Upon comparison of the two depreciation methods, SLVG and ELG, two important points can be noted. The first point is that both the SLVG and ELG methods produce cumulative depreciation accruals which exceed cumulative retirements in each year of the group's expected life. In other words, at no point in time is the value of cumulative retirements greater than the value of cumulative accruals. It also can be seen that the pattern of cummulative accruals produced by the SLVG method more closely matches the pattern of cumulative retirements than does the pattern of accruals produced by the ELG method, although both methods produce cumulative accruals which exceed retirements by a substantial margin in early years. As indicated previously, capital consumption includes more than retirements alone. But, because no basis exists for estimating the effects which other factors have upon capital value, it is impossible to conclude that either SLVG or ELG produces an accurate estimate of capital consumption.

The second important point to note is that both SLVG and ELG provide for the full recovery of capital over the expected life of the investment. The ELG method, however, provides for a larger proportion of capital to be recovered in the early years of an investment's expected life. In other words, ELG accelerates the recovery of capital relative to the conventional SLVG method.

Since both ELG and SLVG provide for full capital recovery over the life of a group of assets, and since neither method necessarily produces a valid estimate of the cost of providing telephone service, the selection of one method over the other may be viewed as a question of equity. The present method (SLVG) has been viewed for many years as being fair both to the Company and to state ratepayers. The Company's ELG proposal would tip the equity balance in favor of the Company by increasing depreciation charges at a time when, in the Authority's opinion, no such advantage is necessary.

ii. Financing Requirements

The second point raised by the Company in support of ELG is that it reduces external financing requirements by enhancing the Company's cash flow. While this may be true, the Authority must consider two additional points. First, it is well settled that the purpose of depreciation in a regulatory context is to recover investor capital and not to provide a pool of capital for reinvestment (Federal Power Commission vs. Hope National Gas Co., 320 U.S. 591, 607 [1944]. Accordingly, the Authority is under no obligation to change depreciation practices because of anticipated capital requirements.

Second, while the reduction of external financial requirements may lower the Company's marginal cost of capital, a question arises as to whether or not ratepayers would be better off under a system of higher depreciation charges and lower interest costs than they are under the present structure. This is a difficult empirical question which the Company has not addressed, and which cannot be answered from this record.

For the above reasons, the Authority will not approve the Company's proposal to use ELG methodology to calculate intrastate depreciation expenses. This results in a $1,745,000 reduction in operating expenses from that proposed by the Company.

12. Management Employee Discounts

The DCC took the position that discounted or free telephone service should not be provided to employees as part of their approved compensation. The DCC claimed that the Authority should direct the Company to discontinue this practice for management employees and no longer allow any discounts as above-the-line expenses.

The Company position is that this is only one item within a total compensation package that has a long history throughout the telephone industry and has been approved by the Authority in all recent telephone rate cases. Additionally, it claims that to replace this compensation with some other form, such as monetary compensation, would increase the cost to ratepayers.

The total compensation package, including discounted service, to the Company's employees is found to be reasonable, as adjusted. Once that is found to be true, the Company claim regarding some alternate form of compensation becomes valid. We therefore will not order any revision in the treatment of discounted service to employees as an acceptable operating expense.

13. Allocation of Expenses to Regulated Business

Whenever a regulated public utility company engages in unregulated non-utility activities, there is a possibility of the regulated business subsidizing the unregulated. This would be unfair not only to competitors but also to ratepayers, and the Authority intends to exercise strict oversight responsibilities to ensure that the costs of unregulated activities are properly segregated from those chargeable to ratepayers, and to require the Company to do whatever is determined to be necessary to ensure that that is the case.

E. Rate of Return

In addition to determining with a minimum of uncertainty the level of operating costs that the Company may be expected to sustain over the period when the proposed rates would be effective, the Authority must also make reasonable provision for the cost of capital that is invested in plant serving the public. Criteria for this cost of capital provision are contained in the language of the United States Supreme Court in Federal Power Commission vs. Hope Natural Gas Company, 320 U.S. 591; 881 ed. 333, which requires a level of revenues that will enable the Company to operate successfully, to maintain its financial integrity, to attract capital and to compensate its investors for the risks assumed. Furthermore, the Authority is bound by Section 16-19e(a)(4) of the Connecticut General Statutes of which states:

> "that the level and structure of rates [must] be sufficient, but no more than sufficient, to allow public service companies to cover their operating and capital cost, to attract needed capital and to maintain their financial integrity, and yet provide appropriate protection to the relevant public interest, both existing and foreseeable....."

To determine a return on rate base that meets the Company's cost of capital requirement, it is necessary first to determine the appropriate capital structure for the Company from which the costs of each of its components (debt, preferred stock, common stock, etc.) can be ascertained. These component costs are then averaged, weighting each component by its proportion in the Company's capital structure. The return on rate base is then calculated by multiplying this rate of return by the Company's rate base.

1. Capital Structure

The Company's position is presented below in its pro forma capital structure as of December 31, 1981 (Schedule D-1).

Class of Capital	Amount	Percent Total
Short Term Debt	$ 42,112	3.0%
Long Term Debt	575,000	40.6
Preferred Stock	72,250	5.1
Common Equity	727,595	51.3%
Total	$1,416,957	

Since the Company is not requesting that we look to a forward looking capital structure including proposed security offerings which might be issued during the period when these requested rates would be in effect, and since by the Company's testimony the probabilities of future financial offerings during that period are relatively low, we are reluctant to use a projected capital structure. The Company also pointed out that the most current capital structure was not as representative as the year end. Therefore for ratemaking purposes the Authority accepts the Company's proposed capital structure.

2. Cost of Short Term Debt

There is abundant testimony in the record to support the contention that short term interest rates are extremely difficult to forecast - let alone to forecast with precise accuracy.

The Company's witness, Dr. Brigham, advocated that 12.59% would be appropriate, while the DCC's expert, Dr. Johnson, urged 11.00% as more realistic. In the Authority's judgment, the calendar of heavy future borrowing on the part of the Federal Government, plus the fact that real rates of interest are still very high by historical standards tends to argue that the appropriate interest level would indeed run to at least 12.0%.

Interest rates have been dropping dramatically as the Federal Reserve seeks to bolster a recessionary economy; thus, despite the Administration's avowed priority on fighting inflation, there is every likelihood of a compromise which in practice will tend to exert upward pressure on interest rates.

3. Cost of Long Term Debt

The Authority accepts the Company's proposed cost of long term debt at 8.79%.

4. Cost of Preferred Stock

The Authority accepts the Company's cost of preferred stock at 8.15%.

5. Cost of Common Equity

Both Dr. Brigham and Mr. Himsworth, for the Company, relied on two methologies develop their recommended return on equity (ROE): the Discounted Cash Flow (DCF) and the Risk Premium (RP). Dr. Brigham first recommended an ROE range of 17.5% to 19.1% then updated it to 17.3% to 18.9%. Mr. Himsworth's recommended ROE range at cross-examination September 8, 1982 was 18.0%-19.0%. The Company requested an ROE of 18.3%.

Dr. Ben Johnson, for the DCC, recommended ROEs stemming from the Comparable Earnings, Market (Earnings/ Price), and DCF approaches. He developed ROE ranges of 12.75% to 13.75% and 14.3% - 16.9%. His recommended ROE was 14.75%.

Risk Premium - The basis of this approach is that the investor's required rate of return, theoretically, can be divided into two parts: the risk - free rate of interest and a premium to compensate the investor for taking risks inherent in the security. One estimate of this requirement is the difference between the annual rate of return investors have realized in such holdings and the rate of return they have realized from holdings of long term U.S. Government bonds during the same time. Dr. Brigham's analysis determined that the risk premium of an average large industrial company, such as those in the Dow Jones Index, is today in the 4.5% - 6.0% range. At this point he made the assumption that SNETCO stock was as risky as the average Dow Jones stock. He then applied that risk premium to the 12.2% risk-free proxy yield predicted on the two year futures market for long term U.S. Treasury Bonds, developing a barebones ROE range of 16.70% - 18.2%. The final range includes flotation cost and market pressure adjustments of 60 basis points for an estimated ROE of 17.3% - 18.8%.

Instead of using the Long Term Treasury bonds as a "risk free" surrogate, Mr. Himsworth used long term double A utility bond yields (14.5% at cross-examination 9/8/82). He developed a risk premium of 200 - 300 basis points from conversations with institutional investors. Combining these elements with a 10% market to book adjustment to accommodate financing costs, he arrived at an ROE range of 16.5 - 17.5%.

During cross-examination, Dr. Brigham agreed that the risk-premium approach, which he utilizes, has its opponents as well as its proponents. Both sides are widely represented in regulatory proceedings as well as in the literature.

Conceptually and historically, the risk-premium approach argues that investors in equity require a premium over the return allowed to long term secured creditors of a corporation. The justification of this approach is that because the obligations to debt-holders must be satisfied before those to equity holders, there is a risk of non-payment associated with equity that is not present with debt. The Authority believes that this particular methodology has never had significant relevance in the area of large public service corporations. The instances in which major public service companies have been unable to pay equity dividends are extremely rare. The perceived advantage of long term bonds over equity, namely that they pay a fixed amount over the entire period of the bond, has proven, at least in very recent times, to be a distinct disadvantage. The purchaser of equity can reasonably anticipate that the dividend and the yield will be adjusted to reflect upward economic pressures within the economy. The debt holder is forever foreclosed from such adjustment and therefore bears the burden of having the principal value of the bonds bid down to reflect current requirements. In recent times government and corporate debt securities have experienced unprecedented volatility and the traditional relationships between debt and security markets have been seriously strained.

The Authority concludes the risk premium approach may be useful as a guide in estimating an investor required ROE; however, at this time, little or no weight should be accorded the risk differential between debt and equity since the risk premium approach appears to have an inherent upward bias.

Comparable Earnings - Dr. Johnson analyzed the earnings on average common equity over 20, 10, 5 and 3 year periods for the Standard and Poor's 400 Industrial index, the Federal Trade Commission's "All manufacturers" group and the 40 industries reported in Business Week. He also performed the same analysis on equity earned by AT&T, the independent telephone industry, Moody's 24 utilities, and the FERC Class A and B electric utilities. From these data he developed comparative statistics to support his recommendations and concluded that the cost of common equity to SNETCO would be in the range of 12.75-13.75%.

In the Authority's judgment, the primary difficulty with the comparable earnings approach is in the selection of comparable companies. In an attempt to overcome this problem, Dr. Johnson elected to include a specific telephone industry proxy. However, even with telephone companies there are major differences between companies which make valid comparisons extremely difficult. The approach, likewise, assumes comparable risk between SNETCO and the proxies and without some adjustment this becomes a major weakness in this approach. Dr. Johnson developed an extensive risk analysis for purposes of providing this adjustment. The Authority, however, is not convinced that this effort fully satisfies the requirement. Nevertheless, we concur with Dr. Johnson that SNETCO equity is not as risky as the equity of an average industrial company.

Aside from the risk adjustment factor this approach is vulnerable from two other standpoints. First, we are seeking the investor required return for an investment in SNETCO. This required return is oriented toward some future period when these rates will be in effect. However, the comparative approach is oriented toward a return earned in the past not a return required in the future. Second, the inclusion of regulated utilities in the comparison suggests too strongly for our satisfaction the risk of circular reasoning.

The Authority believes, however, that the comparative approach which Dr. Johnson has used is a generally accepted presentation. Given appropriate recognition to particular shortcomings relative to a given rate proceeding, this approach makes a useful contribution, when combined with other analytical techniques, toward a better understanding of what the appropriate ROE should be.

Market Approach (Earnings/Price) - Dr. Johnson analyzed the pattern of dividend/price ratios, earnings/ price ratios, and other data for SNETCO, other telephone utilities and electric and gas utilities. This analysis focused on the 10 year period 1972-1981, the 5 years 1977 - 81, the two years 1980 - 81, and the 12 months ending June 30, 1982. Dr. Johnson concluded that the current cost of equity to SNETCO would be in the range of 14.3 to 16.9%, including a 4% adjustment to cover issuance costs.

The Earnings-Price (E/P) method is based on the hypothesis that stock is purchased for earnings. While stock is purchased for future earnings, current earnings are often the most reasonable estimate of future earnings. As a result, the ratio of earnings to market price may be accepted as a measure of the cost of equity. Investors in common equity capital establish the cost rate by their assessment of the value of expected future earnings available to them relative to their investment. Investor expectations of future earnings are reflected in the price of stock which they are willing to pay for those earnings.

When the market price exceeds the book value of the stock, the computed earnings/price ratio understates the cost of equity but when market prices are below book value, as is the case with SNETCO, the E/P ratio tends to overstate the cost of equity, and the greater the spread between the market and book, the greater the extent to which earnings - price ratios overstate or understate the cost of equity. The Market Approach also suffers from the weaknesses of the comparable earnings methodology--in particular, selection of comparable companies and comparable risks.

Nevertheless, recognizing the potential for overstating the result by utilizing the E/P ratio and the other perceived flaws, we believe that this approach is conceptually correct and valid when used in conjunction with others toward establishing a "benchmark" parameter encompassing the opportunity cost of capital for SNETCO.

Discounted Cash Flow (DCF) - The DCF method, sometimes called the dividend yield plus growth rate method, is the methodology most widely used before regulatory agencies. The methodology recognizes that when investors buy stocks they expect to receive a total return that consists of both dividends and capital gains. In the reduced form of the DCF model, we can calculate the required return if we know the dividend yield and the growth rate the investor expects. The reduced form is shown below, where K is the investor required return, P is the market price, D is the dividend and G is the growth rate.

$$K = \frac{D}{P} + G$$

At the time Dr. Brigham prepared his direct testimony, SNET's stock sold for \$45.00 per share, and the dividend projected for the coming twelve months was \$4.65. This produced a dividend yield of 10.3 percent. The growth rate at the time was in the range of 6.6 to 8 percent, and his DCF calculation, adjusted for flotation costs of 5½% (60 basis points), produced a cost of equity in the range of 17.5 to 18.9 percent.

During cross-examination Dr. Brigham updated his prefiled testimony to reflect the increased stock price. Since it is now closer to December, when SNETCO typically increases its dividend, his dividend expected over the next 12 months rose to \$4.85. The net effect of the stock price and dividend increases was no change in the yield (10.3%). Dr. Brigham considered that a growth rate of 6.6 to 8 percent was still appropriate. Summing the dividend yield, the growth rate, and the flotation adjustment, produced a current DCF cost of capital estimate for SNET in the range of 17.5 to 18.9 percent.

At the time Mr. Himsworth prepared his direct testimony, (June 1982) SNETCO stock sold for \$44.00 per share, and the dividend projected for the coming twelve months was \$4.56. This produced a dividend yield of 10.4%. The growth rate at the time was 8%, and his DCF calculation, adjusted to a 1.10 market to book value allowance for flotation costs (4% financing, 6% market pressure and market break) produced a cost of equity of 20.44%. Mr. Himsworth's flotation cost adjustment would approximate 100 basis points, in which case the result would be 19.4%.

During Mr. Himsworth's cross-examination, September 9, 1982, he updated his direct testimony to reflect SNETCO stock price up to \$47.50. For dividend purposes he deemed it appropriate to use one quarter at the current rate of \$4.56 and three at an expected \$4.86. Combining his dividend estimates with the \$47.50 price per share resulted in a dividend yield ranging from 9.6% to 10.2%. Adding in the same 8% growth rate plus the 100 basis point adjustment resulted in a DCF market return requirement of 18.6% to 19.2%.

Dr. Johnson's DCF analysis and his Market Approach are closely related. From the Market Approach he determined that 13.75% to 16.25% was the return required by investors in SNETCO's common stock. He likewise determined that this was consistent with his discounted cash flow analysis which showed that a dividend yield of 9.75% to 11.25% and a growth rate of 4.0 to 5.0% were most likely the true investor perception. Consequently, Dr. Johnson's DCF analysis resulted in a 14.3%-16.9% range, including a 4% flotation cost adjustment.

Authority Analysis. For a technical analysis which assists us in reaching a final decision, we rely primarily upon the DCF approach, utilizing two different methods for developing the growth component: first, relying on dividend, earnings and book value growth rates and second, relying on retention growth.

In both methods, the following data were used to develop the yield component. Since the Company filed its rate application, through the close of the hearing October 5, 1982, the capital markets - stock and bonds in particular - have been experiencing unprecedented gains in both share volume and price. The DCF methodology generally advocates using a "spot" price. In this case, however, "blind" application of this practice would not be appropriate. Consequently, we have elected to use the high-low average of market prices for:

(1) the last 10 market days, September 17 through the 30th;
(2) two months, August 2 - September 30;
(3) 52 weeks through September 30.

These result in the following prices respectively: \$48.21, \$45.75 and \$43.75. The dividend estimate was \$4.85. These data produce yields of 10.06%, 10.60% and 11.09%.

Much more difficult to estimate is the growth component of the investor required return. Dr. Brigham used the retention growth model and developed two growth components: (1) based on a series of assumptions and estimates, contending that actual historical SNETCO data was not appropriate; and (2) based on a consensus of recent forecasts published by investment analysts. From these data he concluded that the growth component should be 6%-8%. Based on conversations with institutional investors Mr. Himsworth concluded the growth component should be 8%. Dr. Johnson inferred a growth rate component of 4.0% to 5.0% from his Market Approach.

In the Authority's view, a better measure of the growth component would reflect growth in dividends as well as earnings and book value. Cash dividends per share are dependent upon the level or rate of earnings per share and the relative proportion of earnings which are paid out in the form of dividends, or alternatively, retained and reinvested to produce future higher levels of earnings and dividends. Earnings per share are in their turn dependent on book value per share and rate of earnings on book value which over long periods may be considered level.

Growth in book value per share is considered by some authorities in the cost of capital area as a better measure of growth to be used within the DCF formula to determine the capitalization/cost rate of equity particularly in an original cost jurisdiction such as Connecticut. Book value is a leading indicator of growth rate in dividends. It provides a reasonable measure of future cash flows from both dividends and stock sales. It must, of course, be appraised in conjunction with trends in dividends and earnings and other non-quantitative factors.

The Authority has developed growth components utilizing dividend, earnings, book values and composite growth rates calculated both on a log linear basis (preferred) and on a compound growth rate basis. Compound growth rates, which Dr. Johnson used, may be misleading as to the expected growth trend due to variations in values from year to year and because they ignore the years between the beginning and ending of the sample period, years which investors surely consider.

In our judgment a better method is to calculate the trend of the growth. We have plotted the actual data for per share dividends, earnings and book value for 3, 5, and 10 year periods covering 1979-81, 1977-81, and 1972-1981. The "best-fit" (least squares) trend line has been fitted to dividend, earnings, and book value, and the trend line has been developed and the growth rates calculated.

In an effort to make the historical data as current as possible (with only three months remaining in 1982), a 1982 earnings forecast was sought from the Company. The only available figure, however, was the actual SNETCO first half earnings of \$2.95. From data on the record, four independent forecasts were developed which indicated that the Company's 1982 earnings most likely would be \$7.00. The Company's third quarter was subsequently received and confirmed the \$7.00 figure. The same data were then developed on a 1973-1982 basis. All of these data were then analyzed on a 3, 5, 10 year and overall basis.

Based on our analyses, we concluded that a growth component reflecting dividend growth only would be 6.13%, while one reflecting the total spectrum of growth factors would be 4.89%.

Many proponents of the DCF methodology rely on dividend growth. Dr. Brigham, however, regards retention growth as the most appropriate measure. In our judgment retention growth is one of the better approaches, but not the only approach to use in developing an estimate of future growth in dividends. Dr. Brigham, however, considers only the most current available SNET dividend, earning and blook value data. He totally disclaims the use of historical data. Thus, his analysis basically reflects a series of assumptions and estimates.

In Dr. Brigham's other approach to retention growth he utilized published forecasts by financial analysts. Without the benefit of their testimony under cross-examination, it is difficult to ascertain with certainty to what extent, if any, their forecasts rely on historical data. However, based on Dr. Brigham's pre-filed testimony, it is difficult to conclude that the investment forecasts used by Dr. Brigham do not use historical data to some extent.

Virtually without exception, the rate of return experts testifying before this Authority utilize historical financial data in developing their growth components for the DCF model. The controversy regarding historical data is not regarding its validity nor appropriateness, but rather, what particular time period to use.

In our judgment the technique of estimating growth expectations must to some extent look at historical data; there is no other link to future events. But the technique should incorporate a growth indicator which best represents prospects for dividend growth. Retention growth does this particularly well; earnings and dividend growth alone will not.

The very fact that the DCF methodology implies constant growth means it is predicting long term dividend growth and not necessarily dividend growth over a short period. Short term adjustments by management may make dividends grow at a high rate or may require the passing of a dividend. The growth component depends upon the utility's earnings potential and its payout policy. These in turn depend upon the earnings base or book value of the utility.

If a company earns a rate of return on its equity (r) and retains a fraction of those earnings (b), then future earnings will grow at a rate of br (retention rate times return on equity). Assuming the sale of stock at a market to book ratio of 1.0, book value will increase solely due to retention. A constant payout ratio will cause dividends to grow at the same rate. In this instance, growth measured by earnings, dividends, book value and retention would be equal. However, because the payout ratio and earnings are not always stable, problems develop if one relies upon growth from earnings or dividends. Growth in earnings experience wide fluctuations reflecting shifts in earnings which will not be expected to continue in the future. Also, earnings growth rates will capture and compound changes in the pattern of allowed returns on equity. Thus, historical earnings growth rates rarely are indicative of investor expectations. Likewise, dividend growth greater than book value growth cannot be expected to continue over the long run. Eventually, with this scenario, the dividend growth is sustained by a repayment of capital to the investors, not a return on their capital and is similarly inappropriate.

Although growth calculations are generally based on historical patterns, it is important that they are related to current investor growth expectations. It is also important that in estimating the growth rate one considers prospective and not merely historical earnings.

We developed our retention growth estimate by reviewing SNETCO's growth in earnings on book value and its growth in percent retained on a three, five and ten year basis both entirely historical (1979-81, 77-81, and 72-81) and historical including a projected earnings growth for 1982 (1980-82, 78-82, 73-82). Average retention growth was analyzed by specific time period, within the historical/future categories, and overall. In addition, we focused on a five period analysis again both historical 1976-81 and historical plus an '82 forecast covering 1977-82. In our judgment a retention growth rate of 5.29% is realistic for purposes of determining an investor required rate of return by the DCF method.

Given a current yield range of 10.06%, 10.60% and 11.09% (previously discussed), a representative yield of 10.58% would be realistic for purposes of the DCF methodology. Coupling the 10.58% yield with growth factors of 6.13% (dividend), 5.24% (retention) and 4.89% (composite) results in "barebones" estimates of 16.71%, 15.87% and 15.47%.

Dr. Brigham allowed transaction costs of 5½% in addition to his barebones estimates, Mr. Himsworth 10%, and Dr. Johnson 4%: We concur that transaction costs are appropriate to provide some financing flexibility to the Company.

However, since SNETCO has not had a new stock issue in 15 years the appropriate transaction cost factor is difficult to develop. To arbitrarily determine that a 1.10 market to book ratio objective is the determining factor (Himsworth), or that a market pressure allowance of 2.5% as determined by AT&T experience is applicable (Brigham) is also subject to some question. In Dr. Brigham's judgment a 3-4% adjustment for underwriting expenses and fees is appropriate, but no specific support was offered in evidence. Dr. Johnson contended that 4% is a realistic allowance to provide financing flexibility to the Company, considering that the relevant data is conjectural and assuming it would be applied to the total equity proportion of capitalization. In our judgment an adjustment for underwriting expenses and fees is appropriate and consideration should be given to market pressure; however, no allowance should be provided for market break. Since it is questionable that SNETCO will in fact issue stock during the period the approved rates will be in effect, any adjustment would of necessity apply to the entire equity portion of capitalization and not be limited to new stock issues only. The Authority concurs with Dr. Johnson that his 4% adjustment to equity is the most appropriate.

Adding the 4% adjustment for financing to the "barebones" ROE estimates results in the following range of estimates of investor required returns on SNETCO equity: 17.41% (Dividend G), 16.53% (Retention G), 16.11% (Composite G).

All of the preceding effort represents a mathematical attempt to determine the market's appraisal of the risk of SNETCO's common stock. In the final analysis, however, the proper rate of return to be allowed this Company is a matter of expert judgment based both upon mathematics and upon qualitative factors. Further, the rate of return allowed must be based upon a consideration of what is just and reasonable, not only to the Company but also to its customers.

Based on our appraisal of all the factors affecting the risk of this Company, including those affected by this Decision, we find that a thorough analysis of the methods and statistical data presented by the parties and their expert witnesses does not produce a single arithmetically certain figure for the cost of common equity.

In reaching our decision, we have considered the effect of various Authority policies on the quality of the Company's earnings. We have also taken into consideration the superior quality of the management of this Company. We have looked at the relative risk of this Company, considering awards being granted recently to comparable utilities and to other non-comparable utilities and the return earned by other concerns which compete in this nation's capital markets. Based on all these factors, the evidence, and our own informed judgment, we find a rate of 16.20% on common equity adequately reflects current market conditions and is sufficient to allow the Company to raise needed capital.

6. Overall Rate of Return

The Authority finds an overall fair rate of return for SNETCO to be 12.68%. This return is calculated as follows:

SNETCO Capitalization and Capital Costs

Class of Capital		Amount	Percentage	Cost	Weighted Cost
Short Term Debt		$ 42,112	3.0%	12.59%	.38%
Long Term Debt		575,000	40.6%	8.79	3.57
Preferred Stock		72,250	5.1	8.15	.42
Common Equity		727,000	51.3	16.20	8.31
	Total	$1,416,957	100.00%		12.68%

It is our judgment that the return produced by applying the rate of 12.68% to the rate base found reasonable for the Company will be sufficient for the Company to operate successfully, maintain its financial integrity, attract needed capital and compensate its investors for the risk assumed.

F. Curtailment

Historically, the Authority has authorized the Company to establish rates which reflected the phenomenon of "curtailment"; i.e., to give express recognition to the fact that quantities demanded during the test year would have been less had higher rates actually been in effect during the test year.

The Company's curtailment proposal in this case differed from its last filing in two significant respects. First, the Company provided a comprehensive set of cost curtailment estimates based upon econometric cost models. Second, the Company proposed to use long run curtailment estimates rather than short run (i.e., test year) estimates as were adopted in the last case.

Short run curtailment is an estimate of the net change in costs and revenues which is likely to occur during a test year period, assuming that proposed rates had been placed into effect on the first day of the period. The long run curtailment concept makes a quite different assumption. It assumes that proposed rates were placed into effect sufficiently prior to the test year to ensure that all demand and cost changes induced by the higher rate levels were fully adopted by the first day of the test year. Testimony in this case suggests the maximum period necessary would be about 4-5 years.

Although the policy of the Authority is to allow known and continuing changes occurring outside of the test year to be reflected in revenue requirements and rates, the "long run" in this instance is too remote from the test year to be appropriate for rate case purposes. In addition, since recent experience indicates that the Company files a general rate application about every two years, long run curtailment would span a period which is likely to be longer than the period during which these rates are likely to be in effect. On the other hand, short run curtailment would essentially cause only one year's worth of estimated demand and cost changes to be reflected in rates.

An obvious alternative to the short/long run curtailment is a curtailment allowance which would average out the revenue and cost changes attributable to demand repression over a two year period; i.e., the Company would recover more in the first year and less in the second year, thereby achieving equilibrium over the two year period. This approach would also solve the problem associated with the fact that Local Measured Service is not anticipated to be available until July, 1983. Essentially, this alternative would grant the Company approximately one-half of an intermediate-run (two year) net curtailment estimate.

Despite the fact that the time period until the next rate application is uncertain, the Authority considers this intermediate-run approach to be the best alternative available and will require the rates filed pursuant to this decision to incorporate this curtailment methodology.

G. Cost Studies

In the context of a rate proceeding, the value to the Authority of cost studies is that they provide a standard against which to evaluate the reasonableness of proposed rate levels. As in past proceedings, the Company submitted numerous cost studies which fall under three general headings: (1) Long Run Incremental Analyses (LRIA), (2) Fully Distributed Cost (FDC) studies, and (3) Embedded Direct Cost (EDC) studies. The LRIA is relied upon by the Company to support rates for competitive services, while the FDC studies are used to indicate the relative profitability of various service categories, and the EDC studies are used to indicate the revenue and cost relationships for the various classes of exchange service. The concept and mechanics of these studies essentially are the same as that used in the previous case. In that proceeding, Docket 80-04-18, the Authority directed the Company to submit marginal cost studies for at least the major service offerings of the Company. This requirement was to be in addition to existing filing requirements. The purpose of this additional requirement was to provide an economic standard against which the Authority could gauge the reasonableness of the Company's rates proposals.

Because rates for private line service in Dockets 77-05-26 and 80-04-18 appeared to be substantially below embedded cost, the Authority also directed the Company to submit results of an embedded private line cost study. The process used by the Company to estimate these marginal and embedded costs generally follows the approach used in the Company's LRIA studies. Marginal costs essentially were developed by dividing the estimated five year change in costs by the corresponding change in test year quantities. Embedded costs were developed by dividing the total Year 1 cost estimate by total Year 1 quantities. The LRIA process was examined in Docket 80-04-18 and found generally to be appropriate.

In the instant proceeding, we find the cost studies, including the new marginal and embedded studies, to be appropriate for the purposes proffered. We will, in addition, continue our requirement that future rate applications be accompanied by a full showing of marginal costs for at least the major service offerings and embedded cost studies for private line services. These studies will be of suitable substance and form to permit an economically valid comparison to be made between proposed rates and costs, and will be in addition to present filing requirements.

H. Rates

1. Pricing Policy

Since the 1930's, the cornerstone of national telecommunications policy has been universal service - that is, rates for basic telephone service set low enough to be affordable by virtually everyone. The low rates were made possible by subsidies flowing from other than basic services. The goal of universal service has now been achieved. Contemporaneous with this achievement, the benign dominance of the Bell System which provided this country with the world's finest telephone system was being challenged by those who believed this dominance had been achieved in violation of anti-trust laws. From actions taken by federal regulators, competitors, and the Department of Justice, a new regulatory and judicially sponsored telecommunications policy has emerged. The new policy will break up the Bell System, open up to competition services formerly provided only by telephone companies, and at the same time free AT&T, SNET, and certain other telephone companies to enter specialized markets for "enhanced services" from which they were formerly barred.

This Authority recognizes the inevitability of this deregulating process as well as the potential benefits of technological advances stimulated by the change, but remains committed to universal telephone service as an essential part of our society and economy. We also believe that the transition to the new telecommunications environment must avoid disruptive changes or increases and must include efforts to inform consumers of the major changes that will be affecting them and of the reasons for the changes.

While competition does generally serve to lower prices, it does so only for those specific services which are competitive and for which significant competition exists. In the case of telephone service, the lower rates for competitive services will mean lower subsidies to basic exchange and therefore higher basic rates. When the residential customers begin to see and appreciate some of the effects of this emerging policy, it is possible that further regulatory, judicial, or legislative actions will be forthcoming to alter the otherwise inevitable consequences of present policies. Accordingly a moderate and conservative approach by this Authority seems only prudent at this time.

Dr. Alessio, an economist appearing on behalf of the Company, testified that economic theory supports directing available subsidies to access charges as distinguished from usage charges because there are "positive externalities" associated with maximizing the number of people who have access to and can be reached by telephone. Usage charges, he stated, should be priced at their incremental cost so that they will send the proper economic signals. The usage sensitive pricing that the Company proposed as Local Measured Service is in accord with this economic philosophy. (See subsection 2 below for further analysis of Local Measured Service.)

Changes in telecommunications policy are also leading to adjustments in the traditional "value of service" philosophy justifying differential rate levels for business and residential service and for the three exchange groups. Telephone service which included an unlimited number of calls was seen as more valuable to business than to residential customers. Across exchange classifications, flat rate service in exchanges in which many telephones could be called toll-free was seen as more valuable than service in those in which fewer telephones could be reached without a toll charge. As discussed in subsection 3 below, the Company is now proposing to reduce somewhat the differentials which cannot be justified on grounds of cost of service.

Another major change in pricing will be required if and when customers are allowed to resell or share telephone service. As a monopoly supplier of toll calling services, telephone companies offered discounts for large users through Wide Area Telephone Service (WATS) and Foreign Exchange (FX) rates. WATS and FX rates have been structured on an essentially flat rate basis rather than the measured basis of Message Toll Service. If subscribers to WATS or FX lines were allowed to resell or share them, the subscribers would become telephone company competitors for Message Toll Service revenues. According to SNET since the FCC has approved interstate resale and sharing, a measured structure is necessary to anticipate resale and sharing in Connecticut. As discussed below, however, the Authority believes that resale and sharing should continue to be prohibited and that the restructuring is therefore unnecessary at this time.

The Authority believes that the changes in pricing policy should be accomplished as gradually as possible. We agree that the Company's general policy should continue to be that rates for competitive services are set at levels which, at a minimum, cover their direct costs, and thereafter, provide optimum revenue contributions without being disruptive. This policy will help to maintain basic telephone service at affordable levels, a goal to which both the Company and the Authority are firmly committed.

2. Local Measured Service

As discussed in subsection 1 above, the Company is proposing, on an optional basis, a new usage sensitive pricing structure as a key part of the changes it believes are necessary to adapt to the new telecommunications environment. The proposed service, designated as Select-A-Call or Local Measured Service (LMS), would provide basic exchange access at a flat, recurring monthly rate. Usage, however, would be charged according to four elements: 1) number of calls; 2) duration of call; 3) distance (home town or contiguous town); and 4) whether or not the call is placed during the peak traffic period. As originally proposed, the monthly access rate would be $5.25 for residence service and $14.50 for business, with each home town call rated at 3¢ for the initial minute and 1¢ for each additional minute, and contiguous towns rated at 4¢ for the initial minute and 1.5¢ for each additional minute. Off-peak (i.e., evening/night, weekend, and holiday) calls would be discounted by 25%. All other calls would be charged according to the intrastate toll rate schedule.

In the long run, the LMS structure with its separate access and usage charges would make possible the continuation of low access charges, reduced by remaining subsidies from competitive services. There are also two short run benefits. First, according to economic theory, the LMS structure would send the proper economic signals to ensure that subscribers value each call at least as highly as the incremental cost of that call. Second, users would have a fair amount of control over their monthly telephone bills since they would be charged for their individual usage and not according to the average usage by a diverse user group (i.e., all residential flat rate subscribers).

The Authority believes that the traditional flat rate service has served the public interest well and is generally reluctant to disaggregate large classes of service. Nor would we approve usage sensitive pricing on a mandatory basis for the residential user. Nevertheless, we find that there are compelling reasons for approving the LMS concept on an optional basis for all customers where available. On another level, we have serious concerns regarding the details of implementing the new rate.

These concerns were fully explored on the record in this case and involved 1) the ability of customers to understand the proposal and correctly estimate the benefits, if any, that would accrue to them, 2) the removal of the requirement of dialing "1" before an intrastate toll call and the associated customer perception problems, 3) significant change in local calling areas for LMS subscribers and the effect on business and trade, and 4) the substantial differential in the ratio proposed between LMS and flat service, a wide "spread" which could not be justified on a cost basis and which would have had the effect of unduly and artificially stimulating users to change from the flat rate to LMS.

During the hearing, several alternative LMS plans were discussed that remedied some or all of the above concerns. The Company ultimately abandoned its original LMS proposal and now favors the modified Select-A-Call structure shown on Late Filed Exhibit 30, Plan B. This plan would retain existing exchange boundaries, establish the monthly access charge at $6.25 for residential and $17.25 for business customers, and establish the message rate at 70% of the monthly flat rate. Usage charges would be set on an exchange rather than town basis as follows:

	Initial Minute	Additional Minute
Band 1 - all calls within the same exchange	.03	.01
Band 2 - all calls to bordering exchanges within current Extended Local (EL) area	.04	.015
Band 3 - all calls to all other exchanges within current EL area	.05	.02

25% discount 8 p.m. - 8 a.m. weekdays, all day weekends and certain holidays.

Under this plan LMS would be available in July 1983 for customers served by Electronic Switching System central offices (approximately 1,075,000 customers). It is estimated that about 60% of the customers would find this plan economical based on their current usage and it is anticipated that about 30% would subscribe. (These estimates are based on proposed rate levels and would change with changes in the approved basic exchange rates.) We believe this version of LMS will be more understandable to customers. In addition, as discussed more fully below, we are directing the Company to inform customers of the options available to them, and will allow residential subscribers to change back from LMS to flat or message service without charge during a one year trial period.

For the reasons discussed above, the Authority believes the concept of an optional usage sensitive local service to be in the public interest. In the short term, present federal polices cited above will exert substantial price pressures on residential users. Optional rates appear to be the best present answer to allow residential users to better tailor a rate which conforms to their respective usage patterns present or future. Maintenance of a large, almost universal class of flat rate customers would only marginally reduce the rate to that class in toto if LMS were not allowed. The Authority's allocation of revenue reductions and modifications of rate design considerably tempered and modified the Company's proposals to provide for an evolutionary rather than a revolutionary transition.

With the concerns regarding implementation addressed by the plan shown in Late Filed Exhibit 30B, the Authority will approve that plan at the rate levels proposed therein. We intend to monitor closely the implementation of LMS and the public response to it.

3. Basic Exchange Service

As discussed above, the Company proposed to depart from the existing 3:1 relationship between business and residence exchange service by increasing business rates $2 for each $1 increase in residence rates.

The current 3:1 relationship is recognized by all parties to have been established without regard to cost. The proposal to reduce this ratio would produce a more reasonable relationship with cost and further recognizes that alternatives for business customers to bypass the local exchange facilities are emerging. The DCC suggested a constant 2.7:1 ratio of business to residence rates. This ratio is very close to the Company's proposal.

The Company's proposal to increase rates in each exchange classification by the same dollar amount would also better align rates with cost. The 3:1 ratio for apportioning the increase between toll and basic service is also acceptable.

The Company proposed to continue the practice started in the last case by reducing the ratio between the PBX trunk rate and the individual line rate from 1.3:1 to 1:1 because of the problems of administering a rate differential between lines and trunks where customer provided equipment is used. The Company also proposed to expand the Rotary Hunting charge of $3.00 per month applicable to all lines so equipped to offset this revenue differential. In that this change represents a reasonable reassessment of the value of service relationships between these types of services in light of the current environment, we consider the proposal acceptable.

As indicated above, the Authority is committed to universal telephone service. As part of this commitment the Authority recognizes that universal service need not mean unlimited (or flat rate) service and will accordingly require the Company to investigate the feasibility of providing only measured rate types of exchange service to business customers. The Company should incorporate the results of this investigation into its next rate filing before this Authority.

4. Party Line Service

The Company proposed to withdraw four-party service and replace it with two-party service.

Since this service was made obsolete, in many locations there have been too few customers to provide party line service so that single line service has been provided at party line rates. In addition, the Company believes that customer needs for low priced service are better met by existing message service or by the proposed Local Measured Service. The Authority agrees with this rationale and will allow the withdrawal of four-party service as proposed. We do expect that in response to this approval the Company will make every effort to ensure that all current four-party customers with more than two parties on their line are provided two-party service as soon as possible.

5. Local Coin Service

In this case, as in Docket 80-04-18, the Company proposed to increase the local coin rate from 10 cents to 20 cents per call. This proposal is based largely upon the Company's judgment which, in turn, was influenced by the results of the LRIA studies which showed negative "contributions" of both the 10 cent and 20 cent rate. The Company placed little weight upon marginal cost estimates and pricing efficiency in arriving at its proposal.

The Company provided a number of cost figures for coin service. For its direct case, the Company developed a marginal cost calculation which indicated the cost per call to be 26 cents. This figure essentially reflects the total change (increase) in local coin costs anticipated to occur over the Company's 5 year forecast period, divided by the total change (increase) in local coin messages. The cost figure includes both traffic sensitive and non-traffic sensitive costs.

In response to a staff request, the Company provided a "total cost" estimate of 22.8 cents per call. This figure corresponds to an estimate of 21.6 cents per call which was developed in the last case.

The Company also developed estimates of the incremental traffic sensitive cost per local coin message. At a 20 cent coin rate, the incremental cost per message is given to be 10.8 cents, and at 10 cents per call, the incremental cost is 8.4 cents. These figures correspond to an incremental cost figure of 9 cents per call in the last case.

Although the Company's aggregate cost study for local coin service indicated that the service as a whole is unprofitable, the Company acknowledged that the proposed recurring charge for Semi-Public coin service will cover fully its embedded non-traffic sensitive cost, and that a 10 cent local coin rate would cover the average traffic sensitive cost per call. Consequently, the problem of cost recovery rests with the provision of Public Coin service, although the 20 cent rate proposed by the Company would apply to calls placed from Public as well as Semi-Public pay stations.

The pricing issue here is whether or not the local coin rate should recover non-traffic sensitive costs as well as traffic sensitive costs. The Company obviously must recover both cost elements although, as an efficiency and policy matter, it is not necessary to cover both cost components in the local coin rate. Clearly the coin rate should recover the usage charge and the Company's studies indicate that the present 10 cent rate achieves this. If the rate is increased to recover a greater portion of the revenue shortfall attributable to non-traffic sensitive costs, the Company's coin curtailment data indicate that a significant reduction in usage would result. For example, a 10 cent increase in the coin rate would produce in the aggregate only about 3.7 cents in additional revenue per call because of the reduction in usage. Given the relatively high price elasticity of coin service vis-a-vis the price elasticity for residence and business access, a more efficient recovery of non-traffic sensitive coin costs would result from a relatively slight increase to the access categories. This would be a permissible practice since both coin service and exchange access presently are provided by the Company on a monopoly basis.

In summary the Authority reaffirms the conclusion it reached on this issue in the previous general rate increase proceeding, Docket 80-04-18:

> The Authority is convinced that the highest reasonable utilization of the existing local coin facilities is in the public interest. Pursuing this goal will therefore require the balance of the total costs to provide local coin service (specifically the non-traffic sensitive costs) to continue to be recovered through higher rates for other telephone services.
>
> Although this alternative is far from ideal, maximum use of the investment in place for local coin service outweighs at present, in our opinion, any benefits gained by removing a relatively small burden from the basic exchange ratepayer, who to a large degree is also the coin telephone user.
>
> (Docket 80-04-18, Decision, pp. 14, 15).

6. Message Toll Service

The Authority recognizes that uniform increases across the mileage band spectrum result in somewhat disproportional increases between short haul and long haul calls. The problem is exacerbated by the fact that a one cent change in the initial minute charge has a significantly greater revenue impact than a corresponding one cent change in the additional minute charge.

The policy of allocating the increase in the residual revenue requirement on a ratio of 3 to 1, basic exchange to toll, has a long history in Connecticut and we find no reason to change it in this case. The addition of 28 new rate centers and consolidation of the three longest rate mileage bands would put the total MTS structure in a better position to deal with increasing competition, yet does not place an undue burden on any particular class of subscriber. Furthermore, the Authority agrees that, within the MTS structure, these changes provide a better alignment of charges and costs.

The proposed increases in operator assisted call surcharges have the effect of improving the relationship of charges to costs. Another advantage to the proposal regarding these surcharges is to place proportionally higher charges on those calls which represent the greatest collection and verification problems.

The Company proposal to time coin, sent-paid toll calls on a one minute initial period, the same as all other MTS calls, is also reasonable and is approved.

The Company also proposed to charge toll calls based on the number of minutes of conversation time in each discount period. Thus, if a call is initiated during one discount period, and the call extends over into another period, the billing would reflect the actual minutes in each period. This is found to be acceptable by the Authority and is approved.

The Company agreed during the hearing that the timing of the discount periods is a proper subject to be reviewed and we will direct that the Company conduct such a review for the next rate case filing. In addition, the Company should investigate the feasibility of fractional minute billing.

7. Wide Area Telephone Service

In support of its proposal to restructure its WATS rates, the Company pointed out that the FCC has ordered AT&T to remove prohibitions of resale and sharing from interstate MTS and WATS tariffs. It argued that removal of the prohibitions is inevitable for intrastate lines also. Resellers, the Company charged, may then subscribe to WATS which is priced lower than MTS and resell time on the WATS at a profit, a process known in the utility vernacular as "cream-skimming."

Resale and sharing is currently prohibited in Connecticut, however, and the Company did not request that this policy be changed. The Authority believes that resale and sharing should continue to be prohibited in this state and that therefore there is no need to approve the proposed restructuring. In recognition of the Company's need for additional revenues from WATS service, the Authority approves an increase in WATS equal in percentage to that for MTS.

8. Foreign Exchange Service

Foreign Exchange service was proposed to be offered only on a message rate basis for new customers. The Company proposed that on January 1, 1984 all FX lines be converted to measured service. The Company is proposed this because FX as currently offered would provide an attractive profit opportunity to resellers and sharers since it is primarily a flat rate service that enables customers to avoid traditional message toll calling. The Company claimed use of FX facilities in this manner would result in a reduction of revenues to the Company without a proportionate decrease in costs.

Since resale and sharing will continue to be prohibited, conversion of FX lines to message rate service is unnecessary and the Authority will deny the Company's proposals regarding Foreign Exchange service.

9. Private Line Rates

The cost studies performed by the Company regarding local channels grouped all local channels, regardless of their use, and did not segregate those local channels which are used for private line service from the typical subscriber channel. The intervenor position that the PL channels used for security alarm services are generally shorter in length, and therefore should be separated for cost purposes, is valid. The Authority is of the opinion, however, that this is true of PL local channels in general, and not limited to those PL channels used for alarm services. Testimony indicated that PL local channels average 55 to 70% of the length of the average of all local channels.

The alarm industry also claimed that the Company could reduce its expenses associated with PL channels by utilizing new technologies which they have as yet not done. Company witnesses responded that they have reviewed these new technologies and have made their decisions on the use of these procedures accordingly. We will direct the Company to submit the results of whatever reviews or studies of these items have already been performed.

The Authority has, in past decisions, limited increases of certain rates to a maximum percentage in order to avoid unduly disruptive increases in rates. It is apparent that the 333% increase proposed for Telpak 'C' service is such an unduly disruptive increase.

In consideration of the above, the Authority will order that the approved local channel rates be limited to a maximum of 70% of their associated embedded costs, the Telpak 'C' rates will be limited to a 100% increase, and all other private line increases will be approved as proposed.

10. Obsolete Secretarial Switchboard Rates

The claim of the Connecticut Association of Telephone Answering Services that the proposed increases are disruptive has considerable merit, especially given consideration of the fact that in the last rate case, approximately two years ago, these rates were increased by 50%.

While we agree that these services are priced below the level at which a positive contribution toward the residual revenue requirements of the Company is realized, we feel that an increase of 100% or more only two years after an increase of 50% is excessive. We will therefore approve the increases in product charges as proposed but order that all monthly rates associated with these services be increased as proposed except that the maximum increase shall be 50%.

11. Cable TV Pole Attachment Rates

After review, we find inappropriate the methodology used in the 1965 filing which established the existing pole attachment rate. The Cable TV industry intervenors proposed a method of allocating the annual carrying costs on a per pole basis which utilized various factors, including one which assigned a portion of the usable space to CATV. This method wss quite similsr to that recommended by NARUC and the FCC.

The Authority is of the opinion that the existing rate has not been justified on the record in this case. It is apparent that the existing rate should be decreased, although the CATV industry's proposed method of allocating the carrying costs, which resulted in a proposed rate of $2.03, had several factors which the Authority questions, and the entire method requires further review by all parties concerned.

We will therefore approve a rate for attachment to poles of $3.60 per pole per year, pending further review.

12. Terminal Equipment

While a 16% increase in revenues from any particular category of service might be considered reasonable, we must look at the facts surrounding that service. The Dial, Series and Manual PBX's are all obsolete systems which are, overall, providing an adequate return at current rates. Present DCF returns for these services are Manual - 56.2%, Dial - 111.2% and Series - 73.2%. While certain items within these categories warrant increases, overall the proposal of the Company is excessive.

Our review of the individual items within the obsolete group indicates that only the 755 Dial PBX, the NA 100 and the NA 409A should be increased as proposed. The remainder of the increases proposed for various terminal equipment items were reviewed and found to be reasonable.

We therefore will approve increases in the obsolete PBX category as proposed only for the 755 Dial, NA 100 and NA 409A and deny the remainder. Furthermore, all other terminal equipment rates proposed are found reasonable and will be approved.

13. Multi-element Non-recurring Charges

The present multi-element structure and charge levels were found to be acceptable in the Decision in Docket No. 80-04-18, issued in November, 1981. However, the Company has proposed a few changes which warrant discussion.

Although the Company's usual practice is to impose an additional charge to upgrade class of service, we cannot approve the application of the $20 charge to residential subscribers who try the LMS service and then after a trial period, decide to change back to flat or message rate service. Since the LMS rate is different in structure from the existing local rates, it may be difficult for customers to determine in advance if LMS will be economical for them. We believe a one year trial period is reasonable. The $20 charge may be applied to upgrades after the customer has had one year of experience.

We will approve the $40 charge for business customers who request changes and direct that it be applied to downgrading as well as upgrading services. This is based on the evidence in this case which indicates that a substantially larger percentage of business customers than residential customers would benefit from LMS. Because the risk of a wrong choice is small, the imposition of a charge appears appropriate and salutary to cover a legitimate cost.

The application of the Access Line Connection Charge for installation of a standard network interface device on an existing service is reasonable unless the service, when originally established, should have had this device as part of the Access Line Charge paid at that time. Commencing with the Decision in Docket No. 80-04-18 (reopened) dated 11/12/81, and the provision of customer convenience products, this device was to be included in the $37.75 Access Line Charge.

With regard to the $20 non-recurring charge for temporary disconnect of service which was contested by the intervenor ConnPIRG, we have considered the arguments made on behalf of college students, a group of customers who frequently request temporary disconnects. We agree that it is less costly for the Company to disconnect service temporarily than to initiate a new service. The Company's proposal to reduce the charge from $37.75 (the charge for a new service) to $20 is therefore appropriate. Since a temporary disconnect imposes certain costs on the Company, we cannot agree to eliminate the non-recurring charge entirely.

The Company's proposal to charge for a change of name resulting from marriage, death or court order would not serve the public interest in accurate telephone listing and is therefore denied. All other proposals regarding non-recurring charges are acceptable.

14. Charges for Maintenance of Simple Inside Wire

The Company proposed to expand the application of the current $.80 and $1.60 rates for maintenance of simple residence and business additional inside wire, respectively, to include the maintanance of the primary inside wire.

This proposal would have no rate impact on the approximately two-thirds of the customers who presently pay for maintenance of additional inside wire. In fact these customers would be receiving more service for their $.80/$1.60 rate since the maintenance of the primary wire would now be included.

Customers without additional inside wire currently not paying the $.80/$1.60 increment would see an increase above the basic exchange rate of this amount.

As it is with the current practice, this maintenance charge will be optional. Customers may choose to do their own repairs or have the Company do it for a fee based on time and materials.

Since this proposal simplifies the application of the current inside wire charge, continues the optional aspects of inside wire maintenance and relieves the basic exchange rates of the burden of covering these costs, the Authority will approve the Company's proposal.

It should be noted that a critical factor in the Authority's approval of this charge is its optional nature and we are therefore concerned that the Company's current billing and information practices do not provide for the necessary level of detail to enable customers to be aware of their options. Although optional in theory, in practice the offering of inside wire maintenance is now almost mandatory. In order to provide better information regarding this charge, the Authority will require the Company to identify this rate element separately on residential customer bills and inform customers of the optional nature of the service via bill inserts. This requirement is more fully discussed in Sec. IV. H. 16, below.

15. Product Charges

The increases proposed for these charges help to meet the revenue requirements for the various services. These services are primarily competitive terminal equipment items and this structure serves the Company well in the increasingly competitive business of communications terminal equipment.

We find these proposed product charges reasonable and approve them as proposed.

16. Information Presented to Customers

As competition causes increasing changes in telephone rate structures, consumers can only make intelligent choices if they have adequate information. The Authority believes the Company should adopt a policy of full disclosure of options available to customers through disaggregation of separate rate elements on residential bills, informational bill slip-ins, information in telephone directories, and service representatives who adequately explain the choices available to customers. We do not believe that service representatives are providing full information to customers at the present time. Company management should review the situation and take whatever steps are necessary to ensure that service representatives properly implement the policy of full disclosure.

We are especially concerned that customers be fully informed about the new LMS rate and about the maintenance charge for inside wiring. Details of the informational program are to be determined at a meeting of the Company, DPUC staff, and DCC.

17. Sale of Rented Terminal Equipment

A Company witness testified that SNET is presently developing a plan to offer customers the option of purchasing the telephones they are presently renting. The plan is expected to be completed during the first quarter of 1983.

We believe it is reasonable to wait a few months in order to assure the best possible plan, and we will order the Company to submit the plan for our review as soon as it is completed.

18. Termination of Service for Non-payment of Yellow Pages Charges

There is no dispute that the Company may not terminate, or threaten to terminate, regulated telephone service for failure to pay for yellow pages advertising as failure to pay for unregulated services, such as yellow pages advertising, cannot be used as a basis for termination of regulated services. The Authority believes that the Company should ensure that its staff understands this limitation as the unregulated activities increase.

I. Construction Program

The Authority has reviewed the proposed construction program and finds it basically reasonable and adequate. We are, however, concerned about the pace of the ESS conversion program, especially with the implementation of the new LMS service, which is only available in exchanges served by ESS.

Since the Company originally commenced its planned conversions to ESS, ever increasing costs, including higher interest rates, have forced the Company to extend the projected completion date. The Authority strongly urges the Company to accelerate this conversion program and shorten the time for completion as much as is possible.

With full consideration of the above, we approve the Company's proposed construction program.

J. Company Management

In the Decision in Docket 80-04-18 concerning this Company we noted our approval of the quality of management serving corporate and public interests. The impression continues. The regulated activities remain well and prudently managed. We expect this to continue. To the extent that SNETCO is embarking on unregulated endeavors we wish it well. However we expect no dimunition, digression or dilution of management efforts directed to regulated activities.

Advancement of minorities and women into and within upper management and officer levels has been slow. We believe, however, that this is attributable to the cutback in personnel the Company is presently undergoing and the disruption associated with deregulation. Once equilibrium is restored, we expect that management will be able to give more attention to the process of assuring that women and minorities are included in the pool of promising individuals who are actively sought out, encouraged, trained, and promoted.

The Authority will order the Company to submit its Affirmative Action Plan before the end of January 1983 and annually thereafter, and further to report actual results as of mid-year and year end.

V. FINDINGS OF FACT - TABLE IV

1. The test year proposed by the Company for this rate case application is the twelve months ended December 31, 1981. This test year is acceptable for purposes of Section 16-1-54, Regulations of Connecticut State Agencies.

2. The appropriate intrastate rate base for purposes of this rate case is $993,205,000.

3. The Company's present rate of return on intrastate rate base is less than just, reasonable and adequate to allow the Company to fulfill its statutory duty to the public.

4. The rate of return on the intrastate rate base the Company would receive under its requested revenue requirement would be more than just, reasonable and adequate to enable the Company to provide properly for the public convenience, necessity and welfare.

5. The Authority finds that the cost rate of common equity for the Company is 16.20%, and accepts the Company's proposed cost rates for long term debt, short term debt, and preferred stock. When applied to the capital structure proposed by the Company and found reasonable by the Authority, the overall rate of return on the intrastate rate base is 12.68%, as shown below.

SNETCO Capitalization and Capital Costs

Class of Capital	Percentage	Cost	Weighted Cost
Short Term Debt	3.0%	12.59%	.38%
Long Term Debt	40.6%	8.79	3.57
Preferred Stock	5.1	8.15	.42
Common Equity	51.3	16.20	8.31
Total	100.0%		12.68%

This overall return represents the minimum necessary to enable the Company to attract capital at reasonable rates, and to assure continued, adequate and safe service.

6. A revenue increase of $89,024,000 after curtailment, or approximately 12.3%, is required to provide the necessary 12.68% rate of return on intrastate rate base.

7. The proposed amendment to the applicant's existing schedule of rates on file is unreasonably discriminatory and more than just, reasonable and adequate to enable the Company to provide properly for the public convenience, necessity and welfare.

8. Rates and revenues at the level approved are not unreasonably discriminatory nor more or less than just, reasonable and adequate to provide properly for the public convenience, necessity and welfare.

9. Table IV, below, shows the income statements which reflect the Company's requested revenue requirement, the results of the Authority's adjustments and the revenues deemed reasonable by the Authority.

TABLE IV

(000 Omitted)

Income Statements Reflecting

	Company's Requested Revenue Requirements	Results of Authority Adjustments	Revenue Allowed by Authority
Operating Revenues	$ 1,039,815	$ 1,043,615	$ 1,043,615
Proposed Increase	127,944	127,944	89,024
Total Operating Revenue	$ 1,167,759	$ 1,171,559	$ 1,132,639
Total Operating Expenses	$ 737,986	724,016	724,016
Net Operating Revenues	$ 429,773	$ 447,543	$ 408,623
Total Operating Taxes	243,447	253,045	231,338
Operating Income	$ 186,326	$ 194,498	$ 177,285
Other Income (Net)	1,603	539	539
Income from Operations	$ 187,929	$ 195,037	$ 177,824
Interest Deductions	59,478	59,478	59,478
Net Income	$ 128,451	$ 135,559	$ 118,346
Preferred Dividends	5,762	5,762	5,762
Available for Common	$ 122,689	$ 129,797	$ 112,584

11. The Remaining Life method of calculating depreciation will allow the Company to recover its capital investment without over or under recovery and will minimize the risks of capital losses brought about by technological advances and competition.

12. Both the proposed Equal Life Group and existing Vintage Life depreciation methods provide for full capital recovery, but the Vintage Life method is fair to both ratepayers and the Company while the ELG method would increase depreciation charges, unfairly tipping the balance in favor of the Company.

13. Technological advances and the deregulation of certain aspects of telephone services, and the entry of telephone companies into areas from which they were excluded, are having and will continue to have significant impacts on the nature and cost of monopoly telephone service which will continue to be regulated.

14. The growth of competition in the telephone and telecommunications industry will tend to reduce the existing "revenue contribution" or subsidy from competitive services to basic exchange rates, causing the basic rates to rise toward the level of their costs.

15. The concept of residual pricing of basic exchange rates on the basis of value of service has led to rate structures which are inconsistent with the relative costs of providing the services.

16. Allocating the revenue increase on a 2 to 1 ratio for business to residential basic exchange flat rates and increasing the basic exchange rates in each of the three exchange classifications by the same dollar amount will tend to move the rates more in line with their respective costs of service without being disruptive.

17. The policy goal of universal telephone service has been achieved and must be maintained. Introduction of an optional rate structure based on usage sensitive pricing, designed with a subsidized access charge and usage charges based on incremental costs, will serve the goal of keeping essential telephone service affordable.

18. As approved by this Authority, Local Measured Service will benefit those who make fewer and shorter calls than average.

19. Subscribers who choose Local Measured Service will have the same toll-calling areas as other subscribers to basic exchange service, will be able to distingish toll calls by the need to dial an initial 1, and will have local calls priced at significantly lower levels than toll calls.

20. Residential subscribers to Local Measured Service may change to flat or message rate service without charge during a trial period of a year after subscribing to LMS.

21. The application of the maintenance charge to the primary inside wire, as well as the additional wiring already covered by the charge, for those who wish the Company to maintain such wiring, is a necessary part of the transition to a less regulated environment.

22. The public interest requires that the Company adopt a policy of full disclosure of the options now available to subscribers with deregulation. Such a policy requires disaggregation of charges on residential bills, informational bill slip-ins, directory information, and service representatives who provide full information to customers.

23. The local coin rate of 10¢ covers the associated traffic-sensitive costs of each call and provides the highest reasonable utilization of the existing local coin facilities; subsidy of non-traffic sensitive costs from basic exchange rates is therefore in the public interest.

24. Changes in business rate structure which may eventually be necessary in the new regulatory environment may be disruptive and should not be mandated in advance of the need.

25. Continuation of the prohibition in Connecticut of resale and sharing removes the need to make disruptive changes in the structures of Foreign Exchange and WATS rates.

26. In view of the evidence that private line local channels average 55 to 70 percent of the average length of all local channels, rates for such channels should be a maximum of 70% of the associated embedded costs.

27. In order to avoid disruptive increases, Telpak "C" rates should be increased no more than 100%, and increases for obsolete secretarial switchboard rates should be limited to 50 percent.

28. As discussed in Section IV.H.12, above, the proposed increases in rates for obsolete PBX equipment, with three exceptions, are excessive and should be denied.

29. The evidence indicates that CATV pole attachment rates should be decreased from the present \$4.50 per pole per year; pending further review of data and methodology, a \$3.60 rate is reasonable.

30. Subscribers whose service was installed after November 16, 1981 were entitled to a standard network interface device at the time service was initiated; if it was not provided, the Company should install it upon request and at no additional charge.

31. Reduction of the \$37.75 charge for temporary disconnect of service below the proposed level of \$20 is not warranted because of the costs imposed on the Company by a temporary disconnect.

32. It is not in the public interest to charge for a change of name resulting from marriage, death or court order.

33. Acceleration of the construction program to convert central offices to Electronic Switching Systems would be in the public interest, especially since LMS will only be available in areas served by such offices.

VI. CONCLUSION AND ORDERS

Based upon the foregoing, the requested revenue increase is denied.

Additional revenue in the amount of \$89,024,000 per annum over the annual intrastate revenues received by the Company under present rates and charges is approved, subject to compliance with the following orders:

1. The Company shall file an amended schedule of rates and charges in conformance with this Decision and designed to produce the allowed increase in annual revenues after curtailment.

2. The Company shall calculate curtailment using the intermediate-run approach discussed in Section IV.F., above.

3. The Company shall continue to file with the Department on a monthly basis the rate of return on both the end of the period and average common equity for the previous 12 months.

4. The Company shall promptly arrange a meeting with DPUC staff, including a representative of the Consumer Assistance and Information Division, and the Division of Consumer Counsel to discuss the Company's plans to implement its informational program as described in Section IV.H.16, above.

5. Company management shall take all necessary steps to assure that their customer representatives and other employees provide full information to customers and that they properly implement the policy that regulated service may not be terminated for failure to pay for unregulated services.

6. The Company shall promptly submit to the Authority the results of any reviews or studies it has previously completed which deal with new technologies that could be applied to private lines.

7. As it enters into unregulated activities, the Company shall maintain its accounting and financial records in such a manner that all costs, capital and operating, related to unregulated business can be properly identified and disaggregated.

8. The Company shall submit its Affirmative Action Plan before the end of January 1983. Further, it shall report actual results of the Plan as of mid-year and year end.

9. As soon as it is completed, but no later than April 1, 1983, the Company shall submit its plan to sell terminal equipment to customers who are now renting it.

10. Commencing September 1, 1983 and bi-monthly thereafter, the Company shall report to the Authority the numbers of residential and business LMS subscribers. Compilations shall be provided showing the average bill by subclass (business and residential) and the number of regrades to former service that have been requested.

11. In its next rate filing the Company is directed to include:
   a. a full showing of marginal costs for at least the major service offerings,
   b. embedded cost studies for private line services,
   c. a study of the times for discount periods and appropriate discount amounts,
   e. the results of its investigation of the feasibility of providing only measured exchange service to business customers.

We hereby direct that notice of the foregoing be given by the Acting Executive Secretary of this Department by forwarding true and correct copies of of this document to parties in interest, and due return make.

Dated at New Britain, Connecticut, this 17th day of November, 1982.

David J. Harrigan

Marvin S. Loewith DEPARTMENT OF PUBLIC UTILITY CONTROL

Thomas H. Fitzpatrick

State of Connecticut)
) ss. New Britain, November 17, 1982
County of Hartford)

I hereby certify that the foregoing is a true and correct copy of Decision, issue by the Department of Public Utility Control, State of Connecticut.

Attest: Raymond P. McGannon

Raymond P. McGannon
Acting Executive Secretary, Department of Public Utility Control