STATE OF TENNESSEE

Office of the Attorney General

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Reply to:
Consumer Advocate and Protection Division
Post Office Box 20207
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June 26, 2003

Honorable Sara Kyle
Chairman
Tennessee Regulatory Authority
460 James Robertson Parkway
Nashville, Tennessee 37243

RE: In Re: Petition of Tennessee American Water Company to Change and Increase Certain Rates and Charges So As to Permit it to Earn a Fair and Adequate Rate of Return on Its Property Used and Useful in Furnishing Water Service to Its Customers
Docket No. 03-00118

Dear Chairman Kyle:

Enclosed is an original and thirteen copies of the Attorney General's First Amended Notice of Exhibits in the above-referenced docket. I would appreciate if you would please file same in this docket. We are forwarding copies of same to all parties of record. If you have any questions, please feel free to contact me at (615) 532-3382. Thank you.

Sincerely,

Shilina B. Chatterjee

Shilina B. Chatterjee
Assistant Attorney General

Enclosures
cc: All Parties of Record

66459

IN THE TENNESSEE REGULATORY AUTHORITY
NASHVILLE, TENNESSEE

IN RE:	)	
	)	
PETITION OF TENNESSEE AMERICAN WATER COMPANY TO CHANGE AND INCREASE CERTAIN RATES AND CHARGES SO AS TO PERMIT IT TO EARN A FAIR AND ADEQUATE RATE OF RETURN ON ITS PROPERTY USED AND USEFUL IN FURNISHING WATER SERVICE TO ITS CUSTOMERS	)	**DOCKET NO. 03-00118**

ATTORNEY GENERAL'S FIRST AMENDED NOTICE OF EXHIBITS

Comes Paul G. Summers, the Attorney General & Reporter, through the Consumer Advocate and Protection Division of the Office of Attorney General (hereinafter "Attorney General") and hereby supplements and amends its Notice of Exhibits to add the following exhibit that it may use at trial:

1. Opinion issued by the Court of Appeals of Tennessee entitled *General Telephone Company of the Southeast vs. Public Service Commission of the State of Tennessee, et al.*, Docket No. 84-321-II (1985).

2. Order of the Tennessee Public Service Commission dated July 3, 1985 in Docket No. U-85-7338.

RESPECTFULLY SUBMITTED,

Vance L. Broemel by SBC

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Dated: June 26, 2003

CERTIFICATE OF SERVICE

I hereby certify that a true and exact copy of the foregoing has been forwarded by facsimile and/or first-class mail, postage prepaid, to the following on June 26, 2003:

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66457

GENERAL TELEPHONE COMPANY
OF THE SOUTHEAST,

Petitioner-Plaintiff/
Appellant

VS.

PUBLIC SERVICE COMMISSION
OF THE STATE OF TENNESSEE,
FRANK D. COCHRAN, KEITH
BISSELL, AND JANE ESKIND,

Respondents-Defendants/
Appellees

Davidson Equity
CofA No. 84-321-II

FILED
FEB 6 1985
RAMSEY LEATHERS, CLER
COURT OF APPEALS

COURT OF APPEALS OF TENNESSEE
MIDDLE SECTION AT NASHVILLE

APPEAL FROM CHANCERY COURT OF DAVIDSON COUNTY, TENNESSEE
HONORABLE IRVIN H. KILCREASE, JR., CHANCELLOR

FILED: FEB 0 6 1985

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HENRY F. TODD
PRESIDING JUDGE, MIDDLE S

CONCUR:

JUDGE SAMUEL L. LEWIS
JUDGE HERSCHEL P. FRANKS

AFFIRMED AND REMANDED

GENERAL TELEPHONE COMPANY OF THE SOUTHEAST, Petitioner-Plaintiff/ Appellant VS. PUBLIC SERVICE COMMISSION OF THE STATE OF TENNESSEE, FRANK D. COCHRAN, KEITH BISSELL, AND JANE ESKIND, Respondents-Defendants/ Appellees	)	Davidson Equity CofA No. 84-321-II

O P I N I O N

This is a proceeding for judicial review of an administrative decision of the Public Service Commission. The plaintiff, General Telephone Company of the Southeast, sought approval of rate increases to produce a $3,485,889.00 increase in annual revenue. The Commission approved an increase of only $568,250.00. On petition for review, the Chancellor affirmed, and the Company appealed to this Court.

Three issues are presented on appeal. All complain of the inadequacy of the increase allowed, but on different grounds. All require a consideration of the ownership of the capital stock of the Company and source of other financing.

The Company is a subsidiary of General Telephone and Electronics Corporation, (G.T.E.) which owns all of the Company's capital stock and furnishes all other capital by short term loan debentures and mortgage bonds.

The total capitalization of the company is $650,268,000.00, composed of the following:

Common Stock	$331,320,000	---	50.95%
Preferred Stock	2,880,000	---	.44%
Bonds, debentures & short term debt	316,068,000	---	48.61%

The Commission did not confine its consideration to the nominal designations and percentages shown above, but chose to look to the capital structure of the parent corporation, G.T.E., rather than to the capital structure above stated for the plaintiff.

The Commission determined that source of the $331,320,000.00 furnished by G.T.E. to purchase stock of the appellant was as follows:

Common Stock of G.T.E.	---	$218,671,000.00
Preferred " " "	---	12,259,000.00
Debt of G.T.E.	---	100,390,000.00

Thus, instead of allowing plaintiff an "equity return" upon its entire capital stock of $331,320.00, it allowed such return on only $218,671,000, the portion of the capital stock which was attributable to capital stock of G.T.E. The remainder of the capital stock was considered as attributable to preferred stock or debt of G.T.E., and the return thereon reduced accordingly.

As a result, return on investment allowed to plaintiff was the identical return which would have been allowed to G.T.E., the parent if it had been the actual owner and operator of the plaintiff utility.

This method of determining fair return on investment is referred to as the "double leverage" approach. Its premise is that a utility company should not be allowed to charge higher rates by doing business as a subsidiary, thereby creating a two-step layer of profits, one for the subsidiary and the other for the parent. The result of the double leverage approach is to eliminate the second layer of profit and order rates which will produce a fair rate of return for one company, but not for two.

The foregoing is the background of the plaintiff's first two issues which are worded as follows:

> A. The Chancellor erred in failing to find that the Commission improperly substituted its "assumptions" on the validity of the double leverage theory for findings of fact on capital structure and rate of return.
>
> B. The Chancellor erred in failing to find that the Commission's adoption of a double leverage approach was not supported by substantial and material evidence.

Appellant conceives that, because the Commission refused to follow the recommendations of its two experts, which were devised upon the theory that appellant was not a publicly owned utility, and did follow the recommendation of its own expert devised upon the theory that appellant and its parent were the same entity; the decision of the Commission must be reversed.

It is true, as insisted by appellant, that the cost and return on capital of the various other subsidiaries of appellant's parent are not necessarily the same as or appropriate for appellant. The fact that this may or may not be so cannot be the ground of reversing the order of the Commission. This Court is not at liberty to require the Commission to adopt or even consider any particular theory, so long as the result is not shown to be arbitrary, capricious or confiscatory. Such is not shown by this record.

Appellant insists that the adoption of a double leverage approach is unsupported by material and substantial evidence. The testimony of the Commission's expert is material and substantial evidence for an administrative agency.

Appellant's third issue insists that the rate set by the Commission is less than the "Company's marginal cost of debt".

Appellant's entire argument in support of this insistence is verbatim as follows:

If double leverage is bad policy and indefensible in theory, it must add to its "credentials" its impractical result in the instant case. As was explained in the Rate of Return section of the Statement of Facts, above, the Commission's 13.93% allowed return on equity translates into a mere 12.64% return on the petitioner's actual equity capital. To affirm this order, this Court is effectively challenged to endorse the notion that the petitioner's parent would freely buy the petitioner's equity when it could increase its return, and decrease its risk, by buying the petitioner's publicly traded bonds.

Even Dr. Westfield refused (in no uncertain terms) to assert that there could be a "negative risk premium"; and the vigor of his denial of such a proposition is worthy of note:

Q. You're saying that as a general matter, in the market, the United States economy as a whole right now, that equity generically and generally is cheaper than debt. Is that what you're saying?

A. No, no, no. I say it is cheap to relative to debt by historical standards.

Q. I see. A narrowing of an equity/debt risk premium?

A. Correct. * * *

Tr. I, 446, l. 16-24.

The lack of record evidence to support the Commission's supposed .8% spread in itself should give this Court more than ample ground to question the arbitrariness of the result reached by double leverage in this case. However, there is also current (and substantial) legal authority that this result simply cannot be correct.

In In re: American Telephone and Telegraph Company, 86 FCC 2d 221 (1981), the FCC determined that AT&T should be allowed to earn a return on common equity of 17.4%. In a separate statement as part of that order, Commissioner Joseph R. Fogerty recognized the principle that a reasonable return on common equity must exceed the utility's current cost of debt stating:

> ...Our determination that AT&T's cost of common stock equity is 17.4% is fair without being excessive. New Jersey Bell, a triple A company, issued debt at 14.9% while Pacific Telephone and Telegraph, an A company, issued debt at 16.4%. Any determination of the cost of common stock equity which does not allow for, at least, several percentage points between the cost of equity and the current cost of long-term debt would be patently unreasonable. (emphasis added)
>
> In re: AT&T, supra, 86 FCC2d 256.

The FCC's decision was affirmed in United States v. Federal Communications Commission, 707 F.2d 610 (D.C. Cir., 1983). This affirming opinion was written by District Judge Harold Greene (sitting by designation). As the presiding judge in the AT&T divestiture case, Judge Greene would have to be acknowledged as one of the country's most knowledgeable jurists on the workings and finance of the telecommunications industry. In his opinion, Judge Greene did not hesitate in approving the FCC's award. He stated unequivocally that "the Commission began with the undisputed premise that the cost of AT&T's equity will exceed the cost of its long-term debt." The sole issue was the amount of allowable positive spread; and the Court agreed with the FCC's logic in that case.

It is seen that appellant cites no evidence in this record to support its contention.

This Court has heretofore declared its position in regard to rate-making by reference to ownership. In General Telephone Company of the Southeast vs. Public Service Commission, Tenn. App. M.S., filed February 9, 1983, unpublished, this Court said:

> The major consideration in rate-making should be evidence of the actual rates, operating costs and profits of other well run utilities of similar size and character. The records of rate making decisions which have been examined by this Court include too much imaginative accounting and analysis and too little comparative data.
>
> It is true that no two utilities have identical problems or expense in furnishing the same service. However, there are enough utilities of comparable situation to enable a fair comparison of expenses, rates and profits.
>
> ....
>
> This Court could not and would not dictate the criteria to be employed by an administrative rate making body. Nor could or would this Court undertake to "second-guess" such a body by setting a rate on some basis other than that employed by the body. However, in reviewing the reasonableness of the result reached, this Court would be greatly assisted by evidence in the record of the nature just discussed. Without such evidence, the reviewing courts are almost at the mercy of the "expert" or "experts" whose testimony the agency saw fit to accept and follow.
>
> ....
>
> The objects of any rate making procedure should be to protect the consumers from unreasonably high charges while protecting the rights of the owners

> to a reasonable return on investment. Consumers should expect to pay rates commensurate with the expense of furnishing the service, but such expense must be reasonable. *The best standard of reasonableness of expense is established by comparison with other utilities operating under similar conditions. By the same token, the standard of reasonableness of profit is established by the profits realized from other similar enterprises.*
>
> *The courts would be better able to evaluate complaints of confiscatory rates if the record contained more actual, factual, comparison with other utilities. Once the Commission has adopted the abstract opinion of some expert, the courts are virtually powerless to grant relief without comparative facts in the record.* (Emphasis added.)

Having failed in a previous appeal to this Court, and having been informed as above what sort of record was necessary to enabl this Court to grant relief, it would appear that in a subsequent case (i.e. *this case*) the utility would be careful to preserve and cite to this Court the evidence which would clearly demonstrate arbitrariness, unreasonableness, or confiscation in the result reached by the Commission.

The brief of appellant has been read and reread, but not a single citation can be found as to evidence of the nature mention above. The "Statement of Facts" of appellant which is 28 pages of argument preceding 27 pages of argument entitled "Argument" concludes as follows:

> The Commission noted that Mr. Austin and Mr. Dunn had performed DCF analyses to find that companies comparable in business risk to the petitioner had required returns on equity of 17.4% and 17%-18%. Additionally, Mr. Dunn used a comparative earnings analysis and found that that test indicated a 16% equity return for independent telephone companies requiring upward adjustment for added risk to make the appropriate return for the petitioner 17.5%-18% (January 3, 1984 *Order*, p. 17-18).
>
> Using an assumed stock price of $41.75-$43.75 (Tr. II, 47, l. 19), Dr. Westfield found a DCF return for the petitioner's parent corporation of 13.36%-14.50% which he checked against a DCF of six independent telephone companies and found to be reasonable (January 3, 1984 *Order*, p. 18).

This is the nearest to a citation of evidence of the earnings of other utilities that can be found in the record.

The testimony of Mssrs. Austin and Dunn is discussed in the order of the Commission in the following language:

Return on Common Equity

The analysis used by the Company and the Staff to determine GTSE's return on common equity are fundamentally different. The cost of capital witnesses for the Company assumed that GTSE was an independent company, separate from GTE. They calculated GTSE's return on common equity by attempting to determine the return a reasonable investor would require to invest in GTSE an an (sic) independent company. Because GTSE's stock is not publicly traded but is wholly-owned by GTE, the Company's witnesses had to use surrogates for GTSE to obtain data to arrive at GTSE's cost of equity. On the other hand, the Staff's cost of captial witness examined what return investors would expect from GTE because an investor in the open market can only invest in GTSE by purchasing the stock of its parent, GTE.

Mr. Austin calculated the Company's cost of common equity by using the Discounted Cash Flow (DCF) and the risk premium approaches. Because GTSE's stock is not publicly traded, Mr. Austin selected nine companies, to serve as a surrogate to obtain data for the DCF calculation. Exhibit 3, Schedule 3. He testified that in his judgment these companies were comparable in risk to GTSE. Mr. Austin calculated the required return on equity of these nine comparable companies to be 17.2%. Mr. Austin also performed a DCF analysis for three telephone operating companies traded on the New York Stock Exchange. Vol. I, Tr. 101-02. The required return on equity for these three companies was 17.4%.

Using the risk premium approach, Mr. Austin determined that the cost of common equity for GTSE should be between 17.50% and 18.50%. Mr. Austin testified that he used a risk of 5.0 to 5.5 percentage points based on several historical risk studies, an expected risk premium study, and a risk premium study of his own which involved looking at both utility bonds and stocks and telephone utility bonds and stocks. Vol. I, Tr. 56.

Mr. Dunn testified on behalf of the Company on the appropriate cost of common equity. Mr. Dunn selected a group of eight telecommunications companies, three Bell companies and five independents, to determine the relative risk of GTSE to these companies. He calculated the standard deviation and coefficient of variation of the returns on common equity for these comparable companies and for GTSE. He concluded that GTSE was riskier than the comparative group and required a greater rate of return than the comparative group. Vol. I, Tr. 220-21. Mr. Dunn performed a DCF analysis on these eight comparable companies. He concluded that the return on equity of GTSE should be between 17% and 18% based on his analysis. He also used a comparative earnings analysis to determine GTSE's cost of common equity using these same eight companies. The comparative analysis indicated a return requirement of 16% for the independents used in this analysis. Vol. 1, Tr. 232. Adjusting this return for the additional risk of GTSE, the required return was calculated to be between 17.5% and 18%.

Consistent with his use of the double leverage capital structure, Dr. Westfield based his recommendation of the cost of common equity on an analysis of the cost of equity for GTE. Dr. Westfield testified that to determine the cost of equity for GTSE one must determine how much return investors require in the open market, where new equity moneys are raised, to invest in GTSE. Because an investor in the open market can only invest in GTSE by purchasing GTE stock, Dr. Westfield examined what reasonable investors in the common stock of GTE were expecting for current and future returns on GTE common stock. Vol. 1, Tr. 422.

Dr. Westfield used the DCF formula to calculate a rate of return on common equity of GTE of 13.36% to 14.50%. In arriving at this range, he stated that he made his own analysis of what reasonable investors in the common stock of GTE were expecting. He further stated that he examined what the widely consulted Value Line Investment Survey was recommending to its subscribers. Vol. I, Tr. 422.

In making his DCF analysis, Dr. Westfield used data related to GTE stock, which is actively traded on the New York Stock Exchange and other markets. The DCF analysis performed by the Company's cost of capital witnesses were not based on data directly related to GTE or GTSE. The Company witnesses had to select a sample or group on non-related companies, based on their judgment, that could be used as surrogates for GTSE. By using GTE data, Dr. Westfield eliminated the problem of selecting a sample of companies that can be used as a substitute for the utility.

Dr. Westfield tested his recommended return on equity by examining the dividend yields and projected dividend growth rates of six independent telephone companies listed on the New York Stock Exchange and analyzed by Value Line. Exhibit 15, Schedule FMW-6. As this Exhibit shows, the average estimated annual return is 12.9%. Dr. Westfield stated that this cost is lower than his range for GTE probably because no allowance for underwriting costs or increases in Value Line's projected dividend growth rate was made as with GTE. Vol. I, Tr. 476. Dr. Westfield also tested his recommended range of cost of equity by using the capital assets pricing model. While Dr. Westfield does not recommend this approach, his analysis indicates that the required return using this approach is 13.92%, almost the midpoint of his 13.36% to 14.50% range. Vol. I, Tr. 482-83.

Both Mr. Austin and Mr. Dunn used a surrogate for GTSE to calculate GTSE's return on equity by using the DCF formula. Mr. Austin used a group of nine companies in one of his DCF calculations which he believed were comparable to GTSE. Cross examination revealed that only one of the nine companies was a telephone company. The other eight were gas and electric companies.

Mr. Austin performed a second DCF calculation using three telephone operating companies traded on the New York Stock Exchange. He computed a a return on equity of 17.4%. Dr. Westfield testified that he performed a DCF calculation using these same three companies. He stated that he used the estimated dividend yield over the next twelve months and estimated dividend growth rates provided by the October 28, 1983, Value Line Investment Survey. Dr. Westfield calculated the required return on equity for these three companies to be 13.5%. He adjusted this amount for flotation costs and obtained 13.9% which is almost the midpoint of his range. Vol. I, Tr. 424-25. Dr. Westfield testified that he believed Mr. Austin's results were higher because of the use of inflated growth rates and unrealistic estimates of dividend yields.

Mr. Dunn performed his DCF analysis by using eight telecommunications companies as a surrogate for GTSE. He arrived at a return on equity of 17% to 18% under this approach. Dr. Westfield testified that both the dividend yields and the growth rates used by Mr. Dunn were inflated which inflated his recommended rate of return. Vol. I, Tr. 434. Dr. Westfield indicated that the dividend yields used by Mr. Dunn for each company were higher than the actual dividends for 1983 recorded in the most recent issue of Value Line. Vol. I, Tr. 431. In addition, Dr. Westfield indicated that the growth figure reported in the most recent issue of Value Line was lower than the growth figure used by Mr. Dunn for each of the eight companies. Vol. I, Tr. 434. Dr. Westfield stated that Mr. Dunn had looked backward in time to calculate his growth rates. He stated, "I believe the correct way of doing it is to look forward at the expected future dividend because that is what the investor is most concerned about." Vol. I Tr. 432.

We conclude that Dr. Westfield's examination of the equity market by the DCF formula more accurately reflects the cost of equity for the Company. Dr. Westfield used actual data relating to GTE in his DCF analysis. The Company witnesses did not. Dr. Westfield applied the DCF formula to the same groups of telephone companies used by witnesses Austin and Westfield. He used more recent data on these companies as reported in Value Line and found that the Company's witnesses returns were inflated.

The Company also used the risk premium approach to determine GTSE's return on equity of 17.50% to 18.50%. Dr. Westfield testified that using a long record of historical bond-stock yield relationships to establish common stock yields creates an inflated estimate of what common stock returns need to be. Vol. I, Tr. 428. The bond market is currently subjected to special pressures. The United States Treasury deficits are crowding out private investors from the long-term bond market. Vol. I, Tr. 427. The fear of future inflation has also made long-term interest rates unusually high. Vol. I, Tr. 427. Dr. Westfield stated that because of the increased volatility in long-term bonds, long-term interest rates are very high by historical standards. Vol. I, Tr. 427. He concluded that using a long record of historical bond-stock yield relationships to determine the return on equity is an improper guide. Vol. I, Tr. 428. We agree with Dr. Westfield that a risk premium analysis which assumes the historic relationship between debt and equity yield may produce faulty results. In addition, we note that Dr. Westfield testified that he believed the risk premium of utility bonds over utility bonds over the last ten years is between 1.3% and 1.8%. Vol. I, Tr. 457. The Company's spread was in the range of 5% to 5.5%. Dr. Westfield based this spread on the fact that the Ibbotson-Sinquefield study showed that the average common stock premium over corporate bonds from 1972-1981 has been 3.5%. Vol. I, Tr. 456. Dr. Westfield reduced the 3.5% to 1.3% to 1.8% to recognize the fact that utility stocks are more secure and generally less volatile and safer stocks than those in the study. Vol. II, Tr. 12.

Company witness Dunn analyzed a group of eight telecommunications companies, three Bell companies and five independents, and determined that GTSE was a riskier company than these. Mr. Dunn took the indicated return from his comparative earnings analysis of 16% and adjusted that return upward to reflect the additional risk of GTSE in determining that the return on equity should be between 17.5% and 18%.

Dr. Westfield, however, testified that Mr. Dunn used a faulty application of statistics to reach this conclusion. Vol. I, Tr. 429. Dr. Westfield explained that Mr. Dunn looked at the variability in the average return of these companies with the return of GTSE. Comparing the record of an individual company with an average of companies, overlooks the fact that the lower of large numbers make the average more stable than the return of any one component of that average. Vol. I, Tr. 429. Mr. Dunn did not compare the return of GTSE to the returns of the individual companies. We conclude that the analysis of Mr. Dunn does not establish that GTSE is in fact a riskier company than the other eight companies analyzed.

Based upon our findings and conclusions on cost of capital and capital structure, we adopt the double leverage capital structure of Dr. Westfield and find that a return on common equity of 13.93% and an overall return of 11.355% on rate base is fair and reasonable.

It is evident from the foregoing that the Company hired two experts to survey such evidence as they saw fit to survey and to bring to the Commission their expert opinion of what the decision of the Commission should be. In turn, the Commission hired an expert to make his own survey and to render his expert opinion of what the opinion of the Commission should be. The Commission accepted the opinion of its own expert and rejected the opinions of the Company's experts.

The Company asserts that the Commission improperly substituted its assumption of the validity of the double leverage theory for findings of fact on capital structure and rate of return.

Neither brief is very helpful in the consideration of this issue. Each argues its own extreme position in respect to double leverage and eschews any meaningful discussion of the factual basis of the decision of the Commission, fairness of rate of return allowed.

The order of the Commission contains the following factual findings, located by search and not by citation of the parties:

<u>II. TEST PERIOD AND RATE BASE</u>

Both the Company and the Staff used a historic test period for the twelve month period ended February 28, 1983 adjusted for known and anticipated changes through 1984. Because both parties agreed on the test period used, we adopt this test period.

In its prefiled testimony and exhibits, the Company developed a test year rate base of $38,203,584. The Staff developed a test year rate base of $37,526,596. The Company did not object to any of the adjustments made by the Staff to its rate base. ... we adopt the rate base developed by the Staff ....

> ... that the average hourly earnings for all GTSE employees of Tennessee and the General Office is $12.36 which is well above the national average of $11.00. The Company's employees already enjoy superior earnings when compared to employees of other public utilities.
>
> . . . .
>
> ... We find that only a 5% increase in the salaries and wages of management and management support employees for 1984 should be included in the Company's salary and wage expense for the adjusted test year.
>
> . . . .
>
> Consistent with our forgoing findings, we adopt the following revenues and expenses for setting rates in this case.
>
> | | |
> |---|---|
> | Total Operating Revenues | $20,186,842 |
> | Income Available for Return | 3,967,894 |
>
> . . . .
>
> ... we ... find that a return on common equity of 13.93% and an overall return of 11.355% on rate base is fair and reasonable.

The brief of the Company does not suggest to this Court what findings of fact were omitted, nor does the brief point out concrete evidence in the record which compels a decision as to percentage of return other than that rendered by the Commission.

The Company complains of the adoption and use of the theory of the Commission's expert, but does not point out evidence which conclusively precluded the Commission from doing so.

The use of the double leverage in fixing a reasonable return in a given case is not per se unreasonable and illegal. Tennessee Pulbic Service Commission v. Nashville Gas Co., Tenn. 1977, 551 SW2d 315.

Although not per se erronious, the double leverage theory must be considered with caution. It is a creature of many faces. Its effect upon the fairness of rates depends upon the facts of each case.

The simple device of setting rates according to actual costs of operation is an over simplification, for costs of operation may be unreasonably high. In the case of a wholly owned subsidiary, the parent may be able to impose unjustified operating expenses in order to "milk off" profits of the subsidiary.

The cost of capital of the parent is not necessarily a fair measure of the cost of capital to the subsidiary. If the parent has other, very profitable subsidiaries, the profits of other subsidiaries ought not to be used to subsidize the cost of operation of a subsidiary utility. If the parent has other, unprofitable subsidiaries, the patrons of the subsidiary utility ought not to be required to pay higher rates to subsidize the unprofitable operation of other subsidiaries.

Also, some consideration is due to the administrative expense to the parent in obtaining and distributing capital to subsidiaries and in supervising its use.

The determination of a court that a rate is confiscatory should be made on the basis of substantial and material evidence without substituting the judgment of the court for that of the Commission as to the weight of the evidence on questions of fact. United Inter-Mountain Telephone Co. v. Public Service Commission, Tenn. 1977, 555 SW2d 389.

A public utility is entitled to such rates as will permit it to earn a return on the value of its property which it employs for the convenience of the public equal to that 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; but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. The return should be reasonably sufficient to assure confidence in the 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 discharges of its duties. Federal Power Commission v. Hope Natural Gas Co. 320 US 591, 64 SCt 281 (1944). Bluefield Water Works and Improvement Co. v. West Virginia Public Service Commission 262 US 679, 692, 693, 43 SCt 675 (1923).

As stated by this Court in its above quoted opinion in a previous case between the same parties, the theories utilized by the Commission are of minimal concern to the courts. The acid test of any decision of the Commission is its fairness, as determined by the facts, including comparable rates of return under comparable situations.

If this Court were cited to factual evidence in the record showing without contradiction the prevailing rate of return on comparable investments, the prevailing rate of return on comparable utilities, or other pertinent facts under which the determination of the Commission would be arbitrary, capricious, or confiscatory, then this Court would have some basis upon which to reverse the order of the Commission. Absent such concrete evidence to support such a conclusion by this Court, the mere fact that the Commission's order was the result of the adoption of the theory of its expert is not sufficient basis for reversal.

Once again, this Court states the caveat:

> Once the Commission has adopted the abstract opinion of some expert, the Courts are virtually powerless to grant relief without evidence in the record to show that the return on investment allowed by the Commission is arbitrary, capricious or confiscatory.

No such evidence is found in this record.

The judgment of the Chancellor is affirmed. Costs of this appeal are taxed against the appellant. The cause is remanded to the Chancery Court for such further proceedings, if any, as may be necessary and proper.

Affirmed and remanded.

Henry F. Todd
HENRY F. TODD
PRESIDING JUDGE, MIDDLE SECTION

CONCUR:

Samuel L. Lewis
SAMUEL L. LEWIS, JUDGE

Herschel P. Franks
HERSCHEL P. FRANKS, JUDGE

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File

TENNESSEE PUBLIC SERVICE COMMISSION
CORDELL HULL BUILDING
NASHVILLE, TENNESSEE 37219

JANE ESKIND, CHAIRMAN
FRANK COCHRAN, COMMISSIONER
KEITH BISSELL, COMMISSIONER

THE GREAT SEAL OF THE STATE OF TENNESSEE XVI AGRICULTURE COMMERCE 1796

BOB DAVIS, EXECUTIVE DIRECTOR
HENRY M. WALKER, GENERAL COUNSEL

July 3, 1985

IN RE: PETITION OF TENNESSEE-AMERICAN WATER COMPANY TO PLACE INTO EFFECT A REVISED TARIFF

DOCKET NO. U-83-7226

ON REMAND

PETITION OF TENNESSEE-AMERICAN WATER COMPANY TO PLACE INTO EFFECT A REVISED TARIFF

DOCKET NO. U-85-7338

O R D E R

Attached hereto is a copy of the Commission's order dated July 3, 1985 relating to the above captioned docket.

Sincerely,

Bob Davis

Bob Davis
Executive Director

BD:nd

cc: Interested Parties

BEFORE THE TENNESSEE PUBLIC SERVICE COMMISSION

Nashville, Tennessee

July 3, 1985

IN RE: PETITION OF TENNESSEE-AMERICAN WATER COMPANY TO PLACE INTO EFFECT A REVISED TARIFF

DOCKET NO. U-83-7226

ON REMAND

PETITION OF TENNESSEE-AMERICAN WATER COMPANY TO PLACE INTO EFFECT A REVISED TARIFF

DOCKET NO. U-85-7338

ORDER

These matters are before the Tennessee Public Service Commission upon the petition filed by Tennessee-American Water Company (hereinafter Tennessee-American or Company) on January 8, 1985 to increase its rates and charges to produce $2,807,901 in additional annual revenues.

The Commission held service hearings on May 2 and May 20, 1985 in Chattanooga to permit the customers of the Company to comment on the Company's quality of service. The financial hearing was held on June 3, 1985 before Chairman Jane G. Eskind, Commissioner Frank D. Cochran and Commissioner Keith Bissell in Chattanooga, Tennessee. The following appearances were entered:

APPEARANCES:

MR. WILLIAM L. TAYLOR, JR., MR. WILLIAM D. SPEARS, and MR. J. DUANE CANTRELL, Attorneys, 8th Floor, Blue Cross Building, Chattanooga, Tennessee 37402, appearing on behalf of Petitioner, Tennessee-American Water Company.

MR. DANIEL R. LOFTUS, Attorney, 18th Floor, First

American Center, Nashville, Tennessee 37239; MR. W. LEE MADDUX, 400 Pioneer Bank Building, Chattanooga, Tennessee 37402; and MR. ROBERT KIRK WALKER and MR. WILLIAM C. CARRIGER, Attorneys, 1200 Maclellan Building, Chattanooga, Tennessee 37402, appearing on behalf of Intervenors, City of Chattanooga; City of Signal Mountain; and Chattanooga Manufacturers Association.

MR. DON SCHOLES, Assistant General Counsel, Tennessee Public Service Commission, C-1-103 Cordell Hull Building, Nashville, Tennessee 37219, appearing on behalf of the Commission Staff.

The Commission considered these matters at its Commission Conference on June 18, 1985. Upon consideration of the record in these proceedings, the Commission concludes that the Company is entitled to a rate increase which will produce $1,340,796 in additional annual revenues. In support of its decision, the Commission makes the following findings and conclusions.

REMAND

On April 11, 1985 the Tennessee Court of Appeals remanded the Company's previous rate case, Docket No. U-83-7226, to the Commission to either reconvene hearings on the Company's cost of equity or issue a new order based on the record in that case. Because the Company had a pending rate case before the Commission, a hearing on the Company's need for additional revenues, which includes a consideration of the cost of equity for the Company, was already scheduled for June of 1985. Because the Commission has set new rates for the Company in this case which replace the rates set in Docket No. U-83-7226, no further action on the remand of Docket No. U-83-7226 is necessary.

DESCRIPTION OF PETITIONER

Tennessee-American is a water distribution company which serves substantially all of the City of Chattanooga and adjacent territory in the states of Tennessee and Georgia. The Company is a wholly-owned subsidiary of American Water Works Company, Inc. (hereinafter AWWC). The Company presently serves approximately 63,000 customers.

CRITERIA FOR ESTABLISHING JUST AND REASONABLE RATES

To establish just and reasonable rates for the Company, the Commission has selected a test period and made findings in the following areas to test the Company's earnings under its current rate structure:

(1) The investment or rate base upon which the utility should be permitted to earn a fair rate of return.

(2) The proper level of revenues for the utility.

(3) The proper level of expenses for the utility.

(4) The rate of return the utility should earn.

Both the Company and the Staff have used as a test period the twelve months ending June 30, 1986. At the beginning of the hearing, the Company and the Staff entered a stipulation in which the Company accepted the rate base, level of revenues, and all expense levels of the Staff for the test year except for (1) fuel and power, (2) customer accounting, and (3) federal income tax. We find that the test year, rate base, revenues, and expenses upon which the Staff and the Company agree should be adopted for setting rates in this case. In addition to the disputed expense issues, the Company's capital structure and rate of return are also disputed issues in this case.

FUEL AND POWER EXPENSE

The Company has included a 5% increase in electricity rates in its level of fuel and power expense for the test year. The Staff adjusted this 5% increase out of its level of fuel and power expense for the test year.

Company witness, Mr. Edwin Oxley, testified that the Company had included a 5% increase in electricity rates in its fuel and power expense because the Manager of the Chattanooga Electric Power Board had informed the Company that the Board projected a 5% increase for October 1, 1985. Tr. 134. Staff witness Ms. Robyn Yazdian testified that the Manager of the Power Board informed her that the proposed 5% increase is to be a direct pass-through from TVA to the Company by the Power Board. Tr. 338. Ms. Yazdian further testified that Mr. Victor Villa of TVA had informed her that no final decision had been made concerning the 5% increase in electricity rates for the Chattanooga Electric Power Board. Tr. 338.

We find that the level of fuel and power expense projected by the Company, which includes the 5% increase in electricity rates, should be adopted in this case. The Company's supplier of electricity, Chattanooga Power Electric Board, has told the Company to expect a 5% increase in electricity costs during the test year. The Company must make its future expense projections using the 5% increase. Therefore, the Commission should include the 5% increase in the Company's expenses and for setting rates in this case.

CUSTOMER ACCOUNTING EXPENSE

The Staff has reduced the customer accounting expense projected by the Company for the test year by making two adjustments. First, the Staff reduced the Company's Purolator Courier expenses by $10,527. Second, the Staff reduced the Company's billing computer services costs by $147, 748.

We find that the Staff's adjustment for reduced Purolator Courier expense should be adopted. During the Staff's investigation the Company revised its estimate of Purolator Courier expense for the test year downward from $18,327 to $7,800. The Staff used the Company's new estimate of Purolator Courier expense for the test year.

The Company argued at the hearing that the projected level of Purolator Courier expense originally estimated by the Company is the appropriate level for the test year. Mr. Edgemon testified that the Company did revise its estimate of Purolator Courier expense during the Staff's investigation. He further stated, however, that the Company failed to inform the Staff that Purolator Courier expense would increase because of the conversion from bi-monthly to monthly meter reading. With monthly meter reading, meter reading documents must be sent to the data center on a monthly rather than bi-monthly basis. The Company contends that the original projection of Purolator Courier expense was sufficient to cover the cost of the new expense.

Staff has used the latest estimate of Purolator Courier expense for the test year provided by the Company. In an attempt to support its original projection, the Company has reviewed its expenses since the Staff closed its investigation and found that the Purolator Courier expense would probably increase. The Company was aware of the change from bi-monthly to monthly meter reading when the Staff was conducting its investigation and failed to include any increase for Purolator Courier expense. Staff argues that the Commission should not permit the Company to select one expense which has increased since the end of the Staff's investigation and include this expense in the test year without reviewing all other expenses. We agree. If the Staff had another opportunity to review the Company's expenses since the close of its investigation, expenses which may have decreased may have also been found. An examination of the Company's revenues since the close of the Staff's investigation might have produced a different level of revenues. To preserve the match between revenues and expenses, we accept the Staff's level of Purolator Courier expense.

The Staff's reduction of computer billing services expense involves a dispute over a change in the method of allocating these costs. Before 1984 each of the American Water Works Service Company's (hereinafter Service Company) data processing centers functioned independent of each other with coordination from a general office. Each center was treated as a separate cost center allocating costs to each subsidiary water distribution company based on the number of bills rendered for that company. In 1984 all three centers were brought under the direct supervision of the general office. Services are now provided system-wide, and work for any company can be done at any center. The Service Company also changed its method of allocating the costs of its three data centers. The Service Company now combines the costs of all three billing centers and bills out the cost on a per bill basis system-wide.

Company witness Mr. Dillard Edgemon testified that the Service Company's change in the method of allocating costs caused some of the subsidiaries of AWWC to realize increases and some decreases in their current computer billing services costs. Tr. 83. Tennessee-American realized an increase in computer billing services cost per bill under the new procedure. Mr. Gaines testified that the average computer billing services cost per bill increased from 18.6 cents in 1983 to 23.8 cents in 1984. The Company's original computer billing services costs for the test year would increase the average cost per bill to 41.2 cents. Tr. 291.

Staff contends that the new allocation procedure shifts a disproportionate amount of computer billing services costs to Tennessee-American. Therefore, Staff used a historical trend to project computer billing services costs for the test year. The Staff's level of expense results in an average cost of 21.6 cents per bill for the test year.

At the hearing Mr. Edgemon testified that the computer billing services costs for the first four months of 1985 were below budget and that the cost per bill to Tennessee-American was actually 31.3 cents per bill. To reflect this decrease the Company revised its estimate of computer billing services costs for the test year to $236,624 which exceeds the Staff's projection by $74,294.

The Commission finds that the Company's revised level of computer billing services expense should be adopted in this case. The new billing allocation procedure results in a more accurate distribution of computer billing costs to the operating companies of AWWC. Tr. 83. Mr. Edgemon testified that an overall cost savings has been realized with the 1985 budget being only .6% higher than 1984. Tr. 83. The Staff's level of computer billing services expense is less than the expense actually incurred in 1984. Tennessee-American will continue to be billed by the Service Company for computer billing service costs at the increased level under the new allocation method. The higher cost is an expense which is presently being incurred and will continue to be incurred. Rates must be set to cover this expense.

By bringing the management of all three data processing centers under the supervision of the general office, the Company receives benefits from the entire data processing department of the Service Company not available before. Programming resources can be shared which allows for program development to be accomplished at any center. Large implementation efforts of new systems can be developed by in-house personnel which might be cost prohibitive if each center continued as an independent management and cost center. Centralization of data processing resources provides for a better system of disaster planning and backup. Standardized security procedures for all three data centers provide better protection against unauthorized entry. Centralization permits the coordinated purchasing of hardware, software, and supplies which results in lower costs and better vendor support. These benefits which result from centralization will benefit the Company's ratepayers now and in the future. The Company's projected computer billing services expense is reasonable and will be adopted.

INTEREST EXPENSE

The Staff has calculated the Company's interest expense to be used in computing its federal income taxes by multiplying the weighted cost of debt recommended by Dr. Westfield by the Staff's rate base. The Company contends that the appropriate interest expense for the test year is the actual interest expense reported on the books of the Company. The Staff's method of computing interest expense takes into account the tax savings which result from the Company filing a consolidated tax return with its parent, American Water Works Company, and includes the assignment of an interest component to that portion of the Company's rate base financed by accumulated deferred investment tax credit (ADITC).

The Staff's computation of interest expense recognizes the tax savings which result from the Company filing a consolidated tax return with its parent, AWWC. Consolidated tax savings adjustments have been made for a number of utilities in Tennessee which participate in filing a consolidated tax return with their parent holding companies. The recognition of consolidated tax savings in a utility's cost of service recognizes that the utility actually pays less tax as a result of the consolidated filing than it would pay if it filed a separate return. The Commission made this same consolidated tax savings adjustment for the Company in its last rate case. The Commission's use of a tax savings adjustment has been expressly upheld by the Tennessee Supreme Court. United Inter-Mountain Telephone Co. v. Public Service Commission, 555 S.W. 2d 389, 392-93 (Tenn. 1977).

In computing the Company's interest expense, the Staff has assigned an interest component to that portion of the Company's rate base which is financed by ADITC. This adjustment is commonly known as interest synchronization. ADITC permits a utility to generate capital without the Company incurring additional debt or its investors supplying funds. The tax credit reduces the utility's tax liability to the Internal Revenue Service (IRS) by a percentage of the cost of eligible property purchased during the tax year. At the same time, the utility's tax liability for ratemaking purposes is not reduced. Therefore, funds collected from ratepayers to cover the utility's tax liability for rate-making purposes, which will never be paid to the IRS because of the tax credit, are used by the utility to finance plant and equipment. The capital financed by ADITC is not financed by debt or investor supplied funds but is generated by tax benefits under the Internal Revenue Code.

In calculating the Company's overall cost of service, the Commission must include a debt cost for that portion of the rate base financed by ADITC. The Staff contends that in calculating the Company's interest expense for federal income taxes the Commission should include interest expense for that portion of the Company's rate base financed by ADITC. The Staff's calculation thereby synchronizes the interest expense used to determine the Company's overall cost of service with the interest expense used to determine the Company's federal income tax expense.

The Company argues that no interest expense associated with ADITC should be included in the Company's federal income tax calculation. The Company points out that it will not be able to use this interest expense to reduce its federal income tax expense. In addition, the Company contends that the Staff's computation of interest expense may make the Company ineligible for the ADITC under I.R.C. § 46 (f)(2) and regulations promulgated thereunder. Section 46 (f)(2) of the Internal Revenue Code and the accompanying regulations provide that a utility remains eligible for the credit as long as cost of service is reduced by no more than "a ratable portion of the credit" and as long as no reduction is made in the rate base.

The Commission has addressed this issue in several recent rate cases. In each case the Commission has adopted the interest synchronization method to compute interest expense. In each case the Commission has found that interest synchronization does not violate section 46 (f)(2). The interest synchronization method does not result in more than ratable reduction in cost of service in violation of section 46 (f)(2). The Staff's method assumes that cost of service would remain exactly the same if ADITC did not exist because the Company would finance its plant by a combination of debt and equity in the same proportion as in the capital structure. No change in the percentage of debt would occur, and therefore no change would occur in the tax liability used to compute cost of service. Accordingly, cost of service remains unaffected by using the interest synchronization method to calculate the Company's interest deduction in computing its federal income tax. See New England Telephone & Telegraph Co. v. Public Utilities Commission, 448 A. 2d 272 (Me 1982).

Moreover, the legislative history of section 46 (f) clearly demonstrates that Congress intended both the ratepayers and investors of a utility to share the benefits of the investment tax credit. The House Report to the Revenue Act of 1971, the statute which added section 46 (f) states:

> In restoring the investment credit for public utility property of regulated companies, the committee has given careful consideration to the impact of this credit on

> ratemaking decisions. Although there are many different ways of treating the credit for ratemaking purposes, your committee, in general, believes that it is appropriate to divide the benefits of the credit between the customers of the regulated industries and the investors in the regulated industries.

H.R. Rep. No. 533, 92d Cong., 1st Sess. 24, (1971)
U. S. Code Cong. & Ad. News 1971, 1839.

Under the Staff's interest synchronization method, both the investors and ratepayers benefit from the credit. The utility obtains interest-free capital, and the ratepayers receive lower rates as a result of the lower cost of service from the interest deduction.

The Commission used the interest synchronization method to compute the Company's interest expense in its last rate case. The Company challenged the use of interest synchronization on the appeal of its last rate case to the Chancery Court of Davidson County. The Court affirmed the Commission's use of interest synchronization. Tennessee-American Co. v. Tennessee Public Service Commission, No. 83-1887-I (Tenn. Ch. Ct. July 27, 1984.[1/]

1/ Courts and state commissions adopting interest synchronization. Union Electric Co. v. FERC, 668 F. 2d 389, 393-95, (8th Cir. 1981); Nepco Municipal Rate Committee v. FERC, 668 F. 2d 1327, 1337-38 (D.C. Cir. 1981), cert. denied, 102 S. Ct. 2929 (1982); New England Telephone & Telegraph Co. v. Public Utilities Commission, 448 A. 2d 272, 304-09 (Me. 1982); Narragansett Electric Co. v. Burke, 475 A. 2d 1379, 1384-86 (R. I. 1984); Re Continental Telephone Co. of the South - Alabama, 62 P.U.R. 4th 61, 107-09 (Ala. PSC 1984); Re Oklahoma Gas & Electric Co., 61 P.U.R. 4th 113, 114-15 (Ark. PSC 1984); Re Iowa Power & Light Co. 59 P.U.R. 4th 599, 613 (Iowa St. Commerce Commission 1984); Re Kansas City Power & Light Co. 38 P.U.R. 4th 1, 25-27, (Mo PSC 1980); Re Ohio Bell Telephone Co. 58 P.U.R. 4th 423, 460-62 (Ohio PUC 1984); Pennsylvania Public Utility Commission v. Pennsylvania Power Co., 60 P.U.R. 4th 593, 635-38 (Pa. PUC 1984).

Courts and state commissions rejecting interest synchronization. Commonwealth of Kentucky ex rel. Beshear v. Continental Telephone Co. No. 82-CA-2649-MR (Ky. Ct. App. July 22, 1983); North Carolina ex rel. Utilities Commission v. Carolina Telephone & Telegraph Co. 61 N.C. App. 42, 300 S.E. 2d 395, 398-401 (1983); Re Commonwealth Edison Co., 61 PUR 4th 1, 19-20 (Ill. Commerce Commission 1984); Re Southwestern Bell Telephone Co. 42 P.U.R. 4th 89, 124-25 (Kansas State Corp. Commission 1981); Re Consumers Power Co., 63 PUR 4th

We find that both the consolidated tax savings adjustment and interest synchronization adjustment are appropriate. Therefore, the interest expense developed by the Staff for the test year will be adopted in this case.

ADDITIONAL EXPENSE FOR MONTHLY METER READING

In their brief the Intervenors requested that the Commission disallow the increased costs for monthly meter reading of $206,082.19 for the test year. Intervenors contended that the Company had not demonstrated a clear need to return to the policy of monthly meter readings.

In 1978 the Company instituted a policy of reading meters every other month. In the interim month the Company issued a bill for service based on an estimated reading. The change to a bi-monthly reading of meters was instituted to reduce the costs accompanying monthly meter readings. Since the implementation of the bi-monthly meter reading, the Company has experienced a continual increase in the number of customer contacts concerning their bills. Tr. 46-47. Many of these contacts are attributed to the estimated billings under the bi-monthly reading policy. Tr. 47. In 1978 the Company received approximately 46,000 telephone calls; in 1984 the Company received 80,203 telephone calls. Tr. 34.

73, 114-15 (Mich. PSC 1984); Re New England Telephone & Telegraph Co. 55 P.U.R. 4th 296, 308-10 (Vt. Public Service Board 1983); Washington Utilities & Transportation Commission v. Continental Telephone Co. of the Northwest, Inc., 55 P.U.R. 4th 11, 22 (Wash. Util. & Trans. Commission (1983).

The Company has returned to a monthly meter reading program to reduce the number of phone calls and office visits prompted by the Company's customer dissatisfaction with estimated bills. Tr. 17. The monthly meter reading program will also serve to make customers aware of plumbing problems on a more timely basis, and thereby customers may avoid the receipt of a large bill for water that has been lost through leakage. Tr. 47.

To implement the monthly meter reading program, the Company had to add seven meter readers to its work force. Before implementing the program, however, the Company was able to modify its operations to eliminate seven existing positions. Tr. 48. Therefore, no increase in the Company's work force was required to change from bi-monthly to monthly meter reading.

The Commission finds that the expenses associated with the new monthly meter program should be allowed. The monthly meter reader program will probably reduce the overwhelming number of inquiries made to the Company and improve the Company's customer service.

The rate base and revenues and expenses adopted by the Commission for setting rates in this case are attached as appendices to this Order.

CAPITAL STRUCTURE

The Company has recommended that the Commission adopt a "stand alone" approach in determining the Company's cost of capital. The "stand alone" approach ignores the parent-subsidiary relationship between AWWC and Tennessee-American and uses Tennessee-American's own capital structure. Company witness Dr. Roger Morin recommends the following "stand alone" capital structure for Tennessee-American projected for the year ending June 30, 1986.

Class of Capital	% of Total	% Cost	Weighted Cost (%)
Long-term debt	53.61%	9.66%	5.18%
Short Term debt	.97	10.00	.10
Preferred Stock	7.88	7.32	.58
Accumulated deferred investment tax credit	5.02	11.64	.58
Common Equity	32.52	15.75	5.12
Total Capital	100.00%		11.56%

Intervenors' witness Dr. Fred Westfield has recommended that the Commission adopt a double leverage approach to determine the Company's cost of capital. The double leverage approach recognizes that the common equity investment in Tennessee-American is provided in part by the common stock investors of AWWC and in part borrowed by AWWC or provided by owners of AWWC's preferred stock. Dr. Westfield recommends the following capital structure for Tennessee-American determined as of December 31, 1984.

	Percent Total	Cost Rate	Weighted Cost	
Long Term Debt				
Tennessee-American	57.65%	9.66% ✓	5.57%	56.[illegible]
American Water Works Co.	5.04	7.65 ✓	0.39	
Short Term Debt				
Tennessee American	0.15	9.99 ✓	0.01	
Preferred Stock				
Tennessee American	8.62	7.36 ✓	0.63	8.25
American Water Works	1.78	5.10 ✓	0.09	
Common Stock	26.75	14.50 ✓	3.88	35.[illegible]
Total	100.0%		10.57%	

The Commission adopts the double leverage capital structure advocated by Dr. Westfield for setting rates in this case. Dr. Westfield has used the double leverage capital structure for the Company as of December 31, 1984 because this capital structure contains the latest balance sheet data based on the actual accounts of the Company. Tr. 354-55. He did not use the Company's projected capital structure for the year ending June 30, 1986 because this projected capital structure was based on a projection of the Company's future earnings and dividends. Tr. 355. Future earnings are not known until the Commission makes a decision in this case. The parent company's desire for dividends as opposed to retained earnings may also affect the projected capital structure. Dr. Westfield testified that the capitalization ratios of a company the size of Tennessee-American may fluctuate over time because of major new financing, especially bonds and preferred stock. Tr. 355. Therefore, we conclude that the December 31, 1984 capital structure of Dr. Westfield based on the latest balance sheet data available will serve as an appropriate target capitalization ratio for setting rates in this case.

The Company argues that the Commission should reject double leverage and ignore the parent-subsidiary relationship between AWWC and the Company. Dr. Morin testified that the Commission should pretend that Tennessee-American's equity capital is raised in the marketplace, and using AWWC and other comparable companies as surrogates for the Company, try to guess what the market cost of the Company's equity capital would be if its stock were publicly traded.

The double leverage approach rejects this fiction. The Company does not sell its stock to the public; all of its stock is financed by its parent corporation, AWWC. Thus, the Company's cost of equity is not determined by "the impersonal forces of the financial market" but by "board room decisions made by a parent corporation which controls, to a great extent, the ultimate cost of a subsidiary's equity." General Telephone Co. of the Southwest v. Public Utility Commission of Texas, No. 13, 491 (Ct. App. 1982). The double leverage approach recognizes the financial benefits of the Company's leveraged capital structure and allows the ratepayers to share in the advantages of the Company's parent-subsidiary relationship.

To ignore the effect of leverage at the parent level would result in the regulated utility's earning more than its cost of capital and would produce a windfall return for AWWC's stockholders in excess of the authorized return set by this Commission. All of the benefits of leverage would flow to the shareholders and none to the ratepayers. As Dr. Westfield testified:

> If Dr. Morin were to account for the amount of common equity investment for each of AWWC's subsidiaries using his method, he would end up with a total equity investment by AWWC's stockholders in the assets of the operating subsidiaries that is far greater than is their actual investment in these assets. The difference is accounted for by the assets financed with parent company debt and preferred stock. Furthermore, he would conclude that the cost of the common equity of all the subsidiaries, when priced at the cost of equity to AWWC, is substantially greater than it actually is. The amount is the difference between cost to the parent of common equity and the embedded cost of its debt and preferred stock that is actually incurred. With Dr. Morin's theory the rate payers of AWWC's subsidiaries are asked to pay for the cost of AWWC common stock that doesn't even exist. Tr. 359.

We adopt the double leverage approach in this case to insure that shareholders of AWWC do not earn more on their investment than the market cost of equity.

The Commission has consistently recognized the effect of double leverage in a parent-subsidiary relationship in every case in which the issue has been raised. In the Company's last rate case, the Commission adopted a double leverage capital structure for the Company like the double leverage capital structure recommended by Dr. Westfield in this case. On appeal to the Chancery Court of Davidson County, the Company challenged the Commission's use of double leverage. The Chancellor affirmed the Commission's adoption of a double leverage capital structure concluding that the adoption of a double leverage capital structure was within the Commission's discretion. Tennessee-American Water Company v. Tennessee Public Service Commission No. 83-1887-I (Tenn. Ch. Ct. July 27, 1984). Although the Company appealed the Chancellor's decision to the Court of Appeals, the double leverage issue was not appealed to that court. We adopt the same double leverage approach in this case.

RATE OF RETURN

No real dispute exists between the Company and Dr. Westfield over the appropriate cost of long-term debt, short-term debt, and preferred stock of AWWC and Tennessee-American. Dr. Westfield used the embedded cost rates supplied by the Company for AWWC's and Tennessee-American's long-term debt and preferred stock. Dr. Westfield used a 9.99% cost rate for short-term debt; the Company recommended a 10% cost rate for short-term debt on the day of the hearing. Therefore, we adopt the cost of long-term debt, short-term debt, and preferred stock recommended by Dr. Westfield for setting rates in this case. Dr. Westfield and the Company's expert witness Dr. Morin do not agree on the appropriate cost of equity. Dr. Westfield has recommended a return on equity of 14.5%. Dr. Morin recommended a return on equity of 15.75%.

In selecting an appropriate return on common equity, the Commission must determine what investors in the marketplace require to invest in the Company. This determination is not subject to exact measurement but requires the exercise of judgment to estimate an appropriate return. Both Dr. Morin and Dr. Westfield used the DCF methodology, a comparable earnings analysis, and risk premium methodology to arrive at a reasonable return on equity.

Dr. Morin and Dr. Westfield used the standard DCF model to estimate the Company's cost of equity by estimating the cost of equity of the Company's parent, AWWC. The DCF model states the return on common equity is equal to the dividend yield that an investor expects plus the expected capital appreciation that an investor requires in the investment.

Dr. Westfield and Dr. Morin agreed that the expected dividend which should be used in calculating the dividend yield should be $1.025. Dr. Morin testified that the stock price which should be used in calculating the dividend yield is the most current price of the Company's stock. He used the price of AWWC's stock on May 29, 1985, $26.00. Dr. Westfield testified that he preferred to use a range of stock prices. He used the high and low price of AWWC's stock for the three months ending on April 30, 1985, $27.75 and $20.00. We find that the range of stock prices used by Dr. Westfield is appropriate. Dr. Westfield testified that a range should be used because "markets are subject to random fluctuations and...prices at any moment may be in a transition state." Tr. 363. He further indicated that he used a range because the market is having some difficulty in determining the value of AWWC's stock at the present time. Tr. 407.

The most difficult part of implementing the DCF model is estimating the growth rate which is in the mind of investors. To ascertain the growth rate to be used in the DCF calculation, Dr. Morin used four different approaches. First, he calculated a growth rate of 11.28% based upon AWWC's historical dividends per share. Second, he used a growth rate of 12% based on security analysts' growth forecasts for AWWC. Third, he calculated a growth rate of 11.2% using the retention ratio method. Under this method the growth rate is calculated by multiplying the fraction of earnings expected to be retained by the Company (expected retention ratio) by the expected return on book equity (expected return). Dr. Morin used 70% for the expected retention ratio. For the expected return he used 15%, which is the weighted authorized rate of return on book equity for AWWC subsidiaries in all of their jurisdictions. The last method used by Dr. Morin to estimate the growth rate was his "extended DCF analysis." In this analysis he calculated two growth rates, an intermediate growth rate of 11.5% to allow achieved returns to recover the authorized 15% return over a ten-year period, and a long term growth rate of 10.74%.

Dr. Westfield also examined AWWC's historical dividends per share to estimate a growth rate for the DCF calculation. He concluded that the

11.28% growth rate used by Dr. Morin was reasonable and used it as the upper limit of a reasonable range of growth rates for AWWC. Dr. Westfield also used the retention ratio method to find the appropriate growth rate for AWWC. He used an expected retention ratio of 68.5%, which is the historical average for the years 1979-1984 and is the average between the retention ratio estimated by Value Line for 1985 of 69% and for 1987-1989 of 68%. Dr. Westfield used an expected return of 12.75%. He arrived at 12.75% by taking the average of the Value Line projected return of 14.0% for 1985 and for the 1987-1989 period and averaging that figure with the experienced five-year average rate of return of 11.5% for AWWC. Dr. Westfield's retention ratio analysis yields a growth rate of 8.73% which he uses as the lower limit of his reasonable range for growth rates.

Both Dr. Morin and Dr. Westfield agree that the appropriate growth rate for the DCF model using a historical dividend growth rate is 11.28%. We find that the growth rate calculated by Dr. Westfield using the retention ratio method is more appropriate than Dr. Morin's. Dr. Morin simply uses 15% as the expected return because 15% is the current weighted authorized return on equity for AWWC subsidiaries in all their jurisdictions. Dr. Westfield begins with the projected return of 14% by Value Line for 1985 and for the 1987-1989 period. He states that such a high projection does not take into account the appropriate regulatory response to the excess of market value to book value of AWWC's stock. Tr. 366. To make an allowance for a market-to-book value ratio substantially greater than one, Dr. Westfield takes the average of the 14% return projected by Value Line and the experienced five year average rate of return for AWWC of 11.5%. Tr. 366. Dr. Westfield's average produces an estimate of 12.75% for an expected return on book equity. Dr. Westfield's growth rates and dividend yields produce a return on equity for AWWC in the range of 13.9% to 15.0%.

The Company criticizes Dr. Westfield for not using the forecasted growth rate of 12.5% published by Value Line as the appropriate growth rate for the DCF model. The 12.5% projected growth rate is for the period of 1982-1984 to 1987-1989. Tr. 413. The DCF model assumes a rate of growth which can be sustained into perpetuity, not a rate of growth over the next three or four years. Tr. 415. Dr. Westfield testified that Value Line does not expect earnings to grow at the same speed as the 12.5% dividend growth rate over the long run. Tr. 414. Therefore, 12.5% is not a sustainable long-term rate of growth which can be used in the DCF model. Tr. 414. We find that the 12.5% growth rate forecasted by Value Line is not an appropriate growth rate to be used in the DCF model in this case.

We further find that the growth rates developed by Dr. Morin in his "extended DCF analysis" are not appropriate in this case. The "extended DCF analysis" of Dr. Morin is based on the faulty hypothesis that dividend growth rate will for ten years exceed the long run growth rate. This hypothesis is inappropriate when the market-to-book value of the stock exceeds one like AWWC's stock. Tr. 369. Moreover, the growth rate calculated by Dr. Morin for the ten year period assumes that authorized returns for AWWC subsidiaries will remain at 15% for the ten year period. Tennessee-American's current authorized return is 14%. No one can predict the authorized returns which state regulatory commissions will grant over the next ten years. Therefore, the Commission will not rely upon Dr. Morin's "extended DCF analysis" to estimate the appropriate cost of equity.

Both Dr. Morin and Dr. Westfield performed a comparable earnings analysis to estimate the cost of equity in this case. Dr. Morin used a group of 23 A-rated electric utilities whose average risk as a group was comparable to the Company. He also used as a comparable group the seven regulated Bell regional operating companies whose average risk as a group was as risky as the Company. Dr. Morin's DCF analysis of the group of electric utilities using a historical growth rate resulted in a 16.75% return on equity for the group. The same DCF analysis using security analysts' growth forecasts resulted in a 15.10% return on equity for the group. The DCF analysis performed on the group of telephone companies using security analysts' growth forecasts resulted in a 15.34% return on equity.

Dr. Westfield used a group of eight water utilities for his comparable earnings analysis. He applied the DCF formula to this group of water companies and obtained a range of expected rate of returns on common stock between 14.5% and 14.9%.

Dr. Westfield testified that Dr. Morin's comparisons are not useful. Tr. 371. We agree. Dr. Westfield testified that electric utilities are exposed to a greater magnitude of business risks from unexpected changes in fuel prices and from cost overruns on new plants than water utilities. Tr. 371. Dr. Westfield further explained that the group of telephone companies used by Dr. Morin was not a useful group of comparables. Investors had great difficulty in assessing the correct value of these stocks, particularly during 1984. No historical data was available for these companies. There was little market experience. Confusion existed concerning how regulation would influence the new regional companies' net incomes. Tr. 371. Moreover, Dr. Morin's dividend yields were out of date because of the decline in interest rates and increase in utility stock prices since Dr. Morin's calculations for November 27, 1984. Tr. 371.

Dr. Westfield's group of eight water utilities, on the other hand, provides a useful group of comparables. Dr. Westfield's eight companies taken as a whole have water utility operating revenues and total invested capital not much different from AWWC. Tr. 371. Their average common equity ratio of 39% compares favorably to AWWC's 32 to 35%. Tr. 371. The average quality of common stock in the group as rated by Standard and Poor's is A-. AWWC's common stock is rated A+. Tr. 371. We find that Dr. Westfield's comparable earnings analysis provides a better estimate of AWWC's cost of equity under this method than the analysis performed by Dr. Morin.

In estimating a return on equity, Dr. Morin makes a 5% adjustment to his returns on equity for flotation costs. Dr. Westfield does not make an adjustment for flotation costs. Dr. Westfield testified that since the Company is not anticipating any new external financing before the end of the test year, no flotation adjustment is necessary. Tr. 368. The Commission found that no adjustment for flotation costs was necessary for United Inter-Mountain Telephone Company in its last rate case because United Inter-Mountain did not anticipate any new financing until after the end of the test year. <u>In Re: Petition of United Inter-Mountain Telephone Co.</u>, Docket No. U-83-7273 (June 15, 1984) at 18.

We find that no flotation cost adjustment should be made in this case. When the Company does not anticipate any new financing, the Company's ratepayers should not be required to supply an additional return to cover the costs of issuing new stock and the effects of market pressure which will not occur.[2/]

Both Dr. Morin and Dr. Westfield used the risk premium method to estimate AWWC's cost of equity. Although Dr. Morin and Dr. Westfield used different approaches to arrive at a risk premium for the Company, the risk premiums recommended by these expert witnesses were very close. Dr. Morin testified that the appropriate risk premium was 3.3%; Dr. Westfield testified that the appropriate risk premium was 3.5%. Dr. Morin recommends a higher cost of equity using the risk premium method than Dr. Westfield because he uses long-term A-rated bond yields of 12.5% in his approach. Dr. Westfield uses rates of return on riskless securites in the 10.4% to 11.5% range.

We conclude that risk premium determined by both expert witnesses should be added to the rates of return on riskless securities recommended by Dr. Westfield. Using yields on long-term A-rated bonds in the risk premium approach overstates the Company's cost of equity. In United

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2/ Other state commissions have rejected a flotation cost adjustment using the same rationale. Re Potomac Electric Power Company, 36 P.U.R. 4th 139, 159-163 (D.C. P.S.C. 1980); Re Nanagansett Electric Company, 52 P.U.R. 4th 271, 284-85 (R.I. P.U.C. 1983); Re New England Telephone & Telegraph Co., 62 P.U.R. 4th 503, 521 (Vt. Pub. Serv. Bd. 1984).

Inter-Mountain Telephone Company's last rate case, we recognized:

> Because of the large deficits of the United States Government, yields on bonds are extraordinarily high relative to inflation rates. Government bonds crowd out utility bonds and other high grade bonds much more so than they crowd out stocks.
>
> Common stocks of a regulated utility have a dividend that can be expected to rise faster if inflation unexpectedly rises. A long-term bond has a constant interest payment even if inflation rates increase by a factor of ten. As a result, stocks of regulated utilities provide better protection against unanticipated inflation than do long-term bonds.

In Re: Petition of United Inter-Mountain Telephone Co. Docket No. U-83-7273 (June 15, 1984) at 18.

We conclude that the return on riskless securities rather than the return on long-term bonds is more appropriate for estimating the Company's cost of equity under the risk premium approach. Dr. Westfield's results under the risk premium approach are in the 13.9% to 15% range.

Based upon the evidence introduced in this proceeding, we conclude that a return on equity of 14.5% should be adopted in this case.

RATE DESIGN

The Company's tariff filed with the petition reduces the number of rate blocks from nine to four, combines the general water and industrial classifications into one general water service rate schedule, and establishes an optional special use tariff for large industrial customers. The tariff also increased the rate for the billing and collecting services performed by the Company for certain municipalities from $.388 to $.429 per bill. The Company's rates represent the first step in implementing cost based rates under a cost of service study performed by the Company.

During the course of the hearing, the Company proposed a fifth rate block for usage over 5,000 CCF. This fifth rate block would give an alternative to large industrial customers who do not want to commit to the Company's proposed Special Use Tariff. Under the Special Use Tariff industrial customers must commit to pay for a certain minimal level of water usage monthly.

We conclude that the Company's rate design should be adopted including the proposed fifth rate block for usage over 5,000 CCF. However, by adopting the Company's rate design in this proceeding, we reserve judgment on further implementation of the Company's cost of service study in future proceedings before the Commission. The Company's proposed rates in each rate block should be adjusted proportionally to reflect the revenue award we have granted.

The Company filed tariffs with the Commission on June 21, 1985, which conform to the directives set forth in this order. Therefore, these tariffs filed June 21, 1985 are hereby approved to become effective as of the date of this order.

IT IS THEREFORE ORDERED:

1. That the Company's proposed tariffs filed on January 8, 1985 are hereby denied.

2. That the Company's proposed tariffs filed on June 21, 1985 designed to produce $1,340,796 in additional annual revenues are hereby approved to become effective as of the date of this order.

3. That any party aggrieved with the Commission's decision in this matter has a right of judicial review by filing a Petition for Review in the Chancery Court of Davidson County within sixty (60) days from and after the date of this order.

Jane G. Eskind
CHAIRMAN

Frank D. Cochran
COMMISSIONER

Keith Bissell
COMMISSIONER

ATTEST

Bob Davis
EXECUTIVE DIRECTOR