usually become relevant, is a non-issue. Chattopadhyay pre-filed testimony at 12, lines 21-23 and at 13, lines 1-2.

Finally, as was true in Docket No. 04-177, the Commission has historically denied the inclusion of a flotation cost adjustment to the return on equity, and the Company has presented no basis this case to cause the Commission to depart from its established practice. *Public Service Company of New Hampshire, supra*, 90 NH PUC 230, 250.

3. THE TURMOIL AND VOLATILITY IN THE FINANCIAL MARKETS DO NOT HAVE A SIGNIFICANT EFFECT ON THE COMPANY'S COST OF EQUITY.

To help support significantly higher estimates for the cost of equity than those contained in his direct pre-filed testimony, Mr. Moul offered an entirely new argument in his rebuttal testimony emphasizing the effect of the recent turmoil in the financial markets on the cost of equity. Moul pre-filed rebuttal testimony at 3, lines 11-26, at 4, lines 1-17, at 11, lines 18-27, and at 12-13. He discussed in particular the Chicago Board Options Exchange Volatility Index

[14] In this regard, however, the Company stated that it does not plan to issue any new stock in the future. Day 1 Tr. at 81, lines 5-12 and Exhibit 45.

(VIX) to show that the volatility of the stock market is higher than in the past. From this fact he concluded that the cost of equity has increased and he further suggested that Dr. Chattopadhyay's analysis does not reflect the effect of volatility in the stock market. *Id.*

Staff does not disagree that there has been a great deal of turmoil in the financial markets but it takes strong issue with Mr. Moul regarding the effect of that turmoil on the appropriate return on equity. Dr. Chattopadhyay's DCF estimates already reflect investor expectations about how volatility impacts the cost of equity, as these expectations are reflected in the stock prices as well as in investors' expectations regarding growth in earnings, book value, and dividends. Day 2 Tr. at 40, lines 21-24 and at 41, lines 1-13. Thus, the DCF method is sufficiently robust that it already reflects the impact of volatility on the cost of equity associated with the proxy companies. *Id.* Accordingly, Mr. Moul's implied assertion that the increase in the market volatility should necessarily increase the cost of equity is baseless.

It is also Dr. Chattopadhyay's opinion that the volatility in the proxy stock prices is what is relevant and significant for purposes of estimating the cost of equity, rather than the volatility associated with some market index, which is only remotely reflective of the realties faced by the proxy group. Day 2 Tr. at 39, lines 21-24 and at 40, lines 1-7. He concluded that the volatility associated with the gas proxies is not as high as the volatility associated with the market. Day 2 Tr. at 50, lines 5-7. For example, when Mr. Moul filed his direct testimony in February 2008, the Value Line-reported beta[15] for Mr. Moul's proxy group was 0.86 but by the time of the hearing it had decreased to 0.70. Day 2 Tr. at 50, lines 9-12. Similarly, the Value Line beta for Dr. Chattopadhyay's proxy group was 0.81 in October 2008 at the time of Dr. Chattopadhyay's pre-filed testimony, and it was 0.69 based on data available at the time of the hearing. Day 2 Tr. at 50, lines 12-15. This trend in betas is one indication that the risk associated with the proxy

[15] Beta is a widely used measure of volatility, or systematic risk, of a security or a portfolio in comparison to the market as a whole.

stocks has gone down. Moreover, the Value Line Price Stability Index has remained at the highest possible level, i.e. 100, for all of the proxy stocks. Day 2 Tr. at 50, lines 21-24 and at 51, lines 1-3.

In fact, comparing the prices associated with the proxy companies on January 22, 2008 to those on January 22, 2009, the changes associated with Moul's proxy average is 3.2% and with Chattopadhyay proxy average is 1.5%. As summarized in the table below, these are significantly different from the corresponding changes in the Dow Jones Industrial Average and Dow Jones Utility Average.[16] See Exhibit 65 and Exhibit 67. While the proxy averages have seen growth in the stock prices, the Dow Jones Industrial Average and the Dow Jones Utility Averages have fallen significantly during that period.

Stock Prices Averages	**Growth between Jan. 22, 2008 and Jan 22, 2009**
Dow Jones Industrial Average	-32.1%
Dow Jones Utility Average	-24.9%
Moul Proxy Average	+3.2%
Chattopadhyay Proxy Average	+1.5%

Also, compared to the middle of March 2008, the stock prices associated with the proxy companies were not significantly different at the beginning of January 2009. Day 2 Tr. at 205, lines 19-24 and at 206, lines 1-19. Dr. Chattopadhyay also concluded that the recent data indicates that the volatility associated with the proxy companies has been lower than before. Day 2, Tr. at 50 and at 51, lines 1-16. Of course, the stability in the DCF cost of equity estimates is entirely consistent with the finding that the volatility associated with the proxy stocks has been relatively low lately. The stability in the DCF cost of equity is also consistent with the observation that during bad economic times, investors are attracted to regulated utility stocks as

[16] The Dow Jones Utility Average does not contain any gas distribution companies. See Day 2 Tr. at 205, lines 19-23 and at 220, lines 16-19, and Exhibit 66.

there is a flight-to-quality and regulated stocks are considered safe-harbors. Day 1 Tr. at 135, lines 4-24, Day 2 Tr. at 56, lines 16-24, and Day 2 Tr. at 57, lines 1-2.

4. OTHER ESTIMATION METHODS

While Dr. Chattopadhyay recommended his point estimate for the cost of equity based on three variations of the traditional DCF approach, it also derived three other estimates for the Company's cost of equity using the market-to-book method and two alternative renderings of CAPM. These other methods are primarily intended to be checks for the reasonableness of the estimates derived from the traditional DCF approach, but they are also used to create two other central tendency measures for the cost of equity point estimate. Day 2 Tr. at 13, lines 17-20, at 120, line 24 and at 121, lines 1-5. As described above, these point estimates are ultimately used to create a range of reasonable cost of equity estimates.

a. CAPITAL ASSET PRICING MODEL

The CAPM approach recognizes that common equity capital is more risky than debt from an investor's point of view and that investors require higher returns on stocks compared to bonds to be compensated for the additional risk. The cost of equity estimate for a stock is therefore calculated as the sum of the yield on a security that is a good proxy for a risk-free bond and an equity risk premium. While it is reasonable to use the yield on the 10-year Treasury note as a proxy for the risk-free return, Day 2 Tr. at 27, lines 22-24 and at 28, lines 1-3, CAPM relies on estimating the risk premium (over a risk-free return) associated with a security using two crucial inputs, a measure of the expected return from the market as a whole, and the beta associated with the security. The risk premium is calculated as the product of the security's beta and the spread between the market return and risk-free return. See Chattopadhyay pre-filed testimony at 29, lines 12-21. To estimate the expected return from the market as a whole, Dr. Chattopadhyay

relied on the Value Line growth estimates of earnings, dividends and book value, as explained below.

The CAPM approach used by Dr. Chattopadhyay is different from that proposed by Mr. Moul in several important ways. First, to the extent possible, Dr. Chattopadhyay has tried to rely solely on a forward-looking approach. Chattopadhyay pre-filed testimony at 31, lines12-13. By contrast, Mr. Moul's approach is based in part on forward-looking data but also to a significant extent on historical data. See Moul rebuttal testimony at 36, lines 4-6 and lines 21-23.

Second, Dr. Chattopadhyay rejected Mr. Moul's inconsistent use of *dividend-paying* Value Line stocks to estimate the dividend yield but *all* Value Line stocks to estimate the growth component, in order to calculate one estimate for the market return. Chattopadhyay pre-filed testimony at 31, lines 13-20. Instead, Dr. Chattopadhyay derived two CAPM estimates, one that based the market return on estimates of dividend yield and the growth component derived from all Value Line stocks, and another that used information on dividend yield and growth solely from dividend-paying stocks. Chattopadhyay pre-filed testimony at 32, lines 2-19.

Third, Dr. Chattopadhyay appropriately recognized that while the market beta is one, the groups that were used as proxies for the market had betas that were higher than one. Because of that, Dr. Chattopadhyay adjusted the market return, see Chattopadhyay prefiled testimony at 30, lines 6-21 and at 31, lines 1-7, and the market risk premium. See Chattopadhyay prefiled testimony at 32, lines 22-23 and at 31, lines 1-4.

Fourth, Dr. Chattopadhyay relied on actual market data to ensure that the appropriate risk free yield is based on current market realities. Dr. Chattopadhyay used the average of the most current month's daily yield on the 10-year Treasury note to estimate the risk-free return. Chattopadhyay pre-filed testimony at 30, lines 7-9. This is in stark contrast to Mr. Moul's approach, which measures the risk free rate on the Blue Chip Financial Forecast and his

judgment. Moul pre-filed direct testimony at 36, lines 4-19. Mr. Moul's use of a significantly upward biased risk-free rate[17] that is not supported by market data is bound to produce a CAPM estimate that errs towards the higher side compared to Dr. Chattopadhyay's more appropriate approach. Dr. Chattopadhyay strongly believes that the use of forecasts is inappropriate when the markets themselves provide robust estimates of the expected yield on risk-free investment, which are reasonably reflected by the yield on the 10-year Treasury note. Day 2 Tr. at 27, lines 22-24, at 28, lines 1-8, at 122, lines 20-24, and at 123, lines 1-13.

Fifth, Dr. Chattopadhyay based his estimates of the growth component, which is used to derive the market returns, on the average of the five year projections on earnings per share, book value per share, and dividends per share. Chattopadhyay pre-filed testimony at 14, lines 13-18. Mr. Moul, on the other hand, relied solely on earnings growth or price appreciation to derive the market returns. Moul prefiled direct testimony at 21, lines 15-24, and at 22, lines 1-5. As pointed out above, since investors do not use just one indicator in estimating the growth component, the sole use of earnings growth or price appreciation is inappropriate. In Dr. Chattopadhyay's opinion, the use of the three growth estimates is a reasonable approach. Mr. Moul's use of only price-earnings appreciation and reliance on a significantly upward-biased measure of the expected risk-free yield are instrumental in producing CAPM estimates that are unrealistically high in view of the current market realities. For this reason, his CAPM approach and the results he obtained do not reasonably reflect the true cost of equity.

Sixth, the outdated beta figure relied upon by Mr. Moul in his pre-filed direct testimony at 95, 0.86, is significantly higher than the average Value Line beta currently associated with the proxy stocks, 0.70. Day 2 Tr. at 50, lines 9-12. This drop in the beta is, however, reflected in Dr. Chattopadhyay's estimate since he used the latest available beta figures when estimating his

[17] See Day 2 Tr. at 28, lines 3-8.

CAPM cost of equity. For Dr. Chattopadhyay's proxy, the latest average beta was 0.69, while it was 0.81 at the time he filed his direct testimony. Day 2 Tr. at 50, lines 12-15.

Finally, Mr. Moul proposed several additional upward adjustments to his CAPM estimate, i.e. leverage adjustment, size adjustment, and flotation cost adjustment. All of these should be rejected. The reasons for rejecting the leverage and flotation cost adjustments are discussed above and apply equally here. Regarding the adjustment for the small size of the Company, the evidence regarding the small-firm effect is not sufficiently persuasive that Staff can recommend it. Chattopadhyay pre-filed testimony at 28, lines 11-23 and at 29, lines 1- 3.

To summarize, while Dr. Chattopadhyay's approach is significantly more forward looking, it also appropriately 1) bases his CAPM estimates on the proper use of comparable groups when calculating the dividend yield and the growth component used to derive the market return, 2) adjusts the Value Line market returns by deflating them using the betas associated with those portfolios to make sure that the market return is, as CAPM demands, associated with a beta of one, 3) uses the *market-determined* yield on expected return over ten years of a risk free bond, 4) uses multiple estimates of the growth component to derive the market return recognizing that investors do not use just one indicator in estimating the growth component, 5) updates the proxy beta based on recent data, and 6) rejects the leverage adjustment, flotation cost adjustment and size adjustment. In effect, Dr. Chattopadhyay's approach corrects for the unreasonably upward biased CAPM estimation of the cost of equity by Mr. Moul.

If Mr. Moul's approach had correctly accounted for the significant recent reduction in the risk-free yield, the significant fall in the beta associated with the proxy companies, and had properly accounted for the relevant measure for dividend yield and growth in yield,[18] it is

[18] Growth estimates of earnings, dividends and book value have tended to decrease over the last few months for both the dividend paying Value Line stocks and All Value Line stocks. See Attachment VII in Chattopadhyay prefiled testimony and Attachment VII of Exhibit 64.

reasonable to conclude that his CAPM estimate would have been more consistent with Dr. Chattopadhyay's estimates. Dr. Chattopadhyay's two CAPM estimates updated as of the time of the hearing decreased compared to the levels that were calculated as of Dr. Chattopadhyay's pre-filed testimony. This outcome is not surprising given the differences in the economic circumstances during the period under consideration at hearing compared to those prevailing during the period under consideration in Dr. Chattopadhyay's pre-filed testimony. For one thing, the yield on the 10-year Treasury note has fallen significantly from 3.80% to 2.39%. Also, as already mentioned above, the Value Line beta associated with Dr. Chattopadhyay's proxy group has fallen considerably, from 0.81 to 0.69. Finally, in deriving the CAPM Method 1 estimate, the average of the expected median growth rates in earnings, dividends and book value, as reported by Value Line, fell from approximately 10% to 9.17%, and in deriving the CAPM Method 2 estimate, that same average fell from approximately 9.33% approximately to 8.5%. See Chattopadhyay pre-filed testimony at 32, lines 22-23 and at 33, lines 1-2 and the last page of Exhibit 51. All of these downward changes significantly lower the CAPM estimates.

b. RISK PREMIUM METHOD

The RPM is similar to the CAPM approach in a number of ways. Like CAPM, RPM recognizes that common equity capital is more risky than debt from an investor's point of view and that investors require higher returns on stocks compared to bonds to be compensated for the additional risk. The cost of equity estimate for a stock is therefore calculated as the sum of the yield on a security that is a good proxy for a risk-free debt instrument and an equity risk premium. Unlike CAPM, however, the RPM approach estimates the equity risk premium without relying on estimates of market betas and market return.

Dr. Chattopadhyay did not use RPM to derive an estimate of the cost of equity since RPM is not primarily forward looking. Chattopadhyay prefiled testimony at 34, lines 6-7. Also, RPM

is conceptually similar to the CAPM approach, and given Dr. Chattopadhyay's recommendation to base the cost of equity estimate predominantly on the DCF approach, Dr. Chattopadhyay did not find it useful to employ RPM to derive another estimate of the cost of equity. See Chattopadhyay pre-filed testimony at 34, lines 5-12. In Dr. Chattopadhyay's judgment, Mr. Moul's RPM estimate is sufficiently influenced by the use of historical data that it is inconsistent with the purpose of determining a forward looking estimate of the cost of equity, see Chattopadhyay pre-filed testimony at 34, lines 16-22, and Day 1 Tr. at 130, lines 20-24 and at 131, lines 1- 7, and should not be considered in determining the return on equity.

IV. CONCLUSION

For the reasons set forth above, the Commission should determine that the reasonable rate of return on the Company's common equity is 9.33% and that a revenue requirement increase of $5.2million[19] will result in just and reasonable rates.

Respectfully Submitted
Staff of the Public Utilities Commission

By: Edward N. Damon
Edward N. Damon, Esq.
Director, Legal Division

[19] The exact amount will be determined by re-running the calculation consistent with Appendices 1 and 2 of the Partial Settlement Agreement.

CERTIFICATE OF SERVICE

I certify that on February 20, 2009, via electronic mail, I served to the following individuals a copy of the preceding document.

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