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ORIGINAL

Decision No. 48833

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Application of SOUTHERN COUNTIES GAS COMPANY OF CALIFORNIA for a general increase in gas rates under Section 454 of the Public Utilities Code.	)))))	Application No. 33341

(A list of appearnces and witnesses is appended hereto as Attachment 1.)

OPINION AND ORDER

Southern Counties Gas Company of California on April 23, 1952 filed the above-entitled application for authority to increase natural gas rates by $4,852,000 annually based on estimated operations for the calendar year 1952. Such requested increase is in addition to the request for approximately $1,000,000 which was granted effective January 1, 1953 because of an increase of 4.41 cents per Mcf in the cost of out-of-state gas. This latter increase is subject to possible refund depending upon Federal Power Commission action. Near the close of the public hearings on the present application, the applicant by amendment revised upward its requested total increase to $5,190,000 for the test year ended August 31, 1952 because of a general wage increase effective April 1, 1953.

Public Hearing

After due notice a total of 14 days of public hearing were held on the application at Los Angeles before Commissioner Harold P. Huls and Examiner M. W. Edwards during the period August 21, 1952 to April 2, 1953. The Commission staff and various other parties, after analysis of applicant's presentation during the first part of this period, cross-examined applicant's witnesses.

Statements by certain public witnesses and the positions of certain interested parties, the Commission staff's analysis of the utility's operations and analyses by the City of Los Angeles and the California Manufacturers Association were presented in the record prior to submission. Briefs of applicant, City of Los Angeles, and California Manufacturers Association have been filed. The matter finally was submitted on June 2, 1953 upon the late filing of Exhibit No. 31-B.

Applicant's Operations

The Southern Counties Gas Company of California is engaged in the business of purchasing, transporting, distributing and selling gas at retail and wholesale in the southern portion of the State of California. Applicant owns and operates natural gas transmission pipelines, compressor plants, gasholders, distribution pipelines, services and related facilities, office buildings, warehouses and other property necessary for the conduct of its natural gas business. Applicant and Southern California Gas Company own and operate the Texas transmission facilities, as tenants in common on the basis of 25 and 75 per cent, respectively, consisting of approximately 347 miles of transmission pipeline, principally 30 inches in diameter, a large compressor station at Blythe, California and all of the related equipment known as the Texas Pipeline System, which takes natural gas originating outside of the State of California from El Paso Natural Gas Company at the California-Arizona border, near Blythe.

The San Diego Gas & Electric Company receives from applicant its entire natural gas supply at wholesale rates. The San Diego Gas & Electric Company receives deliveries of interstate gas through the Moreno pipeline branch of the Texas to Los Angeles, California pipeline, and intrastate gas through the Huntington Beach pipeline. During 1951 the San Diego Gas &

Electric Company purchased 20,086,000 Mcf of natural gas from applicant at a total cost of $4,660,000.

The area served by applicant includes 167 cities and communities with an estimated population of 1,350,000. At the end of 1951 there were 392,481 active meters in applicant's service area, comprising 390,905 domestic and commercial, 838 firm industrial, 338 interruptible industrial, 8 standby industrial, 389 gas engine and 3 wholesale meters. As of that date applicant owned and operated approximately 6,946 miles of gas mains and services.

Postwar Increase

An increase to offset the increased cost of out-of-state gas was granted under Application No. 33699, by Decision No. 47991, effective January 1, 1953. Increases since 1948 also have resulted from the operation of the Automatic Rate Adjustment Plan during the postwar period of inflation in prices and wages as well as from interruptible and wholesale schedule increases. In March 1950, by Application No. 31161, it sought a general increase of $2,906,000 in gross annual revenues. On January 22, 1952, by Decision No. 46680, this Commission denied such request entirely on the showing of recorded earnings in 1950 of a 7.12 per cent rate of return adjusted to a pro forma figure of 5.78 per cent rate of return. Thereafter, applicant sought a rehearing, which request, on March 18, 1952, by Decision No. 46876, the Commission denied. On April 15, 1952 applicant filed a petition for a writ of review in the California Supreme Court seeking a determination of the lawfulness of the Commission's action under Application No. 31161. On July 31, 1952 the Supreme Court denied the petition for writ of review.

It should be pointed out that applicant's rates and earnings were a matter of almost continuous investigation from 1944 until February 1950. In Case No. 4716, initiated as a proceeding

looking towards a reduction of applicant's gas rates, the Commission, upon expiration of a temporary rate reduction, authorized the establishment of an Automatic Rate Adjustment Plan. Under that plan, the filed tariffs were adjusted, by application of discounts, in consonance with the level of earnings which it experienced from time to time. When the discount dropped to zero in this postwar period the plan was discontinued in accordance with the provisions thereof.

Applicant's Position

Applicant avers that during the period of over two years, during which it was seeking rate relief under Application No. 31161, its rate of return declined from 6.17 per cent in 1950 to 5.04 per cent in 1951 and it estimated that this rate of return would decline further to 4.42 per cent in 1952. It contends that this decline in rate of return is due to the following four major adverse factors:

1. Increases in the price of purchased gas,
2. Increase in wage rates,
3. Increase in tax rates,
4. High cost of construction of additions, betterments and replacements in recent years, resulting in increased average investment per meter. It claims that, to the extent that these costs are not covered by additional revenue per meter, the higher investment per meter is noncompensatory investment.

With regard to the inflationary current-day construction costs, applicant states that it costs more than twice as much today to install the 50 feet of gas main, service pipe, meter and regulator set to attach a new customer as it did 10 years ago. Moreover, it claims that the costs of replacements of distribution mains are approximately three times as great today as the original

cost of such facilities. It estimates that this inflationary effect reduces the rate of return by 0.25 per cent per year.

Applicant seeks an order of the Commission finding that a general increase in rates to produce at least $5,190,000 of additional annual gross revenue is justified and that the proposed increased retail rates are just and reasonable. Such amount is equivalent to an over-all average increase of 16 per cent in rates. Applicant also seeks any other relief which the Commission considers just and reasonable.

Nature of Evidence

Evidence was offered by applicant, by members of the Commission staff and by representatives of certain of the interested parties set forth in the list of appearances. The exhibits covered such subjects as increased costs, balance sheets, operating statements, meter growth, rate base, depreciation, taxes, fair rate of return, proposed rates, cost of gas, results of operations, financial matters and customer density and zoning.

Applicant sponsored three public witnesses who were customers in different service areas of the system. One customer, operating citrus packing houses, testified that the proposed increase was reasonable. Another, a rancher and manager of a large company, was interested in having the applicant in sound financial condition and able to serve the growth and development of load in his area. The third customer, president of a tool company, testified that the gas service was very valuable to him and while leaving the matter of rate levels for the Commission to determine, thought that the applicant was entitled to a rate that would maintain the business and enable it to render service as in the past.

Some of the representatives as well as the Commission staff and the applicant prepared factual studies from economic,

engineering and financial standpoints which have aided the Commission in determining the over-all cost by classes of rendering applicant's public utility service. The determination of earnings results for representative periods is the first step in the over-all cost determination.

Earnings Results

The applicant by Exhibit No. 5 in this proceeding showed earnings results for the actual year 1951, for the adjusted year 1951 and for the estimated normal year 1952. Its analysis may be summarized as follows:

Item	Actual Year 1951	Adjusted Year 1951	Estimated Normal Year 1952
	(Thousands of Dollars)		
Operating Revenues	$31,771	$31,935	$33,602
Operating Expenses	28,082	28,473	30,053
Net for Return	3,689	3,462	3,549
Rate Base (Depreciated)	69,673	69,673	78,692
Rate of Return	5.29%	4.97%	4.51%

The Commission staff in making its analysis of earnings results did not adjust the year 1951 nor use a normal year 1952, but instead compared the results for the years ended August 31, 1951 and August 31, 1952 on a recorded and on an adjusted basis.

The staff's recorded results set forth in Exhibit No. 13 and the adjusted results set forth in Exhibit No. 14 are:

Item	Recorded		Adjusted	
	12 Months Ended 8-31-51	12 Months Ended 8-31-52	12 Months Ended 8-31-51	12 Months Ended 8-31-52
	(Thousands of Dollars)			
Operating Revenues	$31,547	$33,809	$31,917	$33,172
Operating Expenses				
Production	13,974	14,691	14,915	14,899
Transmission	715	705	704	705
Distribution	2,530	2,895	2,633	2,892
Customer Acctg.and Col.	1,714	2,024	1,758	2,040
Sales Promotion	891	1,070	917	1,086
Admin. and General	1,760	1,994	1,785	1,945
Wage Adj. to 9-30-52	-	-	437	104
Subtotal	21,584	23,379	23,149	23,671
Taxes	4,856	5,000	4,060	4,229
Depreciation	1,390	1,563	1,390	1,563
Total Oper. Exp.	27,830	29,942	28,599	29,463
Net Revenue (Modified Sinking Fund Method)	3,717	3,867	3,318	3,709
Rate Base (Depreciated)	62,520	71,096	62,520	71,096
Rate of Return	5.95%	5.44%	5.31%	5.22%

The adjusted results shown by the staff in general reflect rate levels and posted price of fuel oil as of September 30, 1952, temperature adjustment to average temperature conditions, cost of gas from Pacific Lighting Gas Supply Company in accordance with its filed tariff effective January 1, 1953, cost of gas from El Paso Natural Gas Company on contract basis from November 1, 1951 to December 31, 1952 (not including offset rate increase effective January 1, 1953), cost of gas from California producers on contract basis in effect on September 30, 1952, wage levels as of September 30, 1952 (not including April 1, 1953 adjustment), adjustment of operating expenses showing unusual increases or decreases to an average year or trended basis and the exclusion or partial exclusion of certain items not considered properly chargeable to operating expenses for rate-making purposes, the 1952 tax rate for state unemployment tax and the present maximum taxable

wage base of $3,600 for federal old age tax benefits, and the current federal normal income tax rate of 30 per cent and federal surtax rate of 22 per cent. No excess profit tax has been allowed. The adjustments to bring the wage component of expenses up to the wage level in effect on September 30, 1952 are shown as separate lump sum adjustments and include estimated increased pension costs but do not include the April 1, 1953 adjustment.

The applicant is willing to accept the computations by the staff for the 12 months ended August 31, 1952 of revenue and expenses down to and including the net revenue figure of $3,709,000 but disagreed with the total level of the rate base. In its opening brief filed April 1, 1953 the applicant states that the fixed plant elements of rate base are not in dispute but that the only rate base controversies relate to (1) the appropriate allowance for working cash capital and (2) the appropriate deduction for depreciation reserve (in the event a depreciated rate base should be used).

Rate Base

The rate base is composed of capital invested in plant plus working capital items consisting of materials and supplies and working cash, less such items as contributions in aid of construction, customers' advances for construction, plant acquisition adjustment and depreciation reserves. In Exhibit No. 12 the applicant computed a rate base for the 12 months ending August 31, 1952

of $74,882,000. This rate base may be compared to the staff's rate base shown in Table 17-A of Exhibit No. 13 in the following manner:

Item	Applicant Exhibit No.12	Staff Exhibit No.13
	(Thousands of Dollars)	
Fixed Capital		
Weighted Average	$ 91,472	$ 91,473
Working Capital		
Materials and Supplies	1,450	1,450
Working Cash	2,100	-
Total Capital	95,022	92,923
Adjustments		
Contributions in Aid of Construction	-	(1,428)
Customers' Advances for Construction	(661)	(661)
Plant Acquisition Adjustment	(492)	(492)
Depreciation, Motor Vehicles	(1,235)	(1,235)
Depreciation, Plant	(17,752)	(18,011)
Total Adjustments	(20,140)	(21,827)
Weighted Average		
Depreciated Rate Base	74,882	71,096

(Red Figure)

In the above tabulation the weighted average fixed capital includes non-interest bearing construction work in progress. The depreciation reserve item, applicable to plant other than motor vehicles, in the applicant's study was the reserve as of August 31, 1951, whereas the staff used a weighted average reserve for the 12 months ending August 31, 1952.

Working Cash

Applicant contends that an allowance of $2,100,000 for working cash should be made. The staff's treatment was based on a study of the year 1951 for the purpose of determining the amount of working cash needed by applicant's operations and required to be supplied by the investors. The staff determined that there was a greater lag in payment of expenses by the applicant than there was in the collection from customers for service rendered by the applicant. The excess of payment lag over collection lag was figured to be 33.7 days on the average. The average number of days' lag from midpoint

of service period to collection date was computed to be 36.8 days. The average number of days' lag in payment of expense and bond interest was computed to be 70.5 days. On the basis of this study the staff determined that the average amount of working cash capital generated from operations as a result of collecting revenues in advance of paying expenses, taxes and bond interest was $2,580,200.

Against this amount the staff computed that the working cash capital requirements as indicated by certain balance sheet accounts were $2,501,700. The staff assumed, however, that in addition to the $2,580,200 mentioned above two thirds of the Insurance Reserve and Injuries and Damages Reserve in the approximate amount of $527,400 was available to the utility without having been supplied by the investor. As a result of this study the staff obtained a negative figure of $605,900 as the amount of capital supplied by investors for the year 1951 for working cash capital purposes and accordingly made no allowance therefor.

Applicant contends that the staff formula is apparently an attempt to earmark certain portions of the revenues as belonging to investors and certain others as belonging to customers through a mixture of part cash and part accrual accounting. Applicant maintains that customers pay for service and that the cash obtained from this source belongs to the applicant and is properly commingled with other corporate funds. It maintains that the stockholders furnish working cash in amounts between $400,000 and $500,000 because of low revenue during the summer months in the year.

Applicant refers to its former rate case (Application No. 31161, Decision No. 46680) wherein the Commission allowed $1,000,000 of working cash compared to the staff's suggestion, using the same fundamental formula, of $750,000. Applicant's witness explained that the answers obtained by the staff's formula might vary within a wide range depending upon the assumptions used,

several of which, such as the treatment of bond interest and insurance reserves, it claims are highly controversial.

In reviewing the subject of working cash it is apparent to the Commission that the results obtained by using the formula proposed by the staff will vary from year to year. Since the last rate proceeding, federal income tax rates have been increased and this factor should be given consideration. It is our opinion that the staff's approach to the determination of working cash allowance is sound in principle. However, the record shows that a number of the components are not constant and that therefore the working cash requirements fluctuate throughout the year, among other items is the seasonal fluctuation in revenues. It is our judgment and conclusion that $500,000 is a reasonable amount to be included in the rate base for working cash. Such allowance will be adopted for the purposes of this decision.

Deduction for Plant Depreciation

Applicant contends that the depreciated rate base should be determined by deducting the depreciation reserve at the beginning of the test period rather than the weighted average basis during the period as suggested by the staff. Applicant's contention is predicated on the method adopted by the Commission in Decision No. 46680. It states that such a change in the mechanics of calculating net plant rate base must be offset by an increased allowance in rate of return if it is to realize the same total return deemed reasonable in the past.

With almost universal adoption of a depreciated rate base for determining earnings of gas, water, telephone and electric utilities and use of a remaining life method of determining depreciation allowances, it appears more precise to use a weighted average depreciation figure than a beginning-of-year figure. Accordingly, the weighted average figure will be adopted herein.

The Commission is mindful of applicant's contention that, if the average reserve is deducted, an increased rate of return is necessary to yield applicant the same total return as would result from deduction of the beginning-of-year reserve, as was done in Decision No. 46680.

Adopted Rate Base

A depreciated rate base of $71,596,000 is adopted for the test year for the purpose of this decision and, in our opinion, such a base is fair and reasonable.

Summary of Adjusted Operating Results

A summary of the staff's adjusted operating results for the 12 months ended August 31, 1952 with further adjustments to account for the April 1, 1953 wage increase of 5.80 per cent on test year operating expenses (equivalent to $308,000 including fringe benefits and pension costs) and resulting income tax decrease, hereby adopted for the purpose of this decision:

Item	Staff Showing	Adjustments	Adopted Operating Results
	(Thousands of Dollars)		
Operating Revenues	$33,172	$ -	$33,172
Operating Expenses	23,671	308	23,979
Depreciation	1,563	-	1,563
Taxes	4,229	(166)	4,063
Net Revenue	3,709	(142)	3,567
Rate Base (Depreciated)	71,096	500	71,596
Rate of Return	5.22%		4.98%

(Red Figure)

Trend of Rate of Return

The staff's study, Exhibit No. 13, showed a decline in rate of return of 0.12 per cent between the adjusted figures for the 12 months ended August 31, 1951 and August 31, 1952. In Exhibit No. 14 a decline of 0.09 per cent between these same two periods was shown. In general, this decline in rate of return between two test periods with all revenues, expenses, taxes, and depreciation adjusted to comparable bases results from additions to and replacements of plant at unit costs in excess of average historical plant costs. During the postwar period of inflation in prices and

wages the Commission has found a declining rate of return on other utility systems and has allowed an increment in rate of return to compensate for this trend in order to enable the utility to earn the return found reasonable for a period of 12 months in the future.

The Commission also has found that this decline in return is greater the higher the level of return. The staff studied this problem and in Exhibit No. 15 suggested that a 0.25 per cent annual decline in rate of return be allowed. The applicant has stated it is willing to accept this rate of decline as reasonable for use in this decision. In view of the fact that nearly two years will have elapsed from the beginning of the test period until the new rates may become effective, an allowance of 0.5 per cent for such decline will be included in the rate of return authorized herein.

Rate of Return

At the outset, a witness called by applicant recommended a return of 6½ per cent applied to an undepreciated rate base. At a later date, a second witness testifying on behalf of applicant urged a return of from 7 to 7½ per cent on an original cost depreciated rate base, including in his calculation an adjustment for inflation. A witness speaking for a group of cities, protestants in the proceeding, suggested a return of 5½ per cent and the use of a depreciated rate base. The witnesses presented a substantial volume of testimony and factual data concerning applicant's security issues, experienced earnings and dividends, financial requirements necessary to service indebtedness and to produce a return on equity capital, earnings and capitalization ratios of other utilities, trends in money rates and income-price ratios and related matters.

Another witness called by applicant advocated a rate of return for gas utilities of about ½ to 1 per cent higher compared to electric utilities, principally because of the risk of depletion

of natural gas supplies. Such relative risk testimony in part was countered by testimony of the representative for the California Farm Bureau Federation when he pointed out that gas utilities in California are not subject to municipal and federal competition as are the electric utilities.

Much of the evidence on rate of return follows the same lines as that presented to and fully considered by us in the Southern California Gas Company rate case last year.[1] In making our decision in that matter, we came to the conclusion that a net revenue equivalent to 6.35 per cent on a depreciated rate base would be sufficient to allow that company a rate of return for the future of at least 5.85 per cent, which rate of return we found to be fair and reasonable.

Under the theory advanced by the applicant that an inflation adjustment of 0.9 per cent should be made in the rate of return, the applicant, in effect, would have this Commission provide protection against inflation for a particular class of people, the common stock equity holder. The full effect of inflation on expenses is recognized in the adopted operating expenses. Taxes are based on an actual dollar payment and not on a dollar adjusted to some pre-inflation standard of value. The rate base has shown rapid growth during this inflationary period and a large part of the dollars represented are inflated dollars. Likewise the depreciation allowances are based on actual dollars in the plant. Accordingly, this gives substantial weight to inflation.

We recognize, of course, that the value of money constantly is changing. The amounts which may be received by the bondholder or

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1/ Application No. 32675, Decision No. 47990, December 2, 1952.

the stockholder from time to time, accordingly, may have different purchasing power than would the same sums at the time the funds were committed to the enterprise. However, the public utility shareholder is subject to the common hazard faced by all members of the community and in our opinion we are not warranted in giving preferred consideration to any one group through the recognition of applicant's proposed inflation adjustment.

In its brief applicant urges that even if the Commission were to authorize rates no more than necessary to maintain the rate of earnings actually experienced by applicant prior to the postwar inflation, such earnings would now be equivalent to 6.69 per cent on the staff's test year rate base. This figure is developed from applicant's Exhibit No. 24, utilizing the actual earnings experience of the years 1940 to 1944. The Commission takes notice that as a result of the earnings during that period, after provision for excess profit tax payments, it issued an order of investigation and, after receiving the staff's report, ordered a reduction of $750,000 annually in rates by Decision No. 37521, Case No. 4716, decided December 4, 1944 (45 CRC 537). In that proceeding it is evident that the Commission, in determining the depreciated rate base, did not deduct the beginning-of-year depreciation reserve. It also found that it was not necessary to increase the rate base by an allowance for working cash capital. Also during this period 6 per cent interest was accrued on the depreciation reserve, whereas such interest rate in the interim has been reduced to 4 per cent. We believe that the rate base developed by the staff in this proceeding is not inconsistent with the findings of the Commission in Decision No. 37521 issued during the 1940 to 1944 period cited by applicant. Furthermore, in harmony with the remaining life depreciation agreement it is over $2,000,000 higher than the basis used in said decision.

The Commission only last year carefully considered the rate of return for applicant in Application No. 31161 and in Decision No. 46680 found a rate of return of approximately 5.8 per cent applied to a depreciated rate base to be reasonable. The differential effect on rate of return of deducting the average depreciation reserve in this proceeding, as compared to deduction of the beginning-of-year reserve in the prior proceeding, is 0.02 per cent.

It has been our practice to determine the rate of return in each particular case on the record then before us. It appears that applicant is operating in the same general territory as Southern California Gas Company, is controlled by the same interests and is faced with many of the same problems but is somewhat smaller in size than the Southern California Gas Company. Furthermore, since finding a rate of return of 5.8 per cent reasonable, we note a generally continuing increase in the cost of bond money to utilities.

Conclusion on Rate of Return

From a full and careful review of the evidence in the present proceeding, we are of the opinion that in making our decision in this matter there is no reason for substantially modifying our conclusions with respect to rate of return which are set forth in our Decision No. 47990. It is our opinion that applicant should be authorized to charge rates designed to produce net revenues equivalent to 6.45 per cent on a depreciated rate base of $71,596,000 for the test period and that such rates should produce a return in the future of at least 5.95 per cent. Tested against the financial requirements of the company, it appears to us that such return should be sufficient to cover applicant's bond interest and other fixed charges and to provide earnings on common stock equity

in an amount considered reasonable under present conditions and the facts developed in this record. Accordingly, we find that such net revenues and the resultant rate of return of 5.95 per cent for the future are fair and reasonable in the premises.

Applying a percentage of 6.45 to the depreciated rate base results in net revenues of $4,618,000. We have determined that for the 12 months ended August 31, 1952, adjusted, the present rates would produce net revenues of $3,567,000. Thus an order at this time authorizing a final over-all increase in net revenues of $1,051,000 is warranted. Under prevailing tax rates a net to gross multiplier of 2.203 is indicated, which is equivalent to an increase in gross operating revenues and in rates of $2,315,000. Such increase will be authorized and is additive to the increase effective January 1, 1953 because of the increase in cost of out-of-state gas.

Rates

Among the factors mentioned in Decision No. 47990 as influencing the rate of return which also might affect the level of rates or a particular rate are: cost of money, dividend-price and earning-price ratios, territory, growth factor, comparative rate levels, diversification of revenues, public relations, management, financial policies, reasonable construction requirements, prevailing interest rates and other economic conditions, the trend of rate of return, past financing success, future outlook for the utility, outstanding securities and those proposed to be issued. Additional factors to be considered are adequacy of the service, rate history, customer acceptance and usage developed under existing rates, value of the service, and cost to serve. No one of the above factors is solely determinative of what may constitute reasonableness of earnings, rates or rate of return.

Consideration also is given to the rate levels to see that unreasonable discrimination as between classes does not exist and that rates are simple, practical and such as can be understood by the customer. Furthermore, the rate design should give consideration to the development of additional or new load. Of these many factors which the Commission considers in the making of rates, controversy arose relative to the determination of the costs of rendering the service to the several classes of customers.

Cost-to-Serve Studies in this Record

The record contains two studies dealing with the determination of the costs involved in rendering natural gas service to the several classes of customers supplied by the applicant. An independent consulting engineer was retained by the applicant to prepare a report covering an analysis and study of the indicated costs incurred in providing natural gas service. This basic study is contained in Exhibits Nos. 11 and 11-A. Subsequently Exhibit No. 11-B was prepared in response to a request by the City of Los Angeles.

The California Manufacturers Association, a party having an interest in industrial rates, presented testimony through two engineers. The first, a consulting engineer, presented data relative to cost analysis and Exhibit No. 32, and the second, a professional engineer and director of the Association's Fuel, Power and Water Department, presented Exhibits Nos. 33 and 34 relating to cost of service allocation studies. The purpose of the Association's cost study was to make an objective determination of the cost of serving each of the five major retail classes of customers and the two wholesale customers served by the applicant.

In the preparation of these studies each of the engineers devoted his study to the operations of the applicant's gas system

for the year ending August 31, 1952, utilizing the same basic data for revenues, expenses, capital and other related items. Each of the studies developed costs which include a rate of return of 6½ per cent. The results of these studies by classes of service, using present rate levels and an undepreciated rate base, are expressed as rates of return and average costs per Mcf, as follows:

Item	Rate of Return		Average Cost per Mcf				
	Exh. No. 33	Exh. No. 11	Exh. No. 33	Exh. No. 11	Exhibit No. 11-B* Case I	Case II	Case III
General Service	3.38%	3.59%	81.46¢	79.46¢	78.88¢	78.30¢	77.72¢
Gas Engine	5.51	3.92	32.82	35.75	75.65	35.59	35.56
Firm Industrial	10.86	7.94	33.96	37.32	37.10	36.89	36.67
Interruptible:							
Industrial	49.05	10.94	18.17	22.35	23.86	25.36	26.86
Steam Plants	108.60	35.82	16.09	16.51	16.65	16.78	16.92
Wholesale:							
San Diego Gas & Electric Co.	7.03	6.87	22.44	22.53	22.53	22.53	22.53
Pacific Gas and Electric Co.	1,250.00	46.43	16.59	16.74	16.84	16.84	16.84
System	4.48	4.48	45.83	45.83	45.83	45.83	45.83

* Per Cent of Total Demand Component Assigned:

Case	To Interruptible Ind.	To Steam Electric
I	2½%	½%
II	5	1
III	7½	1½

Since the accounting procedures used by gas utilities do not segregate costs to functions, in order that they may be assigned to classes of service it is necessary to adopt some theory or method of cost analysis. Each of the studies was predicated upon the basic demand-commodity-customer theory. However, in order to evaluate the indicated differences in costs, it will be necessary to review more closely the basic concepts presented in each study. In general, it may be said that these cost differences were brought about by the manner in which the engineers determined

the demand and commodity function assignments and the allocations of the costs included in each of these functions to the several classes of service. A comparison of the definitions used by the engineers in their respective studies is shown below:

Exhibit No. 11 (Consulting Engineer)	Exhibit No. 33 (Association's Engineer)
To Demand is assigned those fixed and variable costs which arise because of the demand imposed from customer equipment. Such costs are influenced more by the rate of use rather than the volume of use.	To The Demand component were allocated those items of capital and expense, the amount of which is dependent upon the rate of use of gas and which does not vary with changes in the volume of gas sales.
To Commodity is assigned those fixed and variable costs which go to produce, and which costs are more or less dependent upon the volume of gas produced and transmitted for the customers' consumption in his equipment; and	To The Commodity component were allocated those items of capital and expense, the amount of which is determined by and varies with the volume of sales.
To Customer is assigned those fixed and variable costs which are essentially dependent upon the number and location of customers and more or less independent of the rate and volume of the customer's use.	To The Customer component were allocated investment and expense items which are a function of the number and location of customers, or are associated with the facilities limited to the service of specific customers.

The essential difference in the definitions arises from the fact that the consulting engineer assigned both fixed and variable costs to each function while the net result of the Association's approach, after providing for the customer allocation, is to assign all fixed costs to the demand function and all variable costs to the commodity function. For example, in Exhibit No. 11 the consulting engineer has included variable costs in his demand component and fixed costs in his commodity component, while in Exhibit No. 33, the California Manufacturers Association witness contended in general that fixed costs can be assigned only to the demand or customer component and none to the commodity component.

On the other hand, the consulting engineer presenting Exhibit No. 11 assigned both fixed and variable costs to the demand and commodity components on the theory of the functional use made of the plant facilities by means of a load-factor method. The load-factor method, as presented, was based upon a judgment allocation derived from the relationship of the average firm use of the system to the maximum potential firm use. This ratio, 37 per cent, was then applied to certain fixed and variable costs to determine the assignment to the commodity component. The remaining proportion of these same costs, 63 per cent, was assigned to the demand component.

Following the allocation to the three components, the assignment to classes of service was made by using the peak responsibility method in each of the cost studies. In using this method, the engineers allocated the costs in the demand component to classes of service based upon the estimated participation of such classes in the maximum potential peak day. The Association's engineer allocated some small percentage of demand costs to interruptible service by reason of the fact that from a practical standpoint some interruptible service was rendered on the peak day. The California Manufacturers Association contends that in determining the cost of service by classes on the applicant's system, no demand component costs are properly assignable to its interruptible service, except to the extent that such interruptible customers may not be curtailed for practical reasons on the potential peak day. In Exhibit No. 11 the consulting engineer made no assignment of demand component costs to the interruptible industrial service.

However, Exhibit No. 11-B, prepared by the same consulting engineer in response to a request by the City of Los Angeles, contains three different demand assignments to the interruptible

industrial service, namely 2½, 5 and 7½ per cent. The results of this study were:

Demand Component Cost Assignment to Interruptible Industrial Service Exhibit No. 11-B	Average Cost per Mcf for Industrial Interruptible
2.5%	23.86¢
5.0	25.36
7.5	26.86

The percentage demand component assignments represent the portion of the total system demand component costs allocated to the industrial interruptible service in each case. Some idea of the relative demand component assignment may be gained from the fact that approximately 15 per cent of the system's total annual commodity sales on an adjusted basis is to the interruptible industrial class.

Views of Parties on Cost Studies

The consulting engineer in commenting on Exhibit No. 11-B, stated that in his judgment it appeared illogical to attempt to follow a premise that would assign a part of the demand component costs to an interruptible gas service where, under the conditions of the gas tariff, such gas service is subject to curtailment and/or complete interruption at any time. Practically the same view was expressed by applicant's president when he testified under cross-examination: "In contracting for gas supplies and in designing and budgeting transmission facilities, our planning is based on the estimated requirements of firm customers and exclusion of interruptible requirements during peak periods." The Association's engineer also contended that interruptible customers do not create large demands at annual peak periods and partly for this reason the California Manufacturers Association made a motion to strike Exhibit No. 11-B from the record in this proceeding.[2/] As another

2/ Page 63, opening brief of California Manufacturers Association.

reason, the Association stated that the party requesting Exhibit No. 11-B was the City of Los Angeles, but that it did not present any expert testimony to support the claim that some demand costs should be assigned to the interruptible service. Since there was no witness from the City, the Association states that the right to rebut the showing by cross-examination has been denied, and contends that therefore it has been denied a full and fair hearing on the issue. The Association contends that Exhibit No. 11-B is for illustrative purposes only and is merely a mathematical exercise with no basis in reason or fact.

With regard to the basic cost studies the Association found relatively little controversy in so far as the customer costs are concerned. It disagreed with the load factor approach used by the consulting engineer indicating that he ignored the manner in which the costs are incurred and in part used judgment in assigning fixed costs and expenses to the commodity component. It asked the Commission to make a determination as to which of these cost-of-service studies follows correct methods and reaches correct results.3/

The Association contends that its method of segregating costs is proper. It cites several authorities and takes exception to the excess demand basis for certain allocations.4/ It requests the Commission to find, subject to such adjustments as the

3/ Page 8, opening brief of California Manufacturers Association.

4/ The use of "average" and "excess" demands as referred to on Page 233, Public Utility Rate Structures by Nash (First Edition) is based on articles by H. W. Hills and W. J. Greene.

Commission may find proper in the test period basic data or in the rate of return, that the costs are as developed in the Association's cost study, Exhibit No. 33.

The City of Los Angeles contends that the basic philosophy of applicant's consulting engineer is the one that is fundamentally sound. The dual use made of plant facilities, that is, to meet peak-day requirements and to move gas on an annual basis, it maintains, are both essential functions of the applicant in order to render service to customers. The City contends that it is the use performed and not whether the investment and expenses are fixed or variable that determines proper cost allocation. It refers to the fact[5/] that the witness for the Association referred to the company witness of the Northern Natural Gas Company in support of the 100 per cent allocation of fixed costs to demand. It also states that Federal Power Commission Opinion No. 228, dated June 10, 1952 in Dockets Nos. G-1382, 1533 and 1607 on that company, shows that, while the company witness did allocate such fixed costs as depreciation and taxes to the demand component, "he assigned 50% of the return to demand and 50% to volume" (Op. p. 28). Thus, the City states, the company witness relied upon does not support the position taken by the California Manufacturers Association on the important matter of return. The City's argument is that the Association's cost study is of little or no value in presenting to the Commission the probable costs incurred by the applicant in providing service to the different customer classifications.

5/ Page 8, opening brief of the City of Los Angeles on Cost of Service and Spread of Rates.

The position of the applicant with regard to cost-of-service is that it does not take any affirmative position with regard to indicated costs of service as measured by different allocation methods. The applicant employed the consulting engineer to make an independent study of costs of service in order to provide information requested by the Commission staff. Applicant believes that certain of these data may be useful as a guide to the development of specific rates, but that practical merchandising and competitive considerations should be controlling and that cost of service is only one of the many factors to be considered in arriving at reasonable rates.

Recent Gas Cost Studies

During the past three or four years cost-of-service studies have been presented in formal rate proceedings involving the following companies:

Coast Counties Gas and Electric Company,

Pacific Gas and Electric Company,

Southern California Gas Company.

In Application No. 31614 the Coast Counties Gas and Electric Company presented a functional cost analysis and the Commission in Decision No. 45926 dated July 3, 1951 (50 CPUC 786), observed:

> "Such cost-of-service studies are helpful to the Commission and are given weight as one of the more important factors to be considered in the making of rates."

Under two major Pacific Gas and Electric Company rate cases the Commission has discussed gas cost studies. The first was

under Application No. 29777 and the Commission by Decision No. 43368, dated October 4, 1949 (49 CPUC 120), stated:

> "... no single formula or process has yet been devised by which it (the Commission) might reach an objective result. Studies made of relative cost-of-service by classes are valuable guides, as are studies of the relative worth to the consumer of an alternate service, but consideration must also be given to the volume, regularity, and other characteristics of customer uses with the object of permitting the utility to operate its plant facilities at maximum efficiency and thus insure the lowest reasonable rates to its customers as a whole."

In Decision No. 46268, dated October 2, 1951 (51 CPUC 144) in Application No. 31466, the Commission stated:

> "Considering all of the evidence, the relationship of these rates to the rates for other classifications of natural gas service, the competitive fuel costs and the basis of the cost studies in the record, it is concluded that a reasonable increase in the base rate for interruptible service should be authorized."

Under Application No. 30299 of Southern California Gas Company several cost studies were presented and in Decision No. 44741, dated August 29, 1950 (50 CPUC 163), the Commission stated:

> "A review of the details of the computations indicates that the assumptions upon which cost allocations to the three elements of service are made, however, must of necessity be based largely on broad judgments. ... the results of such studies must be accepted in the light of the underlying assumptions and can be used as aids to final judgment rather than as definitive measures of absolute quantities. ... The estimated costs of interruptible service in all studies are influenced to a large degree by the conclusion that little or no demand costs should be allocated to such service. ... However, in considering these cost figures some additional reasonable component of system demand costs should be given consideration. ..."

Some two years later in another Southern California Gas Company rate increase request under Application No. 32675 two cost studies were presented and in Decision No. 47990, dated December 2, 1952 (52 CPUC 263), the Commission discussed the cost studies, curtailment and demand assignment stating:

> "In considering the cost to serve the interruptible class it is the Commission's opinion that some reasonable demand component should be included but as to the exact extent of that component we are not prepared to say at this time. ...
>
> "In so far as the level of interruptible rates is concerned the Commission in the past has not based such level entirely on the cost of service but has given consideration to the level which would move the gas in competition with other forms of fuels, principally fuel oil."

Discussion and Conclusions on Cost of Service

With regard to the basic cost study, Exhibit No. 11, the Association submitted two exhibits to illustrate so-called shortcomings of the method used by the applicant's consulting engineer. The first one, Exhibit No. 29, was not received in evidence by the Presiding Commissioner on objection by the City of Los Angeles. The second, Exhibit No. 32, was placed in evidence by the Association's consulting engineer to illustrate the effect of use of load factor as a basis for allocation of fixed costs compared to allocation to the demand component only. This exhibit showed certain changes in the cost assignment to the general service, gas engine and firm industrial classes assuming a change in the load factor of the San Diego firm load.

On Page 17 of Appendix "A" to the reply brief of the City of Los Angeles on Cost of Service and Spread of Rates another example is presented to show even greater distortions by the Association's method compared to the load-factor method used by applicant's consulting engineer for integrated system operations. On May 25

the Association filed a supplemental statement disagreeing with the results of the City's hypothetical example, claiming it cannot be distinguished from Exhibit No. 29, and made a motion that either Exhibit No. 29 be received in evidence and be given full consideration or that the City's illustrative example be stricken and given no consideration.

The City having submitted an example in its brief in contrast to Exhibit No. 29, the reason for disallowing Exhibit No. 29 is removed and upon the recommendation of the Presiding Commissioner Exhibit No. 29 is received and will be considered part of the record.

With regard to the motion to strike Exhibit No. 11-B, it is concluded that the percentage assignments used by applicant's consulting engineer are not unreasonable when consideration is given to the facts contained in this exhibit. In Table A a tabulation of the sales during the month of January, usually the peak month of the year, for the years 1941 through 1952 indicates that during this 12-year period the interruptible (regular) industrial class has accounted for 7.7 per cent of the sales of gas during January. The amount of curtailment of interruptible sales has varied from year to year but in no year of this 12-year period during January do we find no sales to the industrial interruptible class. Such sales varied from a high of 16.8 per cent in 1941 to a low of 1.1 per cent in 1949. In January 1951 we find 9.3 per cent of the sales in this class and in January 1952, 2.4 per cent. The 2.5 per cent assignment approximates the January 1952 sales to such interruptible class. The 7.5 per cent assignment approximates the 12-year average January sales to this same class.

On an annual basis Table B of Exhibit No. 11-B shows the following ratio of actual interruptible sales to potential sales:

Interruptible Industrial Statistics - Mcf

Year	Potential	Curtailment	Sales	Ratio of Sales to Potential [6/]
1950	12,315,998	528,290	11,787,708	95.7%
1951	12,636,144	1,080,062	11,556,082	91.5
1952	12,320,407	1,947,036	10,373,371	84.2

Considering the period for the 12 months ended August 31, 1952, corresponding to the base period for the cost-of-service studies, an interruptible sales to potential sales ratio of 83.8 per cent[6/] is found.

The Association asks the Commission to find that, in determining the cost of service by classes on the applicant's system, no demand component costs are properly assignable to its interruptible service. Also, the Association recognizes the difficulty in promptly shutting off interruptible load when demands and available gas undergo rapid changes and on page 63 of its opening brief requests the Commission to find that "any demand component costs assigned to its interruptible customers should be measured by the extent to which they cannot, as a practical operating matter, be curtailed on the day of potential system peak, giving recognition to the fact that this irreducible minimum is, in reality, firm service."

Table C of Exhibit No. 11-B shows the three days of greatest send-out during the years 1948 through 1952. On 15

6/ Ratio of sales to potential-adjusted basis per Exhibit No. 13 shows:

Twelve months ending August 1951	99.2%
Year 1951	95.4
Twelve months ending August 1952	91.5

experienced peak days the industrial interruptible customers received gas on all but three days, two of which occurred in one year. On one peak day this class of customer received 13,757 Mcf. It is evident to the Commission from these actual results that the assignment of demand component costs to industrial interruptible service should not be limited to such irreducible minimum espoused by the Association. With regard to the requested finding of no demand component for interruptible service, such finding would have to be made on the assumed basis that the transmission system is designed to serve the estimated peak-day requirements of firm customers only and that no extra capacity is allowed for the interruptible load. However, in view of the actual operating experience on this applicant's gas system over the past 12 years from Table A of Exhibit No. 11-B and the high ratio of interruptible sales to potential sales, we cannot verify this assumption.

In Decision No. 48663, dated June 1, 1953 on Application No. 34049 of the Southern California Gas Company and the applicant for increasing the capacity of the Texas pipeline, it was shown that for the Southern California area[7] the total supply available exceeded the firm requirement on the peak day by 110,000 Mcf in 1950, by 281,500 Mcf in 1951, and by 254,500 Mcf in 1952. For the immediate future years the estimated outlook for firm excess capacity or deficiency on the peak day based even upon the upper

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7/ Including Southern California Gas Company, Southern Counties Gas Company of California, San Diego Gas & Electric Company, and Pacific Lighting Gas Supply Company areas.

estimate requirements without and with an added supply of out-of-state gas is as follows:

		Peak Day Mcf			
		Without 151,700 Mcf Increment		With 151,700 Mcf Increment	
Peak Day	Firm Requirement	Supply	Excess	Supply	Excess
1953-54	1,595,000	1,774,700	189,700	1,926,400	331,400
1954-55	1,713,300	1,739,200	25,900	1,890,900	167,600
1955-56	1,829,000	1,706,900	(122,100)	1,858,600	29,600
1956-57	1,951,100	1,682,600	(268,500)	1,834,300	(116,800)
1957-58	2,080,000	1,665,000	(415,000)	1,816,700	(263,300)

(Deficiency)

In the above tabulation the firm requirement is predicated upon a mean temperature of 36 degrees (Fahrenheit Base). Table E of Exhibit No. 11-B shows that this low a mean temperature in Los Angeles is seldom reached and for the past 20 years the lowest mean temperature has been 39 degrees.

A review of the above tabulation will show that it is the practice to look ahead and provide capacity increments sufficient to afford adequate supplies for several years of load growth in the future. While the above statistics apply to the whole of Southern California, it is reasonably representative of the situation with respect to the applicant. The curtailment reports which have been submitted by the applicant to this Commission, which by reference are a part of the record in this proceeding, will show that the interruptible class is not curtailed every day in the year but receives uninterrupted service during much of the year. Certain groups of interruptible customers are enjoying service that has experienced curtailment for a small number of days during the year.

In the practical operation of this utility system where it is necessary to contract for large volumes of out-of-state gas in order to insure future service, there have been incremental margins available to the interruptible class until firm load growth

absorbs such margins. For this reason and the relatively small curtailment that the interruptible class has experienced during the past several years, the Commission does not agree with the theoretical assignment of no demand costs to the interruptible service as advocated by the engineers. Such conclusion is not at variance with a recent decision, heretofore enumerated, wherein it was held that some reasonable demand component should be assigned to the interruptible service.

It appears to the Commission that the Association was not foreclosed from rebutting the results of Exhibit No. 11-B. Full opportunity was afforded the Association to state its position and make its case against this exhibit on the record and in the briefs. The Commission is of the opinion that the Association has set forth its position sufficiently relative to Exhibit No. 11-B and that further cross-examination is not necessary to present its position regarding Exhibit No. 11-B. The Commission recognizes that there are certain shortcomings in Exhibit No. 11-B, just as there are certain shortcomings in Exhibits Nos. 11 and 33, but finds useful statistical information in Tables A to E, inclusive, of Exhibit No. 11-B. Its basic figures are taken from Exhibit No. 11 and its use of several possible percentage allocations is not legally objectionable. In the Commission's opinion Exhibit No. 11-B is more than a mathematical exercise or an illustration and is relevant evidence. Therefore, the Association's motion to strike Exhibit No. 11-B is denied.

In any cost-of-service study it is necessary to use engineering judgment. There are many types of costs which are difficult to classify as to fixed, variable, demand or commodity. Such items as income taxes, depreciation, return, sales promotion, and administrative and general expenses are examples that might fall

within this category. The income tax is not directly related to plant but is measured by net income after expenses and certain deductions. Hence, any class showing a low return should have little or no income tax assignment. Since the depreciation and return are based on plant investment, any class that has a low assignment of plant, such as the interruptible service under the Association's study, would have a low assignment of these major cost elements. Sales promotion expense under the Association's study was assigned entirely to the customer component whereas its primary purpose is to promote the sales of gas and as such should largely be a commodity function. The administrative and general expenses are relatively uniform and under the Association's definition should be assigned primarily to demand but actually were assigned to all three functions.

While the above analysis shows certain shortcomings of the Association's study, it is apparent to the Commission also that applicant's consulting engineer did not follow the load-factor method in all respects by segregating fixed charges on the basis of the ratio of average and excess demands and then assigning these charges, in turn, to the commodity and demand functions but that instead he used his judgment for certain assignments. This use of judgment does not invalidate the load-factor method as intimated by the Association but points up the fact that judgment is necessary.

The request by the Association that the Commission make a determination as to which of the two cost studies follows correct methods and reaches correct results and furthermore to find that the results are as shown by Exhibit No. 33 is found not to be necessary in view of the discussions and conclusions herein.

A general conclusion with regard to cost studies is that the preparation of a cost-of-service study is not an exact science. It is customary to determine the over-all cost to serve for a utility and then use certain methods and engineering judgment in functionalizing the costs and assigning them to the various classes of service. Theories and methods such as the peak responsibility, demand-commodity-customer, excess and average demand or load factor, each have certain advantages or disadvantages. Each will produce a cost-to-serve that merits the Commission's consideration. In any event, with the differences in basic concepts and approaches to Exhibits Nos. 11 and 33, the greatest variation shown was approximately 4 cents per Mcf for any one class. However, when a demand component is assigned to the interruptible class, as in Exhibit No. 11-B, this difference increases to about 8.7 cents per Mcf as a maximum. Obviously, the Commission must use its best judgment in determining what is the probable cost to serve each of the classes after weighting the shortcomings and advantages of each particular study. All figures have some relevancy and will be given consideration. Needless to say, these cost-of-service studies are helpful

to the Commission in resolving the cost element which is only one of the factors considered in rate making.

Competitive Prices

The Commission realizes that some of the sales of natural gas service are directly competitive with other services or substitutes and in some instances the establishment of rates for gas service must include consideration of competitive prices as well as of actual costs to applicant.

Industrial natural gas service and rates in California are subject to competition principally from fuel oil. For certain industrial processes natural gas is a premium fuel and as such will command a price above the equivalent cost of fuel oil on a heat unit basis. For other industrial uses it must be sold at a price that is equal to or below the price of fuel oil delivered to the customer if a market is to be created or maintained. In view of these considerations, fuel oil clauses have been placed in certain industrial schedules.

Fuel Oil Clauses

The following present rates of applicant contain fuel clauses:

Schedule Numbers	Title
S-D	Optional Rate for Surplus Industrial Service
S-E	Oil Field Service
S-1	Standby or Intermittent Service
1-A	General Service (over 50,000 cu. ft. per month).
3-A	" " " " " " " "
4-A	" " " " " " " "
5-A	" " " " " " " "
1-C	Firm Industrial Service
2-C	" " "
3-C	" " "
4-C	" " "
5-C	" " "
1-D	Surplus Industrial Service
2-D	" " "
3-D	" " "
4-D	" " "
5-D	" " "
6-D	" " "

In general, the present fuel clauses provide, within certain limits, for a change of one sixth of 1 cent per Mcf for each change of 1 cent in the posted price of industrial fuel oil above or below 85 or 95 cents per barrel.

In its proposed new schedules applicant has deleted the fuel clause from all schedules except the proposed interruptible natural gas service, Schedule No. G-50, which schedule it desires to substitute for the present surplus schedules. This proposal is in accordance with the trend in recent decisions to retain the fuel oil clause only in schedules where it is necessary to meet competition from fuel oil. In Decision No. 47832, Application No. 32589, of the Pacific Gas and Electric Company for an increase in electric rates, the Commission clearly distinguished between a fuel oil clause for competitive rates and a fuel cost clause in many schedules as a means of equalizing the earnings of the utility.

The applicant's proposed type of fuel oil clause is a permissive type rather than its present mandatory type. In other words, under the existing fuel clause a change of the rate is required, within specified limits, each time the posted price of fuel oil changes, whereas, under the proposed clause the applicant may adjust the rates for a range of fuel oil prices between $1.16 and $1.55 per barrel of oil. The type of fuel clause being requested by the applicant herein was authorized by Decision No. 47990 of Application No. 32675 of the Southern California Gas Company for an increase in gas rates. In that decision the automatic action of the present form of fuel clause was discontinued in favor of a clause that would not require gas prices to change with oil prices when the change was not warranted. If the value of the interruptible gas service is such that its price need not be lowered when fuel oil prices (currently $1.85) drop below $1.55, then it should not be mandatory for the applicant to file revised rates. The Commission concludes that it should exercise its jurisdiction over rate levels rather than to surrender such control to a mandatory automatic clause and hereby adopts the permissive type of fuel oil clause authorized by Decision No. 47990.

Heat Content Clauses

Applicant's present schedules do not contain any clauses that require a change in the effective rates with a change in heat content of the gas. When the heat content of the gas served varies as much as 50 Btu from the base level per cubic foot it will create a perceptible decrease or increase in the use of gas that should be adjusted for in rates if the customer is to be protected and if applicant's revenues are to be maintained. The staff proposed a heating clause, Exhibit No. 31, that adjusts the base rates by 3 per cent for each 50 Btu change for the General Service,

Military and Multiple Dwelling Schedules and by 2 per cent for Gas Engine, Firm and Interruptible Industrial Schedules. Applicant opposed the proposal to establish the base rates on the basis of 1,100 Btu per cubic foot and suggested 1,090 Btu as being more representative of the gas now being served. The Commission has studied this problem and is of the opinion that the difference between 1,090 and 1,100 does not warrant a change from the 1,100 base figure. During the past few years heating value clauses have been inserted into rate schedules of the utilities that serve gas in territory adjacent to applicant's service area in southern California and in San Diego County. With the revision in rates being provided by the order herein, the inclusion of a heating clause in applicant's tariff schedules appears to be in the public interest and we so find.

Two changes in the staff's proposed Rule and Regulation No. 2(K), Rate Adjustment for Heating Value, suggested by applicant will be made in the heating value clause. The first concerns the wording which provides for adjustment in effective rates on a maximum variation of 35 Btu above or below the Btu level on which the effective rates are based in lieu of a 1,100 Btu level. The second concerns the time interval when appropriate rates will be made effective following a definite change in the source of gas. Applicant claimed the present interval of 15 days is too short and suggested a 45-day period. A 45-day period appears to be longer than necessary to the Commission so the rule will be revised to a 30-day period.

Rate Zoning

Applicant proposed a plan to establish rate zones for general service schedules by operating divisions and by certain areas. This method of zoning differs from that prescribed

previously by the Commission for the Pacific Gas and Electric Company and the Southern California Gas Company wherein basic six-zone plans were made effective. The purpose of the six-zone plan is to adjust partially for variations in customer cost as between areas of different customer density. Under this plan the largest and most densely built-up areas are placed in Zone 1 and the least dense areas, usually the rural areas, are placed in Zone 6. The built-up areas with densities and sizes between the highest and lowest are classified on the intervening zones in relative order.

In Exhibit No. 31 the staff proposed a six-zone plan with the Santa Monica Bay Division in Zone 1, San Gabriel Valley Division in Zone 2, certain cities of the Orange Division and the Eastern Division in Zone 3, the Harbor Division and a portion of the Eastern, Orange, Ventura County and Santa Barbara County Divisions in Zone 4, portions of the Orange, Ventura County, Santa Barbara County and Northern Divisions in Zone 5 and the remainder of the Northern Division in Zone 6.

Such staff plan met with objection from the City of Los Angeles regarding the placement of the Harbor Division in Zone 4 and from the California Farm Bureau in the placement of the eastern portion of Ventura County in Zone 5. The City's argument was that the size and the density of the customers in the Harbor Division warranted a lower zone. The Farm Bureau's argument was that the rural customers in Ventura County are served from transmission lines that transport gas from the Santa Barbara area to the Los Angeles area and that no long rural distribution line extensions were involved in serving these customers. Applicant's witness also stated that the staff's proposals were not desirable and preferred the division basis of zoning. In view of the divergence of viewpoints between the proposals by applicant and the staff and the objections by the parties the examiner suggested a conference

between representatives of the applicant, staff and the examiner to work out the technical details of the rates except as to rate levels.

Such conference was authorized by stipulation at the April 1, 1953 hearing, the results to be placed in the record as Exhibit No. 31-A with copies to be served on all parties and 10 days for objection or reply. Two conferences were held (April 28 and May 5, 1953) after which the staff and the examiner prepared and mailed Exhibit No. 31-A to all appearances on May 22, 1953. Replies were received only from the City of Los Angeles and the applicant. The City's reply pointed out certain inconsistencies in the wording of Schedule No. G-55 that will be rectified in Exhibit A herein. The applicant's reply was received as Exhibit No. 31-B and presented suggestions or objections which, in general, are dealt with by the discussion under the various rate topics herein.

The zoning plan proposed in Exhibit No. 31-A was somewhat similar to that adopted in Los Angeles County on the Southern California Gas Company System. Instead of placing the rural or sparsely settled unincorporated areas all in Zone 6 as had been done in northern California, consideration was given to the trend of rapid subdivision of certain remaining rural areas in portions of Los Angeles, Ventura and Orange Counties by assigning a Zone 4 classification or lower.

The rate zoning plan adopted by the Commission will be essentially that set forth in Exhibit No. 31-A which may be summarized briefly as follows:

Zone 1, Santa Monica Bay Division,

Zone 2, San Gabriel Valley Division,

Zone 3, Harbor Division, certain large cities in Orange County and City of Santa Barbara,

Zone 4, Eastern Division, northwest portion of Orange County Division and the eastern portion of Ventura County,

Zone 5, Laguna Beach rate area, the western portion of Ventura County and Santa Barbara County,

Zone 6, San Juan Capistrano-San Clemente rate area.

Because the characteristics, service costs and history of the rates do not warrant inclusion in the basic six-zone plan at this time, Subzone 5.1 will be established for Santa Maria and San Luis Obispo and Subzones 6.1 and 6.2 for the Northern Division. The rate areas of Las Flores-Malibu and Moreno-San Diego Pipeline will be included in Subzone 6.2. The Commission anticipates that from time to time in the future zoning changes will be necessary. Applicant shall review the density characteristics of rate areas utilizing end-of-calendar year statistics and by May 1 of each year file revisions of the boundaries of said rate areas in its tariff schedules as appropriate and at such additional times during the year as conditions may warrant. Certain transfers or reclassification of service areas may be warranted, notwithstanding the effect of the change on gross revenues. The proper classification of an area at the time of first rendition of service will minimize such revenue effects. It is in the public interest that equivalent zoning consideration be given to growing territory in the application of the tariffs.

General Service Rates - Multiple Use

Applicant's present general service schedules are applicable to domestic and commercial service of natural gas for cooking, water heating, space heating, refrigeration and other domestic and commercial uses. Under the present rates the applicant does not distinguish between multiple use and the principal use of gas for space heating except where gas service is rendered to such space heating customers for 10 consecutive months. Under the proposed schedule the "M" portion of the rate would apply to customers whose use of gas is for any purpose other than primarily space heating for human comfort.

The blocking of the present rates is not similar for the various schedules; some allow 1,000 cubic feet in the initial charge

of $1, others 800 cubic feet and 700 cubic feet, and others drop to as low as 300 cubic feet for 85 cents. Applicant proposed raising these initial charges to $1.65 or more for the first 1,000 cubic feet of gas or less. Such proposal is not in accordance with the present trend of rate making on adjacent systems wherein only 200 cubic feet is included in the initial charge. The cost studies show that a sizable increase in the initial charge is warranted but by establishing the amount of gas included in the initial charge at 200 cubic feet, the ratio of increase to the small-use customer need not be as great as proposed by the applicant. Applicant's proposal would have resulted in increases as great as 65 per cent for these small-use customers but by this method the increase to the minimum-use customers is limited to 23.5 per cent or less and for the customer using 1,000 cubic feet is limited to the approximate range of 10 to 56 per cent depending upon the present form of rate. For a customer using 10,000 cubic feet in the winter months the seasonal form of rate being adopted will lower this increase to the range of approximately 1.5 to 22.6 per cent. In the six summer months most of the 10,000 cubic feet customers will enjoy reductions of from 2.3 to 13.8 per cent approximately.

Applicant proposed a change from the present non-seasonal type of rate to a seasonal type with higher rates in the wintertime than in the summertime. Applicant's reason for such a change is to obtain a higher price for the gas used for space heating in contrast to that used for water heating and cooking. The space heating load occurs from four to six months of the year and accounts for the high winter peaks on applicant's system. The water heating and cooking load is a year-round type of load that exhibits only a small seasonal swing compared to the space heating load.

In the past the Commission has authorized seasonal forms of rates for the commercial service and the firm industrial service on the Southern California Gas Company System but not for the general service rates. Instead, a higher space heating "H" rate was authorized for the general service rates where the use of gas

was primarily for the purpose of space heating for human comfort. Based upon the experience of the Southern California Gas Company with the "H" rate, the applicant believes that better customer acceptance would be realized if relatively the same level of commodity rates could be applied to the heating only customer beyond the first 2,000 cubic feet under the "H" rate as under the proposed "M" rate. Applicant's request appears reasonable and seasonal rates will be authorized for the general service schedules.

General Service Rate - Space Heating

Customers whose use is principally space heating for human comfort will be placed on the "H" rate under the general service schedules. These customers use gas mainly during the winter season and cause the utility to install larger transmission, production and storage facilities than if their use were spread throughout the year. The customers placed under this category use gas primarily for space heating for human comfort. These customers will pay the same commodity rates as the "M" customers for all usage except the 1,800 cubic feet block which will have a somewhat higher rate. The primary difference between the "M" and "H" rates is that an amount equivalent to the initial charge on an annual basis will be collected in six winter months, November-April inclusive, and that no minimum will be charged the "H"customers during the six summer months. This elimination of summer minimum charges saves the cost to the company and inconvenience to the customer of disconnecting service in the spring and reconnecting in the fall.

Applicant proposed a fixed customer charge of $3.50 per month or more for only four winter months: December, January, February and March. Such charge would unduly increase the rate for the smaller space heating customer during these winter months

since no gas was included in such fixed charge. It appears more reasonable to provide service to the "H" customer under an initial charge form of rate covering the six winter months including 200 cubic feet of gas per month, in lieu of the proposed fixed charge with no gas over a four-month period. Applicant's proposal would have resulted in increases as great as $2.83 or 321 per cent for the customer using only 200 cubic feet in the four winter months; however, under the heating only rate being authorized herein the increase for such small-use customer is $1.15 or 135 per cent. As consumption increases the relative ratio of increase drops sharply and for 10,000 cubic feet will range between 24 and 39 per cent. In the six summer months the heating only customer who formerly did not disconnect in the summer months will enjoy a reduction of from 77 to 84 per cent approximately for minimum usage.

Military Service

Applicant proposes two schedules, G-20 and G-21, for service of natural gas for human uses and human comfort of the armed forces, wherein gas is measured through master meter installations and for which the estimated maximum hour demand for gas will be in excess of 10,000 cubic feet per hour. Schedule No. G-20 will replace present Schedule No. 2-A-M and Schedule No. G-21 will replace present Schedule No. 6-A-M. Each of the present schedules contains a fixed charge based on the demand created each month plus a blocked commodity charge. The applicant's proposed schedules leave out the fixed charge and are set up on a seasonal basis with a commodity rate of 52 cents per Mcf in the winter months and 33 cents per Mcf in the summer months. The principal difference between the two schedules is that on Schedule No. G-21 the space heating is limited to minor or incidental amounts and applies only in the Northern Division. Applicant's proposal appears

reasonable; however, in view of the relative rate levels to be authorized herein for general service and multiple dwelling, it was necessary to set these rates at 49 and 37 cents respectively.

Multiple Dwelling Service

Schedules Nos. G-25 and G-26 are proposed for service of natural gas to multiple dwellings where the primary usage is in the dwelling units of multiple dwellings or housing projects and all gas is measured for such premises through one single or master meter installation. Proposed Schedule No. G-25 covers all of the territory except the Northern Division and Schedule No. G-26 covers the Northern Division. Presently, housing projects are served under Schedule No. S-M or under a special condition of the general service schedules allowing up to 100 dwelling units. Presently, Schedule S-M is of the fixed charge plus a commodity charge classification. The applicant's proposed multiple dwelling rates omit the fixed charge and are set up on a seasonal basis with higher winter than summer rates. Applicant's proposal appears reasonable and will be adopted except that the final rate levels for the winter months will be lowered by 3 cents and for the summer months increased by 4 cents per Mcf.

Commercial Rates

Applicant does not have separate rates for commercial service, except in the Northern Division under present Schedule No. 6-A-C, which are classed as commercial schedules, such as are offered by the Southern California Gas Company. A customer's representative questioned the reason why no separate commercial rates were proposed. Applicant's witness replied that the general service schedule is so designed that the commercial customer will receive fair treatment on the general service schedules. With a change in the general service schedules to a seasonal type, it will

be possible for the commercial customer with a good year-round load factor to obtain a reasonable rate for this class of service without having special commercial rates. Applicant's proposal to serve all commercial customers on the general service schedules and replace Schedule No. 6-A-C by a limited term general service schedule appears reasonable and will be adopted.

Gas Engine Rates

Applicant proposed Schedules Nos. G-45 and G-46 for gas engine service with the former applicable over the entire system, except in the Northern Division, and the latter applicable in the Northern Division. Schedule No. G-45 would replace present Schedule No. 5-B and Schedule No. G-46 would replace Schedule No. 6-B. The present rates have lower summer rates than winter rates where the customer guarantees a certain level of usage and will sign a two-year contract. The proposed rates are quite similar to the present rates, except that the basis of obtaining a lower rate in the summer months is contingent upon a $100 monthly minimum charge from April 1 to November 30, inclusive.

The representative for the California Farm Bureau Federation did not offer any objection to the applicant's proposed rate treatment but was concerned over the fact that the Commission may raise the rate more than requested by the applicant. He referred to the recent change in the rates of the Southern California Gas Company wherein the Commission found that the proposed rates for gas engine service were lower in certain blocks than the rates for the interruptible industrial service. Inasmuch as the gas engine service is a firm service and has priority over the interruptible service such action appeared reasonable to the Commission in that case.

In the instant proposal the Commission has found it necessary to revise applicant's proposed rates in order to maintain a proper relative relationship between the general service, firm industrial, and gas engine rates. Decreases were made in the initial blocks and increases made in the terminal block of the "X" rate and increases in all blocks of the "Z" rate. By this process it was possible to consolidate the two proposed schedules into one schedule and still give recognition to the plea of the California Farm Bureau representative. The major item of increase will be caused by the increase in the terminal rate to 27 cents per Mcf on the summer rate which is necessary to improve the relationship to the 26-cent terminal rate on the interruptible schedules.

Industrial Rates - Firm Service

Applicant proposes two firm industrial schedules, G-40 and G-41, the first to apply in all territory except the Northern Division and the second to apply in the Northern Division. Schedule No. G-40 would replace present Schedules 1-C, 2-C, 3-C, 4-C and 5-C. It would be a seasonal type of rate at the same basic level of the similarly numbered schedule on the Southern California Gas Company System. No firm industrial rate is now applicable in the Northern Division and G-41 would be a new service for that area. The present firm industrial schedules do not permit the use of gas for space heating. Under the proposed schedules space heating will be available providing the process use is the primary use. Applicant desires to have uniformity with the industrial rates charged by the adjacent utility system, Southern California Gas Company, in this respect. Applicant claims that a rather new group of customers would be affected by the proposed rate inasmuch as 322 customers would find it advantageous to transfer to the general service schedules and some 150 presently on the firm industrial schedules

would be able to discontinue separate meters on their space heating services and combine them with their regular industrial uses.

The California Manufacturers Association opposed the proposed increase in firm industrial rates as unwarranted on the basis of its cost study and suggested no increase until the services showing lower rates of return be brought more nearly in line with the related costs. Furthermore, it stated that the level of another utility's rates is no proof of what applicant's rates should be.

The cost studies indicate that the firm industrial service is yielding a rate of return in excess of the return on general service. In view of the record the Commission will assign a lesser increase to this class of service than to the general service; however the tariff will be broadened to include space heating, and the rate fixed will take this into consideration.

Industrial Rates - Interruptible Service

Applicant proposes one system-wide interruptible rate, Schedule No. G-50, at a level uniform with the basic rate levels under the similarly numbered schedule of the Southern California Gas Company. Such schedule would take the place of existing surplus Schedules S-D, 1-D, 2-D, 3-D, 4-D, 5-D and 6-D. Changes in the provisions of the present schedules are proposed to eliminate the combination of use at different locations for billing purposes and open the schedule to all commercial and industrial uses for which standby facilities are available. Applicant's witness claims the proposed interruptible rates are below the value of service as measured by the cost of competitive fuel oil and stated "While there are other factors to be considered in determining the value of service which are directly connected with the superiority

of gas such as controllability, cleanliness, maintenance, reduction of product rejects and to some extent reduction of storage costs, major merchandising efforts must be concerned with the competitive price of oil."

The California Manufacturers Association opposed any increase in the interruptible rates on the basis of costs shown in its study, Exhibit No. 33, wherein it figured that the average revenue from interruptible service of 25.41 cents per Mcf was 7.24 cents above its cost and was 3.06 cents above the costs shown in Exhibit No. 11 by the consulting engineer. However, in Exhibit No. 11-B, a cost figure of 1.45 cents per Mcf above revenue was shown under the 7½ per cent computation for the interruptible industrial service.

As previously indicated, the Commission in the past has given substantial weight to factors other than cost of service in determining rate levels for interruptible service including the cost of competitive fuels.

The principles stated in Decision No. 41020[8] are worth restating here as follows:

> "In fixing general service and other firm rates, the cost-to-serve element unquestionably is an important factor in such determination along with many other considerations. ... The situation presented by the instant complaint does not involve a firm rate for gas service but a charge for industrial gas service that is sold on an interruptible basis in competition with other fuels. A review of this Commission's

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8/ This resulted from a complaint, Case No. 4890, decided December 17, 1947 (47 CPUC 583), Union Sugar Company vs. Southern Counties Gas Company of California, wherein the sugar company's request for an order to require the utility to furnish gas service at rates lower than then being charged was denied and the existing rate found to be not unreasonable.

> decisions will show that the rates charged for such interruptible service have been looked upon somewhat differently than gas which the utility is required to be in a position to serve continuously. It has been the history of the so-called surplus gas sales that such gas service has been at rates somewhat less than those for fuel oil, the other competitive fuel and that any earnings on such gas service above the out-of-pocket costs have been applied to reduce the cost of supplying firm service."

Applicant's proposal here is in line with this past practice of offering an interruptible rate lower than the competitive cost of fuel oil. Applicant's witness testified that the present delivered cost of bunker fuel oil to customers is $1.90 or greater per barrel. Based on a heat value equivalent of 5,800 cubic feet of gas to a barrel of oil the equivalent value for the gas is 32.8 cents per Mcf. This figure is 5.2 cents per Mcf greater than the terminal rate of the proposed interruptible schedule. The advantage is less for smaller consumptions but the delivered oil costs to smaller customers also are usually higher and the utilization advantages of gas fuels generally are greater to the smaller customer.

Based on this analysis and the past practice of the Commission and after considering the position of the California Manufacturers Association, we find that some increase is justified in the interruptible rate. Strictly from a competitive standpoint a price higher than 27.6 cents, including 1.6 cents offset rate, for the terminal rate is warranted; however, by setting a rate no higher than that requested appropriate weight is given to the probable cost of rendering the interruptible industrial service and to the other rate-making factors concerned in the interruptible rate.

Contingent Offset Charge

Heretofore in discussing rate levels, except for the above terminal rate of 27.6 cents per Mcf, we have not included the 1.6 cents per Mcf offset charge. This item is subject to possible refund in accordance with Decision No. 47991 and an appropriate condition is included on each rate tariff. It should be observed that the cost-of-service studies were prepared on a base period ending August 31, 1952. The increased prices for out-of-state gas, on which the offset rate is predicated, became effective January 1, 1953. Therefore in considering the cost-of-service studies it is appropriate to compare the various cost figures with the base rates prior to offset rate additions.

Steam Electric Generating Plant Service Rate

Steam electric generating plant service is now rendered on Schedule No. G-55 at rate levels which are 1 cent per Mcf below the effective rate per Mcf of the lowest block of Schedule No. S-D or substitute therefor. Such rate was filed during the progress of this case as the result of Decision No. 48396, under Application No. 33912, wherein the Commission would not authorize special contracts but required that the contemplated service be rendered under a filed tariff.

With the replacement of Schedule No. S-D by G-50, revised rate levels and certain revised wording are necessitated for Schedule No. G-55. The present base rates of 23 cents per Mcf in the winter months and 22 cents in the summer months under Schedule No. G-55 will be raised to 25 cents per Mcf and an option provided at 26.106 cents per Mcf for the first 300,000 Mcf of gas delivered to customer during any one calendar month if curtailment parity with other customers on Schedule No. G-50 is desired for such block of gas. While a revised steam plant schedule was not

included in applicant's exhibits, it was contemplated in Exhibit No. 31-A by the staff and the examiner and will be included in the rates being revised by the order herein.

Special Changes for Commercial and Standby Service

Applicant requests authority to replace present Schedule No. 6-A-C, Commercial General Service, with a limited term closed schedule, Schedule No. G-8-T, Limited Term General Service. It proposes that the limited term schedule terminate two years after the effective date, at which time the remaining 6-A-C customers on Schedule No. G-8-T would be transferred to appropriate regular schedules. Applicant's reason for suggesting this transition period is to avoid a sharp increase to certain larger customers now on this schedule. This is a special condition limited to the Northern Division created by the special commercial type of rate set up by the former Santa Maria Gas Company. This schedule has a $10 minimum charge for customers other than libraries and churches, for which no minimum charge is made, and a 35-cent terminal block. Under this schedule a large customer using gas for space heating now buys this gas at approximately 35 cents per Mcf which is much lower than the present schedules on the remainder of the system.

Most of the present 488 customers on Schedule No. 6-A-C will find it advantageous to be transferred to the regular schedules at once but for certain larger customers proposed Schedule No. G-8-T represents an increase somewhat more than halfway between the present level and the new regular schedule levels. Applicant's proposal appears reasonable except that the two-year transition term appears too long. In view of the fact that the regular rates are not being set as high as proposed by applicant, it is the Commission's opinion that such transfer should be made at the end of the first

winter season under the new rates. Accordingly the final transfer of customers from Schedule No. G-8-T will be made following their April 1954 billings.

Applicant proposes to eliminate present Schedule No. S-I, Standby or Intermittent Service, and to transfer the customers on this schedule to the gas engine and general service schedules. Applicant's witness testified that this will result in a reduction for each one of the customers. Coincident with this proposed elimination of Schedule No. S-I, it will be necessary to change the Preliminary Statement in the rate tariff book. In this proposed revision applicant has reserved the right, in a more specific manner, to refuse service to customers whose fuel requirements are coincident with the system's extreme peak demands and also to prohibit standby service for loads in excess of 1,000 cubic feet per hour. Applicant states the proposed wording is the same as used by the Southern California Gas Company and therefore will promote uniformity in treatment of this type of customer compared to those in adjoining service areas. Applicant's request appears reasonable and is authorized.

Summary of Rate Changes

The following table shows the increase authorized by the order herein based on the adjusted sales for the 12 months ended August 31, 1952:

SUMMARY OF INCREASES

Item	Sales Thousand Mcf	Revenue at Present Rates	Increase Amount	Increase Ratio	Avg. Rev. per Mcf After Increase*
General Service	32,617	$21,054,000	$1,748,000	8.30%	69.9¢
Firm Industrial and Standby	1,802	719,000	48,000	6.68	42.6
Gas Engine	844	267,000	10,000	3.75	32.8
Interruptible:					
Industrial	11,243	2,866,000	324,000	11.30	28.4
Steam Plant	5,294	1,138,000	185,000	16.26	25.0
Subtotal	51,800	26,044,000	2,315,000	8.89	54.7
Wholesale:					
San Diego Gas & Electric Co.	22,204	5,134,000	-	-	23.1
Pacific Gas and Electric Co.	5,161	1,153,000	-	-	22.3
Subtotal	79,165	32,331,000	2,315,000	7.16	43.8
Other Revenue		841,000			
Total Revenue		33,172,000			

* Composite over-all rate reflecting winter and summer rate levels.

While no change was proposed or has been made in the wholesale rates for service to the San Diego Gas & Electric Company and to the Pacific Gas and Electric Company, these items have been included in the above tabulation in order to show the relationship of the increase to the total sales. Sales to the Pacific Gas and Electric Company will cease in 1953 on the expiration of the present contract. Sales to the San Diego Gas & Electric Company are rendered in part under a rate schedule subject to Federal Power Commission jurisdiction and it is not deemed practical to change such rate in this proceeding.

Conclusion

After reviewing all of the evidence of record and the statements by protestants and interested parties and giving weight to the declining trend in rate of return, it is our conclusion that an order should be issued increasing the rates in the over-all amount of $2,315,000 in the manner outlined herein and to the extent set forth in Exhibit A following the order. The problem of rate spread and establishment of proper class rates has been given major attention in this opinion and order. Cost-of-service, one of the many factors that has a bearing on rate levels, also has been considered. Operating results and conditions change from year to year and on a system where joint use of system facilities is made by many classes of service, any one engineer's cost study would undoubtedly show changes in relative return relationships for the various classes of service from year to year in the future. Also, in view of the divergence of the experienced peak results from the estimated potential peak results, the Commission has found it necessary to use its best judgment in resolving and applying the cost factor as well as the other pertinent factors considered in fixing the rate levels and relationships. In the Commission's opinion the spread of rates provided by Exhibit A herein is just and reasonable.

All motions inconsistent with the findings and conclusions of this opinion and order hereby are denied.

O R D E R

Southern Counties Gas Company of California having applied to this Commission for an order authorizing increase in rates and charges for natural gas service, public hearings having been held, the matter having been submitted and being ready for decision,

IT IS HEREBY FOUND AS A FACT that the increases in rates and charges authorized herein are justified and that present rates, rules and regulations in so far as they differ from those herein prescribed for the future are unjust and unreasonable; therefore,

IT IS ORDERED as follows:

1. Applicant is authorized and directed to file in quadruplicate with this Commission after the effective date of this order, in conformity with General Order No. 96, revised tariff schedules with changes in rates, terms, conditions, descriptions, rules and regulations as set forth in Exhibit A attached hereto and, after not less than five days' notice to this Commission and to the public, to make said rates effective for service rendered on and after August 15, 1953.

2. Applicant shall revise its preliminary statement in the tariff schedules in the manner requested and to the extent necessary to be consistent with the provisions of this opinion and order and Exhibit A in the filing pursuant to ordering Paragraph 1 hereof.

3. At the time of making effective the rates authorized by ordering Paragraph 1 hereof, applicant may withdraw, cancel or revise all present schedules except Schedules Nos. S-A-L.H. (Butane Service) and G-60 (Wholesale Service) and may transfer the customers on such schedules to the appropriate new schedules generally applicable in the areas and for the type of service involved, or in the manner discussed in the opinion preceding this order.

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

Dated at San Francisco, California, this 14th day of July, 1953.

Commissioner Kenneth Potter, being necessarily absent, did not participate in the disposition of this proceeding.

[signature], President

[signature]

[signature]

[signature]

Commissioners

EXHIBIT A

AUTHORIZED REVISION OF GAS TARIFFS OF
SOUTHERN COUNTIES GAS COMPANY OF CALIFORNIA
RESULTING FROM APPLICATION NO. 33341

Revisions in applicant's rate tariff schedules are provided in the following listed sheets:

Title of Sheet or Sheets	Exhibit A Sheet Nos.
G-1 General Natural Gas Service	2
G-2 General Natural Gas Service	3
G-3 General Natural Gas Service	4
G-4 General Natural Gas Service	5
G-5 General Natural Gas Service	6
G-5.1 General Natural Gas Service	7
G-6 General Natural Gas Service	8
G-6.1 General Natural Gas Service	9
G-6.2 General Natural Gas Service	10
G-8-T Limited Term General Natural Gas Service	11
G-20 Military Natural Gas Service	12
G-21 Military Natural Gas Service	13
G-25 Multiple Dwelling Natural Gas Service	14
G-26 Multiple Dwelling Natural Gas Service	15
G-40 Firm Industrial Natural Gas Service	16
G-41 Firm Industrial Natural Gas Service	17
G-45 Gas Engine Natural Gas Service	18
G-50 Interruptible Natural Gas Service	19
G-55 Steam Electric Generating Plant - Surplus Natural Gas Service	20 - 21
Rule and Regulation No. 2, Character of Service, (K) Rate Adjustment for Heating Value	22
Description of Rate Areas	23 - 30

Schedule No. G-1

GENERAL NATURAL GAS SERVICE

APPLICABILITY

Applicable to natural gas service for residential, commercial, industrial, or other customers.

TERRITORY

A-(1100 Btu)

Within the Rate Area of:

1 Santa Monica Bay Division

Rate Areas are specified under the reference numbers in Description of Rate Areas.

RATES

	Per Meter Per Month Base and Effective Rates A 1100 Btu "M"	1100 Btu "H"
Commodity Charge:		
Six Winter Months - November to April, inclusive		
First 200 cu.ft. or less	$1.00	$2.00
Next 1,800 cu.ft., per 100 cu.ft.	6.00 ¢	8.00 ¢
Next 28,000 cu.ft., per 100 cu.ft.	5.55 ¢	5.55 ¢
Over 30,000 cu.ft., per 100 cu.ft.	5.20 ¢	5.20 ¢
Six Summer Months - May to October, inclusive		
First 200 cu.ft. or less	$1.00	$0.16 *
Next 1,800 cu.ft., per 100 cu.ft.	6.00 ¢	8.00 ¢
Next 28,000 cu.ft., per 100 cu.ft.	4.25 ¢	4.25 ¢
Over 30,000 cu.ft., per 100 cu.ft.	3.90 ¢	3.90 ¢

* The monthly summer rate for first 200 cu.ft. is 8.00 cents per 100 cu.ft. Except for closing bills, summer usage will be accumulated to 1,000 cu.ft. before billing. Such accumulated usage as is not billed by the end of the summer months will be billed at the regular summer rate.

The effective rates are based on the average monthly heating value per cubic foot indicated and as set forth in Rule and Regulation No. 2 (K).

Contingent Offset Charge: (Same as proposed in Exhibit 8-A).

Minimum Charge:

Rate "M" - $1.00 per meter per month.
Rate "H" - Winter months of November-April: $2.00 per meter per month.
Rate "H" - Summer months of May-October: No minimum charge.

SPECIAL CONDITIONS

(Same as proposed in Exhibit 8-A).

Schedule No. G-2

GENERAL NATURAL GAS SERVICE

APPLICABILITY

Applicable to natural gas service for residential, commercial, industrial, or other customers.

TERRITORY

A-(1100 Btu)

Within the Rate Area of:

2 San Gabriel Valley Division, excluding Orange County portion

Rate Areas are specified under the reference numbers in Description of Rate Areas.

RATES

	Per Meter Per Month Base and Effective Rates A 1100 Btu "M"	1100 Btu "H"
Commodity Charge:		
Six Winter Months - November to April, inclusive		
First 200 cu.ft. or less	$1.00	$ 2.00
Next 1,800 cu.ft., per 100 cu.ft.	6.10¢	8.10¢
Next 28,000 cu.ft., per 100 cu.ft.	5.70¢	5.70¢
Over 30,000 cu.ft., per 100 cu.ft.	5.20¢	5.20¢
Six Summer Months - May to October, inclusive		
First 200 cu.ft. or less	$1.00	$ 0.16*
Next 1,800 cu.ft., per 100 cu.ft.	6.10¢	8.10¢
Next 28,000 cu.ft., per 100 cu.ft.	4.40¢	4.40¢
Over 30,000 cu.ft., per 100 cu.ft.	3.90¢	3.90¢

* The monthly summer rate for first 200 cu.ft. is 8.10 cents per 100 cu.ft. Except for closing bills, summer usage will be accumulated to 1,000 cu.ft. before billing. Such accumulated usage as is not billed by the end of the summer months will be billed at the regular summer rate.

The effective rates are based on the average monthly heating value per cubic foot indicated and as set forth in Rule and Regulation No. 2 (K).

Contingent Offset Charge: (Same as proposed in Exhibit 8-A).

Minimum Charge:

Rate "M" - $1.00 per meter per month.
Rate "H" - Winter months of November-April: $ 2.00 per meter per month.
Rate "H" - Summer months of May-October: No minimum charge.

SPECIAL CONDITIONS (Same as proposed in Exhibit 8-A).

Schedule No. G-3

GENERAL NATURAL GAS SERVICE

APPLICABILITY

Applicable to natural gas service for residential, commercial, industrial, or other customers.

TERRITORY

A-(1100 Btu)

Within the Rate Areas of:

3 Harbor Division
4 Anaheim - Fullerton
5 Santa Ana - Orange
6 Newport Beach - Costa Mesa
7 Huntington Beach

B-(1050 Btu)

Within the Rate Areas of:
3.1 Terminal Island
14 Santa Barbara

Rate Areas are specified under the reference numbers in Description of Rate Areas.

RATES

	Per Meter Per Month					
	Base Rates		Effective Rates			
			A		B	
	1100 Btu		1100 Btu		1050 Btu	
Commodity Charge:	"M"	"H"	"M"	"H"	"M"	"H"
Six Winter Months - November to April, inclusive						
First 200 cu.ft. or less	$ 1.05	$2.10	$ 1.05	$ 2.10	$ 1.05	$2.10
Next 1,800 cu.ft., per 100 cu.ft.	6.20¢	8.20 ¢	6.20¢	8.20 ¢	6.01 ¢	7.95 ¢
Next 28,000 cu.ft., per 100 cu.ft.	5.90¢	5.90 ¢	5.90¢	5.90 ¢	5.72 ¢	5.72 ¢
Over 30,000 cu.ft., per 100 cu.ft.	5.20¢	5.20 ¢	5.20¢	5.20 ¢	5.04 ¢	5.04 ¢
Six Summer Months - May to October, inclusive						
First 200 cu.ft. or less	$ 1.05	$ 0.16*	$ 1.05	$ 0.16*	$ 1.05	$0.16*
Next 1,800 cu.ft., per 100 cu.ft.	6.20¢	8.20 ¢	6.20¢	8.20 ¢	6.01 ¢	7.95 ¢
Next 28,000 cu.ft., per 100 cu.ft.	4.60¢	4.60 ¢	4.60¢	4.60 ¢	4.46 ¢	4.46 ¢
Over 30,000 cu.ft., per 100 cu.ft.	3.90¢	3.90 ¢	3.90¢	3.90 ¢	3.78 ¢	3.78 ¢

* The monthly summer rate for first 200 cu.ft. is 8.20 cents per 100 cu.ft. Except for closing bills, summer usage will be accumulated to 1,000 cu.ft. before billing. Such accumulated usage as is not billed by the end of the summer months will be billed at the regular summer rate.

The effective rates are based on the average monthly heating value per cubic foot indicated and as set forth in Rule and Regulation No. 2 (K).

Contingent Offset Charge: (Same as proposed in Exhibit B-A).

Minimum Charge:
Rate "M" - $1.05 per meter per month.
Rate "H" - Winter months of November - April: $ 2.10 per meter per month.
Rate "H" - Summer months of May - October: No minimum charge.

SPECIAL CONDITIONS (Same as proposed in Exhibit B-A).

Schedule No. C-4

GENERAL NATURAL GAS SERVICE

APPLICABILITY

Applicable to natural gas service for residential, commercial, industrial, or other customers.

TERRITORY

A-(1100 Btu)

Within the Rate Areas of:

8 Northwestern portion of Orange County Division
11 Eastern Division
12 Ventura - Oxnard - Santa Paula

Rate Areas are specified under the reference numbers in Description of Rate Areas.

RATES

	Per Meter Per Month Base and Effective Rates A 1100 Btu "M"	A 1100 Btu "H"
Commodity Charge:		
Six Winter Months - November to April, inclusive		
First 200 cu.ft. or less	$1.05	$2.10
Next 1,800 cu.ft., per 100 cu.ft.	6.40 ¢	8.40 ¢
Next 28,000 cu.ft., per 100 cu.ft.	6.10 ¢	6.10 ¢
Over 30,000 cu.ft., per 100 cu.ft.	5.20 ¢	5.20 ¢
Six Summer Months - May to October, inclusive		
First 200 cu.ft. or less	$1.05	$0.17 *
Next 1,800 cu.ft., per 100 cu.ft.	6.40 ¢	8.40 ¢
Next 28,000 cu.ft., per 100 cu.ft.	4.80 ¢	4.80 ¢
Over 30,000 cu.ft., per 100 cu.ft.	3.90 ¢	3.90 ¢

* The monthly summer rate for first 200 cu.ft. is 8.40 cents per 100 cu.ft. Except for closing bills, summer usage will be accumulated to 1,000 cu.ft. before billing. Such accumulated usage as is not billed by the end of the summer months will be billed at the regular summer rate.

The effective rates are based on the average monthly heating value per cubic foot indicated and as set forth in Rule and Regulation No. 2 (K).

Contingent Offset Charge: (Same as proposed in Exhibit 8-A).

Minimum Charge:

Rate "M" - $1.05 per meter per month.
Rate "H" - Winter months of November-April: $2.10 per meter per month.
Rate "H" - Summer months of May-October: No minimum charge.

SPECIAL CONDITIONS (Same as proposed in Exhibit 8-A).

Schedule No. G-5

GENERAL NATURAL GAS SERVICE

APPLICABILITY

Applicable to natural gas service for residential, commercial, industrial, or other customers.

TERRITORY

A-(1100 Btu)

Within the Rate Areas of:

9 Laguna Beach
13 Ojai - West Ventura County

B-(1050 Btu)

Within the Rate Area of:

15 Santa Barbara County

Rate Areas are specified under the reference numbers in Description of Rate Areas.

RATES

	Per Meter Per Month					
	Base Rates		Effective Rates			
			A		B	
	1100 Btu		1100 Btu		1050 Btu	
Commodity Charge:	"M"	"H"	"M"	"H"	"M"	"H"
Six Winter Months - November to April, inclusive						
First 200 cu.ft. or less	$1.10	$2.20	$1.10	$2.20	$1.10	$2.20
Next 1,800 cu.ft., per 100 cu.ft.	6.60 ¢	8.60 ¢	6.60 ¢	8.60 ¢	6.40 ¢	8.34¢
Next 28,000 cu.ft., per 100 cu.ft.	6.30 ¢	6.30 ¢	6.30 ¢	6.30 ¢	6.11 ¢	6.11¢
Over 30,000 cu.ft., per 100 cu.ft.	5.20 ¢	5.20 ¢	5.20 ¢	5.20 ¢	5.04 ¢	5.04¢
Six Summer Months - May to October, inclusive						
First 200 cu.ft. or less	$1.10	$0.17*	$1.10	$ 0.17*	$ 1.10	$ 0.17*
Next 1,800 cu.ft., per 100 cu.ft.	6.60 ¢	8.60 ¢	6.60 ¢	8.60 ¢	6.40 ¢	8.34¢
Next 28,000 cu.ft., per 100 cu.ft.	5.00 ¢	5.00 ¢	5.00 ¢	5.00 ¢	4.85 ¢	4.85¢
Over 30,000 cu.ft., per 100 cu.ft.	3.90 ¢	3.90 ¢	3.90 ¢	3.90 ¢	3.78 ¢	3.78¢

* The monthly summer rate for first 200 cu.ft. is 8.60 cents per 100 cu.ft. Except for closing bills, summer usage will be accumulated to 1,000 cu.ft. before billing. Such accumulated usage as is not billed by the end of the summer months will be billed at the regular summer rate.

The effective rates are based on the average monthly heating value per cubic foot indicated and as set forth in Rule and Regulation No. 2 (K).

Contingent Offset Charge: (Same as proposed in Exhibit 8-A).

Minimum Charge:

Rate "M" - $ 1.10 per meter per month.
Rate "H" - Winter months of November - April: $ 2.20 per meter per month.
Rate "H" - Summer months of May - October: No minimum charge.

SPECIAL CONDITIONS (Same as proposed in Exhibit 8-A).

Schedule No. C-5.1

GENERAL NATURAL GAS SERVICE

APPLICABILITY

Applicable to natural gas service for residential, commercial, industrial, or other customers.

TERRITORY

B-(1050 Btu)

Within the Rate Areas of:

16 Santa Maria
17 San Luis Obispo

Rate Areas are specified under the reference numbers in Description of Rate Areas.

RATES

	Per Meter Per Month			
	Base Rates		Effective Rates B	
	1100 Btu		1050 Btu	
	"M"	"H"	"M"	"H"
Commodity Charge:				
Six Winter Months - November to April, inclusive				
First 200 cu.ft. or less	$1.15	$2.30	$1.15	$2.30
Next 1,800 cu.ft., per 100 cu.ft.	8.50 ¢	9.50 ¢	8.25 ¢	9.22 ¢
Next 28,000 cu.ft., per 100 cu.ft.	7.20 ¢	7.20 ¢	6.98 ¢	6.98 ¢
Over 30,000 cu.ft., per 100 cu.ft.	5.70 ¢	5.70 ¢	5.53 ¢	5.53 ¢
Six Summer Months - May to October, inclusive				
First 200 cu.ft. or less	$1.15	$0.19 *	$1.15	$0.19 *
Next 1,800 cu.ft., per 100 cu.ft.	8.50 ¢	9.50 ¢	8.25 ¢	9.22 ¢
Next 28,000 cu.ft., per 100 cu.ft.	5.80 ¢	5.80 ¢	5.63 ¢	5.63 ¢
Over 30,000 cu.ft., per 100 cu.ft.	4.40 ¢	4.40 ¢	4.27 ¢	4.27 ¢

* The monthly summer rate for first 200 cu. ft. is 9.50 cents per 100 cu.ft. Except for closing bills, summer usage will be accumulated to 1,000 cu.ft. before billing. Such accumulated usage as is not billed by the end of the summer months will be billed at the regular summer rate.

The effective rates are based on the average monthly heating value per cubic foot indicated and as set forth in Rule and Regulation No. 2 (K).

Contingent Offset Charge: (Same as proposed in Exhibit 8-A)

Minimum Charge:

Rate "M" - $ 1.15 per meter per month.
Rate "H" - Winter months of November - April: $ 2.30 per meter per month.
Rate "H" - Summer months of May - October: No minimum charge.

SPECIAL CONDITIONS (Same as proposed in Exhibit 8-A).

Schedule No. G-6

GENERAL NATURAL GAS SERVICE

APPLICABILITY

Applicable to natural gas service for residential, commercial, industrial, or other customers.

TERRITORY

A-(1100 Btu)

Within the Rate Area of:

10 San Juan Capistrano - San Clemente

Rate Areas are specified under the reference numbers in Description of Rate Areas.

RATES

	Per Meter Per Month Base and Effective Rates A 1100 Btu "M"	"H"
Commodity Charge:		
Six Winter Months - November to April, inclusive		
First 200 cu.ft. or less	$1.10	$ 2.20
Next 1,800 cu.ft., per 100 cu.ft.	6.80¢	8.80¢
Next 28,000 cu.ft., per 100 cu.ft.	6.50¢	6.50¢
Over 30,000 cu.ft., per 100 cu.ft.	5.20¢	5.20¢
Six Summer Months - May to October, inclusive		
First 200 cu.ft. or less	$1.10	$ 0.18*
Next 1,800 cu.ft., per 100 cu.ft.	6.80¢	8.80¢
Next 28,000 cu.ft., per 100 cu.ft.	5.20¢	5.20¢
Over 30,000 cu.ft., per 100 cu.ft.	3.90¢	3.90¢

* The monthly summer rate for first 200 cu.ft. is 8.80 cents per 100 cu.ft. Except for closing bills, summer usage will be accumulated to 1,000 cu.ft. before billing. Such accumulated usage as is not billed by the end of the summer months will be billed at the regular summer rate.

The effective rates are based on the average monthly heating value per cubic foot indicated and as set forth in Rule and Regulation No. 2 (K).

Contingent Offset Charge: (Same as proposed in Exhibit 8-A).

Minimum Charge:

Rate "M" - $ 1.10 per meter per month.
Rate "H" - Winter months of November-April: $2.20 per meter per month.
Rate "H" - Summer months of May-October: No minimum charge.

SPECIAL CONDITIONS (Same as proposed in Exhibit 8-A).

Schedule No. G-6.1

GENERAL NATURAL GAS SERVICE

APPLICABILITY

Applicable to natural gas service for residential, commercial, industrial, or other customers.

TERRITORY

B-(1050 Btu)

Within the Rate Area of:

18 Northern Division South of Cuesta Grade

Rate Areas are specified under the reference numbers in Description of Rate Areas.

RATES

	Per Meter Per Month			
	Base Rates		Effective Rates B	
	1100 Btu		1050 Btu	
	"M"	"H"	"M"	"H"
Commodity Charge:				
Six Winter Months - November to April, inclusive				
First 200 cu.ft. or less	$1.15	$2.30	$1.15	$2.30
Next 1,800 cu.ft., per 100 cu.ft.	9.00 ¢	10.00 ¢	8.73 ¢	9.70 ¢
Next 28,000 cu.ft., per 100 cu.ft.	7.50 ¢	7.50 ¢	7.28 ¢	7.28 ¢
Over 30,000 cu.ft., per 100 cu.ft.	5.70 ¢	5.70 ¢	5.53 ¢	5.53 ¢
Six Summer Months - May to October, inclusive				
First 200 cu.ft. or less	$1.15	$0.20	* $1.15	$0.20 *
Next 1,800 cu.ft., per 100 cu.ft.	9.00 ¢	10.00 ¢	8.73 ¢	9.70 ¢
Next 28,000 cu.ft., per 100 cu.ft.	6.10 ¢	6.10 ¢	5.92 ¢	5.92 ¢
Over 30,000 cu.ft., per 100 cu.ft.	4.40 ¢	4.40 ¢	4.27 ¢	4.27 ¢

* The monthly summer rate for first 200 cu.ft. is 10.00 cents per 100 cu.ft. Except for closing bills, summer usage will be accumulated to 1,000 cu.ft. before billing. Such accumulated usage as is not billed by the end of the summer months will be billed at the regular summer rate.

The effective rates are based on the average monthly heating value per cubic foot indicated and as set forth in Rule and Regulation No. 2 (K).

Contingent Offset Charge: (Same as proposed in Exhibit 8-A).

Minimum Charge:

Rate "M" - $ 1.15 per meter per month.
Rate "H" - Winter months of November-April: $2.30 per meter per month.
Rate "H" - Summer months of May-October: No minimum charge.

SPECIAL CONDITIONS (Same as proposed in Exhibit 8-A).

Schedule No. C-6.2

GENERAL NATURAL GAS SERVICE

APPLICABILITY

Applicable to natural gas service for residential, commercial, industrial, or other customers.

TERRITORY

A-(1100 Btu)

Within the Rate Areas of:

20 Las Flores - Malibu
21 Moreno - San Diego Pipeline

B-(1050 Btu)

Within the Rate Area of:

19 Northern Division North of Cuesta Grade

Rate Areas are specified under the reference numbers in Description of Rate Areas.

RATES

	Per Meter Per Month					
	Base Rates		Effective Rates			
			A		B	
	1100 Btu		1100 Btu		1050 Btu	
Commodity Charge:	"M"	"H"	"M"	"H"	"M"	"H"
Six Winter Months - November to April, inclusive						
First 200 cu.ft. or less	$ 1.15	$ 2.30	$ 1.15	$ 2.30	$ 1.15	$ 2.30
Next 1,800 cu.ft., per 100 cu.ft.	10.50¢	11.50¢	10.50¢	11.50¢	10.19¢	11.16¢
Next 28,000 cu.ft., per 100 cu.ft.	8.10¢	8.10¢	8.10¢	8.10¢	7.86¢	7.86¢
Over 30,000 cu.ft., per 100 cu.ft.	5.70¢	5.70¢	5.70¢	5.70¢	5.53¢	5.53¢
Six Summer Months - May to October, inclusive						
First 200 cu.ft. or less	$ 1.15	$ 0.23*	$ 1.15	$ 0.23*	$ 1.15	$ 0.23*
Next 1,800 cu.ft., per 100 cu.ft.	10.50¢	11.50¢	10.50¢	11.50¢	10.19¢	11.16¢
Next 28,000 cu.ft., per 100 cu.ft.	6.70¢	6.70¢	6.70¢	6.70¢	6.50¢	6.50¢
Over 30,000 cu.ft., per 100 cu.ft.	4.40¢	4.40¢	4.40¢	4.40¢	4.27¢	4.27¢

* The monthly summer rate for first 200 cu.ft. is 11.50 cents per 100 cu.ft. Except for closing bills, summer usage will be accumulated to 1,000 cu.ft. before billing. Such accumulated usage as is not billed by the end of the summer months will be billed at the regular summer rate.

The effective rates are based on the average monthly heating value per cubic foot indicated and as set forth in Rule and Regulation No. 2 (K).

Contingent Offset Charge: (Same as proposed in Exhibit 8-A).

Minimum Charge:
Rate "M" - $ 1.15 per meter per month.
Rate "H" - Winter months of November - April: $2.30 per meter per month.
Rate "H" - Summer months of May - October: No minimum charge.

SPECIAL CONDITIONS (Same as proposed in Exhibit 8-A).

A-33341 DCF ✓

Schedule No. G-8-T

LIMITED TERM GENERAL NATURAL GAS SERVICE

APPLICABILITY

This is a closed schedule, available only to premises formerly receiving service under Schedule No. 6-A-C, Commercial General Service, and only so long as such premises are continuously supplied during the limited term of this schedule. This schedule shall terminate following the meter readings taken for the month of April, 1954, at which time the customers will be transferred to other available rate schedules.

TERRITORY

B-(1050 Btu)

Within the Rate Areas of:

16-19, inclusive

Rate Areas are specified under the reference numbers in Description of Rate Areas.

RATES

	Per Meter Per Month	
	Base Rates	Effective Rates B
	1100 Btu	1050 Btu
Commodity Charge:		
Six Winter Months - November to April, inclusive		
All gas, per 100 cu.ft.	5.20¢	5.04¢
Six Summer Months - May to October, inclusive		
All gas, per 100 cu.ft.	3.50¢	3.40¢

The effective rates are based on the average monthly heating value per cubic foot indicated and as set forth in Rule and Regulation No. 2(K).

Contingent Offset Charge: (Same as proposed in Exhibit 8-A).

Minimum Charge:

Per Meter Per Month ..... $ 100.00
To be made cumulative only when total billing exceeds $1,200.00 per meter at any time during the contract year.

SPECIAL CONDITIONS: (Same as proposed in Exhibit 8-A)

Schedule No. G-20

MILITARY NATURAL GAS SERVICE

APPLICABILITY

Applicable to the service of natural gas for the combined three uses of cooking, water heating, and space heating, for human uses and human comfort of armed forces, wherein gas is measured through master meter installation, and for which the estimated maximum hour demand for gas will be in excess of 10,000 cubic feet per hour.

TERRITORY

A-(1100 Btu)

Within the Rate Area of:

3 Harbor Division

Rate Areas are specified under the reference numbers in Description of Rate Areas.

RATES

	Per Meter Per Month Base and Effective Rates A 1100 Btu
Commodity Charge:	
Six Winter Months - November to April, inclusive	
All gas, per Mcf	49.0 ¢
Six Summer Months - May to October, inclusive	
All gas, per Mcf	37.0 ¢

The effective rates are based on the average monthly heating value per cubic foot indicated and as set forth in Rule and Regulation No. 2(K).

Contingent Offset Charge: (Same as proposed in Exhibit 8-A).

Minimum Charge:

Per Meter Per Month $200.00

SPECIAL CONDITIONS (Same as proposed in Exhibit 8-A).

Schedule No. G-21

MILITARY NATURAL GAS SERVICE

APPLICABILITY

Applicable to the service of natural gas for the uses of cooking and water heating, for human uses and human comfort of armed forces, wherein gas is measured through master meter installation, and for which the estimated maximum hour demand for gas will be in excess of 10,000 cubic feet per hour.

TERRITORY

B-(1050 Btu)

Within the Rate Areas of:

16-19, inclusive

Rate Areas are specified under the reference numbers in Description of Rate Areas.

RATES

	Per Meter Per Month	
	Base Rates	Effective Rates B
	1100 Btu	1050 Btu
Commodity Charge:		
Six Winter Months - November to April, inclusive		
All gas, per Mcf	49.0¢	47.5¢
Six Summer Months - May to October, inclusive		
All gas, per Mcf	37.0¢	35.9¢

The effective rates are based on the average monthly heating value per cubic foot indicated and as set forth in Rule and Regulation No. 2(K).

Contingent Offset Charge: (Same as proposed in Exhibit 8-A).

Minimum Charge:

Per Meter Per Month: ..... $ 200.00

SPECIAL CONDITIONS (Same as proposed in Exhibit 8-A).

Schedule No. G-25

MULTIPLE DWELLING NATURAL GAS SERVICE

APPLICABILITY

Applicable to service of natural gas for all uses where the primary usage is in the dwelling units of multiple dwellings or housing projects, and all gas is measured for such premises through one single or master meter installation.

TERRITORY

A-(1100 Btu)

Within the Rate Areas of:

1-13, inclusive

B-(1050 Btu)

Within the Rate Areas of:

14 and 15

Rate Areas are specified under the reference numbers in Description of Rate Areas.

RATES

	Per Meter Per Month					
	Base Rates		Effective Rates			
			A		B	
	1100 Btu		1100 Btu		1050 Btu	
	"X"	"Y"	"X"	"Y"	"X"	"Y"
Commodity Charge:						
Six Winter Months - November to April, inclusive						
All gas, per Mcf	49.0¢	47.0¢	49.0¢	47.0¢	47.5¢	45.6¢
Six Summer Months - May to October, inclusive						
All gas, per Mcf	37.0¢	35.0¢	37.0¢	35.0¢	35.9¢	34.0¢

The effective rates are based on the average monthly heating value per cubic foot indicated and as set forth in Rule and Regulation No. 2(K).

Contingent Offset Charge: (Same as proposed in Exhibit 8-A).

Minimum Charge:

Per Meter Per Month ..... $ 200.00

SPECIAL CONDITIONS (Same as proposed in Exhibit 8-A).

Schedule No. G-26

MULTIPLE DWELLING NATURAL GAS SERVICE

APPLICABILITY

Applicable to service of natural gas for all uses where the primary usage is in the dwelling units of multiple dwellings or housing projects, and all gas is measured for such premises through one single or master meter installation.

TERRITORY

A-(1100 Btu)

Within the Rate Areas of:

20-21, inclusive

B-(1050 Btu)

Within the Rate Areas of:

16-19, inclusive

Rate Areas are specified under the reference numbers in Description of Rate Areas.

RATES

	Per Meter Per Month					
	Base Rates		Effective Rates			
			A		B	
	1100 Btu		1100 Btu		1050 Btu	
	"X"	"Y"	"X"	"Y"	"X"	"Y"
Commodity Charge:						
Six Winter Months - November to April, inclusive						
All gas, per Mcf	52.0¢	50.0¢	52.0¢	50.0¢	50.4¢	48.5¢
Six Summer Months - May to October, inclusive						
All gas, per Mcf	39.0¢	37.0¢	39.0¢	37.0¢	37.8¢	35.9¢

The effective rates are based on the average monthly heating value per cubic foot indicated and as set forth in Rule and Regulation No. 2(K).

Contingent Offset Charge: (Same as proposed in Exhibit 8-A).

Minimum Charge:

Per Meter Per Month ..... $ 200.00

SPECIAL CONDITIONS (Same as proposed in Exhibit 8-A).

Schedule No. C-40

FIRM INDUSTRIAL NATURAL GAS SERVICE

APPLICABILITY

Applicable to natural gas service to industrial customers, exclusive of residential service or service to multiple family dwellings on master meters, or where the use of natural gas is primarily for cooking or the preparation of meals, water heating or space heating for human comfort.

TERRITORY

A-(1100 Btu)

Within the Rate Areas of:

1-13, inclusive
20 and 21.

B-(1050 Btu)

Within the Rate Areas of:

14 and 15

Rate Areas are specified under the reference numbers in Description of Rate Areas.

RATES

	Per Meter-Per Month		
	Base Rates	Effective Rates	
		A	B
	1100 Btu	1100 Btu	1050 Btu
Commodity Charge:			
Six Winter Months - November to April, inclusive			
First 100 Mcf, per Mcf	51.0 ¢	51.0 ¢	50.0 ¢
Next 200 Mcf, per Mcf	46.0 ¢	46.0 ¢	45.1 ¢
Next 1,700 Mcf, per Mcf	42.0 ¢	42.0 ¢	41.2 ¢
Over 2,000 Mcf, per Mcf	40.0 ¢	40.0 ¢	39.2 ¢

Customers having space heating equipment aggregating more than 500,000 Btu/Hr. shall be billed at the initial block rate for all gas used during any winter month in excess of twice the average consumption of July, August and September.

Six Summer Months - May to October, Inclusive			
First 100 Mcf, per Mcf	42.0 ¢	42.0 ¢	41.2 ¢
Next 200 Mcf, per Mcf	37.0 ¢	37.0 ¢	36.3 ¢
Next 1,700 Mcf, per Mcf	34.0 ¢	34.0 ¢	33.3 ¢
Over 2,000 Mcf, per Mcf	32.0 ¢	32.0 ¢	31.4 ¢

The effective rates are based on the average monthly heating value per cubic foot indicated and as set forth in Rule and Regulation No. 2(K).

Contingent Offset Charge: (Same as proposed in Exhibit 8-B).

Minimum Charge:

Per Meter Per Month ..... $ 30.00

To be made cumulative only when total billing exceeds $ 360.00 per meter at any time during the contract year.

SPECIAL CONDITIONS (Same as proposed in Exhibit 8-B).

Schedule No. G-41

FIRM INDUSTRIAL NATURAL GAS SERVICE

APPLICABILITY

Applicable to natural gas service to industrial customers, exclusive of residential service or service to multiple family dwellings on master meters, or where the use of natural gas is primarily for cooking or the preparation of meals, water heating or space heating for human comfort.

TERRITORY

A-(1100 Btu)

Within the Rate Areas of:

20 and 21

B-(1050 Btu)

Within the Rate Areas of:

16-19, inclusive

Rate Areas are specified under the reference numbers in Description of Rate Areas.

RATES

	Per Meter Per Month		
	Base Rates	Effective Rates	
		A	B
	1100 Btu	1100 Btu	1050 Btu
Commodity Charge:			
Six Winter Months - November to April, inclusive			
First 100 Mcf, per Mcf	56.0 ¢	56.0 ¢	54.9 ¢
Next 200 Mcf, per Mcf	51.0 ¢	51.0 ¢	50.0 ¢
Next 1,700 Mcf, per Mcf	47.0 ¢	47.0 ¢	46.1 ¢
Over 2,000 Mcf, per Mcf	45.0 ¢	45.0 ¢	44.1 ¢

Customers having space heating equipment aggregating more than 500,000 Btu/Hr. shall be billed at the initial block rate for all gas used during any winter month in excess of twice the average consumption of July, August and September.

Six Summer Months - May to October, Inclusive			
First 100 Mcf, per Mcf	47.0 ¢	47.0 ¢	46.1 ¢
Next 200 Mcf, per Mcf	42.0 ¢	42.0 ¢	41.2 ¢
Next 1,700 Mcf, per Mcf	39.0 ¢	39.0 ¢	38.2 ¢
Over 2,000 Mcf, per Mcf	37.0 ¢	37.0 ¢	36.3 ¢

The effective rates are based on the average monthly heating value per cubic foot indicated and as set forth in Rule and Regulation No. 2(K).

Contingent Offset Charge: (Same as proposed in Exhibit 8-B).

Minimum Charge:

Per Meter Per Month ..... $ 30.00

To be made cumulative only when total billing exceeds $360.00 per meter at any time during the contract year.

SPECIAL CONDITIONS (Same as proposed in Exhibit 8-B).

A-33341 NB

Schedule No. G-45

GAS ENGINE NATURAL GAS SERVICE

APPLICABILITY

Applicable to service for internal combustion engines only

TERRITORY

A-(1100 Btu)

Within the Rate Areas of:

1-13, inclusive
20 and 21

B-(1050 Btu)

Within the Rate Areas of:

14-19, inclusive

Rate Areas are specified under the reference numbers in Description of Rate Areas.

RATES

	Per Meter Per Month		
	Base Rates	Effective Rates	
		A	B
Rate "X":	1100 Btu	1100 Btu	1050 Btu
First 100 Mcf, per Mcf	42.0 ¢	42.0 ¢	41.2 ¢
Next 400 Mcf, per Mcf	37.0 ¢	37.0 ¢	36.3 ¢
Next 500 Mcf, per Mcf	33.0 ¢	33.0 ¢	32.3 ¢
Over 1,000 Mcf, per Mcf	31.0 ¢	31.0 ¢	30.4 ¢

Minimum Charge:

Per meter per month ..... $ 6.00

To be made cumulative only when total billing exceeds $ 72.00 per customer at any time during the contract year.

Optional Rate "Z" (Effective April 1 to November 30, inclusive.)

	Per Meter Per Month		
	Base Rates	Effective Rates	
		A	B
	1100 Btu	1100 Btu	1050 Btu
First 100 Mcf, per Mcf	41.0 ¢	41.0 ¢	40.2 ¢
Next 400 Mcf, per Mcf	36.0 ¢	36.0 ¢	35.3 ¢
Next 500 Mcf, per Mcf	31.0 ¢	31.0 ¢	30.4 ¢
Over 1,000 Mcf, per Mcf	27.0 ¢	27.0 ¢	26.5 ¢

Effective December 1 to March 31, inclusive, customers served under Optional Rate "Z" will pay rates as quoted under Rate "X". Gas consumed during this period will apply on the cumulative minimum shown above.

The effective rates are based on the average monthly heating value per cubic foot indicated and as set forth in Rule and Regulation No. 2(K).

Contingent Offset Charge: (Same as proposed in Exhibit 8-B).

Minimum Charge:
Per meter per month ..... $ 100.00
To be made cumulative only when total billing exceeds $ 1,200.00 per customer at any time during the contract year.

SPECIAL CONDITIONS (Same as proposed in Exhibit 8-B).

Schedule No. G-50

INTERRUPTIBLE NATURAL GAS SERVICE

APPLICABILITY

Applicable, subject to interruptions in supply, to natural gas service to commercial and industrial customers, where such customers are located near existing mains having a delivery capacity and supply in excess of the then existing requirements of present customers.

TERRITORY

A-(1100 Btu)

Within the Rate Areas of:

1-13, inclusive
20 and 21

B-(1050 Btu)

Within the Rate Areas of:

14-19, inclusive

Rate Areas are specified under the reference numbers in Description of Rate Areas.

RATES

	Per Meter Per Month		
	Base Rates	Effective Rates	
		A	B
	1100 Btu	1100 Btu	1050 Btu
Commodity Charge:			
First 200 Mcf, per Mcf	37.0 ¢	37.0 ¢	36.3 ¢
Next 800 Mcf, per Mcf	31.0 ¢	31.0 ¢	30.4 ¢
Next 2,000 Mcf, per Mcf	29.5 ¢	29.5 ¢	28.9 ¢
Next 3,000 Mcf, per Mcf	28.5 ¢	28.5 ¢	27.9 ¢
Next 4,000 Mcf, per Mcf	27.5 ¢	27.5 ¢	27.0 ¢
Next 10,000 Mcf, per Mcf	26.5 ¢	26.5 ¢	26.0 ¢
Over 20,000 Mcf, per Mcf	26.0 ¢	26.0 ¢	25.5 ¢

The base rates are established for a posted price of fuel oil of $1.55 per barrel and are predicated on an average monthly heating value of 1100 Btu per cubic foot (dry basis).

The effective rates are established in accordance with the provisions of Special Condition (1) below and the average monthly heating values per cubic foot indicated and as set forth in Rule and Regulation No. 2(K).

Contingent Offset Charge: (Same as proposed in Exhibit 8-C).

Minimum Charge:

Per meter per month $50.00

To be made cumulative only when total billing exceeds $600.00 per meter at any time during the contract year.

SPECIAL CONDITIONS (Same as proposed in Exhibit 8-C).

Schedule No. G-55

STEAM ELECTRIC GENERATING PLANT - SURPLUS NATURAL GAS SERVICE

APPLICABILITY

Same as C.P.U.C. Sheet No. 2076-G filed May 8, 1953.

TERRITORY

Within the Rate Areas of:

3 Harbor Division
3.1 Terminal Island
8 Orange County

RATES

Commodity Charge:

	Base Rate	Effective Rate
(a) At the option of the customer (provided for in Paragraph 2 of the Special Conditions), for the first 300,000 Mcf or less of gas delivered to customer during any one calendar month, per Mcf.	26.106¢	26.106¢

	Base Rate	Current Rates Minimum	Current Rates Maximum	Current Rates Effective
(b) For all gas in excess of 300,000 Mcf delivered to customer during any one calendar month (assuming customer exercises the option referred to above), or for all gas delivered to customer during any one calendar month, per Mcf.....	25.000¢	18.820¢	25.470¢	25.000¢

Base Rates

The base rates are established for a posted price of fuel oil of $1.55 per barrel.

Current Minimum and Maximum Rates

The effective rate set forth in (b) above shall, in no event, be higher than 9.65¢ per Mcf above, nor lower than 3¢ per Mcf above a price per Mcf equal to the commodity price per Mcf paid by the company to the El Paso Natural Gas Company for gas delivered at Blythe during such calendar month (adjusted to a pressure base of 14.73 psi absolute). Such commodity price is 15.82¢ per Mcf effective January 1, 1953.

Effective Rates

The effective rates set forth in (a) and (b) above are predicated on the posted price of fuel oil, in accordance with Special Condition No. 1 below, and the effective rate set forth in (b) above is limited by the current minimum and maximum rates. The effective rate in (b) shall be 1.0¢ per Mcf below the effective rate per Mcf of the lowest block of Schedule No. G-50 or substitute therefor.

(Continued)

Schedule No. G-55

STEAM ELECTRIC GENERATING PLANT - SURPLUS
NATURAL GAS SERVICE
(Continued)

RATES (Continued)

Contingent Offset Charge

The base and effective rates in (a) above, and within the limits of the current minimum and maximum the base and effective rates in (b) above, are subject to an offset charge of 1.6¢ per Mcf related to the volume of gas used, to be added to the periodic bill as computed at the foregoing effective billing rate. This offset charge is in accordance with Decision No. 47991 of the California Public Utilities Commission and is subject to possible refund.

SPECIAL CONDITIONS

1. Fuel Clause. Same as C.P.U.C. Sheet No. 2065-G filed March 31, 1953.

2. Option. Customer, at its option (as expressed in the agreement referred to below), may elect to receive up to 10,000 Mcf of natural gas per day on a curtailment parity with company's other customers receiving gas under company's Rate Schedule G-50. If customer exercises this option, the rate applicable to such deliveries shall be as set forth in (a) above under "Rates".

3. Curtailment. Except as provided below, customer shall be entitled to no surplus gas hereunder until the company and its affiliate, Southern California Gas Company, shall first have sufficient quantities of natural gas available to them, and each of them, from oil wells in California and from the gas pipe line at Blythe to satisfy each of their aggregate requirements for gas for underground storage and to supply with natural gas all their other customers (including wholesale customers) now existing and/or hereafter supplied with natural gas. If the supplying of such gas hereunder, in the opinion of the Company, shall jeopardize or threaten the supply to any of said other customers, then the company may notify customer, and customer will discontinue receiving gas from company's system within a maximum of one hour after such notice, and will not again take gas from company's system until authorized by company to do so.

If customer shall have exercised its option, pursuant to the second Special Condition above, it shall be entitled to receive up to 10,000 Mcf of natural gas per day on a curtailment parity with other customers receiving gas under company's Rate Schedule G-50.

Remainder of schedule same as C.P.U.C. Sheets 2065-G filed March 31, 1953; and 2077-G filed May 8, 1953.

Rule and Regulation No. 2

CHARACTER OF SERVICE

(K) Rate Adjustment for Heating Value:

The effective rates in these schedules providing for Btu adjustment, according to the heating value of the natural gas served, shall be determined in accordance with the following rule:

The base rates set forth in the schedules for natural gas are predicated on an average monthly heating value of 1100 Btu per cubic foot (determined as the average of daily heating value tests on a "dry" basis). A maximum variation in the monthly average of 35 Btu above or below the Btu on which the effective rates are based is contemplated. When the actual variation exceeds 35 Btu for two consecutive calendar months, the effective rates will be changed by increasing or decreasing the rates to conform to a new average heating value, adjusted in steps of 50 Btu from the base of 1100 Btu, which is the nearest the average of that experienced during the two months which occasioned the change. The effective rates will be determined by an adjustment in all base rates (except for the fixed and/or the minimum charge portion of the general service and space heating service rates) in accordance with the percentages set forth below for each 50 Btu step, computed to the nearest 0.01¢ per 100 cubic feet or 0.1¢ per 1000 cubic feet (Mcf) and will become effective fifteen (15) days thereafter.

General Natural Gas Service Schedules	3%	per 50 Btu step
Military Natural Gas Service Schedules	3%	per 50 Btu step
Multiple Dwelling Natural Gas Service Schedules	3%	per 50 Btu step
Firm Industrial Natural Gas Service Schedules .	2%	per 50 Btu step
Gas Engine Natural Gas Service Schedules	2%	per 50 Btu step
Interruptible Natural Gas Service Schedules ...	2%	per 50 Btu step

Changes in the rates resulting from variation in heating value will not be made more frequently than each two-month period, except, when definite changes in the source of gas occur, the appropriate rates will be made effective thirty (30) days after the date of change-over.

DESCRIPTION OF RATE AREAS

GENERAL CONDITIONS

When a street constitutes the boundary of a rate area, both sides shall be regarded as included within the area except as otherwise noted. Both sides of the street shall be regarded as being within the rate zone having the lower rate. When the service line of the Company is referred to as a boundary, service shall be extended in accordance with the existing agreement between the companies.

RATE AREA

(1) Santa Monica - An area including portions of the incorporated cities of Santa Monica, Los Angeles and Culver City, all in Los Angeles County. The area is bounded on the west by the Pacific Ocean and by a line from the Pacific Ocean at highway marker 198:00 (U. S. Highway 101) north to the Los Angeles city limits near McAllister's Camp, then northeastward along Los Angeles city limits to the service line of the Company at the intersection of the Los Angeles city limits with the Mulholland highway, thence east along the Mulholland highway, the service line of the Company, to the intersection with Sepulveda Boulevard, thence southerly and easterly in various directions along the service line of the Company to the intersection of the service line with the Pacific Ocean in the vicinity of Imperial Highway.

(2) San Gabriel Valley Division - Within the service area of the Company's San Gabriel Valley Division, except that portion lying within Orange County, as of June 15, 1953.

(3) Harbor Division - A portion of the incorporated City of Los Angeles as of June 15, 1953, bounded on the east by a line commencing with the intersection of the city limits of Los Angeles and Long Beach with the Pacific Ocean on Terminal Island, thence northward along the Los Angeles-Long Beach city limits to a point 800 feet southward on the south P/L of Willow Street, bounded on the north by a line from the said point westward paralleling Lomita Boulevard to the intersection with the operating line of the Company at a point 540 feet west of the west P/L of Western Avenue and 295 feet north of the north P/L of Lomita Boulevard; bounded on the west by the operating line of the Company, bounded on the south by the Pacific Ocean. Rate area 3.1, Terminal Island, is excluded from this area.

(3.1) Terminal Island - A portion of the incorporated area of the City of Los Angeles bounded on the north by the southward bank of the East Basin and Cerritos Channel, on the south by the Pacific Ocean; on the west by the eastward bank of the main channel of Los Angeles Harbor and on the east by the city limits of Long Beach.

RATE AREA

(4) Anaheim-Fullerton - An area including the incorporated cities of Fullerton, Anaheim, Brea and La Habra and adjacent portions of unincorporated territory all in Orange County with boundaries described below:

Northern Boundary - Part of the Orange County boundary between its northwestern corner north of Whittier Boulevard and the intersection of the north boundary of the county with an extension of the east city limits of Brea.

Western Boundary - The Orange County boundary between the said northwestern corner and the intersection of the western boundary with the south P/L of La Palma Avenue.

Southern Boundary - A line beginning at the intersection of the south P/L of La Palma Avenue with the western boundary of Orange County, thence east to Western Avenue, thence south to Orange Avenue, thence east to Euclid Avenue, thence south to Ball Road, thence east along Ball Road to Manchester Avenue, thence southeastward along Manchester Avenue to the intersection of Los Angeles Street, thence northward along Los Angeles Street to Ball Road, thence east to Placentia Avenue.

Eastern Boundary - Bounded on the east by a line beginning at the intersection of Ball Road and Placentia Avenue, thence north along Placentia Avenue to Anaheim-Olive Boulevard, thence east along Anaheim-Olive Boulevard to Sunkist Street, thence north along Sunkist Street to Anaheim Road, thence northwestward and northwestward along Anaheim Street to Blue Gum Street, then northward, then northward along Blue Gum Street to La Jolla Street, then eastward along La Jolla Street to Dowling Street, then northward along Dowling Street to the north P/L of the Atchison, Topeka and Santa Fe Railroad right-of-way and westward along the north P/L of the said right-of-way to Kraemer Avenue, then northward along Kraemer Avenue to Palm Drive, then westward along Palm Drive to Carolina Street, then northward to Imperial Highway and westward to the city limits of Brea, then north along the city limits of Brea and an extension thereof to the Los Angeles County-Orange County boundary.

(5) Santa Ana-Orange - An area including the incorporated cities of Santa Ana, Orange and Tustin and adjacent unincorporated territory all in Orange County with the boundaries described below:

Western Boundary - Starting at the west and north city limits of Orange at Collins Avenue southward along the city limits to Chapman Avenue, then westward along the city limits to Manchester Avenue, then southward along Manchester Avenue (Santa Ana Boulevard) to the center line of Santa Ana River, then southward in the Santa Ana River to Westminister Avenue (17th Street) then

RATE AREA (5)-- (Continued)

west along Westminister Avenue to Harbor Boulevard, then south along Harbor Boulevard to Bolsa Avenue then east along Bolsa Avenue (1st Street) to the center line of Santa Ana River then south in the Santa Ana River to the westward extension of Delhi Road.

Southern Boundary - From the intersection of the Santa Ana River with the extension of Delhi Road, eastward along Delhi Road to the city limits of Santa Ana, then eastward along the said city limits and on an eastward extension of the city limits of Dyer Road (including the main on Harbor Road to Newport Boulevard).

Eastern Boundary - From the intersection of Dyer Road and Newport Boulevard northeast along Newport Boulevard to U. S. Highway 101, then southeast along U. S. Highway 101 to Red Hill Avenue, then northeast along Red Hill Avenue to Bryan Avenue, then northwest along Bryan Avenue to Newport Boulevard, then northeast along Newport Boulevard to the intersection of Holt Avenue, then west along Holt Avenue to Prospect Avenue, thennorthward along Prospect Avenue (including the main on Norwood) to 17th Street, then west along 17th Street, to Mayberry Street, then northward along a northward extension of Mayberry Street to Santa Clara Avenue, then west along Santa Clara Avenue to Lincoln Avenue, then north along Lincoln Avenue to Fairhaven Avenue, then east along Fairhaven Avenue to Glassell Avenue, then north along Glassell to the city limits of Orange, then east along the said city limits to the center line of Santiago Creek, then northeastward in Santiago Creek to the intersection of Collins Avenue.

Northern Boundary - The north city limits of the City of Orange between the center line of Santiago Creek and the north and west city limits at Collins Avenue.

(6) Newport Beach-Costa Mesa - An area including the incorporated city of Newport Beach as of June 15, 1953 and adjacent unincorporated territory all in Orange County with boundaries described below:

Western Boundary - Starting at Pacific Ocean and Santa Ana River, northward from Pacific Ocean along east bank of Santa Ana River to westward extension of north P/L of Banning Place.

Northern Boundary - From east bank of Santa Ana River east along extension, along north P/L of Banning Place to northwest P/L of Newport Boulevard, then northeast along northwest P/L of Newport Boulevard to northeast P/L of Palisades Road, then southeast along northeast P/L of Palisades Road to the northwest P/L of San Joaquin Road (Palisades Road) (Bayside Drive).

RATE AREA (6) -- (Continued)

Eastern Boundary - From northeast P/L of Palisades Road southward along westward P/L of Palisades Road (Bayside Drive) to Bonita Reservoir Road, then northwest to north shore of Upper Newport Bay, then along north and west shores of Upper Newport Bay to the city limits of Newport Beach (600 feet north of Pacific Coast Highway No. 101, then east, paralleling Pacific Coast Highway No. 101 to Palisades Road (Bayside Drive), then southeast, (paralleling Pacific Coast Highway to the northwestward-most city limits of Corona del Mar, then southeast along the city limits to State Highway No. 184A, then southeast, (paralleling the northeast city limits to the extension of the southeast city limits of Corona del Mar, then southwestward along the extension along the city limits of Corona del Mar to the Pacific Ocean.

Southern Boundary - From the southeast city limits northwestward along the Pacific Ocean to the east bank of the Santa Ana River.

(7) Huntington Beach - Within the incorporated city limits of Huntington Beach as of June 15, 1953.

(8) Orange County - A portion of Orange County with boundaries as described below and excluding rate area 5:

Western Boundary - The service line of the Company between the Pacific Ocean and the intersection of the service line with the western boundary of Orange County at a point 125 feet south of the south P/L of Spring Street, thence northward along the Los Angeles County-Orange County boundary (including both sides of Bloomfield Avenue) to the intersection of the south P/L of La Palma Avenue, thence eastward and northward along the southern and eastern boundaries of rate area 4 to the Los Angeles-Orange County boundaries.

Northern Boundary - The northern boundary of Orange County between the intersection of the said northern boundary with the eastern boundary of rate area 4 to the common intersection of the boundaries of San Bernardino, Riverside and Orange Counties.

Eastern Boundary - From the most easterly point of the northern boundary southward to the intersection with the northerly boundary of rate area 10, east of U.S. Highway 101.

Southern Boundary - From the intersection of the eastern boundary with the northeastward boundary of rate area 10, northwestward along the boundaries of rate areas 10, 9, 6 and 7 to the intersection of the western boundary of rate area 7, with the Pacific Ocean, thence northwestward along the Pacific Ocean to the service line of the Company.

(9) Laguna Beach

Northwest Boundary - Starting with the southernmost point of the city limits of Newport Beach at Corona del Mar, and following city limits northeasterly and across U. S. Highway 101 to a point where the city limits turn northwesterly, from this point and along the course just followed continue to the northeastern boundary line of Lot 96, Rancho San Joaquin.

RATE AREA (9) — (Continued)

Northeastern Boundary - Thence southeasterly along the northeastern boundary of Lot 96, Rancho San Joaquin and the prolongation of this boundary to easternmost point of Lot 183, Rancho San Joaquin, then north to the intersection of the prolongation of southern boundary of Section 7, T7S, R8W, S.B.B.&M., then east to the southeastern point of Section 7, T7S, R8W, S.B.B.&M., then south to the southern boundary of Section 30, T7S, R8W, S.B.B.&M., then southeasterly and paralleling U. S. Highway 101 to Salt Creek.

Southeastern Boundary - Then south and along various courses of Salt Creek to the Pacific Ocean.

Southwestern Boundary - Pacific Ocean.

(10) San Juan Capistrano - San Clemente

Northeastern Boundary - Starting from Salt Creek and the Pacific Ocean, follow the various courses of the creek to a point where a line from the southeastern corner of Section 30, T7S, R8W, S.B.B.&M., and paralleling U. S. Highway 101 intersects the creek, from this point extend boundary southeasterly to southeastern corner of Section 10, T8S, R8W, S.B.B.&M., from this point northeasterly to the southwestern corner of Section 36, T7S, R8W, S.B.B.&M., then easterly along the southerly property line of Section 36, T7S, R8W and the prolongation of said property line to the southeastern corner of Section 31, T7S, R7W, S.B.B.&M., then southwesterly along a line directed toward the southwestern corner of Section 7, T8S, R7W and intersecting the prolongation of the northeasterly city limits of San Clemente, then southeasterly along said prolongation to the Orange County-San Diego County line.

Southeastern Boundary - Then southwesterly along the Orange-County-San Diego County line to the Pacific Ocean.

Southwestern Boundary - Pacific Ocean.

(11) Eastern Division - Within the service area of the Company's Eastern Division, as of June 15, 1953.

(12) Ventura-Oxnard-Santa Paula - Within the service area of the Company in Ventura County, with boundaries described below:

Western Boundary - Bounded on the west by the C/L of the Ventura River from the Pacific Ocean northward to Weldon Canyon, then northeastward from the C/L of the Ventura River along the floor of Weldon Canyon, continuing northeastward to the junction of the west line of Sections 22 and 27, of T4N, R21W, and continuing northeastward to the north/south line of R21W and R20W, then north along the north/south line of R21W and R20W.

RATE AREA

(13) Ojai-West Ventura County - Within the service area of the Company in Ventura County, with boundaries described below:

Eastern Boundary - Bounded on the east by the C/L of the Ventura River northward from the Pacific Ocean to Weldon Canyon. Thence northeastward along the floor of Weldon Canyon continuing northeastward to the junction of the west lines of Sections 22 and 27 of T4N, R21W, and continuing northeastward to the north/south line of R21W, and R20W. Thence north along the north/south line of R21W and R20W to the northern line of T4N.

Northern Boundary - Beginning at the point of intersection of the north/south line of R21W, and R20W, with the east/west line of T4N and T5N, thence west along the east/west line of T4N and T5N to its intersection with the Ventura County line.

Western Boundary - The Ventura County line to the Pacific Ocean.

Southern Boundary - Pacific Ocean

(14) Santa Barbara City - An area including the incorporated City of Santa Barbara as of June 15, 1953 and the adjacent unincorporated territory in Santa Barbara County with boundaries as described below:

Western Boundary - North from the Pacific Ocean along the west boundary of Hope Ranch (Rancho Las Pasitas y la Calera), to Hollister Avenue, then eastward on Hollister Avenue to U. S. Highway 101, then east along U. S. Highway 101 to Cienegitas Road, then north in Cienegitas Road and an extension thereof to the north boundary of T4N.

Eastern Boundary - North from the Pacific Ocean to the peak of Ortega Hill then northeastward from the peak of Ortega Hill to the intersection of East Valley Road and Romero Canyon Creek, then northward in Romero Canyon Creek to the north boundary of T4N.

Northern Boundary - North boundary of T4N.

Southern Boundary - Pacific Ocean.

(15) Santa Barbara County - Within the service area of the Company in Santa Barbara County Division, excluding rate area 14.

(16) Santa Maria - Within the incorporated city limits of Santa Maria as of June 15, 1953.

(17) San Luis Obispo - The area within the incorporated City of San Luis Obispo as of June 15, 1953 and including the adjacent unincorporated territory within the following limits:

(a) An area west of the City of San Luis Obispo city limits bounded on the north by an extension of north city limits from the westernmost city limits to a point 1,000 feet west of the intersection of the north city limits with the westernmost city limits, thence south 3,300 feet, thence east to the western city limits.

RATE AREA (17) -- (Continued)

(b) An area south of the San Luis Obispo city limits, included within an extension of the west city limits from the intersection of the west city limits with the boundary of the Rancho La Laguna to a point intersecting a westward extension of the south P/L of County Road No. 169; thence east along this extension and along the south P/L of County Road No. 169 and continuing east to a point of intersection with a southward extension of the easternmost city limits on R12E and R13E, thence north along this extension to the easternmost city limits.

(c) An area north of the city limits bounded by a line beginning at the intersection of the east property line of Dart Avenue with the north city limits, thence north 900 feet along an extension to the east property line of Dart Avenue, thence west to the east property line of Motley Avenue, thence north along the east property line of Motley Avenue and an extension thereof to the north limits of the California State Polytechnic College to the west boundary of Section 23 of R12E, T30S, thence south to the northernmost city limits.

(18) Northern Division, South of Cuesta Grade - Within the service area of the Company and San Luis Obispo County and Santa Barbara County south of the Cuesta Grade, with boundaries described below and excluding rate areas 16 and 17.

Northern Boundary - Line eastward from the Pacific Ocean along the westerly prolongation of T31S (Mt. Diablo B.& M.) along the north line of T31S and continuing eastward along an easterly prolongation of the north line of T31S to the intersection with a southerly prolongation of the west line of T30S, R12E, then north to the southerly prolongation of the west line of said Section 21, along the west line of Section 21 and continuing north along a northerly prolongation of the west line of Section 21, to the north line of T30S, then east along the north line of T30S.

Southeastern Boundary - Westerly boundary of the Company's service area of Santa Barbara County Division in the vicinity of Gaviota.

(19) Northern Division, North of Cuesta Grade - Within service area of the Company and San Luis Obispo County north of the northerly limit of rate area 18.

Southern Boundary - Bounded on the south by a line eastward from the Pacific Ocean along the westerly prolongation of the north line of T31S (Mt. Diablo B.& M.), along the north line of T31S and continuing eastward along the easterly prolongation of the north line of T31S to the southerly prolongation of the west line of Section 21, of T30S, R12E, then north along the southerly prolongation of the west line of Section 21, along the west line of Section 21 and continuing north along the northerly prolongation of Section (2) to the north line of T30S, then east along the north line of T30S.

RATE AREA

(20) Las Flores-Malibu - An unincorporated area in Los Angeles County, lying west of highway marker 198:00 (U.S. Highway 101), bounded on the east by rate area 1, on the west by the Ventura County line, on the south by the Pacific Ocean and the north by the operating line of the Company in the vicinity of the crest of the Santa Monica Mountains.

(21) Moreno-San Diego Pipeline - An unincorporated area in Riverside County, three miles east and west of R2W and R3W from the north line of T3S south to the San Diego County Line.

ATTACHMENT 1

LIST OF APPEARANCES

For Applicant: Milford Springer, Frederick G. Dutton and Carl I. Wheat.

Interested Parties: City of Los Angeles, by Roger Arnebergh and T. M. Chubb; California Manufacturers Association, by George D. Rives of Brobeck, Phleger and Harrison; Cities of Arcadia, Azusa, Culver City, Fullerton, Huntington Beach, Lompoc, Monrovia, Newport Beach, Ontario, Oxnard, Sierra Madre, Upland and Whittier, by Roger Arnebergh and Clarence A. Winder; City of San Diego, by Clarence A. Winder; California Farm Bureau Federation, by J. J. Deuel; The Exchange Orange Products Company, by W. D. MacKay of Commercial Utility Service; San Diego Gas & Electric Company, by H. G. Dillin; City of Long Beach, by Henry E. Jordan; United States Government Agencies, by O. G. Cook of Judge Advocate's Section, Headquarters 6th Army and Colonel D. F. Kiechel; 11th Naval District, by Lt. Comdr. James M. Beauchamp, Jr. and Howard L. Minister; Department of Water and Power, City of Los Angeles, by John E. Girard; Southern California Edison Company, by C. E. Pichler.

Other Appearances: Walter B. Wassells, J. F. Donovan and R. B. Cassidy, of the Commission staff.

LIST OF WITNESSES

Evidence was presented on behalf of the applicant by: Arthur F. Bridge (company operations and general economic conditions), George T. Kelly (historical summary, plant investment, working cash, administrative and general expense, depreciation), Keith Kelsey (use per customer, trended original cost rate base), W. C. Mosteller (meter growth), Don C. Ellswood (gas sales and revenue), Horace G. Lawrence (materials and supplies), Roy M. Bauer (gas supply and costs), F. A. Hough (production, transmission and distribution expense), George S. Coates (distribution customer service expense and customer accounting and collection expense), Frank N. Seitz (sales promotion expense, rate design), J. Q. Abel (taxes, balance sheet), Roy A. Wehe (summary of results of operation, cost-to-serve studies), W. J. Herrman (the fair rate of return), R. P. Work (proposed rate schedules and effect on revenues, typical bills), William B. Tippy (investment risks), Walter A. Morton (analysis of evidence on fair rate of return), Jerome L. Hubert, L. A. Turner, W. B. Hellis, Fritz Huntsinge.

Evidence was presented on behalf of the interested parties by: Clarence A. Winder, T. M. Chubb, J. J. Deuel, Edwin Fleischmann, Homer R. Ross.

Evidence was presented on behalf of the Commission staff by: Stewart Weber (summary of earnings, introduction, history, present operations, administrative and general expenses, taxes and working cash capital). Theodore Stein (balance sheet, income statement, clearing accounts), Kenneth J. Kindblad (distribution expenses, transmission expenses), Howard J. Lindenmeyer (customers' accounting and collecting expenses, sales promotion expenses), G. B. Weck (fixed capital, depreciation reserve and expense, rate base), George C. Young (operating revenues, production expenses, customer distribution, usage and rates, proposed zoning of general service customers).