

5.C.

Application No. 59351  
 Exhibit No. 50  
 Witness D. Gardner  
 Commissioner L. Grimes  
 Adm. Law Judge J. Haley

CALIFORNIA PUBLIC UTILITIES COMMISSION  
 Revenue Requirements Division  
 Rate of Return Unit

STUDY OF THE  
COST OF CAPITAL  
AND  
RATE OF RETURN  
FOR  
SOUTHERN CALIFORNIA EDISON COMPANY

Application No. 59351

San Francisco, California  
 March 18, 1980

8108110710

M E M O R A N D U M

This report was prepared by the staff of the Financial Analysis Branch of the Commission's Revenue Requirements Division in connection with Southern California Edison Company's request to increase rates for electric service as set forth in Application No. 59351.

Dana T. Gardner, Research Analyst II, was responsible for the preparation of this report, under the general supervision of Terry R. Mowrey, Financial Examiner IV, and James D. Pretti, Principal Financial Examiner.

TABLE INDEX

<u>Table No.</u>	<u>Title</u>
1	Prime Rate - Discount Rate.
2	Yields on Public Utility Bonds - Newly-Issued vs. Distributed.
3	Trends in Interest Rates.
4	Nominal Interest Rates - Major California Utilities, 1969 - 1978.
5	Southern California Edison Company - Effective Interest Rate on Debt, December 31, 1980, 1981 and 1982.
6	Times Long-Term Debt Interest Earned - Edison and Selected Utility Groups, 1974 - 1978.
7	Southern California Edison Company - Effective Dividend Rate on Preferred Stock, December 31, 1980, 1981, 1982.
8	Southern California Edison Company - Common Stock Book Value, Dividends and Earnings, 1970 - 1979.
9	Earnings Rate on Average Common Equity - Edison and Selected Utility Groups, 1974 - 1978.
10	Earnings Rate on Average Total Capital - Edison and Selected Utility Groups, 1974 - 1978.
11	Comparison - Dividend Payout Ratios - Edison and Selected Utility Groups, 1974 - 1978.
12	Southern California Edison Company - Capital Structure, 1969 - 1978.
13	Average Common Equity Ratio - Edison and Selected Utility Groups, 1974 - 1978.
14	Southern California Edison Company - Financing, 1969 - 1978.
15	Net Operating Income - Edison and Selected Utility Groups, 1974 - 1978.
16	Operating Revenues - Edison and Selected Utility Groups, 1974 - 1978.
17	Operating Expenses - Edison and Selected Utility Groups, 1974 - 1978.
18	Operating Ratios - Edison and Selected Utility Groups, 1974 - 1978.

TABLE INDEX  
(Continued)

<u>Table No.</u>	<u>Title</u>
19	Average Net Plant Investment - Edison and Selected Utility Groups, 1974 - 1978.
20	Ratio-Operating Revenues to Average Net Plant Investment Edison and Selected Utility Groups, 1974 - 1978.
21	Ratio - Net Operating Income to Average Net Plant Investment - Edison and Selected Utility Groups, 1974 - 1978.
22	Determination of Rates of Return Required to Recover Imbedded Costs of Debt and Preferred Stock at various Assumed Rates of Return on Common Equity - Average Year 1981 and 1982.
23	Recommended Rate of Return.
Appendix	List of Companies Used in Study.

QUALIFICATIONS AND  
PREPARED TESTIMONY OF DANA T. GARDNER

Q.1 Please state your name and business address.

A.1 My name is Dana T. Gardner and my business address is 455 Golden Gate Avenue, San Francisco, California 94102.

Q.2 By whom are you employed and in what capacity?

A.2 I am employed by the California Public Utilities Commission in the Revenue Requirements Division, Rate of Return Section as a Research Analyst.

Q.3 Please briefly describe your educational background and work experience.

A.3 I graduated from Sonoma State University in 1975 with a Bachelor of Arts degree in Economics. I subsequently earned a Master's degree in Economics at San Francisco State University.

I have been employed by the Commission for approximately 2½ years during which time I have participated in various Commission-instituted investigations as well as general rate proceedings. I was originally assigned to the Finance and Accounts Division's Economic Analysis Unit. This unit served as the Division's special projects group and was responsible for evaluating the financial impact of public utility construction programs. I joined the Rate of Return Section in February 1979. I have previously prepared cost of capital studies and recommended rates of return in testimony before this Commission.

Q.4 What are your responsibilities in this proceeding?

A.4 I am responsible for preparing a study of the cost of capital for Southern California Edison Company (Edison) and recommending a reasonable rate of return for the utility for test year 1981.

Q.5 What are your recommendations in this proceeding?

A.5 I am recommending that Edison be authorized a return on common equity of 13.60% for the test year 1981. I am also recommending that Edison be granted a step rate increase in 1982 to recognize financial attrition so that the utility will have a reasonable opportunity to earn an equivalent return in that year. In my opinion, a 13.60% return on common equity is fair and reasonable to both Edison and its approximately eight million customers. This recommendation equates to a rate of return on rate base of 10.38% in 1981 and 10.50% in 1982.

Q.6 How does your recommendation compare with Edison's requested rate of return?

A.6 The following table compares Edison's estimated capital structure, capital costs and requested rate of return with the results of my study. The major differences between my recommended rate of return and Edison's are due to (a) the recommended return on common stock equity, and (b) my use of average-year imbedded costs rather than end-of-year capital costs.

:Line:		: Capitalization :		: Weighted :
: No.:	Component	: Ratios :	Cost	: Cost :
		(A)	(B)	(C)

Edison's Requested Rates of Return

1	<u>Year-End 1981</u>			
2	Long-Term Debt	47.00%	8.03%	3.77%
3	Preferred Stock	13.00	7.80	1.01
4	Common Equity	40.00	15.00	6.00
5	Total	100.00%		10.78%
6	<u>Year-End 1982</u>			
7	Long-Term Debt	47.00	8.30	3.90
8	Preferred Stock	13.00	7.90	1.03
9	Common Equity	40.00	15.00	6.00
10	Total	100.00%		10.93%

Staff's Recommended Rates of Return

11	<u>Average-Year 1981</u>			
12	Long-Term Debt	47.00	8.29	3.90
13	Preferred Stock	13.00	7.98	1.04
14	Common Equity	40.00	13.60	5.44
15	Total	100.00%		10.38%
16	<u>Average-Year 1982</u>			
17	Long-Term Debt	47.00	8.51	4.00
18	Preferred Stock	13.00	8.12	1.06
19	Common Equity	40.00	13.60	5.44
20	Total	100.00%		10.50%

Q.7 Why did you base your recommendation on average-year capital costs?

A.7 Prior to the Commission's policy of setting rates so that major utilities could go at least two years without general rate relief,<sup>1/</sup> the staff's rate of return recommendations were based on capital costs estimated for December 31 of the test year. Year-end ratios were used in recognition of the fact that rates would remain in effect for a period of time extending beyond the test year. A year-end basis is not appropriate when specific allowances for financial attrition are included in the recommendation. Step rates, if based on year-end embedded costs, would in effect allow rate relief in excess of the utility's actual capital costs during the period that rates were in effect. For this reason, I based my recommendation on the average cost of capital for 1981 and for 1982. The recognition of financial attrition and average costs should provide Edison with a reasonable opportunity to earn the authorized return on common equity in both years.

Q.8 Why are you recommending a step increase in Edison's rate of return for 1982, the year following the test year?

A.8 If I were to recommend one rate of return to cover both years, Edison would have no opportunity to earn the recommended return on common equity in 1982 because of financial attrition. The current Commission policy for energy companies of setting one return based on year-end capital costs causes utility earnings to fluctuate, rising in years of general rate relief and falling, often markedly, after the test year. A more stable earnings pattern, which would result from the use of step rates, would have a positive effect on the financial community's attitude toward investment in Edison and the yields required on the company's new debt issues.

---

<sup>1/</sup> Decision No. 89711, Southern California Edison Company, December 18, 1978.



Step rates are also desirable from the point of view of the ratepayer. Under the year-end method, the rate of return is based on costs which are somewhat higher than the interest and dividends the utility will actually pay in the test year. The company is overcompensated for the cost of senior securities in years of general rate relief and undercompensated in following years. Under a step rate policy, using average capital costs, consumers' electric rates would more accurately reflect the utility's true capital costs.

Step rates are consistent with the Commission's stated policy of setting rates "so that major utilities can reasonably go at least two years without general rate relief."<sup>1/</sup> In Decision No. 89711, dated December 12, 1978, the Commission recognized that the year-end approach would not enable a utility to earn the authorized return on equity in the year following the test period and therefore authorized a somewhat higher return than it otherwise would have. The Commission stated, "If we were to consider a test year earlier than 1981 for Edison's next general rate proceeding we would authorize a lower return on equity."<sup>2/</sup> Step rates would eliminate the need to grant an artificially high return in the test year in order to insure adequate earnings in the subsequent years.

Q.9 What do you mean by the term financial attrition?

A.9 Financial attrition can be defined as the increase in a utility's weighted cost of long-term debt and preferred stock due to the issuance or retirement of senior securities. The interest and dividend rates on Edison's outstanding

---

<sup>1/</sup> Decision No. 89711, December 12, 1978, Southern California Edison Company, page 129.

<sup>2/</sup> Ibid. page 129.

senior securities are below the yields currently required by the market. Consequently, Edison's weighted cost of capital will rise with every increment of new financing planned for the near future. Failure to recognize these increased costs would result, all other factors remaining constant, in Edison's return on common equity falling below any level found fair and reasonable in this proceeding.

Q.10 Have step rates for financial attrition been authorized for other utilities?

A.10 Step rates for operational attrition have been authorized for water companies for several years primarily as a means to offset the effects of inflation and reduce the frequency of general rate applications. Recent Commission decisions for water utilities have included allowances for financial attrition in recognition of increasing capital costs.<sup>1/</sup> The Commission staff first recommended attrition allowances for a major energy utility in Pacific Gas and Electric Company's most recent general rate application (Decision No. 91107, dated December 19, 1979). Although step rates were not adopted, the concurring opinion of Commission President Bryson urged the staff to "give this alternative rate-making procedure serious attention in the future."<sup>2/</sup> President Bryson listed three benefits of step rates:

"First, under such step rates, the utility customers would pay for inflationary cost increases as they occur, not before the fact. Second, step rates would contribute to stabilizing annual earnings, which would likely create a more favorable reception in the financial community for its stock and bond offerings. In contrast, fluctuating earnings are almost inevitable under the present approach, appearing sharply higher in the first year after a rate decision in contrast to the previous as well as the following year. This fluctuation

---

<sup>1/</sup> Decision No. 91024, November 20, 1979, Southern California Water Company; Decision No. 90425, July 3, 1979, California Water Service.

<sup>2/</sup> Decision No. 91107, Pacific Gas and Electric Company, concurring opinion of Commissioner John E. Bryson, page 4.

likely causes debt and equity offerings to become more expensive. Finally, in terms of an incentive for improved performance by the utility, a step rate adjustment would give the company a reasonable basis for measuring operating performance. Under our adjustment granted today, any operating improvement in 1981 will probably go undetected in 1981 earnings because it will be submerged by inflationary cost increases."1/

- Q.11 Does your rate of return recommendation consider an allowance for operational attrition?
- A.11 No, it does not. Operational attrition and the proper methodology for implementing step rates is the subject of Exhibit No. \_\_\_\_.
- Q.12 How did you develop your rate of return recommendation?
- A.12 The recommended rate of return results from an estimation of the costs of the three major components of capital: long-term debt, preferred stock and common stock equity. Determination of the costs of the first two components is relatively straightforward, although some assumptions must be made regarding interest and dividend rates in the future. The determination of a fair and reasonable return on common equity is based largely on informed judgment.
- Q.13 How did you develop Edison's imbedded cost of long-term debt for the test period?
- A.13 Edison's weighted cost of debt was estimated by combining the utility's most recent recorded debt costs with rates assumed on proposed financing. Table 5 shows this development through December 31, 1982. The company has planned debt issuances totaling \$400 million in 1980, \$300 million in 1981 and \$300 million in 1982. After reviewing current interest rate trends, I have concluded that the 1980 and 1981 debt financings, not already negotiated, will carry coupons greater than the 9.75% rate assumed by Edison. I have assumed that the company's proposed 1980 Series NN will bear a rate of 13.00%; the 1981 Series OO will yield 10.00%; and the 1982 Series PP will reflect Edison's original estimation of 9.75%. The company's most recent issue, dated October 11, 1979, has an effective interest rate of 12.06%.

---

1/ Decision No. 91107, Pacific Gas and Electric Company, concurring opinion of Commissioner John E. Bryson, pages 1-2.

Edison's proposed financing and required bond retirements will cause the embedded cost of long-term debt to increase from 7.40% at year-end 1979 to 8.63% at the end of 1982. The embedded costs used to determine the rate of return and financial attrition recommendations are based on averages of year-end annual charges and year-end net proceeds.

Q.14 How did you determine Edison's preferred stock dividend rate?

A.14 The company proposes to offer three series of preferred stock before the end of 1982. \$75 million is scheduled for issuance in 1980, another \$75 million in 1981 and \$50 million in 1982. I have assumed that these series will carry dividend rates of 12.75%, 9.75% and 9.50%, respectively, which are consistent with the interest rates I applied to Edison's new debt financings. As with the cost of long-term debt, the overall rate of return recommendations are based on the average cost of preferred stock outstanding.

Q.15 How have you determined that a 13.6% return on common stock equity is fair and reasonable?

A.15 My recommendation is based on an analysis of the many factors, both tangible and intangible, which affect the cost of equity capital to Edison. Some of the quantitative information that I reviewed are presented in the tables and corresponding explanations attached to this report. I will discuss some of the qualitative considerations in the remainder of my direct testimony.

The return on equity recommendation is by necessity a matter of informed judgment. There is no precise mathematical formula which can predict with any accuracy the cost of equity capital in the future. I was guided in my

analysis by standards established by U.S. Supreme Court decisions and prior decisions of this Commission.<sup>1/</sup> These standards can be summarized as follows:

1. The return to the equity holders should be commensurate with the returns on investments in other enterprises having similar risks.
2. The return should be sufficient to enable the utility to attract capital at reasonable rates and to assure confidence in the utility's financial integrity.
3. The return should balance the interests of both the investors and customers of the utility.

Q.16 Do you agree with Edison's projected capital structure for the test year?

A.16 Yes. Edison based its rate of return request on a target capital structure of 47% debt, 13% preferred stock and 40% common equity for both 1981 and 1982. The company's financing plans and future earnings should enable the achievement of these goals.

The common equity ratio is one measure of the risk of investment in a particular company. In general, the lower the ratio, that is the greater the leverage, the greater is the risk. Table 12 shows that Edison's equity ratio has been increasing in the past few years. This fact coupled with the company's stated goal of achieving a 40% ratio will have a favorable impact on the investment community and should enhance the utility's financial flexibility.

---

<sup>1/</sup> FPC vs. Hope Natural Gas (1943) 320 U.S. 591,603.

Bluefield Water Works and Improvement Company vs. West Virginia Public Service Commission (1923) U.S. 677,692-93.

Decision No. 74917, Pacific Telephone and Telegraph Company (1968) 69 CPUC 53, 67-68.

Q.17 What is the company's current bond rating?

A.17 Edison's first mortgage bonds and preferred stock are rated AA by Standard and Poor's and Aa by Moody's Rating Service. Moody's describes Aa bonds as "high quality by all standards." "Together with the Aaa group they comprise what are generally known as high grade bonds."<sup>1/</sup> They are rated lower than the best bonds because margins of protection may be smaller or long-term risks appear somewhat larger than in Aaa securities.

Q.18 How does Edison's resource plan affect investor's perception of risk?

A.18 After the accident at Three Mile Island the investment community reassessed its position toward nuclear energy. This was evidenced by the drop of approximately 6% in stock prices for utilities engaged in nuclear energy. Edison is currently constructing four nuclear units, San Onofre 2 and 3 and Palos Verdes 1 and 2. Such a major investment in nuclear energy will increase the risk perceived by investors and the yields required on Edison's new security issues. In my opinion, the yield differentials will not be substantial as the financial community still believes that the majority of nuclear plants now under construction will be licensed and become operational.

Q.19 Does the Energy Cost Adjustment Clause (ECAC) reduce the risk to a utility's common equity holders?

---

<sup>1/</sup> Moody's Public Utility Manual, 1979, p. viii.

A.19 Yes. The purpose of ECAC is to allow a utility to recoup, in a timely fashion, increases in the cost of energy. Under current practices Edison may file once every four months for an adjustment to the ECAC balancing account; the company does not have to file a general rate application to recover the increased costs. The expedited hearing process and the assurance of compensation for energy expenses reduces the risk to Edison's equity holders.

Q.20 Does the Commission's treatment of Edison's investment tax credit reduce the company's risk when compared to other utilities?

A.20 Yes. For ratemaking purposes Edison flows through the 4% portion of the investment tax credit, however; the company elected to normalize (ratably flow through) the additional 6% allowed by the Tax Reduction Act of 1975. The difference between the amount of ITC generated and that currently flowed through is realized by the company as increased cash flow. As a result, the risk to Edison's stockholders is lower than the risk associated with a company which flows through the entire investment tax credit.

Q.21 How did you determine that a return on equity of 13.6% would be commensurate with returns on investments of similar risk?

A.21 In order to determine a recommendation for Edison that would provide a return comparable to that received on similar risk investments, I compared Edison's earnings performance and financial data with statistics of other public utility companies. I selected three groups of utilities for comparative purposes. The first group is composed of the fifteen largest electric utilities (exclusive of Edison) which maintained a double-A bond rating with both Moody's and Standard and Poor's. The second group contain the fifteen largest electric utilities in the United States

(exclusive of Edison) regardless of bond rating. The third group is the Dow Jones' selection of fifteen utility stocks, of which Edison is a part. Data related to each of these three groups and Edison are shown in the tables attached to this report. It should be noted that the figures in the tables are based on recorded information and do not consider ratemaking adjustments. Some of the companies could possibly have experienced earnings above or below a reasonable norm during the period. In addition, differences do exist between various companies with respect to types of generating plants, customer mix, types of service provided, regulatory climate, and local operating environments. Despite these differences it is my opinion that these utilities present a valid sampling of comparative companies because they are large regulated public utilities and have business and financial risks similar to those of Edison.

Q.22. How did you consider the interests of consumers in your recommendation?

A.22. My recommendation strikes a balance between the two primary interests of consumers: the short-term concern of obtaining the lowest possible rates and the long-run interest of maintaining good electric service. In that regard, I chose a return on equity that I believe fairly compensates the investor, allowing Edison to continue to attract capital at reasonable rates, but does not overly compensate the equity holders compared to similar investments. My recommendation of a rate of return based on average capital costs and step rates provides additional protection to consumers by more accurately reflecting the utility's actual capital costs.



Q.23 What other factors did you consider in arriving at your recommendations?

A.23 Some of the additional factors which I considered are as follows:

- a. The fact that Edison is engaged in a business which is affected with the public interest, is subject to regulation, and must provide electric service at reasonable rates.
- b. The Commission's Regulatory Lag Plan and stated policy that rates be set so that a utility can reasonably go at least two years without general rate relief.
- c. The essentiality of Edison's product to the public.
- d. Edison's capital requirements and financial history.
- e. Economic conditions - the effects of continued inflation and increases in interest rates.
- f. Interest coverage requirements.

Q.24. Do you have any further comments?

A.24. Yes. It is my opinion that a return on common equity of 13.60% is fair and reasonable to both the investors and customers of Edison. A return at this level would provide for moderate increases in retained earnings, allow the company to obtain future financing at reasonable rates, and provide after-tax interest coverages of 2.66 times in 1981 and 2.63 times in 1982. My recommendation based on average costs and step rates for financial attrition protects the ratepayer by reflecting interest and dividend costs as they are estimated to occur.

It is my recommendation that Southern California Edison Company be granted a return on common equity of 13.60%. The corresponding rates of return, applicable to the rate base determined in this proceeding, are 10.38% in 1981 and 10.50% in 1982.

Q.25. Does this conclude your testimony?

A.25. Yes it does.

## E X P L A N A T I O N O F T A B L E S

This study contains 23 tables developed in the course of determining a reasonable rate of return for Southern California Edison Company. Some of the tables present statistics comparing Edison's financial performance with that of 15 AA-rated electric and combination utilities, the 15 largest utilities and the Dow Jones's 15 utility stocks over the past five years. Others present trends in interest rates and ten-year summaries of Edison's capitalization, book value, earnings and sources of financing.

Table No. 1 presents the fluctuations in the bank prime interest rate and federal discount rate from July 1976 to January 1980. The prime rate, the rate charged by the nation's largest commercial lenders to their most preferred customers, began a steady upward climb in 1977. By September 1979, the prime rate reached a level more than double the previous low of  $6\frac{1}{4}\%$ . In October 1979, the prime rate increased sharply from  $13\frac{1}{4}\%$  to 15% after the Federal Reserve Board announced a major change in monetary policy. The earlier record high of 12% was established in July 1974. The discount rate, that rate charged by the Federal Reserve on loans to member banks, has shown a similar upward trend, reaching the current level of 12% in October 1979.

Table No. 2 compares yields on newly-issued public utility bonds with yields on seasoned issues, grouped by Moody's Rating Service, Aaa to Baa, for the period April 1977 through December 1979. This table shows that the yields in all categories generally followed the same trends as short-term rates, gradually increasing through September 1979, with sharply higher rates recorded for the remainder of 1979.

Table No. 3 shows interest rate trends in bonds and preferred stocks and interest rate variations for prime commercial paper and government bills on an average annual basis for the years 1974 through 1978. Monthly fluctuations are shown for all categories from July 1977 through November 1979. The trends are generally consistent with the patterns exhibited in Tables Nos. 1 and 2.

Table No. 4 is a ten-year summary of nominal interest rates developed for Edison and seven other large California utilities. Increases registered over the years reflect (a) periodic sales of new bonds at rates exceeding the average cost of debt outstanding, (b) refunding of low-coupon bonds at maturity, and (c) bond retirements in accordance with sinking fund requirements. The increase in Edison's nominal interest rate was well below the average of the other utilities for the ten-year period. Over the last five years, Edison has experienced a rate of increase comparable to the other utilities.

Table No. 5 presents the staff's development of Edison's effective interest rates on long-term debt as of December 31, 1980, 1981, and 1982. Two long-term debt issuances are scheduled for 1980, Series LL, negotiated in August 1979, will carry an interest rate of  $9\frac{5}{8}\%$  and the staff has assumed Series NN will bear a coupon rate of 13.00%. The interest rates of 10.00% on the planned 1981 issue and 9.75% on the 1982 offering are also staff estimates. The company's most recent bond issue, Series MM, dated October 11, 1979, has an effective rate of 12.06%.

Table No. 6 presents Edison's after-tax interest coverage for the period 1974 to 1978, compared with the other groups of selected companies. Edison's average interest coverage of 2.49X exceeds the coverages experienced by the selected groups. Only five utilities recorded average interest coverages greater than that experienced by Edison over the five-year period.

Table No. 7 shows the staff's estimate of the effective dividend rates for the company's preferred stock as of December 31, 1980, 1981, and 1982. The dividend rates on the planned stock issues were estimated to be 25 basis points below the interest rates on long-term debt, a yield spread which the staff considers reasonable. The balance of preferred stock has been reduced each year for conversion of the Convertible Series 5.20% to common stock. The Original Preferred Stock with a par value of \$4 million has been excluded from the development of the cost of preferred because of its feature of participation with the common stock in the receipt of dividends.

Table No. 8 summarizes data related to Edison's common stock book value, dividends and earnings for the years 1970 through 1979. During the period, book value increased approximately \$1.2 billion. Earnings available for common totaled approximately \$1.6 billion of which \$900 million was paid out in dividends. Book value per share increased annually and the annual dividend rate per share has shown a steady increase from \$1.50 in 1970 to \$2.72 in 1979.

Table No. 9 compares Edison's earnings rates on average common equity with those of similar utilities for the period 1974 through 1978. Edison's performance was continually below average for those years. The trend over this period, however, has exceeded the earnings trends for the selected companies.

Table No. 10 shows a trend for Edison's earnings on total capital similar to that exhibited in Table No. 9. Although the company's earnings during the five years improved at a faster rate than those of the comparative groups, Edison's earnings rate on average total capital remained below average for the entire period.

Table No. 11 compares Edison's dividend payout ratio with those of the other selected companies. Applicant's conservative payout ratio has mitigated to a certain extent the amount of external funds needed to meet construction expenditures. Since 1976 the payout ratio has shown an increasing trend which is consistent with the company's plan to gradually bring the ratio in line with the industry average. Higher payout ratios should have a positive effect on the market price of the company's common stock which is currently selling below book value.

Table No. 12 contains a summary of Edison's capital structure for the years 1969 through 1978. Since 1975 the company has placed greater emphasis on equity financing reducing the debt ratio from 51.55% to 47.94% in 1978. Edison based its rate of return request on target capital ratios of 47% debt, 13% preferred and 40% common stock equity. Staff concluded that, given the company's future financing plans, these ratios could be attained in the test period.

Table No. 13 compares Edison's average common equity ratio for the past five years with the averages of the selected companies. Edison's equity ratios have been comparable to those of the other double A-rated utilities. The Dow Jones stocks recorded slightly

higher averages; the fifteen largest electricians recorded slightly lower averages. The equity ratios for Edison in this table differ from those presented in Table No. 12 which show capital structures based on year-end data.

Table No. 14 is a general summary of the company's long-term financing from 1969 to 1978. Total financing over the ten years amounted to approximately \$3.9 billion of which \$1.4 billion was generated internally. The allowance for funds used during construction, AFUDC, has grown considerably since 1973. In 1978 this non-cash income item was greater than the company's net income after dividend payments.

Table No. 15 shows that for the five year period 1974-1978 Edison's net operating income grew at a slower rate than those rates experienced by the comparative companies.

Table No. 16 shows that Edison's operating revenues have grown at a rate comparable with those of the selected groups. The revenue trend has surpassed the growth rate in the company's average net plant investment as shown in Table No. 19.

Table No. 17 reveals that the rate of increase in Edison's operating expenses has been approximately the same as the trends for the Dow Jones utility stocks and the nation's fifteen largest electric companies. The AA-rated electric and combination utilities experienced greater increases in operating expenses than did Edison.

Table No. 18 brings together Tables Nos. 16 and 17 by presenting ratios of operating expenses to operating revenues. All groups have

shown an increasing ratio over the past five years, indicating that expenses have been increasing at a faster rate than revenues.

Table No. 19 shows the average net plant investment of Edison and the selected utility groups. Net plant investment consists of gross utility plant, less depreciation and amortization reserves, advances for construction and deferred income taxes. Edison's average net plant investment increased by 40% over the period compared to increments ranging from 30% to 47% for the other groups. Edison experienced the same average growth rate as the AA-rated utility group.

Table No. 20 compares ratios of operating revenues to average net plant investment for Edison and the other utility groups. Applicant's growth rate over the period was comparable to that experienced by the fifteen largest electric companies, but lagged behind the trends of the other two groups.

Table No. 21 presents the ratio of net operating income shown in Table No. 15 to average net plant investment which was presented in Table No. 19. Edison's total return over the five-year period averaged 7.12%, the same as that recorded for the fifteen largest electric utilities. The Dow Jones' group and the AA-rated group both experienced earnings on utility investment greater than that recorded for Edison. The earnings statistics in this table are less than the earnings rates on total capital shown in Table No. 10 which include earnings derived from other income, primarily AFUDC.

Table No. 22 combines assumed earnings rates on common equity ranging from 13.00% to 14.50% with the embedded cost of Edison's debt and preferred stock to produce various rates of return. The resulting rates of return for the test year 1981 range between 10.14% and 10.74%.

Table No. 23 contains staff's rate of return recommendations of 10.38% in 1981 and 10.50% in 1982 which result from the conclusion that 13.60% is a fair and reasonable return for the common-equity holders of Edison.



TABLE NO. 1

SOUTHERN CALIFORNIA EDISON COMPANY

## Prime Rate - Discount Rate

Year	Month	Prime Rate	Discount Rate
	(a)	(b)	(c)
1976	July	7-1/4	% 5-1/2 %
	August	7	
	September		
	October	6-3/4	
	November	6-1/2	5-1/4
	December	6-1/2 - 6-1/4	
1977	January	6-1/4	
	February		
	March		
	April		
	May	6-1/2 - 6-3/4	
	June	6-3/4	
	July		
	August	6-3/4 - 7	
	September	7-1/4	5-3/4
	October	7-1/2 - 7-3/4	6
	November		
	December		
1978	January	7-3/4 - 8	6-1/2
	February		
	March		
	April		
	May	8-1/4 - 8-1/2	7
	June	8-3/4 - 9	
	July		7-1/4 - 7-3/4
	August		7-3/4 - 8
	September	9-1/4 - 9-1/2 - 9-3/4	8-1/2
	October	9-3/4 - 10 - 10-1/4	9-1/2
	November	10-1/2 - 10-3/4 - 11 - 11-1/2	
	December	11-1/2 - 11-3/4	
1979	January	11-3/4	
	February		
	March		
	April		
	May		
	June	11-3/4 - 11-1/2	
	July	11-1/2 - 11-3/4	9-1/2 - 10
	August	11-3/4 - 12 - 12-1/4	10 - 10-1/2
	September	12-1/4 - 12-3/4 - 13 - 13-1/4 - 13-1/2	10-1/2 - 11
	October	13-1/2 - 14-1/2 - 15	11 - 12
	November	15-1/4 - 15-1/2 - 15-3/4	12
	December	15-1/2 - 15-1/4	
1980	January	15-1/4	

SOURCE: Irving Trust Company Weekly Interest Rates Listings.

TABLE NO. 2

SOUTHERN CALIFORNIA EDISON COMPANY  
 Yields on Public Utility Bonds - Newly-Issued vs. Distributed

: Month :	: <u>Aaa Securities</u> :			: <u>Aa Securities</u> :			: <u>A Securities</u> :			: <u>Baa Securities</u> :		
	: <u>Newly-Issued</u> :		: <u>Distributed</u> :	: <u>Newly-Issued</u> :		: <u>Distributed</u> :	: <u>Newly-Issued</u> :		: <u>Distributed</u> :	: <u>Newly-Issued</u> :		: <u>Distributed</u> :
	: Millions :	: Yield :	: Yield :	: Millions :	: Yield :	: Yield :	: Millions :	: Yield :	: Yield :	: Millions :	: Yield :	: Yield :
1977	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
April	\$275	8.17%	8.21%	\$330	8.44%	8.51%	\$140	8.67%	8.71%	\$40	8.85%	9.17%
May	100	8.15	8.22	-	-	8.49	80	8.68	8.71	205	8.94	9.13
June	500	8.05	8.12	260	8.19	8.37	130	8.34	8.58	162	8.78	9.02
July	-	-	8.10	242.5	8.29	8.32	75	8.60	8.51	245	8.25	8.97
August	-	-	8.13	75	8.17	8.36	-	-	8.49	65	8.59	8.91
September	315	8.04	8.07	365	8.24	8.32	75	8.60	8.51	245	8.25	8.97
October	-	-	8.18	85	8.25	8.44	330	8.52	8.61	325	8.98	9.01
November	400	8.27	8.23	280	8.40	8.48	137	8.56	8.64	26	9.15	9.06
December	-	-	8.34	180	8.57	8.55	110	8.64	8.64	115	9.08	9.08
1978												
January	-	-	8.52	315	8.97	8.76	125	8.90	8.92	150	9.35	9.27
February	-	-	8.57	35	8.80	8.79	30	8.90	8.97	100	9.45	9.29
March	225	8.72	8.57	45	8.75	8.79	255	9.02	8.98	138	9.53	9.37
April	-	-	8.69	175	9.04	8.86	365	9.08	9.09	25	9.42	9.54
May	-	-	8.83	145	9.01	9.02	170	9.35	9.22	220	9.69	9.70
June	250	8.90	8.92	275	9.41	9.19	195	9.42	9.40	70	10.00	9.78
July	10	9.10	9.02	300	9.57	9.26	375	9.53	9.51	200	9.88	9.73
August	450	8.75	8.86	300	8.86	9.11	60	8.90	9.32	-	-	9.53
September	150	8.625	8.84	245	8.95	9.09	205	9.04	9.28	-	-	9.47
October	525	9.12	9.04	275	9.55	9.28	15	9.50	9.46	235	9.75	9.69
November	100	9.16	9.19	400	9.54	9.46	20	9.625	9.68	-	-	9.99
December	150	9.27	9.34	110	9.31	9.56	10	9.32	9.70	-	-	10.08
1979												
January	150	9.37	9.48	30	9.85	9.70	50	9.95	9.90	60	10.15	10.29
February	425	9.59	9.51	-	-	9.74	400	9.95	9.84	100	10.50	10.27
March	450	9.65	9.61	100	9.87	9.89	-	-	10.04	40	10.47	10.53
April	200	9.58	9.61	-	-	9.92	375	10.27	10.10	255	10.70	10.56
May	-	-	9.71	25	9.82	10.19	300	10.34	10.30	75	10.65	10.70
June	50	9.37	9.48	275	10.01	9.95	500	9.90	10.14	-	-	10.56
July	-	-	9.42	120	9.73	9.72	-	-	9.98	-	-	10.48
August	300	9.53	9.46	100	9.67	9.75	40	9.88	10.14	-	-	10.50
September	275	10.00	9.69	-	-	9.94	85	10.36	10.36	205	10.99	10.78
October	345	10.73	10.38	200	11.85	10.85	720	12.04	11.40	-	-	11.89
November	500	10.93	10.99	125	12.00	11.57	545	12.49	11.89	105	13.08	12.48
December	-	-	10.96	290	11.54	11.47	25	12.25	11.79	75	12.45	12.51

SOURCE: Moody's Bond Survey.

TABLE NO. 3

## SOUTHERN CALIFORNIA EDISON COMPANY

## Trends in Interest Rates

	Bond Yields					Preferred Stock Yield	Prime Commercial Paper	U.S.	U.S.
	U.S. Government Long-Term	State and Local	Public Industrials	Public Stock Yield	Public Stock Yield			Government 3 Months Bills	Government 3-5 Years Issues
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
1974 Average	6.99%	6.19%	8.78%	8.98%	9.22%	8.23%	9.87%	7.84%	7.81%
1975 Average	6.98	7.05	9.25	9.39	9.88	8.38	6.33	5.80	7.55
1976 Average	6.78	6.64	8.84	8.85	9.17	7.97	5.35	4.98	6.94
1977 Average	7.06	5.68	8.28	8.13	8.58	7.60	5.60	5.27	6.85
1978 Average	7.89	6.03	8.90	8.64	9.22	8.25	7.99	7.19	8.30
1977 July	6.97	5.63	8.18	8.02	8.48	7.51	5.41	5.19	6.67
August	7.00	5.62	8.21	8.05	8.47	7.55	5.84	5.49	6.90
September	6.94	5.51	8.19	8.03	8.43	7.58	6.17	5.81	6.92
October	7.08	5.64	8.27	8.07	8.56	7.60	6.55	6.16	7.23
November	7.14	5.49	8.36	8.10	8.61	7.67	6.59	6.10	7.28
December	7.23	5.57	8.42	8.10	8.65	7.85	6.64	6.07	7.40
1978 January	7.50	5.71	8.60	8.20	8.87	7.93	6.79	6.44	7.71
February	7.60	5.62	8.65	8.32	8.90	7.99	6.80	6.45	7.76
March	7.63	5.61	8.66	8.41	8.93	8.07	6.80	6.29	7.76
April	7.74	5.80	8.72	8.49	9.05	8.06	6.86	6.29	7.90
May	7.87	6.03	8.84	8.60	9.19	8.11	7.11	6.41	8.10
June	7.94	6.22	8.92	8.68	9.33	8.31	7.63	6.73	8.31
July	8.09	6.28	9.05	8.70	9.38	8.42	7.91	7.01	8.54
August	7.87	6.12	8.95	8.72	9.21	8.26	7.90	7.08	8.31
September	7.82	6.09	8.90	8.68	9.17	8.24	8.44	7.85	8.38
October	8.07	6.13	9.03	8.74	9.37	8.29	9.03	7.99	8.61
November	8.16	6.19	9.21	9.01	9.58	8.43	10.23	8.64	8.97
December	8.36	6.51	9.31	9.15	9.67	8.84	10.43	9.08	9.23
1979 January	8.43	6.47	9.44	9.21	9.85	8.79	10.32	9.35	9.36
February	8.43	6.31	9.42	9.22	9.84	8.77	10.01	9.32	9.16
March	8.45	6.33	9.50	9.30	10.02	8.77	9.96	9.48	9.25
April	8.44	6.29	9.57	9.38	10.05	8.29	10.39	9.46	9.32
May	8.55	6.25	9.69	9.48	10.23	8.82	9.98	9.61	9.30
June	8.32	6.13	9.57	9.44	10.04	8.87	9.71	9.06	8.89
July	8.35	6.13	9.47	9.45	9.90	8.93	9.82	9.24	8.88
August	8.42	6.20	9.52	9.48	9.97	9.02	10.39	9.52	9.08
September	8.68	6.52	9.66	9.50	10.19	9.16	11.60	10.26	9.56
October	9.44	7.08	10.28	9.89	11.13	7.44	13.23	11.70	10.75
November	9.80	7.30	11.00	10.35	11.73	7.40	13.26	11.79	10.98

SOURCES: Federal Reserve Bulletins.  
Moody's Bond Survey.

TABLE NO. 4

## SOUTHERN CALIFORNIA EDISON COMPANY

Nominal Interest Rates  
Major California Utilities  
1969 - 1978

Company	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	Increase : 69 - 78	Increase : 73 - 78
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
Pacific Gas and Electric	4.46%	4.93%	5.25%	5.44%	5.60%	6.03%	6.61%	6.70%	7.18%	7.23%	62%	29%
San Diego Gas & Electric	4.60	5.30	5.32	5.94	6.65	7.13	7.15	7.23	7.65	8.20	78	23
General Telephone	5.21	5.76	5.81	6.00	6.15	6.24	6.20	6.15	6.39	6.67	28	8
Pacific Telephone	4.75	5.39	5.92	5.95	6.10	6.59	6.64	6.68	6.79	7.36	55	21
Pacific Ltg. - Utility System	4.48	4.80	5.40	5.61	5.86	5.96	6.16	6.43	6.43	7.47	67	27
California Water Service	4.19	4.79	5.07	5.07	5.30	5.55	7.05	7.74	7.87	7.71	84	45
Southern California Water	4.59	4.95	5.04	5.04	5.36	5.33	5.43	6.57	6.55	6.73	47	26
Southern California Edison	4.75	5.06	5.10	5.29	5.41	6.00	6.14	6.34	6.46	6.72	41	24

Nominal rate developed by dividing interest charges for the year by the average of beginning and end-of-year long-term debt and short-term debt for capital purposes.

TABLE NO. 5

SOUTHERN CALIFORNIA EDISON COMPANY

Effective Interest Rate on Long-Term Debt  
 Estimated as of December 31, 1980, 1981 and 1982

Description	Par Value (a)	Net Proceeds (b)	Annual Charge (c)	Effective Rate (d)
Outstanding, December 31, 1979	\$2,782,652	\$2,757,185	\$204,000	7.40%
<u>1980</u>				
Planned Bond Issues				
Series LL - 9.625% <sup>1/</sup>	50,000	49,500	4,889	9.88
Series MN - 13.00%	350,000	350,000	45,500	13.00
Maturing Debt				
Cal. Elect. 2.875% Series	(6,000)	(5,890)	(176)	2.99
Debentures	(74,902)	(76,057)	(2,264)	2.98
Promissory Note	<u>(3,639)</u>	<u>(3,530)</u>	<u>(272)</u>	7.70
Outstanding, December 31, 1980	3,098,111	3,071,208	251,677	8.19
<u>1981</u>				
Planned Bond Issue				
Series OO - 10.00%	300,000	300,000	30,000	10.00
Maturing Debt				
Series G	(40,000)	(39,157)	(1,484)	3.79
Series EE	(100,000)	(98,477)	(9,217)	9.36
Promissory Note	<u>(3,561)</u>	<u>(3,454)</u>	<u>(266)</u>	7.70
Outstanding, December 31, 1981	3,254,550	3,230,120	270,710	8.38
<u>1982</u>				
Planned Bond Issue				
Series PP - 9.75%	300,000	300,000	29,250	3.79
Maturing Debt				
Series H	(37,500)	(37,101)	(1,610)	4.34
Series I	(40,000)	(39,789)	(1,909)	4.80
Series J	(40,000)	(40,016)	(1,949)	4.87
Promissory Note	<u>(3,522)</u>	<u>(3,416)</u>	<u>(263)</u>	7.70
Outstanding, December 31, 1982	<u>\$3,433,528</u>	<u>\$3,409,798</u>	<u>\$294,229</u>	8.63%

Dollars in Thousands.

<sup>1/</sup> Rate negotiated in August 1979.

TABLE 6

## SOUTHERN CALIFORNIA EDISON COMPANY

TIMES LONG-TERM DEBT INTEREST EARNED\*  
TREND AND 5-YEAR AVEPAGES  
1974 - 1978

YEAR	SO. CALIF. EDISON COMPANY	15 AA-RATED ELECTRIC & COMB. UTILITIES	15 LARGEST ELECTRIC UTILITIES	DOW JONES 15 UTILITY STOCKS
1974	2.54	2.39	2.19	2.23
1975	2.42	2.34	2.17	2.20
1976	2.57	2.48	2.26	2.40
1977	2.56	2.51	2.35	2.47
1978	2.38	2.43	2.28	2.46
5-YR AVERAGE	2.49	2.43	2.25	2.35
INDEX-1974	100	100	100	100
1975	95	98	99	99
1976	101	104	103	108
1977	101	105	107	111
1978	94	102	104	110
5-YR AVERAGE	98	102	103	105

\* AFTER INCOME TAXES

SOURCES: 5-YEAR STUDIES, RATE OF RETURN UNIT.  
MOODY'S PUBLIC UTILITY MANUAL.  
ANNUAL REPORTS TO STOCKHOLDERS.  
ANNUAL REPORTS TO CALIFORNIA PUBLIC UTILITIES COMMISSION.

TABLE NO. 7

SOUTHERN CALIFORNIA EDISON COMPANYEffective Dividend Rate on Preferred and Preference Stock<sup>1/</sup>

Estimated as of December 31, 1980, 1981 and 1982

Description	Par Value (a)	Net Proceeds (b)	Annual Charge (c)	Effective Rate (d)
	(Dollars in Thousands)			
Outstanding, December 31, 1979	\$812,150	\$805,063	\$59,579	7.40%
<u>1980</u>				
Planned Stock Issue 12.75% Series	75,000	75,000	9,563	12.75
Conversions Convertible Series 5.20%	<u>(12,000)</u>	<u>(11,712)</u>	<u>(624)</u>	5.33
Outstanding, December 31, 1980	875,150	868,351	68,518	7.89
<u>1981</u>				
Planned Stock Issue 9.75% Series	75,000	75,000	7,313	9.75
Conversions Convertible Series 5.20%	<u>(12,000)</u>	<u>(11,712)</u>	<u>(624)</u>	5.33
Outstanding, December 31, 1981	938,150	931,639	75,207	8.07
<u>1982</u>				
Planned Stock Issue 9.50% Series	50,000	50,000	4,750	9.50
Conversions Convertible Series 5.20%	<u>(4,895)</u>	<u>(4,778)</u>	<u>(255)</u>	5.33
Outstanding, December 31, 1982	<u>\$983,255</u>	<u>\$976,861</u>	<u>\$79,702</u>	8.16%

<sup>1/</sup> Excludes 5% Original Participating Preferred Stock having an aggregate par value of \$4 million.

TABLE NO. 8

SOUTHERN CALIFORNIA EDISON COMPANY

Common Stock Book Value, Dividends, Earnings

1970 - 1979

: Year	: Book Value : December 31	: Net Earnings: : After Preferred : Dividends	: Dividends: : Paid on : Equity	: Earnings To: : Book Value : Percent	: Dividends: : to Book : Value : Percent	: Dividend: : Payout : Ratio	: Shares : Outstanding : December 31	: Book Value : Per Share : December 31	: Earnings: : Per : Share	: Annual : Dividend Rate: : Per Share
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	
1970	\$1,012,651	\$110,870	\$ 61,433	10.95%	6.07%	55.41%	40,963	\$24.72	\$2.71	\$1.50
1971	1,151,922	105,752	65,475	9.18	5.68	61.91	43,965	26.20	2.41	1.56
1972	1,193,195	109,995	68,535	9.22	5.75	62.35	43,965	27.14	2.50	1.56
1973	1,251,412	116,809	68,585	9.33	5.48	58.72	43,965	28.46	2.66	1.56
1974	1,366,774	124,287	75,527	9.09	5.53	60.77	47,965	28.50	2.59	1.68
1975	1,421,760	137,176	80,581	9.65	5.67	58.74	47,965	29.64	2.86	1.68
1976	1,643,588	185,047	83,350	11.26	5.07	45.04	53,609	30.66	3.45	1.68
1977	1,780,439	206,712	112,294	11.61	6.31	54.32	55,126	32.30	3.75	2.24
1978	2,052,056	202,225	133,280	9.85	6.49	65.91	63,017	32.56	3.21	2.48
1979	2,237,133	292,481	167,662	13.07	7.49	57.32	65,375	34.22	4.47	2.72

Columns (a), (b), (c) and (g) are expressed in thousands.

Column (a) consists of year-end par value of outstanding common stock and original preferred stock, plus premium on capital stock and retained earnings.

Column (c) consists of dividends paid on original preferred and common stock.

SOURCES: Annual Reports to Stockholders.  
G.O. 65-A Reports to CPUC.



TABLE 9

## SOUTHERN CALIFORNIA EDISON COMPANY

EARNINGS RATE ON AVERAGE COMMON EQUITY  
TREND AND 5-YEAR AVERAGES  
1974 - 1978

YEAR	SO. CALIF. EDISON COMPANY	15 AA-RATED ELECTRIC & COMB. UTILITIES	15 LARGEST ELECTRIC UTILITIES	DOW JONES 15 UTILITY STOCKS
1974	9.46%	11.53%	11.08%	11.38%
1975	9.81	11.58	11.26	11.20
1976	12.05	12.22	11.59	12.25
1977	12.05	12.23	12.09	12.30
1978	10.52	11.54	11.04	11.73
5-YR AVERAGE	10.78	11.82	11.41	11.77
INDEX-1974	100	100	100	100
1975	104	100	102	98
1976	127	106	105	108
1977	127	106	109	108
1978	111	100	100	103
5-YR AVERAGE	114	103	103	103

SOURCES: 5-YEAR STUDIES, RATE OF RETURN UNIT.  
MOODY'S PUBLIC UTILITY MANUAL.  
ANNUAL REPORTS TO STOCKHOLDERS.  
ANNUAL REPORTS TO CALIFORNIA PUBLIC UTILITIES COMMISSION.

TABLE 10

## SOUTHERN CALIFORNIA EDISON COMPANY

EARNINGS RATE ON AVERAGE TOTAL CAPITAL  
TREND AND 5-YEAR AVERAGES  
1974 - 1978

YEAR	SO. CALIF. EDISON COMPANY	15 AA-RATED ELECTRIC & COMB. UTILITIES	15 LARGEST ELECTRIC UTILITIES	DOW JONES 15 UTILITY STOCKS
1974	7.10%	8.20%	8.40%	8.40%
1975	7.47	8.33	8.58	8.43
1976	8.61	8.71	8.81	9.00
1977	8.78	8.93	9.21	9.29
1978	8.47	8.86	8.99	9.22
5-YR AVERAGE	8.09	8.61	8.80	8.87
INDEX-1974	100	100	100	100
1975	105	102	102	100
1976	121	106	105	107
1977	124	109	110	111
1978	119	108	107	110
5-YR AVERAGE	114	105	105	106

SOURCES: 5-YEAR STUDIES, RATE OF RETURN UNIT.  
MOODY'S PUBLIC UTILITY MANUAL.  
ANNUAL REPORTS TO STOCKHOLDERS.  
ANNUAL REPORTS TO CALIFORNIA PUBLIC UTILITIES COMMISSION.

TABLE 11

## SOUTHERN CALIFORNIA EDISON COMPANY

DIVIDEND PAYOUT RATIO  
TREND AND 5-YEAR AVERAGES  
1974 - 1978

YEAR	SO. CALIF. EDISON COMPANY	15 AA-RATED ELECTRIC & COMB. UTILITIES	15 LARGEST ELECTRIC UTILITIES	DOW JONES 15 UTILITY STOCKS
1974	60.52%	71.55%	72.92%	64.03%
1975	58.50	71.89	73.48	66.11
1976	44.60	69.86	70.54	61.00
1977	54.12	69.71	70.39	62.91
1978	65.72	74.11	77.92	67.46
5-YR AVERAGE	56.73	71.42	73.05	64.30
INDEX-1974	100	100	100	100
1975	97	100	101	103
1976	74	98	97	95
1977	89	97	97	98
1978	109	104	107	105
5-YR AVERAGE	94	100	100	100

SOURCES: 5-YEAR STUDIES, RATE OF RETURN UNIT.  
MOODY'S PUBLIC UTILITY MANUAL.  
ANNUAL REPORTS TO STOCKHOLDERS.  
ANNUAL REPORTS TO CALIFORNIA PUBLIC UTILITIES COMMISSION.

TABLE NO. 12  
SOUTHERN CALIFORNIA EDISON COMPANY  
 Capital Structure  
 1969 - 1978

Year	Debt <sup>1/</sup>		Preferred and Preference Stock		Common Equity <sup>2/</sup>		Total Capital	
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	(Dollars in Thousands)							
1969	\$1,505,827	55.19%	\$258,753	9.48%	\$ 963,829	35.33%	\$2,728,409	100.00%
1970	1,560,265	53.22	358,753	12.24	1,012,651	34.54	2,931,669	100.00
1971	1,667,733	52.47	358,753	11.29	1,151,922	36.24	3,178,408	100.00
1972	1,792,733	52.42	433,753	12.69	1,193,195	34.89	3,419,681	100.00
1973	1,819,113	50.82	508,753	14.22	1,251,412	34.96	3,579,278	100.00
1974	1,949,099	50.30	558,753	14.42	1,366,774	35.28	3,874,626	100.00
1975	2,160,740	51.55	608,753	14.53	1,421,760	33.92	4,191,253	100.00
1976	2,182,934	49.22	608,753	13.72	1,643,588	37.06	4,435,275	100.00
1977	2,482,250	49.90	711,172	14.30	1,780,439	35.80	4,973,861	100.00
1978	2,531,371	47.94	696,650	13.19	2,052,056	38.87	5,280,077	100.00
10 Year Average	\$1,965,206	50.92%	\$510,285	13.22%	\$1,383,763	35.86%	3,859,254	100.00

<sup>1/</sup> Includes Short-Term Debt.

<sup>2/</sup> Includes Original Preferred Stock.

SOURCES: Annual Reports to Stockholders  
 G.O. 65-A Reports to CPUC.

TABLE 13

## SOUTHERN CALIFORNIA EDISON COMPANY

-----

AVERAGE COMMON EQUITY RATIO  
TREND AND 5-YEAR AVERAGES  
1974 - 1978

YEAR	SO. CALIF. EDISON COMPANY	15 AA-RATED ELECTRIC & COMB. UTILITIES	15 LARGEST ELECTRIC UTILITIES	DOW JONES 15 UTILITY STOCKS
1974	35.04%	34.59%	33.07%	35.13%
1975	34.47	34.21	32.36	34.85
1976	35.44	35.14	33.43	36.27
1977	36.31	36.21	35.12	38.10
1978	37.30	36.96	36.30	39.23
5-YR AVERAGE	35.71	35.42	34.06	36.72
INDEX-1974	100	100	100	100
1975	98	99	93	99
1976	101	102	101	103
1977	104	105	106	108
1978	106	107	110	112
5-YR AVERAGE	102	102	103	105

SOURCES: 5-YEAR STUDIES, RATE OF RETURN UNIT.  
MOODY'S PUBLIC UTILITY MANUAL.  
ANNUAL REPORTS TO STOCKHOLDERS.  
ANNUAL REPORTS TO CALIFORNIA PUBLIC UTILITIES COMMISSION.

TABLE NO. 14

SOUTHERN CALIFORNIA EDISON COMPANY  
Financing

1969 - 1978

Year	External Financing			Total	Internal Financing			Total	Internal Financing as % of Total	
	Long-Term Debt	Preferred Stock	Common Stock		Net Income After Dividends	Depreciation	AFUDC			
1969	\$ 175,000	\$ -	\$ 53,340	\$ 228,340	\$ 38,328	\$ (17,471)	\$ 79,856	\$ 100,713	\$ 329,053	30.61%
1970	100,438	100,000	-	200,438	49,437	(17,007)	86,239	118,669	119,107	37.19
1971	107,553	-	98,130	205,683	40,277	(15,859)	94,398	118,816	324,499	36.61
1972	125,000	75,000	-	200,000	41,410	(7,152)	104,434	138,692	338,692	40.95
1973	4,558	75,000	-	79,558	48,224	(20,190)	109,878	147,912	227,470	65.02
1974	222,486	50,000	67,200	339,686	48,760	(16,163)	116,189	148,786	488,472	30.46
1975	161,641	50,000	-	211,641	56,595	(26,773)	120,410	150,232	361,873	41.52
1976	126,263	-	123,951	250,214	101,697	(47,610)	124,802	178,889	429,103	41.69
1977	200,000	102,419	43,323	345,742	94,418	(60,238)	140,520	174,700	520,442	33.57
1978	200,000	(14,522)	203,364	388,842	68,945	(78,421)	157,203	147,727	536,569	27.53
10 Year Totals	\$1,422,939	\$437,897	\$589,308	\$2,450,144	\$588,091	\$(296,884)	\$1,133,929	\$1,425,136	\$3,875,280	36.78%
Percent of Total Financing	36.72%	11.30%	15.20%	63.22%	15.18%	(7.66)%	29.26%	36.78%	100.00%	

Dollars in Thousands.

SOURCE: Annual Reports to Stockholders.

TABLE 15

## SOUTHERN CALIFORNIA EDISON COMPANY

NET OPERATING INCOME  
TREND AND 5-YEAR AVERAGES  
1974 - 1978

YEAR	SO. CALIF. EDISON COMPANY	15 AA-RATED ELECTRIC & COMB. UTILITIES	15 LARGEST ELECTRIC UTILITIES	DOW JONES 15 UTILITY STOCKS
1974	252,710	117,855	109,214	196,632
1975	266,606	132,846	129,431	223,105
1976	307,140	152,142	145,727	250,228
1977	330,722	163,463	167,312	263,912
1978	324,601	175,727	173,571	275,250
5-YR AVERAGE	296,355	148,406	145,051	241,825
INDEX-1974	100	100	100	100
1975	105	113	119	113
1976	122	129	133	127
1977	131	139	153	134
1978	128	149	159	140
5-YR AVERAGE	117	126	133	123

DOLLARS IN THOUSANDS

SOURCES: 5-YEAR STUDIES, RATE OF RETURN UNIT.  
 MOODY'S PUBLIC UTILITY MANUAL.  
 ANNUAL REPORTS TO STOCKHOLDERS.  
 ANNUAL REPORTS TO CALIFORNIA PUBLIC UTILITIES COMMISSION.

TABLE 16

## SOUTHERN CALIFORNIA EDISON COMPANY

OPERATING REVENUES  
TREND AND 5-YEAR AVERAGES  
1974 - 1978

YEAR	SO. CALIF. EDISON COMPANY	15 AA-RATED ELECTRIC & COMB. UTILITIES	15 LARGEST ELECTRIC UTILITIES	DOW JONES 15 UTILITY STOCKS
1974	1,360,959	639,607	575,637	1,129,982
1975	1,647,134	762,686	687,697	1,325,880
1976	1,846,540	886,107	779,646	1,533,107
1977	2,064,914	1,059,120	911,159	1,790,809
1978	2,328,798	1,186,053	1,029,316	1,970,933
5-YR AVERAGE	1,849,669	906,715	796,691	1,550,142
INDEX-1974	100	100	100	100
1975	121	119	119	117
1976	136	139	135	136
1977	152	166	158	158
1978	171	185	179	174
5-YR AVERAGE	136	142	138	137

DOLLARS IN THOUSANDS

SOURCES: 5-YEAR STUDIES, RATE OF RETURN UNIT.  
MOODY'S PUBLIC UTILITY MANUAL.  
ANNUAL REPORTS TO STOCKHOLDERS.  
ANNUAL REPORTS TO CALIFORNIA PUBLIC UTILITIES COMMISSION.



TABLE 17

## SOUTHERN CALIFORNIA EDISON COMPANY

 OPERATING EXPENSES  
 TREND AND 5-YEAR AVERAGES  
 1974 - 1978

YEAR	SO. CALIF. EDISON COMPANY	15 AA-RATED ELECTRIC & COMB. UTILITIES	15 LARGEST ELECTRIC UTILITIES	DOW JONES 15 UTILITY STOCKS
1974	1,108,249	521,752	466,423	933,350
1975	1,380,528	629,839	558,265	1,102,775
1976	1,539,400	733,965	633,918	1,282,878
1977	1,734,192	895,657	743,846	1,526,897
1978	2,004,197	1,010,325	855,745	1,695,683
5-YR AVERAGE	1,553,313	758,308	651,639	1,308,316
INDEX-1974	100	100	100	100
1975	125	121	120	118
1976	139	141	136	137
1977	156	172	159	164
1978	181	194	183	182
5-YR AVERAGE	140	145	140	140

DOLLARS IN THOUSANDS

SOURCES: 5-YEAR STUDIES, RATE OF RETURN UNIT.  
 MOODY'S PUBLIC UTILITY MANUAL.  
 ANNUAL REPORTS TO STOCKHOLDERS.  
 ANNUAL REPORTS TO CALIFORNIA PUBLIC UTILITIES COMMISSION.

TABLE 18

## SOUTHERN CALIFORNIA EDISON COMPANY

OPERATING RATIOS  
TREND AND 5-YEAR AVERAGES  
1974 - 1978

YEAR	SO. CALIF. EDISON COMPANY	15 AA-RATED ELECTRIC & COMB. UTILITIES	15 LARGEST ELECTRIC UTILITIES	DOW JONES 15 UTILITY STOCKS
1974	81.43%	80.84%	80.23%	82.19%
1975	83.81	81.51	80.54	83.02
1976	83.37	82.13	80.77	83.63
1977	83.98	83.69	81.11	85.15
1978	86.06	84.85	82.85	85.99
5-YR AVERAGE	83.73	82.60	81.10	84.00
INDEX-1974	100	100	100	100
1975	103	101	100	101
1976	102	102	101	102
1977	103	104	101	104
1978	106	105	103	105
5-YR AVERAGE	103	102	101	102

SOURCES: 5-YEAR STUDIES, RATE OF RETURN UNIT.  
MOODY'S PUBLIC UTILITY MANUAL.  
ANNUAL REPORTS TO STOCKHOLDERS.  
ANNUAL REPORTS TO CALIFORNIA PUBLIC UTILITIES COMMISSION.

TABLE 19

## SOUTHERN CALIFORNIA EDISON COMPANY

AVERAGE NET PLANT INVESTMENT  
TREND AND 5-YEAR AVERAGES  
1974 - 1978

YEAR	SO. CALIF. EDISON COMPANY	15 AA-RATED ELECTRIC & COMB. UTILITIES	15 LARGEST ELECTRIC UTILITIES	DOW JONES 15 UTILITY STOCKS
1974	3,507,594	1,755,147	1,707,456	2,821,190
1975	3,805,130	1,906,951	1,905,137	3,002,946
1976	4,132,323	2,060,044	2,085,347	3,175,634
1977	4,507,242	2,239,966	2,278,200	3,393,939
1978	4,921,948	2,451,188	2,511,643	3,658,422
5-YR AVERAGE	4,174,847	2,082,659	2,097,557	3,210,426
INDEX-1974	100	100	100	100
1975	108	109	112	106
1976	118	117	122	113
1977	128	128	133	120
1978	140	140	147	130
5-YR AVERAGE	119	119	123	114

DOLLARS IN THOUSANDS

SOURCES: 5-YEAR STUDIES, RATE OF RETURN UNIT.  
MOODY'S PUBLIC UTILITY MANUAL.  
ANNUAL REPORTS TO STOCKHOLDERS.  
ANNUAL REPORTS TO CALIFORNIA PUBLIC UTILITIES COMMISSION.

TABLE 20

## SOUTHERN CALIFORNIA EDISON COMPANY

RATIO: OPERATING REVENUES TO AVERAGE NPI  
TREND AND 5-YEAR AVERAGES  
1974 - 1978

YEAR	SO. CALIF. EDISON COMPANY	15 AA-RATED ELECTRIC & COMB. UTILITIES	15 LARGEST ELECTRIC UTILITIES	DOW JONES 15 UTILITY STOCKS
1974	38.80%	36.84%	34.13%	43.92%
1975	43.29	39.93	36.32	48.28
1976	44.69	43.16	37.97	53.90
1977	45.81	47.41	40.94	60.87
1978	47.31	49.76	42.26	63.72
5-YR AVERAGE	43.98	43.42	38.32	54.14
INDEX-1974	100	100	100	100
1975	112	108	106	110
1976	115	117	111	123
1977	118	129	120	139
1978	122	135	124	145
5-YR AVERAGE	113	118	112	123

SOURCES: 5-YEAR STUDIES, RATE OF RETURN UNIT.  
MOODY'S PUBLIC UTILITY MANUAL.  
ANNUAL REPORTS TO STOCKHOLDERS.  
ANNUAL REPORTS TO CALIFORNIA PUBLIC UTILITIES COMMISSION.

TABLE 21

## SOUTHERN CALIFORNIA EDISON COMPANY

RATIO: OF NET OPR. INCOME TO AVERAGE NPI  
TREND AND 5-YEAR AVERAGES  
1974 - 1978

YEAR	SO. CALIF. EDISON COMPANY	15 AA-RATED ELECTRIC & COMB. UTILITIES	15 LARGEST ELECTRIC UTILITIES	DOW JONES 15 UTILITY STOCKS
1974	7.20%	6.98%	6.65%	7.64%
1975	7.01	7.26	6.96	7.95
1976	7.43	7.60	7.19	8.39
1977	7.34	7.59	7.61	8.39
1978	6.59	7.40	7.16	9.11
5-YR AVERAGE	7.12	7.37	7.12	8.10
INDEX-1974	100	100	100	100
1975	97	104	105	104
1976	103	109	108	110
1977	102	109	114	110
1978	92	106	108	106
5-YR AVERAGE	99	106	107	106

SOURCES: 5-YEAR STUDIES, RATE OF RETURN UNIT.  
MOODY'S PUBLIC UTILITY MANUAL.  
ANNUAL REPORTS TO STOCKHOLDERS.  
ANNUAL REPORTS TO CALIFORNIA PUBLIC UTILITIES COMMISSION.

TABLE NO. 22

SOUTHERN CALIFORNIA EDISON COMPANY

Rates of Return Required to Recover Imbedded Costs of Debt and Preferred Stock at Various Assumed Earnings Rates on Common Equity

Average Years 1981 and 1982

1981	Capital : Ratios	Cost : Factors <sup>1/</sup>	Assumed Earnings Rates on Common Equity						
			13.00%	13.25%	13.50%	13.75%	14.00%	14.25%	14.50%
			Weighted Cost Totals						
			(a)	(b)	(c)	(d)	(e)	(f)	(g)
Long-Term Debt	47.00%	8.29%	3.90%	3.90%	3.90%	3.90%	3.90%	3.90%	3.90%
Preferred Stock	13.00	7.98	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Common Equity	<u>40.00</u>	-	<u>5.20</u>	<u>5.30</u>	<u>5.40</u>	<u>5.50</u>	<u>5.60</u>	<u>5.70</u>	<u>5.80</u>
Total	<u>100.00%</u>		<u>10.14%</u>	<u>10.24%</u>	<u>10.34%</u>	<u>10.44%</u>	<u>10.54%</u>	<u>10.64%</u>	<u>10.74%</u>
<u>1982</u>									
Long-Term Debt	47.00%	8.51%	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Preferred Stock	13.00	8.12	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Common Equity	<u>40.00</u>	-	<u>5.20</u>	<u>5.30</u>	<u>5.40</u>	<u>5.50</u>	<u>5.60</u>	<u>5.70</u>	<u>5.80</u>
Total	<u>100.00%</u>		<u>10.26%</u>	<u>10.36%</u>	<u>10.46%</u>	<u>10.56%</u>	<u>10.66%</u>	<u>10.76%</u>	<u>10.86%</u>

<sup>1/</sup> Average year cost factors. Year end cost factors are developed in Tables Nos. 5 and 7.

TABLE NO. 23

SOUTHERN CALIFORNIA EDISON COMPANYRecommended Rate of Return  
Average Year 1981

Components	Capital : Ratios (a)	Cost : Factors (b)	Weighted : Cost (c)
Long-Term Debt	47.00%	8.29%	3.90%
Preferred Stock	13.00	7.98	1.04
Common Equity	<u>40.00</u>	13.60	<u>5.44</u>
Total	<u>100.00%</u>		<u>10.38%</u>

Average Year 1982

Long-Term Debt	47.00%	8.51%	4.00%
Preferred Stock	13.00	8.12	1.06
Common Equity	<u>40.00</u>	13.60	<u>5.44</u>
Total	<u>100.00%</u>		<u>10.50%</u>

APPENDIX

SOUTHERN CALIFORNIA EDISON COMPANY

List of Companies Used in Study

AA-Rated Electric and  
Combination Utilities (15)

Baltimore Gas & Electric Company  
Cincinnati Gas & Electric Company  
Cleveland Electric Illuminating Company  
Commonwealth Edison Company  
Gulf States Utilities Company  
Houston Industries, Inc.  
Illinois Power Company  
Northern Indiana Public Service Company  
Northern States Power Company  
Oklahoma Gas & Electric Company  
Pacific Gas & Electric Company  
Public Service Company of Colorado  
Public Service Company of Indiana, Inc.  
Public Service Electric & Gas Company  
Wisconsin Electric Power Company

Largest Electric  
Utilities (15)

Boston Edison Company  
Carolina Power & Light Company  
Cleveland Electric Illuminating Company  
Commonwealth Edison Company  
Detroit Edison Company  
Duke Power Company  
Duquesne Light Company  
Florida Power Corporation  
Florida Power & Light Company  
Houston Industries, Inc.  
Ohio Edison Company  
Oklahoma Gas & Electric Company  
Pennsylvania Power & Light Company  
Potomac Electric Power Company  
Public Service Co. of Indiana, Inc.

Dow Jones Utility Stocks (15)

American Electric Power Company  
Cleveland Electric Illuminating Company  
Columbia Gas System, Inc.  
Commonwealth Edison Company  
Consolidated Edison Company of New York, Inc.  
Consolidated Natural Gas Company  
Detroit Edison Company  
Houston Industries, Inc.  
Niagra Mohawk Power Corporation  
Pacific Gas & Electric Company  
Panhandle Eastern Pipeline Company  
Peoples Gas Company  
Philadelphia Electric Company  
Public Service Electric & Gas Company  
Southern California Edison Company