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ORIGINAL

Decision No. 78802

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Application of SOUTHERN CALIFORNIA EDISON COMPANY for orders of the Public Utilities Commission of the State of California authorizing Applicant to increase rates charged by it for electric service.	Application No. 52336 (Filed December 1, 1970)

(See List of Appearances in Appendix A)

O P I N I O N

The Southern California Edison Company (Edison) seeks to increase its rates for intrastate electric service by approximately $128,000,000 annually. The Commission staff asserts that this increase should be $87,100,000 annually plus an offset in 1972 for any wage increases in 1972.

After due notice, 29 days of public hearings were held before Commissioners J. P. Vukasin, Jr., and D. W. Holmes, and Examiner Robert Barnett. The matter was submitted on April 16, 1971, subject to the filing of briefs, which have been received. On March 10, 1971, Edison requested an interim order to increase rates by $15,700,000; the request was denied (Decision No. 78441 dated March 16, 1971).

I

BACKGROUND

Edison is the second largest electric utility in the United States among investor-owned utilities which derive at least 90 percent of their revenue from electric operations. Edison serves customers in 15 counties of central and southern California, with a population of over 7,330,000 people. As of December 31, 1969, there were about 2,500,000 meters installed, of which more than 88 percent were for domestic service. In addition to selling electric power to domestic and industrial users, Edison also sells to various cities for resale by those cities. Also, electric power is sold to, purchased from, or interchanged with the Pacific Gas & Electric Company, San Diego Gas & Electric Company, Arizona Public Service Company, the Department of Water & Power of the City of Los Angeles, the Metropolitan Water District, the State of California, the United States Bureau of Reclamation, and 48 Pacific Northwest and California utilities.

At the end of 1969, Edison owned and operated 36 hydroelectric plants; 14 steam electric generating plants, including one nuclear plant and one coal-fired plant, both jointly owned with other utilities; six gas turbine electric generating plants; and two diesel electric generating plants, with a total effective operating capacity of 9.4 million kilowatts. Additionally, Edison has 575,000 kilowatts of firm capacity available under the terms of purchased power agreements and 277,000 kilowatts of operating capacity from Hoover Dam.

The San Onofre Nuclear Generating Station is owned 80 percent by Edison and 20 percent by San Diego Gas & Electric Company. Two additional units are to be installed and operated by 1977. Additional generating capacity is being constructed or planned for at Ormond Beach in Ventura County, Huntington Beach in Orange County, in the Four Corners units located near Farmington, New Mexico, and at the Mohave Generating Station in southern Nevada.

II

RATE OF RETURN

Probably the most important function in rate making is that of fixing the rate of return which a utility will be allowed to earn on capital invested in the business. The return includes the interest payable by the company on its long-term debt, dividends on preferred stock, and earnings on common equity. It is a percentage expression of the cost of capital utilized in providing service. It is just as real a cost as that paid for labor, material and supplies, or any other item necessary for the conduct of business.

In determining reasonable rates, it is customary for the operations of a company to be examined for a period of one year. This year is known as the "test year" and could be a year in the recent past, a year that overlaps with the Commission hearings on rates, or a year in the near future. In this case, the test year chosen was 1972. Because Edison expects to issue some $250,000,000 of senior securities

between the termination of this rate case and the end of 1972, the usually routine determination of embedded cost of senior capital, that is, the cost of bonds and preferred stock which are fixed by the terms of the offering, has been made more complex because we must estimate the costs of these future issues in a highly volatile market. These same factors, future test year and volatile market, make the usually complex task of determining the reasonable return on common equity even more difficult.

A. Edison's Evidence

Edison presented one witness, Smith B. Davis, its financial vice president, to testify on the subject of the fair rate of return. He stated that the return on common equity should be 13 percent and that the cost of new debt and preferred stock issued in late 1971 and 1972 should be estimated at 7-1/2 percent. In his opinion a rate of return of 8.30 percent over-all is reasonable with an initial rate of return of 8.5 percent appropriate to allow for earnings erosion of .20 percent to .25 percent per year. He said that one of the reasons that Edison requires 13 percent on common equity is that the return on common must be higher than current interest rates in order to provide any incentive for the investor to put his money into the higher risk common stock; further, 13 percent is justified because Edison uses accelerated depreciation on a flow-through basis, which causes higher risk in terms of return on common equity.

However, his strongest emphasis was placed on the comparison of earnings between Edison and other companies as shown in Table 11 of his financial exhibit, and Edison's after tax interest coverage. Table 11, modified, shows:

Return and Capitalization Information
20 Electric Operating Utilities
1965-1969

	5-Year Mid-Year Average			Mid-Year 1969		
20 Utilities	Return on Total Capital	Return on Common Equity	Common Equity Ratio	Return on Total Capital	Return on Common Equity	Common Equity Ratio
Mean	8.04%	13.27%	40.14%	8.18%	12.82%	37.94%
Median	8.06	13.18	40.12	8.18	12.38	37.62
High	9.71	16.31	54.25	10.46	16.48	52.41
Low	6.72	10.08	32.62	6.60	8.14	31.94
Edison	7.03	11.21	37.50	6.91	10.37	36.00
	1970 (November 1970 Estimate)			7.26	11.00	34.40
	1971 (November 1970 Estimate)			7.01	9.68	35.70
	1972 (November 1970 Estimate)			6.57	8.14	35.70

He explained the significance of Table 11 as follows:

"This table tabulates the return on capital and the return on equity and the common equity ratio for the 20 companies for the five years, 1965 through 1969, and for mid-year 1969. It may be noted that Edison's return has, over the five-year period, averaged only 7.03 percent, as compared to both the mean and median for the 20 companies of more than 8 percent. The return on common equity, which for Edison has averaged 11.21 percent over the period, has averaged 13.27 percent for the 20 companies, with a median of 13.18 percent.

"In spite of its lower return on equity, Edison's equity ratio has averaged 37.5 percent vs. more than 40 percent for the 20 companies. For the year 1969, the return on total capital for the 20 companies averaged 8.18 percent, and the return on equity averaged 12.82 percent. This may be compared to the estimated return on total capital for Edison for the year 1970, which includes a full year's operation with the rate levels granted in Decision No. 76106 of 7.26 percent and on common equity of 11 percent, in spite of the fact that Edison's equity ratio continues to be lower than that of either the average or median of the 20 utilities.

"It may be noted that in the absence of rate relief, Edison's return on equity in 1972 will fall to the level registered for the lowest return on equity of any of the 20 companies. It's probably also worthy of note that of the 20 utilities listed, three-fourths have either requested or have been granted a rate increase since January 1, 1969."

In regard to interest coverage he pointed out that Edison's interest coverage has been consistently eroding from 3.35 times in 1964 to 2.61 times estimated for 1970. He said that in the absence of rate relief it will decline to 2.22 times in 1972 and would almost certainly result in a loss of Edison's Aa bond rating. He asserted that a 13 percent return on equity in 1972 would result in a coverage of 3.12 times interest. A continued erosion of times interest coverage, in his opinion, would lower Edison's bond rating which would result in higher interest costs and would perhaps render Edison's bonds illegal for a number of institutional investors.

He said that it was important to keep Edison financially strong. For the five years ending December 1969, Edison went to the money markets for $879,000,000 of new money. Over the next five years Edison will be required to raise an additional $1.2 billion of new money. Edison is now, and shall continue to be, competing for the investor's dollar to a greater extent than it has in the past. He recognizes that competition extends to all who will be seeking investors' funds, and Edison is asking for a return more nearly comparable to the average of those with whom Edison is most directly competing, namely, other electric companies.

On cross-examination he testified that on December 2, 1970, Detroit Edison issued $100,000,000 of bonds which were priced to the public to yield 8.15 percent. The next day, Edison brought to market $100,000,000 of bonds which were

priced to the public at 7.85 percent. He said that he has experienced no difficulty in selling Edison's bonds and that the costs incurred by Edison in the sale of bonds reasonably compared with those of other Aa rated electric utility issues. He stated that in March 1970, Edison raised its dividends from $1.40 a year to $1.50 and that Edison stock is the second most widely held electric utility stock in the country.

In his opinion it is not appropriate to compare Edison with gas companies, telephone companies, or industrial companies because electric companies have operating characteristics more similar to Edison than those companies. Although he could have very easily included certain combination gas and electric companies in his comparison, he didn't think his result would have been significantly different. He felt that the companies he did compare are representative companies operating in many geographic areas of the country.

Edison has been protecting its interest coverage by selling more equity in relation to bonds. He pointed out that over a long period of time, in common with many other utilities, Edison had been selling about $3 of bonds for every $1 of equity, but in the last five years they have been selling about $2 of bonds for every $1 of equity. In 1970, Edison sold $1 of bonds for every $1 of equity, and for 1971 and 1972, they will sell less than a dollar of bonds for every dollar of equity. All of this is an attempt to protect interest coverage.

He said that interest coverage is not the sole criterion by which bonds are rated. Other important factors include the past history of the company, the territory in which the company operates in relation to its growth potential, and the management of the company. All of these factors are plus factors in retaining a high bond rating. He added that high interest rates and increased expenses due to inflation have caused all electric utilities to have their interest coverage decline.

In regard to Table 11, he admitted that there was a problem of circularity if Table 11 were the sole criterion relied upon, but he defended his recommendation by stating: "However, we are not bootstrapping in the sense that the average for the ten largest companies is 13.54 percent and we are asking for only 13 percent. So that the bootstrapping effect I don't think is present in this kind of comparison."

B. Staff Evidence

The staff presented one witness, Russell J. Leonard, a financial examiner, to testify on the subject of the fair rate of return. He recommended that a reasonable range of rate of return for Edison was 7.60 percent to 7.85 percent. Within these limits the earnings rate on common equity would range from 11.22 percent to 11.89 percent. He felt that rates should be set to return 7.75 percent which would yield 11.62 percent on common equity and result in an after tax coverage of 2.86 times interest.

In the witness' opinion, 11.62 percent on common equity was reasonable because such earnings would enable Edison to continue paying dividends on its common stock at a reasonable level and to increase its retained earnings considerably, thereby supplementing the flow of internal funds needed for its continuing construction programs. Moreover, he believes that an equity earnings rate of 11.62 percent would sustain confidence in Edison's financial integrity, and enhance its ability to attract outside capital on reasonable terms in order to fulfill its requirements for new funds at costs commensurate with satisfying the public's demand for high quality electric service.

In arriving at his recommendation, he considered the comparable earnings of ten electric utilities and ten combination gas and electric utilities; he did not make any comparisons with industrial companies or nonelectric utilities. He said that the earnings of the selected companies were considered only as one of the tests in his rate of return recommendation. The companies were selected primarily on the basis of their size and public utility activities and while the comparisons made are useful as a guide, they are not conclusive in determining a fair rate of return. His final determination was based on judgment after considering other factors relative to Edison's particular circumstances.

The other factors are:

"Southern California Edison Company is an aggressive and financially sound electric utility serving a growing market in the State's most populous region. Increases in demand for its electric services should afford it the opportunity of growth in earnings as plant capacity expands and produces additional revenues.

"The Company has obtained the major portion of its total financing from external sources over the past ten years and it will require large amounts of additional capital from these sources in the future. Although current money rates may decline to levels estimated in Tables Nos. 5 and 7, the cost of new debt and preferred stock will probably remain higher than existing embedded costs.

"Inflation is a real risk for the future; therefore, it appears that there will be increases in plant and capital costs as well as in operating expenses.

"As indicated in Tables Nos. 25 and 26, Southern California Edison Company's capital ratios as of December 31, 1972 will consist of 51 percent debt, 12 percent senior equity, and 37 percent common equity. By resorting to more equity financing the company should further improve its interest coverage and thereby reduce risks for the common equity.

"Southern California Edison Company, one of the largest electric utilities in the nation, has spread its business risks over a large area and a diverse group of consumers. Consequently, it has attained earnings stability and it is not as sensitive to cyclical changes as other types of industrial enterprises.

"Table No. 8 shows that between 1961 and 1970, Southern California Edison Company's net earnings after preferred dividends have increased in every year, except in 1968. It is reasonable to assume that the upward trend will continue as the company grows and develops technological innovations to increase operating efficiencies and thereby reduce costs."

In computing his embedded cost of debt and senior equity for the year 1972, he assumed a 7 percent cost of new senior capital issued for 1971, and 6-1/2 percent cost for 1972. He based this result on recent trends in bond cost and equity cost as shown by tables in his rate of return exhibit. He testified that from a high in May 1970 of over 9 percent, Aa bond yields have dropped to approximately 7.52 percent in February 1971. Based upon this trend, he predicted 7 percent in 1971 and 6-1/2 percent in 1972 for costs of senior capital.

In support of his position that 2.86 percent coverage was adequate, he named some companies that had been derated, with the coverage about the time of derating.

Company	Derated		Coverage
	From	To	
Ohio Power	Aa	A	2.46
Duke Power	Aaa	Aa	2.41
Consolidated Edison	Aa	A	2.49
Niagara Mohawk Power	Aa	A	2.50
Philadelphia Electric	Aaa	Aa	2.43

C. Discussion

For the reasons hereinafter stated, we find that the fair rate of return for Edison should be within the range of 7.7 percent to 8.1 percent. Rates should be set to permit a 7.9 percent return. At 7.9 percent rate of return, the return on common equity will be 11.9 percent.

1. Capital Structure

In the present case, both Edison and the staff used the same capital structure for Edison as they expect it to be as of December 31, 1972.

Long-term Debt	51 percent
Cummulative Preferred Stock	10 percent
Convertible Preference Stock	2 percent
Common Stock Equity	37 percent
Total	100 percent

2. Cost of Capital

a. Long-term Debt

Edison expects to issue $100,000,000 of bonds in September 1971 and $100,000,000 of bonds in 1972. Both Edison and the staff have included these future issues in their capital ratios. However, Edison contends that the cost of these bonds to Edison should be estimated at 7-1/2 percent; the staff contends that the cost of the $100,000,000 issue in 1971 should be at 7 percent and the $100,000,000 issue in 1972 at 6-1/2 percent. The staff bases its projections on the assumption that interest rates on long-term debt are falling and will continue to fall in a straight line throughout the remainder of 1971 and 1972. Edison's expert, who revised his original estimate of interest rates on long-term debt from 8-1/2 percent, predicted in his testimony given early in March 1971, to 7-1/2 percent, predicted in his testimony given on April 16, 1971, gave as his reason for modifying his first estimate that since his original recommendation was developed average money rates, as measured by newly issued Aa securities, appeared to

be levelling off in the range of 7-1/4 percent to 7-1/2 percent. He showed that the prime rate has continued to decline as has the Federal Reserve discount rate, treasury bills, prime commercial paper, and government bonds. In addition, he found a recent trend towards stabilization in Aa utility bonds near a 7.50 percent cost to the utility.

An analysis of the various charts and tables in evidence in this proceeding shows that in recent years the bond market for Aa public utility bonds has been volatile in the extreme. Up until mid-1971, it rose to unforeseeable heights. We have no reason to believe that it will descend to unforeseeable lows within the next year and a half. A more conservative estimate would be to assume that bond interest will level off for a time. We are persuaded by Edison's evidence. We will assume that issues of bonds in 1971 and 1972 will be at 7-1/2 percent cost to the company, resulting in an over-all cost factor of long-term debt of 5.40 percent.

b. Cummulative Preferred Stock

Edison asserts that the cost factor on cummulative preferred stock should be 6.59 percent while the staff asserts that it should be 6.30 percent. The differences are found in the different estimates of cost of $50,000,000 of preferred stock to be issued in 1972 (Edison estimates cost at 7-1/2 percent; staff estimates cost at 6-1/2 percent) and the treatment of $4,000,000 of original preferred stock issued in 1909.

We have previously estimated future issues of bonds to have a cost to Edison of 7-1/2 percent. Analysis of the charts and tables introduced in this proceeding shows that preferred stock issued by Aa rated utilities is sold at about the same cost to the company as bond issues sold at the same time. Therefore, we will assume a cost of 7-1/2 percent on the preferred stock issue.

The staff deleted from the preferred stock category $4,000,000 of 5 percent original participating preferred issued in 1909 and included that issue in its common equity calculation. This was done because the holders of the preferred stock participate fully with the holders of the common in voting rights, sharing of dividends, and retained earnings. The effective dividend on this preferred is 16.8 percent. As the stock has earning characteristics better than common equity and fluctuates with common equity, it should be treated more like common equity than preferred. We will adopt the staff position on this issue. Since the amount of this issue is minimal, it does not change the capital ratios.

Based upon a finding that new preferred should be estimated as costing 7-1/2 percent to Edison and that the 1909 preferred issue should be treated as common equity, we find that the embedded cost of preferred is 6.45 percent.

c. Common Equity

It is an axiom of public utility regulation that electric companies are less risky than industrial companies. (Re General Telephone Co. of Calif. (Decision No. 75873 dated July 1, 1969 in Application No. 49835 at p. 38).) Yet neither Edison nor the staff put in any statistics concerning return on

equity for industrial companies for time periods comparable to the evidence for Edison and the electrics. At the request of the examiner such information was placed in the record. In order to obtain even more up-to-date information, the examiner took official notice, after giving due notice to all parties, of late-filed Exhibit No. 67, as follows:

Return on Common Equity

Year	Edison[1]	Electric Utilities[1] Ten	Twenty	Gas & Electric[2]	50 Largest Industrials[1]	Selected Industrials[3]
1965	11.3	14.0	13.5	11.83	14.0	12.86
1966	11.7	14.1	13.6	11.91	14.9	13.10
1967	11.8	13.9	13.4	12.00	12.9	11.44
1968	10.8	13.2	13.0	11.27	13.2	11.45
1969	10.4	13.3	12.8	11.24	11.7	12.41
1970	11.2	12.3	12.3	10.61	9.0[4]	8.60[5]
5-Year Average 1965-69	11.2	13.7	13.3	11.65	13.3	12.25
5-Year Average 1966-70	11.2	13.4	13.0	11.41	12.3	11.40

1/ Mid-Year Common Equity (Ex. No. 36, revised Table 5).

2/ Average Common Equity (Ex. No. 14, Table 11).

3/ Year-End Common Equity -
For ten industrial companies having common equity ratios comparable to Edison (Ex. No. 35, Table B).

4/ Includes 45 companies. Excludes L-T-V, Occidental Petroleum, Boise Cascade, Rapid American, and Reynolds Tobacco.

5/ Excludes Allied Stores and U.S. Plywood-Champion Papers because 1970 statistics not reported as yet.

Analysis of this table shows that the five-year average earnings (1965-1969) for ten electric utilities exceeded the averages for the 50 largest industrial companies in the United States (13.7 percent as compared to 13.3 percent). The average for 20 electric utilities is the same as for the 50 largest industrials (13.3 percent as compared to 13.3 percent). Even allowing for differences in debt-equity ratios, it is apparent to us that earnings of electric utilities over the year 1965 through 1969 were high. Statistics for the year 1969 show the high earnings of electric utilities. In that year, both the ten selected electric utilities and the 20 electric utilities earned more return on common equity than the 50 largest industrial companies in the United States (13.3 percent and 12.8 percent as compared to 11.7 percent), and earned more than the earnings on common equity for ten industrial companies having common equity ratios comparable to Edison (13.3 percent and 12.8 percent as compared to 12.41 percent). The statistics for 1970 show this disparity even more glaringly.

The conclusion we draw from these figures is that during the past few years, when the country was in a highly volatile economic situation, the electric utilities, because they deal in a basic commodity, because they have little or no competition, and because their rates are protected by public utilities commissions, gave positive proof that they are indeed less risky than the largest industrial companies in the United States. Yet it is the high risk companies that should be earning the high returns on equity. Therefore, any comparison

of Edison's return on equity with those of other electric utilities must be tempered with the knowledge that over the years 1965 through 1970 electric utilities were earning an exceedingly high rate of return in comparison to industrials.

Our analysis of comparable earnings shows the weaknesses in the testimony of both Edison and the staff on rate of return. Comparing Edison with other utilities has a circular effect. The more select the group compared with, the more circularity. Under their analysis, with the company earning the lowest return on common equity always applying for rate increases based upon its return as compared to other electrics, we would have a never-ending upward spiral of electric utility rates. Additionally, if there is no comparison with industrials and nonelectric utilities, there would be no evidence that the composite electric returns being compared are in fact reasonable. And, as we have shown, over the recent past electric utility rates of return have been unreasonably high.

There is another, more practical method to test reasonableness of return: the test of the market place. In any rate proceeding the Commission considers a utility's past financing success. (Re Pacific Tel. & Tel. (1964) 62 CPUC 775, 799.) What happened to Edison's bonds, preferred, and common stock offerings during the period when Edison claims it was earning less than a reasonable rate of return? When Edison was attempting to attract capital in the money markets of the United States, in competition with all other entities, what did the investing public think of Edison's return? The answers can

be found in Edison's financial exhibits. Edison's Exhibit No. 63, Table 4, shows that in late 1969 Edison issued $100,000,000 in public utility bonds at a yield to the public of 8.12 percent; the average yield for Aa public utility bonds between August 27, 1969, and December 16, 1969, was 8.45 percent. In late 1970, Edison issued $100,000,000 of bonds at a yield to the public of 7.85 percent; the average yield for Aa public utility bonds between July 2, 1970, and December 11, 1970, was 8.63 percent. In March 1970, Edison issued $50,000,000 of preferred stock at 8.96 percent yield to the public; between January 15, 1970, and June 25, 1970, the average yield of public utility preferred stock was 9.04 percent. On October 1, 1970, Edison issued $50,000,000 of preferred stock at a yield to the public of 8.70 percent; between July 9, 1970, and December 17, 1970, the average yield of public utility preferred stock to the public was 8.89 percent. In early 1971 Edison issued 3,000,000 shares of common stock. This offering was sold at the prevailing market price and was oversubscribed. In 1970 Edison raised its year-end dividend rate from $1.40 to $1.50 and at the same time reduced its dividend payout percentage from 59.6 percent to 55.6 percent.

There are other factors which must be considered in determining the fair return. One factor is Edison's comparatively low common equity ratio. This is recognized by allowing a slightly higher return on equity. Another is the times interest coverage.

Presently Edison issues its bonds with an Aa rating. This Aa rating usually results in Edison's issuing bonds to the public at lower yields than if Edison were to be rated A. And, because some institutional investors are not permitted by law to invest in bonds rated less than Aa, Edison's offerings rated Aa are available to a wider selection of investors. While times interest coverage is not the sole criterion for determining bond ratings, it is the principal criterion, and the downward erosion of coverage has been recognized by increasing the return on common equity.

In addition, in determining rate of return on common equity, we have considered factors such as the physical area of Edison's operations; Edison's growth statistics; the effects of inflation, a consideration that cuts both ways in that we must allow Edison to recover its increased costs of operation because of inflation, but we must do our best not to add to inflation and, to some extent attempt to curb it; and finally, and most importantly, we have considered the interest of the consumers. Not only their interest in terms of rates but also their interest in being served by a company that is capable of upgrading its service to meet modern environmental standards.

Based on the foregoing, we find that a reasonable return on common equity for Edison is 11.9 percent. When applied to Edison's capital structure and embedded cost of debt, as found reasonable above, this results in a fair rate of return to Edison of 7.9 percent. We will allow Edison a range in rate of return between 7.7 percent and 8.1 percent and will set rates to yield a 7.9 percent return. At this return Edison's interest coverage will be 2.87 percent.

III

RESULTS OF OPERATIONS

A. Jurisdictional Allocations

Sales of electric energy by Edison to various governmental agencies for resale are considered sales in interstate commerce within the meaning of the Federal Power Act and, therefore, subject to the jurisdiction of the Federal Power Commission. Consequently, it is necessary to allocate revenues, expenses, and rate base items to those subject to the jurisdiction of the California Public Utilities Commission and those subject to the jurisdiction of the FPC. The California jurisdictional items must then be allocated between customer groups.

In the preparation of a cost allocation study the two principal areas of controversy have generally been the method utilized in classifying expense and rate base items as to those that are demand-related and those that are energy-related, and the method of allocating the demand-related items to various groups. In this case the staff classified fuel costs as energy-related; purchased power costs were classified as demand-related or energy-related in accordance with the demand and energy charges in the purchased power contracts; and hydro-production costs were classified as demand-related in relation to the percentage of kilowatt-hours produced by hydro plants in an adverse year compared to the kilowatt-hours produced in an average year, which in this case results in classifying 50 percent of the hydro-production expense as demand-related and 50 percent as energy-related. The major portion of thermal production rate base was

classified as demand-related, and the major portion of thermal maintenance costs were classified as energy-related. Thermal generating production operating costs and transmission operating and maintenance costs were classified as demand-related.

For the jurisdictional allocation, load data is available for "resale" customers subject to FPC jurisdiction and total system, which permits the allocation of diversity benefits between "resale" and "other than resale" in accordance with each group's actual contribution to diversity benefits at the time of monthly system peaks. Demand-related costs were allocated between jurisdictions in accordance with the weighted average 12-months coincident peak demands. This method recognizes the effect on the total capacity requirement for generation equipment throughout the year, including scheduling of maintenance. The results would not be markedly changed by a shift in time of system peak as would be the case were a single month peak responsibility method used.

We have set out the method of cost allocation used by the staff in some detail to show that allocating cost between jurisdictions, and also between customer groups, is much more than a mathematical computation of the obvious; cost allocations require numerous assumptions based upon experience and informed judgment.

Edison and the staff are agreed on the method of jurisdictional allocation. In their original exhibits (Edison's Exhibit No. 3, Chapter 19, and the staff's Exhibit No. 11, Chapter 4), they used the same method of allocation and reached comparable results for all items except pooling contracts. Pooling contracts involve the sale of electric energy between various power sources in California. Edison's total revenue from pooling contracts is shown as $6,361,000, of which the staff allocated $2,376,000 to California jurisdictional operations with an offset of $2,376,000 to California jurisdictional purchased power expenses. This $2,376,000 item is the off-peak delivery to the State Water Plan. Edison agreed that the staff's treatment of the item was proper and stated that they would update their exhibits to show this, which they neglected to do. We will follow the staff method.

Both Edison and the staff estimated results of operations on the basis of total system revenues, expenses, and rate base, which were then allocated between jurisdictions. We will follow this procedure in discussing and resolving the various differences between the estimates.

B. Rate Base

The differences in staff rate base and Edison's rate base for 1972 estimated, and our adopted rate base, are:

Comparison of Weighted Average
Depreciated Rate Base
1972 Estimated System Operations

Item	Staff	Edison	Edison Exceeds Staff	Adopted
	(Dollars in Thousands)			
Electrical Plant Beginning of Year	$3,764,930	$3,852,580	$87,650	$3,852,580
Weighted Average Additions	157,976	79,560	(78,416)	79,560
Weighted Average Electric Plant	3,922,906	3,932,140	9,234	3,932,140
Adjustments	(80,998)	(80,998)		(80,998)
Materials & Supplies	60,500	64,150	3,650	60,500
Prepayments & Working Cash	51,000	51,000		51,000
Total Before Deductions	3,953,408	3,966,292	12,884	3,962,642
Deductions For Reserves				
Depreciation	811,865	810,589	(1,276)	812,365
Taxes (Accel. Amort.)	34,970	34,970		34,970
Amort. Deferred ITC	1,953		(1,953)	1,953
Unfunded Pensions	17,600	15,900	(1,700)	17,600
Total Deductions	866,388	861,459	(4,929)	866,888
Weighted Average Depreciated Rate Base	3,087,000	3,104,833	17,833	3,095,754
Use				3,096,000
California Jurisdictional Rate Base	2,938,812	2,951,858	13,046	2,947,000

( ) Denotes red figure.

As discussed above, there is no material difference between Edison and the staff in the method of allocating California jurisdictional rate base from total system rate base; therefore, we will discuss the differences in rate base in relation to total system operations.

1. Electric Plant In Service

Edison Exceeds Staff by $9.2 Million

The difference between the staff's and Edison's estimate is almost entirely due to estimating when the gas-fired Ormond Beach No. 1 plant is scheduled to become operational. Edison estimates November 1971. The staff expert testified that based upon past experience with Edison he expects a three-month delay until mid-February 1972 before the plant is fully operational. Therefore, he deducted the entire cost of the plant ($87.6 million) from the account, Electrical Plant in Operation Beginning of the Year, and then put back 10-1/2 twelfths of it ($78.4 million) as plant additions in 1972. He developed his three-month lag from the trend of composite plant additons for the period January 1967 through the fall of 1970. He said that he studied ten recent additions of generating plant and found that eight of the ten did not come on line within the time scheduled for operations. He said that the delays were caused by litigation and regulatory lag and problems with plants other than oil- or gas-fired steam generating units. Edison's witness testified that the Ormond Beach No. 1 steam generating plant will be operational as scheduled. As late as April 16, 1971, there was no direct evidence based upon an

inspection of the plant and work progress reports that Ormond Beach No. 1 would not be operational on schedule. We find that the Ormond Beach plant should be considered operational on schedule.

2. Materials and Supplies

The difference in the estimates for materials and supplies is in the treatment of unpaid invoices and trended data. Edison used a constant amount for deductions of unpaid invoices for each of the years; the staff used trends. We will adopt the staff estimate.

3. Depreciation

The differences between the staff and Edison's weighted averaged depreciation reserve estimates are due to the scheduling of plant additions and depreciation accrual rates. Because we are using Edison's estimates of plant additions, this depreciation expense should be adjusted accordingly. The staff used 1971 accrual rates rather than the 1970 accrual rates used by Edison. We will adopt the staff's accrual rates. This results in the depreciation expense being higher than either estimate.

4. Deduction for Deferred Investment Tax Credit

This tax reserve has been deducted in accordance with the Commission's rate making procedures for accelerated amortization. We will adopt the staff estimate.

5. Deduction for Unfunded Pension Reserve

This deduction is based on the staff estimates of net charges to this reserve and reflects Account No. 926, Employee Pensions and Benefits, which is a portion of Administrative and General Expenses. We will adopt the staff estimate.

6. Summary of Rate Base

Based upon the adjustments found to be reasonable, we find that Edison's weighted average depreciated rate base for 1972 estimated, systemwide, is $3,096,000,000; Edison's California jurisdictional rate base is $2,947,000,000.

C. Revenues and Expenses

The major differences in the estimates of revenues and expenses of Edison and the staff result from the use of different starting points on recorded information, different trending factors, and Edison's estimating a five percent wage increase in 1972. In tabular form these differences, and our adopted results of operations, are:

Comparison of Summary of Earnings at Present Rates
1972 Estimated System Operations

Item	Staff	Edison	Edison Exceeds Staff	System Adopted	California Jurisdiction Adopted
	(Dollars in Thousands)				
Operating Revenues	$ 831,166	$ 831,166	$ -	$ 831,166	$ 793,508
Operating Expenses					
Production	222,365	223,645	1,280	222,365	201,638
Transmission	26,541	27,317	776	26,541	24,264
Distribution	50,283	52,096	1,813	50,283	49,501
Customer Accounts	20,361	20,540	179	20,361	20,030
Sales	8,800	10,769	1,969	7,600	7,612
Admin. & General	56,911	58,765	1,854	57,431	54,993
Subtotal	385,261	393,132	7,871	384,581	358,038
Wage Adjustment	(2,538)	-	2,538	-	2,462
Subtotal, Adjusted	382,723	393,132	10,409	384,581	360,500
Depreciation	103,053	103,079	26	103,400	99,113
Taxes Other Than on Income	90,506	92,291	1,785	90,611	86,852
Subtotal	193,559	195,370	1,811	194,011	185,965
Taxes Based on Income	49,137	45,633	(3,504)	49,260	50,258
Total Operating Expenses	625,419	634,135	8,716	627,852	596,723
Adjustments					
Fuel Expense	28,460	29,101	641	28,460	26,296
Wages	-	3,274	3,274	3,000	2,911
Sales Expense	-	(1,869)	(1,869)	-	-
Average Year	672	622	(50)	672	655
Taxes Based on Income	(15,043)	(16,074)	(1,031)	(16,592)	(15,324)
Subtotal Adjustments	14,089	15,054	965	15,540	14,538
Total Adjusted Oper. Expenses	639,508	649,189	9,681	643,392	611,261
Net Revenue	191,658	181,977	(9,681)	187,774	182,247
Weighted Avge. Dep. Rate Base	3,087,000	3,100,000	13,000	3,096,000	2,947,000
System Rate of Return	6.21%	5.87%	(.34)%	6.07%	6.18%

( ) Denotes red figure.

1. Revenues

There is no difference between Edison's and the staff's estimate of revenues for 1972 for the total company. However, there is a difference in California intrastate revenues due to the staff's including $2,376,000 of revenue derived from pooling contracts as California jurisdictional revenue. Edison does not object to this treatment and it has been discussed above in the section on jurisdictional allocations.

2. Expenses

a. Wages

Edison's original estimate of 1972 wage expense included a five percent wage increase for 1971 and a five percent increase in 1972 over the 1971 wage level. In order to insure comparability in all expense categories, the staff included the same wage increases in its estimates. After the original estimates of Edison and the staff were prepared, Edison and its employees entered into wage contracts for 1971 which resulted in a wage increase in 1971 of eight percent. Both Edison and the staff made appropriate adjustments to reflect this additional three percent wage increase. However, the staff felt that it would be too speculative to anticipate a wage increase in 1972. Therefore, the staff adjusted its 1972 estimate downward by five percent for wages. This results in the staff's 1972 wage estimate being five percent less than Edison's 1972 estimate (about $5.5 million). Nevertheless, the staff asserts that Edison should be able to reflect any wage increase negotiated in 1972 in its 1972 test year as an offset when it is incurred.

We do not agree that an offset is the proper way to handle this problem. First, any offset will require an increase in rates, thereby having two rate increases within a comparatively short time. Second, an offset procedure which involves only one item of expense out of a multitude of expense items, and does not consider any possible changes in revenues, tends to be misleading and prone to error. Offset procedures should be avoided wherever possible. Third, to permit an offset of wages would be in effect to give a blank check to Edison and its employees' unions, signed by the Commission, to be filled out in any amount that Edison and the unions agree upon. We do, however, concur in the staff's concern that an allowance for increased wages for rate-making purposes not be interpreted as a "floor" from which negotiations might commence. We have evaluated the various estimates of operating expenses in arriving at adopted results for rate-fixing purposes and do not find that any specific amount is appropriate as a wage adjustment for purposes of collective bargaining. By trending a reasonable amount for a wage increase, we unavoidably touch on the delicate area of labor-management negotiation, which we have traditionally preferred to avoid, but to refrain from trending a wage increase in the face of today's economic realities would put an unfair burden on both Edison and the unions; to use the offset procedure suggested by the staff would put an unfair burden on the rate payers.

b. Fuel Expense Adjustment

Increased fuel costs which became known after original estimates were placed in evidence account for approximately $28,500,000 of the total rate increase authorized by this decision. This exceptional increase comes about because of three factors: (1) an increase of about 56 percent in cost of oil between 1970 and 1972; (2) the increased use of low sulphur oil due to a shortage of natural gas; and (3) air pollution regulations that require the burning of expensive low pollutant oil. This latter factor needs emphasis because with the increasing concern for environmental improvement and a shortage of natural gas (at least for the next few years), it is apparent that Edison will be using more and more high-grade oil and paying higher prices for it.

The $641,000 difference between the estimates is because the staff projects somewhat less use of fuel oil and more use of coal for generating requirements. This reflects the staff's treatment of production expenses discussed below. We will adopt the staff's estimate.

c. Production and Transmission Expenses

Edison's estimate exceeds the staff's by $2,056,000. The differences are principally attributable to different methods of trending; the staff assuming higher use of surplus purchased power and, therefore, less need for thermal power; the staff assuming that coal plants will generate more electricity in 1972 and, therefore, gas-oil plants will need to generate less; the staff using maximum current authorized gas fuel cost including tracking rather than estimating higher rates in 1972; and the

staff expecting that there will be a saving of $140,000 in 1972 from the use of Pacific Intertie facilities. These are essentially differences in judgment and we will adopt the staff's estimates. This result includes the effect of the fuel expense adjustment discussed above.

d. Distribution Expenses

Edison's estimate exceeds the staff's by $1,813,000. The differences result from conflicting theories on the application of "growth factor" methods applied to recorded expenses; differences that reflect the use by Edison of a growth factor several times higher than customer growth; differences in trended expenditure patterns by the staff; and differences in analysis of trended costs, trended unit costs, and averages. These are essentially differences in judgment and we will adopt the staff's estimates.

e. Customer Accounts

Edison's estimate exceeds the staff's by $179,000. The difference is primarily one of judgment and we will adopt the staff estimate.

f. Sales

This account includes amounts for promotional allowances and advertising. Edison's estimate originally exceeded the staff's by $1,969,000. Edison has agreed to reduce its promotional budget for 1972 by $1,869,000, still leaving over $3,000,000 budgeted for promotional allowances and advertising. (Promotional advertising should be distinguished from institutional advertising accounted for in Administrative and General

Expense.) In our opinion this amount is too high. Edison's evidence shows that in 1969 it expended $3.75 in sales expense per average customer compared to $5.21 for Southern California Gas Company, $5.30 for Southern Counties Gas Company, $2.31 for Pacific Gas & Electric Company, and $1.94 for San Diego Gas & Electric Company. The combination gas and electric companies spend much less on promotional allowances and advertising than the separate gas and electric companies because the combination companies have little substantial competition from alternate fuel sources. Advertising competition between regulated utilities does not help the ratepayer (see our discussion below under Rates) and the ratepayer should not be burdened with a high advertising expense. Further, we question the usefulness of advertising to increase demand for electric service. The Chairman of the Board of Edison testified that although Edison has stopped its air conditioner promotion advertising, the use of electricity for air conditioning still grows. Obviously, the people of Southern California understand the uses for electricity. Also, to the extent that Edison's advertising is, in fact, effective and thereby increases peak demand, we question the wisdom of deliberately soliciting this extra business when fuel costs and wages are rising at an extraordinary rate, when generation plant sites are difficult to find, and when found, construction is often delayed by litigation, and where the problem of finding adequate land over which to run transmission lines without desecrating the landscape is becoming more and more difficult. Until more efficient means are found to generate and transmit electricity,

the days of Edison's eagerly standing by to provide electricity for every new can opener that is invented are fast drawing to a close. In our opinion it is imprudent for Edison to expend over $3,000,000 for promotional advertising in 1972. For rate-making purposes we will reduce its promotional allowances and advertising expenses by an additional $1,200,000.

g. Administrative and General Expenses

Edison's estimate exceeds the staff's by $3,054,000. These costs include executive, accounting, treasury, law and personnel functions, pensions and benefits, development and engineering, institutional advertising, and others. The category is broken down into 13 subaccounts. Edison and the staff agree on estimates for six accounts. Of the other seven, we will adopt the estimates of Edison for Accounts 920, 921 and 922 (Administrative and General Salaries, Office Supplies and Expenses, and Administrative Expense Transfer), and we will adopt the staff estimates for Accounts 924, 926, 930 and 932 (Property Insurance, Employee Pensions and Benefits, Miscellaneous General Expense, and Maintenance of General Plant).

Account No. 920 is composed entirely of labor costs. Edison trended this account based upon 1970 estimates which closely approximated 1970 recorded adjusted figures. The staff modified its 1970 estimate to eliminate what it considered to be an unreasonably abrupt increase in 1970 for this account and then trended the adjusted figure. In addition to starting from a point approximately $300,000 less than the 1970 recorded figures, the staff assumed that administrative and general salaries, which are the salaries mainly of supervisory personnel, would not increase in reasonable proportion to the 1972 projected increase in the number of non-supervisory personnel. There is room for wide differences in judgment in estimating this account. In our opinion, the account fluctuates more directly with non-supervisory personnel than the staff allows. Because of this, and because the staff started from a 1970 estimate that in our opinion is too low, we will adopt Edison's estimate.

We will adopt Edison's estimate for Account 921 except for the amount of $43,000 which Edison estimates it will pay to chambers of commerce and similar organizations. This adjustment is consistent with past Commission decisions. Account 922 is a function of Accounts 920 and 921 and, therefore, we will adopt Edison's estimate, slightly modified.

Account 930 is Miscellaneous General Expenses and a more egregiously misnamed account cannot be found in Edison's exhibits. This "miscellaneous" account is the repository of over ten percent of all expenses attributable to Administrative and General Expenses. It includes the very important and controversial accounts for dues and donations, a large part of research and development, and institutional advertising. It appears to us that these three items should be separately stated and accounted for. The staff reduced Edison's estimate for dues and donations by $371,000 which is consistent with past Commission decisions for this item, and which we will follow. The staff originally recommended a reduction in Edison's estimate for engineering expenses by $1,200,000 based upon past experience of Edison whereby Edison budgets somewhat larger amounts for development and engineering than it actually spends. However, in response to a Commission directive to all utilities to increase research and development, especially in the environmental field, the staff withdrew its recommended adjustment. The staff reduced Edison's estimate for institutional advertising by $300,000. In the staff's opinion, Edison should find more economical ways to advertise. We will make the adjustment because, in our opinion, advertising expenses are high and the company should be devoting its energy to research and development.

The staff estimates for employee pensions and benefits differ from Edison's because the staff used more up-to-date information than Edison and because the staff used a lower accrual rate in determining pension expense. The difference in maintenance of general plant arises from differences in the estimated expense level for 1970. The difference in property insurance is negligible. We will adopt the staff's estimates.

h. Taxes

The difference in tax expense is largely a function of the difference in estimating the various accounts, including amounts for liberalized depreciation, and, other than the investment tax credit and interest allocation issues, need not be discussed. The investment tax credit is applicable to the Ormond Beach plants, one to be operational in late 1971 and one operational in 1973. Taking the credit in the year earned results in a credit of $3,840,000 in 1971, a negative $20,000 in 1972, and a credit of $1,930,000 in 1973. The staff recognizes that we have recently considered the question of accounting for the investment tax credit and decided that the actual credit earned instead of a five-year average investment tax credit should be used in computing income taxes for rate-making purposes. (Decision No. 77700 dated September 1, 1970 in Application No. 50363.) The staff requests that we reconsider this decision and permit, in test year 1972, a three-year average for the investment tax credit earned in 1971-72-73. The staff request is denied.

The other tax difference of note was the staff's use of a 94 percent interest allocation factor for the test year as contrasted to Edison's 90 percent factor. The staff factor is based on the ratio of 1972 estimate average operative plant in service to total net plant investment. Operative plant does not include interest bearing construction work in progress. The use of a lower allocative factor results in a higher tax expense. The staff factor is based on Edison's construction budget for 1972; Edison's factor is based on recorded data for 1969 and estimates for 1970. The staff factor more accurately reflects 1972 operations and we will adopt it.

3. Summary of Adopted Results of Intrastate Operations

We find that Edison's system operations adjusted net revenue for 1972 estimated is $187,774,000. The amount attributable to California jurisdictional operations is $182,247,000. When this latter sum is applied to the 1972 estimated California jurisdictional rate base of $2,947,000,000, the resulting rate of return is 6.18 percent. We have herein found that the reasonable rate of return for Edison is 7.9 percent. For Edison to achieve this rate of return for California jurisdictional operations, we find that Edison is entitled to increase its rates by $105,500,000. Rates will be authorized which should produce this amount.

IV

RATES

Determining Edison's revenue requirement is not enough; we must also determine how much each customer must pay to recover that revenue requirement. This determination is at least as complex as that of determining the revenue requirement. Although "rate spread" is the conventional term used to describe the process, the parties used somewhat more precision in their testimony and we will try to be as precise. Throughout this case the term "allocation" was used to describe the division of rate base, revenues, and expenses between the various customer classes; the term "apportionment" was used to describe the division of the increase in revenue requirement among the various customer classes; and the term "rate spread" was used to describe the demand charge, commodity charge, and rate blocks within a particular customer class, the application of which would recover the amount of revenue apportioned to that class. In this case the staff and Edison agree on the method of making the cost allocation between customer classes and spreading the rates within each customer class. To the extent that interested parties have challenged this method, we have not been persuaded. We adopt the method of Edison and the staff in allocating costs and spreading rates.

The problem of apportioning the revenue requirement between the various customer classes was hotly contested and took up at least one-third of the total time of these hearings. An analysis of the table on page 41 shows the scope of the problem. For purposes of analysis, and by way of illustration only, we will use Edison's estimated 1972 CPUC jurisdictional rate base, Edison's estimated 1972 rate of return, the apportionment achieved by Edison to recover the approximately $128,000,000 additional revenue requirement asked by Edison, and the apportionment achieved by the staff to recover a comparable amount. Line 3 of the table shows that Edison's estimated 1972 rate of return at present rates will be 6.47 percent; all customer classes other than Lighting and Small Power pay less than 6.47 percent. Line 5 shows that Edison's proposed increase would increase total system revenue by 16.2 percent, yet no class is raised 16.2 percent; three are raised more and four are raised less. Line 7 shows that the staff, by using a different method of apportionment, raises the same 16.2 percent but arrives at different results. The staff recommends that only one class have its rates raised by 16.2 percent (Agriculture and Pumping); three classes would be raised more than system average increase and three classes would be raised less. The first conclusion to be drawn from this table is that no matter which method of apportionment is used, Edison recovers its revenue requirement in its entirety.

Item	CUSTOMER CLASSES: Domestic	Lighting & Small Power	Large Power (A-7)	Very Large Power (A-8 & Specials)	Off-Peak	Agricultural & Pumping	Street Lighting & OL	Total
	(Dollars in Thousands)							
1. Edison Estimated 1972 CPUC Jurisdictional Rate Base	$1,178,000	$595,000	$647,000	$275,000	$10,000	$124,000	$91,000	$2,920,000
2. Edison Estimated 1972 Revenue at Present Rates	310,289	195,843	149,422	77,956	3,090	28,056	20,225	784,881
3. Edison Estimated 1972 Rate of Return	5.77%	10.09%	5.46%	5.44%	3.43%	4.53%	5.08%	6.47%
4. Edison Proposed Rate Increase to Recover $127,465	52,267	33,158	25,065	9,583	247	4,415	2,730	127,465
5. Percent Increase Over Present Rates	16.8%	16.9%	16.8%	12.3%	8.0%	15.7%	13.5%	16.2%
6. Staff Proposed Rate Increase to Recover $127,322	48,783	32,440	25,156	12,782	384	4,546	3,231	127,322
7. Percent Increase Over Present Rates	15.7%	16.6%	16.8%	16.4%	12.4%	16.2%	16.0%	16.2%
8. Adopted Percent Increase Over Present Rates	13.9%	12.4%	13.9%	13.4%	12.4%	13.4%	11.1%	13.4% 1/
9. Revenue Increase	43,100	24,290	20,743	10,473	384	3,749	2,251	105,500 1/
10. Revenue at Authorized Rates	353,389	220,133	170,165	88,497	3,474	31,805	22,476	890,381 1/
11. Rate of Return 2/	7.4%	11.8%	6.6%	6.6%	3.6%	5.7%	6.3%	7.9%

1/ Includes $510 increase for Other Operating Revenues.

2/ Adopted Rate Base (000,000): $2,947 = ($2,916 (Customer Classes) + $31 (Other Operating Revenue)).

The standard liturgy in revenue apportionment calls for the consideration of rate history, characteristics of use, rate zoning, stability of revenue, comparison with other utilities, cost of service, value of service, and competitive considerations, all leavened with the application of judgment and experience. These considerations boil down to four: cost of service, competition, characteristics of use, and public benefit.

If cost of service were the sole criterion, as some assert it should be, then after the cost allocation is made it would be a simple process to apportion the revenue requirement in the same ratio as costs are allocated, with each class of customers providing system rate of return. (Rate of return is as much a cost of providing service as the price of fuel.) One reason that cost of service is not the sole criterion, or even the principal one, is that rate experts agree that allocating various costs is a matter of judgment.

Rate history is merely the acknowledgment that at some time in the past rates were set for varying classes which differed from system rate of return. Those reasons may have been competition, characteristics of use, e.g., taking off-peak, or public benefits, e.g., a Commission decision that the public welfare requires encouragement of certain types of electrical use, such as agricultural pumping or street lighting. The study of past rate disparity is valid in a current rate case to determine if the factors that led to the original rate disparity

are still present and if so, to continue the rate disparity or, if changed, to modify the rate disparity, but in such a manner so as not to make abrupt changes in the rates that cause undue hardship to the customer class.

Considerations such as value of service, comparison of rates with other utilities, revenue stability, and competitive factors, are all varying aspects of competition. From the utility point of view, competitive factors require rates low enough to attract new business and to prevent present business from reducing use, switching to other utilities, or self-generation. This is the counterpart of value of service which, to the customer, means that the utility service is priced low enough so that the customer will not consider switching to another utility, reducing usage, or generating its own electricity. Comparisons of rates with other utilities is a routine test to insure that rates are not so out of line that some customers might switch, and that the company is operating efficiently. Revenue stability means merely that rates should be set so that customers will not switch from their present utility and will not reduce their usage of electricity to an extent that would affect the utility's ability to recover its revenue requirement.

Edison's competitive threat comes from the following sources: (1) self-generation; (2) present customers relocating in the territory of other utilities, or transferring certain operations from their plants in Edison's territory to plants in the territory of other utilities; (3) present customers changing from electrically (or gas) operated appliances to gas (or electricity); and (4) prospective customers locating in another territory. Edison asserts that these competitive threats caused it to advocate only a 12.3 percent increase in rates to its very large power customers (A-8) rather than the 16.4 percent increase advocated by the staff. Edison says that an increase to its A-8 customers larger than it proposes "would upset the competitive relationships necessary to maintain and obtain an appropriate share of this energy market, as against competition from other energy suppliers, i.e., gas distributing utilities and other electric utility systems."

Although on the surface it appears that these competitive threats should concern the Commission, in fact, if the Commission should authorize lesser increases in rates for certain customers in response to the threats, the result would be a whipsawing[1/] of the Commission by the large users. The most obvious example is competition between utilities. Edison competes with both Pacific Gas & Electric Company and San Diego Gas & Electric Company in the sense that potential customers have the

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1/ Whipsaw "To use more favorable terms gained (as in one company) as the precedent or leverage to win equal or greater concessions from (as a related company)." (Webster's Third New International Dictionary 1964.)

choice of locating in either of the three utility areas and current customers have the choice of either relocating or switching certain operations among plants served by the different utilities. Clearly, for the Commission to reduce Edison's rates to attract this customer and thereby benefit Edison's system the result would be detrimental to the other utilities, who would have good grounds to petition the Commission to authorize comparable competitive rates. Such reductions in rates, of course, do not come out of the utility's gross revenue requirement but, as the table shows, are picked up by the Lighting and Small Power class.

Edison and the Los Angeles Department of Water & Power (the Department) are in a position to compete for customers. The problem here is similar to the problem of competition between regulated utilities except that this Commission does not regulate the rates of the Department, which usually parallel Edison's, although mostly lower because of the inherent tax advantage of a municipally-owned utility. For Edison to engage in a rate war with the Department is surely an exercise in futility since the Department, as long as it has this tax advantage, will have the ability to undercut Edison's rates.

The so-called competition that Edison faces from self-generation perhaps requires a more subtle analysis but is still a whipsaw. For a very large power user to generate its own electricity at a price cheaper than it can buy from Edison requires that power user not only to install, operate, and maintain expensive and complex equipment but also to

utilize interruptible natural gas supplemented by other, higher-priced fuel, during the periods of interruptibility.[2/] As far as we know, no company in California, other than a gas company, purchases natural gas at prices cheaper than the price Edison pays. To our knowledge, all customers on Edison's system would have to pay higher prices for natural gas than Edison pays. This Commission sets the prices for natural gas sales at retail in California. The companies in California that sell natural gas have problems comparable to Edison in relation to load factors, growth, revenues, expenses, and apportionment of revenues between various customer classes. To the extent that Edison is successful by rate cutting in obtaining business that might otherwise go to the gas company, the gas company is harmed; to the extent that the gas company cuts its rates to lure Edison customers away from Edison, Edison is harmed. Of course, as far as gross revenue is concerned, neither company is harmed; the Lighting and Small Power class makes it up for Edison and its analogue on the gas company system makes up the revenue reduction of the gas company. So, rate cutting only benefits individual customers that can change utility companies or methods of generation and harms captive customers who must make up the revenue deficiencies.

2/ An exception to this is the large power user who can utilize a waste by-product of its operation, such as sewer gas, to generate electricity. For Edison to compete successfully for this business extremely low rates are needed and one result would be the economically wasteful nonutilization of the by-product.

Another aspect of the electric company/gas company competition is Edison's campaign to have electricity used for space heating and cooking. Every house that uses electricity rather than gas for space heating and cooking gives business to Edison and takes business from the gas company. Customers who wish this choice are free to exercise it, but the Commission should not become involved in this competition by setting special promotional rates for Edison. If that were done, we would have no choice but to set special promotional rates for the gas company. Such a result is nonsense, yet this is essentially what happens when we give special rates for very large power users. As Edison's rate expert stated, if there were no competition from other utilities and self-generation, he would have recommended that rates for very large power users be increased by the system average. This Commission must protect all consumers in California and all public utilities. Unless there are compelling public reasons, we cannot favor one class of consumer over another, and we cannot benefit one utility at the expense of another.

There are situations where competition is a factor and should be considered in rate design. One situation is where the competition is with nonutility service such as engines powered by fuel oil. Another is where the revenue requirements of a utility operating in an adjacent territory when applied to the cost of serving its very large power users result in a disparity in rates of such a magnitude that the company with the higher rates would have a difficult time attracting new customers and

might lose present customers. In such circumstances the rates of that company for very large power users could well be lowered.

Using the cost allocation method developed by Edison and the staff and considering the factors discussed above, we adopt the following percentage increases by customer classes (based upon an increase of California jurisdictional revenue of 16.2 percent over-all): Domestic, 16.8 percent; Lighting and Small Power, 16.5 percent; Large Power, 16.8 percent; Very Large Power, 16.4 percent; Off-Peak, 12.4 percent; Agricultural and Pumping, 16.2 percent; and Street Lighting, 13.5 percent. We have factored these figures downward as $105,500,000 is to $128,000,000. The result is the percentage increases shown on Line 8 of the table on page 41.

1. Large Power - We have adopted the recommendation of Edison and the staff as to the increase for large power because there was no dispute.

2. Domestic - We have adopted Edison's recommendation as to the increase for domestic users in order to bring the rate of return for this class closer to system average.

3. Small Power - We have adopted the staff recommendation, modified by adjustments to the other classes, in order to bring the rate of return for this class closer to system average.

4. Off-Peak - We have adopted the staff recommendation in order to bring the off-peak rate of return closer to system average. We recognize that off-peak should have a very low rate of return because of the benefits received by the entire system from this service.

5. Agricultural & Pumping - We have adopted the staff recommendation for this class in order to bring the rate of return for this class closer to system average. Prior to the rate increase authorized herein, this class earned a rate of return lower than any other class on the system other than off-peak. After the authorized rate increase goes into effect, this class will still earn the lowest rate of return of any class on the system other than off-peak.

The California Farm Bureau Federation and the Friant Water Users Association both appeared on behalf of agricultural interests. Their position was that there should either be no rate increase at all or a very small rate increase for the agricultural and pumping customer class. Their reasons were: (1) farmers are poor; (2) farmers don't use the new facilities Edison is constructing to provide adequate service throughout their whole system; and (3) the usage characteristics of persons taking under this schedule are different from the usage of other customers. None of these reasons have merit. We cannot fix rates because one group of users is poor. To do so would require establishing classes for welfare recipients, senior citizens, and any industry that at the time of a rate case happens to be in dire financial need, such as the aerospace industry today. Persons taking service under the agricultural and pumping schedule are getting good service because Edison has a system that is up-to-date and being constantly improved.

Everybody must pay for this improvement. The usage characteristics of this class of customer have changed, and this is one instance where rate history does have a bearing on rates. In the past, daylight pumping was during off-peak hours, but today the summer peak demand for agricultural and pumping customers is coincident with system peak demand. For this reason alone their rate of return should be raised.

6. Street Lighting - We have adopted Edison's recommendation for increasing this customer class. In our opinion, street lighting should earn less than system rate of return for two reasons: except for short periods during the winter months, it takes at off-peak hours, and it is extremely important for public safety that streets be adequately lit. In our opinion, adequate and increased use of street lighting has a direct and immediate bearing on reducing crime, and on improving public safety in general.

7. Very Large Power - We have adopted the staff percentage increase in this category. In our opinion, the return from very large power should trend toward system average. Appearing in support of reduced rates under the A-8 schedule were the California Manufacturers Association (CMA), Kaiser Steel Corporation, Air Products and Chemicals, Inc., Union Carbide Corporation, and Shell Oil Company.

CMA asserts that Edison and the staff cost studies overstate the cost of industrial service because of improper classification and allocation; that competitive power costs justify a limit in increases to very large power customers; that the proposed Schedule A-9 should be approved; that voltage discounts in Schedule A-8 should not be reduced; and that the demand blocking of Schedules A-7 and A-8 should not be changed. For the reasons heretofore stated, it is our opinion that the rate increase authorized for very large power users will not work to a competitive disadvantage to Edison and that the asserted risk to Edison and its remaining customers is minimal. For the same reasons we will not authorize the proposed A-9 schedule. We are aware that there is some elasticity in electrical demand and that by raising rates some demand may be reduced, but that effect takes place all over Edison's system and is considered in the rate blocking. Edison has always lost customers for one reason or another, but it has always gained more than it lost.

CMA states that the load factor/diversity factor method used by Edison and the staff makes false assumptions as to both classification and allocation of costs which work to the disadvantage of high load factor customers. We do not agree. The assumptions made by Edison and the staff are not false; they are merely different from the assumptions made by high load factor customers. The very large power users presented evidence concerning methods of classification and allocation which, if adopted, shows that their electric bills would be less than if

Edison and the staff's method is used. The method used by Edison and the staff has been in use since at least 1925, is widely accepted as a valid method of allocation, has been widely discussed, analyzed, and commented upon in the literature in the field, and has been specifically approved by this Commission in the last Edison rate case. There is no evidence in this case that the method advocated by the CMA is in wide use or has had the exposure of the method advocated by Edison and the staff. Its only virtue seems to be to lower the electric rates of very large power users.

Edison delivers electricity to its customers over transmission lines at very high voltages. Few, if any, customers can use electricity at these voltages and, consequently, Edison provides substation step-down equipment to reduce the high transmission voltages to a level suitable for use by customers. Some customers have their own step-down equipment and, therefore, can take power from Edison at very high voltages. Because of this Edison does not need step-down equipment to serve these customers, and, to a degree, Edison's costs of service are less. This lessened cost of service is passed on to the customer by way of a voltage discount. At present rates the voltage discount is 4 percent for service delivered at 66,000 volts and over, and 2 percent for service delivered at 33,000 volts. Edison proposes to reduce this charge to 2 percent and 1 percent, respectively; the staff concurs. CMA asserts that the charge should not be reduced. Edison presented cost studies that substantiated this reduction. We find that Edison's position is sound and that the voltage discount should be reduced as proposed.

Edison concurred in the staff's proposal to eliminate the demand block between 10,000 kw and 50,000 kw in Schedules A-7 and A-8. CMA and Kaiser object because the elimination does not recognize the cost saving for customers with demand loads above 50,000 kw. Kaiser asserts that the elimination will have the effect of increasing Kaiser's power bill in the order of $5,000 a month. Whether Kaiser's bill is increased or decreased by a change in rate blocking is of no moment. There is nothing immutable about rate blocks and every time they are changed somebody's rates will go up and perhaps others' rates will come down. We cannot single out one customer for special treatment. Similarly, we are not persuaded that there is a material unit cost saving to Edison in serving loads above 50,000 kw. On Edison's present day system the size of a transmission substation is determined by area load requirements which in urban areas bear little or no relationship to the size of the demands of individual customers in the area.

The arguments presented by Union Carbide and Shell are similar to those presented by the CMA and need not be discussed. Our conclusions as to these arguments are the same as our conclusions as to CMA's arguments.

There seems to be an idea among the very large power users that in some way their taking power from Edison is a blessing to Edison and other customer classes for which all other customer classes should be thankful and be happy to pay higher rates. These users keep talking about their high load factors,

their contribution to system diversity, and the fact that they balance the load for other customer classes. In point of fact, load factor and diversity are recognized in cost allocations in the load factor/diversity method; and the competitive scramble for their business is recognized in the low tail-block rates and low rate of return apportioned to that class. We also note that an A-8 customer pays an average of .77 cents per kilowatt-hour as compared to 2.29 cents for the domestic customer, 2.16 cents for the small general service customer, and 1.59 cents for the system as a whole. The real issue is not balancing: When very large power users are estimated to purchase 10,000 M^2 kilowatt-hours in 1972 as against the domestic users' purchase of 13,535 M^2 kilowatt-hours, from the domestic user's point of view, his class balances the very large power class. Nor is the issue fairness: When the very large power class will pay $78 million at present rates for its purchase while the domestic class will pay $310 million for its purchase. The real issues are cost allocation, competition, and elasticity of demand. We have discussed these issues elsewhere and we find that the cost allocation is reasonable and that at adopted rates competition for the very large power customer will not be inhibited nor will electric usage be so affected as to cause additional burdens to other customers.

8. Proposed A-9 Schedule - A concrete example of the problem of setting competitive rates is Edison's proposed A-9 schedule. This schedule will reduce rates under certain circumstances for a few large power users. It is so restrictive that there are not more than six customers on the whole Edison system that could purchase electricity under it. Edison is not sure how much the annual revenue reduction would be as it is not sure how many customers would take under the schedule, but its best estimate is $167,000 annually. Edison will absorb this revenue reduction until the next rate case.

The proposed schedule is a consequence of a special contract entered into between Edison and Air Products and Chemical, Inc., in 1968. Power cost alone accounts for as much as 42 percent of the total manufacturing costs of Air Products. When Air Products decided to locate a new plant in the Los Angeles area, it considered self-generation of electricity, taking service from the Department of Water & Power, and taking Edison's service. In order to attract this business, Edison offered a special contract with rates lower than Edison's lowest filed tariff. Air Products accepted this contract, which was approved by the Commission, and located its new plant in Edison's territory. The Linde Division of Union Carbide Corporation manufactures the same products as Air Products and has comparable power costs as a percentage of total cost. Union Carbide, claiming discrimination, is desirous of obtaining the same rate treatment. The result of Union Carbide's complaint is the proposed A-9 schedule, which is essentially the Air Products contract in tariff form.

The staff recommends that the A-9 schedule be rejected; we agree. This so-called schedule is no more than a special contract that will benefit probably one customer (Union Carbide) and possibly five. The benefits to Edison are nil as these customers are already on line. There is no suggestion that there are new potential customers waiting for this schedule to become effective. The detriment to Edison's other customers is obvious; they are going to have to make up the revenue deficiencies. The threat that Union Carbide might relocate some of its business elsewhere is a possibility, but we note that they are operating in Edison's territory, have been for years, pay Edison well over $3.6 million a year in utility rates, and have always had the opportunity of moving their operation into the territory of the Department of Water & Power, or any other place they wish. And even if they do move, for the reasons stated above in our discussion of competition, we do not wish to be placed in a position where the Commission is being played off against other rate making bodies solely for the purpose of obtaining low rates for one customer.

Further, in the market place, where theories of competition are put in actual practice, Edison's experience during the years 1968 through 1970 shows that of 21 potential customers that could qualify under Edison's A-8 schedule who considered on-site generation for their total electrical needs, only three actually went to on-site generation and those three generated electricity utilizing as a power source a by-product of their other operations,

e.g., sewer gas. During the same period, of 33 customers who investigated the use of electricity to operate central plants for air conditioning and refrigeration, only seven chose non-electric service to operate their central plants. And in these seven instances, Edison still supplies those customers with other electric service. More generally, the five-year compound growth rate for Edison (1964-1969) has been 10 percent; for 20 comparable electric utilities, 9.1 percent. In the same period the growth rate of electric customers is: Edison, 2.7 percent; 20 utilities, 2.4 percent. Edison has not suffered because of its rate structure, and does not need a new schedule for a few large customers in order to provide them with low rates. We find no competitive threat.

9. The Air Products Contract - The Air Products contract has ramifications in addition to those previously discussed. In that contract the parties recognized that Air Products' new plant would have to go through a start-up period before becoming a stable consumer of electric power. Therefore, the contract recognizes a three-year break-in period for which there is an energy credit rate to permit Air Products to go through its start-up procedures without being penalized. The three-year break-in period started March 1970, and ends in March 1973. Edison, in its request for an A-9 schedule, also requested that the rates specified in the A-9 schedule be made applicable to the Air Products contract at this time, but that the energy

credit feature be retained. The staff recommended that the A-9 schedule not be approved and that no change be made in the Air Products contract, but that at the expiration of the three-year break-in period the contract be terminated and Air Products be transferred to Schedule A-8. Air Products' position is that its contract with Edison should not be modified in this proceeding, and that particularly the three-year break-in period and the rates applicable thereto should not be changed. Air Products states that at the end of the three-year period it may be appropriate to review the contract to determine if it should be modified.

We have previously found that the proposed A-9 schedule should not be approved. We do not agree that the rates proposed in that schedule should be applied to the Air Products contract. In our opinion the Air Products contract discriminates against Union Carbide Corporation and perhaps others. In order to end this discrimination, the rates provided for in the contract should be terminated. However, because the contract was approved by the Commission, was relied upon by Air Products, and does have a three-year break-in period, in order to prevent hardship to Air Products we will adopt the staff's suggestion. In our opinion the Air Products contract should be modified at this time to provide that the rates presently authorized in the contract shall terminate no later than March 31, 1973, and that at that time Air Products shall, if it wishes to continue to purchase power from Edison, purchase at one of Edison's then current filed tariffs.

Air Products suggested the possibility of taking interruptible power from Edison. Edison stated that interruptible power on its system is not feasible. We have no opinion on the matter, but leave the subject to the parties for further research and discussion.

Findings of Fact

1. The reasonable estimate of Edison's cost of new senior capital in the years 1971 and 1972 is 7.5 percent and a reasonable return on common equity for Edison is 11.9 percent.

2. The capital ratios of Edison for test year 1972 are: long-term debt, 51.0 percent; preferred stock, 10.0 percent; convertible preference stock, 2.0 percent; and common equity, 37.0 percent.

3. A reasonable rate of return for Edison's California jurisdictional operations for the year 1972 is within the range of 7.7 percent and 8.1 percent. Rates should be set to yield an initial return of 7.9 percent. At this return Edison's interest coverage will be 2.87 percent.

4. At current rates in test year 1972, for California jurisdiction, Edison will have net revenue of $182,247,000 on a rate base of $2,947,000,000, resulting in a 6.18 percent rate of return. Edison should be authorized to increase its rates by approximately $105,500,000 to produce a 7.9 percent return in test year 1972.

5. The increase in rates and charges authorized in Appendix B to this opinion are justified.

6. The rates and charges authorized herein are just and reasonable and present rates and charges insofar as they differ therefrom are for the future unjust and unreasonable.

7. For purposes of allocating costs and rate base between jurisdictions, the method employed by the staff and Edison is reasonable. The utilization of the load factor/diversity factor method of cost allocation between California customer classes is reasonable.

8. Edison's proposed Schedule A-9 is unreasonable in that it provides preferential treatment to very large customers which is not justified by the evidence in this record.

9. Edison should continue to provide service to Air Products and Chemicals, Inc., under its present contract until March 31, 1973. Service thereafter should be provided on the basis of Edison's then filed tariffs.

Conclusion of Law

The application of Southern California Edison Company should be granted to the extent set forth in the order following and in all other respects be denied.

O R D E R

IT IS ORDERED that:

1. Southern California Edison Company is authorized to file with this Commission after the effective date of this order, in conformity with the provisions of General Order No. 96-A, revised tariff schedules with rates, charges, and conditions modified as set forth in Appendix B attached to this order and, on not less than five days' notice to the public and to the Commission, to make said revised tariffs effective ten days after the effective date of this order.

2. The rates set forth in the present contract between Edison and Air Products and Chemicals, Inc., shall terminate on March 31, 1973. Service thereafter shall be provided on the basis of Edison's then filed tariffs.

The effective date of this order shall be twenty days after the date hereof.

Dated at San Francisco, California, this 15th day of JUNE, 1971.

Chairman

Commissioners

I will file concurring opinion.

APPENDIX A

List of Appearances

Rollin E. Woodbury, Harry W. Sturges, Jr., and William E. Marx, Attorneys at Law, for applicant.
Brobeck, Phleger & Harrison, by Gordon E. Davis, Attorney at Law, A. L. Libra, Attorney at Law, and Robert Burt, for California Manufacturers Association; Louis Possner, for City of Long Beach; William L. Knecht and Ralph O. Hubbard, Attorneys at Law, for California Farm Bureau Federation; James F. Sorensen, for Friant Water Users Association; Furman B. Roberts, City Attorney, for City of Orange; Alan R. Watts, Attorney at Law, and Gordon W. Hoyt, for City of Anaheim; Lawler, Felix & Hall, by Richard D. DeLuce, Attorney at Law, for Air Products and Chemicals, Inc.; Walter C. Leist and Robert F. Smith, for Union Carbide Corp.; Michael Drazen and R. C. Arnold, for Shell Oil Company; George Spiegel, for City of Anaheim and City of Riverside; Captain James R. Pleyte, for Department of Defense and General Services Administration; Kenneth M. Robinson, Attorney at Law, for Kaiser Steel Corporation, Kaiser Cement & Gypsum Corporation and Kaiser Glass Fiber Corporation; David Hardy, John W. Feist, James W. Baldwin, and Robert B. Flaig, Attorneys at Law, for Kaiser Steel Corporation; Robert W. Russell, Chief Engineer and General Manager, Department of Public Utilities & Transportation, by Kenneth E. Cude, for City of Los Angeles; K. R. Edsall, Attorney at Law, for Southern California Gas Company and Pacific Lighting Service Company; Evelle J. Younger, Attorney General, by Donald B. Day and Anthony M. Summers, Deputies Attorneys General, for State of California; Carl Alan Wulfestieg, for City of Los Angeles Department of Water & Power; Myer Stein, for California Division of Highways, Traffic Department; Arthur Kugel, for Public Utilities Department, City of Riverside; Henry R. Schumacher, for Atlantic Richfield Co.; William J. Govan, for Southwestern Portland Cement Company;

Max M. Misenar, Attorney at Law, Hart T. Mankin, General Counsel, and Maurice J. Street, Assistant General Counsel, for General Services Administration on Behalf of the Executive Agencies of the United States Government; Ralph B. Helm, City Attorney, for California City; Paul Hendricks, for City of Vernon; Robert J. Farrell, Attorney at Law, for East San Bernardino County Water District; Hugh M. Flanagan, for California Portland Cement Company; M. R. Northern, for Anza Electric Co-op; Seymour Schulman, for United Hospital Association; R. E. Heytens, for San Gabriel Valley Water Company; John Steinmann, for Holiday Hill Co., Inc.; and Geoffrey Commons, Attorney at Law, in propria persona; interested parties.

Cyril M. Saroyan, Attorney at Law, and Bruno A. Davis, for the Commission staff.

RATES - SOUTHERN CALIFORNIA EDISON COMPANY

Applicant's rates, charges and conditions are changed to the level or extent set forth in this appendix.

SCHEDULES NOS. A-1, A-2, A-3, A-4, A-5 and A-6

RATES

Rate A

		1	2	3	4	5	6
Customer Charge:	Single Phase	$0.90	$1.00	$1.10	$1.20	$1.30	$1.40
	Three-Phase	1.90	2.00	2.10	2.20	2.30	2.40
Energy Charge:							
First 100 kwhr, per kwhr		4.4	4.6	4.8	5.0	5.3	5.7
Next 400 kwhr, per kwhr		4.1	4.3	4.5	4.7	4.9	5.3
Next 1,000 kwhr, per kwhr		3.3	3.3	3.3	3.3	3.3	3.7
Next 1,500 kwhr, per kwhr		2.6	2.6	2.6	2.6	2.6	2.6
Excess kwhr, per kwhr		1.9	1.9	1.9	1.9	1.9	1.9

Minimum Charge: The Monthly Minimum Charge shall be the Monthly Customer Charge.

Rate B

Demand Charge:							
First 20 kw or less billing demand		$ -	$ -	$ -	$ -	$ -	$ -
All Excess billing demand per kw		1.15	1.15	1.15	1.15	1.15	1.15
Customer and Energy Charge (To Be Added to Demand Charge):							
First 150 kwhr per kw billing demand*		Same as Rate A					
Next 150 kwhr per kw billing demand*							
First 15,000 kwhr, per kwhr		1.25¢	1.25¢	1.25¢	1.25¢	1.25¢	1.25¢
Excess kwhr, per kwhr		0.90	0.90	0.90	0.90	0.90	0.90
Over 300 kwhr per kw of billing demand*		0.66	0.66	0.66	0.66	0.66	0.66

Minimum Charge: The Monthly Minimum Charge shall be $1.00 per kw of Billing Demand.

* Not less than 20 kw.

APPLICABILITY, TERRITORY AND SPECIAL CONDITIONS

Modify as proposed on Sheet Nos. C-1 through C-6 of Exhibit "C" to Application No. 52336.

RATES - SOUTHERN CALIFORNIA EDISON COMPANY

SCHEDULE NO. A-7

RATES

	Per Meter Per Month
Demand Charge:	
First 200 kw or less of billing demand	$233.00
Next 1,800 kw of billing demand, per kw	1.00
Next 8,000 kw or billing demand, per kw	.80
All excess kw of billing demand, per kw	.70
Energy Charge (To be added to Demand Charge):	
First 150 kwhr per kw of billing demand:	
First 30,000 kwhr, per kwhr	1.90¢
Balance of kwhr, per kwhr	1.20
Next 150 kwhr per kw of billing demand, per kwhr	.90
All excess kwhr, per kwhr	.63

Minimum Charge: The monthly minimum charge shall be the monthly Demand Charge

SCHEDULE NO. A-8

RATES

	Per Meter Per Month
Demand Charge:	
First 5,000 kw or less of billing demand	$4,500.00
Next 5,000 kw of billing demand per kw	.80
All excess kw of billing demand per kw	.70
Energy Charge (To be added to Demand Charge):	
First 150 kwhr per kw of billing demand	1.10¢
Next 150 kwhr per kw of billing demand	.82
Excess kwhr per kwhr	.53

APPLICABILITY, TERRITORY AND SPECIAL CONDITIONS

Modify as proposed on Sheet No. C-8 of Exhibit "C" to Application No. 52336.

SCHEDULE NO. A-16

The existing schedule is cancelled and withdrawn and the customers are transferred to General Service Schedule No. A-6.

RATES - SOUTHERN CALIFORNIA EDISON COMPANY

SCHEDULES NOS. D-1, D-2, D-3, D-4, D-5 and D-6

RATES

	Charges Per Month					
	1	2	3	4	5	6
Customer Charge:	$0.90	$1.00	$1.10	$1.20	$1.30	$1.40
Energy Charge (To be Added to the Customer Charge):						
First 60 kwhr, per kwhr	4.4¢	4.6¢	4.8¢	5.0¢	5.3¢	5.7¢
Next 90 kwhr, per kwhr	3.0	3.2	3.4	3.6	3.8	4.1
Next 150 kwhr, per kwhr	2.3	2.3	2.3	2.3	2.3	2.3
Next 600* kwhr, per kwhr	1.6	1.6	1.6	1.6	1.6	1.6
Excess kwhr, per kwhr	1.3	1.3	1.3	1.3	1.3	1.3

Minimum Charge: The monthly minimum charge shall be the monthly Customer Charge

* Where the customer as of September 10, 1969 has an electric water heating installation conforming to Rule No. 32, the rate for monthly usage between 300 and 600 kwhr is 1.3¢ per kwhr during the period September 10, 1969 through September 9, 1972.

SCHEDULE NO. D-16

The existing schedule is cancelled and withdrawn and the customers are transferred to Domestic Service Schedule No. D-6.

SCHEDULE NO. DM

Modify as proposed on Sheet No. C-19 of Exhibit "C" to Application No. 52336.

SCHEDULE NO. DWL

RATES

	Per Month
Facilities Charge:	
Per dollar of utility investment in walkway lighting facilities	$ 0.015
Energy and Lamp Maintenance Charge: (To be added to the Facilities Charge)	
75-watt mercury vapor lamp, per lamp	$ 1.15
Minimum Charge:	
Per Customer	$100.00

RATES - SOUTHERN CALIFORNIA EDISON COMPANY

SCHEDULE NO. LS-1

RATES

Lamp Size - Lumens	Per Lamp Per Month
Incandescent Lamps	
1,000 Lumens	$ 2.75
2,500 Lumens	4.10
4,000 Lumens	4.85
6,000 Lumens	5.75
110,000 Lumens	8.00
Mercury Vapor Lamps	
7,000 Lumens	$ 4.75
11,000 Lumens	5.50
20,000 Lumens	6.80
35,000 Lumens	9.90
55,000 Lumens	12.20

SCHEDULE NO. LS-2

RATES

	Per Month			
	All Night Service		Midnight Service	
	Multiple	Series	Multiple	Series
Rate A - Unmetered Service				
For each kw of lamp load, per kw	$7.50	$8.35	$6.05	$6.50

	Per Meter Per Month
Rate B - Metered Service	
Meter Charge:	
Multiple Service	$1.15
Series Service	9.20
Energy Charge (To be Added to Meter Charge):	
First 150 kwhr per kw of lamp load, per kwhr	3.90¢
All excess kwhr, per kwhr	.84

Rate C - Maintenance Service - Optional

Modify as proposed on Sheet No. C-22 of Exhibit "C" to Application No. 52336.

APPLICABILITY, TERRITORY AND SPECIAL CONDITIONS

Modify as proposed on Sheet No. C-22 of Exhibit "C" to Application No. 52336.

RATES - SOUTHERN CALIFORNIA EDISON COMPANY

SCHEDULE NO. OL-1

RATES

Luminaire Charge:

Mercury Vapor Lamp Size	Per Lamp Per Month
7,000 Lumen	$4.80
20,000 Lumen	7.95

Pole Charge (to be added to Luminaire Charge):

	Per Pole Per Month
For each additional new wood pole installed	$2.20

SCHEDULE NO. P-1

RATES

Horsepower of Connected Load	Monthly Service Charge Per Hp	Energy Charge to be Added to Service Charge Rate Per Kwhr for Monthly Consumption of: First 100 Kwhr Per Hp	Next 100 Kwhr Per Hp	All Over 200 Kwhr Per Hp
2 to 9.9	$1.15	3.30¢	1.85¢	1.35¢
10 and Over	1.05	2.80	1.80	1.35

Minimum Charge: The monthly minimum charge shall be the monthly Service Charge.

RATES - SOUTHERN CALIFORNIA EDISON COMPANY

SCHEDULE NO. PA-1

RATES

Horsepower of Connected Load	Annual Service Charge Per Hp	Energy Charge to be Added to Service Charge Rate Per Kwhr for Annual Consumption of: First 1000 Kwhr Per Hp	Next 1000 Kwhr Per Hp	All Over 2000 Kwhr Per Hp
2 to 4.9	$9.50	2.3¢	1.05¢	0.68¢
5 to 14.9	8.50	2.1	1.05	.68
15 to 49.9	8.00	2.0	1.05	.68
50 to 99.9	7.50	1.9	1.05	.68
100 and Over	7.00	1.8	1.05	.68

Minimum Charge: The annual minimum charge shall be the Annual Service Charge.

SCHEDULE NO. PA-2

RATES

	Per Meter Per Month
Demand Charge	
First 75 kw or less of billing demand	$95.00
All excess kw of billing demand, per kw	1.00
Energy Charge (To be added to Demand Charge)	
First 150 kwhr, per kw of billing demand	
First 15,000 kwhr, per kwhr	1.90¢
Excess kwhr, per kwhr	1.20
Next 150 kwhr, per kw of billing demand	.90
All excess kwhr, per kwhr	.63

Minimum Charge: The monthly minimum charge shall be the monthly Demand Charge

RATES - SOUTHERN CALIFORNIA EDISON COMPANY

SCHEDULE NO. TC-1

RATES

	Per Meter Per Month
Customer Charge:	$1.25
Energy Charge (To be added to Customer Charge):	
First 100 kwhr, per kwhr	4.40¢
All excess kwhr, per kwhr	1.85

Minimum Charge: The monthly minimum charge shall be the monthly Customer Charge.

APPLICABILITY, TERRITORY AND SPECIAL CONDITIONS

Modify as proposed on Sheet No. C-27 of Exhibit "C" to Application No. 52336.

RULE NO. 2

Modify as proposed on Sheet No. C-28 of Exhibit "C" to Application No. 52336.

D. W. HOLMES, COMMISSIONER, Concurring:

The 5 percent increase in wage expense for test year 1972 allowed by this order should not be considered a minimum, but the maximum 1972 wage increase this Commission will allow Edison to recapture in rates. We expect that Edison's management will by its prudence and skill avoid approaching this Commission for any further rate increases arising from wage cost increases.

Dated at San Francisco, California,
June 15, 1971.