

IN THE SUPREME COURT OF NORTH CAROLINA

No. 170A99

STATE OF NORTH CAROLINA EX REL. UTILITIES COMMISSION; PUBLIC SERVICE COMPANY OF NORTH CAROLINA, INC. (Applicant); PUBLIC STAFF-NORTH CAROLINA UTILITIES COMMISSION (Intervenor); and MICHAEL F. EASLEY, ATTORNEY GENERAL (Intervenor)

v.

CAROLINA UTILITY CUSTOMERS ASSOCIATION, INC. (Intervenor)

Appeal as of right by intervenor-appellant Carolina Utility Customers Association pursuant to N.C.G.S. § 7A-29(b) from an order of the Utilities Commission entered 30 October 1998 in a general rate case granting applicant-appellee Public Service Company of North Carolina, Inc., a partial rate increase. Heard in the Supreme Court 13 October 1999.

*J. Paul Douglas, Corporate Counsel, for applicant-appellee Public Service Company of North Carolina, Inc.*

*Robert P. Gruber, Executive Director, by Antoinette R. Wike, Chief Counsel, and Amy Barnes Babb, Staff Counsel, for intervenor-appellee Public Staff.*

*Michael F. Easley, Attorney General, by Margaret A. Force, Assistant Attorney General, intervenor-appellee.*

*Sutherland, Asbill & Brennan, LLP, by Keith R. McCrea, pro hac vice; and West Law Offices, P.C., by James P. West, for intervenor-appellant Carolina Utility Customers Association, Inc.*

PARKER, Justice.

On 2 April 1998 applicant-appellee Public Service Company of North Carolina, Inc. ("PSNC") filed an application with the North Carolina Utilities Commission ("the Commission") seeking a rate increase of \$21,518,027 per year.<sup>1</sup> The Commission allowed the

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<sup>1</sup> PSNC amended the requested increase to \$11,843,472 through its prefiled rebuttal testimony. PSNC later revised the requested increase to \$14,045,773 through PSNC witness Boone's

formal intervention of Carolina Utility Customers Association, Inc. ("CUCA") by order dated 7 April 1998. On 28 April 1998 the Commission entered an order setting PSNC's application for investigation and hearing and declared this case a general rate case pursuant to N.C.G.S. § 62-137. The intervention and participation of the Public Staff-North Carolina Utilities Commission ("Public Staff") and the Attorney General was recognized pursuant to statute.

After the parties submitted prefiled direct and rebuttal testimony to the Commission, PSNC, in an effort to expedite this proceeding, met privately with the Public Staff to negotiate an agreement regarding revenue requirements. No other parties were included in those negotiations. Neither PSNC nor the Public Staff filed a stipulation or formal settlement with the Commission as a result of their negotiations. Rather, PSNC and the Public Staff each agreed to present their own witnesses. The Public Staff's witnesses would testify according to the negotiated terms, and PSNC agreed not to challenge the Public Staff's testimony pertaining to the private agreement.

On 8 July 1998 pursuant to legislative mandate, the Commission entered an order requiring a study of natural gas transportation rates and setting the Commission's transportation rate study for hearing beginning 31 August 1998. The Commission noted that its order would establish an expedited schedule for the study but emphasized the importance of coordinating the transportation rate study with this pending general rate case.

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supplemental testimony.

This matter came on for hearing before the Commission on 25 August 1998. The Commission entered an "Order Granting Partial Rate Increase" on 30 October 1998. The Commission authorized a \$12,394,757 increase of PSNC's annual revenues. PSNC filed revised tariffs and rate schedules that were designed to implement the Commission's 30 October 1998 order. On 2 December 1998 the Commission entered an order approving the revised tariffs. CUCA now appeals from the Commission's order granting a partial rate increase.

CUCA contends that the Commission committed reversible error by (1) relying on the private agreement between PSNC and the Public Staff to resolve contested issues; (2) adopting a return on equity of 11.4%; (3) adopting a capital structure composed of 51.91% common equity, 4.02% short-term debt, and 44.07% long-term debt; (4) adopting the "peak and average" cost-of-service allocation methodology; (5) failing to make sufficient findings of fact regarding the cost-of-service to the various classes of customers in adopting a rate design; and (6) failing to address the impact of rider D on rate schedules 145 and 150. For the reasons stated herein, we affirm the decision of the North Carolina Utilities Commission.

In fixing rates to be charged by a public utility, the Commission "must comply with the overall requirements of regulation established and specified in considerable detail by the Legislature in chapter 62 of the General Statutes." *State ex rel. Utils. Comm'n v. Carolina Util. Customers Ass'n*, 348 N.C. 452, 457, 500 S.E.2d 693, 698 (1998). The Commission must follow the steps set forth in N.C.G.S. § 62-133 in fixing rates in a general rate case. See *State ex rel. Utils. Comm'n v. General*

(1972). This statute provides in part:

**§ 62-133. How rates fixed.**

(a) In fixing the rates for any public utility . . . , the Commission shall fix such rates as shall be fair both to the public utilities and to the consumer.

(b) In fixing such rates, the Commission shall:

(1) Ascertain the reasonable original cost of the public utility's property used . . . in providing the service rendered to the public  
. . . .

. . . .

(2) Estimate such public utility's revenue under the present and proposed rates.

(3) Ascertain such public utility's reasonable operating expenses . . . .

(4) Fix such rate of return on the cost of the property ascertained . . . as will enable the public utility by sound management to produce a fair return for its shareholders, . . . to maintain its facilities and services . . . , and to compete in the market for capital funds on terms which are reasonable and which are fair to its customers and to its existing investors.

. . . .

(5) Fix such rates to be charged by the public utility as will earn in addition to reasonable operating expenses ascertained . . . the rate of return fixed . . . on the cost of the public utility's property . . . .

. . . .

(d) The Commission shall consider all other material facts of record that will enable it to determine what are reasonable and just rates.

N.C.G.S. § 62-133(a), (b), (d) (1999). The Commission must determine, in accordance with the direction of this section, what constitutes a reasonable charge for proposed services. See *Carolina Util. Customers Ass'n*, 348 N.C. at 459, 500 S.E.2d at 699; see also *State ex rel. Utils. Comm'n v. Morgan*, 277 N.C. 255, 267, 177 S.E.2d 405, 413 (1970).

The rates fixed by the Commission are deemed *prima facie* just and reasonable pursuant to N.C.G.S. § 62-94(e). This Court will uphold the Commission's decision unless it may be attacked on one of the statutory grounds enumerated in N.C.G.S. § 62-94(b). See *Carolina Util. Customers Ass'n*, 348 N.C. at 459, 500 S.E.2d at 699. Section 62-94 provides in pertinent part:

(b) So far as necessary to the decision and where presented, the court shall decide all relevant questions of law, interpret constitutional and statutory provisions, and determine the meaning and applicability of the terms of any Commission action. The court may affirm or reverse the decision of the Commission, declare the same null and void, or remand the case for further proceedings; or it may reverse or modify the decision if the substantial rights of the appellants have been prejudiced because the Commission's findings, inferences, conclusions or decisions are:

- (1) In violation of constitutional provisions, or
- (2) In excess of statutory authority or jurisdiction of the Commission, or
- (3) Made upon unlawful proceedings, or
- (4) Affected by other errors of law, or
- (5) Unsupported by competent, material and substantial evidence in view of the entire record as submitted, or
- (6) Arbitrary or capricious.

(c) In making the foregoing determinations, the court shall review the whole record or such portions thereof as may be cited by any party and due account shall be taken of the rule of prejudicial error. The appellant shall not be permitted to rely upon any grounds for relief on appeal which were not set forth specifically in his notice of appeal filed with the Commission.

N.C.G.S. § 62-94(b), (c) (1999).

Under section 62-94(b) this Court must review the Commission's order on appeal to determine whether the findings of fact are supported by competent, material, and substantial evidence in view of the entire record. See *Carolina Util. Customers Ass'n*, 348 N.C. at 460, 500 S.E.2d at 699. Substantial evidence means "such relevant evidence as a reasonable mind might accept as adequate to support a conclusion." *Consolidated Edison*

*Co. of N.Y. v. N.L.R.B.*, 305 U.S. 197, 229, 83 L. Ed. 126, 140 (1938).

This Court cannot affirm the Commission's order unless the facts and findings included therein are contained in the record. See *Carolina Util. Customers Ass'n*, 348 N.C. at 460, 500 S.E.2d at 700. Section 62-79(a) establishes the standard against which Commission orders will be analyzed on appeal:

(a) All final orders and decisions of the Commission shall be sufficient in detail to enable the court on appeal to determine the controverted questions presented in the proceedings and shall include:

- (1) Findings and conclusions and the reasons or bases therefor upon all the material issues of fact, law, or discretion presented in the record, and
- (2) The appropriate rule, order, sanction, relief or statement of denial thereof.

N.C.G.S. § 62-79(a) (1999). "Failure to include all necessary findings of fact is an error of law and a basis for remand under section 62-94(b) (4) because it frustrates appellate review." *Carolina Util. Customers Ass'n*, 348 N.C. at 460, 500 S.E.2d at 700.

### **I. Private Agreement**

CUCA argues that the Commission's reliance upon the private agreement between PSNC and the Public Staff constitutes prejudicial error. Further, CUCA contends that a heightened standard of review should be applied on appeal where the Commission adopts the recommendations of parties who testified according to negotiated terms between fewer than all of the parties to the dispute. We disagree.

This Court addressed the issue of nonunanimous agreements in *Carolina Util. Customers Ass'n*, 348 N.C. at 466, 500 S.E.2d at 701. In that case, the utility and the Public Staff filed a

stipulated agreement resolving all revenue requirements and rate design issues. See *id.* at 455, 500 S.E.2d at 697. The Commission subsequently adopted a rate of return on equity directly from that stipulation without any deduction. See *id.* at 461, 500 S.E.2d at 700. On appeal, the utility and the Public Staff argued that this Court should apply a lower standard of review and that the Commission's order should be reviewed for reasonableness as a whole since the nonunanimous stipulation fulfilled the "substantial evidence" requirement in N.C.G.S. § 62-94(b) (5). See *id.* at 462, 500 S.E.2d at 701.

This Court recognized that "the legislature has established an elaborate procedural, hearing, and appeals process that contemplates the full consideration of all evidence put forth by each of the parties certified via the statute to have an interest in the outcome of contested proceedings." *Id.* at 463, 500 S.E.2d at 701. The Court acknowledged the value of settlements to the efficient administration of justice but emphasized that "[c]hapter 62 contemplates a full and fair examination of evidence put forth by *all* of the parties." *Id.* at 464, 500 S.E.2d at 702. Permitting the Commission to adopt a stipulation between fewer than all of the parties "would effectively absolve the Commission of its statutory and due process obligations to afford all parties a fair hearing." *Id.*

We held that the Commission should afford full consideration to nonunanimous stipulations along with all other evidence presented by any of the parties in the proceeding. See *id.* at 466, 500 S.E.2d at 703. The Court further reasoned:

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.

*Id.* Thus, we rejected the argument that the Commission's order should be subjected to a lower standard of review where the Commission adopts a nonunanimous stipulation. See *id.*

Applying the foregoing principles to this case, we similarly reject CUCA's argument that the Commission's order should be subjected to a heightened standard of review where the witnesses testified according to a nonunanimous private agreement. We hold that the proper standard of review requires only that the Commission made an independent determination supported by substantial evidence on the record. Even where the parties negotiate a private agreement regarding the evidence to be presented, the Commission satisfies 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.

In this case the Public Staff presented six witnesses whose testimony addressed every issue of material fact. Although PSNC did not contest the Public Staff's testimony on issues covered by the private agreement, PSNC also never withdrew its prefiled testimony. Therefore, the Commission could have rejected the Public Staff's testimony in favor of the evidence supporting PSNC's original application. However, as we shall discuss further, the Commission considered and analyzed the evidence presented by all parties before independently adopting the Public Staff's recommendations. We hold that the Commission's order contains findings sufficient to justify its conclusions.

Further, the Commission's findings are supported by competent, material, and substantial evidence in view of the entire record.

## II. Return on Equity

CUCA maintains that the Commission's conclusion of an 11.4% return on equity is unsupported by competent, material, and substantial evidence in view of the entire record. We disagree.

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.

The Commission's conclusion of what constitutes a fair rate of return on common equity must be predicated on adequate factual findings. See *State ex rel. Utils. Comm'n v. Public Staff*, 322 N.C. 689, 693, 370 S.E.2d 567, 570 (1988). The Commission must consider and make its determination based upon all factors particularized in N.C.G.S. § 62-133, including "all other material facts of record" that will aid the Commission in determining what are just and reasonable rates. N.C.G.S. § 62-133(d); see also *Carolina Util. Customers Ass'n*, 348 N.C. at 462, 500 S.E.2d at 701. "The Commission must then arrive at its

'own independent conclusion' as to the fair value of the applicant's investment, the rate base, and what rate of return on the rate base will constitute a rate that is just and reasonable both to the utility company and to the public." *Carolina Util. Customers Ass'n*, 348 N.C. at 462, 500 S.E.2d at 701 (quoting *State ex rel. Utils. Comm'n v. State*, 239 N.C. 333, 344, 80 S.E.2d 133, 141 (1954)) (alteration in original).

A thorough review of the record in this case, including particularly the Commission's order, reveals that the Commission's 11.4% rate of return on common equity conclusion comes from the direct testimony and exhibits of Public Staff witness Hinton. The Commission complied with the standards established by sections 62-79(a), -94(b) and -133 by independently analyzing the testimony of PSNC witness Andrews, CUCA witness O'Donnell, and Public Staff witness Hinton before reaching its conclusion that 11.4% was the appropriate cost of common equity.

PSNC witness Andrews employed three different methodologies in determining the appropriate rate of return on common equity. Andrews performed two separate analyses using the "discounted cash flow" ("DCF") model. Andrews' first DCF analysis focused entirely on historical dividend data, although Andrews "cautioned repeatedly" against using the DCF model in light of the irregular dividend history of the natural gas industry. Andrews compiled a composite of twenty-one gas distributing companies which, like PSNC, derived more than 80% of their total revenues from the sale of gas or similar business. From that composite group, Andrews selected the four companies with the highest costs of common equity ("the first quartile") and averaged their costs of common

equity, resulting in a return requirement of 9.33%. Andrews' second DCF analysis involved a "rolling 5-year" approach in which Andrews averaged the costs of common equity of the first quartile for the years 1993-1997, producing an average cost of common equity of 11.21%.

Andrews also incorporated his DCF model into a risk premium analysis, which he referred to as a hybrid premium DCF-over-debt analysis, resulting in costs of common equity of 11.74% for treasury bills, 11.26% for intermediate-term government bonds, and 11.12% for long-term government bonds. Finally, Andrews performed a "capital asset pricing model" ("CAPM") analysis using as the expected return on the market the average annual returns of the Standard & Poor's 500 from 1988 through 1997 as reported by Ibbotson & Associates. Andrews' CAPM analysis yielded a cost of common equity ranging from 11.41% to 14.35%. Overall, Andrews recommended a point estimate of cost of common equity of 12.10% in a range from 11.60% to 12.60%.

CUCA witness O'Donnell developed his recommended required return on common equity according to two different methodologies. First, O'Donnell used the DCF method to analyze the dividend yield and anticipated dividend growth of PSNC. O'Donnell performed a DCF study specific to PSNC which produced a return requirement between 10.3% and 11.3%. O'Donnell "checked" this result by applying the DCF method to a group of twenty-one companies that he "consider[ed] to be of comparable risk" to PSNC. This study produced a return on equity range of 9.80% to 10.80%. Second, O'Donnell used the "comparable earnings" method to assess the reasonableness of his DCF results. O'Donnell studied the actual historical earned returns on common equity of

all industries, natural gas companies, and companies comparable in risk to PSNC. Based upon this analysis O'Donnell concluded that a reasonable estimate of the cost of equity to PSNC was within the range of 10.5% to 11.5%. Overall, O'Donnell recommended a return requirement for PSNC of 10.8%.

Public Staff witness Hinton also based his recommendation on the DCF model and the comparable earnings approach. First, Hinton applied the DCF model to PSNC and two groups of comparable risk companies. From this analysis Hinton concluded that the appropriate cost of equity was within the range of 10.5% to 11.5%. Second, Hinton tested the reasonableness of his DCF results by employing a comparable earnings analysis for comparable local gas companies with a "B+" Standard & Poor's stock ranking. That analysis indicated historical earned returns on equity ranging from 11.0% to 12.0%. Overall, Hinton recommended 11.4% as the appropriate point-specific cost of common equity for PSNC.

The Commission's ultimate conclusion approving an 11.4% rate of return on equity meets the standards established by section 62-133 specifically and by chapter 62 as a whole. The Commission's conclusion that Public Staff witness Hinton's testimony was the most credible and objective is fully supported by competent, material, and substantial evidence in view of the entire record. The final order shows that the Commission carefully reviewed the testimonies of PSNC witness Andrews and CUCA witness O'Donnell before adopting Public Staff witness Hinton's recommended return on common equity.

The Commission concluded that PSNC witness Andrews skewed his results toward a higher cost of common equity by including

only the four companies with the highest cost of common equity in his DCF model and hybrid premium DCF-over-debt analysis.

Andrews' third approach, CAPM, was similarly flawed in that Andrews calculated an equity risk premium over a ten-year period rather than over a period dating back to the 1920s as recommended by Ibbotson & Associates.

The Commission also concluded that CUCA witness O'Donnell skewed his results. O'Donnell created a downward bias in his DCF model and comparable earnings approach by ignoring data in his own exhibits and including certain companies with poor earnings and growth records. Additionally, O'Donnell's recommended cost of common equity would jeopardize PSNC's ability to attract capital by placing its current "A-" bond rating at considerable risk for a possible downgrade.

In contrast, the Commission gave the greatest weight to Public Staff witness Hinton's testimony in determining the cost of common equity. Hinton's DCF analysis included only companies with sufficient dividend histories to calculate ten-year *Value Line* growth rates. Hinton also performed a comparable earnings analysis that indicated a range of historical returns of 11.0% to 12.0%. Overall, Hinton recommended a point-specific cost of common equity of 11.4%, which would produce a level of interest coverage consistent with an "A" bond rating.

After weighing the conflicting evidence of the expert witnesses, the Commission accepted Public Staff witness Hinton's recommendation of 11.4% based on the credibility and objectivity of his PSNC-specific DCF analysis. Thus, the Commission adduced its own independent conclusion as to the appropriate rate of return on equity as required by N.C.G.S. § 62-133. We hold that

this conclusion, being fully supported by substantial evidence in view of the entire record, should not be disturbed on appeal.

### **III. Capital Structure**

CUCA next contends the Commission's conclusion that PSNC's capital structure should include a short-term debt ratio of 4.02% is not supported by substantial evidence. We disagree.

The Commission must determine the appropriate capital structure for PSNC in order to achieve an overall fair rate of return. "Capital structure" refers to PSNC's percentages of debt and equity relative to its total capital. "The ratios [of capital components] used for rate-making purposes are important because of the relative expense to the utility of each form of capital accumulation." *Public Staff*, 322 N.C. at 701, 370 S.E.2d at 575. Both long-term debt and common equity are more expensive forms of capital for the ratepayers than short-term debt. A capital structure containing a higher ratio of a more expensive form of capital will result in higher rates to provide the higher return demanded by investors. See *id.* at 701-02, 370 S.E.2d at 575.

In this proceeding, the Commission approved a capital structure consisting of 51.91% common equity, 4.02% short-term debt, and 44.07% long-term debt. CUCA contends that the capital structure should include a higher percentage of short-term debt since PSNC's use of short-term debt consistently exceeds its balance of stored gas inventory. However, the Commission has historically relied upon a utility's average stored gas inventory as the measure of short-term debt to be included in the capital structure. See, e.g., *In re Application of Public Serv. Co.*, 84

N.C.U.C. Report 159, 206 (1994); *In re Application of Piedmont Natural Gas Co.*, 79 N.C.U.C. Report 348, 371 (1989). CUCA failed to present any evidence supporting the unreasonableness of the Commission's reliance upon PSNC's gas inventory as a measure of short-term debt. See *State ex rel. Utils. Comm'n v. Thornburg*, 316 N.C. 238, 242, 342 S.E.2d 28, 31 (1986) (explaining that the attacking party bears the burden of proving the Commission's order unjust and unreasonable). Further, the Commission's findings of fact and conclusions of law are supported by competent, material, and substantial evidence in view of the entire record.

In this case, the Commission considered the recommendations of PSNC witness Mason and CUCA witness O'Donnell before giving the greatest weight to the capital structure proposed by Public Staff witness Hinton. PSNC witness Mason indicated PSNC's willingness to accept the Public Staff's recommended capital structure.

Public Staff witness Hinton emphasized that "an important goal with [PSNC's] capital structure is to ensure that the debt and equity ratios adopted in determining the overall rate of return on rate base investment are no greater than those required to allow [PSNC] to qualify for reasonable credit ratings and to provide [PSNC] the ability to attract capital." Hinton recommended a capital structure "based on 13 month averages of recent data and an adjustment for cost free capital associated with prior Transco [Transcontinental Pipe Line Corporation] refunds." Hinton included in his proposed capital structure an amount of short-term debt equal to the stored gas inventory included in rate base. Hinton noted that, by using the average

stored gas inventory as the measure of short-term debt, his approach appropriately accounted for seasonal fluctuations in PSNC's inventory.

PSNC witness Mason testified that PSNC originally requested a capital structure composed of 52.33% common equity, 3.66% short-term debt, and 44.01% long-term debt. Mason based his recommendation on "PSNC's projected average capital structure for the thirteen months ended July 31, 1998." Like Public Staff witness Hinton, Mason included in PSNC's requested capital structure a short-term debt ratio equal to the amount of PSNC's stored gas inventory. Mason reiterated the Commission's practice of including an amount of short-term debt "reasonably representative of and approximately equivalent to the level of gas inventory included in rate base." *In re Application of Public Serv. Co.*, 84 N.C.U.C. Report at 206.

PSNC witness Mason testified on rebuttal that PSNC periodically refinances with equity capital or issuance of long-term debt any short-term debt in excess of its stored gas inventory. Mason also explained that PSNC expects to experience a decline in its use of short-term debt as recent extraordinary projects are completed. Mason further testified that PSNC's use of short-term debt to finance deferred gas costs has significantly decreased due to recent changes in gas pricing for full-margin customers. Finally, Mason emphasized that CUCA's recommended capital structure would jeopardize PSNC's current "A-" credit rating. Under CUCA's capital structure, PSNC's credit rating would drop to "BBB" and result in additional interest costs of \$4.5 million for a thirty-year bond offering.

CUCA witness O'Donnell recommended a capital structure consisting of 48.81% common equity, 9.76% short-term debt, and 41.43% long-term debt. O'Donnell designed his capital structure "based upon a 13 month average capital structure which includes the FULL amount of short-term debt which [PSNC] employed during the most recent year." O'Donnell acknowledged the Commission's practice of using the stored gas inventory balance as the measure of short-term debt. However, O'Donnell asserted that PSNC's recent use of short-term debt has consistently exceeded its investment in stored gas inventory.

CUCA witness O'Donnell proposed a new method for this proceeding under which the Commission would adopt a capital structure "that includes the daily average balance amount of short-term debt for the most recent twelve month period." Such an approach would recognize that PSNC consistently uses short-term debt to finance corporate functions other than gas inventory, such as construction work in progress ("CWIP"). As an alternative, O'Donnell proposed a capital structure composed of 50.15% common equity, 7.28% short-term debt, and 42.57% long-term debt. O'Donnell's alternative capital structure includes an amount of short-term debt equal to PSNC's average short-term debt for the most recent twelve month period less PSNC's average CWIP balance outstanding for the most recent twelve month period.

CUCA witness O'Donnell also addressed the effect of CUCA's capital structure on PSNC's bond rating. According to O'Donnell, the Commission owes no duty to set rates that would guarantee a specific bond rating. Further, O'Donnell asserted that neither PSNC witness Mason nor Public Staff witness Hinton offered any specific evidence that CUCA's capital structure would jeopardize

PSNC's bond rating. Finally, O'Donnell concluded that the capital structure proposed by the Public Staff and accepted by PSNC ignores PSNC's financing activities and unjustifiably charges higher rates by including only a small portion of PSNC's outstanding short-term debt.

The Commission's ultimate conclusion adopting the capital structure recommended by the Public Staff and accepted by PSNC is fully supported by competent, material, and substantial evidence in view of the entire record. The Commission's order demonstrates that the Commission carefully reviewed the testimony of PSNC witness Mason and CUCA witness O'Donnell before accepting Public Staff witness Hinton's recommended capital structure.

The Commission concluded that the capital structure proposed by Public Staff witness Hinton was the most appropriate capital structure for purposes of this general rate case. The capital structure adopted by the Commission consisted of 51.91% common equity, 4.02% short-term debt, and 44.07% long-term debt. According to the Commission, "[t]hat capital structure reflects a level of short-term debt that is approximately equal to the level of gas inventory included in rate base."

The Commission emphasized the persuasiveness of PSNC's and the Public Staff's evidence and arguments. The Commission particularly underscored the evidence that CUCA's proposed capital structure would jeopardize PSNC's "A-" bond rating. The Commission noted CUCA witness O'Donnell's acknowledgment that his recommended capital structure would result in a "BBB" bond rating. The Commission ultimately concluded that the Public Staff's recommended capital structure "should allow PSNC the opportunity to maintain its current 'A-' bond rating so as to

enable it to attract capital on reasonable terms to fund its expansion of natural gas service, which [PSNC] is being urged to do.”

After a careful review of the record, we hold that the Commission’s order satisfies the requirements of section 62-94 specifically and of chapter 62 as a whole. Here, the Commission did not merely summarize the arguments of the parties and then reject those offered by appellants. Instead, the Commission considered and necessarily gave greater weight to PSNC’s and the Public Staff’s evidence, which supported a short-term debt ratio of 4.02%, than to CUCA’s evidence, which supported a short-term debt ratio of 9.76%. Therefore, we conclude that the Commission’s order is supported by competent, material, and substantial evidence in view of the entire record and that the Commission evaluated the evidence and made an independent determination.

#### **IV. Cost-of-service**

CUCA next argues that the Commission’s conclusions regarding cost-of-service are deficient in two respects: (i) the Commission’s adoption of the peak and average cost-of-service allocation methodology is unsupported by competent, material, and substantial evidence; and (ii) the Commission erred in failing to adopt the imputed load factor methodology. We disagree.

Cost-of-service to PSNC’s customer classes significantly affects this general rate case for two reasons. First, cost-of-service factors into the mathematical computation required by N.C.G.S. § 62-133 for determining the appropriate rate of return for a particular customer class. See *Carolina Util. Customers*

*Ass'n*, 348 N.C. at 467, 500 S.E.2d at 704. Second, cost-of-service impacts whether the rate design unjustly discriminates between the various classes of customers. See *id.*

Before the Commission can design rates that are just and reasonable for all customer classes, it must first determine the cost-of-service for which each class of customers is responsible. See *Carolina Util. Customers Ass'n*, 348 N.C. at 471, 500 S.E.2d at 705-06. As the United States Supreme Court explained, "[t]he outlays that exclusively pertain to a given class of [customers] must be assigned to that class, and the other expenses must be fairly apportioned." *Northern Pac. Ry. Co. v. North Dakota ex rel. McCue*, 236 U.S. 585, 597, 59 L. Ed. 735, 742 (1915). Therefore, the Commission must allocate between the various customer classes their fair share of the fixed costs. See *Colorado Interstate Gas Co. v. Federal Power Comm'n*, 324 U.S. 581, 588, 89 L. Ed. 1206, 1215 (1945). However, "[a]llocation of costs is not a matter for the slide-rule. It involves judgment on a myriad of facts. It has no claim to an exact science." *Id.* at 589, 89 L. Ed. at 1216.

The first step in allocating cost-of-service among customer classes is selecting an appropriate allocation methodology. In *Carolina Util. Customers Ass'n*, 348 N.C. at 470-71, 500 S.E.2d at 705-06, this Court found insufficient the Commission's findings of fact regarding the allocation of cost-of-service. The Court rejected the Commission's order on the basis that

the only determination made regarding the cost of service calculation . . . fails to provide any independent comparative thought, analysis or weighing process on the part of the Commission itself in measuring the disputed positions of the parties and determining what it considers to be a fair allocation of costs between the various customer classes and thus

a fair and nondiscriminatory rate design. It also fails to identify the method the Commission used for analyzing the cost-of-service differentials and their impact on the ultimate rate-of-return issue.

*Id.* at 471, 500 S.E.2d at 706. Thus, this Court required the Commission to independently identify and apply an appropriate cost-of-service allocation methodology before designing a nondiscriminatory rate structure.

In this case the Commission concluded that the peak and average cost allocation methodology was the appropriate method for allocating fixed gas costs between PSNC's customer classes. Both PSNC witness Barkley and Public Staff witness Larsen recommended the peak and average method. However, CUCA witness Schoenbeck preferred either the peak responsibility method or the imputed load factor approach.

PSNC witness Barkley and Public Staff witness Larsen used the peak and average method to allocate between customer classes costs that could not be directly assigned. Larsen explained that the peak and average method allocates fixed costs on the basis of 50% peak day demand and 50% annual sales. Barkley recommended the peak and average method for allocating cost-of-service because that method "recognizes that most customers receive service most days of the year." Barkley contrasted his approach with CUCA's recommended peak responsibility method. Barkley testified that, under CUCA's approach, many interruptible customers will experience relatively little curtailment during the winter season without paying the fixed costs attributable to providing that service. Further, both Barkley and Larsen recognized that the Commission has traditionally employed the peak and average allocation methodology.

CUCA witness Schoenbeck recommended either the peak responsibility method or the imputed load factor approach. Under the peak responsibility method, customers who receive service on the utility's peak day are responsible for fixed costs while interruptible customers who experience curtailment avoid the cost incurred in providing service to them. Schoenbeck preferred the peak responsibility approach to the peak and average method based on his opinion that the peak and average method distorts the cost of serving each customer class.

According to Schoenbeck, "[t]he purpose of performing a cost-of-service study is to ascertain the cost of serving customers with different usage and size characteristics, qualities of service . . . , and types of service." Schoenbeck argued that PSNC and the Public Staff ignored the substantial capacity that a utility must acquire in order to meet the peak day demands of the utility's firm customers. The peak and average method apportions costs based on "fairness," not actual cost determinations. See *In re Atlantic Seaboard Corp.*, 11 F.P.C. 43, 55 (1952) (developing the peak and average method to more fairly allocate costs between demand and volumetric services). Overall, Schoenbeck recommended the peak responsibility method as a more accurate determination of the actual cost of serving each customer class.

CUCA witness Schoenbeck recommended the imputed load factor approach as a second best alternative allocation methodology. Schoenbeck explained the application of this method:

[T]he demand-related allocation factor is derived using the peak or contractual demands of all firm customer classes plus an imputed load for the interruptible customers. The imputed interruptible load is calculated using the annual throughput for this class

coupled with a load factor reflective of the quality of service being provided these customers. The lower the quality of service--reflecting more interruptions--the higher the load factor used in the calculation.

Schoenbeck further emphasized the costs associated with the full expected peak demand that firm customer classes can impose on the utility. Schoenbeck argued that the imputed load factor approach "directly determine[s] cost responsibility while at the same time recognizing the lower quality of service provided to interruptible customers."

After fully considering each approach, the Commission concluded that the peak and average method was the most appropriate cost-of-service methodology. The Commission rejected CUCA's peak responsibility method as "unfair in that it gives interruptible customers a 'free ride' on the utility system that provides them with natural gas service for the vast majority of the year." The Commission also rejected the imputed load factor method. The Commission noted that while that approach does allocate some fixed costs to interruptible customers, Schoenbeck presented only a summary of his cost-of-service study using this methodology. As a result, neither the Commission nor the other parties could adequately analyze the imputed load factor approach recommended by CUCA. As this Court has previously stated:

It is not the function of this Court to determine whether there is evidence to support a position the Commission did not adopt. *State ex rel. Utilities Comm'n v. Eddleman*, 320 N.C. 344, 355, 358 S.E.2d 339, 347 (1987). . . . The credibility of the testimony and the weight to be accorded it are for the Commission to decide, *State ex rel. Utilities Comm'n v. City of Durham*, 282 N.C. 308, 322, 193 S.E.2d 95, 105 (1972), and this Court presumes that the Commission gave proper consideration to all competent evidence presented, *State ex rel. Utilities Comm'n v. Thornburg*, 316 N.C. 238, 245, 342 S.E.2d 28, 33 (1986). This Court may not properly set aside the Commission's recommendation merely because different conclusions could have been

reached from the evidence. *State ex rel. Utilities Comm'n v. General Tel. Co. of Southeast*, 281 N.C. 318 354, 189 S.E.2d 705, 728 (1972).

*State ex rel. Utils. Comm'n v. Piedmont Natural Gas Co.*, 346 N.C. 558, 569, 488 S.E.2d 591, 598 (1997).

The Commission ultimately concluded that the peak and average method properly allocates fixed costs between annual use and peak day utilization of the facilities. Thus, the Commission appropriately considered and analyzed the evidence presented by all parties before giving greater weight to the Public Staff's proposed cost-of-service allocation methodology. We hold that the Commission's order contains sufficient findings of fact to justify its conclusions. Further, the Commission's findings of fact are supported by competent, material, and substantial evidence in view of the entire record.

## **V. Rate Design**

Once fixed costs have been allocated among the various customer classes, the Commission must design a just and reasonable rate structure that does not subject any customer class to discrimination or "rate shock." Three basic components must be ascertained in making that computation:

(1) the total rate base applicable to each customer class; (2) the *cost of service* or operating expenses applicable to each customer class; and (3) the revenues collected from each customer class for the test period, adjusted for any subsequent increase in rates.

*Carolina Util. Customers Ass'n.*, 348 N.C. at 467, 500 S.E.2d at 704. Unjust or unreasonable discrimination among customer classes is prohibited by N.C.G.S. § 62-140, which provides in relevant part:

(a) No public utility shall, as to rates or services, make or grant any unreasonable preference or advantage to any person or subject any person to any unreasonable prejudice or disadvantage. No public utility shall establish or maintain any unreasonable difference as to rates or services either as between localities or as between classes of service.

N.C.G.S. § 62-140(a) (1999); see also *Carolina Util. Customers Ass'n*, 348 N.C. at 467-68, 500 S.E.2d at 704.

The Commission may classify customers or charge different rates based on reasonable differences in conditions so long as the variance in charges bears a reasonable proportion to the variance in conditions. See *Carolina Util. Customers Ass'n*, 348 N.C. at 468, 500 S.E.2d at 704. "A number of conditions or factors should be considered in determining whether unreasonable discrimination exists, including: (1) quantity of use, (2) time of use, (3) manner of service, and (4) *costs of rendering the various services.*" *Id.*

In the present case, CUCA contends that the discrimination in the rates of return among PSNC's several customer classes approved by the Commission is not justified by adequate findings supported by the whole record; therefore, by approving the various rates of return, the Commission exceeded its statutory authority. Appellees counter that the evidence and findings adequately justify that the approved rates do not unreasonably discriminate among PSNC's classes of customers.

This Court addressed the issue of discriminatory rate design in *Carolina Util. Customers Ass'n*, 348 N.C. at 470-71, 500 S.E.2d at 705-06. In that case, this Court held that the Commission failed to make sufficient findings of fact to justify its approval of the proposed stipulated rate design. See *id.* at 472,

500 S.E.2d at 706. The Court identified, *inter alia*, the relevant insufficiencies of the Commission's order as follows:

[T]he findings do not establish the magnitude of the differences among the rates of return provided by the various customer classes. As a result, this Court is prevented from reviewing the manner in which the Commission considered cost-related versus non-cost-related factors in adopting the stipulated rate design. [Also,] the findings do not set forth the existing rate differences with respect to the cost of serving the several customer classes. This prevents the Court from analyzing the factual basis of the Commission's conclusion that no customer or class of customers will suffer from "rate shock or unjust or discriminatory rates."

*Id.* at 471, 500 S.E.2d at 706. The Commission will not satisfy those requirements in this proceeding simply by setting out the differences in rates of return and cost-of-service for the various customer classes. We hold that the Commission, in designing a nondiscriminatory rate structure, must set forth sufficient evidence, findings of fact, and conclusions of law to permit adequate review by this Court. The Commission satisfies this standard by explaining its consideration of non-cost-related factors and by setting forth the factual basis for its conclusion that the approved rate structure does not result in discrimination among customer classes.

The Commission's order in this proceeding satisfies the above standard. First, the Commission considered a number of other factors in addition to cost-of-service in designing a nondiscriminatory rate structure. Second, the Commission considered the results of several cost-of-service studies before adopting the Public Staff's proposed rate design.

The Commission found that "[c]ost-of-service studies are subjective and imprecise and are useful only as a guide along with other factors in setting natural gas rates." As an example,

the Commission referred to the widely divergent results of the cost-of-service studies presented in this proceeding by PSNC, the Public Staff, and CUCA. Further, Public Staff witness Davis testified that cost-of-service studies overstate returns for large industrial and commercial customers by failing to reflect negotiated rate discounts. The Commission declined to place a great emphasis on the results of the studies since "[t]he rates of return shown in a cost-of-service study do not necessarily reflect the actual return the Company garners from each class."

The Commission concluded that a number of other factors in addition to cost-of-service must be considered in designing rates. The Commission stated:

The Commission agrees with witnesses Barkley and Davis that it is appropriate to consider a number of factors in addition to cost-of-service when designing rates. Such other factors include value of service, quantity of natural gas used, the time of use, the manner of use, the equipment which the Company must provide and maintain in order to meet the requirements of its customers, competitive conditions and consumption characteristics.

The Commission's order does not specifically address each of these factors. However, the order does set forth evidence, findings of fact, and conclusions of law which demonstrate that the Commission gave consideration to these factors and their applicability to each customer class.

First, the Commission concluded that an attempt to equalize returns among the classes would significantly impact Rate Schedule 105 Residential -- Year Round customers. The evidence indicated that those customers would experience "rate shock" due to their inability to switch fuels easily. The Commission emphasized that the "long-established expectations of these

customers at the time they bought their heating systems should be taken into consideration in setting rates."

Second, the Commission ultimately concluded that Public Staff witness Davis properly considered all appropriate factors in designing a nondiscriminatory rate structure. Davis testified that he considered the following factors:

(1) value of service, (2) the type of service, (3) the quantity of use, (4) the time of use, (5) the manner of service, (6) competitive conditions relating to acquisition of new customers, (7) historical rate design, (8) the revenue stability to the utility, and (9) economic and political factors.

Davis emphasized that the value paid for natural gas service cannot be significantly greater than a satisfactory alternative. Additionally, Davis considered the different needs of different types of customers. Type of service, quantity of use, time of use, and manner of service required by the various customer classes will affect the rate design. For example, some industrial customers require a more firm supply, while heat-sensitive customers require more security of service during peak winter days.

Davis also testified that his proposed rate structure would enable PSNC to attract new customers and retain current customers. Davis further explained that his rate design is consistent with historical rate design over the past several PSNC general rate cases. Finally, Davis designed rates intended to facilitate economic growth in PSNC's service territory.

After considering the non-cost-related factors emphasized by Public Staff witness Davis, the Commission adopted the Public Staff's recommended rate design. The Commission recognized that the proposed rate structure "essentially places the entire

increase on residential and small general service customers, while decreasing the revenue burden on large commercial and industrial customers.” However, the Commission found that such a rate design would be consistent with the results of other recent general rate cases. Therefore, the Commission’s findings of fact and conclusions of law demonstrate that the Commission appropriately considered factors other than cost-of-service in adopting a rate design that would be just and reasonable for all customer classes.

The Commission’s order in this proceeding also sets forth the factual basis for its conclusion that the approved rate structure does not result in discrimination between customer classes. See *Carolina Util. Customers Ass’n*, 348 N.C. at 471, 500 S.E.2d at 706. As discussed above in relation to cost-of-service allocation, the Commission considered the results of several cost-of-service studies before adopting the Public Staff’s proposed rate design. The Commission’s order included two sets of data that delineate the existing rate structure and the new rate structure proposed by the Public Staff. The following table reflects the existing rates of return for each of PSNC’s customer classes:

<u>Rate Schedule Number</u>	<u>Customer Class</u>	<u>Rate of Return</u>
105	Residential - Year Round	5.83%
110	Residential - Seasonal	5.03%
125	Small General Service	10.22%
145/175	Large Quantity General	17.17%
150/180	Large Quantity Interruptible	15.65%
	Overall	7.51%

The second table indicates the impact of the Public Staff's proposed rate design on customer class rates of return in this proceeding:

<u>Rate Schedule Number</u>	<u>Customer Class</u>	<u>Rate of Return</u>
105	Residential - Year Round	6.98%
110	Residential - Seasonal	7.29%
125	Small General Service	13.70%
145/175	Large Quantity General	14.78%
150/180	Large Quantity Interruptible	10.90%
	Overall	9.81%

The Commission noted that the Public Staff's proposed rate design, when analyzed according to the peak and average allocation methodology discussed previously, yields class rates of return that are closer to the overall rate than the Commission has historically approved. Although disparities still exist in the rates of return between the various customer classes, "the approved rates at least move in the direction of more nearly equalizing the rates of return among all [PSNC] customer classes." *State ex rel. Utils. Comm'n v. Carolina Util. Customers Ass'n*, 323 N.C. 238, 251, 372 S.E.2d 692, 700 (1988). Based upon the narrowed range of rates established by the Public Staff's proposed rate design, the Commission concluded that no customer or class of customers will suffer from "rate shock" or discriminatory rates. Since this Court has affirmed rate structures with greater disparities among the classes, it follows that the rate design approved here must not be unreasonably discriminatory. See *State ex rel. Utils. Comm'n v. Public Staff*, 323 N.C. 481, 505, 374 S.E.2d 361, 374 (1988).

After a careful review of the record, we hold that the Commission's order satisfies the minimal requirements we set out

in *Carolina Util. Customers Ass'n*, 348 N.C. at 470-71, 500 S.E.2d at 705-06. The Commission's order contains findings sufficient to justify its conclusion that the approved rates of return are just and reasonable and do not unreasonably discriminate among the various classes of PSNC customers. Furthermore, the Commission's findings are supported by substantial evidence in view of the whole record.

## **VI. Rider D**

Finally, CUCA contends that the Commission committed prejudicial error by failing to address the discriminatory impact of PSNC's rider D on rate schedules 145 and 150. We disagree.

In November 1997 the Commission approved PSNC's bifurcated full-margin pricing mechanism on a two-year experimental basis. "Full margin" generally refers to transportation rates that are calculated by deducting the cost of gas from established sales rates. However, PSNC's pricing system reverses that method: PSNC's transportation customers pay Commission-approved transportation rates under rate schedules 175 and 180, while sales customers who purchase natural gas under rate schedules 145 and 150 pay established transportation rates plus a "monthly commodity gas cost."

In this proceeding, the Commission approved Rider D, which defines "monthly commodity gas cost" as "the sum of the Monthly Index Price, the 100% Load Factor equivalent of Transcontinental Pipe Line Corporation's Zone 3 to Zone 5 Maximum FT Rate, fuel, Other Gas Supply Charges, and Gross Receipts Taxes." CUCA contends that PSNC's application of rider D to large-volume sales customers who purchase natural gas under rate

schedules 145 and 150 unjustly discriminates against those customers by forcing them to pay twice for interstate transportation. Appellees respond that the Commission adequately addressed this issue in its final order.

As we discussed earlier, the Commission may classify customers or charge different rates based on reasonable differences in conditions so long as the variance in charges bears a reasonable proportion to the variance in conditions. See *Carolina Util. Customers Ass'n*, 348 N.C. at 468, 500 S.E.2d at 704. Additionally, this Court has consistently affirmed the Commission's approval of full-margin rates. See *id.* at 472, 500 S.E.2d at 707; *State ex rel. Utils. Comm'n v. Carolina Util. Customers Ass'n*, 328 N.C. 37, 46, 399 S.E.2d 98, 103 (1991); *Carolina Util. Customers Ass'n*, 323 N.C. at 253-54, 372 S.E.2d at 701; *State ex rel. Utils. Comm'n v. N.C. Textile Mfrs. Ass'n*, 313 N.C. 215, 225, 328 S.E.2d 264, 270 (1985).

In our most recent general rate case, *Carolina Util. Customers Ass'n*, 348 N.C. at 472-74, 500 S.E.2d at 707, we reviewed our prior decisions concerning full-margin rates:

In *Textile Mfrs.*, 313 N.C. 215, 328 S.E.2d 264, this Court stated: "We do not hold that it is unjust and unreasonable as a matter of law for a utility to earn the same profit margin on transported gas that it earns on its own retail sales of gas." *Id.* at 225, 328 S.E.2d at 270. This principle was reiterated in *Utilities Comm'n v. CUCA*, 323 N.C. 238, 372 S.E.2d 692, where we stated, "on this record it was not unlawful to permit the transportation rates to have the same margins as the sales rates." *Id.* at 254, 372 S.E.2d at 701. Finally, in *Utilities Comm'n v. CUCA*, 328 N.C. 37, 399 S.E.2d 98, we stated, "Both the Commission and this Court have consistently rejected the notion that cost of service should be the sole factor in determining rates or rate designs, whether the rates are for the sale of gas or the

transportation of gas." *Id.* at 46, 399  
S.E.2d at 103.

After reviewing this line of cases, the Court held that full-margin transportation rates are proper so long as they are supported by competent, material, and substantial evidence in view of the entire record as required by N.C.G.S. § 62-94. See *Carolina Util. Customers Ass'n*, 348 N.C. at 473, 500 S.E.2d at 707.

In this general rate proceeding, substantial evidence supports the Commission's approval of PSNC's full-margin transportation rates. In its order, the Commission made the following findings of fact regarding PSNC's transportation rates:

74. The Commission has consistently calculated full-margin transportation rates by subtracting the benchmark commodity cost of gas, applicable gross receipts taxes, and any temporary increments and/or decrements from the sales rate schedule under which the transportation customer would otherwise be buying natural gas from PSNC.

75. PSNC's bifurcated benchmark, by which large commercial and industrial customers receive monthly market based rates, does not affect the use of the full-margin concept for transportation in this case.

76. The Commission concludes that the transportation rates for PSNC in this docket should be based on the full-margin concept.

. . .

77. The transportation rate design proposed by the Public Staff is based on the full-margin concept and is just and reasonable.

Although the Commission did not specifically address CUCA's argument that PSNC's rates double-charge sales customers for interstate transportation, the Commission did thoroughly review the record evidence supporting PSNC's bifurcated full-margin pricing method. The order reveals that the Commission relied

upon the testimony of PSNC witness Barkley, Public Staff witness Davis, and CUCA witness Schoenbeck for its findings of fact and conclusions of law.

PSNC witness Barkley emphasized that PSNC's bifurcated rates are still "full margin" since the transportation and sales rates differ only by the amount of the commodity cost of gas. Public Staff witness Davis underscored the neutrality of PSNC's full-margin rates since both transportation and sales rates contain the same margin; the rates differ only by the cost of the gas provided by PSNC to its sales customers. Additionally, Davis emphasized the Commission's long history of using the full-margin principle to calculate transportation rates.

In contrast CUCA witness Schoenbeck argued that PSNC's bifurcated method unjustifiably results in sales customers paying twice for interstate transportation: once as a component of the monthly commodity cost of gas and again as a component of the Commission-approved transportation rates. However, the record reveals Schoenbeck himself testified that PSNC's system simply reverses the typical full-margin calculation, resulting in sales customers, rather than transportation customers, paying duplicative charges for interstate transportation.

The Commission emphasized that "the services performed by [PSNC] are substantially the same whether service is provided under the sales rate or transportation rate, especially given the customer's option to select monthly which service is more desirable." The Commission additionally noted that PSNC's mechanism for calculating the commodity cost of gas took effect less than a year before this proceeding. Thus, the Commission was "reluctant to change an experimental program that has been in

effect only a short time and has not been shown to have an adverse impact on the competitive market.”

The Commission ultimately concluded that “the Public Staff’s proposed transportation rates based on the full-margin concept are just and reasonable.” We hold that the record evidence, combined with the Commission’s analysis of prior cases addressing the lawfulness of full-margin transportation rates, is more than adequate to support the Commission’s approval of PSNC’s bifurcated full-margin pricing mechanism.

In conclusion and for the reasons stated, we hold that the Commission did not err in this proceeding.

AFFIRMED.