BEFORE THE
PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of
The Cincinnati Bell Telephone Company
Case No. 96-899-TP-ALT
for an Increase in Electric Rates in its
Service Area.

00-0507

Prepared Testimony of Stephen R. Chaney

Staff Exhibit____

1. Q. Please state, for the record, your name, position, and background.

A. My name is Stephen R. Chaney. I am employed as a Utilities Specialist 1 in the Utilities Department of the Public Utilities Commission of Ohio, 180 East Broad Street, Columbus, Ohio, 43266-0573.

I have received a Bachelor of Science Degree in Civil Engineering from Purdue University in December, 1978, and a Master's Degree in City and Regional Planning from Ohio State University in December, 1981. I have been employed by the Public Utilities Commission of Ohio since January, 1982. I have presented testimony supporting the Staff's rate of return recommendations in several rate proceedings before the Commission, including Ohio Bell Telephone Company's alternative regulation case, 93-487-TP-ALT.

2. Q. What is the purpose of your testimony in this proceeding?

A. My testimony sponsors the Staff's recommended rate of return to be used in the determination of TELRIC rates for unbundled network elements (UNE's).

3. Q. Is the Staff's rate of return recommendation risk-adjusted?

A. No. The methodology used for currently authorized rate of return is reasonable for TELRIC calculations. Because UNE's are monopoly services, no risk adjustment should be made. CBT is the sole provider of UNE's for its territory. Any facilities-based new entrant carriers would not be required to offer UNE's.

Staff's recommendation is determined using the same techniques that have normally been used for monopoly services. There is no departure from the use of embedded capital structure for consistency with authorized rates of monopoly services. In addition, a market-valued capital structure is not appropriate for use in non-risk-adjusted rate of return. Although the market value of stock will tend to increase after its issuance, and therefore, exceed its book value, dividends are paid on a per share basis, not on the basis of market value. Standard cost of equity analysis allows for a growth rate that reflects the growth in stock price over time. Given a market-based cost of equity, a market-valued capital structure can be justified only as a risk adjustment. The rate of return resulting from use of a market-valued capital structure would exceed the cost of capital required by investors to support a monopoly service.

4. Q. Does your recommendation in this testimony contain a recommended point within the rate of return range.

A. No. The purpose of my recommendation is to present an accurate estimate of the Applicant's cost of capital. The Staff's analysis was conducted solely with regard to cost of capital issues. The Staff believes that all points within the range are reasonable estimates of the Applicant's cost of capital, and any decision as to what rate of return should be granted, within the range, must necessarily be based on factors other than cost of capital.

5. Q. How did the Staff determine its recommendation of a fair and reasonable rate of return for the Applicant?

A. The Staff calculated the rate of return based on a cost of capital approach. This methodology takes into account the amounts and costs of long-term debt, preferred stock, and common equity. The cost of capital as determined by the Staff appears in Table 1, below.

TABLE 1

Staff's Overall Rate of Return Recommendation
Cincinnati Bell Telephone Company
December 31, 1998

	Amount	% of Total	% Cost	Weighted Cost %
Long Term Debt	$315,515,284	42.24%	7.07%	2.99%
Preferred Stock	0	0.00%	0.00%	0.00%
Common Equity	$431,517,000	57.76%	10.91%-11.93%	6.30%-6.89%
Total Capital	$747,032,284	100.00%		9.29%-9.88%

6. Q. How were the costs and amount of long-term debt stock determined?

A. The Costs and amount of long-term debt was determined from an update to December 31, 1998 of Applicant's Schedule D-3 of the Standard Filing Requirements. Both the amount and annual interest cost for long-term debt, as of December 31, 1998, are $315,515,284 and $22,322,493, respectively. This results in an embedded cost of long-term debt of 7.07%.

The Applicant has no balance of preferred equity as of December 31, 1998. (See Schedule)

7. Q. Does CBT have any preferred equity in its capital structure?

A. The Applicant has no balance of preferred equity as of December 31, 1998.

8. Q. How was the amount of common equity determined?

A. The amount of common equity is the balance from December 31,1998 of $431,517,000, which was provided by the Applicant on an update of Schedule D-1 of the Standard Filing Requirements. (See Schedule)

9. Q. How was the cost of common equity determined?

A. The discounted cash flow (DCF) method, the capital asset pricing model (CAPM), and the risk premium method were utilized for a comparable group consisting of Ameritech, Alltel, Bell Atlantic, Bellsouth, GTE, SBC Communications, and US West. The result from the DCF, which is a three-stage growth model, is weighted at fifty percent, and the CAPM and risk premium are weighted at twenty-five percent each. The baseline cost of equity estimate derived from the comparable group is 10.76% to 11.76%. (See Schedule)

10. Q. Describe your use of a three-stage DCF model.

A. Investor service growth estimates from the Value Line Investment Survey, Zacks, and Institutional Brokers Estimate System (IBES) are used to determine a five year growth rate for dividends, which is applied for the first five years of the DCF income stream. Beginning with the twenty-fifth year, the dividend growth rate is set to the growth of the economy, as a whole, which is estimated by the DRI/McGraw-Hill projected nominal growth in gross domestic product (GDP) of 6.4%. For the years in between, the growth rate shifts from the five-year growth rate to the GDP rate in a linear fashion. (See Schedule)

11. Q. How was the comparable group arrived at?

A. Comparable companies must be considered part of the Standard Industrial Code 4813 industry group, "Telephone Communications, Except Radiotelephone," have a capitalization of $ 1 billion or greater, be listed in Value Line, and have a Value Line beta of 1.00 or less.

Companies are excluded that have ratios of toll revenue to total telephone revenue that exceed 50%, or that are marketed primarily as long distance companies.

12. Q. What growth estimates are used in the DCF?

A. The growth estimates used for the DCF are IBES, Zacks, and Value Line dividend and earnings estimates, both those explicitly stated and those calculated from projected DPS and EPS estimates. (See Schedule)

13. Q. How are the other constituents of the DCF analysis arrived at?

A. The stock price is the average of the last twelve month's high and low daily closings. The averages are calculated from March 1998 through February 1999. The dividends are the sum of the last four declared quarterly dividends. (See Schedule)

14. Q. Explain what data was used in the CAPM?

A. The betas are Value Line betas. The risk free rate is the average of ten and thirty year Treasury yields tracked weekly for one year. The calculation weights more recent periods more heavily by averaging the cumulative averages at the end of each quarter. The spread is derived from Ibbotson Associates' Stocks, Bonds, Bills and Inflation 1998 Yearbook. The difference between the arithmetic means of total returns for 1926 to 1997 for large company stocks (13.0%) and for long term government bonds (5.6%) is 7.4%, which is used for the CAPM. (See Schedule)

15. Q. How was the cost of equity estimated using risk premium?

A. For each comparable company, utility bond yields for the respective Moody's bond rating are averaged for one year weighting recent periods more heavily. The risk premium is the difference of Ibbotson's arithmetic mean of total returns for 1926 to 1997 for large company stocks (13.0%) and for long-term corporate bonds (6.1%), which is 6.9%. (See Schedule)

16. Q. Why does the Staff recommend a cost of equity range?

A. The Staff recognizes an unavoidable tradeoff between certainty and usefulness. On one hand, one could estimate the Applicant's cost of equity with a more-than-sufficient degree of certainty to be within a range

of, possibly, four hundred basis points. A four hundred basis point range is not, however, very useful or informative for equity cost determination.

17. Q. Does the Staff recommendation include an adjustment for equity issuance cost?

A. Yes. CBT's ratio of retained earnings to total common equity, as of December 31, 1998, is combined with a generic issuance cost of 3.50% to derive an adjustment factor of 1.01404. This is applied to the baseline cost of equity range, resulting in a final equity range of 10.91% to 11.93% (See Table 2), which is carried onto Table 1. The overall rate of return range, from Table 1, is 9.29% to 9.88%.

Table 2

Equity Issuance Cost Adjustment
Cincinnati Bell Tdephone Company
December 31, 1997

(1) Retained Earnings	$264,455,478
(2) Total Common Equity	$431,517,000
(3) Ratio of (1) to (2)	0.61285
(4) Generic Issuance Cost, f	3.50%
(5) External Equity Ratio, w [1.0 - (3)	0.38715
(6) Net Adjustment Factor, (w/(1 - f)) + (1 - w)	1.01404
(7) Low End Equity Cost [% x (6)]	10.91%
(8) High End Equity Cost [% x (6)]	11.93%

18. Q. What are common stock issuance costs?

A. Issuance costs include expenditures made directly by the company issuing stock, for the purpose of issuing stock. Some of these expenditures would be for filing with the SEC, accounting, legal representation, printing, and exchange listing. Issuance costs also include the underwriting spread, which is not an expenditure for the issuing company. Basically, the underwriting spread is the difference between the proceeds to the company and the price paid by the primary purchasers of an issue. Issuance costs are the difference between the amount paid by the primary purchasers and the net proceeds, which is the amount available for investment by the company.

19. Q. Are you aware of any empirical measurement of the magnitude of issuance costs?

A. Yes, published studies have provided some measurement of the magnitude of underwriter spread relative to issue size. A study by Borun and Malley (1) finds that underwriter spreads average 2.93% of "initial price" for competitive bids brought by electric utilities. Logue and Jarrow (2) examined spreads for large utilities. They found magnitudes of 3.011% of offering price for competitive registered issues. Finnerty (3) found an average spread of 3.34% of offering price (or "closing price prior to offering") for electric utility issues. Pettway (4) found an average cost of 3.6580% for competitively bid issues by electric utilities, not only for underwriter spread but also for direct issuance expenditures. Borun and Malley (1) found electric utilities paid 0.09% to 3.1% of "initial price," with an average of 0.4% for direct issuance costs alone. Based on these studies, a reasonable estimate of underwriter spread would be 3.0% of the offering price, and a reasonable estimate of underwriter spread together with direct issuance costs would be 3.5%. In its generic determination of cost of common equity for public utilities issued January 3, 1990, the Federal Energy Regulatory Commission adopted 3.18% as the percent issuance costs are of total common equity.

20. Q. Why is an adjustment for issuance cost necessary?

A. The cost of issuance is properly spread over the life of the stock issue. As long as stock has been issued, an equity adjustment is necessary. It does not matter what future financing plans have been prepared. The investor requires a full return as long as the investor owns the stock. The company issuing new equity, initially receives funds in the amount of the equity issued. The amount of equity issued less the issuance cost is the amount available to the company for investment, yet the investor is, as required, paid a return on the full amount of investment. A greater return,

therefore, must be earned on the lesser amount that can be invested. This is made possible by the Staff's adjustment to the baseline cost of equity.

21. Q. Should an adjustment be made to the cost of equity to reflect dilution or price pressure?

A. No. The investors pay the public offering price, which reflects any dilution effect. The investors require a return on the amount they have invested, not the amount that their investment would have entailed had they been able to buy shares at market price prior to any public announcement of stock issuance.

22. Q. Why has the Staff applied its equity issuance adjustment to the common equity balance less retained earnings?

A. Consider a company at the stage of its initial public offering and later. The funds collected through the initial public offering are used to finance company operations. The earnings from company operations that are not paid in dividends are retained and are available to fund further operations. Retained earnings that are reinvested in company operations earn a return for the initial investor. As long company operations continue to grow, reinvested funds that are not paid as dividends will compound over the life of the company, enhancing the value of investors' holdings. The cost of issuance associated with the initial public offering is money paid by investors on which the company cannot earn a return. But as the company accumulates retained earnings, the proportion of investors' capital that is not available for company operations is reduced. In this way, it becomes easier for the company to meet or exceed the returns required by initial investors.

Subsequent stock offerings are subject to the same sequence. A fraction of invested funds, issuance expense, cannot earn a return. The difference, total investment less issuance, is equity and is available for company operations. As retained earnings accumulate, the proportion of invested capital that can earn a return increases. By applying its equity issuance adjustment to the common equity balance less retained earnings, the Staff allows a premium to be earned to compensate for invested funds the company could not commit to operations, but does not apply that premium to retained earnings, which are available in their entirety for reinvestment. As the proportion of investment, which can earn a return, increases, the adjustment commensurately decreases. Retained earnings increases the available pool of capital, but issuance expense, which is not available to the company, increases only with new stock issuance. The adjustment increases commensurately with the occurrence of new stock issuance, by virtue of the retained earnings' proportion of equity decreasing.

23. Q. Does Staff have any other recommendations?

A. Yes. Staff recommends that CBT records revenues from unbundled network elements, in a separate sub-account, to allow for accurate revenue increase determination in any subsequent alternative regulation case. This is necessary as the Staff is recommending a separate TELRIC rate of return, and the Commission will authorize, for the first time, two rates of return in a single case.

24. Q. Does this conclude your testimony?

A. Yes. It does.

REFERENCES

(1) Borun, Victor M., and Malley, Susan L., "Total Flotation Costs for Electric Company Equity Issues," Public Utilities Fortnightly, February 20, 1986, pp.33-39.

(2) Logue, Dennis E., and Jarrow, Robert A., "Negotiations vs. Competitive Bidding in the Sale of Securities by Public Utilities," Financial Management, Autumn 1978, pp. 31-39.

(3) Finnerty, John D., "How to Lower the Cost of Floating A New Stock Issue," Public Utilities Fortnightly, March 17, 1983, pp. 25-29.

(4) Pettway, Richard H., "A Notice on the Flotation Costs of New Equity Capital Issues of Electric Companies, Public Utilities Fortnightly, March 18, 1982, pp. 68-69.

CERTIFICATE OF SERVICE

I hereby certify that a true copy of the **TESTIMONY OF STEPHEN R. CHANEY** was served by regular U.S. mail, postage prepaid, or hand-delivered, upon the following parties of record, this 19th day of March, 1999.

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