

Assessing U.S. Investor-Owned Utility Regulatory Environments

evaluation, we may consider the tone that politicians set, the history of political insulation given to the regulatory body and the courts that review its actions, and the behavior of important constituencies that intervene in utility proceedings. We also track the public visibility of utility issues, because we believe that the likelihood of constructive regulatory behavior increases with the comparative obscurity of utility issues.

We view a jurisdiction as having a lower risk if the regulatory environment is marked by cooperative attitudes and constructive interventions in important matters before the regulator. We assess a jurisdiction lower when the atmosphere is more combative and restricts the regulator's ability to act in the long-term best interests of all parties. We consider jurisdictions as weaker if the regulatory environment is so infused with short-term political influence over regulatory decisions that the regulator can't effectively consider investor interests in its decisions.

Related Criteria And Research

Related Criteria

- Criteria | Corporates | General: Corporate Methodology, Nov. 19, 2013
- Criteria | Corporates | Utilities: Key Credit Factors For The Regulated Utilities Industry, Nov. 19, 2013

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BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF HAWAII

In the Matter of the Application of)
HAWAIIAN ELECTRIC COMPANY, INC.)
For Approval of Rate Increases and)
Revised Rate Schedules and Rules.)
_____)

DOCKET NO. 7700

DECISION AND ORDER NO. 13704

Filed December 28, 1994

At 11:03 o'clock A.M.

Leatani G. Oshiro
† Chief Clerk of the Commission

ATTEST: A True Copy
CLARENCE M. NAGAO
Commission Counsel
Public Utilities Commission
State of Hawaii

Clarence M. Nagao

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because customers pay for these items before HECO pays them to governmental authorities. The remaining components require working cash because HECO must pay for these expenses before its customers pay for the service provided by these items. The working cash requirement is calculated by multiplying the average net collection lag by the average daily operating expenditure amount.

HECO calculates its working cash requirements for the test year at \$1,785,000 under present rates, and \$462,000 at proposed rates. The Consumer Advocate's revised estimates are \$1,609,000 at present rates, and \$965,000 at proposed rates. DOD's revised estimates are \$1,829,000 at present rates, and \$898,000 at proposed rates.

The Consumer Advocate and DOD accept HECO's calculated revenue and expense lag days used to determine working cash requirements. The difference in the parties' estimates stems from the differences in their estimates for the various components of the working cash calculation. In attached Exhibit B, we reflect the level of expenses approved by this decision and order and the net lag days. As presented there, we adopt as reasonable, the working cash requirement of \$1,879,000 at present rates and \$818,000 at proposed rates.

VI.

RATE OF RETURN

A. Introduction

In deciding what constitutes a fair rate of return on HECO's rate base, we adhere, as in past rate cases, to the guidelines set forth in Bluefield Waterworks and Improvement Co. v.

Pub. Serv. Comm'n, 262 U.S. 679 (1923), and Fed. Power Comm'n v. Hope Natural Gas Co., 320 U.S. 591 (1944). The guidelines prescribe that a fair return must:

1. be commensurate with returns on investment in other enterprises having corresponding risks and uncertainties;
2. provide a return sufficient to cover the capital costs of the business, including service on the debt and dividends on the stock; and
3. provide a return sufficient to assure confidence in the financial integrity of the enterprise to maintain its credit and capital-attracting ability.

HECO submits that a fair rate of return on its rate base for the test year is 9.67 per cent, with a rate of return on common equity of 12.75 per cent. The Consumer Advocate proposes a rate of return on rate base of 8.94 per cent, with a rate of return on common equity of 11.25 per cent. DOD recommends a 9.21 per cent rate of return, with a return on common equity of 11.8 per cent.

All parties agree that a fair rate of return should be equal to the composite cost of capital. This composite cost represents the carrying cost of money received from investors to finance the net rate base. It is the sum of the weighted earnings requirements of each element of HECO's capital structure. HECO's capital structure includes: (1) short-term debt, (2) long-term debt, (3) preferred stock, and (4) common equity.

The parties utilized the same capital structure in their rate of return analyses. They agree on the costs of short-term and long-term debt and preferred stock, but disagree on the cost of common equity. In the sections that follow, we examine and discuss each capital structure component.

B. Capital Structure

The parties agree that an average test year capital structure should be used, as prescribed by the commission in recent rate cases.¹² The Consumer Advocate and DOD agree with HECO's projected average 1994 test year capital structure, as follows:

| | Amount in Thousands | Per Cent of Total |
|-----------------|------------------------|----------------------|
| Short-term debt | \$45,240 | 5.56 % |
| Long-term debt | 315,065 | 38.69 % |
| Preferred stock | 59,582 | 7.32 % |
| Common equity | <u>394,492</u> | <u>48.44 %</u> |
| Total | 814,379 | 100.00 % |

The proposed structure is consistent with HECO's declared aim to manage its capital structure so as to achieve certain average target ratios. It is also consistent with the average test year capital structure prescribed by the commission in recent rate cases.¹³ The commission agrees with the parties that the proposed structure is reasonable. The debt ratio is similar to the debt ratio in HECO's last rate case and the capital structure is close to management's target.

¹²See In re Maui Elec. Co., Ltd., Docket No. 7000, Decision and Order No. 13429 (Aug. 5, 1994); In re Hawaii Elec. Light Co., Inc., Docket No. 6999, Decision and Order No. 11893 (Oct. 2, 1992); In re Hawaiian Elec. Co., Inc., Docket No. 6998, Decision and Order No. 11699 (Jun. 30, 1992); In re Gasco, Inc., Docket No. 6434, Decision and Order No. 11464 (Apr. 32, 1992); and In re Hawaiian Elec. Co., Inc., Docket No. 6531, Decision and Order No. 11317 (Oct. 17, 1991).

¹³See In re Hawaiian Elec. Co., Inc., Docket No. 6998, Decision and Order No. 11699 (1992); In re Hawaii Elec. Light Co., Inc., Docket No. 6999, Decision and Order No. 11701 (1992); In re Gasco, Inc., Docket No. 6343, Decision and Order No. 11564 (1992).

C. Cost of Short-Term Debt

HECO's projected cost of short-term debt is 4.0 per cent. This estimate is based on HECO's cost of issuing commercial paper. HECO calculated the weighted average cost for HECO commercial paper borrowings for the first half of 1993 at 3.51 per cent. With short-term interest rates expected to increase, HECO estimates that a 4.0 per cent average cost of short-term debt for 1994 is reasonable. The Consumer Advocate and DOD agree with HECO's estimate. We agree that 4.0 per cent is a reasonable estimate of HECO's average cost of short-term debt.

D. Cost of Long-Term Debt

HECO initially estimated the average cost of long-term debt at 7.04 per cent. HECO subsequently revised its estimate to 7.07 per cent to reflect the actual rates for bonds issued in 1993. The revenue bonds issued in 1993 were sold at a discount of 2.0 per cent. The 7.07 per cent represents the embedded composite interest rate for HECO's projected long-term debt. It reflects (1) HECO's annual interest expense, (2) the annual amortization of debt premiums and issuance expenses for outstanding debt issue, (3) the annual amortization of the differential between interest earned and the sum of interest expenses and issuance costs related to undrawn proceeds from the sale of special purpose revenue bonds, and (4) the amortization of the discount on the 1993 bond issuance.

HECO used those methodologies approved by the commission in past rate cases in calculating its projected average cost of long-term debt. The parties agree with HECO's projection, and we accept the projected cost as reasonable.

E. Cost of Preferred Stock

HECO's estimate of the effective annual cost of its preferred stock is 7.3 per cent. HECO derived the effective rate of 7.3 per cent by dividing the average annual requirement of \$4,349,000 by the average net proceeds of preferred stock outstanding of \$59,580,000. It calculated the annual requirement by adding the annual dividends to the annual amortization of issue expense for series O, Q, and R over the lives of each issue in proportion to the amount of the issues outstanding in each year.

The Consumer Advocate and DOD agree with HECO's cost of preferred stock. We also concur and find 7.3 per cent to be a reasonable cost of preferred stock for test year 1994.

F. Cost of Common Equity

HECO submits that it should be allowed to earn a return on common equity of at least 12.75 per cent. HECO urges that the return allowed on common equity must be commensurate with returns on investments in other enterprises having corresponding risks and uncertainties, and must provide a return sufficient to assure confidence in the financial integrity of the enterprise so as to maintain its credit and capital-attracting ability. The Consumer Advocate proposes a return on common equity of 11.25 per cent. DOD proposes a return of 11.3 per cent.

The parties agree that the cost of common equity should be derived from market information. The parties also agree that multiple methods should be employed in determining the cost of common equity due to the judgment and limitations inherent in all methods. The parties further agree that the methods employed

should be expectational and forward-looking. However, the differences in the parties' recommended rates of return result from, among other things, (1) the use of different methodologies in determining appropriate return on equity, (2) the use of different groups of companies as comparables to HECO, (3) the use of market data from different sources, (4) the use of market data at different points in time, (5) disagreement about adjustment of the rate of return to reflect issuance cost, (6) differing assessments about HECO's business risks, and (7) differences in judgment.

1. Proxies Used

HECO's common stock is not publicly traded. Therefore, the use of the comparables technique to estimate the cost of common equity is appropriate. The comparables technique calculates the cost of common equity for a portfolio of companies whose risks are comparable to those of HECO. It assumes that the rate of return on common equity for the proxy companies is a valid estimate of the return necessary for HECO. Adjustments, based on judgment, can be made to the rate of return to account for differences between the financial, operating, and business characteristics of the comparable companies and those of HECO.

In In re Hawaiian Elec. Co., Inc., Docket No. 6531, Decision and Order No. 11317 (1991), we identified the criteria by which the appropriateness of the use of a company as a proxy is determined. We stated that a proxy company should: (1) have almost all of its revenues derived from electric operation; (2) be primarily a electric utility; (3) have tradeable common stock; (4) not be a holding company with more than one subsidiary;

(5) have a common equity ratio of 35 per cent to 50 per cent; (6) be small; (7) be substantially a regulated company; (8) have no major generating plants under construction; and (9) have stock and bond ratings similar to that of HECO.

We reaffirmed this criteria in HECO's last rate case. See Docket No. 6998, Decision and Order No. 11699. However, in Docket No. 7000, Decision and Order No. 13429, we took note of the changes in circumstances that have arisen since we established the comparables criteria in Docket No. 6531. We took particular note of the heavy construction program that HECO and its subsidiaries have embarked upon and of the rising competition in the generation of electric power. We offered that, in light of these changes, it may be appropriate for the commission's comparables criteria to be now applied advisedly.

HECO selected as its comparable electric companies those possessing the following characteristics: (1) electric business providing 90 per cent or more of company revenues; (2) regulated entity; (3) small in size; (4) regulatory environment similar to HECO's; (5) common equity ratio or financial risk similar to HECO's; (5) nuclear risk similar to HECO's; (6) minimal diversification outside of core electric business; (7) no construction of large, base load generating plant; and (8) stocks and bond rating similar to HECO's. Six companies met the standards: Atlantic Energy, Central Louisiana Electric, Delmarva Power, KU Energy, Puget Sound Power & Light, and Southwestern Public Service. All of these companies have

Value Line safety rank of 1 or 2,¹⁴ and the average Standard & Poor's bond rating of the companies is A, two notches above HECO's BBB+.¹⁵ In terms of regulatory environment, and common equity ratios, these companies are comparable to HECO. None of the companies is diversified in any significant way and none is building large, base load generating plants. With this group of comparables, HECO performed the discounted cash flow (DCF) analysis, market equity risk premium (MERP) test, and the capital asset pricing model (CAPM) analysis.

Contending that the risks of electric companies are no different from those of other non-electric companies, HECO also used as comparables a group of 329 companies (each with a Value Line safety rank of 1 or 2) included in the Value Line universe of 1,600 companies. HECO performed a comparable risk discounted cash flow (CRDCF) analysis on this group of Value Line companies. HECO justifies the use of these companies on the ground that (1) investors do not wear blinders and they require comparable returns for comparable risk or a fair risk-adjusted return among investments with different risks; and (2) Value Line safety rank is a measure of risk, and the safety ranks of the Value Line 329 companies it selected are comparable to the safety ranks of HECO's electric comparable companies.

The Consumer Advocate used three sets of criteria in selecting its electric comparables: general characteristics,

¹⁴HEI's Value Line safety rank is 3. This ranking reflects HEI's non-utility business to some degree.

¹⁵HECO asserts that it had difficulty finding companies rated triple B by S&P with Value Line safety rank of 2 or better.

operating characteristics, and financial characteristics. The criteria grouped under general characteristics included (1) publicly-traded electric utility regulated primarily by one state commission; (2) geographical diversity; (3) not a holding company; and (4) no significant non-utility operations. Criteria under operating characteristics included: (1) total revenues less than \$800 million; (2) electric revenues at least 80 per cent of total revenues; (3) no nuclear generation; and (4) purchased power at least 5 per cent of supply but not greater than 50 per cent. Criteria under financial characteristics included: (1) senior secured debt rated at least Baa3, but not greater than A1 by Moody's; (2) senior secured debt rated at least BBB-, but no greater than A+ by Standard & Poor's; (3) common equity ratio greater than 40 per cent, but less than 50 per cent; (4) allowance for funds used during construction less than 25 per cent of earnings; and (5) no reduction in common dividend in five years.

The selection criteria used by the Consumer Advocate in this docket differ from those it used in Docket No. 6998 (the last HECO rate case) in the following respects. The Consumer Advocate added the general characteristic category of criteria; it lowered the minimum bond rating and the maximum dollar revenue allowable; and it added a purchase power criterion. The Consumer Advocate deemed the following companies (out of the approximately 90 major electric utilities covered by Value Line and Merrill Lynch) to have met the criteria: Central Louisiana Electric, Empire District Electric, Idaho Power, Interstate Power, and Nevada Power. With this group of comparables, the Consumer Advocate applied the DCF approach and the CAPM.

DOD attempted to follow the commission's criteria in selecting its group of comparables. It asserts that it had difficulty finding a group that met all of the criteria without exception. DOD initially selected the following as comparables: Central Maine Power, Central Hudson Gas & Electric, Cincinnati Gas & Electric, DQE, Minnesota Power & Light, New York State Electric & Gas, Portland General Corporation, PSI Resources, Public Service of Colorado, and Puget Sound Power. In oral testimony, DOD eliminated Central Maine Power from the group of comparables. Due to changes in circumstances, Central Main Power no longer satisfies the standards of comparability. All remaining companies have Standard & Poor's bond rating within one step of HECO's BBB+ rating and Value Line betas of 0.65 or 0.70. (HECO's Value Line beta is 0.70.) To this group of comparables, DOD applied the DCF method, the CAPM, and a very limited version of the comparable earnings test to determine the rate of return on common equity.

DOD also used HEI, HECO's parent company, as a proxy for HECO, and applied the DCF, risk premium (RP), CAPM, and the comparable earnings tests to HEI. In addition, DOD used Moody's 24 electric companies as comparables and applied the RP test to this group.

2. The Methodologies Applied

As noted above, HECO applied the DCF, the MERP, and the CAPM tests to its group of electric comparables and the CRDCF model to a group of Value Line companies to determine the cost of common equity for HECO. The Consumer Advocate applied the DCF method and the CAPM to its group of comparables. DOD applied the DCF, the

CAPM, and a limited version of the comparable earnings test to its group of comparables and to HEI. DOD also used the RP model on HEI and Moody's 24 electrics. In addition, as a check, it applied the DCF, CAPM, and the limited version of the comparable earnings approaches to HECO's group of electric comparables.

The DCF method is a stock valuation approach to estimating the cost of common equity. The most commonly applied version of the DCF method is the constant growth DCF. In this method, the required rate of return is the sum of (1) the current dividend yield, represented by the ratio of expected next-period dividends to current stock price, and (2) the expected constant dividend growth rate. The underlying theory of the constant growth DCF method is that the market price an investor pays for a share of stock represents the present value of expected future dividend yields, grown at a constant rate. The future flow of dividend yields is discounted at a rate reflecting investor preference for current income and investor assessment of dividend realization risk. Thus, the rate of return on common equity capital under the DCF model is the rate that compensates investors for risk and time, assuming that the security is efficiently priced. Estimation of the DCF rate of return requires estimates of the current dividend yield and the dividend growth rate.

The CRDCF method is procedurally identical to the DCF method. In this docket, the CRDCF method is the DCF method applied by HECO to the Value Line companies. As already noted, the underlying assumptions in the use of the CRDCF method are that the risks in electric utilities are comparable to the risks in other non-electric utility companies and that investors consider a

variety of stocks when investing and they require comparable returns for comparable risks or a fair risk-adjusted return among investments with different risks.

Under the RP method, the rate of return is the sum of (1) the rate of return on risk-free, long-term debt and (2) a risk premium for the additional risk associated with the stock in question. The proxy for the risk-free rate is generally the rate on long-term United States government bonds. The risk premium is the difference between the rate on long-term United States government bonds and the expected return on the common stock. The RP method uses the DCF analysis of investor expected returns to calculate the equity risk premium

The MERP test is similar to the RP test. The difference is that, while the RP method uses CDF-derived expected returns of the stock in question and expected bond returns, the MERP test uses the actual market returns of both stock and bonds to determine the equity risk premium.

The CAPM is a variation of the risk premium approach. As in the RP method, the required rate of return under the CAPM is the sum of (1) a risk-free component, which constitutes the floor on expected return and is generally measured by the return on long-term United States government bonds, and (2) a risk premium component, which represents an additional return over the riskless rate required to compensate investors for bearing additional risk. However, the risk premium under the CAPM is proportional to the "nondiversifiable" (or "systematic") risk of the security in question (the security-specific risk that cannot be eliminated through diversification).

The nondiversifiable risk is obtained by applying the appropriate beta to the amount by which the average market return exceeds the risk-free rate of return. Beta is a measure of the relative risk of a security compared to the risk of the average market stock. The beta for the market is set equal to one. A stock with a beta greater than one is more risky than the average market stock, and a stock with a beta less than one is less risky than the average market stock. The use of CAPM to determine the rate of return on common equity requires estimates of the risk-free rate, the stock's beta, and the rate of return on the market.

3. The Parties' Analyses

a. HECO

HECO's estimate of the rate of return on common equity is based on calculations made by its expert witness, Charles A. Benore, first vice-president, PaineWebber, Inc. Mr. Benore first applied the market equity RP test to his group of comparables. Initially he estimated the cost of common equity on the RP method at 12.0 per cent, without issuance costs. With issuance costs of 30 basis points, Mr. Benore's initial cost of common equity was 12.3 per cent. In his calculation, Mr. Benore used the average daily closing yields of long-term United States government bonds of 6.92 per cent for the month beginning April 28, 1993, to May 27, 1993. For the risk premium, Mr. Benore first determined the average equity risk premium for the last economic cycle, 1983 to 1991, for each of his comparable companies. He then averaged the values of the three companies with the highest values to derive an average risk premium of 5.1 per cent. He average only

the three highest values to compensate for HECO's higher risk as compared to the comparable companies. He derived his cost of common stock equity by combining the risk free rate of 6.92 per cent and the risk premium of 5.1 per cent. In rebuttal, Mr. Benore increased the cost of common equity initially derived by 0.5 per cent to account for the higher returns on electric stocks now required by investors as a result of increased competition in the electric industry.¹⁶ However, there is some confusion in Mr. Benore's calculation. Mr. Benore's revised cost of common equity on the market equity RP method is 12.2 per cent, including issuance costs, 0.1 per cent less than his initial calculation of 12.3 per cent.

Mr. Benore's application of the CAPM model to his group of comparable companies resulted initially in cost of common equity of 12.7 per cent, before issuance costs, and 13.0 per cent with issuance costs. In arriving at this result, Mr. Benore used as the risk free rate the average yield to maturity on long-term United States government bonds of 6.92 per cent for the month of May 1993. For beta, Mr. Benore used an adjusted beta of 0.92. The adjusted beta is the weighted average based on the proportion of the stocks of the comparable companies held by institutional and individual investors, using the Value Line beta for the institutional investors and a beta of 1.0 for individual investors. Mr. Benore justifies the use of an adjusted beta by noting that

¹⁶Mr. Benore notes a shift in investors' requirement of electric stocks from about 90 basis points less to about 40 basis points more than yields on treasury bonds during the period July 1993 to October and November 1993. Mr. Benore used DOD's group of electric comparables for this analysis.

(1) for beta to work, adequate diversification is crucial, (2) the minimum number of stocks needed to be held by an investor for proper diversification is fifteen, (3) individual investors typically own only about three stocks, and (4) 78 per cent of the shares of the comparable companies are owned by individuals. For the average expected market return, Mr. Benore used 13.1 per cent. The 13.1 per cent is the sum of the blended growth rate of 10.2 per cent for Standard & Poor's 500¹⁷ and the yield on a 12-month forward dividend of 2.9 per cent.

On rebuttal, Mr. Benore revised the results obtained through the application of the CAPM to account for the higher returns now required by investors on electric stocks because of increased competition in the electric industry. Mr. Benore deemed that an upward adjustment should be made to his initial calculation. Taking into account the inability of individual investors to diversify away competition risk, Mr. Benore increased the cost of common stock indicated by the CAPM by two-thirds of the 0.5 per cent cost of common not captured by the equity risk premium model, or 0.3 per cent. (Mr. Benore's use of two-thirds is derived from the premise that, on the average, two-thirds of the shares of electric power companies are owned by individuals.) Again, as in the risk premium revised calculation, there is some confusion in the resulting recommended cost of common equity under the CAPM. Mr. Benore's revised CAPM cost of common equity is 13.1 per cent,

¹⁷The blended growth rate, as calculated by Mr. Benore, is the dividend growth for the last five years and the projected earnings growth for the next five years, with more weight given to projected growth rate.

including issuance costs, just 0.1 per cent more than his initial calculation.

Mr. Benore's initial calculation of the cost of common equity under the DCF model, as applied to his group of electric comparables, was 10.1 per cent, including issuance costs of 30 basis points. On rebuttal, Mr. Benore revised his calculation to 10.2 per cent, including issuance costs. In computing dividend yield, Mr. Benore increased the current dividend by the applicable growth rate at the normal, dividend change, timing pattern for the comparable companies. Where dividend had not been increased on a regular basis and four quarters or more of time had passed without a dividend increase, Mr. Benore increased dividend in the second quarter of 1993. For stock price, Mr. Benore used the average price for a 20-day trading period, beginning April 28, 1993, to May 27, 1993. To the yield derived (dividing forward dividend by price), Mr. Benore added the growth rate derived from Value Line and International Brokers Estimate System (IBES). The growth rate is a blending of the historical and projected growth rates.¹⁸ Mr. Benore then applied the DCF equation and derived a cost of common equity for each of the comparable electric companies. He eliminated the lowest three results, to reflect HECO's higher risks, and averaged the three highest results to obtain a DCF cost of common equity of 9.8 per cent, before issuance costs, and

¹⁸Mr. Benore derived the blended growth rate by first averaging Value Line projected dividend per share (DPS) growth rate and Value Line projected earnings per share (EPS) growth rate. He then averaged the average Value Line projected growth rate and the IBES projected growth rate. Finally, Mr. Benore averaged the average Value Line and IBES growth rate and Value Line historical five-year DPS growth.

10.1 per cent with issuance costs. On rebuttal he revised his calculation to 10.2 per cent, with issuance costs.

Mr. Benore's application of the DCF method to the group of 329 Value Line companies resulted initially in a cost of common equity of 13.0 per cent, with issuance costs. For his calculation, Mr. Benore used the average yield of 3.66 per cent for the 329 companies, based on a June 1, 1993, Value Line report,¹⁹ and an average last five-year growth rate of 9.0 per cent.²⁰ As a check on his calculation, Mr. Benore calculated the DCF cost of common stock of 25 companies having Value Line safety rank of 1 or 2 and Value Line beta of 0.90. This calculation produced a 13.2 per cent cost of common equity. Noting that his group of electric comparable companies also have Value Line safety ranks of 1 or 2 and an adjusted beta of 0.92, Mr. Benore would have us accept the result of his DCF calculation, using Value Line companies, as a reasonable index of HECO's cost of common equity. On rebuttal, Mr. Benore revised the cost to 13.2 per cent, with issuance costs.

The average of Mr. Benore's calculations of the costs of common equity, utilizing the MERP method, the CPM, the DCF model applied to his electric comparable, and the DCF model applied to the Value Line companies, is 12.2 per cent (based on the revised

¹⁹In calculating the DCF cost of common equity, based on his electric comparables, Mr. Benore used an average period price, rather than a spot price. In the case of the Value Line 329 companies, Mr. Benore used a spot price on the ground that the number of companies involved made the average yield likely to be unbiased.

²⁰Per Value Line, the dividend growth rate of the 329 Value Line companies for the past five years averaged 9.6 per cent, and the projected earnings and dividends growth rate averaged 8.4 per cent. The average of the averages equals 9.0 per cent.

figures). Mr. Benore argues that because of the downward bias inherent in the DCF test, as applied to his electric comparables, the results of the electric comparable-DCF test should be disregarded. Mr. Benore offers that the current inflated prices of electric common stocks and the consequent excessive price-to-book ratio produce absurd DCF results. Without the electric utility DCF result, the average cost of common equity of all tests is 12.8 per cent. Mr. Benore recommends a cost of common equity for HECO of 12.75 per cent.

b. The Consumer Advocate

The Consumer Advocate's proposed cost of common equity is based on calculations made by its expert witness, J. Robert Malko, professor of finance, College of Business, Utah State University. Dr. Malko made two DCF calculations, one based on historical growth and the other on projected growth. For historical growth, Dr. Malko averaged Value Line's past five-year and 10-year historical growth rates for each of his comparable companies.²¹ The average ranged from 1.8 per cent to 5.5 per cent for his group of comparable companies. For projected growth rate, Dr. Malko consulted (1) Value Line forecasts of growth in earnings, dividends, and book value and (2) IBES estimates of earnings growth.²² Dr. Malko settled on a range of projected growth rate of

²¹Based on Value Line Investment Survey, 1993 edition.

²²The Value Line forecasts are from Value Line Investment Survey, 1993 edition. The IBES forecasts are those contained in the November 18, 1993, issue. Dr. Malko represents he focused primarily on mean earnings growth estimate from IBES, using the high and low values to assess the disparity in estimates, and he used Value Line forecasts as the lower bound. Dr. Malko further

1.5 per cent to 3.5 per cent. For dividend, Dr. Malko used Value Line's forecast, and for price, Dr. Malko used the current market price taken from the March 1, 1994, issue of the Wall Street Journal. The calculation, using an average historical growth rate, produced a range of returns on common equity for Dr. Malko's group of comparable companies of 9.1 per cent to 11.9 per cent, with a mean of 10.5 per cent. The use of the projected growth rates produced a range of 9.3 per cent to 10.1 per cent, with a mean of 9.8 per cent. Averaging the results of the historical growth calculation and the projected growth calculation produced a range of 9.2 per cent to 11.0 per cent.

Dr. Malko also made two CAPM calculations, one based on historical returns and the other on projected expected returns. Dr. Malko would use the CAPM (or any other risk premium model) to calculate the cost of common equity only in conjunction with the DCF method. CAPM does not incorporate dividend yield into the pricing of securities (whereas DCF does). Dr. Malko believes that beta is not the only risk factor priced by the market, that dividends are also an important factor that explains stock price. Dr. Malko contends that CAPM will underestimate the cost of equity for electric utilities because they tend to have low betas. Low beta stocks have higher returns than the CAPM predicts, and high beta stocks have lower returns than CAPM predicts.

For his CAPM calculation, Dr. Malko used a five-year United States treasury note for the risk free rate. He used a

represents that his dividend growth forecasts are all slightly below the IBES mean earnings growth estimate. He considers his estimate to be a conservative estimate, allowing for any overestimation of earnings growth.

five-year treasury note because it represents a mid-point between a 30-day treasury note and a 30-year treasury note. He notes that a 30-year treasury note contains a maturity premium to compensate investors for interest rate risk²³ and a 30-day note has volatility. Neither is, thus, risk free. Further, Dr. Malko believes that a five-year treasury note is consistent with equity investors' planning horizon and results in little or no maturity premium considering current interest rates. Dr. Malko used a risk free rate of 5.9 per cent, as noted in the March 1, 1994, issue of the Wall Street Journal.

For beta, Dr. Malko used the average betas published in Merrill Lynch Security Risk Evaluation, November 1993, and in Value Line Investment Survey, 1993 edition.²⁴ The Merrill Lynch betas ranged from 0.57 to 0.73, with an average of 0.62. The Value Line betas ranged from 0.45 to 0.65, with an average of 0.55. Dr. Malko averaged the Merrill Lynch average and the Value Line average to derive a beta of 0.59.

For historical expected excess returns for each of his comparable companies, Dr. Malko extracted data from Ibbotson Associates' Stocks, Bonds, Bills, and Inflation 1993 Year Book. Both the intermediate-term United States government bonds

²³A risk that interest rate may rise or fall during the 30-year period. A 30-year treasury bond is issued at a rate that is fixed over the 30-year period.

²⁴Merrill Lynch betas are raw betas, based on the S&P 500 composite index, using straight regression based on five years of monthly returns or 60 observations. Value Line betas are derived from regression analysis between weekly per cent changes in the price of stock and weekly per cent changes in the New York Stock exchange composite indices over a five-year period. Value Line reports betas are adjusted for tendency to converge toward 1.0.

(five-year bonds) and common stock total returns were measured from 1926 to 1992. The common stock total return index was based on the S&P composite index. The arithmetic mean of the intermediate-horizon risk premiums equaled 7.30 per cent. For the projected expected excess returns, Dr. Malko used Value Line data. Using February 25, 1994, Value Line data, Dr. Malko calculated a projected excess return of 7.30 (the same excess return or risk premium as calculated using historical data).

Since the historical and projected excess returns were the same, the CAPM calculation using historical expected excess return and the CAPM calculation using projected expected excess return produced the same result. Adding the risk free rate (5.9 per cent) and the product of beta times the excess return on the market resulted in a CAPM cost of common equity for the comparable companies between 9.7 per cent to 10.8 per cent, with an average of 10.2 per cent.

Dr. Malko's recommended cost of common equity for HECO is 11.25. This cost represents the high end of the results of his DCF and CAPM calculations. He acknowledges that the 11.25 per cent is higher than the averages of his DCF estimates (10.0 per cent) and his CAPM estimates (10.2 per cent). However, he recommends the higher end because HECO's business risks are higher than those for his portfolio of comparable companies as evidenced by, among other things, HECO's split bond ratings, significant construction program, and purchased power obligations.

c. DOD

DOD's proposal on the cost of common equity is based on calculations made by its expert witness, John B. Legler, professor of banking and finance at the University of Georgia. Dr. Legler first calculated the cost of common equity utilizing the DCF method. He calculated the DCF results for HEI and his group of comparable electric companies. For HEI, Dr. Legler used a growth rate ranging from 4.5 per cent to 5.5 per cent. The growth rate was derived from historical earnings and dividend growth rates, retention growth rate,²⁵ and Value Line forecasts. For price, Dr. Legler initially used \$38.02, the average HEI's stock price for the three-month period August 1993 to October 1993. For dividend, Dr. Legler used the expected dividend for 1994 of \$2.33.²⁶ The resulting calculation produced a DCF cost of common equity for HEI of 10.6 per cent to 11.6 per cent. At the price prevailing on October 29, 1993 (\$37.785), the DCF results ranged from 10.7 per cent to 11.7 per cent. Dr. Legler subsequently revised his estimates, using the December 1993 to February 1994 prices. Based on the December to February average, Dr. Legler calculated HEI's DCF cost of common equity at 11.23 per cent to 12.3 per cent.

For his group of electric comparables, Dr. Legler initially calculated a DCF cost of common stock of 8.20 per cent to 9.23 per cent, based on average stock prices between August 1993 to

²⁵Retention growth rate is the product of percentage of earnings retained times earned rate of return on equity.

²⁶The \$2.33 was derived by adding to current dividend of \$2.32, \$0.01 increase in dividend for the next year. HEI had increased its dividend by \$0.01 a share in the fourth quarter of each of the last several years.

October 1993, and 8.37 per cent to 9.45 per cent, based on October 29, 1993 stock prices. On oral testimony, Dr. Legler revised his results to reflect the elimination of Central Maine Power from his group of electric comparables and to reflect the average stock prices between December 1993 and February 1994, and the stock price prevailing on February 28, 1994. As revised, the DCF cost of common equity for Dr. Legler's group of electric companies range from 8.63 per cent to 9.66 per cent, based on the average December to February prices, and from 8.88 per cent to 9.96 per cent, based on February 28, 1993, stock prices.

Dr. Legler does not believe that primary reliance should be had on the traditional risk premium (RP) method of estimating cost of common equity, due to volatile conditions and interest rate risk in the long-term bond market. Despite his reservations, Dr. Legler performed risk premium analyses on HEI and Moody's 24 electrics. Risk premiums are based on the differentials between the expectant returns on stocks and on long-term debt. The stock returns are based upon the DCF method.

For HEI, Dr. Legler calculated the risk premium on both retention (or sustainable) growth and analyst's forecasted growth. The retention growth rate is based on Value Line's projected data for earnings per share, dividends per share, and return on equity from its published reports on HEI towards the end of each year, 1978 to 1993; and the analysts' forecasted growth rate is based on Value Line's direct forecasted dividend growth rates. Dr. Legler derived the risk premium for HEI by first estimating HEI's cost of equity for the first of January of each year beginning 1979, based on the data in Value Line's report published toward the end of the

previous year, and then comparing each year's estimate to the 30-year treasury bond rate for December of the previous year. He also compared the expected return on HEI stock to the existing bond yield at the time Dr. Legler assumed to be the reported December Moody's public utility bond yield for the single-A rating class of the previous year. The difference between the DCF calculated return on equity and the then-current bond yield constituted the risk premium. Dr. Legler, then, averaged the risk premiums of the years in question.⁷⁷ Dr. Legler's calculations resulted in an average risk premium, based on the DCF analysis using Value Line's retention growth, of 2.75 per cent, relative to the treasury bond yield for the period 1979 to 1994. Relative to the treasury bond yield for the last five-year period, 1990 to 1994, the premium averaged 2.19 per cent. Relative to appropriate utility bond rates, the risk premium averaged 4.48 per cent for the period 1979 to 1994, and 1.17 per cent for the shorter period. The risk premium, based on the DCF estimated returns using Value Line's direct dividend growth forecasts, averaged 4.46 per cent relative to treasury bond and 2.87 per cent relative to utility bonds for the longer period, and 2.43 per cent and 1.05 per cent, respectively for the shorter term.

For the long-term debt component of the risk premium model, Dr. Legler initially used the November 4, 1993, 30-year United States government bond rate of 6.17 per cent. He also used the November 4, 1993, single-A rated public utility bond rate of 7.27 per cent. Dr. Legler in his written testimony calculated the

⁷⁷In averaging the risk premium results for the years 1979 to 1994, Dr. Legler excluded all negative risk premiums.

cost of common equity for HEI, based on long-term risk premium and treasury bond yield, at 8.92 per cent, at the retention growth rate, and 10.63 per cent, at Value Line's forecasted dividend growth rate. Based on short-term risk premium and treasury bond yield, Dr. Legler calculated the cost of common equity for HEI at 8.36 per cent at the retention growth rate and 8.51 per cent at the Value Line's forecasted dividend growth rate. Dr. Legler calculated the cost of common equity for HEI, based on long-term risk premium and utility bond yield, at 8.75 per cent, at the retention growth rate, and 10.14 per cent at the Value Line's forecasted dividend growth rate; based on short-term risk premiums and utility bond yield, Dr. Legler calculated the cost of common equity for HEI at 8.31 per cent at the retention growth rate and 8.44 per cent at the Value Line's forecasted dividend growth rate.

Dr. Legler applied the risk premium analysis to Moody's 24 electrics in a manner similar to the application of the method to HEI, except for the calculation of the growth rates. For Moody's 24 electrics, Dr. Legler based the growth rate, first, on a five-year moving average historical retention growth rate and, second, on a five-year historical dividend growth rate. The application of the risk premium method to Moody's 24 electrics produced a risk premium, relative to treasury bond, averaging 10.03 per cent, based on the historical retention growth rate, and 4.41 per cent, based on the historical dividend growth rate. Relative to utility bond yield, the calculation produced a risk premium averaging 9.49 per cent, based on the historical retention growth rate, and 10.04 per cent, based on the historical dividend growth rate.

Dr. Legler posited that overall, the cost of common equity, based on the risk premium model, should be about 10.6 per cent. On oral testimony, however, Dr. Legler acknowledged the rise in 30-year treasury bond rates of roughly 60 basis points since he prepared his written testimony. Therefore, he revised his estimate of the risk premium cost of equity to 11.2 per cent.

Dr. Legler is skeptical about using CAPM in estimating the cost of common equity. He asserts that ordinarily he does not use CAPM. However, he prepared calculations of the cost of common equity using the CAPM because this commission has in the past utilized the results of CAPM analysis in determining the cost of common equity. Dr. Legler used both the S&P betas and the Value Line betas in his calculation of the cost of common equity. Dr. Legler notes that Value Line reports that its betas are adjusted for their long-term tendency to converge towards 1.0.²⁸ Dr. Legler questions the truth of that statement, but applied Value Line's betas, nonetheless. S&P betas are unadjusted, raw betas. Value Line betas and S&P betas for Legler's group of electric comparables averaged 0.67 and 0.51, respectively. HEI's Value Line beta is 0.70, and its S&P beta is 0.59.

Based on the long-term historical market premium of 7.3 per cent and a risk-free 30-year United States Treasury bond rate of about 6.2 per cent, Dr. Legler calculated, in his written testimony, a cost of common equity for his group of comparables of 11.09 per cent, based on Value Line average beta, and 9.92 per cent, based on S&P average beta. For HEI, Dr. Legler derived a

²⁸Arnold Bernhard, How to Use the Value Line Investment Survey, at 61.

cost of common equity of 11.31 per cent, based on Value Line beta, and 10.51 per cent, based on S&P beta. For comparison, Dr. Legler calculated the cost of common equity for Mr. Benore's group of comparables, using the average Value Line average beta of 0.62 and average S&P beta of 0.44 per cent for that group of comparables. The results were 10.73 per cent, based on Value Line average beta, and 9.41 per cent, based on S&P average beta. In light of the rise in United States Treasury bond rates, in oral testimony Dr. Legler raised the CAPM cost of common equity for his comparable electrics, based on Value Line average beta, from 11.09 per cent to 11.7 per cent.

Dr. Legler performed a limited comparable earnings analysis. Dr. Legler did not perform the standard, traditional comparable earnings test in this docket, primarily because of the difficulty in determining what companies are comparable to the utility in question. Dr. Legler rejected the use of industrials as the only basis of comparison because of questionable comparability of the measured earnings and differences in risks of regulated and unregulated companies. Dr. Legler posits that his DCF analysis parallels the traditional comparable earnings approach and leads to the same conclusion.

However, Dr. Legler reviewed Value Line's direct estimates of the returns on book equity for the groups of comparable electrics and HEI. Value Line average projected returns for 1993, 1994, and 1996-1998 are 11.4 per cent, 11.3 per cent, and 11.7 per cent, respectively, for Legler's group of comparables. They are 9.5 per cent, 10.0 per cent, and 11.0 per cent, respectively, for HEI; and 12.0 per cent, 11.9 per cent, and

12.6 per cent, respectively for Mr. Benore's group of electric comparables. Dr. Legler concludes that these estimates suggest the reasonableness of his own estimates for his group of comparable electricians.

Based on the commission's precedent of considering the results of all three methodologies--DCF, RP, and CAPM--of averaging the average of the RP and CAPM results and the DCF result, Dr. Legler in his written testimony recommended a cost of common equity for HECO ranging between 10.8 per cent and 11.3 per cent, without issuance costs, and 11.0 per cent and 11.5 per cent with issuance costs of 20 basis points. In developing this range, Dr. Legler utilized (1) the mid-point of the HEI DCF results using average prices (11.3 per cent), (2) the upper end of HEI risk premium results based on longer-term risk premiums (10.6 per cent), and (3) the CAPM range of 9.9 per cent to 11.1 per cent. He also considered the trend in the stock market, the recent interest rates, and HECO's relative riskiness. For purposes of calculating a weighted average cost of capital, Dr. Legler recommended a cost of common equity of 11.25 per cent, the mid-point of the range. On oral testimony, Dr. Legler noted that his revisions place his DCF estimate at about 11.8 per cent, the RP estimate at about 11.2 per cent, and the CAPM estimate at 11.7 per cent, for a weighted average of 11.6 per cent. With 20 basis points added for issuance costs, the revised recommended cost of common equity is 11.8 per cent.

4. Discussion

a. HECO's comparables and methodologies

Primary issues in determining HECO's appropriate rate of return on common equity in this docket are HECO's use of the comparable risk DCF method and its use of "adjusted" beta in its CAPM analysis. In addition to the group of companies selected in accordance with the commission's criteria, HECO used as comparable companies 325 out of the universe of 1600 Value Line companies and applied the DCF method to that group of companies. As applied to this group of companies, the DCF method is re-named the comparable risk DCF. The comparable risk DCF method applied to the 329 Value Line companies having a safety ranking of 1 or 2 produced a cost of common equity of 13.2 per cent, a result far greater than the results produced by HECO's use of other methodologies.

Mr. Benore defends the use of the Value Line companies on the basis of that investors do not invest only in electric stocks and that investors require comparable returns for comparable risks. The sole basis for equating the risks of HECO to the risks of 329 Value Line companies is the similar Value Line safety ratings for the 329 Value Line companies and the six electric companies selected by HECO as electric comparables. In Decision and Order No. 11699, Docket No. 6998 (HECO's last rate case) and in Decision and Order No. 11893, Docket No. 6999 (HELCO's last rate case), we rejected the results of the application of the CRDCF model to the S&P 500 on the ground that the use of the S&P composite index of 500 common stocks is a departure from the use of "comparables" as we defined that term in Docket No. 6531. We noted in those decisions that S&P 500 companies are significantly more risky than

electric companies, since S&P companies operate in an environment where competition is more pronounced than in the environment in which electric utilities exist. Then, in Decision and Order No. 13429, Docket No. 7000 (MECO's last rate case) we rejected the use of Value Line companies for the same reason we rejected the use of the S&P 500 common stocks. We indicated there that the use of Value Line safety rankings as the sole criterion for determining comparability of the Value Line companies with HECO is insufficient and that comparables should be chosen on the basis of several indices to ensure that they are close to the utility in question in terms of risk, financial strength, and other characteristics. We noted in footnote 34 of Decision and Order No. 13429 some other possible criteria that could be applied.

As noted earlier, in Decision and Order No. 13429, we did acknowledge that it may now be appropriate, in light of changing circumstances, for the criteria for the selection of comparable companies, established by the commission in October 1991 in Docket No. 6531, to be applied advisedly. However, as stated in Decision and Order No. 13429, the commission will not accept Value Line companies as proxies for HECO, based solely on the asserted comparable risks determined through the application of Value Line safety ratings.

HECO's adjustment of betas in the computation of the cost of common equity using the CAPM was addressed in Decision and Order No. 13429, Docket No. 7000. We know of no one, other than Mr. Benore, in behalf of HECO, proposing weighting beta by the proportion of the stock held by institutions and by individuals. We know of no jurisdiction that has accepted such adjustment, and

we know of no text on finances that validates adjustments of beta to account for holdings by individual investors of stocks in a minimal number of companies. We note Dr. Legler's observations that Mr. Benore's adjustment of betas allows institutional investors to receive a return greater than they require and rewards individual investors for their failure to diversify away risk at the expense of ratepayers, and that under Mr. Benore's beta adjustment approach, two utilities with the same beta may have different required returns, depending on the percentage of one or the other types of investors in each.

A comment is also in order concerning HECO's use of the market equity risk premium model. In the application of this model, HECO applied the actual returns (as contrasted to expected returns) on bonds and stocks derived during the last economic cycle, 1983 to 1991, to determine equity risk premium. In Decision and Order No. 13429, Docket No. 7000 (MECO's last rate case), we expressed our preference for the use of expected returns, since investors invest based on return expectations. We acknowledged that the difference between expected returns and realized returns should diminish over a long period, as lower returns experienced over short-run periods are offset by higher returns over other short-run periods. However, we questioned Mr. Benore's use of the actual returns during the economic cycle 1983 to 1991. (Mr. Benore testified for MECO in that docket.) We questioned the sufficiency of the length of that period for the difference between expected returns and realized returns to narrow. In this docket, Mr. Benore represents that the equity risk premium has been relatively stable from one economic cycle to another, citing the average equity risk

premium of 6.5 per cent for the 1976 to 1982 economic cycle, as compared to the average equity risk premium of 6.3 per cent over the 1983 to 1991 economic cycle. We are not satisfied that the economic cycle of 1983 to 1991 provides a sufficient length of time for the actual returns over that period to be used in determining equity risk premium. However, as we did in Decision and Order No. 13429 for MECO, we will use Mr. Benore's results of the equity risk premium test, based on actual returns, as an indicator of the cost of HECO's common equity.

b. DOD's comparables

HECO objects to the use of HEI by DOD in calculating the cost of HECO's common equity. However, DOD notes that a parent company is sometimes used as a proxy for the utility in question. We are aware that HEI is not the same as HECO. HEI is a holding company with a number of subsidiaries, a number of which are not regulated electric utilities. For purposes of this docket, however, we will consider the results produced by DOD's application of the various costing methods in determining HECO's cost of common equity. The use of HEI tended to produce results on the higher end of the range of results produced by the various methodologies.

While we accept the results of the application of the various costing methodologies to HEI, we do not accept the results of the RP method applied to Moody's 24 electrics. There is nothing in the record to show on what basis Moody's 24 electrics may be deemed to be comparable to HECO. In Decision and Order No. 13429, we rejected the use of S&P 24 electrics by MECO solely on the basis of bond ratings falling within one rating of MECO's bonds. As

stated there, comparables should be chosen on the basis of a number of indices.

c. Commission's calculation of the cost of common equity

As in other dockets, experts disagree on the relative merits of the various methods of determining the cost of common equity. In this docket, both Dr. Malko and Dr. Legler would use the risk premium method and the CAPM with caution. On the other hand, Mr. Benore would give little, if any, weight to results produced by the traditional constant growth DCF. The position asserted by Mr. Benore in this docket is the same as that he advanced in Dockets No. 6998, No. 6999, and No. 7000. We are cognizant of the limitations of the DCF method. There are, however, shortcomings to be found in other methods, as well. Again, as before, we will consider the DCF, the RP, and the CAPM results in determining a utility's cost of common equity. The results of the DCF method and the combined results of the RP method and CAPM should be given equal weight.

The determination of a reasonable cost of common equity is ultimately a matter of informed judgment. We begin our analysis with the range of rates of return on common equity offered by each of the parties' witnesses. HECO presented four estimates, using four different methodologies: MERP, CAPM, electric utility DCF, and Value Line comparable risk DCF. We discard the result of the comparable risk DCF for the reasons stated above concerning utilization of Value Line companies as comparables to HECO. Although we have reservations about the use of a short period by

HECO in calculating equity risk premium in its MERP analysis, we will use HECO's MERP result with caution, since it is close to DOD's RP and CAPM results. We also discard the result of HECO's CAPM analysis because of the beta adjustments made by Mr. Benore. We will use all of the results of the DCF and CAPM analyses conducted by the Consumer Advocate. We also accept the results of all of the calculations made by DOD, except the results of the application of the RP method to Moody's 24 electrics, for the reason stated earlier. We acknowledge the concerns of HECO about the ability of HECO to earn the allowed return under the Consumer Advocate's and DOD's calculated results. However, any deficiency in the Consumer Advocate's or DOD's analyses can be accounted for in our final determination of HECO's cost of common equity.

The following summarizes the parties' calculations of the cost of common equity.

| <u>Party</u> | <u>Methodology</u> | <u>ROE With Issuance Cost</u> | <u>ROE Without Issuance Cost</u> |
|--------------|--------------------|---------------------------------------|--|
| HECO | DCF | 10.2% | 9.9% |
| HECO | MERP | 12.2% | 11.9% |
| CA | DCF | | 10.0% |
| CA | CAPM | | 10.2% |
| DOD | DCF | 12.0% | 11.8% |
| DOD | RP | 11.4% | 11.2% |
| DOD | CAPM | 11.9% | 11.7% |

In our calculations below, we ignore issuance costs. We consider issuance costs later in our discussion. If we average HECO's, the Consumer Advocate's, and DOD's DCF results we derive an average DCF cost of common equity of 10.6 per cent. The Consumer Advocate's and DOD's CAPM results average 11.0 per cent. The

average of HECO's MERP and DOD's RP and CAPM results is 11.4 per cent. If we follow our past practice of averaging the results produced by the DCF approach and the risk premium method (including the MERP and CAPM results), we calculate a cost of common equity of 11.0 per cent.

We now consider the arguments raised by HECO. HECO asserts that the results obtained from the application of the DCF model should be given little, if any, weight, due to the downward bias inherent in the results, that adjustments must be made for MECO's higher risks as compared to those of the comparable companies selected pursuant to the commission's criteria, and that issuance cost should be included in any computation. We agree with HECO that there is currently a downward bias in the DCF model. However, we do not consider such downward bias as justifying the total elimination of the results derived from the application of the DCF model. We consider the use of the results of the DCF model, with caution, and make such adjustments as we deem appropriate in our final cost of common equity.

We also agree that HECO's business risk is higher than the business risks of the comparables used by all of the parties. The reliance on imported oil as fuel source, the lack of interconnection with reliable outside sources of power, and the need for capital investments are factors that make investment in HECO more risky than investments in other companies. In addition, the current national and local economic conditions and HECO's minimal investment grade bond rating are matters of concern. Taking all of these risk factors into consideration, we believe that an upward adjustment of 115 basis points to the 11.0 per cent

cost of common equity derived above is appropriate. Such an adjustment is necessary to allow for HECO's business and financial risks. It also recognizes the effects of national and local economies and the currently increasing interest rates. By this adjustment the rate of return on common equity rises to 12.15 per cent.

The 12.15 per cent is higher than HECO's, the Consumer Advocate's, or DOD's calculated return on common equity, without issuance costs. It is close to HECO's MERP result and to DOD's DCF and CAPM results, with issuance costs. We, thus, consider it unnecessary to consider in this docket the relative merits of allowing for stock issuance costs, although HECO strenuously argues for issuance costs of 30 basis points and DOD recommends issuance costs of 20 basis points. Upon consideration of all factors, we conclude that a rate of return of 12.15 per cent on common equity is reasonable.

G. Cost of Capital

As a result of our conclusions regarding the average-year capital structure and the cost of the various component parts of HECO's capital structure, the overall weighted cost of capital for HECO for test year 1994 is 9.38 per cent.

| | Capitalization Amount (000s) | Per Cent | Cost Rate | Weighted Capital Cost |
|-----------------|------------------------------------|--------------|--------------|-----------------------------|
| Short-term debt | 45,240 | 5.56 | 4.00% | 0.22% |
| Long-term debt | 315,065 | 38.69 | 7.67% | 2.74% |
| Preferred stock | 49,582 | 7.32 | 7.30% | 0.53% |
| Common equity | <u>394,000</u> | <u>48.44</u> | 12.15% | <u>5.89%</u> |
| Total | \$814,379 | 100.00 | | 9.38% |

Upon weighing all the evidence in this proceeding, a fair and reasonable return to HECO in its properties actually used and useful for public utility purposes is 9.38 per cent for test year 1994. This return, in the commission's opinion, satisfies the guidelines set forth in Bluefield and Hope.

VII.

COST OF SERVICE, REVENUE ALLOCATION, AND RATE DESIGN

A. Cost of Service

In its embedded cost of service study, HECO followed these three major steps in allocating the utility's total cost to the various rate classes: (1) functionalization of costs and rate base items into the major operating functions of production, transmission, and distribution; (2) classification of these functions into energy-related, demand-related, and customer-related cost components; and (3) allocation of these cost components to the various rate classes.

In the functionalization step, HECO assigned all costs associated with generation, including fuel cost and purchased power expense, to the production function. It assigned all costs associated with transferring power from power plants to substations or between switching stations at transmission voltage levels to the transmission function. It assigned all costs associated with delivering power from transmission voltage levels through the distribution system to the customer to the distribution function.

In the classification step, HECO followed the cost classification rationale contained in NARUC's Electric Utility Cost Allocation Manual. Following that rationale, HECO assigned the

VOLUMINOUS

TIEC 1-2 Attachment 19 is a VOLUMINOUS attachment.

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. G-5, SUB 565

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of
Application of Public Service Company of) ORDER APPROVING RATE
North Carolina, Inc. for a General Increase) INCREASE AND INTEGRITY
in its Rates and Charges) MANAGEMENT TRACKER

HEARD: Gaston County Courthouse, Gastonia, North Carolina, on August 23, 2016; Buncombe County Courthouse, Asheville, North Carolina, on August 24, 2016; Government Center, Statesville, North Carolina, on August 25, 2016; and Commission Hearing Room 2115, Dobbs Building, Raleigh, North Carolina, on August 29 and 30, 2016

BEFORE: Commissioner ToNola D. Brown-Bland, Presiding, Chairman Edward S. Finley, Jr., Commissioners Bryan E. Beatty, Don M. Bailey, Jerry C. Dockham, James G. Patterson, and Lyons Gray

APPEARANCES:

For Public Service Company of North Carolina, Inc.:

Mary Lynne Grigg, McGuireWoods, LLP, 434 Fayetteville Street, Suite 2600, Raleigh, North Carolina 27601

William R. Pittman, Post Office Box 706, Raleigh, North Carolina 27602

B. Craig Collins, Associate General Counsel, SCANA Corporation, MC C222, 220 Operation Way, Cayce, South Carolina 29033-3701

For the Using and Consuming Public:

Gina C. Holt, William Grantmyre, and Heather Fennell, Staff Attorneys, Public Staff – North Carolina Utilities Commission, 4326 Mail Service Center, Raleigh, North Carolina 27699-4300

Margaret A. Force, Assistant Attorney General, North Carolina Department of Justice, Post Office Box 629, Raleigh, North Carolina 27602

For Carolina Utility Customers Association, Inc.:

Robert F. Page, Crisp, Page & Currin, LLP, 4010 Barrett Drive, Suite 205, Raleigh, North Carolina 27609

For Blue Ridge Paper Products, Inc., d/b/a Evergreen Packaging:

Adam Olls and Jeffrey D. McKinney, Bailey & Dixon, LLP, 434 Fayetteville Street, Suite 2500, Raleigh, NC 27601

BY THE COMMISSION: On February 17, 2016, Public Service Company of North Carolina, Inc. (PSNC or the Company), filed its Letter of Intent to File for authority to adjust and increase its retail natural gas rates and charges pursuant to Commission Rule R1-17(a).

On March 3, 2016, the Carolina Utility Customers Association, Inc. (CUCA), filed a Petition to Intervene, which was granted by the Commission on March 7, 2016.

On March 31, 2016, PSNC filed an Application for a General Rate Increase (Application) seeking a general increase in and revisions to its rates and charges, implementation of a new Integrity Management Tracker mechanism, implementation of new depreciation rates, updates and revisions to the Company's service regulations and tariffs, and proposed funding for gas distribution research activities conducted by the Gas Technology Institute. Included with its Application was information and data required by NCUC Form G-1, pursuant to Commission Rule R1-17(b)(12). In addition, the Application was supported by the direct testimony and exhibits of Company witnesses: D. Russell Harris, President and Chief Operating Officer of PSNC and President of Gas Operations for South Carolina Electric & Gas Company (SCE&G); Jimmy E. Addison, Executive Vice President and Chief Financial Officer of PSNC, SCANA Corporation, and the other subsidiaries of SCANA; George B. Ratchford, Vice President – Gas Operations for PSNC; Sharon D. Boone, Business Unit Controller of PSNC; James A. Spaulding, Financial Accounting Manager for PSNC; Candace A. Paton, Rates & Regulatory Manager for PSNC; Rose M. Jackson, General Manager – Supply & Asset Management for SCANA Services, Inc.; Robert B. Hevert, Partner of ScottMadden, Inc.; and John J. Spanos, Senior Vice President of Gannett Fleming Valuation and Rate Consultants, LLC.

By Order Scheduling Investigation and Hearing, Suspending Proposed Rates, Establishing Intervention and Testimony Dates and Discovery Guidelines, and Requiring Public Notice issued April 26, 2016, and corrected in the Errata Order issued on April 27, 2016 (collectively, Scheduling Order), the Commission declared the Company's Application to be a general rate case pursuant to G.S. 62-137 and suspended the proposed rates for a period of up to 270 days from and after May 1, 2016. In addition, the Scheduling Order set the matter for public witness and expert witness hearings, required the Company to give notice of the hearings, established discovery guidelines, and established a date for petitions to intervene and for the prefilings of direct testimony by the Public Staff and other intervenors, and established a date for the filing of rebuttal testimony by the Company.

On May 31, 2016, Blue Ridge Paper Products Inc. d/b/a Evergreen Packaging (Evergreen) filed a Petition to Intervene. Evergreen's Petition was granted by Commission Order dated June 2, 2016.

On June 13, 2016, the Attorney General filed its Notice of Intervention pursuant to G.S. 62-20. Also on this date, PSNC, on behalf of attorney B. Craig Collins, filed a Motion for Admission to Practice pursuant to G.S. 84-4.1 seeking an order from the Commission allowing Mr. Collins to appear before the Commission on behalf of PSNC in this proceeding. By Order dated June 14, 2016, the Commission granted the request of Mr. Collins for admission pro hac vice in the present docket.

On June 16, 2016, PSNC filed affidavits of publication of public notice.

Between June 22, 2016 and September 21, 2016, the Commission received four consumer statements of position regarding PSNC's rate increase proposal.

On June 23, 2016, PSNC filed its Certification that it had provided Notice of Hearing to each of its customers.

On August 8, 2016, the Public Staff filed a Motion for Extension of Time in which it sought an extension of the dates for filing Public Staff, Intervenor, and Company rebuttal testimony. The Commission approved a shortened extension of time by Commission Order dated August 9, 2016.

On August 12, 2016, PSNC and the Public Staff filed a Joint Motion for Extension of Time in which the parties requested the Commission to reconsider its prior order and grant the extension period originally requested. The Commission approved the extension by Order dated August 17, 2016. On August 17, 2016, the Public Staff by verbal motion requested that the Commission grant the Public Staff and Intervenors an extension until noon of the following day within which to file their testimony. This motion was granted by Order dated August 17, 2016.

On August 18, 2016, PSNC, CUCA, Evergreen, and the Public Staff (Stipulating Parties) filed a Partial Stipulation resolving most of the issues between these parties. On the same date, the Public Staff filed the direct testimony and exhibits of James G. Hoard, Director, Accounting Division; Michelle M. Boswell, Staff Accountant, Natural Gas Section, Accounting Division; Julie G. Perry, Supervisor of the Natural Gas Section of the Accounting Division; and Jan A. Larsen, Director of the Natural Gas Division.

On August 22, 2016, PSNC filed a Motion for Extension of Time in which it sought a two-day extension of time for PSNC to file a list of hearing witnesses and estimate of cross-examination times. On the same date, the Stipulating Parties filed a corrected page 7 of the Partial Stipulation.

On August 23, 2016, the Commission issued an Order granting PSNC's request for an extension of time to file the witness list and cross-examination estimate.

On August 24, 2016, PSNC filed the supplemental testimony of Robert B. Hevert. On the same date, PSNC filed its Witness List and Motion to Excuse Witnesses, wherein the Company, after consulting with all of the parties of record, provided the

proposed order of appearance of witnesses and estimates of cross-examination times. PSNC also requested in the filing that Company witnesses Harris, Boone, Spaulding, Jackson, and Spanos and Public Staff witness Larsen be excused from appearing at the expert witness hearing, since none of the parties had questions for these witnesses. PSNC also filed a Motion for Extension of Time requesting an extension until noon on August 25, 2016, for PSNC to file its rebuttal and supplemental testimony.

On August 23, 2016, the matter came on for a public witness hearing in Gastonia as scheduled. No person appeared to testify as a public witness.

On August 24, 2016, a public witness hearing was held in Asheville as scheduled. No person appeared to testify as a public witness.

By Order dated August 25, 2016, the Commission granted the Company's extension of time to file rebuttal and supplemental testimony.

On August 25, 2016, PSNC filed the supplemental testimony of Candace A. Paton, the rebuttal testimony of Jimmy E. Addison, and the rebuttal testimony of Candace A. Paton. On the same date, the Stipulating Parties filed an Amended Partial Stipulation. The Public Staff also filed an Amended Exhibit C, which amended page 2 of Public Staff witness Larsen's original filed Exhibit C in support of the Amended Partial Stipulation.

Also on August 25, 2016, a public witness hearing was held in Statesville as scheduled. No person appeared to testify as a public witness.

On August 29, 2016, the Commission issued an Order Denying in Part Motion to Excuse Witnesses, in which the Commission excused only Company witnesses D. Russell Harris, James A. Spaulding, and John J. Spanos from attending the expert witness hearing. In addition, the Commission accepted their testimony and exhibits into evidence.

Also on August 29, 2016, the Stipulating Parties filed a Stipulation and Exhibits by and between the Stipulating Parties resolving all issues between them. On the same date, PSNC filed the supporting supplemental testimony and Exhibits of Candace A. Paton, and the Public Staff filed witness Boswell's Revised Exhibit 1 in support of the Stipulation.

On August 29, 2016, a public witness hearing was held in Raleigh as scheduled. No person appeared to testify as a public witness.

On August 30, 2016, the Commission convened the final public witness hearing and the expert witness hearing in Raleigh as scheduled. No person appeared to testify as a public witness. On the same date, the Stipulating Parties filed an Amended Stipulation, which made corrections to the Stipulation filed on the previous day.

At the hearing, the Company reported, and the Stipulating Parties confirmed, that following substantial negotiations a comprehensive agreement had been reached between the Company, the Public Staff, CUCA, and Evergreen, and that this agreement resolved all issues in the case as between those parties, and that this agreement was reflected in the Amended Stipulation.

At the hearing, the various prefiled direct and supplemental testimony and exhibits of the following Company witnesses were offered and accepted into evidence by the Commission: D. Russell Harris, Jimmy E. Addison, Robert B. Hevert, John J. Spanos, George B. Ratchford, Sharon D. Boone, James A. Spaulding, Candace A. Paton, and Rose M. Jackson. Company witnesses Addison, Hevert, Ratchford, Boone, Paton, and Jackson testified at the hearing. The various prefiled direct testimony and exhibits of the following Public Staff witnesses were offered and accepted into evidence by the Commission: Michelle Boswell, Julie Perry, and Jan Larsen. Public Staff witnesses Boswell and Larsen testified at the hearing.

On September 1, 2016, the Public Staff filed two late-filed exhibits pertaining to the supporting workpapers and the calculation of the lead-lag working capital reflected in the Amended Stipulation pursuant to Commission request.

On September 6, 2016, PSNC filed Late-Filed Exhibits B and D and Revised Exhibit C to the Amended Stipulation.

On September 14, 2016, PSNC filed a letter with the Commission stating that it had reviewed the two late-filed exhibits filed by the Public Staff on September 1, 2016, which included work papers with updated adjustments to working capital, and agreed that the exhibits accurately reflect the information that Presiding Commissioner Brown-Bland requested PSNC to provide.

On October 10, 2016, PSNC and the Public Staff filed a Joint Proposed Order.

On October 10, 2016, the Attorney General filed a post-hearing Brief.

On October 14, 2016, PSNC filed a motion requesting leave to file a Reply Brief, and filed its proposed Reply Brief.

On October 19, 2016, the Attorney General filed a motion for leave to file a Response Brief, and filed his Response Brief.

The Commission hereby accepts the filing of PSNC's Reply Brief and the Attorney General's Response Brief.

Based upon the verified Application, the testimony and exhibits received into evidence at the hearings, the Amended Stipulation, the late-filed exhibits, and the record as a whole, the Commission makes the following:

FINDINGS OF FACT

Jurisdiction

1. PSNC is a corporation organized and existing under the laws of the State of South Carolina, duly authorized to do business in and engaged in the business of transporting, distributing, and selling natural gas within North Carolina.

2. PSNC is a public utility within the meaning of G.S. 62-3(23).

3. The Commission has jurisdiction over, among other things, the rates and charges, rate schedules, classifications, and practices of PSNC in its capacity as a public utility.

4. In the Application in this docket, PSNC is seeking approval of: (a) a general increase in and revisions to the rates and charges for customers served by the Company; (b) certain changes to the cost allocation, rate designs, and practices underlying existing rates for the Company; (c) changes to the Company's existing service regulations and tariffs; (d) implementation of a new Integrity Management Tracker (IMT) mechanism; (e) implementation of new depreciation rates; (f) proposed funding of gas distribution research and development activities conducted by the Gas Technology Institute (GTI); (g) authority to include \$2,000,000 related to distribution integrity management program operations in the Company's cost of service; and (h) implementation of a rate decrement to refund to its customers over a one-year period the Company's excess deferred income tax balance as of December 31, 2015.

5. The Company is properly before the Commission with respect to the relief sought in the Application in this proceeding pursuant to the provisions of Chapter 62 of the North Carolina General Statutes, and the Commission's Rules.

Test Period

6. The parties submitting evidence in this case with respect to revenue, expenses, and rate base levels used a test period of the twelve months ended December 31, 2015, adjusted for certain known and measurable changes through June 30, 2016, or thereafter, and the Amended Stipulation was based upon the same test period.

7. The appropriate test period for use in this proceeding is the twelve months ended December 31, 2015, updated for certain known and measurable changes through June 30, 2016, or thereafter.

Amended Stipulation

8. In summary, the Amended Stipulation executed by PSNC, the Public Staff, CUCA, and Evergreen resolves all issues in this docket, and is actively supported or not opposed by all parties to this docket with the exception of the Attorney General.

9. After carefully reviewing the Amended Stipulation, the Commission finds and concludes that the Amended Stipulation is the product of give-and-take in settlement negotiations among the Stipulating Parties, and is material evidence entitled to be given appropriate weight by the Commission.

Revenue Increase

10. The Application seeks an increase in annual revenues for the Company of \$41,583,020. The Amended Stipulation provides for a total increase in annual revenues for the Company of \$19,054,160, of which \$276,576 is recovered through the proposed increase in other operating revenues. The Commission finds and concludes that the revenue increase agreed upon in the Amended Stipulation is just, reasonable and appropriate for use in this proceeding.

Rate Base

11. The Stipulating Parties agreed that the original cost of the Company's used and useful property, or property to be used and useful within a reasonable time after the test period, in providing natural gas utility service to the public within North Carolina is \$946,722,235, consisting of gas plant in service of \$1,839,643,565, and working capital – lead lag of \$13,714,498, reduced by accumulated depreciation of \$657,141,088, working capital – other of \$7,817,284, and accumulated deferred income taxes of \$241,677,456, as set forth in Paragraph 4 and Exhibit A of the Amended Stipulation, the Public Staff Late-Filed Exhibit I, and reflected on Schedule 1 hereto. These provisions of the Amended Stipulation are just, reasonable and appropriate for use in this docket.

Revenues and Operating Expenses

12. The Stipulating Parties agree that the Company's end-of-period *pro forma* revenues under present rates for use in this proceeding are \$434,445,667, comprised of \$430,126,449 of sales and transportation revenues, \$792,254 of special contract revenues, and \$3,526,964 of other operating revenues, as set forth in Paragraph 5 and Exhibit A of the Amended Stipulation. The Amended Stipulation further details that the Company's *pro forma* annual operating revenues under the agreed upon rates, which are appropriate for use in this proceeding are \$453,499,827, comprised of \$448,904,033 of sales and transportation revenues, \$792,254 of special contract revenues, and \$3,803,540 of other operating revenues, as set forth in Paragraph 5 and Exhibit A of the Amended Stipulation. These provisions of the Amended Stipulation are just, reasonable and appropriate for use in this docket.

13. The Stipulating Parties agreed that the Company's operating expenses are \$201,794,646, including actual investment currently consumed through reasonable actual depreciation, as set forth on Public Staff Late-Filed Exhibit I. These provisions of the Amended Stipulation are just, reasonable and appropriate for use in this docket.

Capital Structure

14. The capital structure set forth in Paragraph 5.B. of the Amended Stipulation and supported by expert witness evidence, consisting of 52.0% common equity, 44.62% long-term debt at a cost of 5.52%, and 3.38% short-term debt at a cost of 0.77%, is just, reasonable and appropriate for use in this docket.

Return

15. Based on the expert witness evidence and the Amended Stipulation, the overall rate of return that the Company should be allowed the opportunity to earn on the cost of the Company's used and useful property is 7.53%, as set forth in Paragraph 5.D. and Exhibit A of the Amended Stipulation. This overall rate of return is just, reasonable and appropriate for use in this docket.

16. Based on the expert witness evidence and the Amended Stipulation, the rate of return on common equity that the Company should be allowed the opportunity to earn in this docket is 9.70%, as set forth in Paragraph 5(C) of the Amended Stipulation. This rate of return on common equity is just, reasonable and appropriate for use in this docket.

17. The authorized levels of overall rate of return and rate of return on common equity set forth above are supported by competent, material, and substantial record evidence, are consistent with the requirements of G.S. 62-133, and are fair to PSNC's customers in light of changing economic conditions or otherwise.

18. With respect to the foregoing ultimate findings on the appropriate overall rate of return on rate base and allowed rate of return on common equity for use in this proceeding, the Commission relies on the following more specific findings of fact:

a. The overall rate of return on rate base and allowed rate of return on common equity underlying PSNC's current base rates are 8.54% and 10.60% respectively.¹

¹ See In the Matter of Application of Public Service Company of North Carolina, Inc., for a General Increase in its Rates and Charges, Order Approving Partial Rate Increase and Requiring Conservation Program Filing and Reporting, Docket No. G-5, Sub 495 (Oct. 24, 2008) (2008 Rate Order).

b. PSNC's current base rates became effective on November 1, 2008 and have been in effect since that date except for adjustments due to the Company's Customer Usage Tracker mechanism and state tax changes.

c. In its Application, PSNC sought approval for rates which were based on an overall rate of return on rate base of 8.14% and an allowed rate of return on common equity of 10.60%.

d. In the Amended Stipulation, the Stipulating Parties seek approval of an overall rate of return on rate base of 7.53% and an allowed rate of return on common equity of 9.70%.

e. The current Commission authorized allowed rate of return on common equity underlying Piedmont Natural Gas Company, Inc.'s base rates is 10.0%.²

f. The current Commission authorized allowed rate of return on common equity for Duke Energy Carolinas, LLC, Duke Energy Progress, LLC and Dominion North Carolina Power is 10.2%.³

g. Since January 1, 2014, a total of 24 of the 54 authorized rates of return on equity for natural gas utilities were 9.70% or above, with the average authorized rate of return on equity in all such cases being 9.65%.

h. In determining the rate of return on equity for PSNC, it is inappropriate to rely on past rate of return on equity determinations authorized for other utilities without evidence tying those determinations to the facts of this case. It is, however, appropriate to note such past determinations as a check or as corroboration of the Commission's decision regarding the cost of equity demonstrated by the evidence in the present proceeding.

i. The stipulated overall rate of return on rate base of 7.53% and allowed rate of return on common equity of 9.70% are supported by credible, competent, material, and substantial evidence.

j. Continuous safe, adequate, and reliable natural gas service by PSNC is essential to the well-being of the people, businesses, institutions and economy of PSNC's North Carolina service area.

² Order Approving Partial Rate Increase and Allowing Integrity Management Rider, Docket No. G-9, Sub 631 (December 17, 2013).

³ Order Granting General Rate Increase, Docket No. E-7, Sub 1026 (September 24, 2013); Order Granting General Rate Increase, Docket No. E-2, Sub 1023 (May 30, 2013); and Order Granting General Rate Increase, Docket No. E-22, Sub 479 (December 12, 2012).

k. The rate of return on PSNC's equity approved by the Commission appropriately balances the benefits received by PSNC's customers from PSNC's provision of safe, adequate, and reliable natural gas in support of the well-being of the people, businesses, institutions, and economy of North Carolina, with the difficulties that some of PSNC's customers will experience in paying PSNC's increased rates.

l. Substantial expert evidence presented in this matter, uncontroverted by other expert testimony on the subject, indicates that the overall economic climate in North Carolina and PSNC's service territory (as well as nationally) continues to improve. This evidence includes data and projections from reliable sources indicating that in the few months before the hearing in this matter: (i) unemployment rates were declining; (ii) real gross domestic product growth was continuing; (iii) median household income was growing; (iv) total personal income and disposable income was increasing; (v) personal consumption was improving; (vi) wages and salaries were increasing; (vii) the number of mortgages past due decreased; (viii) North Carolina exports were materially increasing; (ix) residential construction permits were increasing; and (x) housing market indicators were mostly positive. No public witnesses appeared at the public hearings held in Gastonia, Asheville, Statesville, and Raleigh.

m. The 9.70% rate of return on equity takes into account the impact of changing economic conditions on consumers. The authorized revenue amount available to pay a return on equity is lower for PSNC because the Amended Stipulation reduced downward PSNC's requested revenue requirement, and this reduction is intertwined with the decision on rate of return on equity in that it affects the earnings available to investors and the rates customers will pay.

n. No party submitted evidence showing that any regulatory commission applies increments or decrements to the return on equity to account for economic conditions or customer ability to pay.

o. PSNC has made significant capital investments since its last rate case in 2008, much of which relates to the Company's integrity management programs in compliance with federal regulations to enhance the safety and integrity of its natural gas transmission facilities. Additionally, the Company plans to make significant capital investments in the future.

p. Access to capital at reasonable rates is critical to PSNC's ability to fund its ongoing capital investment requirements and PSNC's provision of safe, adequate, and reliable natural gas.

q. Establishing an allowed rate of return on common equity at a rate of 9.70% is as low as reasonably possible without unduly jeopardizing PSNC's ability to access capital on reasonable terms.

r. The 9.70% return on equity and the 52.00% equity financing approved by the Commission in this case results in a cost of capital that will enable PSNC by sound management to produce a fair return for its shareholders, considering changing economic conditions, and is just, reasonable and fair to PSNC's customers. It appropriately balances PSNC's need to obtain financing and maintain a strong credit rating with its customers' need to pay the lowest possible rates.

Throughput

19. For the purpose of this proceeding, the appropriate level of adjusted sales and transportation volumes is 937,082,412 therms, which is comprised of 491,921,582 therms of sales quantities, 316,664,980 therms of transportation quantities, and 128,495,850 therms of special contract quantities. The appropriate level of lost and unaccounted for gas is 7,027,614 therms and company use gas is 870,521 therms. The appropriate level of purchased gas supply is 499,819,717 therms, consisting of sales volumes and company use and lost and unaccounted for gas.

Cost of Gas

20. The total cost of gas reasonable and appropriate for use in this proceeding is \$180,388,055, as described in Paragraph 7.B. and Exhibit E of the Amended Stipulation and consisting of \$110,682,356 in commodity costs, \$1,777,080 in company use and lost and unaccounted for costs, and \$67,928,619 in fixed gas costs.

21. The Benchmark Commodity Cost of Gas reasonable and appropriate for use in this proceeding is \$0.225 per therm, as described in Paragraph 7.A. of the Amended Stipulation subject to any filed changes in such rate prior to implementation of effective rates in this docket.

22. The fixed gas costs that should be embedded in the proposed rates and used in true-ups of fixed gas costs for periods subsequent to the effective date of rates in this docket, in proceedings under Commission Rule R1-17(k), subject to any filed changes in such costs prior to **the effective date of rates** in this docket, are those derived from the fixed gas cost allocation percentages discussed in Paragraph 5 of the Amended Stipulation and set forth in Exhibit C to the Amended Stipulation.

Rate Design

23. The rate design and rates, including volumetric rates, fixed monthly charges, and other charges, as described in Paragraph 5 of the Amended Stipulation and reflected in the columns entitled "Monthly Facilities Charges" and "Energy Charges" on Exhibit B of the Amended Stipulation (as the same may be adjusted for any changes in the Company's Benchmark or changes in Demand and Storage Charges prior to the effective date of the rates in this docket), are just, reasonable and appropriate for use in this docket.

Integrity Management Tracker

24. The IMT attached to the Amended Stipulation in Exhibit H is just, reasonable, appropriate and consistent with G.S. 62-133.7A, and should be approved and implemented as provided in Paragraph 10 of the Amended Stipulation, and Rider E of the Company's tariffs.

Customer Usage Tracker Factors

25. The "R" values, baseload and heat sensitive factors set forth on Late Filed Exhibit D to the Amended Stipulation and reflected in Paragraph 6 of the Amended Stipulation are reasonable and appropriate for use with the Company's Customer Usage Tracker (CUT) mechanism on or after the effective date of rates, and should be approved.

Amortization of Deferred Regulatory Assets

26. The proposed amortization of certain deferred regulatory assets, as set forth and described in Paragraphs 5(G) through 5(I) of the Amended Stipulation, is just, reasonable and appropriate and should be approved.

Implementation of State Income Tax Changes

27. The Stipulating Parties' agreement to decrease the North Carolina corporate income tax reflected in rates pursuant to North Carolina Session Law 2015-241, and as set forth in Paragraph 8 of the Amended Stipulation, is just, reasonable and appropriate and should be approved.

Depreciation Rates

28. The Stipulating Parties' agreement regarding the depreciation rates proposed by the Company as set forth in Paragraph 9 of the Amended Stipulation is just, reasonable and appropriate and should be approved effective January 1, 2017.

Changes to Tariff Rules and Regulations

29. PSNC's Tariff and Rules and Regulations included in witness Paton's Exhibit 4, with the exception of the Summary of Rates and Charges, Riders C and E, and the Transportation Pooling agreement, are just, reasonable and appropriate and should be approved. In addition, revised Riders C and E and the revised Transportation Pooling Agreement, as described in Paragraph 11 and Exhibit H of the Amended Stipulation, are just, reasonable and appropriate and should be approved.

Excess Deferred Income Taxes

30. The Stipulating Parties agreed to implement a temporary decrement in rates to refund excess deferred income taxes (EDIT) over a one-year period, as set forth in Paragraph 12 of the Amended Stipulation, and further agreed that any balance remaining after the twelve-months should be transferred to the All Customers' Deferred Account. This proposed treatment is just, reasonable and appropriate and should be approved.

Conservation Program Expenditures

31. The Stipulating Parties' agreement to continue funding of conservation programs at a level of \$750,000 per year, as reflected in test year operating expenses and set forth and described in Paragraph 13 of the Amended Stipulation, is just, reasonable and appropriate and should be approved.

Gas Technology Institute Research Funding

32. The funding of GTI research and development activities of \$268,631 per year, as discussed in Paragraph 14 of the Amended Stipulation and set forth in the Public Staff Late-Filed Exhibit I, is just, reasonable and appropriate and should be approved.

Miscellaneous Matters

33. Use of the overall rate of return, adjusted for income taxes, as the Allowance for Funds Used During Construction rate for the Company is just, reasonable and appropriate, and should be approved.

34. The Stipulating Parties agreed that beginning with the month in which rates become effective in this docket, PSNC will use an interest rate of 6.6% per annum as the applicable interest rate on all amounts over-collected or under-collected from customers reflected in PSNC's Sales Customers Only, All Customers, and Hedging Deferred Gas Cost Accounts. The Stipulating Parties also agreed that the methods and procedures used by PSNC for the accrual of interest on the Deferred Gas Cost Accounts will remain unchanged. These provisions of the Amended Stipulation are just, reasonable and appropriate and should be approved.

35. The Stipulating Parties agreed that PSNC shall file its GS-1 Report in a format similar to the ES-1 Reports filed by the electric utilities. This is reasonable and appropriate and should be approved.

36. Beginning with the January 2017 report, PSNC shall add to its monthly report on the SCANA Utility Money Pool the net daily balance of loans and receipts, and the total net interest amount on the balances. This information will be provided for the month, and for the calendar year to date.

Consumer Statements of Position

37. Although not evidence in this proceeding, the Commission has read and given appropriate consideration to the consumer statements of position received by the Commission, the Public Staff and the Attorney General.

Acceptance of Amended Stipulation

38. The Commission finds and concludes in light of the evidence presented that the provisions of the Amended Stipulation are just and reasonable to the customers of PSNC and to all parties to this proceeding, and serve the public interest. Therefore, the Amended Stipulation should be approved in its entirety. In addition, it is entitled to substantial weight and consideration in the Commission's decision in this matter.

Just and Reasonable Rates

39. The Commission finds and concludes that the rates approved herein are just and reasonable to the customers of PSNC, to PSNC, and to all parties to this proceeding, and serve the public interest.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 1-5

The evidence supporting these findings is contained in the Company's verified Application, the testimony and exhibits of the Company's witnesses, the Form G-1 that was filed with the Application, and the Commission's records as a whole. These findings are jurisdictional and procedural in nature and are not contested by any party.

On March 31, 2016, PSNC filed a verified Application for an increase in its base rates. In summary, the application seeks a \$41,583,020 increase in PSNC's annual North Carolina revenues. This would be an overall increase of 9.66% in PSNC's revenue. Further, the application seeks approval of a 10.6% rate of return on common equity (ROE), an 8.14% overall return on rate base, and a capital structure of 53.5% common equity, 3.38% short-term debt, and 43.12% long-term debt. PSNC's present authorized ROE and overall return are 10.6% and 8.54%, respectively. PSNC's present authorized capital structure is 54% common equity, 10.5% short-term debt, and 35.5% long-term debt. Its authorized cost of debt is 3.25% for short-term debt and 6.96% for long-term debt. See Order Approving Partial Rate Increase, Docket No. G-5, Sub 495 (Oct. 24, 2008) (2008 Rate Order). The Application states that during the 12-month test period PSNC's overall rate of return on its North Carolina retail rate base was 7.84%.

According to the Application, since its last general rate case in 2008 PSNC's business has been impacted by a heightened awareness of and focus on pipeline safety, low and stable natural gas prices, the opportunity to acquire additional pipeline capacity, PSNC's need to invest in pipeline enhancement projects, and the expanded use of technology to more efficiently serve its customers. PSNC states that it has added 77,025 customers, installed over 1,424 miles of transmission and distribution mains, invested

approximately \$609 million in its utility property, and incurred over \$19 million in deferred environmental and pipeline safety costs.

In its Application, PSNC requests approval of a rider to its rates to provide for ongoing recovery of its capital costs related to pipeline safety improvements and management. In addition, PSNC recommends new annual depreciation rates based on a depreciation study conducted pursuant to Commission Rule R6-80. Further, PSNC seeks to update and revise certain tariff provisions, including changes to its industrial tariff and pooling agreement, and a new Medium General Service rate. Moreover, PSNC requests approval of a rate decrement for one year to refund to its customers an excess accumulated income tax balance of \$7.3 million. PSNC requests that its new rates be effective on November 1, 2016.

PSNC is a public utility within the meaning of G.S. 62-3(23). Therefore, pursuant to G.S. 62-30, et seq., the Commission has jurisdiction to consider and decide PSNC's Application for a rate increase.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 6-7

The evidence supporting these findings is contained in the Company's verified Application, the testimony and exhibits of the Company's witnesses, and the Form G-1 that was filed with the Application.

The Company filed its Application and exhibits using a test period of the twelve months ended December 31, 2015. In its Order of April 26, 2016, the Commission ordered the parties to use a test period of the twelve months ended December 31, 2015, with appropriate adjustments. The Amended Stipulation is based upon the test period ordered by the Commission, and this test period is not contested by any party. In the Amended Stipulation, the Stipulating Parties agreed to make appropriate adjustments to the test period data for circumstances occurring or becoming known through June 30, 2016, or thereafter. These adjustments were not contested by any party.

The Commission finds and concludes that the Company's use of a test period of the twelve months ended December 31, 2015, with appropriate adjustments, comports with the requirements of G.S. 62-133 and Commission Rule R1-17, and is appropriate for use in this proceeding.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 8-9

These findings are supported by the testimony of Company witness Paton, Public Staff witness Hoard, and the provisions of the Partial Stipulation and the Amended Stipulation.

On August 25, 2016, PSNC, CUCA, Evergreen, and the Public Staff (Stipulating Parties) filed an Amended Partial Stipulation resolving most of the issues between the Stipulating Parties. For example, in Paragraph 5.H. the Stipulating Parties stated that they

agreed that it is appropriate to amortize and allow recovery of the balance of PSNC's deferred asset representing manufactured gas plant (MGP) clean-up costs, but did not agree on the balance of the deferred asset or the amount of the annual amortization expense. Similarly, in Paragraph 5.I., the Stipulating Parties stated that they agreed it is appropriate to amortize and allow recovery of the balance of PSNC's deferred asset representing PSNC's pipeline integrity management (PIM) costs, but did not agree on the balance of the deferred asset or the amount of the annual amortization expense.

On August 25, 2016, the Public Staff filed the direct testimony and exhibits of James G. Hoard, Director, Accounting Division. Witness Hoard testified to the ongoing disagreement between PSNC and the Public Staff regarding the treatment of MGP clean-up costs, and PSNC's deferred PIM costs. In summary, witness Hoard testified to adjustments made to the amortization of PSNC's MGP and PIM costs that, if accepted by the Commission, would substantially reduce the Company's recovery of those costs in this rate proceeding.

On August 29, 2016, the Stipulating Parties filed the Amended Stipulation. The Amended Stipulation recites that it is filed on behalf of PSNC, the Public Staff, CUCA, and Evergreen. The Amended Stipulation further states that it represents a complete and integrated settlement of all matters at issue between the Stipulating Parties.

In her supplemental testimony filed on August 29, 2016, PSNC witness Paton testified that the Stipulating Parties engaged in substantial discovery regarding the issues involved in PSNC's Application. Witness Paton further stated that the Public Staff spent several days at PSNC's office in Gastonia and at SCANA's corporate office in Cayce, South Carolina, performing audits and interviewing Company employees. In addition, she testified that after lengthy negotiations in multiple meetings and conference calls, the Stipulating Parties reached a partial settlement on all but one issue in the case.⁴ Witness Paton further testified that the Stipulating Parties reached agreement on the remaining issue, which resulted in the filing of the Amended Stipulation on August 29, 2016. Moreover, witness Paton testified that the Amended Stipulation was the result of give-and-take negotiations in which each Stipulating Party made substantial compromises on individual issues in order to obtain a compromise from other Stipulating Parties on other issues. She testified that the end result is a settlement in which each party believes that the aggregate results are fair to PSNC and its customers.

As the Amended Stipulation has not been adopted by all of the parties to this docket, the Commission's determination of whether to accept or reject the Amended Stipulation is governed by the standards set out by the North Carolina Supreme Court in State ex rel. Utils. Comm'n v. Carolina Util. Customers Ass'n, Inc., 348 N.C. 452, 500 S.E.2d 693 (1998) (CUCA I), and State ex rel. Utils. Comm'n v. Carolina Util. Customers Ass'n, Inc., 351 N.C. 223, 524 S.E.2d 10 (2000) (CUCA II). In CUCA I the Supreme Court held that

⁴ Witness Paton referenced "one issue in the case," which perhaps grouped the amortization of MGP and PIM deferred costs as one amortization issue.

[A] stipulation entered into by less than all of the parties as to any facts or issues in a contested case proceeding under Chapter 62 should be accorded full consideration and weighed by the Commission with all other evidence presented by any of the parties in the proceeding. The Commission must consider the nonunanimous stipulation along with all the evidence presented and any other facts the Commission finds relevant to the fair and just determination of the proceeding.

The Commission may even adopt the recommendations or provisions of the nonunanimous stipulation as long as the Commission sets forth its reasoning and makes "its own independent conclusion" supported by substantial evidence on the record that the proposal is just and reasonable to all parties in light of all the evidence presented.

348 N.C. at 466, 500 S.E.2d at 703.

However, as the Court made clear in CUCA II, the fact that fewer than all of the parties have adopted a settlement does not permit the Court to subject the Commission's Order adopting the provisions of a nonunanimous stipulation to a "heightened standard" of review. 351 N.C. at 231, 524 S.E.2d at 16. Rather, the Court said that Commission approval of the provisions of a nonunanimous stipulation "requires only that the Commission ma[k]e an independent determination supported by substantial evidence on the record [and] ... satisf[y] the requirements of chapter 62 by independently considering and analyzing all the evidence and any other facts relevant to a determination that the proposal is just and reasonable to all parties." Id. at 231-32, 524 S.E.2d at 16 (emphasis added).

The Commission gives substantial weight to the testimony of PSNC witness Paton regarding the Stipulating Parties' efforts in negotiating the Amended Stipulation. Further, the Commission gives some weight to the fact that there was only an Amended Partial Stipulation as of August 25, 2016, and that the Public Staff filed testimony in support of its position on the unresolved issues. The Public Staff's filing of testimony in preparation for litigating the contested issues indicates the Public Staff's resolve and determination to fully represent the using and consuming public.

As a result, the Commission finds and concludes that the Amended Stipulation is the product of the give-and-take between the Stipulating Parties during their settlement negotiations in an effort to appropriately balance PSNC's need for increased revenues and its customers' needs to receive safe, adequate and reliable natural gas service at the lowest possible rates. In addition, the Commission finds and concludes that the Amended Stipulation was entered into by the Stipulating Parties after substantial discovery and negotiations, and that it represents a proposed negotiated resolution of the matters in dispute in this docket that is supported, or not opposed, by all parties except the Attorney General. As a result, the Amended Stipulation is material evidence to be given appropriate weight in this proceeding.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 10

This finding is supported by the Application, the direct testimony and Exhibits of Company witness Boone, the supplemental testimony of Company witness Paton, the Amended Stipulation, the Public Staff's Late Filed Exhibit I, and the direct testimony of Public Staff witness Boswell.

Revised Boone Exhibit 6, attached to the direct testimony of Company witness Boone, indicates that the Company filed for a total revenue increase in this proceeding of \$41,583,021. The Amended Stipulation, in Exhibit A, indicates that pursuant to the agreement of the Stipulating Parties the Company should be allowed to increase annual revenues by \$19,054,160, of which \$276,576 would be recovered through the proposed increase in other operating revenues. This increase in revenues is further reflected in the supplemental testimony and exhibits of Company witness Paton and the Revised Public Staff's Late Filed Exhibit 1. These findings are not contested by any party.

Based upon the evidence recited above and the cumulative testimony and evidence supporting the individual components of the stipulated revenue increase discussed throughout this Order, including the discussion and analysis related to the proper rate of overall return and return on common equity for use in this proceeding, the Commission finds, in the exercise of its independent judgment, that the stipulated revenue increase in this case is just, reasonable, and appropriate for use in this proceeding.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 11

The evidence supporting this finding is contained in the Company's verified Application, the testimony and exhibits of the Company's witnesses, the Form G-1 that was filed with the Application, and the Amended Stipulation.

The reasonable original cost of the Company's used and useful property, or property to be used and useful within a reasonable time after the test period, in providing natural gas utility service to the public within North Carolina, less that portion of the cost that has been consumed by depreciation expense, is described and set forth in Paragraph 4 and Exhibit A to the Amended Stipulation, Public Staff Late Filed Exhibit I. The amounts shown on Exhibit A to the Stipulation are the result of negotiations among the Stipulating Parties in this docket, as described in the Amended Stipulation, the direct testimony of Public Staff witness Boswell, and the supplemental testimony of Company witness Paton. The stipulated reasonable original cost of the Company's used and useful property, or property to be used and useful within a reasonable time after the test period, in providing natural gas service to the public, less depreciation expense, is not contested by any party.

No other party presented evidence on these matters.

The Commission has carefully reviewed these amounts, as well as all record evidence relating to the Company's rate base, which collectively constitute the only evidence in this docket regarding the Company's rate base, and concludes that the stipulated amounts are appropriate for use in this docket.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 12

The evidence supporting this finding is set forth in the Amended Stipulation, Public Staff Late Filed Exhibit I, the supplemental testimony of Company witness Paton, and the direct testimonies of Public Staff witnesses Boswell and Larson.

The end of test period *pro forma* revenues under the Company's present and stipulated proposed rates are set forth in Paragraph 5 and Exhibit A to the Amended Stipulation, and Public Staff Late Filed Exhibit I to the Amended Stipulation. These amounts are the result of negotiations among the Stipulating Parties in this docket following an extensive audit of the Company's filed case by the Public Staff and are described in the Amended Stipulation. No other party submitted evidence on the Company's *pro forma* revenues, and the stipulated *pro forma* revenues are not challenged by any party.

The Commission has carefully reviewed these amounts, as well as all record evidence relating to *pro forma* revenues, and concludes based on its own independent judgment that the stipulated *pro forma* revenues are reasonable and appropriate for use in this docket.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 13

The evidence supporting this finding is set forth in the testimony of Company witness McLeod, Public Staff Late Filed Exhibit I and the Amended Stipulation.

The Company's reasonable operating expenses, including actual investment currently consumed through reasonable actual depreciation, are set forth in Exhibit A to the Amended Stipulation, Public Staff Late Filed Exhibit I. The amounts shown on Exhibit A to the Amended Stipulation are the result of negotiations among the Stipulating Parties in this docket, as described in the Amended Stipulation and the supplemental testimony of Company witness Paton, and are not contested by any party.

The Commission has carefully reviewed these amounts, as well as all record evidence relating to the Company's reasonable operating expenses, and concludes that the stipulated reasonable operating expenses, including actual investment currently consumed through reasonable actual depreciation, are appropriate for use in this docket.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 14

The evidence for this finding is contained in the prefiled direct testimony of PSNC witness Jimmy E. Addison, the prefiled direct and supplemental testimony of PSNC witness Robert B. Hevert, the hearing testimony of witness Addison and witness Hevert, and the Amended Stipulation.

In the Application, and as explained by PSNC witness Addison in his direct testimony, the Company proposed a capital structure reflecting long-term debt of 43.12%, short-term debt of 3.38%, and equity of 53.50%. The short-term debt reflected the estimated average of gas inventory for the 13 months ending June 30, 2016, consistent with Commission practice. The long-term debt and equity figures reflected actual balances adjusted for forecasted changes through June 30, 2016. Witness Addison testified that PSNC planned to issue \$100 million in unsecured long-term debt in June of 2016.

In his direct testimony, witness Hevert discussed the generally accepted approaches to developing the appropriate capital structure for a regulated natural gas distribution company, and explained how the capital structure affects the cost of capital and overall level of risk for the company. He explained that the capital structure should enable the company to maintain its financial integrity, thereby enabling access to capital at competitive rates under a variety of economic and financial market conditions. Witness Hevert then presented and provided support for his proxy group, described his analysis of the proxy companies' capital structures, and concluded based on his review that a capital structure consisting of 53.50% common equity, 3.38% short-term debt, and 43.12% long-term debt is reasonable and appropriate for PSNC. Witness Hevert explained the concept of maturity matching. He stated that, because it is perpetual in nature, adding equity to the capital structure extends the weighted average life of long-term liabilities, and mitigates incremental refinancing risk, but that relying more heavily on debt as the means of financing long-lived assets increases the risk of refinancing maturing obligations during less accommodating market environments.

Following settlement negotiations between PSNC, the Public Staff, CUCA and Evergreen, as reflected in Paragraph 5.B. of the Amended Stipulation, the Stipulating Parties proposed a capital structure of 52.00% common equity, 3.38% short-term debt and 44.62% long-term debt. The Stipulating Parties agreed to use 5.52% for the cost of long-term debt and agreed to use 0.77% for the cost of short-term debt.

In his supplemental testimony and associated exhibits, witness Hevert addressed the capital structure agreed to in the Partial Stipulation dated August 18, 2016 among PSNC, the Public Staff, CUCA, and Evergreen. (The Stipulating Parties filed two amended stipulations on August 25, 2016 and August 30, 2016, but those amended agreements did not adjust the capital structure reflected in the Partial Stipulation filed on August 18, 2016, to which witness Hevert testified.) In his supplemental testimony, witness Hevert stated that the capital structure ratios agreed upon by the Stipulating Parties fall well within the range of those in place at the proxy companies (from the first

calendar quarter of 2014 through the second calendar quarter of 2016), and that on that basis, he believed the stipulated capital structure to be reasonable.

No other party submitted testimony on the issue of the appropriate capital structure for the Company.

The proposed stipulated capital structure was also supported by the hearing testimony of PSNC witnesses Hevert and Addison. At the hearing in this matter, in response to cross-examination by the Attorney General, witness Addison confirmed that PSNC issued \$100 million in unsecured long-term debt in June 2016 at a rate of 4.13%. Witness Addison also explained that PSNC operates in a "lumpy" business, in which it raises both debt and equity capital as needed to make required investments in rate base, which in turn results in different proportions of debt and equity at different points in time for the Company. He explained that if the debt ratio of capital structure is increased too much, the cost of debt would also increase due to the increased risk to debt investors. He testified that because PSNC's actual equity component is slightly higher than 53.5%, but it will only receive the 9.70% stipulated ROE on the 52.0% equity contained in the stipulated capital structure, if the Commission approves the Amended Stipulation the shareholders' actual return will be lower than the Company's authorized return on equity. Witness Addison also explained the reasons for the differences in capital structure between PSNC and its parent company SCANA.

Also at the hearing, witness Hevert further supported witness Addison's discussion of the reasons for higher cost of equity as compared to cost of debt. One of those reasons is that equity holders bear the "residual risk," meaning they are last in line to receive cash flows generated by the Company, and receive what is left after the debt holders, who have a contractual claim on cash flows, are paid. Another reason is that the cost of debt is specified while the cost of equity is based on observable market information. Witness Hevert also testified that with respect to the proxy companies, the comparison to be made is the extent to which PSNC's capital structure is consistent with the range of the proxy companies, rather than with their average, and that including short-term debt in the capital structure does not affect his conclusion that 52% equity in PSNC's capital structure is reasonable. In various contexts, witness Hevert reiterated the value of using multiple sources of data in order to produce the range for capital structure.

Witness Hevert also discussed his rationale for looking primarily to the operating company level for determining the appropriate capital structure. He testified that utilities in general are required to finance very large, essentially irreversible long-lived investments, and have to be able to enter the capital markets at any given point in time, regardless of market conditions, and do not have the ability or option to defer those decisions. He noted that there are a number of approaches to developing the appropriate capital structure, and the reasonableness of the approach used depends on the nature and circumstances of the subject company. He testified that if a company does not issue its own securities, it may be reasonable to look to the parent's capital structure, or to develop a "hypothetical" capital structure based on the proxy companies or other industry data. However, if the

company issues its own securities, as does PSNC, and if its capital structure is reasonable in reference to industry practice, it is not necessarily important to look at the parent company's capital structure. Witness Hevert concluded that in PSNC's case it is reasonable to look at the operating company level in setting the appropriate capital structure, rather than looking at SCANA.

Counsel for the Attorney General questioned witnesses Addison and Hevert about other approaches to viewing capital structure. On redirect, witness Hevert stated that the Value Line common equity ratios for the proxy companies include 55% for Atmos, 58% for New Jersey Resources, 56% for Northwest Natural, and 49% for Laclede. He noted that these data showed that distribution companies had much higher equity ratio expectations from Value Line as compared to SCANA, the holding company, with a 46% equity ratio.

On October 10, 2016, the Attorney General filed a post-hearing Brief. In summary, the Attorney General states that small increases or decreases in the ratio of equity financing versus debt make a large difference in the utility's revenue requirement, because equity is much more expensive, particularly when the cost of income taxes is taken into account. The Attorney General includes several tables demonstrating the impact of different capital structures on the Company's revenue requirement. In addition, the Attorney General criticizes witness Hevert's updated capital structure evidence included in his supplemental testimony because witness Hevert added two more recent calendar quarters to his original analysis of eight quarters. The Attorney General states that when the average equity ratio is calculated for witness Hevert's proxy companies using the same eight periods as in his original testimony, the equity ratio averages 49.69%, and when calculated using the most recent eight periods, the equity ratio averages 48.73%. Moreover, the Attorney General asserts that PSNC's holding company, SCANA, maintains an equity ratio that has typically been less than 45% during the last five years. In addition, the Attorney General notes that during the 56 months from March 2010 through October 2014 PSNC loaned money to the SCANA Utility Money Pool (UMP) in all but one month. The Attorney General interprets this to mean that PSNC had more cash available for its operating costs than PSNC needed. In conclusion the Attorney General states that it is reasonable and appropriate for PSNC to use a 45% equity ratio.

On October 14, 2016, PSNC filed a Reply Brief. With regard to the Attorney General's arguments on capital structure, PSNC submits that the Attorney General on several occasions makes inferences that are not supported by the witnesses' testimony. As an example, PSNC notes the Attorney General's argument concerning PSNC's loans to the UMP. PSNC contends that witness Addison's testimony actually supports the conclusion that PSNC's loans to the UMP coincide with issuances of long-term debt, noting his testimony that "PSNC is going to be moving back into that period where they're going to likely be a net borrower until the points that we go out and issue long-term debt." (T Vol. 5, p. 117) Further, PSNC states that this is borne out by the reports the Company filed in Docket No. G-5, Sub 422, on financings it made in March 2010 and February 2011, and the reports of its UMP activities filed in

Docket No. G-5, Sub 484, as referenced in Commissioner Brown-Bland's question to witness Addison. (T Vol. 5, p. 116)

In addition, PSNC maintains that the Attorney General's focus on the average equity ratios of witness Hevert's proxy companies is inapposite for two reasons. First, the equity balances used by witness Hevert are end-of-month, and therefore not necessarily representative of the average balances during the course of the month. Secondly, it is the range of results and not the average that is relevant to the analysis of the proxy group's capital structure.

On October 19, 2016, the Attorney General filed a Response Brief. With regard to PSNC's loans to the SCANA UMP, the Attorney General takes issue with PSNC's characterization of witness Addison's testimony as showing these loans coincided with issuances of long-term debt by PSNC. Rather, the Attorney General notes that witness Addison testified that during "the historical period" from 2010 to 2014, PSNC did not have as many capital investments to make as it will prospectively, "so we've not had to issue a great deal of long-term debt, anything like that, not been into the commercial paper markets a lot in the past." (T Vol. 5, p 117)

With respect to witness Hevert's conclusion regarding the equity ratios of his proxy companies, the Attorney General notes that witness Hevert's support of a 52% equity ratio for PSNC means that his position is at the high end of the equity range for the proxy group. The Attorney General posits that this is a pattern in witness Hevert's results, wherein he tends to recommend the high end of the range rather than the mid or low points.

The Attorney General's contentions with regard to witness Hevert's proxy group of utilities and their average equity financing are not persuasive. The Commission does not view witness Hevert's addition of two more current quarters to his analysis as discrediting witness Hevert's conclusions. In addition, the data and analytical tool used by witness Hevert was intended to produce a meaningful range of equity ratios for his proxy companies. The Attorney General attempts to use the data and tool for a different purpose – to compute the average equity ratios of the proxy companies. The Commission is not persuaded that the use of the data in this manner produces probative or reliable evidence regarding the equity ratios of the proxy companies.

With regard to the comparison of the capital structure of SCANA with that of PSNC, witness Addison explained that one reason for SCANA's higher debt ratio is approximately \$700 million in debt that SCANA issued to purchase PSNC and is now being carried by SCANA. He described this as an unusual situation for SCANA, noting that it is the only time that SCANA has issued debt during his tenure as chief financial officer. Witness Addison also noted that SCANA's other regulated utilities have a capital structure similar to that of PSNC.

The Attorney General did not provide a witness or affirmative evidence that would support a capital structure, particularly a 45% common equity component of

capital structure. Indeed, no expert witness provided an analysis after the Amended Stipulation that showed 52% as the appropriate level of equity financing for PSNC. Therefore, the Commission must consider the evidence and exercise its independent judgment in determining the appropriate capital structure for PSNC in the context of setting PSNC's rates.

The Commission gives substantial weight to witness Addison's testimony regarding the Company's effort to find the appropriate balance between equity and debt financing. The Commission finds credible his explanation that increasing the debt ratio of PSNC's capital structure too much can lead to an increase in the cost of debt, as debt investors see more risk in the higher debt level. The Commission also gives significant weight to witness Addison's testimony regarding the reasons for the differences in capital structure between PSNC and its parent company SCANA. The Commission finds credible his explanation that one reason SCANA has a higher debt ratio is its issuance of approximately \$700 million of debt to finance the purchase of PSNC.

In addition, the Commission gives significant weight to witness Hevert's testimony regarding the differences in the financing needs of holding companies and operating companies. The Commission finds credible witness Hevert's explanation that utilities generally are required to finance very large, long-lived investments, and may find it necessary to enter the capital markets at any given time. Thus, the appropriate mix of debt and equity for a public utility operating company can be significantly different from that of its holding company.

Based on the above-discussed capital structure testimony of witnesses Addison's and Hevert, the Commission finds their recommendations regarding the appropriate capital structure of PSNC to be substantial and credible evidence.

Based upon the evidence described above and the record in this docket as a whole, the Commission finds and concludes that the amended stipulated capital structure and costs of long-term and short-term debt are fair and reasonable, and appropriate for use in this proceeding.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 15-18

The evidence supporting these findings is contained in the Application, the prefiled direct and supplemental testimony and Exhibits of Company witnesses Addison and Hevert, the hearing testimony of witnesses Addison and Hevert, and the Amended Stipulation. No other party submitted expert testimony on the appropriate overall rate of return on rate base (ROR or Overall Return) or allowed rate of return on common equity (ROE) appropriate for use in this proceeding.

Summary of the Evidence on Return

PSNC's current allowed rate of return on common equity, established by the Commission in 2008 in Docket No. G-5, Sub 495, is 10.6%.⁵ Its current approved overall rate of return on rate base is 8.54%.⁶ In its Application, PSNC proposed that the allowed rate of return on common equity in this proceeding be established at 10.6%. This proposed rate of return on common equity, in conjunction with the other elements of the Company's proposed capital structure, resulted in a proposed overall rate of return on rate base for the Company of 8.14%.

PSNC's original return on common equity request was supported by the direct testimony and Exhibits of PSNC witnesses Addison and Hevert. Witness Hevert, who holds a Bachelor of Arts degree in business and economics and a Master of Business Administration with a concentration in finance, and is designated as a Chartered Financial Analyst and is a Partner with the ScottMadden, Inc. consulting firm, served as PSNC's cost of equity witness. Witness Hevert filed direct testimony and 13 exhibits in support of PSNC's request for 10.6% return on equity. He explained that the cost of equity is the return that investors require to make an equity investment in a company, that it should reflect the return that investors require in light of the company's risks and the returns available on comparable investments, and that it differs from the cost of debt because it is neither directly observable nor a contractual obligation.

Witness Hevert's direct testimony and Exhibits document the specific analyses he conducted in support of PSNC's rate filing and provides a detailed description of the results of his analyses and resulting cost of equity recommendations. He applied the Constant Growth and Multi-Stage forms of the Discounted Cash Flow (DCF) model, the Capital Asset Pricing Model (CAPM), and the Bond Yield Plus Risk Premium approach to develop his ROE recommendation.

Witness Hevert testified that it is important for a utility to be allowed the opportunity to earn a return adequate to attract equity capital at reasonable terms and commensurate with the returns expected elsewhere in the market for investments of equivalent risk, because that enables the utility to provide service while maintaining financial integrity. He stated that the Commission's decision should provide PSNC with the opportunity to earn an ROE that is (1) adequate to attract capital at reasonable terms, thereby enabling it to continue to provide safe and reliable natural gas service; (2) sufficient to ensure its financial integrity; and (3) commensurate with returns on investments in enterprises having corresponding risks. He discussed the need to select a group of proxy companies to determine the cost of equity, and how he selected the proxy group for this case.

According to witness Hevert, the results of his Constant Growth DCF analysis produced a range of 8.14% to 11.32% ROE, the results of his Multi-Stage DCF analysis

⁵ See 2008 Rate Order.

⁶ Id.

were a range of 8.96% to 10.07%, and the results of his Multi-Stage DCF analysis that used the current proxy group P/E ratio to calculate the terminal value was a range of 9.26% to 11.97%. The results of witness Hevert's CAPM analysis showed a range of 9.13% to 11.42%. The results of his Bond Yield Risk Premium analysis indicated an ROE range from 9.98% to 10.39%. Based on his analyses, Witness Hevert concluded that a rate of return on common equity in the range of 10.00% to 10.75% represents the range of equity investors' required rate of return for investment in natural gas utilities such as PSNC. Within that range, he recommended an ROE of 10.6%.

Witness Hevert explained that his ROE recommendation also took into consideration several additional factors, including (1) the combined dilutive effects of operating expense increases and increasing capital investments on the Company's operating income; (2) the Company's relatively high capital expenditure program; (3) the Company's relatively small size; (4) the effect of the proposed infrastructure recovery mechanism on the Company's cost of equity; and (5) the regulatory environment in which the Company operates. He also considered equity flotation costs. With regard to the regulatory environment, he noted that North Carolina is generally considered to be a constructive regulatory jurisdiction, and that authorized ROEs tend to be correlated with the degree of regulatory supportiveness (utilities in jurisdictions considered to be more supportive tend to be authorized somewhat higher returns). He did not, however, make any specific adjustment to his ROE estimates for the effect of these factors.

Witness Hevert also considered the economic conditions in North Carolina in arriving at his ROE recommendation. He noted that the rate of unemployment has fallen substantially in North Carolina and the U.S. generally since late 2009 and early 2010, with December 2015 rates of 5.60% in the state and 5.30% in PSNC's service territory. He also noted that in 2014 the state exceeded the national rate for real gross domestic product growth, and that since 2009 median household income in North Carolina has grown at a somewhat faster annual rate than the national median income. In addition, while housing permits and housing starts experienced a decline from late 2015 to early 2016, total personal income, disposable income, personal consumption, and wages and salaries were generally on an increasing trend. Witness Hevert also testified to recent business expansions in the state. Based on all of these factors, witness Hevert opined that North Carolina and the counties contained within PSNC's service area continue to steadily emerge from the economic downturn that prevailed during the Company's 2008 rate case, and have experienced significant economic improvement during the last several years, that is projected to continue. In his opinion, PSNC's proposed ROE was fair and reasonable to PSNC, its shareholders and its customers, considering the impact of changing economic conditions.

Witness Hevert also addressed the capital market environment, and reiterated that the current market is one in which it is important to consider a broad range of data and models when determining the cost of equity, as exemplified by his use of the DCF, CAPM and Bond Yield Plus Risk Premium approaches.

In his direct testimony, witness Addison, Executive Vice President and Chief Financial Officer for PSNC, stated that, based on his training, experience, and knowledge of the financial community and how it perceives PSNC, he agreed with witness Hevert's conclusion that a 10.60% ROE is appropriate in this case. Witness Addison explained that adopting an unduly low ROE would ignore the changing economic conditions being experienced nationally and in North Carolina and could increase the cost of capital, a cost ultimately borne by PSNC's customers.

As reflected in Paragraph 5.C. of the Amended Stipulation, the Stipulating Parties agreed to a stipulated ROE of 9.70%. As stated in Paragraph 5.D. of the Amended Stipulation, the Stipulating Parties also agreed that PSNC should be allowed to earn an overall rate of return on its rate base of 7.53%.

The overall return on rate base and the proposed allowed rate of return on common equity set forth in the Amended Stipulation were supported by the supplemental testimony of PSNC witness Hevert and the hearing testimony of witnesses Hevert and Addison.

In his supplemental testimony and associated exhibits, witness Hevert addressed the agreed-upon ROE and overall rate of return agreed to in the August 18, 2016 Partial Stipulation. As with capital structure discussed above, while the Stipulating Parties filed two amended stipulations – one on August 25, 2016 and one on August 30, 2016 - those amended agreements did not adjust the stipulated ROE and overall rate of return reflected in the Partial Stipulation filed on August 18, 2016, to which witness Hevert testified. Witness Hevert testified to his understanding that the Stipulating Parties agreed to an ROE of 9.70%, with an overall rate of return of 7.53%. Witness Hevert stated that he supported PSNC's decision to agree to the stipulated ROE, explaining that although 9.70% is somewhat below the lower bound of his recommended range (i.e., 10.00%), he recognized that the Partial Stipulation represents a give and take among the Stipulating Parties regarding multiple issues that would otherwise be contested. He stated further that if the Company determined that the terms of the Partial Stipulation, taken as a whole, are such that it will be able to raise the external capital required to continue the investments required to provide safe and reliable service, and that it will be able to do so when needed and at reasonable cost rates, then he appreciated and respected that decision, and viewed the 9.70% stipulated ROE as a reasonable resolution of an otherwise contentious issue.

In his supplemental testimony, witness Hevert also updated his cost of capital analysis. He considered the stipulated ROE in the context of authorized returns for other natural gas utilities, finding that since January 1, 2014, a total of 24 of 54 returns authorized for natural gas utilities were 9.70% or above, with the average authorized ROE over all such cases being 9.65%. He again testified that North Carolina is generally considered to have a constructive regulatory environment, and in that context noted that the stipulated ROE is a reasonable, though conservative, measure of PSNC's cost of equity.

Witness Hevert also updated his review of economic conditions in North Carolina with respect to those factors for which updated data was available. He found that by 2015, North Carolina's real GDP exceeded its 2010 level by nearly 7.00%, and that from 2013 through 2015 the state's average rate of real GDP growth was somewhat higher than the national average. As to the rate of unemployment, he found that although North Carolina's December 2015 seasonally adjusted unemployment rate of 5.60% was somewhat higher than the U.S. average of 5.00%, by June 2016 both the national and North Carolina unemployment rates fell to 4.90%, with the rate in PSNC's service territory being only slightly higher at 5.14%. He found that personal income and consumption in the state have continued to expand at the national level. Finally, he reported that in its August 2016 "Snapshot of North Carolina," the Federal Reserve Bank of Richmond (FRB-Richmond) concluded that North Carolina's economy strengthened as total employment grew notably, household conditions continued to improve, and housing market indicators were mostly positive. The FRB-Richmond also observed that: (1) North Carolina employers added 19,400 jobs in June and almost every industry expanded payrolls that month; (2) the state's unemployment rate fell 0.2 percentage points to 4.90% in June and declined 0.9 percentage points since June 2015, and during the first quarter of 2016, the share of mortgages with payments 90 or more days past due fell 0.2 percentage point to 1.50%; and (3) North Carolina issued 5,210 new residential permits in June, up 7.10% from the prior month and up 11.9% from June 2015. Witness Hevert also noted that the models used to estimate the cost of equity reflect capital markets and therefore general economic conditions. He noted further that given that changes in economic conditions in North Carolina are related to the domestic economy, it is reasonable to conclude that both are reflected in ROE estimates. In summary, witness Hevert stated that it continues to be his view that on balance, the regional economic challenges in the state are substantially similar to those in the rest of the country, and that economic data regarding North Carolina and the United States do not alter the cost of equity estimates, or his recommendation, one way or the other.

Finally, witness Hevert considered the stipulated overall rate of return, stating that it is consistent with the average return authorized across the country, but lower than those returns authorized in the top-ranked regulatory jurisdictions, and that the stipulated overall rate of return is, like the stipulated ROE, reasonable, though in his opinion a conservative estimate of PSNC's overall investor-required rate of return.

At the hearing, in response to cross-examination by the Attorney General, witness Addison reiterated that two reasons for the higher cost of equity than cost of debt is that the equity investor requires more return commensurate with the higher risk associated with equity, and that while interest on debt is tax-deductible, equity earnings are not.

Witness Hevert also responded to cross examination by the Attorney General regarding his use of the DCF, CAPM, and Bond Yield Plus Risk Premium approaches to determine a recommended ROE range for PSNC. Witness Hevert confirmed the nature of his ROE recommendations in recent electric rate cases in North Carolina. He also

explained the value of using diverse sources of data for purposes of conducting the constant growth DCF analysis, discussed why he uses projected earnings to determine growth for the same analysis rather than another metric such as projected dividends, and testified that using different sources for the GDP for his multi-stage DCF would produce different results. During this discussion he answered questions from the Attorney General related to data on natural gas companies that are comparable to PSNC provided by Value Line. He also responded to questions regarding the source data he used for risk premiums for his CAPM analysis, and testified that use of some alternative sources would result in very low estimated ROEs that would have significant adverse impacts to the Company's financial standing. With regard to his Bond Yield Plus Risk Premium approach, witness Hevert clarified the nature and value of the numerous authorized rates of return on equity he used in that analysis, which in turn reflect market data.

In response to questioning by Chairman Finley, witness Hevert confirmed his belief that equity investors make investment decisions based on the risks they observe for the companies in which they are interested. He also clarified the distinction between expected and required returns, such that if the return that an investor requires is higher than the return that investor expects, that investor will choose not to invest. Witness Hevert testified that if a company operates in a state with poor economic conditions, such that many of its customers are unable to pay their bills, that company would have a large amount of uncollected revenues for the services it provided, which would in turn cause that company's risk to increase and the cost of equity that the equity investor would require to be higher. He testified further that, if the rate of return on equity was based on current economic conditions, and if in that scenario the investor was penalized during poor economic conditions by giving him less rate of return, symmetry would suggest that a higher return on equity would be provided during robust economic conditions. Witness Hevert also testified that, in comparison to the economic conditions that existed when previous electric rate cases were decided involving Duke, Progress, and Dominion North Carolina Power that were referenced by the Attorney General, the North Carolina economy has improved. Witness Hevert explained that the unemployment rate in the state is down considerably and is now approximately equal to the national rate, and that state GDP growth has expanded with projections for continued expansion. He agreed that the investment community looks upon the Commission, together with the state legislature and executive branch, as providing a constructive regulatory environment. He also agreed that the previous cases referenced by the Attorney General were, after remand to the Commission, reapproved at the same rates.

In response to further questioning by Chairman Finley, witness Hevert testified that, if it became a permanent requirement in North Carolina that the Commission change the rate of return on equity based on customers' ability to pay, that would have a negative impact on the constructive regulatory environment in the state. He explained that would be a departure from the Commission's past practice and would also be a departure from well-established practice of other regulatory commissions, which added together would add a considerable amount of risk. Witness Hevert further confirmed in response to questioning by Chairman Finley that other regulatory commissions will take economic conditions into consideration. He testified that, in this way, such commissions

balance the interests of investors and ratepayers. However, he stated that he was unaware of any regulatory commissions that apply adjustments to the return on equity to account for economic conditions or customer ability to pay.

No other party presented direct evidence on the Company's cost of capital or overall rate of return on rate base.

Legal Standards Applicable to Rate of Return Findings by the Commission

The Commission's analysis of and decision on rate of return on rate base and allowed rate of return on common equity in this case is governed by the United States Supreme Court's Hope and Bluefield decisions,⁷ the requirements of G.S. 62-133, and the North Carolina Supreme Court decisions interpreting and applying each of the foregoing to rate of return decisions by the Commission.

In Bluefield, the United States Supreme Court established the basic framework for rate of return regulation of public utilities. On this subject, the Court held that:

A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties; . . . The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties.

Bluefield, 262 U.S. at 692-93.

In the subsequent Hope decision, the Court expanded on its analysis by stating:

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

⁷ Federal Power Comm'n v. Hope Natural Gas Co., 320 U.S. 591 (1944) (Hope); Bluefield Waterworks & Imp. Co. v. Public Service Comm'n of W. Va., 262 U.S. 679 (1923) (Bluefield).

Hope, 320 U.S. at 603.

The Commission has looked to the Hope and Bluefield standards as guidance for setting rates. In Docket No. E-7, Sub 1026, the Commission noted that:

First, there are, as the Commission noted in the DEP Rate Order, constitutional constraints upon the Commission's return on equity decision, established by the United States Supreme Court decisions in Bluefield Waterworks & Improvement Co., v. Pub. Serv. Comm'n of W. Va., 262 U.S. 679 (1923) (Bluefield), and Fed. Power Comm'n v. Hope Natural Gas Co., 320 U.S. 591 (1944) (Hope). To fix rates that do not allow a utility to recover its costs, including the cost of equity capital, would be an unconstitutional taking. In assessing the impact of changing economic conditions on customers in setting an ROE, the Commission must still provide the public utility with the opportunity, by sound management, to (1) produce a fair profit for its shareholders, in view of current economic conditions, (2) maintain its facilities and service, and (3) compete in the marketplace for capital. State ex rel. Utilities Commission v. General Telephone Co. of the Southeast, 281 N.C. 318, 370, 189 S. E.2d 705, 757 (1972). As the Supreme Court held in that case, these factors constitute "the test of a fair rate of return declared" in Bluefield and Hope. Id. at 7.

The Commission must balance the interests of investors and customers in setting the rate of return on equity. As the Commission has stated, "...the Commission is and must always be mindful of the North Carolina Supreme Court's command that the Commission's task is to set rates as low as possible consistent with the dictates of the United States and North Carolina Constitutions."⁸ In that regard, the return should be neither excessive nor confiscatory; it should be the minimum amount needed to meet the Hope and Bluefield Comparable Risk, Capital Attraction, and Financial Integrity standards.

The Commission also has found that the role of cost of capital experts is to recommend to the Commission the investor-required return, not to estimate increments or decrements of return in connection with consumers' economic environment. As the Commission pointed out:

⁸ North Carolina Utilities Commission, Docket No. E-7, Sub 1026, Order Granting General Rate Increase, at 24 (Sept. 24, 2013); see also North Carolina Utilities Commission, Docket No. G-9, Sub 631, Order Approving Partial Rate Increase and Allowing Integrity Management Rider at 26, (Dec. 17, 2013) (noting North Carolina Supreme Court's determination that the provisions of G.S. 62-133 "effectively require the Commission to fix rates as low as may be reasonably consistent with the requirements of the Due Process Clause of the Fourteenth Amendment to the Constitution of the United States, those of the State Constitution, Art. I, § 19, being the same in this respect"), DNCP Remand Order at 40 ("the Commission in every case seeks to comply with the North Carolina Supreme Court's mandate that the Commission establish rates as low as possible within Constitutional limits.").

... adjusting investors' required costs based on factors upon which investors do not base their willingness to invest is an unsupportable theory or concept. The proper way to take into account customer ability to pay is in the Commission's exercise of fixing rates as low as reasonably possible without violating constitutional proscriptions against confiscation of property. This is in accord with the "end result" test of Hope. This the Commission has done.⁹

The Supreme Court agreed, and upheld the Commission's Order on Remand.¹⁰ The Supreme Court has also, however, made clear that the Commission "must make findings of fact regarding the impact of changing economic conditions on customers when determining the proper ROE for a public utility."¹¹ In Cooper II, which addressed an appeal of the Commission's order on Dominion North Carolina Power's previous base rate application, the Supreme Court directed the Commission on remand to "make additional findings of fact concerning the impact of changing economic conditions on customers."¹² The Commission made such additional findings of fact in its order on remand.¹³

On October 10, 2016, the Attorney General filed a post-hearing Brief. With regard to the appropriate ROE for PSNC, the Attorney General contends that the stipulated 9.70% ROE is a higher ROE than what is adequate. As an example of the interrelationship between changes in the ratio of equity financing versus debt and the impact on the ROE, the Attorney General states that the proposed overall rate of return in the present case, 7.53%, is higher than the overall rate of return the Commission approved for Piedmont three years ago, 7.51%, in Docket No. G-9, Sub 631, even though the approved ROE for Piedmont was 10.0%. Further, the Attorney General asserts that capital costs have trended downward since Piedmont's rate case.

In its Reply Brief, PSNC asserts that the Attorney General's citation to the Transcript, Vol. 5, p. 75, does not support the above assertion. PSNC states that on this page of the Transcript PSNC witness Addison testified on cross-examination that Piedmont's lower overall rate of return in Docket No. G-9, Sub 631, as compared to the stipulated rate of return in this case, may have been due to the lower percentage of equity in Piedmont's capital structure as compared to the stipulated equity in this case. Further, PSNC states that witness Addison also testified that the 9.70% stipulated return

⁹ North Carolina Utilities Commission, Docket No. E-7, Sub 989, Order on Remand, at 34 – 35 (October 23, 2013); see also DNCP Remand Order at 26 (stating that the Commission is not required to "isolate and quantify the effect of changing economic conditions on consumers in order to determine the appropriate rate of return on equity").

¹⁰ State of North Carolina ex rel. Utilities Commission v. Cooper, 367 N.C. 644, 766 S.E.2d 827 (2014).

¹¹ State of North Carolina ex rel. Utilities Commission v. Cooper, 367 N.C. 430, 437, 758 S.E.2d 635, 642 (2014) (Cooper II); see also State of North Carolina ex rel. Utilities Commission v. Cooper, 366 N.C. 484, 739 S.E.2d 541 (2013) (Cooper I).

¹² Cooper II, 367 N.C., at 438, 758 S.E.2d, at 643.

¹³ DNCP Remand Order, at 4-10.

on equity in the present docket is higher than PSNC's embedded cost of long-term debt of approximately 5.5%.

In addition, PSNC asserts that there is no evidence that capital costs have trended downward since Piedmont's rate case. Rather, PSNC contends that witness Hevert's direct testimony indicates that capital costs have increased since Piedmont's rate case, noting that witness Hevert testified that "since December 2013, relative volatility has increased, suggesting greater increasing uncertainty in the natural gas utility industry"; "credit spreads have increased"; "[t]o the extent that credit spreads have increased, it is an observable measure of the capital markets' increased risk aversion"; and "increased risk aversion clearly is associated with an increased Cost of Equity." (T Vol. 5, p. 204)

In his Response Brief, the Attorney General states that the full Transcript citation should have been Vol. 5, pp. 73-75. Further, he notes that the point of comparing Piedmont's cost of equity and capital structure is to highlight the fact that the lower ROE in this case is deceptive because the 52% equity ratio offsets it.

With regard to the downward trend in capital costs, the Attorney General notes witness Hevert's testimony that stock prices for utilities went up in late 2015 and early 2016, which effectively reduced the dividend yield for shareholders. In turn, this tended to produce a lower cost of capital under the Constant Growth DCF analysis.

Most of the Attorney General's ROE argument focuses on criticism of the techniques used and results obtained by witness Hevert. With respect to witness Hevert's DCF analysis, the Attorney General asserts that there are two features that skew his results. One is his reliance on what the Attorney General calls "the most extreme data." That is, witness Hevert calculates his "High ROE" from the highest growth data that exists. However, as the Attorney General notes, witness Hevert also calculates a "Low ROE" from the lowest growth data, but his recommended ROE range draws from the high results, not the low results. The other feature that the Attorney General contends skews witness Hevert's DCF results upward is his over-reliance on sources of data that reflect five-year projections of annual growth in earnings per share - - Zack's, First Call, and Value Line -- without consideration of other factors available to investors for measuring growth. For example, the Attorney General points out that there are 15 measures of growth provided in Value Line reports for witness Hevert's proxy companies, including the annual rates of change per share for revenues, cash flow, earnings, dividends, and book value, each provided for the past 10 years, the past 5 years, and as estimates for future years.

In its Reply Brief, PSNC contends that the Attorney General's assertion that witness Hevert considered only the high range of his analysis is not supported by the record. PSNC cites witness Hevert's cross-examination testimony stating that he took into account both the high and low estimates of the growth data, and notes that his Table 2: Summary of Constant Growth DCF Results (T Vol. 5, p. 147) shows that his recommended ROE range of 10.00% to 10.75% did not draw only from the high results,

which ranged from 11.08% to 11.32%, but was within the overall range of high and low results.

With regard to the Attorney General's criticism that witness Hevert's DCF study did not consider factors other than earnings growth, PSNC cites witness Hevert's cross-examination testimony explaining why it was appropriate to use earnings growth and not the other factors. For example, witness Hevert stated that it was better to use earnings growth than dividends "simply because ... the dividends are derived from earnings. You cannot pay dividends unless you have earnings." (T Vol. 6, p. 25) He further testified that he did not give historical earnings growth any weight, in part, "because a lot of analysts will already look at historical earnings growth and they would be reflected in the earnings projected." (T Vol. 5, p. 26)

In response, the Attorney General notes that witness Hevert agreed that the "mean high" estimate in his Constant Growth DCF study reflects the highest result based on the multiple growth data sources he used, and the "mean low" estimate reflects the lowest result, and that his 10.6% ROE recommendation is higher than the midpoint between the mean results and the highest results. With regard to witness Hevert's exclusive use of earnings growth, the Attorney General points out that other measures of growth are available to investors, and that relying on only one factor may have distorted witness Hevert's results, and asserts that this was illustrated by the Value Line information available to investors provided as an attachment to the Attorney General's Brief, as well as the box showing the growth data for Laclede Group.

With regard to witness Hevert's Multi-Stage DCF analysis, the Attorney General contends that his results are skewed upward by his use of a 5.31% long-term growth rate that he calculated, rather than using lower growth rates available from reliable sources such as the Social Security Administration (SSA), 4.35%, and the Energy Information Administration (EIA), 4.24%. In its Reply Brief, PSNC states that witness Hevert explained during cross-examination that the SSA and EIA growth rates are "not necessarily" lower than his if scenarios other than the SSA's and EIA's reference cases are considered. He stated that these alternative scenarios produce high and low case scenarios, and concluded that his estimate was "well within the range" of the high and low case scenarios that SSA and EIA provide. (T Vol. 6, pp. 33-34)

In response, the Attorney General notes witness Hevert's cross-examination testimony that he used the SSA and EIA rates in recent testimony that he filed in a Missouri rate case.

With respect to witness Hevert's CAPM analysis, the Attorney General asserts that his results are skewed because instead of relying on a published market source to estimate the risk premium associated with stocks, generally, compared to risk-free investments, witness Hevert derived his own risk premium estimates by performing a DCF study using data obtained from Bloomberg and Value Line. The Attorney General presents calculations derived by substituting the risk premium provided in a "Client Alert" issued by Duff & Phelps, an investor service that publishes data on the market

risk premium and investor expectations regarding that parameter, which produces lower CAPM results.

In reply, PSNC states that in witness Hevert's cross-examination testimony he notes that the Duff & Phelps estimated risk premium of 5% to 5.5% is not their CAPM approach but only one component of their "building block approach" under which other risk factors would be layered on to this component to calculate the cost of equity. (T Vol. 6, pp. 40-41) PSNC also states that witness Hevert testified that using this 5% to 5.5% risk premium would produce a cost of equity of only 7.49%, which would result in significant negative market consequences. PSNC further states that the Attorney General concedes that "data published by Duff & Phelps ... may not be appropriate to determine a point-estimate for the cost of equity capital in this proceeding" See Attorney General's Brief, at pp. 23-24.

The Attorney General responds that PSNC's position is contrary to the following statement in the Duff & Phelps Client Alert summary that was introduced as Attorney General Hevert Cross-Examination Exhibit 5:

The ERP [Equity Risk Premium] is a key input used to calculate the cost of equity capital within the context of the Capital Asset Pricing Model (CAPM) and other models.

With respect to witness Hevert's Bond Yield Plus Risk Premium analysis, the Attorney General asserts that this approach does not rely on financial market data, but rather on the authorized rates of return that have been established by regulatory agencies for other utilities. The Attorney General states that the authorized rates of return were determined in other jurisdictions based on policies and underlying data estimates of market conditions that are not provided in the record in this case, and, therefore, it is not appropriate for the Commission to determine PSNC's ROE based on such evidence. In support of his position, the Attorney General cites State ex rel. Utilities Comm'n v. Cooper, 367 N.C. 430, 443, 758 S.E.2d 635, 643 (2014); and State ex rel. Utilities Comm'n v. Public Staff, 331 N.C. 215, 225, 415 S.E.2d 354, 361 (1992).

In conclusion, the Attorney General submits that PSNC has not shown that a 9.70% ROE is required. Rather, the Attorney General maintains that market-based data indicates that the Company's cost of equity is at least 35 basis points lower than 9.70%.

As witness Hevert testified, the cost of equity is not precisely quantifiable. Therefore, financial analysts use a number of quantitative models to develop estimates from market data. Witness Hevert further testified that analysts must exercise some judgment in making assumptions and using proxies. The Attorney General's criticisms of witness Hevert's DCF and CAPM analyses constitute disagreements with witness Hevert about some of his judgments in choosing the market data that he uses in his quantitative models. The Commission is not persuaded that the Attorney General's criticisms undermine or reduce the credibility of witness Hevert. Rather, the Attorney General's criticisms go to the weight of witness Hevert's DCF and CAPM analyses and testimony,

and the Commission has given those criticisms due consideration in weighing witness Hevert's analyses and testimony.

With regard to witness Hevert's Bond Yield Plus Risk Premium (Bond Plus) analysis, the Commission has not relied on that analysis or witness Hevert's testimony regarding the Bond Plus analysis to arrive at its ROE decision. Instead, the Commission has considered it as a check or as corroboration with regard to other evidence on ROE in this proceeding. That check allows the Commission to ensure that its ROE decision is not vastly out of line with rates of return authorized for regulated utilities in other jurisdictions.

The Attorney General did not provide a witness or affirmative evidence that would support a ROE lower than the stipulated 9.70%. Indeed, no expert witness provided an analysis after the Amended Stipulation that showed 9.70% as the appropriate level of ROE for PSNC. Therefore, the Commission must consider the evidence and exercise its independent judgment in determining the appropriate ROE for PSNC in the context of setting PSNC's rates. With these legal principles in mind, the Commission now turns to the analysis and weighing of the evidence in this proceeding relating to a determination of the appropriate overall rate of return on rate base and allowed return on common equity for use in this proceeding.

Analysis of the Evidence

In order to reach an appropriate independent conclusion regarding return on equity, the Commission should evaluate the available evidence, particularly that presented by conflicting expert witnesses. State ex rel. Utils. Comm'n v. Cooper, 366 N.C. 484, 739 S.E.2d 541, 546-47 (2013) (Cooper).

In addition to its evaluation of the expert evidence, the Commission must also make findings of fact regarding the impact of changing economic conditions on customers when determining the proper return on equity for a public utility. Cooper, 366 N.C. at 491, 739 S.E.2d at 548. There is no specific and discrete numerical basis for quantifying the impact of economic conditions on customers. However, the impact on customers of changing economic conditions is embedded in the return on equity expert witnesses' analyses. The Commission noted this in its Order Granting General Rate Increase in Docket No. E-22, Sub 479: "This impact is essentially inherent in the ranges presented by the return on equity expert witnesses, whose testimony plainly recognized economic conditions – through the use of econometric models – as a factor to be considered in setting rates of return." Order Granting General Rate Increase, Docket No. E-22, Sub 479, at 38 (2012) (DNCP Rate Order).

The only evidence in this proceeding related to the determination of an overall rate of return on rate base or allowed rate of return on common equity is provided in the testimony and exhibits of PSNC's witnesses Addison and Hevert. Therefore, the substantial expert return on equity evidence that is entitled to the greatest weight is not contradicted by any direct cost of capital expert testimony. Witness Hevert indicated in

his supplemental testimony that, although the stipulated ROE is somewhat below the lower bound of his recommended range (i.e., 10.0%), he views the 9.70% stipulated ROE as a reasonable resolution of an otherwise contentious issue. Witness Hevert also presented supplemental testimony in which he updated his analysis of the changing economic conditions in North Carolina. The analysis included a review of a number of economic statistics regarding the condition of the economy in North Carolina that continue to indicate improving economic conditions. Based on this analysis witness Hevert testified that economic conditions in the state do not alter his cost of equity estimates or recommendations one way or the other.

In his direct testimony, witness Addison testified to the importance of PSNC maintaining its ability to access national capital markets on reasonable terms in this time of financial uncertainty, an ability that ultimately benefits PSNC's ratepayers. He noted that return on equity is a key consideration for investors when assessing whether to invest in a company like PSNC. He highlighted the Company's significant and ongoing capital needs as well as the important and real financial consequences that the Commission's determinations regarding rate of return can have in the capital markets and the terms under which PSNC can access those markets.

The Attorney General questioned witness Hevert about various aspects of his analysis, but did not provide any affirmative evidence that would support a return on common equity lower than the 9.70% proposed in the Amended Stipulation. The Attorney General's cross-examination established only that the outcomes of the DCF and CAPM analyses would have been different had witness Hevert, for example, used different sources for the growth estimate in the third stage of the multi-stage DCF analysis, or had he used another approach to the CAPM method. The Commission finds witness Hevert to be a credible witness in this case and accepts witness Hevert's support of the 9.70% ROE as probative evidence for purposes of establishing a return on common equity for PSNC in this proceeding. The Commission notes that witness Hevert's direct and supplemental testimony is the only economic rate of return testimony in this case.

There is no record evidence in this case establishing meaningful customer opposition to the stipulated overall rate of return on rate base of 7.53% or the stipulated rate of return on common equity of 9.70%, or suggesting that the stipulated rates are either unfair or would cause substantial hardship to PSNC's customers. No public witnesses appeared at any of the four public hearings held to receive public testimony.

The lack of substantive evidence of consumer opposition to PSNC's stipulated rate increase does not relieve the Commission of its obligation to reach its own independent conclusion as to whether the Amended Stipulation is just and reasonable, fair to customers, the Company and its shareholders in light of changing economic conditions, and otherwise sufficient to satisfy the requirements of G.S. 62-133. Further, even though the record evidence does not establish this fact with respect to any specific PSNC customer, the Commission of its own experience acknowledges and accepts as true the proposition that some percentage of PSNC's customers, particularly those living on fixed

incomes, are economically vulnerable and may struggle to pay an increase in PSNC's rates granted in this docket. Likewise, the Commission must keep this in mind as it undertakes to balance the interests of customers with the constitutional requirements of establishing adequate rates for PSNC.

As noted above, the record evidence in this proceeding supports the legitimacy and reasonableness of the levels of return on rate base and allowed rate of return on common equity reflected in the Amended Stipulation. In light of this fact, the question for the Commission becomes whether the Amended Stipulation represents an appropriate balancing of the interests of customers, the Company, and shareholders, by establishing rates that are as low as may be reasonably consistent with the requirements of due process. As explained below, the Commission concludes, based on its own independent judgment, that the Amended Stipulation satisfies the requirements of North Carolina law in this respect.

First, in his supplemental testimony witness Hevert acknowledges that the stipulated allowed rate of return on common equity of 9.70% is below what he recommended as the range of returns for PSNC. However, witness Hevert indicates that his support for the stipulated ROE is based on the fact that the stipulated ROE represents the give and take among the Stipulating Parties regarding multiple and otherwise contested issues. Finally, he presents a detailed updated review of economic conditions in the State, concludes that these data support his initial conclusion that economic conditions in North Carolina continue to improve, and notes that the changing economic conditions in North Carolina do not impact his recommendations in this case.

It is also significant to note that the direct testimony of PSNC witnesses Addison and Hevert establish without question that PSNC is actively engaged in a significant capital investment program that will continue for the next several years that is driven by federal pipeline safety and integrity requirements and that access to capital on reasonable terms is critical to PSNC in order to fund that investment.

Conclusions on Return

The Commission understands that rate increases are not favored by ratepayers and that some portion of any utility's customer base will find it difficult to pay their utility bills from time to time. The Commission further acknowledges that it is the Commission's primary responsibility to protect the interests of utility customers in setting rates for public utilities by complying with the legal principles discussed earlier in this Order. It is also the Commission's responsibility to abide by the constitutional requirements of the Hope and Bluefield cases as reflected in the provisions of G.S. 62-133 and to balance the interests of customers and the utilities which the Commission regulates in that process.

The Commission gives substantial weight to witness Hevert's DCF analysis, particularly on the basis of mean growth rates. Witness Hevert testified that for each of his proxy companies he calculated mean, mean high and mean low results. Based on 30-day, 90-day and 180-day averages, the rate of return on equity range based on

witness Hevert's mean growth rate analysis is from 8.33% to 10.01%. This range provides support for the stipulated rate of return on equity of 9.70%, particularly in light of the Supreme Court's decision in State ex rel. Utils. Comm'n v. Gen. Tel. Co. of the Southeast, 285 N.C. 671, 681, 208 S.E.2d 681, 670 (1974) (a "zone of reasonableness extending over a few hundredths of one percent" exists within which the Commission may appropriately exercise its discretion in choosing a proper rate of return on equity).

In addition, the Commission gives substantial weight to witness Hevert's supplemental testimony in support of the stipulated 9.70% ROE. He testified that although the Stipulated ROE is somewhat below the lower bound of his recommended range (i.e., 10.0%), he recognized that the Stipulation represents the give-and-take among the Stipulating Parties regarding multiple issues that would otherwise be contested by the Stipulating Parties. In addition, he relied on PSNC's determination that the terms of the Amended Stipulation, taken as a whole, are such that PSNC will be able to raise the capital required to continue the investments required to provide safe and reliable service, and that it will be able to do so when needed and at a reasonable cost.

The Commission also gives substantial weight to witness Hevert's testimony that although the stipulated ROE falls within the range of analytical results presented in his direct testimony, current capital market conditions are such that the models used to estimate the cost of equity continue to produce a wide range of sometimes conflicting estimates.

The Commission finds it credible that although witness Hevert's three DCF analyses reflect a range of 8.14% to 11.97%, the average of the nine mean DCF results is 9.78%, as can be calculated using the mean results in Table 9a on page 94 of his direct testimony. This average mean of 9.78% is only eight basis points higher than the stipulated 9.70% ROE.

The Commission also gives substantial weight to witness Hevert's testimony that it is important to keep in mind that the models used to estimate the cost of equity reflect capital markets and, therefore, general economic conditions. Given that changes in economic conditions in North Carolina are related to the domestic economy, it is reasonable to conclude that both are reflected in ROE estimates.

The Commission also finds credible witness Hevert's testimony that it is his view that on balance, economic data regarding North Carolina and the United States do not alter the cost of equity estimates, or his recommendation, one way or the other.

In his Brief, the Attorney General contends that even though the stipulated 9.70% ROE appears to move the rate of return gradually toward the lower cost of capital reflected in financial market data, that appearance is deceptive because it ignores the offsetting effect of the higher stipulated equity ratio. The Attorney General further states that the overall rate of return – taking into account the ROE along with other factors proposed in this case – is actually higher at 7.53% than the overall rate of return the Commission fixed for Piedmont three years ago in Docket No. G-9, Sub 631 (which was

7.51%) although Piedmont's ROE was fixed at 10% in that case and capital costs have trended downward. (T5 p 75) Further, the Attorney General states that PSNC appears to be giving customers a lower profit (ROE), but is more than taking it all back by raising the ratemaking equity ratio, absent any showing that PSNC has significantly increased business risk that would warrant such a high equity ratio.

The Commission is not persuaded by the Attorney General's analysis, for two reasons. First, the difference in the Piedmont overall rate of return, 7.51%, and the stipulated overall rate of return, 7.53%, is not significant given the differences in the two utilities and the passage of three years since the Piedmont overall rate of return was established. Secondly, to the extent that comparisons with prior rates are helpful, it is more instructive to note that PSNC's overall rate of return, ROE, and equity ratio will all be significantly lower under the Amended Stipulation than those approved in PSNC's 2008 Rate Order. In the 2008 Rate Order, the approved overall rate of return, ROE, and equity ratio were 8.54%, 10.6% and 54%, respectively. In the present case, the stipulated overall rate of return, ROE, and equity ratio are 7.53%, 9.7% and 52%, respectively.

Consumers pay rates, a charge in cents per therm for the natural gas they consume. They do not pay a rate of return on equity. To the extent that the Commission makes downward adjustments to rate base, reduces the approved common equity component of capital structure, disallows test year expenses or increases pro forma test year revenues, the Commission reduces the rates consumers pay during the future period rates will be in effect. However, the utility's investors' compensation for the provision of service to consumers takes the form of return on investment. As the North Carolina Supreme Court has stated:

The "rate of return" on equity, PSNC's outstanding common stock, "is a percentage that the Commission concludes should be earned on the value of the utility's investment, commonly referred to as the 'rate base.'" Carolina Util. Customers Ass'n, 348 N.C. at 461, 500 S.E.2d at 700. Several variables factor into determining a "just and reasonable" rate of return, including:

- (1) The rate base which earns the return;
- (2) the gross income received by the applicant from its authorized operations;
- (3) the amount to be deducted for operating expenses, which must include the amount of capital investment currently consumed in rendering the service; and
- (4) what rate constitutes a just and reasonable rate of return on the predetermined rate base.

Id. at 461-62, 500 S.E.2d at 700.

State ex rel. Utils. Comm'n v. Carolina Util. Customers Ass'n, 351 N.C. 223, 232, 524 S.E.2d 10, 17 (2000) (emphasis added).

To the extent the Commission makes adjustments to reduce the overall cost of service, the Commission reduces the rates consumers otherwise must pay irrespective of its determination of rate of return on equity expressed as a percentage, in this case 9.70%. To the extent these adjustments reflect current economic conditions, and consumers' ability to pay, these adjustments reduce not only consumers' rates but also the return on equity, expressed in terms of dollars that investors actually earn. This is also in accord with the end result test of Hope.

In the present case, PSNC's initial Application requested a \$41,583,020 increase in PSNC's annual North Carolina revenues. That revenue increase would require an over-all rate increase of 9.66%. In addition, PSNC requested a 10.6% rate of return on common equity, an 8.14% overall return on a rate base of \$949,341,460, and a capital structure that included 53.5% common equity. These are the "big picture" numbers. However, the crucial details of PSNC's general rate Application, as in all general rate cases, are in the hundreds of line items in NCUC Form G-1 that detail the Company's cost of service.

PSNC's Application is supported by substantial and credible evidence that, standing alone, could form the basis of a decision by the Commission to approve a \$41,583,020 increase in PSNC's annual North Carolina revenues. However, the details of PSNC's Application, including the cost of service line items, are reviewed by the Public Staff and, in some rate cases, by other intervenors. The Public Staff typically recommends numerous adjustments to the utility's cost of service items, some adjustments increasing an item and some adjustments decreasing another item. These adjustments are presented by the Public Staff in its testimony, or, as in the present docket, in a settlement agreement with the utility.

In the present docket, the Public Staff's adjustments are shown in Exhibit A, Page 2, of the Amended Stipulation. There are about 40 adjustments, some up and some down. For example, an adjustment reducing PSNC's service company charges by \$3,228,865 is made on line 34, and an adjustment adding \$91,901 to PSNC's cost of materials and supplies is made on line 9. However, the end result of all the adjustments is a reduction in PSNC's revenue requirement from the requested \$41,583,020 to the stipulated amount of \$19,054,160. Thus, the numerous adjustments made by the Public Staff, and approved herein by the Commission, reduce the total annual base revenues to be received by PSNC from ratepayers by \$22,528,860, including a reduction of approximately \$6,000,000 in the return to be paid to equity investors.¹⁴ Although the ROE downward adjustment produces a direct reduction in the authorized rate of return on investment financed by equity investors, the numerous other downward adjustments reflected on Exhibit A further reduce the dollars the investors actually have the opportunity to receive. Thus, while the equity investor's cost was calculated under the terms of the Amended Stipulation by applying a rate of return on equity of 9.70%, instead

¹⁴ Compare Boone Exhibit 6, p. 2, Statement Showing Rates of Return after Adjustments for Proposed Rates, line 3, with Public Staff Late-Filed Exhibit I, Schedule 4, Return on Equity and Original Cost Rate Base, line 3.

of the 10.6% requested in the Application, based in part on existing macroeconomic conditions affecting customers' ability to pay, this is only one of many approved adjustments that reduces ratepayer responsibility and equity investor reward.

This is not to say that the Commission accepts the stipulated 9.70% rate of return on equity merely because it is lower than the 10.6% requested by PSNC. Rather, it is to emphasize that each of the approximately 40 adjustments made by the Public Staff, and accepted herein by the Commission, reflects the fact that ratemaking, and the impact of rates on consumers, must be viewed as an integrated process where the ratemaking end result is what directly affects customers. The Commission's acceptance of the foregoing ratemaking adjustments, including the 9.70% rate of return on equity, reflects the Commission's application of its subjective, expert judgment under the Public Utilities Act that the end result is in compliance with the Commission's responsibility to establish rates as low as reasonably permissible without transgressing constitutional constraints.

Solely focusing on the authorized rate of return on equity in assessing the impact of the Commission's decision on consumers' ability to pay in the current economic environment would fail to give a true and accurate picture of the issues presented to the Commission for decision and the totality of the Commission's order. Such an analysis would also be inconsistent with Hope and the Carolina Util. Customers Ass'n cases. For example, when the Commission approves, in part due to current economic conditions, a reduction in the investment against which the authorized 9.70% rate of return on equity is multiplied to produce the dollars in return on equity investment, the financial impact is a reduction in the rates paid by ratepayers and a reduction in the amount received by equity investors, the same result as if the Commission had instead reduced the 9.70% rate of return on equity.

As previously noted from the Hope decision, it is the "end result" of the Commission's order that must be examined in determining whether the order produces just and reasonable rates. Therefore, the Commission cannot, as suggested by the Attorney General, simply conclude that 9.70% "exceeds the ROE that is adequate" for PSNC. Instead, the Commission has incorporated into its analysis all of the myriad factors that make up PSNC's revenue requirement, including the rate of return on equity and the impact of the Commission's decision regarding the consumers' ability to pay in the current economic environment. Based on that impact and the total effect of the rate order, the Commission concludes that a 9.70% rate of return on equity produces just and reasonable rates for PSNC and for its ratepayers. Any further reduction in the authorized rate of return on equity is not justified by the evidence.

Based on the above-discussed cost of equity testimony of witness Hevert, the Commission finds his recommendations regarding the appropriate cost of equity for PSNC to be substantial and credible evidence.

After a careful review of all the evidence in this case, and adhering to the requirements of the above cited legal precedents, the Commission finds that the overall rate of return on rate base and the allowed rate of return on common equity, as well as

the resulting customer rates provided for under the Amended Stipulation, are just and reasonable, fair to both PSNC and its customers, and appropriate for use in this proceeding and should be approved. The rate increase approved herein, as well as the rates of return underlying such rates, are just, reasonable and fair to customers considering changing economic conditions, and are required in order to allow PSNC, by sound management, to produce a fair return for its shareholders, maintain its facilities and provide services in accordance with the reasonable requirements of its customers in the territory covered by its franchise, and to compete in the market for capital funds on terms that are reasonable and that are fair to its customers and existing investors.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 19

The evidence supporting this finding of fact is set forth in the verified Application, the testimony of the Company's witnesses, and the Amended Stipulation.

The level of adjusted sales and transportation volumes used in the Amended Stipulation is 937,082,412 therms. The sales and transportation throughput volume level is derived as follows:

| | |
|------------------|--------------------|
| Sales | 491,921,582 |
| Transportation | 316,664,980 |
| Special Contract | <u>128,495,850</u> |
| Total Throughput | 937,082,412 |

The level of purchased gas supply is 499,819,717 therms, and is derived as follows:

| | |
|---|------------------|
| Sales | 491,921,582 |
| Company Use and Lost & Unaccounted For | <u>7,898,135</u> |
| Purchased Gas Supply | 499,819,717 |

The throughput level and level of purchased gas supply are the result of negotiations among the Stipulating Parties, as described in the Amended Stipulation, and are not opposed by any party. No other party submitted evidence on the Company's throughput.

The Commission has carefully reviewed the evidence regarding the appropriate throughput level in this docket and concludes that the stipulated throughput levels are a fair and reasonable approximation of the Company's *pro forma* adjusted sales and transportation volumes. The Commission has also carefully reviewed the purchased gas supply level and concludes that it is a fair and reasonable approximation of the Company's *pro forma* purchased gas supply level.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 20-22

The evidence for these findings is contained in the verified Application, the testimony of the Company's witnesses, and the Amended Stipulation.

The test period cost of gas is set forth in Paragraph 7 and Exhibit E to the Amended Stipulation. The amounts shown on Exhibit E to the Amended Stipulation are the result of negotiations among the Stipulating Parties in this docket. The Amended Stipulation reflects the following agreements among the parties regarding PSNC's cost of gas:

| | |
|---|---------------------|
| Commodity Costs | \$110,682,356 |
| Company Use and Lost and Unaccounted For | \$1,777,080 |
| Fixed Costs | <u>\$67,928,619</u> |
| Total Cost of Gas | \$180,388,055 |

The stipulated cost of gas is not contested by any party to this proceeding. The Commission has carefully reviewed these amounts, as well as all record evidence relating to the *pro forma* cost of gas, and concludes that the stipulated cost of gas is reasonable and appropriate for use in this docket.

Under the Commission's procedures for truing-up fixed gas costs in proceedings under Commission Rule R1-17(k), it is necessary and appropriate to determine the amount of fixed gas costs that are embedded in the rates approved herein. In the Amended Stipulation, the Stipulating Parties agree that for the purpose of this proceeding and future proceedings under Commission Rule R1-17(k) during the effective period of rates approved in this proceeding, the appropriate amount of fixed gas costs to be allocated to each rate schedule is as set forth in Exhibit C to the Amended Stipulation. No party contests this allocation and no other party submitted evidence supporting a different allocation.

The Commission has carefully examined these amounts, as well as all record evidence on fixed gas cost allocations, and concludes that the stipulated allocations of fixed gas costs are fair and reasonable.

Under the Commission's procedures for establishing rates and truing-up commodity gas costs, it is necessary to establish a Benchmark Commodity Cost of Gas (Benchmark) embedded in sales customer rates. The Amended Stipulation provides that in establishing rates for this proceeding, the parties have agreed to use PSNC's current Benchmark of \$0.225 per therm subject to any filed changes in such rate prior to implementation of revised rates in accordance with the Commission's final order in this docket. No party contests the use of a \$0.225 per therm Benchmark in establishing rates for this proceeding and no other party submitted evidence on this issue. The

Commission has carefully examined this proposal and concludes that the use of a \$0.225 per therm Benchmark for purposes of establishing rates in this proceeding is fair and reasonable.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 23

The evidence for this finding is contained in the Amended Stipulation, as supported by the direct and supplemental testimony of Company witness Paton and the testimony and revised exhibits of Public Staff witness Larsen.

The stipulated rate design and rates, necessary and appropriate to provide PSNC a reasonable opportunity to recover the stipulated revenue requirement in this docket, are reflected in Exhibit B to the Amended Stipulation. On Exhibit B, PSNC has included a new Medium General Service rate schedule 140 (MGS Rate 140) applicable to commercial and small industrial customers who use more than 25,000 but less than 60,000 therms per year. According to witness Paton, the larger customers who will move to MGS Rate 140 will no longer distort the average usage levels for the Small General Service Rate 125. Witness Larsen agreed with the Company's reasoning for creating the MGS Rate 140 and recommended that it be approved.

In addition, Exhibit B to the Amended Stipulation reflects that the Stipulating Parties have agreed to an additional usage tier for Rate Schedule 175. The additional usage tier for Rate 175 is also shown on Public Staff witness Larsen's Amended Exhibit C, page 2 of 2. The Stipulating Parties agreed that the additional usage tier will not result in any revenue shifting between rate classes.

The computations on Exhibit B show that the proposed rates will produce the revenues calculated under the rate design, as well as the proposed gas costs rates approved for use in this proceeding. The Commission has carefully reviewed these rates, as well as all record evidence relating to the proper rates to be implemented in this proceeding, and concludes that the stipulated rates are just and reasonable.

A portion of the rate increase will be recovered through the increase in reconnect fees. At the evidentiary hearing, Public Staff witness Larsen testified that the proposed reconnect fee of \$80 for residential customers during regular working hours was justified. During questions from the Commission, witness Larsen stated that the Public Staff requested justification of the increase in a data request sent to the Company, and PSNC responded that the increase reflected an annual inflation adjustment since 2006 of approximately two percent per year. Witness Larsen further testified that there was an in-depth analysis performed a number of years ago where all of the components of the cost of reconnecting gas service were analyzed. Witness Larsen cited the various steps and tasks involved in this process. Witness Larsen stated that, in today's dollars, the result is it costs almost \$100 for a reconnect. He testified that customers avoid paying the monthly facilities charge while they are disconnected. Witness Larsen concluded that \$80 was reasonable and did not exceed the cost that the Company had to incur to provide that service.

The Commission has carefully reviewed the cost components of the reconnection process and concludes that the proposed reconnect fees proposed by PSNC and agreed upon by the Stipulating Parties are fair and reasonable.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 24

The evidence supporting this finding is contained in the Application, the direct testimony of Company witness Ratchford, the direct and supplemental testimony of Company witness Paton, the direct testimony of Public Staff witness Perry, the Amended Stipulation, and Rider E of the Company's tariffs.

In its Application, PSNC indicated that it was incurring substantial and ongoing capital expenses associated with efforts to comply with federal pipeline safety and integrity management requirements. In order to address the magnitude and impact of its capital investments required to comply with federal pipeline safety and integrity requirements on a going-forward basis, and as authorized by G.S. 62-133.7A, PSNC proposed the adoption of an IMT mechanism in its tariffs. According to PSNC, this mechanism would allow the capital cost of pipeline integrity activities to be recovered in a timelier manner than they would be if PSNC had to wait for a general rate case.

In his direct testimony, Company witness Ratchford testified to the Company's ongoing capital investments driven by compliance with federal pipeline safety and integrity requirements and emphasized the importance of pipeline safety to the Company, its customers, and the public in general. Witness Ratchford set out a detailed description of the federal Transportation Integrity Management Plan (TIMP) and Distribution Integrity Management Plan (DIMP) processes required of the Company. He also described in some detail the Company's evolving techniques and efforts to comply with TIMP and DIMP requirements as well as the Company's future planned compliance activities. In his testimony, witness Ratchford described the nature of TIMP and DIMP compliance activities and the fact that federal regulation was an actively evolving process that could generate substantial additional compliance requirements in the future and that the full scope of those requirements could not be known at this time. Witness Ratchford also explained that the IMT mechanism proposed by the Company to track these costs would allow the capital cost of pipeline integrity activities to be recovered in a timelier manner than if PSNC were required to wait for a general rate case. He explained that, in this way, the Company's customers are not subjected to a large, one-time rate increase, and the amount of the increase is reduced by minimizing debt expense on the capital necessary to make integrity management improvements, as well as minimizing general rate cases and their associated expenses.

In her direct testimony, witness Paton explained the Company's proposed IMT mechanism and provided a proposed form of such tracker in Paton Exhibit 4.

Witness Paton testified that in broad terms, the IMT provides for PSNC to adjust its rates biannually in order to recover the revenue requirement associated with Integrity Management Plant Investment and associated costs incurred by PSNC resulting from

prevailing federal standards for pipeline integrity and safety that are not otherwise included in current base rates.

Public Staff witness Perry testified that after several months of discussions, PSNC and the Public Staff agreed to a modified form of the IMT mechanism filed by the Company. Witness Perry stated that the IMT mechanism will assist PSNC in the implementation and timely recovery of costs associated with its investment of capital in compliance with the requirements of federal and state laws and regulations regarding pipeline integrity (including both transmission and distribution integrity), reliability and safety.

Witness Perry testified that the Public Staff has had approximately 2 ½ years of experience auditing the Piedmont Natural Gas, Inc. IMR mechanism.¹⁵ This experience was very helpful in discussions with PSNC regarding its proposed IMT. The Amended Stipulation includes a provision that sets out how to determine excluded costs from the Company's Integrity Management Plant Investment using both the exclusion percentages based on PSNC's budgeted integrity management (IM) projects, as well as the direct assignment approach for specific IM projects that have a significant non-IM component. Witness Perry testified that the Public Staff and PSNC agreed that the excluded reasonable and prudent costs shall be eligible for inclusion in recoverable rate base in PSNC's next general rate case proceeding.

The Amended Stipulation further stated that the Stipulating Parties agreed that costs incurred for system expansion/improvement or routine maintenance, repair and replacement of system components that are not required to comply with federal gas pipeline safety requirements shall not be included in amounts recovered under the IMT mechanism.

Witness Perry also stated that the Public Staff and PSNC worked hard to determine a fair and reasonable approach to enable the Company to recover its prudently incurred capital investment and associated costs of complying with federal gas pipeline safety requirements.

No other party submitted evidence on the issue of the proposed IMT mechanism.

In the Attorney General's Brief, the Attorney General states several concerns about the proposed IMT. In summary, the Attorney General acknowledges that the legislature authorized the Commission in G.S. 62-133.7A to adopt a rate adjustment mechanism to allow the recovery of prudent costs of compliance with federal pipeline safety requirements. Nevertheless, the Attorney General contends that the IMT is not in the public interest because PSNC has not shown that there is a need for such rate adjustment mechanism, and any benefit it offers to investors is outweighed by disadvantages to consumers, such as frequent additional rate increases, an expedited

¹⁵ See Order Approving Partial Rate Increase and Allowing Integrity Management Rider (G-9, Sub 631, December 17, 2013); and Order Approving Stipulation (G-9, Sub 631, November 23, 2015).

review, no regard for offsetting cost factors, and a lack of meaningful public input. The Attorney General further contends, based on testimony by PSNC witness Addison, that the IMT is not needed to address investor concerns about timely recovery of capital costs.

In its Reply Brief, PSNC takes issue with the Attorney General's interpretation of witness Addison's testimony regarding investor concerns. PSNC submits that the Commission's rejection of the IMT would be viewed by investors as a sign of an unsupportive regulatory environment, particularly when the IMT is a part of a near-unanimous settlement.

The Commission has carefully considered the evidence in this proceeding related to the proposed IMT mechanism, as well as the Attorney General's concerns, and has reached the following conclusions. First, the Commission concludes that the form of IMT mechanism attached in Exhibit H to the Amended Stipulation falls within the scope of G.S. 62-133.7A. That statute authorizes the Commission to adopt "a rate adjustment mechanism to enable the company to recover the prudently incurred capital investment and associated costs of complying with federal gas pipeline safety requirements, including a return based on the company's then authorized return." In this case, the proposed form of IMT attached to the Amended Stipulation provides for the recovery of return, taxes, and depreciation on capital investment associated with federal gas pipeline safety requirements in a manner consistent with the statute and in the same fundamental manner that PSNC is permitted to recover those items of its cost of service in a general rate case proceeding. This approach to IM cost recovery is reasonable and consistent with statutory requirements and normal regulatory practices.

Second, the Commission concludes that the IMT mechanism proposed for adoption and implementation in the Amended Stipulation is beneficial to customers because it provides for the use of both the exclusion percentages determined using PSNC's budgeted IM projects, as well as the direct assignment approach for specific projects that have a significant non-IM component.

Third, the proposed IMT Rider expressly provides for Commission review of the mechanism at the earlier of PSNC's next general rate case proceeding or four years from the implementation of the mechanism and also specifically grants any party the right to apply to the Commission to terminate or modify the mechanism at any time on the grounds that the rider mechanism, as approved by the Commission, is no longer in the public interest.

Fourth, consistent with the requirements of G.S. 62-133.7A, the Commission concludes that adoption and implementation of the IMT mechanism as reflected in Rider E of the Company's tariffs and attached to the Amended Stipulation as Exhibit H is in the public interest. The Commission finds the uncontested evidence of PSNC's required capital expenditures on TIMP/DIMP compliance convincing. It is equally persuaded that regular and repeated general rate case proceedings, otherwise necessary to reflect such investments in PSNC's rate base, would be a detriment to PSNC and its customers, and would serve no purpose other than to increase regulatory

costs paid by ratepayers and the regulatory burden on all parties who participate in PSNC's general rate proceedings. The Commission recognizes, as the Attorney General points out, that separately accounting for TIMP/DIMP compliance costs and addressing them through the IMT mechanism on an intra-rate case basis effectively isolates those costs from other aspects of PSNC's cost of service. The Commission is satisfied that the public interest is protected from any potentially adverse impacts from such treatment through a variety of means, including the limited nature of the costs recoverable through the mechanism, using the exclusion percentages determined using PSNC's budgeted IM projects, as well as the direct assignment approach for specific IM projects, the special contract crediting provision contained therein, the mandatory and permissive review provisions contained in the rider, and the Commission's general and continuing oversight of the Company's earnings. The Commission also concludes that the tracker provides an overall benefit to customers since it would allow the capital cost of pipeline integrity activities to be recovered in a timelier manner than if PSNC were required to wait for a general rate case, and therefore avoids subjecting the Company's customers to a large, one-time rate increase. In addition, the amount of the increase is reduced by minimizing debt expense on the capital necessary to make integrity management improvements, as well as minimizing general rate cases and their associated expenses. Further, the tracker is subject to Commission review after four years.

With respect to the Attorney General's concerns about the expedited nature of the review process and ensuring meaningful public input, the Commission is not persuaded that the expedited procedure is a detriment to the Commission's decision-making process, or that there will be a lack of opportunity for meaningful public input. As Public Staff witness Perry testified, the Public Staff has about 2 ½ years of experience auditing the Piedmont Natural Gas, Inc., IMR mechanism. Similarly, the Commission has that same level of experience in reviewing the evidence and making decisions regarding the proper implementation of Piedmont's IMR. Further, the Commission is not aware of any complaints from parties to the Piedmont IMR dockets or the public that the semi-annual reviews have not afforded interested persons a full and fair opportunity to be heard. In addition, if the Commission receives such complaints with regard to its reviews of PSNC's IMT, the Commission has the authority and the procedural tools to remedy those concerns.

Finally, the Commission believes that implementation of the proposed IMT mechanism will promote public safety by supporting the timely recovery of costs associated with pipeline safety and integrity expenditures by the Company. Safety and reliability of utility infrastructure is of critical importance to the State and the Commission, and this mechanism facilitates the accomplishment of that goal.

Based on the foregoing, and in the absence of any evidence to the contrary, the Commission finds the Integrity Management Tracker mechanism as reflected in Rider E of the Company's tariffs and described in Paragraph 10 and attached as Exhibit H to the Amended Stipulation to be just, fair, reasonable, in the public interest, and appropriate for adoption in this proceeding.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 25

The evidence for this finding is contained in the Amended Stipulation reflected in Paragraph 6 and Late Filed Exhibit D.

Under PSNC's CUT mechanism, certain baseload and heat factors, as well as "R" values, are needed in order to make the calculations periodically required under that mechanism. The Stipulating Parties have provided updated factors in this proceeding as reflected in Paragraph 6 and Late Filed Exhibit D of the Amended Stipulation. These values are not contested by any party and no other party has offered evidence supporting other factors. Based on the Amended Stipulation, and the entire record of evidence in this proceeding, the Commission finds and concludes that the updated CUT factors, including the "R" values, identified on Late Filed Exhibit D to the Amended Stipulation are reasonable and appropriate and should, therefore, be approved.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 26

The evidence for this finding is contained in the Company's initial filing and the Amended Stipulation.

In PSNC's Application, supported by the direct testimony of Company witness Boone, the Company proposed to amortize and recover a number of previously deferred regulatory assets including PIM and manufactured gas plant (MGP) O&M costs. It also proposed to amortize and recover DIMP O&M costs. In Paragraph 5 of the Amended Stipulation, the Stipulating Parties propose certain agreed upon changes to the Company's proposed amortizations and recovery of PIM, MGP, and DIMP O&M costs. The Stipulating Parties support the five year amortization periods set forth in Paragraph 5 of the Stipulation and the ongoing interim deferral mechanism for PIM and DIMP O&M costs. No party has opposed the proposals contained in Paragraph 5 of the Amended Stipulation and no other evidence has been submitted regarding these issues.

The Commission has carefully considered the proposed amortization periods and related matters set forth in Paragraph 5 of the Amended Stipulation, as well as all record evidence on the amortization of these regulatory assets, and concludes that the stipulated amortization treatment and specified amortization periods are consistent with the Commission's prior treatment of similar costs and are otherwise fair and reasonable and should be approved. The Commission further concludes that the proposed continuation of the existing regulatory asset treatment for ongoing PIM and DIMP O&M costs is fair and reasonable and should be approved.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 27

The evidence for this finding is contained in the North Carolina General Statutes, the Amended Stipulation, the supplemental testimony of Company witness Paton, and the testimony of Public Staff witness Boswell.

North Carolina Session Law 2015-241 established a prospective downward adjustment in the North Carolina corporate income tax rates to be effective for tax year 2017. The Amended Stipulation states that PSNC will make downward adjustments to its rates to recognize the reduction in the state corporate income tax rate to 3% beginning January 1, 2017. In the Amended Stipulation, the Stipulating Parties further agreed to work together on determining the appropriate revenue requirement reduction and effectuating such reductions and to file notice of such rate reductions with the Commission prior to implementation. No party opposed this plan to adjust PSNC's rates for reductions in income tax expense and no other evidence on this issue was presented to the Commission in this docket.

The Commission has considered the proposed adjustment to corporate income tax set forth in Paragraph 8 of the Amended Stipulation, as well as all evidence of record regarding the corporate tax changes effectuated by North Carolina Session Law 2015-241, and concludes that the stipulated treatment is consistent with the Commission's prior treatment of other tax reductions and is otherwise fair and reasonable and should be approved.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 28

The evidence for this finding is set forth in the direct testimony of Company witnesses Spanos and Boone, the testimony of Public Staff witness Boswell, and in the Amended Stipulation.

In the Amended Stipulation, the Stipulating Parties agreed that the revised depreciation rates, as presented in the deprecation study filed along with and supported by Company witness Spanos' direct testimony, should be implemented effective January 1, 2017. Public Staff witness Boswell testified that the Public Staff reviewed the depreciation study, found no issues with the new depreciation rates, and recommends approval of the proposed depreciation rates. No party contested the implementation of PSNC's revised depreciation rates as proposed in the Amended Stipulation and no other party submitted any additional evidence on this issue.

Based on the direct testimony of Company witnesses Spanos and Boone and the Amended Stipulation, the Commission concludes that implementation of the revised depreciation rates filed in the instant docket, effective January 1, 2017, as proposed in the Amended Stipulation, is just and reasonable and should be approved for use in this docket.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 29

The evidence for this finding is contained in the direct testimony of Company witnesses Paton and Jackson and the Amended Stipulation.

Company witnesses Paton and Jackson testified to proposed additional changes in the Company's tariffs and service regulations and the reasons underlying those changes. Witness Paton testified that minor changes were made to PSNC's rate schedules, including: (1) adding language stating that the rate schedules are subject to the Integrity Management Tracker; (2) adding language to the Large General Service and transportation rate schedules to indicate a change in billing to state the customer's consumption on the basis of dekatherms rather than therms; and (3) other minor changes as noted on Paton Exhibit 4.

With regard to changes to PSNC's service regulations, witness Paton testified that the Company is proposing several minor changes, including: (1) deleting current Section 29, which addresses the methodology for determining rate service priority pursuant to Commission Rules R6-12 and R6-19.2, and providing this information in a new Rider B to the tariff; (2) adding a provision allowing reclassification of a customer outside of the annual review period under certain circumstances; (3) adding language in Section 21 regarding gas quality and measurement; and (4) adding new Section 29 to clarify the customer's responsibility for paying certain taxes. Witness Paton further stated that PSNC is proposing other minor changes to its riders for clarification, formatting and grammatical corrections.

Witness Paton also testified regarding proposed additional language in Section 21 to address gas quality and measurement. With respect to gas quality, the language in Section 21 assumes that all gas will be delivered by an interstate pipeline and will be, "subject to the quality specifications of the interstate transporter's Federal Energy Regulatory Commission-approved contract." The Commission asked what would happen if gas was produced in North Carolina and put into PSNC's system. Witness Paton responded that she didn't know that the Company, "contemplated anything above and beyond what's coming off the interstate now." (T Vol. 6, p. 121) Witness Jackson responded that the Company had been contacted about biogas projects over the past few years and had contemplated installing a chromatograph at the site where the supply source would come into PSNC's system. When asked whether PSNC would have responsibility for the quality of biogas it accepts, witness Jackson responded that "The producer is required to meet the gas quality standard so that our customers will not be impacted." (T Vol. 6, p. 166) No party objected to the adoption of the proposed language in Section 21 dealing with gas quality. The Commission notes that, should parties seek to place gas into PSNC's system from a North Carolina location, it could be necessary to clarify and amend this section. Further, the language in this Section should not be seen as intended to bar or hinder the development of gas supplies in North Carolina.

With regard to the use of a weighted average BTU content of gas entering PSNC's system, the Commission asked about differences in heat content from different sources of supply. Witness Paton responded that, in the past, PSNC used only one BTU reading, but now that the Company has gas coming from different directions, a weighted average of the BTU content of the gas at different take-off stations is used. Witness Paton added that the difference has not been significant. When asked how much variance would be acceptable, she responded that the use of a system-wide average BTU factor "would balance out any of the pricing concerns." (T Vol. 6, p. 123) No party objected to the adoption of the proposed language in Section 21 dealing with the measurement of gas and the conversion from cubic feet to therms or dekatherms using a weighted average BTU content.

Witness Jackson testified that PSNC reviewed its tariffs and guidelines governing interruptible service following the failure of numerous customers to curtail their usage during an unusually cold period in January 2014. She testified that PSNC is recommending changes in those tariffs and guidelines to improve the Company's ability to serve its firm customers in the event of a curtailment. Regarding proposed changes to Rider A, Curtailment of Service under Commission Rule R6-19.2 and Emergency Services, witness Jackson testified to the following changes: (1) elimination of on-peak emergency service, resulting in one level of emergency service with a single assessment rate; (2) an increase in the assessment rate for Unauthorized Gas from \$2.50 per therm to \$5.00 per therm, or \$50.00 per dekatherm; and (3) removal of the allowance of 10 therms per day for pilot usage, and modification of the rider to allow a maximum of 10 dekatherms per day in Emergency service without prior authorization from PSNC. Witness Jackson testified that these changes will be more effective in deterring noncompliance with curtailment, and more efficient for the Company to administer.

Witness Jackson further testified to two changes being made to PSNC's interruptible Rate Schedules 150, 160, 165 and 180. The first change requires customers to provide and update contact information for two authorized representatives. The second change adds language describing some of the costs, not addressed in Rider A, that a customer may incur for taking Unauthorized Gas during a curtailment event. Witness Jackson described a third change, needed only for Rate Schedule 180, to clarify that non-compliance with a curtailment order may result in PSNC valving off the customer's gas service. Witness Jackson stated that PSNC is proposing these changes to make the curtailment process more effective and efficient.

Finally, witness Jackson described several changes to PSNC's Transportation Pooling Agreement designed to improve the transportation nomination process and encourage poolers to maintain balance in their deliveries of gas to PSNC's system.

Company witness Paton filed Exhibit 4 with her direct testimony. Exhibit 4 includes the Company's proposed tariffs, Rules and Regulations and Transportation Pooling Agreement. For the most part, the Stipulating Parties accepted the tariffs, Rules and Regulations as filed in Paton Exhibit 4. However, the Stipulating Parties made changes to

Riders C and E, and the Transportation Pooling Agreement. Those changes are reflected in Exhibit H to the Amended Stipulation. No party objected to these changes.

The Commission has carefully reviewed these changes to the Company's service regulations, tariffs, riders and the Transportation Pooling Agreement. The Commission finds and concludes that they are just, fair and reasonable and should be approved.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 30

The evidence for this finding is contained in the Application, the direct testimony of Company witness Paton, and the Amended Stipulation.

In its Application, PSNC proposed to refund over a one-year period the EDIT as set forth in Paton Exhibit 13. In the Amended Stipulation, the Stipulating Parties agreed, in Paragraph 12, that it was appropriate to implement a temporary decrement in rates to refund the EDIT as set forth in Paton Exhibit 13 over a one year period. The parties also agreed that in accordance with North Carolina Session Law 2013-316 (House Bill 998), PSNC will refund the additional EDIT over a one-year period, and any amount remaining after twelve months shall be transferred to the All Customers' Deferred Account. No party has contested the refund of EDIT as proposed in the Application and agreed to in the Amended Stipulation, and no other party has presented any additional evidence on this issue.

The Commission has carefully considered the refund of EDIT as proposed in the Amended Stipulation, as well as all of the evidence in the record, and concludes that it is fair and reasonable and should be approved. The Commission further finds that any amount of EDIT remaining after twelve months should be transferred to the All Customers' Deferred Account.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 31

The evidence supporting this finding is contained in the Amended Stipulation.

In Paragraph 13 of the Amended Stipulation, the Stipulating Parties proposed to continue funding of conservation programs at a level of \$750,000 per year, as reflected in test year operating expenses. No party contested the continued level of conservation spending or recovery of conservation dollars provided in the Amended Stipulation.

The Commission has carefully considered the proposed continuous level and treatment of conservation funding in the Amended Stipulation and finds it to be fair and reasonable. As a general statement, the Commission believes that energy conservation and efficiency serve the public interest and that conservation measures provide long-term and year-round benefits to PSNC's customers and to the public as a whole.

Based on the foregoing, the Commission concludes that the amount of conservation spending provided for by the Amended Stipulation, and the recovery of those costs through rates, is appropriate for this docket and should be approved.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 32

The evidence for this finding is contained in the Application, the direct testimony of Company witness Ratchford, the Amended Stipulation, Public Staff Late-Filed Exhibit I, and the direct testimony of Public Staff witness Boswell.

In its Application, PSNC proposed to include in its cost of service in this proceeding \$275,000 for the funding of GTI research into natural gas pipeline safety and reliability. In his direct testimony, Company witness Ratchford indicated that the Company's proposal to include a contribution to GTI in this case was targeted at GTI's Operations Technology Development (OTD) initiative. Witness Ratchford described the OTD initiative as a program specifically targeted towards developing tools and technologies that will assist local distribution companies such as PSNC in meeting the requirements associated with their TIMP and DIMP.

In Public Staff Late-Filed Exhibit I, witness Boswell demonstrated that PSNC's proposal of \$275,000 for the funding of GTI was based on an estimate of the number of meters as of December 31, 2016, multiplied by \$0.50 per meter. The Amended Stipulation reflects a downward adjustment to the actual number of meters on June 30, 2016, found in Public Staff Late-Filed Exhibit I.

In the Amended Stipulation, the Stipulating Parties agreed, in Paragraph 14, "that the Company may fund research and development activities through annual payments to GTI that have been included in operating expenses in this proceeding."

No party has contested the funding of GTI proposed in the Application and agreed to in the Amended Stipulation and no other party has presented evidence on this issue.

The Commission has carefully considered the GTI funding proposed in the Amended Stipulation, and concludes that the funding of GTI at the level of \$268,631 per year to support the development of new technologies, practices and processes which enhance the safety and reliability of natural gas transmission systems is in the public interest and is also fair and reasonable and should be approved.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 33 – 35

The evidence supporting these findings is contained in the testimony and exhibits of the Company and Public Staff, and in the Amended Stipulation.

In PSNC's last general rate case in Docket No. G-5, Sub 495, the Stipulating Parties agreed that the appropriate Allowance for Funds Used During Construction

(AFUDC) rate for the Company should be the overall rate of return, adjusted for income taxes. In that docket, Company witness Paton testified in response to a question from the Commission that the AFUDC rate would remain in effect until the Company's next general rate case proceeding, which is the docket now before the Commission. The Stipulating Parties in this docket agreed to continue using the overall rate of return, adjusted for income taxes. The Commission finds that the continued use of the overall rate of return for the AFUDC rate, adjusted for income taxes, is just, reasonable and appropriate and should be approved.

PSNC has been applying the statutory maximum of 10% authorized in G.S. 62-130(e) to balances in its Sales Customers Only, All Customers, and Hedging Deferred Gas Cost Accounts. The Stipulating Parties agreed in the Amended Stipulation that beginning with the month in which the Order is issued, PSNC will use an interest rate of 6.6% per annum as the applicable interest rate on all amounts over-collected or under-collected from customers reflected in its Sales Customers Only, All Customers, and Hedging Deferred Gas Cost Accounts. The methods and procedures used by PSNC for the accrual of interest on the Deferred Gas Cost Accounts will remain unchanged.

In response to a question from the Commission, PSNC witness Paton stated that the 6.6% is also applied to the balances in the Customer Utilization Tracker (Rider C) and the Integrity Management Tracker (Rider E). Those two riders explicitly call for a reevaluation of the rate every year, and witness Paton confirmed that the 6.6% rate applied to Deferred Gas Cost Accounts would also be reevaluated annually.

The Commission finds that a reduction in the interest rate applied to the balances in the Sales Customers Only, All Customers, and Hedging Deferred Gas Cost Accounts with the rate to be reevaluated annually is just, reasonable and appropriate and should be approved.

Public Staff witness Perry testified that the Stipulating Parties agreed to changes in certain PSNC reporting requirements including filing the GS-1 Report in a format similar to the ES-1 filed by the electric utilities, effective with filings after January 1, 2017. No party opposed this change, which is administrative in nature. The Commission finds that requiring PSNC to file its GS-1 report in a format similar to the ES-1 filed by the electric utilities is reasonable and appropriate and should be approved.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 36

The evidence for this finding is contained in the hearing testimony of Company witness Addison.

The Commission questioned PSNC witness Addison about PSNC's participation in the SCANA Utility Money Pool (UMP). It was noted that the monthly reports provided by PSNC to the Commission in Docket No. G-5, Sub 484 disclosed a distinctive trend of PSNC being far more often a lender than a borrower in its UMP transactions, and