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Decision No. 90405 JUN 5 - 1979

ORIGINAL

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Application of SAN DIEGO GAS & ELECTRIC COMPANY for Authority to Increase its Rates and Charges for Electric, Gas and Steam Service.	Application No. 58067 (Filed May 15, 1978)
And Related Matters.	Application No. 55627 (Filed April 16, 1975) Application No. 55628 (Filed April 16, 1975) Application No. 55629 (Filed April 16, 1975)

(See Decision No. 89449 for appearances.)

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OPINION

I. PRELIMINARY

San Diego Gas & Electric Company (SDG&E) seeks authorization to increase its rates by approximately $112,660,000 for test year 1979. This amount was subsequently modified, based upon circumstances which developed during the course of the proceeding and the updating of expense estimates to a gross increase in revenues of approximately $95.5 million. The net operating income sought in this proceeding is estimated to produce a 15 percent return on common equity as calculated for financial purposes (16.55 percent return on common equity on traditional ratemaking return on common equity) and an 11.27 percent return on weighted average rate base.

After due notice 48 days of hearings were held before Administrative Law Judge K. Tomita during the period of June 13, 1978, through November 21, 1978, in San Diego including two day and evening sessions for public witness testimony on June 13 and 14, 1978. The matter was submitted subject to receipt of concurrent opening briefs on December 26, 1978, and concurrent reply briefs on January 11, 1978.

Opening and/or reply briefs were received from SDG&E, the Commission staff, the City of San Diego (City), California Retailers Association (CRA), the Federal Executive Agencies (Federal Agencies), California Farm Bureau Federation (Farm Bureau), California

Association of Utility Shareholders (CAUS), and San Diego Energy Coalition (Energy Coalition). In addition, the State of California Energy Resources Conservation and Development Commission (Energy Commission) filed a Statement of Position on September 22, 1978, relating to the issues of Sundesert Nuclear Power Project (Sundesert) site-related costs and the merits of SDG&E's conservation program.

Although this application was initially identified as Notice of Intention (NOI) 3, this is the first application to be filed and processed entirely under the Regulatory Lag Plan. SDG&E tendered its NOI on January 23, 1978, which was supplemented on February 14, 1978, with certain revisions. The NOI was accepted for filing on March 8, 1978, with the application being filed on May 15, 1978, based on a 1979 test year. Hearings were held and concluded on schedule with the Regulatory Lag Plan and concurrent opening and reply briefs were also received on schedule with the Regulatory Lag Plan. We are now ready for decision.

II. PUBLIC WITNESS STATEMENTS AND/OR TESTIMONY

Public hearings were held at San Diego on June 13 and 14, 1978, in the afternoons and evenings to provide SDG&E's customers with an opportunity to present statements and/or testimony on the

rate increase filing. Statements opposing the increase related to the inability of the poor and senior citizens to pay proposed increases; that management inefficiencies were responsible for the company's financial problems; Sundesert expenditures should be borne by stockholders and not by ratepayers; and that SDG&E should be required to recover higher costs by improvement in operating efficiencies.[1/] In addition, two members of the Farm Bureau testified on their efforts to conserve energy, that cost escalations were forcing sale of farms, the need for time-of-use rates, and the difficulties in passing on increases in costs to agriculture. We will consider all of the above comments in arriving at our disposition of this application.

III. SDG&E'S PRESENT OPERATIONS

SDG&E is engaged principally in the business of generating and distributing electric energy in portions of San Diego, Orange, and Imperial Counties; purchasing and distributing natural gas in a portion of San Diego County; and producing and distributing steam in a portion of the City. SDG&E estimates that the population of the territory served as of December 31, 1977, was approximately 1,806,000, of which approximately 818,000 resided in the City. SDG&E expects to add over 80,000 new electric and gas customers during the years 1978 and 1979, which will be an above average growth period.

In addition to its three operating departments, SDG&E also owns the following three subsidiaries: Jatapul Corporation, a subsidiary used for property acquisition purposes; New Albion Resources Company, used for purchasing and developing natural resources; and Applied Energy Incorporated, a subsidiary used to engage in engineering manufacture or acquisition and assembly of equipment and facilities for the production and application of thermal energy to meet individual customer applied energy requirements at the point of production.

1/ Community Energy Action Network forwarded petitions containing approximately 1,700 signatures opposing any rate increase for Sundesert expenditures. In addition, the formal files contain many mailgrams, letters, and petitions received both before and after the hearings opposing any rate increase to cover Sundesert expenditures.

IV. PARTIAL GENERAL RATE INCREASE

On October 31, 1978, SDG&E filed a motion for partial general rate relief in the amount of $59.9 million based on test year 1979 and to become effective January 1, 1979. According to SDG&E the requested increase would provide the amount necessary to enable SDG&E to maintain a minimum degree of financial integrity in 1979.

The $59.9 million was based on $40.7 million of additional revenues required to enable SDG&E to earn a 10.14 percent rate of return recommended by the staff rate of return witness, the lowest rate of return recommendation made in this proceeding, and by use of staff revenue, expense, and rate base figures; $4.4 million for the inclusion of fuel expenses resulting from sales of energy to the Department of Water Resources (DWR) in excess of purchases; $4.3 million for the revenue effect of the reversal of staff wage and productivity adjustments; and $10.5 million for the revenue requirement effect of the inclusion of Sundesert site-related and unamortized balance of nonsite-related costs in rate base.

The Commission in D.89857, dated January 16, 1979, granted a partial general rate increase of $33.7 million for the combined operations to enable SDG&E to earn a 9.95 percent rate of return (using updated cost of capital) and a return on common equity of 13 percent, equivalent to the return on common equity last authorized in D.88697, dated April 11, 1978, in Applications Nos. 55627, 55628, and 55629. The $33.7 million increase was based on staff estimated revenue, expense, and rate base figures with all controverted issues to be resolved in this final decision.

V. RATE BASE AND SUNDESERT

General

Rate base in this proceeding assumes a prominent position of importance because of the opposite positions taken by the various parties as to the proper ratemaking treatment to be accorded the abandoned Sundesert expenditures of approximately $90 million.

In addition, the parties differ as to rate base treatment of the unamortized gain on the Encina 5 generating facility sale-leaseback transaction, the inclusion of certain research and development (R&D) projects in rate base, the exclusion of certain sites from plant held for future use, and the appropriate working cash allowance.

Sundesert

According to SDG&E's witness, Ronald Watkins, Sundesert was initiated in 1972 based on the anticipated need for nonoil-fired base load capacity in the mid-1980's. Nuclear generated power was considered the preferred technology as studies undertaken at that time indicated that nuclear generation was substantially less costly than generation by oil or coal. Although SDG&E, in early 1972, still retained hopes for building more nuclear units in the coastal area, it had become apparent with the qualifying of the Coastal Initiative for the November ballot that siting of major generating plants further inland would decrease the probability of meeting regulatory disapproval. For these reasons SDG&E commenced studies on the feasibility of building a nuclear reactor in the California desert.

The OPEC oil embargo in late 1973 and early 1974 and the mandated conservation measures adopted during the oil shortage supported the soundness of the decision to implement a nuclear base-load facility and also the desirability of reducing SDG&E's reliance on oil.

The oil embargo resulted in a dramatic increase in the price of electricity, adversely affected the economy of the San Diego area, and the inauguration of vigorous conservation programs. These factors resulted in a reduction of energy consumption of approximately 15 percent below the levels expected, based on historic patterns. With the reduction in growth rate, SDG&E was able to abandon or delay certain planned generation projects.

In 1976 in response to the requirements of the Warren-Alquist Act, SDG&E submitted a new electrical energy demand forecast to the Energy Commission. This demand forecast, as revised in response to the Energy Commission's order of January 12, 1977, was adopted by the Energy Commission.

In June 1976 SDG&E filed its NOI for approval of a site and related facilities for Sundesert with the Energy Commission. In the NOI hearings the Energy Commission's staff found that SDG&E needed additional base-load capacity in the mid-1980's and the Energy Commission, in its decision on the NOI, found the need for additional capacity in Southern California and approved the Sundesert site for multiple facilities and approved the NOI for one of the Sundesert units.

The Draft Environmental Statement issued by the U.S. Nuclear Regulatory Commission (NRC) and the U.S. Department of Interior for Sundesert sets forth the following NRC staff conclusions:

a. SDG&E had adequately accounted for the impacts of energy conservation in preparing its load forecasts.

b. Based on load forecasts, the major participants, as well as the group collectively, will likely have a need for additional generating capacity in the mid-1980's.

c. Considerations of national policy and fuel reliability make it desirable to meet this need for generating capacity with nonoil-fired base-load capacity.

On May 3, 1978, SDG&E issued a press release stating that the Board of Directors had decided to suspend all work on Sundesert except for those steps necessary to reserve the site and water rights for future use in meeting the electric energy needs of Southern California. Reasons given for the cancellation of the project were the language contained in D.88758, dated May 2, 1978, in OII No. 4, in which the Commission stated that any continued expenditures on

Sundesert could be recaptured only if Sundesert is ultimately operational and also the failure of the legislature to exempt SDG&E from the requirements of Public Resources Code Sections 25524.1 and 25524.2.

In line with this action, SDG&E requested the NRC to complete the licensing effort toward issuing the Final Environmental Statement. Such Final Environmental Statement was issued in October 1978 in which it states, "the NRC staff concluded that the proposed site is a suitable location for a nuclear power station of the general size and type described in the applicant's Environmental Report...." It further requires that, when SDG&E decides to proceed with the project, further evaluations will have to be made for any change in plant design, as well as information to permit reevaluation of the need for the plant and consideration of alternatives as well as other conditions.

SDG&E's Position

SDG&E presented three witnesses who introduced exhibits and testified on the different aspects of Sundesert including the need for the project, choice of nuclear generated power, regulatory and licensing events, cost and accounting controls, and the rate-making treatment requested for Sundesert expenditures.

SDG&E's showing was geared to demonstrate that SDG&E's management was prudent in its inception, continuation, and termination of Sundesert; and therefore its request to have site-related costs of approximately $47,500,000 included in rate base and to have non-site-related expenses of approximately $42,800,000 amortized over 10 years with the unamortized balance of such expenses included in rate base is a reasonable ratemaking treatment to be accorded Sundesert expenditures.

SDG&E's witness, Dennis Lougeay, testified that of the gross $106.6 million recorded and estimated total expenditures for

Sundesert, participants' reimbursement of $13.3 million had been used to decrease the cost of the project; $1.3 million of costs associated with the Water Treatment Demonstration Facilities were transferred to R&D; and $1.5 million of expenditures relating to the Sundesert southern transmission corridor was transferred to the Eastern Interconnection Project, a project designed to transmit power generated in the Imperial Valley geothermal fields to City and to provide an interconnection with Arizona and other "eastern" utilities. He further testified that although SDG&E had expended approximately $5.7 million for the purpose of obtaining nuclear fuel enrichment contracts to assure the licensing agencies that an adequate supply of fuel would be available when required, it has been unable to sell these contracts because of the numerous cancellations of nuclear projects in the past few years by utilities.

After elimination of transfers and reimbursements, SDG&E's investment in Sundesert was approximately $90.5 million, which was further reduced by $.2 million to eliminate expenditures incurred by SDG&E on SB 1015, a measure to exempt Sundesert from the requirements of the two nuclear fuel cycle laws. The net investment in Sundesert of approximately $90.3 million was segregated into site and nonsite-related expenditures to conform to the terminology used by the Commission on page 8 of D.88697 in which the Commission stated, "If Sundesert is canceled, a reasonable basis for recovery of the expense incurred by SDG&E to date would be to amortize over a five-to-ten year period the cancellation costs consisting of nonrecoverable development and regulatory expenses; to consider the Sundesert site as plant held for future use; and to include in rate base the plant siting costs. This issue is reserved to the NOI 3 proceeding."

Based on the above, SDG&E defined site-related costs as those costs associated with purchasing the land and qualifying the site as a viable power plant location and nonsite-related costs as those costs

not directly required to acquire and qualify the site. Included in the category of site costs are all costs related to the acquisition of plant and water rights, lands, rights-of-way, alternate site studies, site access studies, geotechnical studies, meteorological studies, socio-economic studies, seismic studies, ecological studies, water studies, transmission corridor studies, and other site-related licensing and environmental activities, including less obvious costs as preliminary engineering and design activities that were required to support the site-related licensing effort. SDG&E accumulated some $47.5 million of costs under the site cost category.

Included under the nonsite-related cost category are costs related to equipment procurement, unrecoverable fuel enrichment, and engineering and design activities other than those required to support the site-related licensing effort. SDG&E further points out that the majority of these expenses were also associated with licensing activities, but were not necessary to acquire and preserve the site. For this reason expenditure associated with the Preliminary Safety Analysis Report was treated as a nonsite-related expenditure as the report focused on the suitability of a specific nuclear facility on the site and was not considered necessary to acquire and preserve the site. SDG&E's estimated total nonsite-related category of costs is approximately $42.8 million.

Under SDG&E's ratemaking proposal, the $47.5 million site-related costs are included in rate base in the test year and the $42.8 million of nonsite costs are amortized over a 10-year period with the unamortized balance of such costs being included in rate base. SDG&E states that both categories of Sundesert expenditures must be given rate base treatment to recognize the carrying cost of money on the investment made on Sundesert.

Commission Staff's Position

The Commission's accounting and engineering witnesses did not take any basic opposition to SDG&E's classification of Sundesert expenditures between site and nonsite-related categories nor challenge the prudency of SDG&E's expenditures relating to the Sundesert project. The staff accounting witness, however, did make the following recommendations relating to Sundesert expenditures which were adopted by the staff rate base witness:

a. Allowance for Funds Used During Construction (AFDC) be disallowed as a recoverable cost to the extent that the associated costs are not included in a project that results in construction.

b. Interest billed to the participants of the Planning and Feasibility Agreement which exceeded the AFDC related to those billings be used to reduce the nonsite costs SDG&E is seeking to recover through amortization. This will result in a $247,130 reduction in nonsite costs.

c. Public relations expenditures charged to Sundesert which do not conform to Commission policy as stated in D.86794, in Application No. 54946 of Southern California Edison Company (Edison), be disallowed as a recoverable cost. This adjustment would result in a further $508,890 reduction in nonsite costs.

d. Estimated expenditures for certain political and related activities should be excluded from site-related costs.

The staff of the Operations Division recommends that no site-related costs be included in rate base as plant held for future use on the ground that there is no definite plan for use of the site within a reasonable time.

The staff[2] relies on the following description contained in the Uniform System of Accounts for Account 105, Electric Plant Held for Future Use:

> "A. This account shall include the original cost of electric plant (except land and land rights) owned and held for future use in electric service under a <u>definite</u> plan for such use, to include:
>
> (1) Property acquired (except land and land rights) but never used by the utility in electric service, but held for such service in the future under a <u>definite</u> plan, in electric service...
>
> "B. This account shall also include the original cost of land and land rights owned and held for future use in electric service under a plan for such use, to include land and land rights:
>
> (1) Acquired but never used by the utility in electric service, but held for such service in the future under a plan, ..." (Emphasis added.)

The staff contends that for determination of ratemaking treatment in this proceeding the Sundesert land and land rights and other electric plant costs are not separable; that of the $47.5 million site-related costs, approximately only $20 million can be associated as bare land or water rights land costs; therefore, since the majority of the costs are not land or land right costs, the stronger of the two plants held for future use requirements should determine whether the total $47.5 million should or should not be included in rate base. The staff further recommends that SDG&E should keep track of any cost incurred to hold the site and request recognition of such costs at some future time when a definite plan for the site is established. The staff also contends that requiring SDG&E's ratepayers

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2/ Staff in this section excludes the rate of return witness Czahar.

to bear 100 percent of the return on such plant if included in rate base is ludicrous since the Energy Commission's approval of the site limited SDG&E's participation to 33 percent of the plant.

Of the $42.8 million of nonsite costs SDG&E is seeking to recover the staff of the Operations Division recommends that $38.9 million be amortized over a 10-year period with no rate base treatment of the unamortized balance. The staff contends that its position is supported by prior Commission decisions, most notably D.87639 in Applications Nos. 55627, 55628, and 55629 in connection with SDG&E's abandonment of the Kaiparowits project. The staff, moreover, contends that disallowance of AFDC and nonrate base treatment of the unamortized balance would represent a fairer division of Sundesert nonsite expenditures between ratepayers and shareholders. In addition, the staff contends that inclusion of the unamortized balance in rate base would mean that the ratepayers would bear the entire burden of Sundesert with no risk to shareholders, thereby leaving the shareholders in the same position as a result of an unsuccessful project as with a successful one.

Staff Witness Czahar's Position

Staff rate of return witness Czahar did not agree with the Operations Division staff's position that Sundesert expenditures should be excluded from rate base. On Exhibit 55, page 22, he stated:

> "It is my opinion that, should the Commission exclude the approximately $70 million of Sundesert costs from SDG&E's rate base and at the same time adopt a rate of return of between 10.04 percent and 10.24 percent, the ability of SDG&E to meet the minimum financial criteria necessary to attract capital at reasonable rates and to support its credit would be materially jeopardized."

He further testified that at a minimum SDG&E should receive rate base treatment of the Sundesert site-related costs and also either have a 5-year amortization period for the nonsite-related costs, or if

a 10-year amortization period is used, SDG&E must be put in the same position as if such costs were amortized over 5 years.

Witness Czahar further testified that from the viewpoint of historical precedents, although carrying costs on abandoned projects have not been approved in the past, considering the materiality of those expenses and SDG&E's current financial position, the Commission could take a different point of view in this proceeding. Witness Czahar stressed the importance of SDG&E earning a 10.14 percent rate of return on a one billion fifty million dollar rate base or an amount very close to that rate base figure if SDG&E was going to be able to attract capital at reasonable costs. Mr. Czahar further recommended that if the Commission is going to recognize that the Sundesert properties are the basic cause of SDG&E's financial problems, it should do so by inclusion of such properties in rate base rather than in setting the authorized rate of return. The Legal Division disagrees with Mr. Czahar on this recommendation.

City's Position

City contends that an amount of $650,000, representing expenditures in connection with AB 1852, was monies used to influence the decisions of public officials and should not be allowed as Sundesert expenditures recoverable from ratepayers. City further contends that no AFDC should be recovered for site-related costs since no construction work was in progress. It takes the position that of the total $47.5 million site-related costs, the Commission might want to waive its usual rules on plant held for future use and include $17.9 million in land and land rights expense, excluding the speculative $2 million SDG&E estimates will be needed to complete the Bureau of Land Management's exchange, that any future sale of the property at a profit must inure to the benefit of the ratepayer, and that,

should SDG&E not have a definite plan by the next rate case, to disallow such amounts from rate base.

As to the remaining $27.6 million expenditures classified as site-related, City contends that such costs are neither electric plant nor land and land rights and, therefore, do not belong in plant held for future use but should be considered for inclusion in rate base when the plant becomes used and useful.

On nonsite-related costs of $42.8 million, City supports the staff recommended figure of $38.9 million which includes the disallowance of AFDC and the $508,890 of public relations expenditures. City, however, further recommends that nonsite-related expenditures be reduced by $4.7 million for nuclear fuel enrichment contracts until SDG&E has shown that it has attempted to persuade the Federal Government to reschedule the first fuel delivery (and thereby retain the value of the contract) and that no recovery of this $4.7 million be allowed until the contracts are terminated some time in 1983.

City also concurs with the staff that interest income in the amount of $247,000 collected from participants in excess of the AFDC charged for the expenditures on which participants reimbursed SDG&E should be used to reduce project costs. It also takes a position similar to the staff that the unamortized balance of nonsite costs should not be given rate base treatment, since such result would be grossly inequitable to the ratepayer and an abdication of the Commission's duty to protect both the ratepayer and the utility, constituting a reversal of the Commission's historic treatment of this type of expense.

City further recommends that the tax effect of this amortization should be taken into account in arriving at SDG&E's federal and state income tax allowance. In addition, it concludes that if the Commission believes that it is compelled to make a choice of allowing the unamortized balance in rate base or a shorter amortization period, it should choose the latter.

Federal Agencies' Position

Federal Agencies support the Operations Division's position on the ratemaking treatment of site-related and nonsite-related Sundesert expenditures. It agrees that site-related costs should not be given rate base treatment because no witness has revealed a definite plan for usage of the site.

With respect to the nonsite-related project costs, Federal Agencies recommend a 10-year amortization of such costs because of a lack of a specific finding of imprudency on the part of SDG&E. It supports the exclusion of AFDC and exclusion of public relations expenses from recoverable costs similar to the staff rate base witness. It further takes a position against rate base treatment of the unamortized recoverable nonsite costs.

Energy Coalition's Position

Energy Coalition contends that Sundesert was unlawful, uneconomical, unnecessary, and unproductive; and, therefore, both site-related and nonsite-related costs should be excluded from rate base. It further contends that ratepayers should not be charged for those nonsite-related expenditures which were incurred subsequent to the passage of the Nuclear Safeguard Laws in June 1976.

Energy Coalition contends that Section 25524.2 of the Public Resources Code clearly prohibits the construction of any nuclear power plant unless Energy Commission finds and the State Legislature certifies by majority vote that there exists a federally approved and demonstrated technology for the permanent disposal of high-level nuclear waste. It contends that in view of the strong language of Section 25524.2 and the well-documented failure of the federal nuclear waste disposal programs, SDG&E should have known that construction of Sundesert would not be allowed. Instead of canceling or delaying the project, Energy Coalition argues that SDG&E imprudently accelerated Sundesert expenditures when it was obvious under any prudency test that on June 30, 1976, the legal restrictions contained in Public Resources Code Section 25524.2 could not be met.

Energy Coalition also raises the issue of the economic nonviability of Sundesert and SDG&E's decision to pursue such a project as a further example of managerial imprudence. It argues that financial nonviability would not have existed with non-nuclear generation alternatives. It points out that because of the long time and enormous capital requirements necessary for a nuclear facility, SDG&E was compelled to seek inclusion of 50 percent of construction work in progress and a 16 percent return on common equity in Applications Nos. 55627, 55628, and 55629 in order to finance the project. This not only represented an unprecedented return on common equity for a major gas or electric utility but would require a major deviation of traditional Commission ratemaking policy of not allowing nonoperative construction work in progress in rate base.

Confronted with the above problems in connection with Sundesert, Energy Coalition contends that prudent management would have pursued an electric resource plan consisting of aggressive conservation/load management and moderate commitments of capital for combined cycle generation and geothermal development. Therefore, it recommends no recovery of Sundesert expenditures; but if allowed, only those nonsite costs incurred prior to the passage of the Nuclear Safeguard Laws in June 1976, and site costs only when a definite plan for use of the site is determined.

<u>Energy Commission's Position</u>

On September 21, 1978, Energy Commission mailed its Statement of Position in Application No. 58067 to all parties of record. The statement addressed itself to the issue of the inclusion of Sundesert site-related expenses in rate base and the merit of SDG&E's conservation programs.

The Statement of Position addressed itself on the position taken by the Commission staff that approximately $45 million of costs for the Sundesert Blythe site should not be included in rate base

because no definite plan exists for use of this site within a reasonable time, as follows:

> "This assertion is contrary to our decisions on the Sundesert Notice of Intention and in the AB 1852 proceeding. Those decisions indicate that the Blythe site is desirable for either a nuclear plant or a coal plant in the 1980's or 1990's. Thus, it is prudent supply planning and in the best interests of SDG&E's ratepayers for the Blythe site to be retained for such future development."

The Statement of Position further concludes that:

> "Taken together, the Sundesert Notice of Intention decision and the AB 1852 proceeding do not foreclose the use of the Sundesert site in the foreseeable future. On the contrary, the Blythe site has been found suitable for a nuclear facility and, given expected and quality improvements in the area, it may accommodate a coal-fired facility. It is prudent supply planning to ensure the site is available for either future use."

Discussion

General

Of the various parties to this proceeding, only Energy Coalition questions the prudency of management in connection with its Sundesert expenditures. We have carefully reviewed the record in this proceeding to determine whether the record will support such a finding of imprudency considering the expected needs and available alternatives existing at the time management had to make its decision. We find, similar to our treatment in the abandonment of the Kaiparowits and Sycamore Canyon Projects, that SDG&E's management actions to proceed with Sundesert and subsequently to abandon the project were not imprudent actions considering the circumstances that existed at the time the decision had to be made.

We are concerned with the increasing magnitude of the abandoned costs and also the frequency of abandonments which we find must, in part, be borne by the ratepayers and stockholders. We are also concerned with the increasing burden being placed on the stockholders who in the past invested in utility stocks as a reliable income stock with some growth possibilities and with very little risk.

In the case of SDG&E and Sundesert, we are referring to preconstruction expenditures totaling $106.6 million. Of that amount, $13.3 million has been recovered as participant reimbursement; $1.3 million transferred to an R&D project; $1.5 million transferred to the Eastern Connection Project, and leaving some $90.5 million in unrecovered costs in Sundesert awaiting this Commission's decision as to the amount and methodology of recovery which will be authorized by this Commission including the question of carrying costs.

Although there are Commission precedents for the ratemaking treatment of abandoned projects, the magnitude of the abandonments considered in the past in relation to the size of the utility is nowhere comparable to SDG&E and its Sundesert Project. Certainly the $6.1 million cost involved in the Sycamore Canyon Project and the $3.6 million cost allowed on the Kaiparowits Project abandonments are many folds smaller than the $90.5 million involved in Sundesert.

AFDC Issue

The staff recommends that no AFDC be allowed on any project cost that does not result in construction. It bases this recommendation on the fact that allowing recovery of AFDC, as well as other construction costs, from ratepayers places too much of the burden on the ratepayer with little or no sharing of the risk by the stockholders, thereby leaving no real incentive for management to avoid expenditures on projects which are highly speculative and unlikely to receive the necessary regulatory approvals.

While we recognize that AFDC is as valid a project cost as any cash outlay for labor or equipment, and we also believe that the risk of disallowance of all expenditures because of management imprudence is sufficient as a threat to ensure that management will exert great care before embarking on questionable projects, we must carefully weigh any decision to deviate from our past practice of disallowing AFDC as a recoverable cost on an abandoned project. Although it is argued that no AFDC should be allowed when there is no construction, we are not only concerned with conforming to past Commission accounting practices, but also with equitable considerations. SDG&E argues, correctly, that even if the Commission should adopt SDG&E's recommended treatment for Sundesert costs, the shareholders will incur a loss equivalent to the carrying cost of money for the period of May 1978 until a decision is issued in this proceeding in 1979, but we are concerned from an equitable point of view whether the placing of such a light burden on shareholders as opposed to the burden placed on ratepayers represents a reasonable balance.

After due consideration we will adhere to our longstanding policy on AFDC by disallowing AFDC accumulated in connection with the Sundesert project as a recoverable expense for SDG&E. It would be

inappropriate and unreasonable for the investors to realize a capitalized return on funds invested to date on this uncertificated and now indefinitely deferred proposed project. AFDC covers the investors' risk when a project is undertaken and carried through to completion. When a proposed project is terminated, and siting and site-related costs are included in plant held for future use and/or amortized, it is proper to exclude the AFDC allowance for investor risk because the project did not come to fruition.

Considerations of equity also strongly support the disallowance of accumulated Sundesert AFDC. While recognizing that SDG&E's promotion and development of the Sundesert project was not imprudent, the Commission finds itself neither disposed nor entitled to shield the utility's investors from all risk associated with its new plant investments. Ratepayers ought not to bear the entire burden of a failed project, and certainly not to the extent of providing a return on funds invested therein.

Excess Interest Billed to Participants

City and Federal Agencies support the staff recommendation that interest collected from participants in excess of AFDC related to the participants' billings in the amount of $247,130 should be used to reduce the nonsite costs SDG&E is seeking to recover through amortization. Since we are not permitting SDG&E to recover AFDC from the ratepayers, we are of the opinion that it would not be reasonable to use this additional interest recovery of $247,130 to reduce recoverable expenses and, therefore, we will not adopt the staff recommended treatment for this item.

Sundesert Public Relations Expenditures

City and Federal Agencies supported the staff recommendation that Sundesert public relations expenditures which did not conform with the Commission's policy relating to such expenditures in D.86794, in Application No. 54946 of Edison, should also not be allowed as a recoverable expense. We agree that the staff's reasoning is appropriate and, therefore, will exclude $508,890 of public relations expenditures from Sundesert nonsite costs.

Political and Related Activities Issue

The staff recommended the disallowance of an estimated $200,000 of Sundesert expenditures for legal advocacy and lobbying. Since SDG&E excluded $201,000 of similar expenditures including $41,000 of payments to Lowenstein, Newman, Reis & Axelrad (a legal firm involved in connection with SB 1015) which SDG&E conceded was properly chargeable to Account 426.4, Expenditures for Certain Civic, Political, and Related Activities, a below the line account not chargeable to ratepayers, we will exclude $160,000 instead of the $200,000 recommended by the staff to eliminate duplication of this one item.

Adopted Sundesert Expenditures

Table I sets forth the adopted site-related or nonsite-related Sundesert costs.

TABLE I

Adopted Sundesert Project Expenditures
(Dollars in Millions)

	Total	Site-related	Nonsite
Estimated Sundesert Investment (Ex. 41, Attach. B)	$90.5	$47.7	$42.8
SDG&E Adj. to Exclude SB 1015 Costs	.2	.2	-
Adjusted SDG&E Cost	90.3	47.5	42.8
Adjustments Adopted AFDC on Nonsite costs	(5.1)	(2.0)	(3.1)
Exclude Legal Advocacy & Other Lobbying Exp.	(.16)	(.16)	-
Exclude Public Relations Expenditures not Meeting D.86794 Standards	(.5)	-	(.5)
Total Adopted Adjustments	(5.76)	(2.16)	(3.6)
Adopted Sundesert Costs	$84.54	$45.34	$39.2

Site-related Costs

We have considered the arguments offered by the various parties and have concluded that for an equitable treatment of these expenditures it is proper to include $45.34 million in plant held for future use and include that amount in rate base. While it is true that no definite plan for the Sundesert site has been finalized as of the last hearing date in these proceedings, the record is clear that Sundesert is a valuable site potentially usable for either nuclear or coal-fired generation facilities. It is reasonable to anticipate that generation facility plans for the Sundesert site will materialize in the foreseeable future.

Although the staff recommends that if the Commission is to consider rate base treatment of Sundesert site-related costs, it should be limited to 33 1/3 percent of such costs as SDG&E's ratepayers would benefit from only 33 1/3 percent of any project developed on

such site. We do not agree. If the site is developed in the late 1980's or early 1990's, it is reasonable to assume that any participant would be required to contribute to the construction costs as well as the past carrying costs, thereby reducing the burden on SDG&E's ratepayers. Moreover, should SDG&E not be able to use the site, we will require that all gains from sale of such site inure to the benefit of SDG&E's ratepayers. We believe that the staff recommendation to not include site-related costs or limit the inclusion of site-related costs in rate base to 33 1/3 percent are not realistic or practical solutions for a growing utility with an already high level of AFDC and which is confronted with continuing interest coverage problems.

We believe our treatment of including the entire site-related costs in rate base is realistic, particularly in this era where environmental concerns make it difficult to find acceptable generation sites and where the lead time necessary between planning and completion of generation facilities continues to increase.

Our inclusion of site-related costs in rate base will be subject to review in future general rate proceedings to determine whether continuation of such policy is reasonable under the circumstances existing at such time.

Nonsite-related Costs

Of the $39.2 million nonsite costs we have adopted in this proceeding, all parties, excluding Energy Coalition, agree in principle that recovery of these costs should be permitted. SDG&E requests a 10-year amortization of these expenses to spread the burden and requests that the unamortized balance be included in rate base. The staff engineer and staff counsel support a 10-year amortization but strongly oppose rate base treatment. Staff rate of return witness Czahar recommends as a minimum a 5-year amortization and if a 10-year amortization is adopted that SDG&E be placed in the same position as if amortization was over 5 years. City and Federal Agencies both agree with the position taken by the staff rate base witness and the staff counsel.

While we are cognizant of the carrying costs of money, on the one hand, for any project or cost not given rate base treatment;

on the other hand, we are also concerned about the burden we are placing on the ratepayers to pay for an abandoned project. While the burden on the shareholders is substantial, the burden on the ratepayers is also substantial. We believe that adherence to our past practice of allowing recovery of abandonment costs from ratepayers while denying rate base treatment is an equitable solution to a difficult problem. In addition, in denying rate base treatment of the unamortized nonsite costs, we will adopt a 5-year amortization period rather than the 10-year period recommended by the staff and certain other parties.

In our adopted ratemaking treatment for these Sundesert expenditures, we would note that meeting desirable environmental goals is costly even under the most ideal conditions. We place SDG&E on notice here that the Commission will scrutinize carefully all aspects of any projects which may be abandoned in the future to assess the prudence of SDG&E planning and decision-making.

Other Rate Base Items

Working Cash

SDG&E, in its initial showing, requested a working cash allowance of $18,314,000 for test year 1979 of which $16,416,000 is assigned to the Electric Department, $1,832,000 to the Gas Department, and $66,000 to the Steam Department. These amounts are the staff's working cash figures adopted in D.87639 in Applications Nos. 55627, 55628, and 55629. SDG&E revised its request in its rebuttal testimony to $39,033,720 by adopting the staff's working cash figure in this proceeding, and by modifying or correcting those staff computations which SDG&E alleged were erroneous.

The staff and City sought to strike Questions and Answers 12 through 21 and Attachments I and II of Exhibit 80 as being improper rebuttal testimony, but were overruled by the administrative

law judge. On December 1, 1978, the staff filed a motion with the Commission requesting reversal of the ALJ's ruling. The staff's motion was supported by City in its reply and opposed by SDG&E.

Considering that we are not adopting rate base treatment for the unamortized Sundesert nonsite costs, we are not inclined to adopt SDG&E's request for recognition of unamortized Kaiparowits and Sycamore Canyon abandonment costs in rate base. However, in connection with SDG&E's contention that the Encina 5 lease was not treated consistently with the staff treatment of other long term leases, we agree with SDG&E that appropriate treatment for working cash allowance for the Encina 5 lease should be determined by deducting the lag in expense payment from the lag in revenue payment. Using SDG&E's figure in Exhibit 80, we are of the opinion that the staff working cash figure should be increased by $1.2 million.

In connection with SDG&E's allegation that staff working cash allowances for federal and state income taxes are deficient because of improper lag periods, we are not convinced that the record in this proceeding adequately supports SDG&E's contention that the lag days used by the staff was incorrect in that it was based on the same assumptions used by the Commission in D.87639 in Applications Nos. 55627, 55628, and 55629 and also adopted by SDG&E in its original showing.

While the staff contends that SDG&E's working cash should be based on SDG&E's initial showing in its applications, we do not believe adoption of an out-of-date working cash figure is justified when a more current working cash study has been prepared by the staff. We will adopt the staff's working cash figure modified by $1.2 million to correct the inconsistent treatment given to the Encina 5 lease and further modified to reflect the expenses we will adopt in this proceeding. We will also deny the staff's request to overrule the ALJ's ruling to admit Questions and Answers 12 through 21 and Attachments I and II into evidence because the evidence is material to this proceeding.

Other Rate Base Differences

Staff and SDG&E differ in their estimates of R&D investment included in rate base. SDG&E used a higher end-of-year balance; whereas, the staff used a weighted average figure as it does for all rate base components. SDG&E's witness testified that the use of an end-of-year figure for R&D was based on the treatment given to the Niland Geothermal Test Facility in D.83675, dated October 29, 1974, in Application No. 53945, and, which in his opinion, was meant to provide an incentive to SDG&E to stimulate R&D projects. The staff contends that such treatment was an error and that recognition in rate base is sufficient incentive. We agree with the staff and will use a weighted average figure for R&D investments in rate base.

Staff and SDG&E also differed as to the tax treatment of R&D investments in rate base. Staff witness O'Donnell recommended that the net after-tax portion of the R&D investment be included in rate base. SDG&E argues that D.87639 did not provide for such treatment and that there was a danger of duplicative tax deductions for this item if Mr. O'Donnell's recommendation is adopted. We agree with staff witness O'Donnell and will adopt a net of tax R&D investment in rate base in this proceeding. No duplicative tax deductions will be taken for this item in our adopted income tax computation.

The staff made further adjustments to rate base by recommending the exclusion of $875,000 from Electric Department plant held for future use and $44,753 from Gas Department plant held for future use. The staff contends that SDG&E has no firm plan for the various items contained in Exhibit 51. SDG&E contends that there are plans for use of the various items, mostly land parcels, but that the plans did not show a need prior to 1985. While we are of the opinion that with the escalating cost of real estate in California, it is prudent for utilities to acquire land parcels for future

utility use well ahead of such anticipated use date, it appears from the record in this proceeding that the information provided by SDG&E to the staff was rather sketchy. On the other hand, we believe the use of a 1985 cutoff date by the staff is somewhat arbitrary in light of what we have allowed in other proceedings. For the purpose of this proceeding, we will adopt as reasonable one-half of the staff's recommended disallowances. We expect a more careful study of these items in the next proceedings, especially by SDG&E, to clearly support the inclusion of such items in rate base.

We will also include in our adopted rate base a $4,500,000 addition to rate base due to a revision in the estimated cost of the Encina 5 plant sold. The staff objected to the inclusion of the $4,500,000 in rate base made by SDG&E in revised Exhibits 85 and 86 as material not previously included in the rate base testimony. Considering that we will be accepting a revised lower cost figure for the Encina 5 plant sold and thereby recognizing a larger gain from the Encina 5 sale which benefits ratepayers, we are of the opinion that recognition of the $4.5 million in rate base as Encina 5 plant not sold is reasonable. We will, therefore, deny the staff motion to strike portions of Exhibits 85 (revised) and 86 (revised).

Our electric rate base will also recognize the cancellation of the Heber Geothermal Project by excluding $2,562,000 from R&D rate base. We will adopt as our test year 1979 rate base the staff rate base figure modified as indicated in the preceding paragraphs.

VI. RESULTS OF OPERATIONS - SUMMARY AND ADOPTED RESULTS

SDG&E and the staff have estimated SDG&E's 1979 test year results of operations for the Electric, Gas, and Steam Departments. The following Tables II, III, and IV present the final SDG&E and staff estimates and our adopted test year results of operations for the Electric, Gas, and Steam Departments, respectively.

TABLE II

San Diego Gas & Electric Company
Electric Department

RESULTS OF OPERATIONS

Test Year 1979

Item	At August 28, 1978 Rates			Authorized	
	Staff	Company	Adopted	Total	CPUC
	(A)	(B)	(C)	(D)	(E)
	(Dollars in Thousands)				
Revenues	$208,243.8	$208,243.8	$208,243.8	$264,281.5	$263,852
Expenses					
Production	36,876.8	42,718.7	40,340.5	40,340.5	40,245
Transmission	5,467.5	5,759.3	5,467.5	5,467.5	5,281
Distribution	14,429.5	16,881.5	15,169.4	15,169.4	15,169
Customer Accts.	8,692.2	9,435.6	9,002.9	9,076.2	9,076
Marketing	1,876.1	2,680.1	1,960.8	1,960.8	1,961
A&G	27,006.9	32,477.9	27,757.8	28,845.0	28,822
Total	94,349.0	109,953.1	99,698.9	100,859.4	100,554
Wage Adjustment	(2,625.5)	-	-		-
Productivity Adj.	(316.0)	-	-		-
Total	91,407.5	109,953.1	99,698.9	100,859.4	100,554
Depreciation and Amortization	38,822.7	39,502.7	43,248.8	43,248.8	43,221
Taxes Other Than Income	12,170.5	13,343.9	13,343.9	13,343.9	13,329
Calif. Fran. Tax	862.8	1,512.0	(366.5)	4,572.5	4,569
Federal Income Tax	704.1	7,032.0	(3,615.3)	9,665.7	9,656
Total Expense	143,967.6	171,343.7	152,309.8	171,690.3	171,329
Net Oper. Revenues	64,276.2	36,900.1	55,934.0	92,591.2	92,523
Rate Base	813,483.9	916,228.0	874,327.1	874,327.1	873,743
Rate of Return	7.90%	4.03%	6.40%	10.59%	10.59%

(Red Figure)

Staff: Exhibit 81
Co.: Exhibit 86, Revised 12-20-78

TABLE III

San Diego Gas & Electric Company
Gas Department

RESULTS OF OPERATIONS

Test Year 1979

Item	At August 28, 1978 Rates			Authorized
	Staff	Company	Adopted	
	(A)	(B)	(C)	(D)
	(Dollars in Thousands)			
Revenues	$120,160.7	$120,160.7	$120,160.7	$134,799.4
Expenses				
Gas Supply	77,754.2	77,754.2	77,754.2	77,754.2
Storage	804.6	1,028.0	916.3	916.3
Transmission	827.1	860.1	843.6	843.6
Distribution	8,252.0	9,123.0	8,855.9	8,855.9
Customer Accounts	5,096.8	5,365.7	5,362.1	5,381.1
Marketing	1,251.1	9,126.4	2,013.4	2,013.4
A&G	10,320.1	10,818.9	10,479.3	10,822.9
Total	104,305.9	114,076.3	106,224.8	106,587.4
Wage Adjustment	(1,105.9)	-	-	-
Productivity	(119.0)	-	-	-
Total	103,081.0	114,076.3	106,224.8	106,587.4
Depreciation and Amortization	7,469.5	7,477.2	7,469.5	7,469.5
Taxes Other Than Income	2,871.4	3,098.4	3,098.4	3,098.4
Calif. Franchise Tax	(114.5)	1.0	(420.5)	864.4
Federal Income Tax	(693.8)	3.0	(2,116.5)	1,917.2
Total Expense	112,613.6	124,655.9	114,255.7	119,936.9
Net Operating Revenues	7,547.1	(4,495.2)	5,905.0	14,862.5
Rate Base	140,041.5	140,906.0	140,345.1	140,345.1
Rate of Return	5.39%	(3.19)%	4.21%	10.59%

(Red Figure)

Staff: Exhibit 81
Co.: Exhibit 86, Revised 12-20-78

TABLE IV

San Diego Gas & Electric Company
Steam Department

RESULTS OF OPERATIONS

Test Year 1979

Item	At August 28, 1978 Rates			
	Staff	Company	Adopted	Authorized
	(A)	(B)	(C)	(D)
	(Dollars in Thousands)			
Revenues	$163.4	$163.4	$163.4	$363.0
Expenses				
Production	107.8	110.9	107.8	107.8
Distribution	64.8	64.8	64.8	64.8
Customer Accounts	1.4	1.4	1.4	1.4
A&G	46.4	49.0	43.5	47.6
Total	220.4	226.1	217.5	221.6
Wage Adjustment	(8.1)	-	-	-
Total	212.3	226.1	217.5	221.6
Depreciation and Amortization	36.4	36.4	36.4	36.4
Taxes Other Than Income	21.9	22.4	21.9	21.9
California Franchise Tax	(9.7)	-	(10.2)	7.4
Federal Income Tax	(46.5)	-	(48.7)	33.2
Total Expenses	214.4	284.9	216.9	320.5
Net Operating Revenues	(51.0)	(121.5)	(53.5)	42.5
Rate Base	402.4	423.0	401.8	401.8
Rate of Return	(12.67)%	(28.72)%	(13.32)%	10.58%

(Red Figure)

Staff: Exhibit 81
Co.: Exhibit 86, Revised 12-20-78

VII. RESULTS OF OPERATIONS - ELECTRIC DEPARTMENT

A. REVENUES

Revised Exhibit 86 indicates that staff and SDG&E are in agreement on test year 1979 revenues at present rates for the Electric Department of $208,243,800. These revenue figures reflect the impact of last year's rate reductions following Proposition 13 and exclude all revenues related to ECAC.

B. OPERATING EXPENSES

Production Expense

The staff and SDG&E differ in their estimates of test year 1979 production expenses by $5,841,900. The major area of differences are discussed in the following paragraphs.

Account 500 - Air Pollution Control Study

SDG&E's estimate was based on a five-year amortization of total anticipated expenditures on this study necessary to meet the requirements of the Clean Air Act. The staff based its estimate on a five-year amortization of amounts actually expended for this study. SDG&E contends that amortization of expenditures incurred beyond the test year is proper, especially when such expenditures are mandated by legislative or regulatory authorities. We will adopt the staff estimate modified to include amortization of the estimated 1979 expenditures of $400,000 for this study, or a test year estimate of $225,100 for this expense.

Account 505 - Operation Electric Expenses

The chief area of difference in this account was for operator training expenses. SDG&E's estimate was developed by trending the whole account, whereas the staff trended the applicable subaccount and made adjustments where necessary to reflect changed conditions. We will adopt the staff estimate of $1,956,400 as reasonable.

Account 505 - Water Environmental Amortization

Consistent with our treatment of Air Pollution Control Amortization, we will adopt the staff estimate for this subaccount which allows amortization of estimated costs to be incurred in the test year.

Account 507 - Rents, Encina 5 Lease Payment

Staff and SDG&E differ as to this expense category on the treatment of the interim rent in developing the net gain on sale of Encina 5. SDG&E argues that since the sale was completed on August 24, 1978, AFDC had ceased to be capitalized and that it had started to incur interim rent as the carrying cost of the plant. SDG&E reduced the gain on sale by the amount of $1.3 million to reflect interim rent for the balance of the third quarter of 1978. The staff disagrees with SDG&E's treatment of interim rent, as provision for interim rent was made in D.88697. We agree with the staff that no deduction for interim rent should be made in calculating the gain on the Encina 5

sale. We will adopt a $9,401,000 figure as the reasonable rent allowance for Encina 5.

In connection with this transaction, the staff further recommended that the unamortized gain relating to the Encina 5 sale be used as a rate base deduction. We will not adopt the staff's recommendation in this particular situation, as we believe SDG&E's coverage problems are troublesome enough considering disallowances of certain Sundesert expenditures, and the adopted nonrate base treatment of Sundesert nonsite expenditures. This treatment will share some of the benefits of low cost financing obtained by the Encina 5 sale leaseback transaction with the shareholders.

Account 510 - Maintenance Supervision and Engineering

Consistent with our adoption of the staff's estimates for Account 505 for training expenses, we will also adopt the staff's estimates for Account 510 which treats maintenance training expenses in a similar manner to Account 505.

Account 511 - Maintenance of Structures

SDG&E based its estimates for this account on a trend of dollars of maintenance expense per barrel of storage capacity. SDG&E claims that this methodology has the effect of leveling estimated expenses for 1979. The staff was critical of SDG&E's methodology on the ground that only 40 percent of the expenses related to maintenance of oil storage facilities and the remaining 60 percent to maintenance of other structures.

The staff's estimate was based on 1977 level of expenses for this account escalated to include material cost inflation and labor cost increases. While we do not agree with SDG&E's methodology, we are also of the opinion that the staff's figures are deficient in that they include no allowance for Encina 5 or the waste water treatment plant, nor do they properly reflect the increased emphasis being placed on SDG&E's heat rate improvement program. We will adopt, as reasonable, the average of staff's and SDG&E's estimates, or $1,697,600 for our test year estimate for Account 511.

Nuclear Power Production Expenses

The staff's estimate for this group of accounts of $3,103,300 is $83,600 lower than SDG&E's estimate of $3,186,900 due to the elimination of a 7 percent wage increase for test year 1979 included in these accounts. SDG&E's figures are based on 20 percent of the operating expenses of San Onofre Nuclear Generating Station and based on Edison's estimates in its rate increase Application No. 57607. Since we have included the 7 percent wage increase in 1979 expenses for Edison in D.89711, we will adopt SDG&E's estimates for this expense category for test year 1979 as a reasonable test year estimate.

Gas Turbine and Other Power Supply Expenses

The chief area of difference between the staff and SDG&E is in Account 549 (Miscellaneous Expenses) and Account 553 (Maintenance of Generating Equipment) in which the staff estimates are lower by $32,100 and $305,900, respectively. Staff and SDG&E differ as to the number of major and minor overhauls estimated for the test year. SDG&E based its estimate on use of a five-year trend with scheduling adjustments for the number of yearly overhauls, based on one overhaul for each 8,000 hours of anticipated operation per generating unit. The staff averaged the number of overhauls for the, as expected, year 1979 with the number estimated for the 1979 test year by SDG&E in developing its test year estimate. We agree with the staff that SDG&E's method tends to overstate overhaul expenses for the test year; on the other hand, we find that the staff estimate failed to sufficiently consider increased overhaul expenses due to new facilities. We will increase the staff estimates by $10,000 in Account 549, Miscellaneous Expenses, and by $100,000 in Account 553, Maintenance of Generating Equipment.

The difference in Account 549.0 of $160,000 relates to the South Bay Combustion Turbine Amortization. SDG&E included this amount

as a part of gas turbine expenses, whereas the staff included the amount in the depreciation and amortization category. We will adopt the staff's treatment and adopt the staff's estimate for this account.

Non-Energy Cost Adjustment Clause
(ECAC) Undistributed Fuel Expenses

The staff made adjustments to these accounts to eliminate the cost of fuel for sales to DWR in excess of SDG&E's purchases from DWR. SDG&E included these costs in ECAC Application No. 58263, as well as in this proceeding, to make certain it will recover these costs. Decision No. __________ in Application No. 58263 has resolved the issue as to the appropriate ratemaking forum for recovery of fuel costs relating to excess DWR sales by refusing to authorize SDG&E to amend its ECAC tariff to enable recovery of such costs under an ECAC filing. We will, therefore, include such costs for recovery in base rates. The only estimate in this record for test year 1979 is SDG&E's estimate of $4.2 million based upon estimates provided by DWR. None of the parties to the proceeding challenged the reasonableness of this estimate. We will include such estimate in our adopted figure of $8,590,900 for non-ECAC fuel expenses.

Transmission Expenses

Staff's estimates for Account 561 (Load Dispatching) and Account 562 (Station Expenses) were lower than SDG&E's estimates by $56,400 and $44,000, respectively. These differences are due to differences in estimating methodology. SDG&E trended these accounts for the years 1966 through 1975 and extrapolated this data to obtain

its base value for 1977 and from this figure made its estimates for 1978 and 1979. SDG&E argues that this method eliminates the problem of 1976 data which was considered nontypical because of the substantial reduction in force which took place toward the end of 1975. The staff used recorded data from 1973 to 1977 and after adjustments for unusual items developed its estimates. The staff contends that inclusion of the more recent data makes the staff's estimates more reflective of the trend of SDG&E's expenses in the transmission and distribution expense categories. We will adopt the staff's estimates for Accounts 561 and 562 for our test year. The staff and SDG&E agreed on a $2,133,200 estimate for Account 565 (Transmission of Electricity by Others), which include $169,111 for wheeling charges.

Account 570 - Station Equipment and
Account 571 - Overhead Lines

Staff's estimates for these accounts were $143,100 and $145,400 less than SDG&E's estimates. We believe that the staff's

methodology produces a more reasonable estimate of expenses for these two accounts for test year 1979.

Distribution Expenses

Account 583 - Operation Overhead Line Expenses

The staff's estimate for this account of $868,100 is $40,500 lower than SDG&E's estimate. The staff contends that there is no indication that SDG&E considered the increase in underground customers and decrease in growth rate in overhead customers in making its estimate. SDG&E argues that such trend was considered by its use of a 10-year trend study. Based on the record, we are not convinced SDG&E fully considered the increase in underground customers and we will adopt the staff estimate as reasonable for this expense category.

Account 587 - Customer Installation Expenses

The staff made an adjustment reducing SDG&E's estimate by $122,600. The staff contends that SDG&E's estimate did not adequately reflect the improvements in customer investigations and adjustment procedures. We do not agree with the staff's or SDG&E's estimates and will use a per customer cost estimate of $1.65 instead of the $1.60 staff figure in developing our adopted expense of $1,367,300 for test year 1979.

Account 588 - Miscellaneous Distribution Expenses

The difference between the staff's estimate and SDG&E's estimate for this account of $128,700 is primarily due to the disallowance by the staff of $85,000 included in SDG&E's estimate for additional efforts in the existing manual mapping and records service expense category. SDG&E has failed to convince us that this additional allowance is justified. We will adopt the staff estimate of $994,300 for this account as reasonable.

Account 593 - Maintenance of Overhead Lines

The staff's estimate for this account of $4,012,900 is $740,700 less than SDG&E's estimate. The difference between the two estimates is mainly due to the methodology used. The staff contends that its approach more properly reflects the decrease in growth rate for overhead customers, and the increasing growth rate for underground customers. SDG&E argues that the staff methodology

ignores the effect of the 1975 layoffs resulting in the deferral of maintenance. We do not agree with either estimate as reflective of anticipated test year conditions and adopt, as reasonable, an average of the estimates, or $4,384,000, for this expense category.

Account 593 - Overhead Lines Preventive Maintenance Program

The staff's estimate for this program of $36,000 is $54,000 lower than SDG&E's estimate of $90,000. The staff's estimate is based on the amortization of overhead line preventive maintenance study over a five-year period, whereas SDG&E included the estimated expenditures for the study in 1979 as the test year expense. We will adopt the staff estimate as our adopted estimate, as this study will provide future expense savings and should be amortized.

Account 594 - Maintenance Underground Lines

The staff's estimate for this expense category was $655,300 less than SDG&E's estimate to arrive at a test year estimate that is reflective of expected conditions. We will treat this account similarly to our treatment of Account 593 and average the two estimates to arrive at an adopted expense of $1,839,500 for this account.

Account 594 - Underground Line Preventive Maintenance

The staff adjusted SDG&E's estimate for this program from $916,000 down to $213,000. The staff amortized the estimated startup cost of the program of $349,000 over a five-year period and further recommended that only 20 percent of what SDG&E has requested over and above the startup costs be authorized. The staff argues that implementing a preventive maintenance program of the magnitude proposed by SDG&E is unwarranted considering the past record of declining cost per customer for the maintenance of underground lines. SDG&E argues that the declining cost was largely due to the staff cutback in 1975 and that a 20 percent allowance would reduce the effectiveness of SDG&E's program. We will adopt the staff's estimate for this account as the reasonable allowance for this program. If SDG&E can show the cost-effectiveness of this program, we will reconsider this matter in a subsequent general rate case.

Customer Accounts Expense - Electric, Gas, and Steam Departments

SDG&E's estimate for this expense category of $14,802,700 exceeds the staff's estimate by $1,012,300. Of this total, $427,100 relates to an amount included by SDG&E for uncollectibles relating to ECAC revenues which would not be recoverable if the uncollectible and franchise allowance included in ECAC rates is limited to 1 percent. The Commission has resolved this issue in D. in Application No. 58263 by allowing full recovery of uncollectibles and franchise fees relating to such revenues; therefore, we will adopt the staff's estimate for Account 904 (Uncollectible Accounts). The other differences relate basically to differences in estimating methodology. We are of the opinion that SDG&E's estimates are more reliable than those of the staff and will adopt SDG&E's estimates with the exception of Electric Department uncollectibles, and after reducing Electric and Gas Departments estimates by $6,000 and $3,600 to reflect estimated savings from the installation of a new telephone system (System for Administrative Response). The adopted Customer Accounts Expenses by departments are:

Electric Department	$ 9,002,500
Gas Department	5,362,100
Steam Department	1,400
Total	$14,366,000

Marketing Expense - Electric and Gas Departments

The staff's estimate for this expense category is $8,679,300 less than SDG&E's estimate. The difference is due to the staff's disallowance of all conservation expenses (totaling some $8,807,000) for implementation of D.88551, in Case No. 10032, and the transfer of $127,700 relating to the School Energy Education Program from Administrative and General (A&G) Expenses to Marketing Expenses. As discussed in Section X, Conservation, we will adopt the staff estimate for test year 1979 marketing expenses, adjusted to include the $846,985

authorized to be funded by D.90308 in Case No. 10032 for the insulation incentive program. Consistent with Finding 23 in D.90308 we will require that funds authorized for the insulation incentive program which are not expended for this program will be subject to refund upon termination or completion of the program. The adopted expenses for the two departments are:

Electric Department	$1,960,800
Gas Department	$2,013,400

A&G Expenses - Electric, Gas, and Steam Departments

Staff's estimates for this expense category are $27,006,900 for the Electric Department, $10,320,100 for the Gas Department, and $46,400 for the Steam Department and are lower than SDG&E's estimates by $5,471,000, $498,800, and $2,600, respectively.

Account 920 - A&G Salaries
Account 921 - Office Supplies and Expenses

The chief difference between staff's and SDG&E's estimates is the disallowance by the staff of certain public relations and institutional advertising expenditures. The staff disallowed all public relations expenditures which failed to meet the criteria set forth by the Commission in D.84902, Pacific Gas and Electric Company (PG&E) and reaffirmed in D.86794, Edison. Similarly, all institutional advertising expenses were disallowed by the staff, again based on Commission policy established in the prior mentioned decisions. SDG&E disagreed with staff and presented witness Richter to testify on Exhibit 10, Report on Public Relations, and supports its public relations programs as meeting the criteria set forth in D.84902. Staff was critical of various public relations programs because they were not explicitly conservation oriented, finding the material more promotional than conservation oriented. SDG&E solicited requests for speakers, and that conservation expenditure should be accounted for separately and not in A&G accounts. While we agree with SDG&E that interpretation of the language contained in D.86794 and D.84902 involves the exercise of judgment, SDG&E should have been more cautious in light of the language in those decisions relating to general conservation advertising and the need to account

for conservation expenses separately. We believe the staff's estimates are more reasonable and will adopt the staff's figures for Accounts 920 and 921, adjusted to include the salary of the new executive vice president. The increases to the various departments are as follows:

Electric Department	$72,620
Gas Department	$27,240
Steam Department	$ 140

Account 926 - Employee Pensions and Benefits

The staff's estimates for this expense category were lower than SDG&E's estimates by $564,900 for the Electric Department, $245,300 for the Gas Department, and $1,700 for the Steam Department. The two main issues relating to this account were the appropriate accrual rate to be used in making the 1979 test year estimate of pension expenses and the use of 1979-80 fiscal year estimate for test year 1979 as opposed to the staff estimate based on the usage of one-half of the 1978-79 and 1979-80 fiscal year estimates as the 1979 test year estimate. The ALJ permitted SDG&E to file a late-filed Exhibit 47, the Johnson and Higgins actuarial report, as of June 30, 1978. SDG&E filed with such report as Table I a revised estimate of pension plan costs, which was objected to by the staff. We agree with the staff that such new estimate is inadmissible under the Regulatory Lag Plan and will not admit Table I attached to Exhibit 47 into evidence.

Staff witnesses Rayburn and Goalwin supported their estimate of a 12.73 percent accrual rate and SDG&E's witness Ault supported the use of a 13.08 percent accrual rate as being reasonable. Based on the testimony and the fact that late-filed Exhibit 47 shows an accrual rate of 13.36 percent as of July 1, 1978, we will adopt SDG&E's accrual rate estimate of 13.08 percent as being the reasonable test year accrual rate.

On the issue of the proper accrual period to be used in arriving at the test year estimate, SDG&E argues that its methodology was adopted by the Commission in its decision in Applications Nos. 55627, 55628, and 55629. The staff argues that annualization in that proceeding was reasonable as the test year was half over when the decision was issued. We are of the opinion that test year annualization is also reasonable under the circumstances for this proceeding and will adopt SDG&E's estimate modified to reflect our adoption of staff's wage estimates which are lower than SDG&E's wage estimates.

Another area of difference between SDG&E and staff for this account related to savings plan contribution costs. We are of the opinion that SDG&E's estimate for this expense category has been justified.

Account 927 - Franchise Requirements

The chief difference between SDG&E's and staff's estimates for this account is the inclusion of franchise fees not recovered through ECAC revenues. Consistent with the treatment given in D. to allow recovery of ECAC revenue related franchise fees and uncollectible expenses in ECAC proceedings, we will disallow franchise fees relating to ECAC revenues and will adopt the staff estimate for Account 927 as our reasonable test year estimate.

Account 930 - Miscellaneous General Expenses

Staff's estimates for this account were less than SDG&E's estimates for the respective departments as follows:

Electric Department	$1,825,400
Gas Department	$ 183,000
Steam Department	$ 700

The chief areas of differences are discussed in the paragraphs that follow.

R&D

Electric Load Management Project

The staff's estimate for this project was $177,100 less than SDG&E's estimate. The staff based its estimate on expected expenditures

for the period 1978 through 1981 and divided such total by four whereas SDG&E based its estimate on actual expected expenditures for 1979. SDG&E objects to the staff methodology as being inconsistent with the estimating methodology used in other parts of the staff study. After a review of the record, we are of this opinion that the staff methodology produces a reasonable estimate and will adopt the staff estimate for this program.

Research and Development

The staff was in basic agreement with the revised SDG&E R&D program except for the blanket budget of $664,000 requested by SDG&E. SDG&E, in its revised budget for 1979, excluded various programs included in its original estimates, added or revised estimates for certain programs, and requested the inclusion of a blanket allotment for R&D. The net effect of all these changes in the revised budget was no dollar change in the 1979 test year estimate for R&D. The staff argues that SDG&E's request for a blanket is unprecedented and an attempt to obtain funds with no plans to use such funds. SDG&E argues that R&D endeavors change frequently as shown by SDG&E's need to revise its R&D budget since the time of filing. We agree in principle that it is impossible to require SDG&E to arrive at an R&D budget without any contingencies. In this period of energy shortages and rapidly changing economic, political, and social events, we are of the opinion that a blanket budget of $664,000 is not unreasonable to enable SDG&E to adopt its R&D programs to meet the needs of SDG&E and its ratepayers. With the cancellation of the Heber Geothermal Project, it is apparent that additional R&D funds are necessary if geothermal energy is going to become a substantial energy source for SDG&E in the 1980's.

We cannot authorize a blanket test year expenditure which is not directed at a specific area of activity. However, we will adopt SDG&E's estimate on the condition that it is used for R&D in the areas of geothermal, solar, and bio-mass development, or energy conservation.

In Decision No. 86595 we outlined our guidelines for staff evaluation of the reasonableness of research and development expenses for the Southern California Gas Company. These guidelines were intended to cause the utility to consider carefully the needs and purposes of proposed research and development expenditures and to allow our staff sufficient direction for analyzing proposed projects and expenses. We expect that SDG&E will also adhere to these guidelines.

We believe that SDG&E's R&D expenditures past, present and future must be evaluated on a project-by-project basis. Therefore, we expect the staff in SDG&E's next general rate proceeding to verify the reasonableness of differences between recorded R&D expenditures and those which we will adopt in this decision, including the $664,000 blanket authorization. Furthermore, we expect the staff to make recommendations on the propriety of SDG&E's total R&D effort and to recommend ratemaking adjustments if the $664,000 blanket is not ✓ used as described herein or if warranted by the staff's evaluation of R&D expenditures.

Mexican Power Project

SDG&E included $1 million in Account 930 to amortize anticipated expenditures for the Mexican Power Project of approximately $5 million. The staff recommends that the rate-making treatment for

these expenditures be deferred until the project has been completed. We concur with the staff recommendation; however, we are of the opinion that SDG&E should be permitted to accrue AFDC on such deferred expenditures which will be capitalized should the project be successful to enable SDG&E to recover the financing costs on the Mexican Power Project.

Institutional Advertising

Although SDG&E is aware of the Commission's policy relating to the ratemaking treatment for institutional advertising, it is requesting the inclusion of $382,700 for such expenditures in Account 930. SDG&E's witness Hamrick justifies the inclusion of such amount as he believes that the utility has responsibility as a societal institution holding public trust to provide factual information to its customers. He considers it critical that customers understand energy supply pricing, peak load problems, environmental considerations, the National Energy Conservation Policy Act (Act), utility financing, and the general atmosphere in which SDG&E conducts its business, especially under the energy situation that has existed for the past several years and exists today. The staff, on the other hand, contends that the advertising described by witness Hamrick is for corporate image building and clearly not an expense to be borne by ratepayers. We are not moved by SDG&E's arguments and will adhere to our policy of disallowing institutional advertising of $382,700 included in Account 930. (Electric, $277,900; Gas, $104,300; and Steam, $500.)

All Other A&G Expenses

We will adopt the staff estimates for all other A&G expense categories modified where necessary to reflect adopted adjustments in other accounts. The differences between staff and SDG&E are relatively minor.

C. WAGE ADJUSTMENT AND PRODUCTIVITY WAGE ADJUSTMENT

The staff Results of Operations Study included a wage adjustment to eliminate a 7 percent wage increase included in its test

year estimates to be comparable with SDG&E's estimates. The staff eliminated the increase, as such amounts were not firmly contracted at the conclusion of the hearings. The ALJ requested SDG&E to advise the Commission as to any wage increase offer to the union and the outcome of such negotiations. On February 12, 1979, SDG&E, by letter, advised this Commission that a 7 percent wage increase was offered to its union employees effective March 1, 1979. Since such offer is within the voluntary wage and price standards, and since it is highly unlikely that the wage settlement will be any less than that offered by SDG&E, we will disallow the staff wage adjustments and include the 7 percent wage increase in our test year 1979 estimates. Furthermore, since this decision will become effective some time after the effective date of the labor contract date (March 1, 1979), we will adopt as reasonable the annualization of the 1979 wage levels for our test year estimates.

The staff also recommended a productivity adjustment of 7 percent be made to management salaries. In making this adjustment, the staff imputes an increase in productivity sufficient to offset the estimated wage increase for management personnel (employees with salaries of $25,000 or more). SDG&E argues that the staff proposal was not based on any study to determine whether such an increase in productivity was feasible or measurable, that it may result in double-counting, and that there was no concrete evidence in this record that the disallowance would produce some benefit or was due to some malfeasance on the part of SDG&E. The staff witness further indicated that this is the first time a productivity adjustment was proposed in an SDG&E rate case and that such adjustment had not been adopted by the Commission in the recent PG&E rate decision (D.89316). While we agree in principle with the staff that utilities should be encouraged to increase productivity, we are of the opinion that the staff study in this area is not sufficiently developed to support adoption of the staff recommendation in this proceeding.

D. MANAGEMENT AUDIT

Consistent with its position in recent major utility general rate cases, the staff recommends that SDG&E undergo a management and operational audit by an outside consultant. SDG&E supports the concept of such an audit and believes that it should be a mutual undertaking between it and the Commission. SDG&E further believes that it should be allowed relevant input in establishing the audit guidelines and objectives, as well as in the selection of a specific consultant. It also believes that an interim report should be issued by the consultant for comment by SDG&E and staff before it is presented to the Commission as a final report. SDG&E believes that public hearings on the report are inappropriate due to the confidentiality of the information which it will contain, although it expects that inquiry will be made in subsequent rate cases concerning its evaluation of the recommendations contained in such report. It further believes that should such audit be required by the Commission, reasonable costs incurred on such audit must be recoverable in rates.

In D.89316 we stated:

> "If we are to be more than a rubber stamp, translating cost increases into rate increases, we must scrutinize and exercise our investigatory ingenuity to insure utilities operate productively and efficiently. . . . We believe, however, it is necessary that the company precisely examine its efficiency and demonstrate to us that it is attempting to improve its efficiency and reduce costs. A management and operational audit by an independent consultant may accomplish this result." (Mimeo. p. 48.)

While we did not require Southern California Gas Company to undergo such an audit in D.89710, we have ordered both PG&E and Edison to undertake a management audit. We will also require that SDG&E be subject to a management audit as we believe it is critical that SDG&E, with its growth and financing problems, operate at maximum efficiency in order to be able to provide good service at reasonable rates to its customers.

In connection with the reservations expressed by SDG&E as to whether it would be permitted to provide its input on the scope and objectives of such audit, we will assure SDG&E that we consider such an audit to be a mutual undertaking by both SDG&E and the staff. In ordering the staff to devise specific areas of inquiry and recommend those to the Commission for approval before the audit is contracted for and commenced, we expect SDG&E to participate fully in such recommendation. We expect similar SDG&E input in the areas of audit guidelines and objectives as well as the selection of consultants. The only real area of difference we have with SDG&E is their comment that public hearings on the report are inappropriate due to the confidentiality of the information which it will contain. We believe that the necessity of maintaining confidentiality is extremely limited and will rule so if we so agree with SDG&E. We also agree that reasonable costs for conducting a management audit are recoverable in rates as we believe such audit will be beneficial to the ratepayers.

E. DEPRECIATION AND AMORTIZATION

The staff and SDG&E agree in their estimates for this expense category for the Steam Department and are in substantial agreement for the Gas Department. We will adopt the staff estimates as our test year estimates for this expense category for steam and gas. The staff and SDG&E differ in their estimates as to depreciation and amortization expenses for the Electric Department. The difference is primarily due to the recommended disallowance of certain Sundesert nonsite expenditures to be amortized. For reasons contained in our discussion on Sundesert expenditures, our adopted depreciation and amortization figure will differ from both staff's and SDG&E's estimates. We will adopt the staff depreciation and amortization expense estimate modified by our adopted treatment of Sundesert nonsite costs with amortization over a five-year period.

The Finance Division's witness Hughes recommended that in arriving at a provision for Nuclear Decommissioning Expense related to

San Onofre Unit No. 1, the future tax benefits relating to the deduction be considered. His testimony basically repeated similar testimony in Application No. 57602 involving Edison and its 80 percent ownership of San Onofre Unit No. 1. The staff depreciation witness O'Donnell did not adopt Mr. Hughes' recommendation in arriving at his estimate. City opposed burdening current ratepayers with any decommissioning cost because it was speculative as to amount, time, and regulations. This issue was thoroughly discussed in our D.89711 of Edison (Mimeo. pp. 76-77). Consistent with our adopted treatment in D.89711, we will not adopt Mr. Hughes' recommended treatment, but will adopt the staff depreciation witness O'Donnell's estimate for the purpose of this proceeding. We do agree with the staff accounting recommendation that decommissioning costs for each nuclear plant be accounted for on a unit basis and will adopt such recommendation.

F. TAXES OTHER THAN INCOME

Staff and SDG&E differ in their estimates for this expense category for test year 1979. The major area of difference was in the estimate of ad valorem taxes. Since SDG&E's Exhibit 68 was based on the actual 1978-79 post-Proposition No. 13 tax rate, the staff does not oppose the adoption of SDG&E's estimates for the Gas and Steam Departments. The larger difference for the Electric Department is due to the staff's nonrate base treatment of Sundesert site costs. Since we have included Sundesert site costs in rate base in Section V, we will adopt SDG&E's estimate for ad valorem taxes. We will similarly adopt SDG&E's estimate for payroll taxes since there is little difference between the two estimates.

G. INCOME TAXES

General

Staff Financial Examiner Humphrey set forth in Exhibits 23 and 24 proposals for income tax computation which are substantially different from those currently used in computing income taxes for

ratemaking purposes. These proposals were also made in Phase II of PG&E's Applications Nos. 55509 and 55510. Considering the complexity of the issue and the effect on other utilities, as well as on other interested parties, the Commission opened OII No. 24 to fully explore the issue of the appropriate calculation of income taxes for ratemaking purposes. Mr. Humphrey testified that he introduced his exhibit in this proceeding to provide necessary information to implement his recommended income tax calculation methodology should the Commission issue a decision in OII No. 24 adopting his methodology prior to the issuance of this decision.

Investment Tax Credit (ITC)

By D. 89048, dated July 27, 1978, the Commission granted limited rehearing as to the proper treatment of ITC in the computation of income taxes in D.55627, D.55628, and D.55629 to be consolidated with the hearings in Application No. 58067. In D.89857, in our Interim Order on Motion for Partial General Rate Increase (Mimeo. p. 14), we discussed our reasons for limiting ITC to 50 percent of the tax liability plus the ratable flow-through of the excess ITC generated by the 1975 Tax Reduction Act. An Internal Revenue Service ruling has not been received as of this date; accordingly, we will compute income tax expense in a manner similar to D.89857. Income tax expense computed with the 50 percent limitation on ITC will be made subject to refund pending final resolution of this issue.

There was substantial testimony and disagreement between staff and SDG&E as to the tax treatment of abandonment costs, the gain from the Encina 5 transaction, and net after tax treatment of R&D plant. The staff witness testified that the method used by the staff followed the traditional methodology to permit SDG&E to recover one dollar in revenues for each dollar of abandonment cost authorized by the Commission to be recovered. The staff methodology passes through to the ratepayers the tax benefits of any write-off. It is possible to obtain the same end result by amortizing a gross figure and at the same time for ratemaking purposes amortize the tax deductions

over the same period of the amortization or use a net of tax figure and amortize such net amount. Where the unamortized balance is included in rate base, such as R&D plant, then it is necessary that a net of tax figure be used with no deduction taken for calculation of income taxes. As indicated, we will calculate income taxes for the purpose of this proceeding by using the traditional ratemaking methodology and use the reduced corporate tax rate of 46 percent provided for in the Revenue Act of 1978.

VIII. RESULTS OF OPERATIONS - GAS DEPARTMENT

A. REVENUES

Revised Exhibit 86 indicates that the staff and SDG&E are in agreement as to estimated gas revenues for test year 1979 of $120,160,700. Such revenues reflect the effect of Proposition No. 13 and provide for no change in Purchased Gas Adjustment (PGA) revenues.

B. OPERATING EXPENSES

Gas Supply Expenses

SDG&E adopted the staff's gas supply expense estimate as the proper test year estimate for 1979. With the adoption of the Supply Adjustment Mechanism (SAM), effective October 15, 1978, any discrepancy between actual and adopted supply or sales levels will be remedied through SAM.

Gas Storage Expenses

The staff's estimate for this expense category is $223,400 lower than SDG&E's estimate. Approximately half of the difference is due to trending methodology differences and the other half is due to the staff's rejection of test year allowances for expenses to be incurred in the future. We are of the opinion that the staff's ratemaking treatment of these major expenditures recurring every 5 or 10 years penalizes SDG&E in that SDG&E is required to make this initial expenditure and is permitted to recover such expenditures over a period of time without consideration of the time value of money.

We are of the opinion that both staff's and SDG&E's estimates are not reasonable; therefore, we will adopt an average of the two estimates as the reasonable test year estimate for this account.

Gas Transmission Expenses

Although the staff's estimate for this account was only $33,000 less than the estimate of SDG&E's witness, considerable time was expended in challenging staff witness' methodology in making estimates for this and other accounts. We do not agree that the staff witness purposely attempted to slant the estimates by using the method which would produce the lowest result. However, it would appear that much of the problem could have been avoided had the staff witness indicated on his work papers his reason for adopting different methodologies. We do not agree with SDG&E's or staff's estimates and will adopt an average of the two estimates or $843,600 as our test year estimate for this expense category.

Gas Distribution Expenses

The staff's estimate for this expense category was $871,000 less than SDG&E's estimate. Aside from differences in estimating methodology, a substantial portion of the difference related to different positions taken on SDG&E's meter replacement program relating to the Sprague 1959s, 1960s, 1961s, 1962s, and 1963s families. SDG&E's witness Morse testified that SDG&E has made the decision to commence an increased meter removal and repair program in 1979 aimed at removing and repairing all 1959 Sprague type meters. Considering the larger number of Sprague 1960 meters expected to be removed in 1980, it is reasonable to expect that the 1980 meter removal and replacement program will be at least equivalent to 1979's, if not significantly greater. For our adopted test year estimate, we will adopt as reasonable the $336,700 requested by SDG&E and an average of the staff's and

SDG&E's estimates for the other accounts in this expense category. The adopted estimate for gas distribution expenses for test year 1979 is $8,855,900.

Other Expense Items

All other expense categories have been previously discussed in our Electric Department discussions.

IX. RESULTS OF OPERATIONS - STEAM DEPARTMENT

Staff and SDG&E agree on a test year 1979 revenue estimate of $163,400. The only areas of difference on operating expenses are in production expenses and A&G expenses. As shown in our Electric Department discussion, we have accepted certain staff estimates and certain SDG&E estimates. We will adopt as reasonable $48,200 as Steam Department's A&G estimate. In all other respects, we will adopt the staff estimates and/or methodology as our reasonable estimate for test year 1979.

X. CONSERVATION

General

In D.84902, dated September 16, 1975, in PG&E's Applications Nos. 54279, 54280, and 54281, we identified conservation as the most important task facing the utilities today and stated our intention to make the vigor, imagination, and effectiveness of a utility's conservation efforts a key question in future rate proceedings and decisions on supply authorizations.

SDG&E's vice-president - Marketing, John E. Hamrick, testified for SDG&E; and engineers Farzaneh and Weil and economist Enderby testified on behalf of the Commission staff regarding SDG&E's conservation programs. Mr. Farzaneh evaluated the effectiveness of SDG&E's conservation programs in covering all available conservation markets, assessed individual programs, and testified on the effectiveness of SDG&E's overall conservation effort. Mr. Weil analyzed the costs and benefits of conservation programs in terms of the participating

customer, society at large, the nonparticipating ratepayer, and the utility stockholder. Mr. Enderby analyzed the conservation measurement programs of SDG&E and recommended ways to improve measurement techniques.

SDG&E's Position

The staff and SDG&E are in basic agreement as to the reasonable level of marketing and conservation expenditures for test year 1979 except for an amount of $8,807,000 requested by SDG&E for implementing D.88551, Case No. 10032, the Home Insulation Assistance and Financing Program. The staff recommends that since the incentive aspect of D.88551 was suspended pending rehearing (D.88928) and the financing program has been stayed (D.89093), subject to the action by the California Supreme Court on pending Petitions for Review (S.F. No. 23869), no amount for implementation of D.88551 should be included in this proceeding until the matter is finally resolved.

Although SDG&E's witness Hamrick testified initially that $8.8 million was the reasonable estimate of the cost to implement D.88551 and that such costs should be recognized in this proceeding, he did modify his testimony (transcript pp. 39, 40, and 41) to indicate that should a decision in Case No. 10032 be issued prior to this decision, that the Commission would take notice of such decision and allow rates which would enable SDG&E to implement such decision. He further testified that should Case No. 10032 not be resolved prior to the issuance of the decision in this proceeding that the Commission should establish some vehicle for providing rates necessary to implement the final order in Case No. 10032.

Mr. Hamrick testified as to SDG&E's 33 residential programs, totaling some $2,146,300 for test year 1979, and 6 commercial and industrial programs of $617,800 for test year 1979. SDG&E concurred with the staff that the conservation program should be expanded, but to do so required additional funds. SDG&E contends that it has

demonstrated vigor, imagination, and effectiveness in its conservation efforts; and, therefore, an increase in rate of return for its conservation efforts was warranted.

Staff's Position

Staff witness Enderby testified that SDG&E's econometric study is, in general, informative and comprehensive. The staff recommended that SDG&E should (a) continue to work closely with the other conservation units in developing new surveys and improving previous survey techniques; (b) consider developing a test program in residential audits organized along the same principles as the commercial/industrial audit program; (c) attempt to collect sales data on conservation devices from retail and wholesale dealers; and (d) exchange ideas and information about econometric, consumer services, and other measurement techniques with other utility staffs.

Although the staff had no objections with the estimate of $2,999,500 for test year 1979 for the basic conservation program exclusive of Case No. 10032 requirements, it did comment on various aspects of SDG&E's conservation program. Witness Farzaneh testified that SDG&E's overall conservation efforts in 1976 and 1977 were inadequate and that a major expansion of conservation goals and activities is warranted, and that SDG&E's electric conservation activities have been inadequate in that, of 33 residential programs, only 6 programs are designed specifically for electric savings. It recommended expansion of the conversion to fluorescent lamps program, discouragement of frost-free refrigerators and freezers, as opposed to automatic-defrost models, consideration of promoting ventilators, and other inexpensive devices as alternatives to air conditioning for new construction.

The staff witness was also critical of SDG&E's efforts in the industrial and commercial classes but notes that SDG&E plans to expand its efforts in this area. The staff was also critical of SDG&E's efforts in the Conservation Voltage Regulation (CVR) area and stated that its progress was slower than that of the other two major California electric utilities. The staff also criticized SDG&E's failure to set forth long-term goals for achieving energy conservation.

The staff withheld recommendation on a rate of return reduction. The staff bases its action on SDG&E's management statements indicating intent to improve its weak program elements and the increased conservation program shown in SDG&E's test year budget. The staff further recommends that SDG&E be directed to substantially expand its cost-effective conservation activities beyond the level which it has made commitments to achieve. The staff further testified that lack of program improvements will result in a staff recommendation for a downward rate of return adjustment in future proceedings.

Energy Commission's Position

Energy Commission's Statement of Position mailed on September 21, 1978, set forth its evaluation of SDG&E's conservation program. It agreed with the staff that SDG&E should (1) develop a more sophisticated evaluation and measurement program to identify and enhance the impact of the various conservation programs; (2) prepare and distribute a shopper's guide of electric and gas appliances sold in its service area as well as "best buy" list of most energy-efficient refrigerators and freezers; (3) develop a residential audits test program; (4) promote passive heating and cooling techniques as part of a builder information and incentive program to urge builders to exceed the state building standards; (5) begin report card billing, both to further energy conservation and for the provision for energy curtailment procedures; and (6) implement a school energy conservation education program. Energy Commission also supported SDG&E's position that the Intermittent Ignition Device Program be continued.

Energy Commission supported the conservation programs proposed by SDG&E in this application and urged this Commission to

authorize the funds necessary for their implementation. While taking no position on whether an upward conservation adjustment of SDG&E's rate of return was justified, it did state that SDG&E's conservation staff's performance was commendable, considering the limited funds available and that this fact should be considered by the Commission.

Discussion

Based on the record it is obvious that it is difficult to measure conservation due to commodity pricing. While SDG&E has attempted to develop measurement methodologies, much work in this area has to be done by SDG&E, the utilities in general, and the staff to develop more uniform measurement techniques and standards.

The staff was generally critical of SDG&E's conservation efforts in 1976 and 1977 with respect to programs that result in electric savings, both in residential and industrial/commercial sectors. While it recognized SDG&E's conservation staff's efforts, it was of the opinion that top management was generally not equally enthusiastic about promoting conservation.

SDG&E argues that the staff criticism of its electric conservation effort was due to the transfer of master meter customers from commercial to residential, thereby distorting the average usage per residential customer curve and giving a misleading indicator. SDG&E claims that it was one of the first major utilities in California to promote conservation; and since it had vigorously pursued conservation activities in the past, its recent record may not reflect as much improvement as those who may have started later.

SDG&E's own witness testified that it did not commence certain programs which all other major utilities in California implemented in 1976 and 1977, because SDG&E believed it could make better use of its limited conservation funds. Energy Commission, in its motion, commended SDG&E's conservation staff for its performance considering the limited funds available and even suggested that this Commission consider this fact in considering an increase in rate of return for its conservation effort.

We believe SDG&'Es conservation efforts for 1976 and 1977 could have been more aggressive, however we are encouraged by its proposed expansion of its conservation activities in 1978 and 1979. The staff's testimony indicates that SDG&E management has given its assurances that the weak elements of its programs will be improved in 1979. Based on the record in this proceeding, we do not believe an upward or downward adjustment in rate of return for conservation is warranted at this time. However, we expect SDG&E to demonstrate in its next general rate case that substantial improvements have been made in SDG&E's conservation programs and results. We will further require SDG&E to substantially expand its programs with emphasis on conservation of electrical energy especially in the residential and commercial sectors. We will include in our adopted test year figure for Marketing (conservation activities) an estimate of $2,999,500 to cover the basic conservation program, plus an additional $846,985 we estimate will be required under the residential insulation incentive program authorized in D.90308 in the rehearing of Case No. 10032. The $846,985 will provide for 26,460 $25 certificates and $7.01 for each certificate of inspection to implement a residential insulation incentive program.

We will also require SDG&E to modify its customer bills to include more information regarding customer usage to enable the customers to measure the effectiveness of their own individual conservation effort along the line set forth in Exhibit 25, Appendix C. Similarly, we will require SDG&E to revise its tariffs to require residential swimming pool owners to shift operating hours of the pumps and filters to off-peak hours. (Appendix A sets forth a sample tariff.)

In connection with Phase II of the CVR program, SDG&E is directed to identify specific projects for Phase II and indicate when work on Phase II will commence. Also in line with our action in D.89315 and D.89711 relating to PG&E and Edison, respectively, we will require SDG&E to revise its tariff to set forth the new ranges of customer voltage recommended by the CVR program (Appendix B). We also will require SDG&E to adopt the CVR implementation and reporting requirements set forth in Appendix C.

Insofar as compliance of SDG&E's conservation programs with the National Energy Conservation Policy Act (NECPA) of 1978 is concerned, there is clearly no question that all were either being implemented or planned well in advance of the adoption of NECPA on November 9, 1978, and therefore may continue into the future subject to continued authorization of this Commission as provided by Section 216 of Title II of NECPA.

NECPA requires each subject utility to develop a conservation program in compliance with a state plan (to be prepared with guidelines developed by The Department of Energy (DOE)). It may be a year or more before utility programs in compliance with the state plan are submitted. In the interim period the need to move forward with vigorous conservation activities remains. SDG&E should therefore continue to develop its programs, assuming that ongoing conservation programs will be allowed to continue, being aware of the possible limitations and additional mandate activities in NECPA. The Commission staff should be consulted to assist SDG&E in determining reasonable interim steps to be taken in complying with NECPA.

XI. RATE OF RETURN

The guidelines for determining the fair rate of return a utility is entitled to earn are set forth by the United States Supreme Court in its Bluefield Water Works and Improvement Co. and Hope Natural Gas Co. decisions, infra. In the first mentioned case, the Supreme Court said, "A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties; but has no constitutional right to profits such as realized or anticipated in highly profitable enterprises or speculative ventures." (Bluefield Water Works and Improvement Co. v West Virginia Public Service Commission (1923) 262

US 679, 692, 693; 67 L ed 1176). In the second case the Supreme Court expanded this definition and said, "That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and attract capital; ...the rate-making process...involves a balancing of the investor and the consumer interests; and...it is the result reached not the method employed which is controlling." (FPC v Hope Natural Gas Co. (1944) 320 US 591, 602, 603; 88 L ed 333, 345.)

Comprehensive showings on rate of return were presented by SDG&E's witness senior vice president and treasurer, Ralph L. Meyer; CAUS' witness Ross J. Cadenasso, a corporate financial consultant; and staff's rate of return witness, Ray Czahar.

SDG&E's Position

Mr. Meyer presented a comprehensive showing of the embedded cost of capital, the projected financing plan and resulting year-end capital structure, and the required return on common equity and the overall return necessary to attract the type and amount of capital necessary. Mr. Meyer testified that a gross revenue increase of $95.5 million, which correlates with a net operating income figure of $118 million was necessary to achieve the degree of financial health which he considered was appropriate for SDG&E. This would produce a 15 percent financial rate of return on common equity (the return on equity computed for financial statement purposes) and would require an 11.27 percent return on rate base and a 16.55 percent return on equity on a ratemaking basis.

Mr. Meyer emphasized that SDG&E is a high-growth company compared to other California electric utilities as shown by SDG&E's compound growth rate of 8.5 percent over the past 10 years compared with a 5.6 percent rate for Edison and 4.1 percent for PG&E. This high-growth rate has necessitated a high level of external financing during a period of least attractive market conditions. To compound

this problem, the high level of construction results in increased levels of noncash AFDC earnings in total earnings and results in low internal generation of cash. He further testified that if SDG&E's earnings are not sufficient, or are of poor quality, debt issues are restricted or more expensive and sales of common stock below book value must continue to be made to raise sufficient capital.

Mr. Meyer emphasizes that the rate of return to be authorized for SDG&E cannot be set in a vacuum. As an example, if the Encina 5 facilities are included in rate base, the necessary rate of return on rate base would drop to 10.38 percent which would produce a 15.24 percent return on ratemaking equity and a 15 percent financial return on equity.

In connection with the staff recommendation that Sundesert site-related costs and unamortized balance of nonsite-related costs not be included in rate base, witness Meyer points out that there is a direct correlation between the adopted rate base and the financial results that will flow from any given rate of return. He further added that to the extent the Commission targets certain financial criteria, such as times interest earned on internal generation of funds, it must not lose sight of the effect ratemaking rate base adjustments have on SDG&E's ability to achieve these targeted results.

Mr. Meyer used the comparable companies' earnings test in developing his recommended return on equity. This included a comparison of companies in other industries, as well as utilities, nationwide and in California. In order to compare relative financial strengths, he reasoned that the return on common equity must be expressed on a financial basis, since it is the common financial community yardstick for comparing relative financial strength.

Mr. Meyer's study showed that although SDG&E's earned returns on common equity were higher than the average of the 20 utilities, its pre-tax times interest coverage has been well below the industry

average and its price earnings ratio has been generally below the 20 company average. He explained that a reasonable explanation for this anomaly is that the percentage of AFDC profits and profits from interdepartmental gas sales represents a major portion of SDG&E's total earnings and that the investors perceive these unusual circumstances as additional risks requiring higher returns. The investor is also aware that SDG&E's low internal cash generation will require continued common stock sales at below book value thereby diluting the stockholders' equity.

Mr. Meyer also testified that SDG&E has issued 10.5 million shares of common stock at prices below book value from 1973 to 1977, representing almost half of all the common stock outstanding at year end 1977 and at an average of 79 percent of book value. During this period SDG&E's bond ratings have declined from Aa to Baa rating, the lowest rating for investment grade securities, by Moody's and a similar rating by Standard and Poor's. Mr. Meyer also testified that the debentures are rated at Ba and BB by Moody's and Standard and Poor's. These ratings compare with the AA bond ratings of PG&E and Edison. The lower bond ratings of SDG&E result in a higher interest cost for SDG&E issues with a differential of 67 basis points for AA bonds to 48 basis points for A bonds in March of 1978. Mr. Meyer also testified that lower rated securities indicate greater risk and that SDG&E's request for a 16.55 percent return on ratemaking equity is justified when PG&E and Edison, both AA rated utilities, are requesting a 15 percent return on common equity in their most current rate filings. (Application No. 57602, Edison; Applications Nos. 57284 and 57285, PG&E). Mr. Meyer added that the increases requested in this application, if granted and earned, would put SDG&E on the road to recovering the A and AA ratings it once had.

Mr. Meyer also testified that the Encina 5 sale leaseback transaction, which provided low-cost financing, added to the investment

risk of the stockholders. Although the preferred treatment would be to capitalize the lease and give it rate base treatment, it is precluded from doing this under its current debenture indenture. He recommends that in order to encourage innovative financing the financial advantage of lease versus ownership should be split between the ratepayer and shareholder by increasing the return on common equity by 0.2 percent.

In conclusion, SDG&E argues that although Mr. Meyer's recommendation assumes a full rate increase to be effective at the beginning of the test year or January 1, 1979, this would not be possible under the Regulatory Lag Plan which does not contemplate a final decision until May 1979. Furthermore, since the Regulatory Lag Plan contemplates a rate proceeding once every other year, the rates in this proceeding will also be in effect in 1980. In view of these circumstances, SDG&E asserts that substantial weight should be given to Mr. Meyers' testimony.

CAUS' Position

CAUS' witness Ross J. Cadenasso testified on behalf of shareholders of SDG&E in support of SDG&E's requested rate of return. Mr. Cadenasso spoke of the problems of the investor in common stock and indicated that such a shareholder had the following expectations: (1) that SDG&E would be allowed to earn a fair rate of return on the stockholders' investment; (2) that the return would be equal to the return earned on stockholders' investments in other enterprises of corresponding risks; (3) that SDG&E would be able to maintain a sound capital structure; (4) that SDG&E would be able to maintain a sound credit rating; and (5) that when SDG&E had to raise equity capital to finance necessary expansion that it could do so by selling additional shares of common stock at prices that would not dilute his interest in SDG&E.

Mr. Cadenasso outlined what he believes to be the dreary history of SDG&E, under the regulation of this Commission, including the need to

sell substantial stocks below book value since the first half of 1973, the decline in times interest coverage before taxes from 7.4 times in 1968 to 2.1 times in 1977 and as low as 1.7 times in 1975, the inability to earn its interest and preferred dividend requirements on two occasions, and the downgrading of its bond ratings from AA in 1973 to BBB in 1975 and currently.

Mr. Cadenasso differed with Mr. Czahar as to the selection of comparable companies. Mr. Cadenasso selected 12 out of 48 combination gas and electric utilities listed by Salomon Brothers in their monthly review which sold at an average price of 103 percent or more of book value at August 31, 1977, November 30, 1977, February 28, 1978, and May 31, 1978. These 12 companies met the test of attracting equity capital without confiscating existing shareholders' equity.

For the period 1972 through 1977, SDG&E's average return on common equity of 12.3 percent exceeded the average of the 12 companies of 12.0 percent; however, SDG&E's sold at an average of 87 percent of book value at the above dates compared to 109 percent for the 12 companies. Mr. Cadenasso proceeded to explain the inability of SDG&E to sell its common stock at a market/book ratio comparable to his 12 companies. For 1977 SDG&E compared to the average of the 12 companies as follows: (1) SDG&E had a low bond rating, Baa, as compared to single A or double A for the others; (2) SDG&E's times interest coverage before taxes of 2.2 times compared to an average coverage of 3.7 times for the others; (3) SDG&E's low effective income tax rate of 7 percent compared to an average of 41 percent; (4) SDG&E's 44 percent ratio of AFDC to common earnings compared to an average 32 percent ratio; and (5) SDG&E's cash flow coverage of common dividends of 1.0 times compared to an average of 2.8 times.

In addition, for the period 1978-80, estimated construction as a percentage of gross plant at December 31, 1977, was 72 percent, compared to an average of 42 percent for the 12 companies. For the

period 1978-1982, Mr. Cadenasso's exhibit showed that internal generation of cash as a percent of total capital spending was 13 percent for SDG&E compared to an average of 53 percent, and common stock financing for the period 1978-1982 as a percentage of total common stock market value at December 31, 1977, was 92 percent for SDG&E compared to an average of 29 percent for the 12 companies.

Based on his study, Mr. Cadenasso concludes that SDG&E is a high risk company and that an earned return on common equity of 16 percent is necessary if SDG&E is to sell common stock in the future without further dilution. He further testified that his recommended return on common equity could be reduced by reducing risks and increasing earnings quality. He urged the Commission to reconsider its flow-through treatment of accelerated depreciation and investment tax credits. He also recommended that a mechanism which would provide for a revision of rates as of the beginning of 1980 would reduce the return on common equity requirement.

Mr. Cadenasso supported the concept of sharing the benefits of low cost financing from the Encina 5 sale leaseback transaction.

In conclusion, CAUS argues that SDG&E is a "sick company" and that the Commission's grants of rates of return in the past are inadequate and deny SDG&E its constitutionally guaranteed right to attract capital at reasonable rates in exchange for its assuming the obligation of providing service.

Staff's Position

Staff witness Ray Czahar, from the Finance Division, testified for the staff on rate of return. He recommended the adoption of a year end 1979 capital structure and applied the midpoint of his recommended rate of return as follows:

Staff's Recommended Rate of Return

Component	Capitalization Ratios	Cost	Weighted Cost
Long-term Debt	44.99%	8.04%	3.62%
Bankers' Acceptances	2.76	8.00	.22
Preferred Stock	14.16	8.21	1.16
Common Equity	38.09	13.50	5.14
Total	100.00%		10.14%

The basic difference in the capitalization ratios between staff and SDG&E is the inclusion of bankers' acceptances in the staff capitalization ratio. Mr. Czahar testified that bankers' acceptances are used for the specific purpose of financing fuel oil inventory which is a part of rate base. Although Mr. Czahar was aware that the current AFDC formula prescribed by the Federal Energy Regulatory Commission (FERC) requires the inclusion of all short-term debt in the computation of the AFDC rate, he believes that exclusion of bankers' acceptances overstates the cost of capital. The staff recommends that bankers' acceptances be excluded from the AFDC formula and included as a rate of return capitalization component. The staff argues that this procedure would result in a better matching of current cost with current ratepayers.

On the issue of the Encina 5 sale leaseback transaction, Mr. Czahar agreed that a sharing of the benefits of the Encina 5 financing by increasing the allowed return on equity by 0.2 percent was reasonable or that a sharing could be achieved by an addition to rate base. Mr. Czahar, however, did warn that the application of a constant percentage on rate base may produce a result in excess of what was intended should the rate base continue to grow.

Mr. Czahar recommended a 13.25 to 13.75 percent return on common equity and a corresponding 10.04 to 10.24 percent rate of return on rate base. In developing his rate of return recommendation, Mr. Czahar applied the tests of comparable earnings, financial integrity, and the balancing of investor and consumer interests. Mr. Czahar testified that he had reviewed the decisions appearing in the "Public

Utilities Reports" through March of 1978 and determined that allowances on common equity ranged from a low of 12.5 to 14 percent compared to his recommended range of 13.25 to 13.75 percent.

Mr. Czahar showed that his rate of return would produce an after tax coverage of 2.68 times which is higher than the coverage resulting from D.83675, dated October 1974, or D.87639, dated July 19, 1977. His indenture debenture interest coverage was computed to be 2.55 times before taxes. Implicit in Mr. Czahar's calculation was the assumption that his rate of return would be applied on a rate base approximating $1,050,000,000. Mr. Czahar's view as to his recommendation for rate base treatment of Sundesert expenditures has been previously discussed in the rate base section.

The staff concludes that Mr. Czahar's rate of return recommendation and corresponding return on common equity meets the criteria set forth by Justice Holmes in Cedar Rapids Gas Light Co. v Cedar Rapids (1912) 223 US 655 where he said rate regulation:

> "...has to steer between Scylla and Charybdis. On the one side, if the franchise is taken to mean that the most profitable return that could be got, free from competition, is protected by the Fourteenth Amendment, then the power to regulate is null. On the other hand, if the power to regulate withdraws the protection of the Amendment altogether, then the property is nought. This is not a matter of economic theory, but of fair interpretation of a bargain. Neither extreme can have been meant. A midway between them must be hit."

Discussion

SDG&E had no strong opposition to the inclusion of bankers' acceptances as a part of capitalization for rate of return purposes. Mr. Meyer testified that obtaining FERC's authorization to exclude bankers' acceptances from the AFDC formula would not be difficult. We are moved by the staff argument that this procedure will enable us to properly pass on the cost of financing fuel oil purchases to

current customers. We will, therefore, adopt the staff capitalization ratios and the 8.10 percent cost of long-term debt factor agreed to by Mr. Czahar (transcript page 3567).

We will not adopt the staff's estimate of 8 percent as the cost of bankers' acceptances, as the interest rates have continued to increase with no signs of leveling. We will adopt a 10 percent interest cost as reasonable for the purposes of this proceeding.

In our consideration of the appropriate return on common equity for SDG&E, we have considered the positions presented by the various parties. In addition, we are of the opinion that it is important that investors are not disadvantaged by utility pursuit of programs which provide for improved or expanded service without increasing rate base, such as conservation, encouraging off-peak use, cogeneration, and improved generation facility efficiency. Accordingly, as we analyze and weigh factors necessary to arrive at an authorized rate of return for SDG&E, we will determine a return on common equity that is sufficient to give SDG&E the incentive to fully pursue resource options other than increasing generating capacity by the traditional means of building new facilities. This, of course, does not mean that SDG&E will not be required to build new facilities.

In arriving at our return on common equity, we have considered the risk to SDG&E of developing new and less polluting energy resources, the better use of its existing resources, the research programs being conducted, and the level of its conservation program planned for the test year. We have also considered SDG&E's low bond ratings and the increased costs such ratings have on the cost of capital. We have also considered the added risks our utilities are confronted with in connection with the multiple layers of governmental bodies and regulations that confront a utility in planning and seeking approval to construct facilities to meet the needs of its customers, and in the case of Sundesert, the burden we are placing on stockholders for unsuccessful projects, the magnitude of which stockholders have not experienced in the past.

Finally, we will also take into consideration that under the Regulatory Lag Plan we do not expect SDG&E to file for general rate relief earlier than for a 1981 test year.

This Commission in its Decision No. 88758 in OII 4 and Decision No. 87639 in Application No. 55627 et al. recognized SDG&E's financial difficulties and urged the utility to look for resource additions that imposed less of a financial burden on the company, recognizing that this might mean going beyond traditional financing.

The sale and leaseback of the Encina 5 Powerplant represents just such innovative financing. It is the first such major transaction by a California utility. This transaction was approved by the Commission in Decision No. 89067, Application No. 58148,because it demonstrably resulted in a lower cost of money which therefore equates to lower rates for ratepayers.

The Commission recognizes also that such a transaction removes a substantial capital investment from utility ownership and therefore from rate base treatment. We do not believe that a company should be penalized because it is denied future earnings on rate base as a result of an action which was clearly beneficial to all parties. We therefore recognize in setting SDG&E's return on common equity the need to provide additional earnings to compensate for this loss.

This Commission action is consistent with our policy statement in Decision No. 89316 dated September 16, 1978. In that decision we said:

> "...[this] discussion on rate of return emphasizing the importance of return on equity should put utilities on notice that, when faced with potential increases in customer demand, there may not always be a financial benefit to favoring options, including new plant construction, that expand rate base. We believe this should encourage utilities to seriously consider other options for expanding or improving service."

We reiterate that utilities should not have financial incentive through regulation to expand rate base in order to increase earnings when there are other options for providing service at a lower cost with less financial burden.

Considering the above factors, we will adopt as reasonable a 14.5 percent return on common equity as being reasonable for SDG&E, and which applied to our adopted capital structure and costs will translate to a 10.59 percent rate of return as follows:

Adopted Rate of Return

Component	Capitalization Ratios	Cost	Weighted Cost
Long-term Debt	44.99%	8.10%	3.64%
Bankers' Acceptances	2.76	10.00	0.27
Preferred Stock	14.16	8.21	1.16
Common Equity	38.09	14.50	5.52
Total	100.00%		10.59%

We believe the employment of 1981 as the next earliest test year for establishing SDG&E's rates will not be a hardship on the utility in that volatile fuel expenses are covered by ECAC and PGA procedures, that variations in gas sales are covered by our SAM and that currently OII No. 25 has been opened to consider the feasibility of adopting an electric supply mechanism procedure.

The 10.59 percent rate of return adopted as reasonable in this proceeding is estimated to provide an implicit after tax interest coverage of 2.7 times, well above the coverage implied in SDG&E's last two general rate cases. We also estimate that SDG&E's pre-tax debenture indenture interest coverage at adopted rates to be 2.8 times. We believe these coverages should be sufficient to improve SDG&E's credit rating. Furthermore, should SDG&E receive an upgrading in its bond ratings, it will result in lower future interest costs and, as a result, benefit ratepayers.

Timing of Future SDG&E General Rate Increase Requests

Consistent with Decision No. 89710 in Application No. 57639, and for the same reasons as set forth therein, this Commission is not staffed to process rate applications for all major utilities annually. This was true when the Regulatory Lag Plan was adopted, and the recent hiring freeze and budget reductions have contributed and will further contribute significantly to our staffing problems. In order to process rate increase applications within the time frame of the lag plan, and have new rates in effect at the start of the test year, we simply cannot have every major utility before us annually. To date this Commission has granted general rate relief for major utilities subject to the Regulatory Lag Plan contingent upon maintaining at least a two year interval between rate case test years. Consistent with this schedule, SDG&E would be next entitled to tender an NOI based on a 1981 test year. However, due to the present and anticipated workload of the Commission staff in processing applications of other major California utilities, it would be highly desirable that SDG&E postpone its scheduled filing to a 1982 test year basis. Employing 1982 as the next earliest test year for establishing SDG&E's rates could, we recognize, impose a financial hardship on the utility. This procedural change, for the benefit of the Commission (and ultimately SDG&E, as we endeavor to schedule NOI filings in a manner that will allow the Regulatory Lag Plan to work) could have the effect of delaying rate relief for SDG&E which it might otherwise be granted employing a 1981 test year. To ameliorate this one-time situation, we suggest that SDG&E's next NOI filing should be based on two test years, 1981 and 1982. We will consider, upon a showing of need, granting a partial general increase for test year 1981 and will determine final rates based on test year 1982 (not to be effective before January 1, 1982). Thereafter, SDG&E may file under the NOI procedure with alternate test years consistent with the Regulatory Lag Plan. The end result is that SDG&E will be on a scheduling cycle such that it will not file along with most other major utilities, thereby making it possible to meet the Regulatory Lag Plan schedule.

We believe that our adopted rate of return together with a full effort by SDG&E to apply its ingenuity toward increasing its efficiency and productivity will enable SDG&E a reasonable opportunity to earn its authorized return.

We believe the difference in equity return we are allowing SDG&E compared to those allowed Edison and Southern California Gas Company in D.89710 and D.89711, respectively, is justified by: (1) the fact that SDG&E is six months into the test year; (2) our interest in scheduling SDG&E for a 1982 test year for its next general rate case; and (3) the loss of rate base in the Encina 5 transaction.

Furthermore, we are fully conscious of SDG&E's difficult financial position. We believe that by authorizing SDG&E such an attractive rate of return we are giving utility management a chance to use those resources to improve its financial position. We trust that it will continue to look for innovative financing options like the Encina 5 sale leaseback that will benefit its ratepayers.

We are also putting SDG&E on notice here that we expect it to operate within its financial resources and that we will seriously question the prudence of any future investments with financial risks of the nature incurred in the Sundesert project.

Compliance with Wage-price Guidelines

Subsequent to the November 21, 1978 submission of briefs to this proceeding the Council of Wage and Price Stability (Council)

issued three price standards to implement the President's anti-inflation program by adding a new Section to Part 705 - Non-inflationary Pay and Price Behavior, of Chapter VII, Title 6 - Economic Stabilization in the Code of Federal Regulations. The three price standards are - Price Deceleration (Section 705 A-2); Profit Margin Limitation Standard (Section 705 A-6); and the alternate price standard for electric and gas utilities, Gross Margin Standard (Section 705 C-8). The Council issued these standards in order that regulatory Commissions would give appropriate weight in their decisions to the President's voluntary anti-inflationary objectives. The Commission adopted Resolution No. M-4704 on January 30, 1979 which supported the President's anti-inflationary program to ensure that in granting general rate increases, the Council's guidelines would be complied with to the fullest extent possible.

This decision meets the criteria of the Council's Profit Margin standard and will not exceed the upper level of the Gross Margin standard. Our discussion and findings justifying the reasonableness of the adopted rate of return and the resulting level of the times-interest coverage (supra), addressed the issue of undue hardship that SDG&E would experience without the authorized revenue

increase to raise capital to finance its construction needed to serve its customers and to generate adequate income to assure the necessary minimum level of interest coverage. Our adopted revenue increase will authorize rates no higher than are necessary to protect SDG&E's customers from high prices, and yet assure that the needs of future customers can be met, and the requirements of the SDG&E shareholders are not unduly burdened.

XII. RATE DESIGN - STEAM DEPARTMENT

Director of Rates and Valuation, A. G. Strachan, testified on SDG&E's steam rate design proposal. He recommended spreading the increase on a uniform percentage basis to and within the steam rate schedules and the continuation of declining block rates to ensure greater revenue stability.

Staff rate design witness, Howard Frantz, recommended the transferring of base weighted rate for energy from base rates and adding it to the ECAC rate. This will make the Steam Department ECAC consistent with that of the Electric Department. The effect of this transfer would be to reduce base rates by $1.70 per Mlb ($1.734 for Schedule 1 and $1.7513 for Schedule 2 including franchise fees) and increasing ECAC rates correspondingly. The staff further recommended that the increase be applied to create a flat commodity rate for all Schedule 1 customers with Schedule 2 customers receiving a slightly higher charge due to the 1 percent franchise fee differential established by Resolution No. G-1684, dated November 16, 1974. Instead of a declining block rate suggested by SDG&E, Mr. Frantz recommended the adoption of the flat commodity rate in keeping with the Commission's policy of eliminating declining block rates to encourage conservation.

The staff also recommended a revision of SDG&E's Steam Department's ECAC to protect the customer from unreasonable costs associated with lost and unaccounted for steam. SDG&E's lost and unaccounted for steam figure shows some wild fluctuations which could

not be readily explained. Under the staff proposal a nominal lost and unaccounted for steam ceiling of 25,000 Mlb/record year is established and fossil fuel expenses associated with producing the lost and unaccounted for steam would not be included in the offset rate and could not be recouped in the balancing rate.

SDG&E had no strong opposition to any of the staff proposals on steam rate design. We will, therefore, adopt as reasonable the staff rate proposal for spreading the Steam Department increase, the staff proposal to exclude energy cost from base rates, and require SDG&E to modify its ECAC as agreed to by staff and SDG&E in Exhibit 8A. In spreading rates for our order for partial general rate increase, the above staff recommendations relating to steam rate design were adopted; therefore, in spreading the additional increase of $10,500 authorized in this decision the commodity rates for Schedules 1 and 2 will be increased by $0.05 and $0.051 per Mlb, respectively. The authorized Steam Department increases are shown in Table V and Appendix D.

TABLE V

San Diego Gas & Electric Company
Steam Department

AUTHORIZED RATE SPREAD EXCLUDING ECAC

Test Year 1979

Schedule	Volume (Mlb/yr)	Present Rate 1/ ($/Mlb)	Present Revenue (M$)	Authorized Rate ($/Mlb)	Authorized Revenue (M$)	Increase Revenue (M$)	Increase Percent Increase
Schedule 1							
Customer Months	756	$ 7.89	$ 6.0	$ 7.89	$ 6.0	$ -	-%
All Usage	207,800	1.643	341.4	1.693	351.8	10.4	3.0
Subtotal			347.4		357.8	10.4	3.0
Schedule 2							
Customer Months	12	7.97	.1	7.97	.1	-	-
All Usage	3,000	1.659	5.0	1.710	5.1	.1	2.0
Subtotal	-	-	5.1	-	5.2	.1	2.0
Total	210,800	-	352.5	-	363.0	10.5	3.0

1/ "Present" rates are the steam rates effective January 21, 1979, authorized by Decision No. 89857 under Advice Letter No. 103-H.

XIII. RATE DESIGN - GAS DEPARTMENT

Testimony and exhibits on gas rate design and marginal cost pricing for SDG&E were presented by A. G. Strachan; and for the Commission staff, S. K. Gokhale testified on recommended rate design and tariff revisions, including employee discounts.

SDG&E proposes the deletion of present (prior to D.89857) nonresidential (GC, G-40, G-50, G-51, and G-54) schedules and the establishment of five priority classifications for purposes of curtailment. SDG&E is proposing that Residential Schedules GR (Domestic Natural Gas Service), GM (Multi-Family Natural Gas Service), and GS (Submetered Multi-Family Natural Gas Service), and nonresidential Priority 1 usage be contained in Priority 1.

SDG&E is proposing a $4.00 lifeline and nonlifeline customer charge per month for residential GR and GM schedules and a $3.60 charge for GS schedule. Proposed commodity charge for lifeline GR and GM sales are $0.20 per therm up to the first 81 therms and $0.18 per therm for GS sales. Proposed nonlifeline commodity charges for GR, GM, and GS residential schedules are $0.2225 per therm for the first 81 therms; $0.2463 per therm for the next 81 therms; and $0.2700 per therm for all usages over 162 therms.

For its commercial and industrial natural gas service, SDG&E proposes a customer charge of $4.00 per month for nonresidential GN-1 customers and a commodity charge of $0.27 per therm for all usage. For GN-2 schedule an $8.00 customer charge and a $0.27 per therm commodity charge for all usage is proposed and for GN-3 customers a $12.00 customer charge and a $0.2500 per therm commodity charge for all usage is proposed. For GN-4 customers SDG&E proposes a $16.00 customer charge and a $0.2500 per therm commodity charge and for GN-5 interdepartmental sales a 250.00¢ rate for all usage per million Btu is proposed. Mr. Strachan testified that GN-1 through GN-5 schedules were assigned customer charges reasonably related to the costs associated with having the given customers on the system. The commodity charges were increased to a level approximating the cost of alternate fuels. The remaining revenue increase was allocated to the residential schedules.

The staff agrees with the modification of rate schedules consistent with end-use priorities. The staff also concurs with SDG&E's proposal to substantially increase revenues from residential customer charges, although not to the same degree. The staff recommends an increase in customer charges from the pre-D.89857 levels of $1.26 for GS schedules and $1.40 for GR and GM schedules to $2.70 and $3.00, respectively, compared to SDG&E's proposal of $3.60 and $4.00, respectively. Mr. Gokhale testified that in his gas rate design he attempted to keep the nonresidential commodity charges reasonable and competitive to alternate fuels and to recover the balance of the increased revenue requirements from residential customers. He further explained that in allocating the additional revenues required from the residential class he attempted to keep the increase in customer

charges as low as possible in order to enable the residential customers who conserve to see the positive benefits of conservation. If too much of the increase is reflected in increased customer charges, such charges would represent a greater portion of the total billing, and, thus, would be a disincentive for consumers to conserve, especially, the smaller users of gas.

Section 739(b) of the Public Utilities Code requires that the Commission shall authorize no increase in the lifeline rate until the average system rate in cents per therm increased 25 percent or more over the January 1, 1976, level. At that time the system average rate was 15.60¢/therm and the lifeline rate was 15.407¢/therm. By statute the lifeline rate was not to be increased until the system average rate became 19.5¢/therm (or 125 percent of 15.60¢/therm). The lifeline rate of 15.407¢/therm is about 79 percent of 19.5¢/therm. The Commission, in D.88697 in Applications Nos. 55627, 55628, and 55629, did increase lifeline rates for SDG&E and similarly we further moderately increased lifeline rates in our D.89857 for partial general rate increase.

The Utilities Division recommends that the Commission spread the necessary increase on a differential increase basis with lifeline at 79 percent of system average and with a single commodity rate to nonresidential customers. In D.89857 we spread our $9,834,000 increase in gas rates by a small increase in customer charge for GS residential customers to bring them up to the level of the GR and GM residential schedules. The balance of the increase was obtained by applying differential increases to the various residential tiers with substantial increases of 26 and 31 percent to Tiers III and IV usage and by adopting a single commodity rate for nonresidential usage.

We limited the increase to lifeline usage in D.89857 to a 2.2 percent increase compared to a total system increase of 6.0 percent pending our full consideration in this final decision as to the appropriate rate structure to be adopted based on the record in this proceeding. The additional increase authorized in gas revenues

of $4.8 million in this decision will result in an average system rate of .2466¢ per therm compared to the lifeline rate of .1976¢ per therm, or a rate of 80.1 percent of the average system rate.

In considering gas rate design in this proceeding, it is important to know that lifeline volumes represent 74 percent of total residential gas volumes and 50 percent of total gas volumes. The record in this proceeding also indicates that the cost of alternate fuel and nonresidential commodity rates are very close to competitive level leaving little leeway for passing on additional rate increases to the nonresidential classes.

With the pending implementation of federal law that will set boiler fuel commodity rates based on the incremental price of alternate fuel(s), it is essential that the Commission be kept informed of alternate fuel prices. Therefore, we will require that SDG&E present information on alternate fuels used in its service area. This information shall include, but not be limited to, the delivered price per barrel, lot size, and Btu content. The above information shall be furnished to the Commission staff quarterly and coordinated with the semi-annual PGA-SAM filing dates.

SDG&E will also make a study to determine the alternate fuel capability (i.e. #2 or #6 fuel oil) of its Priority 3 and 4 customers and the volumes (therms) associated with each fuel; this study is to be incorporated in the October, 1979 PGA-SAM filing.

Based on these facts, failure to increase lifeline rates at this time would unduly aggravate the burden of the nonresidential customer as well as the nonlifeline residential customer. In our decision granting partial rate relief, we substantially increased the rates for residential nonlifeline usage to provide a clear economic message that we place high priority on conservation and that it is economically worthwhile for ratepayers to conserve. Further increases on residential nonlifeline consumption at this time, without increasing rates on lifeline usage, will result in unreasonable charges to those customers whose consumption of natural gas may be high and still not be wasteful. Consequently, we will raise customer charges for both residential and nonresidential customers; increase service establishment, and miscellaneous charges; increase lifeline commodity rates for GS customers to .1778¢ per therm and to .1976¢ per therm for GR and GM customers; and also grant minor increases in Tiers II, III, and IV residential commodity rates, and GN-1 and GN-2 nonresidential commodity rates. Such increases are reasonable when consideration is given to the fact that lifeline customers have received only a minor increase since lifeline rates became effective over three years ago. Similarly, the increases in customer charges and service, establishment, and miscellaneous charges are reasonable considering the inflationary increases in cost since last adjusted. The increases in gas rates we are authorizing in this decision are shown in Table VI and Appendix E.

TABLE VI

San Diego Gas & Electric Company
Gas Department

AUTHORIZED RATE SPREAD
Test Year 1979

Category	Volume M Therms	Present 1/ 1-21-79 Rate: $/Therm	Present 1/ Revenue M$	Authorized Rate $/Therm	Authorized Revenue M$	Authorized Increase M$	Authorized Increase %
Residential							
Cust. Months							
All Schedules	5,442,508	$1.4000	$7.619.5	$1.7000	$9,252.3	$1,632.8	21.4%
Borrego - Alpine	-	-	55.8	-	57.8	2.0	3.6
Commodity							
Tier IR (L.L.)							
Sch. GS	-	.1710	-	.1778	-	-	-
Sch. GT	10,746	.1710	1,837.6	.1680	1,805.3	(32.3)	(1.7)
Sch. GR, GM	259,724	.1900	49,347.6	.1976	51,321.5	1,973.9	4.0
Tier II R	35,413	.2450	8,676.2	.2475	8,764.7	88.5	1.0
Tier III R	45,538	.2900	13,206.0	.2924	13,315.3	109.3	0.8
Tier IV R	12,712	.3266	4,151.7	.3293	4,186.1	34.4	0.8
Subtotal	364,133	.2121	77,219.1	.2179	79,392.9	2,173.8	2.8
Nonresidential							
Cust. Months							
GN-1	344,591	1.4000	482.4	1.7000	585.8	103.4	21.4
GN-2	192	-	-	-	-	-	-
GN-3	600	-	-	-	-	-	-
GN-4	60	-	-	-	-	-	-
Subtotal	-	-	482.4	-	585.8	103.4	21.4
Commodity							
GN-1	133,144	.2453	32,660.2	.2500	33,286.0	625.8	1.9
GN-2	13,343	.2453	3,273.0	.2500	3,335.8	62.8	1.9
GN-3	23,837	.2453	5,847.2	.2453	5,847.2	-	-
GN-4	1,344	.2453	329.7	.2453	329.7	-	-
Subtotal	171,668	.2453	42,110.1	.2493	42,798.7	688.6	1.6
Borrego-Alpine	-	-	22.7	-	23.5	.8	3.5
Total Retail	535,801	.2380	127,509.6	.2465	132,111.0	4,601.4	3.6
Interdepartmental							
GN-5	1,944	.2500	486.0	.2500	486.0	-	-
Total Sales	537,745	.2380	127,995.6	.2466	132,597.0	4,558.2	3.6
Other Revenue							
Service Est. Ch.	179,646	6.5000	1,167.7	7.5000	1,347.3	179.6	15.4
Misc.	-	-	178.1	-	181.3	3.2	1.8
Total Revenue	-	-	129,341.4	-	134,125.6	4,741.0	3.7
City of San Diego Surcharge	-	-	653.7	-	673.8	20.1	3.1
Total	-	-	129,995.1	-	134,799.4	4,804.3	3.7

1/ "Present" rates are the gas rates effective January 21, 1979, authorized by Decision No. 89857 under Advice Letter No. 424-G.

( ) Negative

The staff proposed in Exhibit 30A a theoretical proposal to eliminate employee discounts for SDG&E's employees should the Commission decide to adopt the same treatment given PG&E in D.89315. On November 8, 1978, the Commission in its D.89653 reversed the earlier elimination of discount in D.89315. The record in this proceeding does not contain sufficient evidence to justify eliminating employee discounts for SDG&E; therefore, we will be consistent and adhere to the policy set forth in D.89653.

XIV. RATE DESIGN- ELECTRIC DEPARTMENT

General

Testimony and exhibits on electric rate design, cost of service, air-conditioning lifeline allowance, and employee discounts were presented by A. G. Strachan and marginal costs by L. DeSimone for SDG&E. For the staff I. Garg and R. L. Mahin testified on electric rate design, air-conditioning lifeline allowance, and employee discounts, and J. P. Smith on marginal costs. CRA presented two witnesses, J. Haviland, manager of Electric Utilization for Ralph's Grocery Company who testified on electric usage and conservation efforts of a supermarket and Dr. Herschel Jones, Director of Economics at CH2M Hill, Inc., who testified on whether the rate allocation proposals of SDG&E and the staff properly reflect the cost of service as shown by the fully allocated cost studies and the marginal cost studies of SDG&E and the staff. Federal Agencies presented T. Vargo, a public utilities specialist, to testify on the rate design proposals of SDG&E and the staff. In addition to the above parties, Farm Bureau, City, and Energy Coalition participated in this phase through cross-examination of witnesses and by the filing of briefs.

SDG&E's Rate Design

SDG&E proposed to spread the required revenue increase by allocating the increase on a uniform percentage basis using total revenues to the various customer classes. The three factors considered

by witness Strachan in his rate design were the weighting of the results of the Marginal Cost Data - Electric Analysis prepared by witness DeSimone in setting the tail block rates and customer charges; simplifying the rate structure through the combining of rate blocks; and, where declining block rates were still used, they were flattened; and to design rates so that, in most cases, there was a reasonable continuity with current rates. The Power-General (P) and Power-Agriculture (PA) schedules were simplified by adopting a blocked customer charge and a two-block energy cost structure. In addition to a general increase in rates, the relative level of rates in the street lighting schedules were modified to reflect the results of a new street lighting cost of service study.

Mr. Strachan also introduced an exhibit presenting rate of return by customer classes at present and proposed rates on an average cost basis using the noncoincident demand method of allocating demand costs and also by using the monthly peak responsibility method of allocating demand costs. He also presented a table showing the cost allocations by class of customer based on marginal costs and also compared revenue requirement by customer class based on the marginal cost allocations with the revenue requirements at proposed rates and a suggested method of reconciling the two sets of data.

Mr. Strachan also testified against elimination of employee discounts, as such elimination would be a subject of negotiation with the union and could result in a higher cost to ratepayers. Moreover, there is no evidence that such discounts have acted to discourage employees from conserving. He also testified on the staff's proposal to grant lifeline allowances for air-conditioning equipment. He agreed with the staff that since 96 percent of the residential electric customers in the desert area (staff designated Zone V) owned air-conditioning equipment they should be granted a lifeline allowance for such use, but disagreed with the staff's proposal to grant lifeline allowance to those residential

customers owning air conditioners in the intermediate area (staff designated Zone H) since only approximately 40 percent of the customers in Zone H use any type of air conditioning. SDG&E considers the usage of air conditioners in Zone H as luxury use and not in keeping with the "basic minimum quantities" lifeline concept outlined in Assembly Bill 167. Moreover, SDG&E considers that the staff's proposal to allow an air-conditioning lifeline allowance to those customers who own air conditioners in Zone H would result in additional costs in locating and maintaining records on air-conditioner users in Zone H which would become a burden on nonusers.

SDG&E's witness L. E. DeSimone presented the results of two marginal cost studies performed on the SDG&E system in order that the Commission may give, in its judgment, appropriate recognition and consideration to the concept of marginal costs in rate design. The witness admitted that marginal costing methodologies are still under development and refinement and that currently a common methodology uniformly applicable and acceptable to all California utilities does not exist.

Of the two marginal costing methodologies presented in his exhibit, Mr. DeSimone recommends the use of the National Economics Research Associates (NERA) method rather than the Cicchetti, Gillen and Smolensky method, in that the latter method utilizes simplified assumptions and lacks sufficient rigorous detail to be acceptable for use in rate design.

In conclusion, SDG&E argues that while it was not adopting the staff's rate design it has strong objections only to the steeply inverted rate proposals in certain domestic and general service schedules, the formation of an intermediate air-conditioning lifeline for Zone H, and the elimination of employee discounts. SDG&E indicates that its primary concern with inverted rates is their inherent potential for revenue instability. While highly inverted rates may result in conservation, SDG&E argues that they may result in larger losses of revenues than the corresponding drop in sales, with the brunt of such revenue loss falling directly on SDG&E.

Staff's Rate Design

The staff did not recommend any particular method of allocating the revenue increase, but calculated four alternate methods of spreading rates to the various customer groups. The staff's methodologies are: uniform percentage increase to gross revenues, uniform percentage increase to base revenues, increase based on uniform dollars per kWh with lifeline consumption, and increase based on uniform dollars per kWh without lifeline consumption. The staff then took the high and low revenue spread from the four methods for each customer group and compared the resulting revenues and rate of return using the Monthly Peak Responsibility Method of allocating demand costs. The staff's high and low range of revenue increase by customer class does not match the revenue increase requested by SDG&E. The staff suggests that the Commission can adopt a rate pattern and that rates can then be designed to generate the authorized increase.

The staff designed six domestic rate alternatives to encourage conservation which are consistent with the lifeline principles of Public Utilities Code Section 739. For convenience purposes the staff used SDG&E's proposed revenue increases by customer group and rate schedules. Of the six alternatives[3/] staff recommends the adoption of Alternate VI for domestic service which provides for increased customer charges of $2.00 for lifeline and $4.00 for non-lifeline, from the present customer charge of $1.86 for both groups; an increase in lifeline commodity charge for lifeline consumption in excess of 240 kWh with no increase for usage under 240 kWh; and a three-tier inverted nonlifeline commodity charge of $.034 for the first 500 kWh, $.039 for the next 250 kWh, and $.045 for consumption in excess of 750 kWh. Under this alternative, lifeline customers are

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3/ Exhibit 28 shows nine alternatives. Alternatives I, II, and III are the same as Alternatives IV, V, and VI; except that the former is based on 88 percent of the requested increase, instead of 100 percent of the increase.

required to absorb 10 percent of the total increase in revenues. The staff contends that its rate structure for residential customers will encourage conservation. The staff further recommends that monthly bills to consumers be revised to heighten the consumers' awareness as to where their usage falls in the rate structure.

The staff divided SDG&E's service area into three zones for the purpose of recommending a lifeline air-conditioning allowance. The staff designated the interior desert area as Zone V (very hot), the intermediate area as Zone H (hot), and the Coastal Zone. The staff recommends that an air-conditioning lifeline allowance of 400 kWh/month/customer for the months of May through October be provided to all customers in Zone V since 96.3 percent of the customers had air-conditioning equipment. The staff recommends a lifeline allowance of 200 kWh/month/customer for Zone H customers with installed air-conditioning equipment for the months of May through October. No lifeline air-conditioning allowance is recommended for the Coastal Zone.

For General Service Schedule A, the staff has proposed three alternatives with an increase in customer charge from $2.00 at present rates to $4.00 compared to SDG&E's $8.00 customer charge proposal. Alternate I, the staff's recommended alternate, provides for an inverted three-block rate for 5,000 kWh consumption and under and a flat rate for consumption in excess of 5,000 kWh. Alternate II proposes a flat rate for all consumption levels, and Alternate III proposes a three-block declining rate for 5,000 kWh consumption and under and a two-block declining rate for consumption in excess of 5,000 kWh. Alternate III is more comparable to SDG&E's proposal except that the gaps have been substantially reduced under the staff's proposal. Witness Garg recommends the adoption of Alternate I, the inverted rate schedule, since it places a higher percentage of the increase on the large consumption customers and is within reasonable limits of the marginal cost study. The staff asserts that Alternate I provides a greater opportunity than SDG&E's proposal for lower consumption customers to conserve.

SDG&E's proposal to increase the customer charge for General Service Schedule A-5 to $125 per meter/per month and consolidating the four energy charge blocks into two is supported by the staff. The staff Alternates I and II for this schedule have different demand charges from SDG&E's proposal and also narrow the gap in energy charge between the two blocks. The staff did not indicate a preference for one alternative over the other.

The staff proposes elimination of Heating Schedule H, in the interest of simplifying tariffs, as this schedule has been closed to new customers. The staff proposes to bill Schedule H customers under Schedule A.

SDG&E has proposed simplifying the complex P, PA, and PA-PG (Power Agricultural-Parallel Generation) Schedules by eliminating the annual charge per meter based on dollars per horsepower of connected load per year and substituting a customer charge based on energy use during the month. The customer charge would be based on monthly sales falling within six blocks with a two-block declining energy charge. The staff agrees in principle with SDG&E's proposal to simplify the rate schedules; however, it recommends the use of four blocks instead of six and a single rate applicable to all energy charges instead of declining energy charge blocks.

SDG&E proposes the combining of Lighting Schedules Nos. LS-1 and LS-4 for purposes of simplification. The staff agrees with this proposal. The staff, however, proposes to increase rates for incandescent and mercury vapor lamps, which are less efficient, while decreasing the charges for highly efficient high-pressure sodium lamps and, thereby, encourage conservation.

Staff's witness R. L. Mahin presented testimony and an exhibit on time-of-use (TOU) rate design. In D.85559, Case No. 9804, the Commission found that peak-load pricing can encourage efficient

electricity use by shifting demand to periods of excess capacity. The Commission directed the utilities to file TOU rates for large usage customers having monthly maximum demand greater than 4,500 kW. A-6 TOU rates became effective on September 17, 1977. A-5 TOU rates (customers with 1,000-4,500 kW monthly maximum demand) have been filed with the Commission, but have not been adopted; therefore, conventional A-5 and A-5 TOU rates have to be considered. When A-5 TOU rates are adopted, customers on Schedules A-5, A, P, and PA will be transferred to A-5 TOU Schedules. The staff does not recommend the adoption of innovative rate designs for TOU schedules in this proceeding because there have not been sufficient data to adequately evaluate the effectiveness of the present TOU rate structure. The staff's alternates to Schedule A-6 TOU maintain SDG&E's present three period structure, however, offer different demand charge and energy charges than proposed by SDG&E. Alternates I and II both provide for a uniform percentage increase to the customer charge and demand charge; however, while Alternate I provides a 55.6 percent uniform increase to the energy charge, Alternate II increases the energy charge by a uniform amount ($0.00195 per kWh) to the on-peak, semi-peak, and off-peak time periods. The staff's A-5 TOU rate structure proposes a higher customer charge, lower demand charge, and higher energy charge than SDG&E's proposal. The explanation for the difference in energy charges for Alternates I and II are similar to that for the A-6 TOU rates. Staff recommends the adoption of Alternate I for both A-6 and A-5 TOU Schedules, since the fixed percentage increase more nearly maintains the existing structures.

The staff also made a similar proposal to eliminate employee discounts for the Electric Department. This matter was previously discussed under Section XIII, RATE DESIGN - GAS DEPARTMENT, in which the elimination of employee discounts was rejected. The staff also indicated that

the format of other rates proposed by SDG&E and contract rates appear reasonable and should the amount requested not be granted in full, increases can be accordingly scaled down.

Staff's witness J. P. Smith agreed with SDG&E that electric rates should be based on marginal costs. Witness Smith testified that marginal cost pricing would aid customers in making accurate consumption decisions regarding the use of electricity and that marginal cost rates would also improve the overall efficiency in the allocation of resources. Staff contends that although both SDG&E's and staff's marginal cost figures fall within a reasonable range, staff's figures should be used because the staff had more recent data and, therefore, are superior. Staff does not advocate that electric rates be set to equal marginal costs in this proceeding, but that rates should be set to fall within the expected minimal and maximum marginal capacity costs shown in its study.

CRA's Position

Mr. Jon Haviland testified for CRA on the impact of electric rates on Ralph's Grocery Company. Mr. Haviland testified that Ralph's Grocery Company has pursued an aggressive energy management program since 1973 in the area of development of a conservation manual, retrofit of existing stores and store design to increase energy efficiency. He testified that under the various proposals, Ralph's Grocery Company's Mission Viejo store would be confronted with increased energy costs of $9,000 to $34,000 per year representing 1.1 percent to 1.4 percent of total sales or a percentage exceeding current net profit margins, making it difficult to recover such increased costs. He further testified that Ralph's Grocery Company's conservation program will continue at its current pace regardless of whether SDG&E received some, all, or none of the requested increase.

CRA's witness Dr. Jones criticized the staff's and SDG&E's rate proposals for not logically following the cost of service studies introduced in this proceeding. Dr. Jones testified that whether one

used the noncoincidental demand method or the monthly peak responsibility method of assigning demand costs and with or without inclusion of fuel costs, the rate of return by class of customer clearly demonstrates that the residential and agricultural classes are being subsidized by the general services classes and by outdoor lighting and street lighting.

Dr. Jones then proceeded to compare estimated revenues at present rates for each class of customer at present rates,[4/] revenues at SDG&E's proposed rates, revenues at equal rate of return (Monthly Peak Responsibility Method), and revenues based on SDG&E's marginal costs. He then concluded that the required increases under the equal rate of return method or marginal cost method clearly show that the residential and agricultural classes should bear the major portion of the increase with smaller increases or a decrease to the other classes.

Dr. Jones then reviewed the staff's recommended apportionment of revenue and concluded that none of the four staff methods attempt to spread rates in accordance with the responsibility of each class of customer for the increases in cost and that the other classes of customers will continue to subsidize domestic and agricultural customers. He then proceeded to take the staff's base revenue figures and adjusted them to eliminate cross-subsidization and compared the results with the base revenues at staff's suggested rates to show that the revenues for the residential and agricultural classes would have to be increased.

Dr. Jones testified that spreading rates on the basis of uniform rates of return to rate base for all classes was the most important factor. He further testified that cost of service was not

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4/ Per SDG&E's revision of June 19, 1978.

the only basis for spreading rates and may not be possible if the Legislature's edict on lifeline rates must be followed. He also stated that he was aware that the Commission was interested in marginal cost analysis as well as fully allocated average cost of service studies.

In conclusion, Dr. Jones recommends that the Commission distribute the rate increase to the four largest classes of customers by adopting the high figure recommended by the staff on Exhibit 28, Table 2E for domestic customers and the low figures for the general service, larger general service, and very large general service classes. If the full amount requested by SDG&E is not granted, he recommends that the increase to the above four classes be reduced proportionately. While his recommended rate spread will not eliminate subsidization, he believes that it may be more acceptable to the Commission, as it may be adopted without creating problems with lifeline rates or unacceptable increases in nonlifeline domestic rates.

Federal Agencies' Position

Federal Agencies' witness Vargo recommended that allocation of the increase be accomplished by applying a uniform percentage increase to current base rates as the most equitable method, as such tariffs would more closely reflect the cost of service on a fully allocated cost basis and the marginal cost studies of SDG&E and staff. While the uniform percentage increase would not correct the existing interclass subsidies, Mr. Vargo testified that it would prevent further deterioration in the relationship between the cost of supplying utility service to a customer class and the rates charged. Federal Agencies also recommends that for the A-6 Schedule, the present structure should be retained with any increase spread via a uniform percentage increase to base rates charged to that class of customers.

Mr. Vargo further testified that SDG&E's proposal results in widely different increases for the base rates of the various

customer classes and that both SDG&E's and staff's rate design proposals would increase the disparity which now exists between the customer classes. His proposal would also increase the rates to lifeline usages as the 25 percent limitation imposed by the lifeline legislation would be exceeded in this proceeding.

Farm Bureau's Position

Farm Bureau agreed with Federal Agencies that the cost of service study should include ECAC revenues and expenses in developing the rate of return for the different classes of service. It recommends that the revenue increase be allocated to the various classes of service in the manner recommended by SDG&E. Farm Bureau argues that a uniform percentage increase to present gross revenues creates an increase to the class that falls within the staff's high and low range and never at one of the extremes. Farm Bureau does not question the necessity of the increase but argues that it would be inappropriate to have a disproportionate share fall on the agricultural service class.

Farm Bureau also opposes SDG&E's and staff's proposals for a major structural revision in the PA Schedule, since the existing rate structures are understood by the agricultural class and that farmers have structured their farming operations in reliance of such rate structure. Farm Bureau suggests that the problem of field checking for connected horsepower can be eliminated by the installation of demand meters. The elimination of connected load as an element in determining rates is opposed by Farm Bureau since cost of service varies between customers depending on the demand they make on the system as well as total consumption. It opposes SDG&E's proposal for a minimum service charge because the seasonality of agricultural electric usage will result in farmers being billed large amounts for several months per year when there is little or no electric use. To the extent that the staff's proposal varies according to actual use, Farm Bureau supports the staff's proposal.

Energy Coalition's Position

Energy Coalition agrees that marginal cost pricing of electricity sends proper signals to customers as to the true costs of new energy sources so that consumers can adjust their consumption in response to changes in price. However, it argues that this logic does not apply to low-income utility users whose income constraints limit their basic life support needs. Energy Coalition recommends that rates be based on marginal costs with excessive revenues resulting from such rate structure used to eliminate the monthly service charge and when possible to further reduce rates for low volumes of energy usage. It further suggests that existing ratepayers would be vested with a certain quantity of low cost power; whereas, new ratepayers would be charged the full incremental costs of their consumption. Energy Coalition concludes that its proposal would result in conservation and equity.

City's Position

City agrees with SDG&E and the staff that air-conditioning lifeline allowance should be provided for domestic customers in Zone V. City disagrees with the staff's proposal to provide air-conditioning lifeline allowance for domestic customers having air-conditioning equipment in Zone H and supports SDG&E's position.

City also disagrees with the staff's proposal contained in Alternate VI for domestic rate design for a two-tier lifeline rate. City argues that such a proposal treats an all electric customer as a second-class citizen compared to a gas and electric customer.

Discussion

Although CRA and Federal Agencies both argue that spreading rate increases among classes of customers to produce a uniform rate of return to rate base for the various classes of customers is the

best method, they recognize that it is not the only basis and that the Legislature's edict for lifeline rates may make it impossible to achieve. CRA also argues that much evidence has been introduced into this proceeding on marginal cost pricing and that this Commission should address itself as to how such marginal costs data should be used. While we agree with CRA that there are many unanswered questions as to the usage of marginal costs for revenue allocation and rate design purposes, we are also aware that marginal cost methodologies at present are still under development and refinement. As far as the staff was concerned, its rate designs were prepared before its marginal cost study was completed and, therefore, the staff's rate design witness was only able to use the marginal costs to test whether his proposals were reasonable. While we believe marginal cost pricing will assume greater importance in the future, for the rates adopted herein, marginal costs will be used as another tool in helping us arrive at reasonable revenue allocations and rate designs in establishing electric rates.

In D.89857 we spread the partial general rate increase of $23,685,000 for the Electric Department by applying a 0.326¢ per kWh increase to all electric sales, exclusive of lifeline and DWR sales. This has increased the average system rate to a level exceeding the January 1, 1976, average system rate by 25.8 percent.

The differential between current lifeline rates and the current average system rate is 15 percent. While we do not believe that the differential has reached a level where it cannot be increased, the additional increase of $32,648,000 authorized herein would place an undue burden on other customers if lifeline rates were not increased. Accordingly, we will increase the level of lifeline rates by 10 percent.

The staff recommended a range of increases to customer classes. We will stay within this range in spreading the revenue requirement increase authorized herein (including the partial increase authorized on January 16, 1979) to customer groups, but recognize that, with the magnitude of increased revenue involved, assignment of increases at the middle of the range is not feasible. Nonlifeline residential usage should carry some of the revenue requirements remaining from the limited increase to lifeline rates. The remainder of the revenue requirement will be carried by other customer groups.

For the domestic service class, although we believe inverted rate schedules for electric customers will be necessary, we are concerned that a sudden dramatic change in rate design will result in revenue instability and also produce strong opposition from customers. Therefore, we are of the opinion SDG&E's format for the domestic class is the most appropriate to adopt in this proceeding in that it eliminates declining rates and provides for a uniform lifeline energy charge and also a uniform nonlifeline energy charge. We will, however, not adopt SDG&E's proposed customer charge of $4.00 for both lifeline and nonlifeline as a 115 percent increase in this charge will place a severe burden on the small volume user and tend to be a disincentive to conservation. We will, however, increase customer charges by increasing the existing $1.86 charge proportionately to $2.20. We reject the staff's proposal for a two-tier inverted lifeline energy charge as we are not convinced that one type of lifeline usage is anymore inferior to another type of lifeline usage.

We have considered SDG&E's and staff's proposals for a lifeline air-conditioning allowance. We concur with SDG&E and other parties that an air-conditioning lifeline allowance should be restricted to only those customers in Zone V in which currently 96 percent of the domestic customers own such equipment. We concur that extension of an air-conditioning lifeline allowance to domestic customers in Zone H in which only 40 percent of the customers own air-conditioning equipment would not be essential usage and could be considered luxury usage. Moreover, the staff's proposal to allow an

air-conditioning lifeline allowance to only those customers owning such equipment in Zone H would also be more costly and difficult to administer and a further burden on other ratepayers. We will, therefore, adopt as reasonable an air-conditioning lifeline allowance of 400 kWh to all customers in Zone V for the months of May through October.

A significant number of residential customers of SDG&E inquired and complained that they did not receive their full entitlements to electric lifeline allowance above the basic kilowatt-hours. SDG&E has filed a plan to verify and correct the allowances and to make refunds. SDG&E has filed Advice Letter No. 475-E on April 25, 1979, to revise the discount from 10 percent to 25 percent for the mobile home park owners who submeter their tenants. We take official notice of Resolution No. E-1833 dated April 24, 1979 by which we approved the plan, and concurrent Resolution No. E-1840 by which the Commission will authorize the revised discount. Since the original estimate of residential usage in A.58067 does not reflect these estimates used for the plan we will recompute authorized revenue. It will be based on updated estimate of lifeline use by electric customers and will correct for revenue shortage due to an increase in the total amount of electric lifeline allowance and increase in the discount for mobile home park owners.

Although we believe that an inverted rate structure for the General Service Schedule A class will promote conservation, we will not adopt such a rate structure in this proceeding since it will represent a dramatic change from the existing declining block rates existing for this rate schedule. The disparity between residential nonlifeline and Schedule A rates will, however, be substantially reduced. We believe that the adoption of the rate format contained in staff's Alternate II, providing a flat energy charge, is sufficient to encourage conservation for this class at the present. We also believe that the customers who presently have demand meters or demand in excess of 50 kW should be offered a flat demand and energy rate.

For General Service (Schedule A-5) the staff adopts SDG&E's recommended customer charge of $125 and also its proposal to reduce the existing four-block demand related energy charges into two blocks. The two alternatives offered by the staff attempt to reduce the rate differential between the blocks. Consistent with our approach for Schedule A, we will adopt the methodology contained in staff's Alternate I in developing our rate design for Schedule A-5 but will limit customer charge to $10 per meter per month.

For P, PA, and PA-PG Schedules, SDG&E's and staff's proposals are basically similar except for the reduction in customer charge blocks from six to four by the staff and a uniform energy charge for all consumption instead of the two declining energy blocks in SDG&E's proposal. We believe the staff's customer charge blocking proposal is reasonable; however, we will adopt a flattened two-tier energy charge of $0.0294 per kWhr for the first 10,000 kWhr and $0.0275 per kWhr for all excess kWhr for the P Schedules and a flat energy charge of $0.0250 per kWhr for all kWhr for PA and PA-PG Schedules.

The use of TOU tariffs is still in an experimental stage; therefore, the staff recommends that the present structure and balance of the A-6 TOU rate schedule be retained and similarly the A-5 TOU rate structure set forth in Advice Letter No. 430-E Supplement.[5] The reason given by the staff for maintaining the existing structure is the lack of sufficient data to evaluate the effectiveness of the TOU concept or to recommend changes thereto. In addition, SDG&E's A-6 TOU rate structure differs from PG&E's and Edison's TOU rate structures in that demand charges are based on each customers' contribution to the system load at the time of each monthly peak occurring during the on-peak period compared to demand charges based on maximum demand occurring at any time during the on-peak periods for the other two companies. We agree with the staff that at this time it is important to maintain the existing TOU rate structures in order to obtain sufficient data as early as possible. We will, therefore, adopt the format contained in staff's Alternates I for both A-5 TOU and A-6 rates except for customer charges which will be set at $20 and $600, per month, respectively.

5/ Since A-5 TOU rates are authorized by this decision, SDG&E's Advice Letters Nos. 430-E and 430-E supplement are moot and will be rejected.

For Street Lighting Schedules LS-1 and LS-2, we will adopt the staff's recommended rate proposals since the staff's proposals increase the charge for incandescent and mercury vapor lamps while decreasing charges for the highly efficient high-pressure sodium vapor lamps. The staff's proposal promotes efficient use and energy conservation.

We will also adopt as reasonable the staff's recommendations to close Schedule LS-3 to new customers and to bill new customers on Schedule A. Similarly, we will adopt the staff's proposal to eliminate Heating Schedule H as such schedule has been closed to new customers for a long time and transfer existing customers to Schedule A. The staff agrees with the format of other rates proposed by SDG&E and contract rates as being reasonable. We will adopt such format and contract rates modified to reflect the difference in requested and adopted revenues.

The increases in electric rates we are authorizing in this decision are shown in Table VII and Appendix F.

While we recognize marginal costs in this decision to the extent that the rates adopted are not inconsistent with rates that would result from a direct use of marginal costs, we are concerned that sufficient and timely presentations on marginal cost based on rate design be made in future applications. We have called for such presentations in our earlier decisions (D.89316 and D.89711). Further, a marginal cost rate design presentation is required by the Load Management Standards adopted by the California Energy Commission on May 23, 1979. As we stated in D.85559, "Conservation

in the sense of efficient allocation of electricity will be the keystone of the rate structure." Our movement in the direction of marginal cost pricing represents a major effort in the pursuit of conservation and in promoting the most efficient use and allocation of resources.

In our examination of marginal cost approaches presented in these proceedings, we are concerned with the substantial disparity between revenue which would result from rates set on full marginal costs and those allowed by the Commission. We therefore direct that another approach be presented in full in future applications. This approach is to recognize, as the appropriate levels of marginal costs, those costs that are the common costs to be recovered. Common costs are the costs imposed by each customer, regardless of customer class of voltage level. Common costs are the marginal generation and transmission capacity costs and the marginal energy costs. Consequently, the minimum charge must be the marginal running costs (marginal energy costs minus the average fuel cost which would be recovered in ECAC), and the maximum charge would be the running costs plus the cost of generation and transmission capacity. Table VI-A shows the development of the marginal costs which were used.

TABLE VIII

San Diego Gas & Electric Company
Electric Department

SUMMARY OF PROPOSED RATE INCREASES

Customer Class	Base Rate Revenue at 1/1/79	Partial Increase: D-89857	Increase Over Partial	Total Revenue at Adopted Rates	Adopted Sales in Millions of kWh
	(Dollars in Thousands)				
Residential					
Lifeline	$ 55,503	-	$ 6,708[1]	$ 62,211	2,351
Non-Lifeline	31,196	$ 5,144	9,915	46,255	1,482
Subtotal	86,699	5,144	16,623	108,466	3,833
General Service	70,294	9,732	10,883	90,909	2,952
Large General Service	19,894	4,191	1,823	25,908	1,277
Very Large General Service	12,766	3,308	560	16,634	1,012
General Power	4,053	544	578	5,175	165
Agricultural Power	2,995	464	364	3,823	142
Area Lighting	968	45	201	1,214	14
Street Lighting	3,391	266	596	4,253	81
Miscellaneous					
CPUC Jurisdiction	2,601	-	720	3,321	-
Non-Jurisdiction	4,583	-	-	4,583	340
Total	208,244	23,694	32,348	264,286	9,816

1/ Reflects changes in lifeline sales adjustment and average of 10 percent increase in revenue.

XV. FINDINGS AND CONCLUSIONS

Findings

1. SDG&E is in need of additional revenues but the proposed increase of $112,660,000 is excessive.

2. A rate of return of 10.59 percent on the adopted jurisdictional rate base of $1,014,490,000 is reasonable. Such rate of return will provide a return on common stock equity of approximately 14.50 percent and a times interest coverage after income taxes of 2.7 times. This rate of return is sufficient to enable SDG&E to attract capital at reasonable cost and maintain a sound credit rating.

3. The authorized rate of return on rate base and return on common equity (resulting in the increased revenue requirement found necessary herein) is expressly authorized and found reasonable if the next earliest test year to be used in establishing SDG&E's base revenue requirement will be 1981. Accordingly, the rates found reasonable herein are reasonable only if 1981 is the next earliest test year used to set base rates for SDG&E.

4. An adjustment in rate of return to reflect the vigor, imagination, and effectiveness of SDG&E's conservation program of a positive or negative nature is not warranted at this time. SDG&E should direct its attention to the implementation of as many cost-effective conservation programs as feasible including further progress in its CVR program, informative customer billing program, as well as the residential insulation program required in Case No. 10032.

5. The adopted test year estimates of operating revenues, operating expenses, and rate bases for the Electric, Gas, and Steam Departments for test year 1979 contained in Tables II, III, and IV, and discussed previously, reasonably indicate the results of SDG&E's operations in the near future.

6. The authorized increase in rates is expected to provide total company gross increased revenues for test year 1979 of approximately $70.9 million in jurisdictional sales over base rates in effect as of August 28, 1978, which equates to a gross increase of approximately $37.2

million over the rates authorized by D.89857, which granted SDG&E a partial general increase of $33.7 million. The $ 70.9 million increase in jurisdictional sales represents a $56.1 million increase in Electric Department revenues, a $14.6 million increase in Gas Department revenues, and a $199,600 increase in Steam Department revenues over August 28, 1978, rates or increases of $32.4 million, $4.8 million, and $10,500, respectively, for Electric, Gas, and Steam Departments over D.89857 rates. This amounts to a 26.9 percent, 12.2 percent, and 122 percent increase, respectively, in electric gas, and steam revenues over August 28, 1978 rates and a 13.9 percent, 3.7 percent, and 3.0 percent increase in revenues over D.89857 rates for the three departments, respectively.

7. The adopted capital structure and cost factors previously discussed on page 67a are reasonable.

8. In 1972 when Sundesert was initiated, nuclear generated power was considered the preferred technology because it was substantially less costly than oil or coal generation. This was later reaffirmed by the OPEC oil embargo in late 1973 which emphasized the desirability of reducing SDG&E's reliance on oil for generation of energy.

9. The qualifying of the Coastal Initiative for the November 1972 ballot made it apparent that siting a major generating plant in the California desert would decrease the probability of meeting regulatory disapproval.

10. In the Draft Environmental Statement issued by the NRC and the U.S. Department of Interior on Sundesert, the NRC staff concluded that "...Considerations of national policy and fuel reliability make it desirable to meet this need for generating capacity with nonoil-fired base-load capacity."

11. SDG&E's management was not imprudent in its inception, continuation, and termination of Sundesert considering the circumstances that existed at the time SDG&E had to make its decision.

12. Of the $90.5 million net Sundesert expenditures, we will disallow the entire $5.1 million of capitalized AFDC since the project has not led to construction; $500,000 of public relations expenditures which failed to meet the standards set forth in D.86794; and $360,000 of expenditures relating to legal advocacy and other lobbying activities which do not benefit ratepayers . are not allowable expenses for ratemaking purposes. We will find as reasonable Sundesert expenditures of $84.54 million.

13. For the total $47.34 million Sundesert site-related costs, we find that rate base treatment of such expenditures is proper in that the Sundesert site is a valuable asset that can be used for a future electric generation facility, except that the $2.0 million of site-related AFDC should be excluded from rate base until construction of a useful generation facility is completed at such site. Certain conditions must be attached to this finding to protect the interests of the ratepayers. We find it proper to include these costs in the rate base for up to three test year periods subject to review during each of the next three test year rate proceedings. If the site or related rights or both are sold during this period, appropriate compensation shall be made to the ratepayers for their costs incurred for which they received no benefit.

14. All parties except Energy Coalition agree that unless the Commission can make the finding of management imprudence, the Sundesert nonsite-related costs are properly recoverable expenditures.

15. It is not reasonable to allow rate base treatment on Sundesert nonsite-related expenditures since such treatment would place the same burden on ratepayers for an unsuccessful construction project as for a successful construction project that is placed in service. We will, however, authorize, as reasonable, a five-year amortization of such nonrecurring expenditures because they were prudently incurred.

16. We are not moved by SDG&E's arguments that the Commission should modify its policy of disallowing institutional advertising; therefore, such expenditures will continue to be disallowed for ratemaking purposes. Institutional advertising serves to advance the corporate image and does not benefit ratepayers.

17. SDG&E has made a firm offer of 7 percent to its union employees. It is reasonable to allow such 7 percent wage increase to be included in test year 1979 estimates as such increase falls within the President's wage and price guidelines and since an ultimate agreement can reasonably be expected to be finalized at no lesser amount than what SDG&E has offered.

18. The staff productivity adjustment is not based on a study to determine whether such an increase is feasible or measurable, and such adjustment may result in a double counting.

19. A management audit of SDG&E by independent consultants into areas approved by the Commission could result in expense savings to SDG&E (that would utimately benefit ratepayers). We further expect SDG&E to participate in this effort by making its recommendations as to areas of inquiry, audit guidelines, and objectives, as well as to the selection of consultants. Reasonable costs incurred for conducting a management audit are recoverable in future rates.

20. Nuclear decommissioning expense will be incurred and can be estimated now and amortized; accordingly, that expense can be included for ratemaking. Consistent with our treatment of nuclear plant decommissioning expenses in D.89711 of Edison, adoption of nuclear decommissioning expenses on a similar basis for SDG&E is reasonable. We should require SDG&E to also account for decommissioning costs on a unit basis similar to Edison.

21. Ad valorem tax expense adopted for the test year reflects actual post-Proposition No. 13 tax rates.

22. Since OII No. 24 will more fully explore the feasibility and ramifications of adopting new methods of calculating income taxes, it is reasonable to calculate income taxes on the traditional ratemaking method in this proceeding.

23. Similar to the methodology used for granting partial general rate increase in D.89857, we will limit ITC to 50 percent of the tax liability plus ratable flow-through of the excess ITC generated by the 1975 Tax Reduction Act. Income tax expense so computed should be subject to refund should the Internal Revenue Service agree that a rate greater than 50 percent can be used without jeopardizing the additional ITC available under the Tax Reduction Act of 1975.

24. SDG&E's performance in energy conservation in 1976 and 1977 was barely marginal. However, it proposed to expand its programs in 1978 and 1979. A rate of return adjustment based on conservation is not warranted at this time; however, the company is cautioned that it should demonstrate substantial program improvement in its next general rate case.

25. SDG&E can and should step up its CVR program efforts. We will require SDG&E to revise its tariff to set forth the new ranges of customer voltage recommended by the CVR program as shown in Appendix B and adopt CVR implementation and reporting requirements set forth in Appendix C.

26. All of SDG&E's conservation programs included in this proceeding were either being implemented or planned well in advance of the adoption of NECPA on November 9, 1978, and therefore, may continue into the future subject to continued authorization of this Commission as provided by Section 216 of Title II.

27. In spreading our partial general increase for the Steam Department, we adopted all of the staff's steam rate design recommendations. It is reasonable to spread the additional increase of $10,500 authorized in this decision for the Steam Department by increasing commodity rates for Schedules 1 and 2 by $0.05 and $.051 per Mlb, respectively. (Appendix D.)

28. It is not reasonable to eliminate employee discounts in this proceeding because the evidentiary record is incomplete on the need to eliminate discounts and the overall rate ramifications.

29. SDG&E's proposal to delete the present nonresidential gas schedules and establish a five priority classification for the purposes of curtailment is reasonable. It is further reasonable to place GR, GM, GS, and nonresidential Priority 1 usage in Priority 1.

30. Lifeline volumes represent 74 percent of total residential gas volumes and 50 percent of total gas volumes.

31. It is reasonable to increase customer charges for residential and nonresidential gas customers by $0.30 per customer per month to offset in part the increases in customer costs.

32. It is reasonable to increase gas lifeline rates to a level equivalent to 80.1 percent of the average system rate. ✓

33. It is reasonable to modestly increase Tiers II, III, and IV residential commodity rates, GN-1 and GN-2 nonresidential commodity rates, LNG rates, and increase service establishment and miscellaneous charges to $7.50 for gas customers as set forth in Table VI and Appendix E.

34. Increases to gas lifeline rates are reasonable considering that such usages have experienced only a minor increase in rates since lifeline rates went into effect over three years ago. An increase will equitably maintain current rate differentials.

35. A lifeline air-conditioning allowance of 400 kWh for all domestic customers in Zone V (Appendix F) for the months of May through October is reasonable. Adoption of a lifeline allowance for Zone H domestic customers is not reasonable.

36. The system average electric $/kWh rate, including the increases authorized in this decision, is .056 and 34 percent over the system average electric rate at January 1, 1976.

37. Lifeline electric rates have not been increased since January 1, 1976; and since average system rates will exceed lifeline rates by well over 25 percent, it is now reasonable to spread a portion of the increase authorized in this decision to lifeline sales.

38. A uniform electric lifeline commodity rate and a uniform nonlifeline commodity rate will result in a more simplified and easily understood rate structure which will promote customer understanding and ultimately conservation.

39. In order to encourage conservation, we will adopt uniform commodity charges or flattened commodity rate structures. By moving in the direction of flattened electric rates and away from declining block rates, customers will receive a clearer economic signal to effect conservation.

40. Lowering charges for energy efficient high-pressure sodium vapor street lamps and increasing charges for less efficient mercury vapor and incandescent lamps will encourage a shift to more energy efficient street lighting.

41. If SDG&E revises its electric tariffs to curtail use of residential pool filter motor pumps during daily peak periods of noon to 6 p.m. as set forth in Appendix A it will reduce peak period loads.

42. If the last units of energy consumed are priced at least equal to the first consumed, or higher, customers will realize significant economic savings if consumption is reduced.

43. Inverted or at least flattened rate structures for gas and electric rates give an economic signal to customers of the economic advantages of conserving energy.

44. A flattened rate structure for small general service users will result in a more simplified rate structure that can be more easily understood by such users.

45. Establishment of TOU rates for large general service customers presently served under Schedule A-5 with demand between 1,000 and 4,000 kW could result in reducing or shifting peak load requirements.

46. Decision No. 85559, Case No. 9804, dated March 16, 1976 found that TOU rates would reduce peak loads (see Findings 20-25) and directed respondent utilities, including SDG&E, to present TOU rate proposals.

47. If the lifeline quantity rate for electric and gas service is not increased, residential customers will receive a false economic signal regarding the cost of energy.

48. If a revised Schedule A is established for general service customers whose monthly demand exceeds 50 kV with a flat demand charge, the customers will receive an economic signal to reduce demand.

49. Presently, general service customers served under Schedule A are not subject to a separate demand and commodity charge.

50. If general service customers reduce demand throughout the monthly billing period, there will be a resultant reduction in the utility's future load requirements.

51. The authorized rate spread shown in Table VII and rates set forth in Appendix F are just, reasonable, and nondiscriminatory.

52. The rates authorized herein by Appendices D, E, and F are just, reasonable, and nondiscriminatory. All other rates and charges to the extent that they differ from Appendices D, E, and F are unjust and unreasonable. Advice Letter No. 430-E and Supplement thereto dealing with A-5 TOU rates are moot.

53. All pending motions taken under submission and not ruled on should be denied.

54. The effective date of the order should be the date hereof because there is an immediate need for rate relief and nearly one-half of the test year will have already expired.

55. In including an amount of $846,985 in our adopted test year 1979 operating expenses for the insulation incentive program authorized by D.90308 in Case No. 10032 we find it reasonable to require that any funds authorized for this program which are not expended for the insulation incentive program will be subject to refund upon termination or completion of the program. Otherwise it would result in a windfall to the utility.

Conclusions

1. SDG&E should be authorized to file revised steam rates as set forth in Appendix D which are designed to produce $10,500 of additional revenues over D.89857 levels based on test year 1979 adopted results of operation.

2. SDG&E should be authorized to file revised gas rates as set forth in Appendix E which are designed to produce $4.8 million of additional revenues over D.89857 levels based on test year 1979 adopted results of operation.

3. SDG&E should be authorized to file revised electric rates as set forth in Appendix F which are designed to produce $32.4 million of additional revenues over D.89857 levels based on test year 1979 adopted results of operation.

4. The increases should be granted subject to refund to the extent that income tax expenses are computed limiting ITC to 50 percent of the tax liability and to the extent the funding adopted herein for the insulation incentive program is not expended for such program.

ORDER

IT IS ORDERED that:

1. San Diego Gas & Electric Company (SDG&E) is authorized to file with this Commission revised schedules for steam, gas, and electric rates as set forth in Appendices D, E, and F on or after the effective date of this order. The revised tariff schedules shall become effective five days after filing and shall comply with General Order No. 96-A. The revised schedules shall apply only to service rendered on and after the effective date thereof.

2. The increase authorized herein shall be subject to refund at 7 percent interest to the extent that income tax expenses are computed limiting Investment Tax Credit to 50 percent of the tax liability and authorized funding for the insulation incentive program is not expended.

3. SDG&E shall undertake a management audit conducted by independent consultants. Before consulting contracts are awarded

and the audit is begun, the Executive Director shall submit to the Commission, for its approval, the specific areas of inquiry the management audit will cover.

4. SDG&E shall continue programs designed to produce conservation, increase efforts to develop conservation oriented rates based on marginal costs, and apply vigor and imagination to develop new, innovative, and cost-effective conservation programs.

5. SDG&E shall within one hundred eighty days from the date of this order submit for Commission approval revised customer billing formats that are designed to enable customer understanding of the conservation oriented rate design and the economic effect of energy conservation. SDG&E should work closely with the staff in preparing various proposed bill formats.

6. SDG&E shall within thirty days after the effective date of this order revise its tariff to include the customer service voltages and customer utilization voltages set forth in Appendix B.

7. SDG&E shall continue to expand its implementation of conservation voltage regulation and file progress reports as scheduled and set forth in Appendix C.

8. SDG&E shall file within thirty days after the effective date of this order an amendment to its rules to include the provisions set forth in Appendix A on swimming pool filters and pumps.

9. SDG&E shall distribute to each of its residential customers a brochure listing energy efficient refrigerators, freezers, and refrigerator-freezer combinations. The brochure shall compare appliances with similar features, listing specific information by brand name, model, size in cubic feet, kilowatt usage per month, and average estimated operating cost. The first distribution of this brochure should be made within one hundred twenty days from the effective date of this order.

10. SDG&E's Advice Letters Nos. 430-E and 430-E Supplement filed on May 17, 1977 and November 3, 1977, respectively, are rejected.

11. All motions in these proceedings not heretofore ruled on are denied.

The effective date of this order is the date hereof.

Dated at San Francisco, California, this 5th day of JUNE, 1979.

I am filing a concurring opinion
John E. Bryson

See concurring opinion attached -

John E. Bryson
President

Commissioners

APPENDIX A

PROPOSED PROHIBITIONS AND CURTAILMENT PROVISIONS

"(__) Timers associated with swimming pool pumps and filtration equipment shall not be set to operate such equipment during the peak usage periods of the day from 12:00 noon to 6:00 PM.

"(a) Notwithstanding the provisions set forth above, a circulating pump not exceeding three-quarters horsepower in size may be used to circulate solar heated water from solar collector panels to any pool or to return pool water to solar collector panels.

"(b) Notwithstanding the provisions set forth above, pumps that activate hydro-massage and therapeutic or other equipment designed for the confort of bathers may be set to operate by means of manual switches during any period when the pool is occupied."

RULE NO. 2. DESCRIPTION OF SERVICE

(___) Customer Service Voltages:

Under all normal load conditions, distribution circuits will be operated so as to maintain secondary service voltage levels to customers within the voltage ranges specified below:

Nominal Two-Wire And Multi-Wire Service Voltage	Minimum Voltage To All Services	Maximum Service Voltage On Residential And Commercial Distribution Circuits	Maximum Service Voltage On Agricultural And Industrial Distribution Circuits
120	114	120	126
208	197	208	218
240	228	240	252
277	263	277	291
480	456	480	504

(___) Exceptions to Voltage Limits. Voltage may be outside the limits specified when the variations:

(a) Arise from the temporary action of the elements.

(b) Are infrequent momentary fluctuations of a short duration.

(c) Arise from service interruptions.

(d) Arise from temporary separation of parts of the system from the main system.

(e) Are from causes beyond the control of the utility.

(___) Customer Utilization Voltages:

(1) All customer-owned utilization equipment must be designed and rated in accordance with the following utilization voltages specified by the American National Standard C84.1 if customer equipment is to give fully satisfactory performance:

Nominal Utilization Voltage	Minimum Utilization Voltage	Maximum Utilization Voltage
120	110	125
208	191	216
240	220	250
277	254	289
480	440	500

(2) The difference between service and utilization voltages are allowances for voltage drop in customer wiring. The maximum allowance is 4 volts (120 volt base) for secondary service.

(3) Minimum utilization voltages from American National Standard C84.1 are shown for customer information only as the Company has no control over voltage drop in customer's wiring.

(4) The minimum utilization voltages shown in (1) above, apply for circuits supplying lighting loads. The minimum secondary utilization voltages specified by American National Standard C84.1 for circuits not supplying lighting loads are 90 percent of nominal voltages (108 volts on 120 volt base) for normal service.

(5) Motors used on 208 volt systems should be rated 200 volts or (for small single phase motors) 115 volts. Motors rated 230 volts will not perform satisfactorily on these systems and should not be used. Motors rated 220 volts are no longer standard, but many of them were installed on existing 208 volt systems on the assumption that the utilization voltage would not be less than 187 volts (90 percent of 208 volts).

APPENDIX C

CONSERVATION VOLTAGE REGULATION IMPLEMENTATION AND REPORTING REQUIREMENTS

1. SDG&E shall actively continue its investigation and testing of distribution circuits, loads, motors, and appliances to maximize the saving of energy through control of voltage regulation. Priority shall be given to the analysis of agricultural and industrial services. SDG&E shall file in writing, progress reports on or before June 30 and December 31 of each year, setting forth detailed engineering data of individual investigations and tests.

2. SDG&E shall systematically and periodically review the service voltages of all of its distribution circuits to ensure that all service voltages are as close to the minimum voltages, specified in Appendix B, as is cost-effective and will maximize energy savings. Records shall be maintained of all distribution circuit voltage regulator control settings including bandwidth, voltage level, and line-drop compensator.

3. SDG&E shall review the design and operation of all of its distribution circuits and determine for each circuit the cost-effectiveness of maximizing conservation of energy by optimizing service voltages. On or before October 31, 1979, SDG&E shall report in writing the results of this review including the regulator operating voltage levels for each circuit at the beginning and end of the circuit and the proposed circuit changes to maximize conservation of energy by optimizing service voltage for those circuits where it is found to be cost-effective to do so.

4. SDG&E is hereby authorized to file by October 31, 1979, a list of deviations for those residential and commercial distribution circuits that do not conform to the minimum and maximum secondary voltage levels specified in Appendix B and shall request authority for continuation of such deviations as may be necessary annually thereafter. The aforementioned list and subsequent annual requests for authorization shall list each circuit for which a deviation is requested, the factors which impeded compliance, the status of the design and operation review, and any proposed circuit changes to eliminate the continued requirement for the deviations.

5. SDG&E is hereby directed, in cooperation with our Energy Conservation Branch, to implement during the next twelve months a voltage surveillance program to assure that those feeder circuits which have been adjusted to the new service voltage range under the Conservation Voltage Regulation Program remain within the voltage range prescribed herein.

APPENDIX D

Steam Department

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

Schedules 1 and 2

a. Tariff Rates

	Per Meter Per Month	
	Sch. 1	Sch. 2
Customer Charge	$7.89	$7.97
Commodity Charge, per 1,000 lb.	$6.757	$6.825

b. Special Conditions

4. Energy Cost Adjustment. An Energy Cost Adjustment, as specified in Section 7 of the Preliminary Statement is included in the above commodity charge. The current Energy Cost Adjustment is $___*___ per thousand pounds of steam.

*$5.064 for Sch. 1 and $5.115 for Sch. 2 (as of January 21, 1979); adjust to reflect rate effective on the date of this order.

APPENDIX E

Gas Department

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

Tariff Rates	Per Meter Per Month	
	Lifeline Rates	Non-lifeline Rates
Schedule GR, GM, GS, GT		
Customer Charge	$1.70	$1.70
Commodity Charge		
First 81 therms, per therm	$0.1976[1]	$0.2475
Next 81 therms, per therm	-	.2924
Over 162 therms, per therm	-	.3293

1/ 10% commodity rate discount for Schedule GS lifeline sales.
15% commodity rate discount for Schedule GT lifeline sales.

	Lifeline Rates	Non-lifeline Rates
Schedule GN-1		
Customer Charge	-	$1.70
Commodity Charge, per therm	-	$0.2500
Schedule GN-2		
Commodity Charge, per therm	-	$0.2500
Schedules GN-3, GN-4, GN-5		
Commodity Charge, per therm	-	No Change
Schedules GL-1 and GL-2 and special contracts to be increased commensurately.	-	

RATES - SAN DIEGO GAS & ELECTRIC COMPANY, ELECTRIC DEPARTMENT

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

SUMMARY OF BASE RATES

GENERAL SERVICE (SCHEDULE A)

APPLICABILITY

Applicable to general service including lighting, appliances, heating, and power, or any combination thereof. The utility will normally demand meter customers whose monthly maximum demand exceeds 50 kw.

RATES	Per Meter Per Month
Non-Demand Metered Customers	
Customer Charge....................................	$ 2.20
Energy Charge:	
All kwhr, per kwhr................................	$ 0.034
Demand Metered Customers	
Customer Charge....................................	$ 10.00
Demand Charge, per kw of billing demand.............	$ 1.00
Energy Charge:	
All kwhr, per kwhr................................	$ 0.02451

Minimum Charge:

The minimum charge shall be the customer charge, except where loads listed below are served, in which case the following amounts will be added to the customer charge:

1. For air heating load, $1.37 per month per kilowatt of aggregate capacity in excess of 3 kilowatts of connected load.
2. For power load, $1.37 per month per horsepower of aggregate capacity in excess of 3 horsepower of connected load.
3. For seasonal or intermittent loads, as provided in Special Condition 7.

RATES - SAN DIEGO GAS & ELECTRIC COMPANY, ELECTRIC DEPARTMENT

GENERAL SERVICE
(SCHEDULE A)
(Continued)

SPECIAL CONDITIONS

4. Billing Demand. The billing demand to be used in computing charges will be the mean of the maximum demand for the current month and the highest such demand occurring in the year ending with the current month. For maximum demands occurring between the hours of 10 p.m. to 7 a.m. of the following day, only 60 percent of such maximum demand shall be considered.

5. Maximum Demand.

(a) The maximum demand in any month shall be the average kilowatt input during the fifteen-minute interval in which the consumption of electric energy is greater than in any other fifteen-minute interval in the month, as indicated or recorded by instruments installed, owned and maintained by the utility, but not less than the diversified resistance welder load computed in accordance with the utility's Rule 2F-2b.

7. The charges shown in sections (a) and (b) shall be $1.37 per kilowatt.

GENERAL SERVICE (SCHEDULE A-5)

RATES	Per Meter Per Month
Customer Charge	$ 10.00
Demand Charge, per kw of billing demand	$ 3.96
Energy Charge:	
First 200 kwhr per kw of billing demand, per kwhr	$ 0.0120
All excess kwhr, per kwhr	$ 0.0090

Minimum Charge:

The monthly minimum charge shall be the customer charge plus the demand charge.

SPECIAL CONDITIONS

6. The charge shown for Power Factor Adjustment should be 21 cents per kilovar.

GENERAL SERVICE - TIME METERED (SCHEDULE A-5 TOU)

APPLICABILITY

Applicable to all new customers whose maximum monthly demand is expected to be between 1,000 Kw and 4,500 Kw and to existing customers whose maximum monthly demand exceeds 1,000 Kw for three consecutive months but does not meet the demand requirements for Schedule A-6. Any customer whose maximum monthly demand has fallen below 1,000 Kw for 12 consecutive months and who does not meet the demand requirements for any other mandatory schedule may, at his option, elect to continue service under this schedule or be served under any other applicable schedule.

RATES - SAN DIEGO GAS & ELECTRIC COMPANY, ELECTRIC DEPARTMENT

GENERAL SERVICE - TIME METERED (SCHEDULE A-5 TOU)
(Continued)

TERRITORY

Within the entire territory served by utility.

RATES

	Per Meter Per Month
Customer Charge..	$ 20.00/mo.
Demand Charge:	
Customer's Maximum Demand During the On-Peak Period..................................	$ 5.84/kw
Energy Charge:	
On-Peak..	$ 0.0138/kwhr
Plus: Semi-Peak.................................	$ 0.0088/kwhr
Plus: Off-Peak..................................	$ 0.0063/kwhr

Where time periods are defined as follows:

The definition of time will be based upon the meter reading date for the customer.

Time Period	May 16 - October 15*	All Others
On-Peak	10 a.m. - 5 p.m. Weekdays	5 p.m. - 9 p.m. Weekdays
Semi-Peak	5 p.m. - 9 p.m. Weekdays	10 a.m. - 5 p.m. Weekdays
Off-Peak	9 p.m. -10 a.m. Weekdays Plus Weekends & Holidays	9 p.m. - 10 a.m. Weekdays Plus Weekends & Holidays

*Where the utility's meter reading schedule would cause more than five of a customer's reads to fall in this period, the first will be based on the All Other Periods.

Time Periods:
All time periods listed are in Pacific Standard Time. During periods when Pacific Daylight Saving Time is in operation, one hour must be added to the listed times to arrive at actual "clock" times.

Holidays:
The holidays specified in this schedule are: New Year's Day, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day and Christmas Day as designated by California Law.

RATES - SAN DIEGO GAS & ELECTRIC COMPANY, ELECTRIC DEPARTMENT

GENERAL SERVICE - TIME METERED (SCHEDULE A-5 TOU)
(Continued)

RATES (Continued)

Minimum Charge:
The monthly minimum charge shall be $2.18 per kw of maximum demand.

Energy Cost Adjustment:
An Energy Cost Adjustment, as specified in Section 9. of the Preliminary Statement, will be included in each bill for service, including the minimum charge. The Energy Cost Adjustment amount shall be the product of the total kilowatt-hours for which the bill is rendered multiplied by $0.03310 per kilowatt-hour. (The Energy Cost Adjustment amount is not subject to any adjustment for serving voltage.)

Franchise Fee Differential:

The franchise fee differential as indicated below will be applied to the monthly billings calculated under this schedule for all customers within the corporate limits as follows:

City of San Diego 1.9%

Such franchise fee differential shall be so indicated and added as a separate item to bills rendered to such customers.

SPECIAL CONDITIONS

1. Primary Voltage and Energy Discount. A primary voltage and energy discount will only be allowed where delivery is made and energy is received at an available standard voltage. Under these circumstances, the charges before power factor adjustment and energy cost adjustment will be reduced as follows:
3 per cent in the range of 2 kv to 10 kv
4 per cent in the range of 10.1 kv to 25 kv
7 per cent above 25 kv

The utility retains the right to change its delivery voltage after reasonable advance notice in writing to any customer receiving a discount hereunder and affected by such change, and such customer then has the option to change his system so as to receive service at the new delivery voltage or to accept service without voltage and energy discount after the change in delivery voltage, through transformers owned by the utility.

2. Voltage Regulators. Voltage regulators, if required by the customer shall be furnished, installed, owned and maintained by the customer.

3. Demand Charge. The demand charge will be based on kilowatts of maximum demand as measured each month during the On-Peak Period. The maximum demand during the On-Peak Period shall be the average kilowatt input during the fifteen-minute interval in which the consumption of electric energy is greater than in any other fifteen-minute interval during the On-Peak Period, as indicated or recorded by instruments installed, owned and maintained by the utility.

RATES - SAN DIEGO GAS & ELECTRIC COMPANY, ELECTRIC DEPARTMENT

GENERAL SERVICE - TIME METERED (SCHEDULE A-5 TOU)
(Continued)

SPECIAL CONDITIONS (Continued)

3. Demand Charge. (Continued)

In the case of hoists, elevators, furnaces, or other loads where the energy demand is intermittent or subject to violent fluctuations, the utility may base the maximum demand upon a five-minute interval instead of a fifteen-minute interval.

4. Maximum Demand. The maximum demand in any month shall be the average kilowatt input during that fifteen-minute interval in which the consumption of electric energy is greater than in any other fifteen-minute interval in the month as recorded by instruments installed, owned and maintained by the utility. For the purpose of determining the minimum charge the maximum demand shall in no case be less than the highest of (a) 1,000 kw, (b) 80 per cent of the highest maximum demand registered during the preceding eleven months, or (c) the diversified resistance welder load computed in accordance with the utility's Rule 2F-2b.

In the case of hoists, elevators, furnaces and other loads where the energy demand is intermittent or subject to violent fluctuations, the utility may base the maximum demand upon a five-minute interval instead of a fifteen-minute interval.

5. Power Factor Adjustment. This schedule is based on service to loads having a maximum reactive kilovolt ampere demand not greater than 75 per cent of the maximum kilowatt demand. In the event that the reactive demand exceeds 75 per cent of the kilowatt demand, the customer shall, upon receiving written notice from the utility, install and operate such compensating equipment as may be necessary to reduce the reactive demand to 75 per cent or less of the kilowatt demand. Unless such correction of reactive demand is made within ninety days, there will be added to each monthly bill following the ninety day period a charge of 21 cents per kilovar of maximum reactive demand in excess of 75 per cent of the maximum kilowatt demand (whether on-peak or off-peak) for the month.

6. Digital Pulse Recorder Malfunction. In the event that the digital pulse recorder (DPR) malfunctions during the billing period, the energy sales will be based on the mechanical meter reading. Where the malfunction existed for less than 25% of the billing period, the energy sales will be prorated to time periods based on the energy division during the period when the DPR was working properly. Where the malfunction time exceeds 25% of the billing period, the energy sales will be prorated to time periods based on the energy division during the three previous calendar months. If the DPR functions properly for more than 25% of the billing period, the Demand Charge will be based on the maximum demand during the On-Peak Period as measured during the period of correct DPR functioning. In the event that the DPR malfunctions for more than 75% of the billing period, the Peak Demand Charge will be based on the average of the three previous demand charges which have the same On-Peak hours.

RATES - SAN DIEGO GAS & ELECTRIC COMPANY, ELECTRIC DEPARTMENT

GENERAL SERVICE - TIME METERED (SCHEDULE A-5 TOU)
(Continued)

SPECIAL CONDITIONS (Continued)

7. Reconnection Charge. In the event that a customer terminates service under this schedule and re-initiates service at that same location within 12 months, there will be a reconnection charge equal to the minimum charge which would have been billed had the customer not terminated service.

8. Miscellaneous. This schedule is not applicable to standby, auxiliary service or service operated in parallel with a customer's generating plant.

GENERAL SERVICE - LARGE (SCHEDULE A-6)

RATES	Per Month
Customer Charge..	$ 600.00
Peak Demand Charge for Customer Contribution to Monthly System Peak..	$ 7.67/kw
Energy Charge:	
On-Peak..	$ 0.0100/kwhr
Plus: Semi-Peak..	$ 0.0050/kwhr
Plus: Off-Peak...	$ 0.0025/kwhr

Minimum Charge:
The monthly minimum charge shall be $10,121.00 but not less than $2.02 per kw of maximum demand.

SPECIAL CONDITIONS

6. The charge shown for Power Factor Adjustment should be 21 cents per kilovar.

GENERAL SERVICE-PARALLEL GENERATION
(EXPERIMENTAL SCHEDULE A-PG)

RATES	Per Meter Per Month
Customer Charge..	$ 5.60
Net Energy Charge (to be added to Customer Charge):	
First 100 kwhr, per kwhr........................	No Additional Base Charge
All excess kwhr, per kwhr....................................	$ 0.034

Minimum Charge:
The minimum charge shall be the customer charge, except where loads listed below are served, in which case the following amounts will be added to the customer charge:

1. For air heating load, $1.37 per month per kilowatt of aggregate capacity in excess of 3 kilowatts of connected load.
2. For power load, $1.37 per month per horsepower of aggregate capacity in excess of 3 horsepower of connected load.

RATES - SAN DIEGO GAS & ELECTRIC COMPANY, ELECTRIC DEPARTMENT

DOMESTIC SERVICE (SCHEDULE DR)

RATES	Per Meter Per Month
Customer Charge	$ 2.20
Energy Charge (to be added to Customer Charge):	
Lifeline, per kwhr	$ 0.01920
Non-Lifeline, per kwhr	$ 0.03103

SPECIAL CONDITIONS

4. An Air Conditioning Lifeline Allowance of 400 kwhr per month shall be added for all customers receiving service in zone V which is shown in Exhibit 27. The Air Conditioning Lifeline Allowance will be additive to existing allowances during the summer season.

MULTI-FAMILY SERVICE (SCHEDULE DM)

RATES	Per Meter Per Month
Customer Charge	$ 2.20
Energy Charge (to be added to Customer Charge):	
Lifeline, per kwhr	$ 0.01920
Non-Lifeline, per kwhr	$ 0.03103

SPECIAL CONDITIONS

8. An Air Conditioning Lifeline Allowance of 400 kwhr per month shall be added for all customers receiving service in zone V which is shown in Exhibit 27. The Air Conditioning Lifeline Allowance will be additive to existing allowances during the summer season.

RATES - SAN DIEGO GAS & ELECTRIC COMPANY, ELECTRIC DEPARTMENT

SUBMETERED MULTI-FAMILY SERVICE (SCHEDULE DS)

RATES	Per Meter Per Month
Customer Charge..	$ 2.20
Energy Charge (to be added to Customer Charge):	
Lifeline, per kwhr..	$ 0.01920
Non-Lifeline, per kwhr....................................	$ 0.03103

SPECIAL CONDITIONS

8. An Air Conditioning Lifeline Allowance of 400 kwhr per month shall be added for all customers receiving service in zone V which is shown in Exhibit 27. The Air Conditioning Lifeline Allowance will be additive to existing allowances during the summer season.

SUBMETERED MULTI-FAMILY SERVICE - MOBILEHOME PARK
(SCHEDULE DT)

RATES	Per Meter Per Month
Customer Charge..	$ 2.20
Energy Charge (to be added to Customer Charge):	
Lifeline, per kwhr..	$ 0.01920
Non-Lifeline, per kwhr....................................	$ 0.03103

SPECIAL CONDITIONS

8. An Air Conditioning Lifeline Allowance of 400 kwhr per month shall be added for all customers receiving service in zone V which is shown in Exhibit 27. The Air Conditioning Lifeline Allowance will be additive to existing allowances during the summer season.

RATES - SAN DIEGO GAS & ELECTRIC COMPANY, ELECTRIC DEPARTMENT

DOMESTIC-PARALLEL GENERATION
(EXPERIMENTAL SCHEDULE D-PG)

RATES

	Per Meter Per Month
Customer Charge	$ 5.32
Net Energy Charge (to be added to Customer Charge):	
First 100 kwhr, per kwhr	No Additional Charge
Excess kwhr, per kwhr	$ 0.03103

EXPERIMENTAL DOMESTIC UNCONTROLLED TIME-OF-USE SERVICE
(SCHEDULE D-U TOU)

RATES

	Per Meter Per Month
Customer Charge	$ 2.20
Energy Charge (to be added to Customer Charge):	
On-Peak, per kwhr	$ 0.06971
Off-Peak, per kwhr	$ 0.00000

Lifeline Discount:
All charges applicable to the lifeline quantity will be reduced as follows:

All kwhr, per kwhr	$ 0.01203

SPECIAL CONDITIONS

4. An Air Conditioning Lifeline Allowance of 400 kwhr per month shall be added for all customers receiving service in zone V which is shown in Exhibit 27. The Air Conditioning Lifeline Allowance will be additive to existing allowances during the summer season.

HEATING (SCHEDULE H)
(Closed Schedule)

Schedule H is to be deleted, current customers on Schedule H to be transferred to Schedule A.

RATES - SAN DIEGO GAS & ELECTRIC COMPANY, ELECTRIC DEPARTMENT

LIGHTING - STREET AND HIGHWAY - UTILITY-OWNED INSTALLATIONS
(SCHEDULE LS-1)

APPLICABILITY

Applicable to street lighting service on dedicated thoroughfares, on private streets under Special Condition 6, and to individuals under Special Condition 7.

TERRITORY

Within the entire territory served by the utility.

RATES

Lamp Watts	Approximate Lumens	Class A	B 1-lamp	B 2-lamp	C 1-lamp	C 2-lamp
Mercury Vapor Lamps*						
175	7,000	$ 8.74	-	-	$17.36	$25.05
250	10,000	10.65	-	-	19.78	29.27
400	20,000	13.83	-	-	23.17	-
700	35,000	22.41	-	-	-	-
1,000	55,000	28.38	-	-	44.99	
High Pressure Sodium Vapor Lamps						
100	9,500	7.86	9.06	15.72		
150	16,000	9.36	10.53	18.61		
250	30,000	12.74	13.69	24.[illegible]		
400	50,000	15.98	16.97	[illegible]		
1,000	140,000	29.74	30.80			

Energy Cost Adjustment:
This schedule is subject to an Energy
Section 9. of the Preliminary Statement
included in the above rates for serv
kilowatt-hours for the service re
per kilowatt-hour.

Franchise Fee Differentia
A franchise fee diff
monthly billings calculated
corporate limits as follows:

City o

Such franchise fee differential sh
item to bills rendered to such cust

*Closed to new installations as of the

CORRECTION

CORRECTION

THIS DOCUMENT

HAS BEEN REPHOTOGRAPHED

TO ASSURE LEGIBILITY

RATES - SAN DIEGO GAS & ELECTRIC COMPANY, ELECTRIC DEPARTMENT

LIGHTING - STREET AND HIGHWAY - UTILITY-OWNED INSTALLATIONS
(SCHEDULE LS-1)

APPLICABILITY

Applicable to street lighting service on dedicated thoroughfares, on private streets under Special Condition 6, and to individuals under Special Condition 7.

TERRITORY

Within the entire territory served by the utility.

RATES

Lamp Watts	Approximate Lumens	Class A	B 1-lamp	B 2-lamp	C 1-lamp	C 2-lamp
		Dollars Per Electrolier Per Month				
Mercury Vapor Lamps*						
175	7,000	$ 8.74	-	-	$17.36	$25.05
250	10,000	10.65	-	-	19.78	29.27
400	20,000	13.83	-	-	23.17	-
700	35,000	22.41	-	-	-	-
1,000	55,000	28.38	-	-	44.99	-
High Pressure Sodium Vapor Lamps						
100	9,500	7.86	9.06	15.72	16.63	23.60
150	16,000	9.36	10.53	18.61	18.68	27.06
250	30,000	12.74	13.69	24.78	21.96	33.49
400	50,000	15.98	16.97	31.42	26.00	41.04
1,000	140,000	29.74	30.80	58.67	46.24	74.75

Energy Cost Adjustment:

This schedule is subject to an Energy Cost Adjustment, as specified in Section 9. of the Preliminary Statement. The Energy Cost Adjustment amount included in the above rates for service shall be the product of the annual kilowatt-hours for the service rendered, divided by 12, multiplied by $0.03310 per kilowatt-hour.

Franchise Fee Differential:

A franchise fee differential as indicated below will be applied to the monthly billings calculated under this schedule for all customers within the corporate limits as follows:

City of San Diego 1.9%

Such franchise fee differential shall be so indicated and added as a separate item to bills rendered to such customers.

*Closed to new installations as of the effective date of this schedule.

RATES - SAN DIEGO GAS & ELECTRIC COMPANY, ELECTRIC DEPARTMENT

LIGHTING - STREET AND HIGHWAY - UTILITY-OWNED INSTALLATIONS
(SCHEDULE LS-1)
(Continued)

SPECIAL CONDITIONS

1. Facilities and Rates.

a. Class A Service

(1) Utility-owned Installations. The Class A rates are applicable to conventional street lighting equipment mounted on wood poles in standard positions and supplied from overhead lines. Underground-fed installations served on this schedule prior to September 22, 1972 will be billed on the Class A rates.

(a) Non-Standard Charge. When center suspension lamps or wood poles in non-standard positions are required, the utility will make such installations subject to the following additional charges.

	Per Lamp Per Month
Center Suspension*	$ 5.90
Wood pole in non-standard position	
30-foot	2.95
35-foot	3.25

(b) Reactor Ballast.* Where reactor ballasts are furnished for mercury vapor lamps, the rates stated in this schedule for the standard regulator ballast installations will be reduced by 29¢ per lamp per month for the 175-watt lamp size and by 42¢ per lamp per month for the 250-watt lamp size.

(2) Jointly-owned Installations. Class A rates apply to utility-owned and maintained conventional luminaires mounted on standards and brackets owned and maintained by the Customer, where the Customer provides and maintains the underground service conductor from the utility's point of service to the luminaire.

b. Class B and Class C rates are applicable to the utility's street light installations where standard electroliers and service are installed. The developer of the subdivision or development will be required to perform all trenching and backfilling at his

*Closed to new installations as of the effective date of this schedule.

RATES - SAN DIEGO GAS & ELECTRIC COMPANY, ELECTRIC DEPARTMENT

LIGHTING - STREET AND HIGHWAY - UTILITY-OWNED INSTALLATIONS
(SCHEDULE LS-1)
(Continued)

SPECIAL CONDITIONS (Continued)

1. Facilities and Rates. (Continued)

   b. (Continued)
   expense. The utility's standard electrolier consists of a concrete aggregate pole with six-foot bracket supporting a conventional street lighting luminaire.

      (1) Class B rates are applicable to service where the customer pays to the utility in advance the amount by which the estimated cost to the utility of the concrete pole street lighting system exceeds the cost to the utility of the wood pole overhead system which would otherwise be required.

      (2) Class C rates also apply to installations made in accordance with Schedule LS-4A prior to (effective date of this schedule).

   c. Other utility approved installations will be subject to the appropriate rates above, plus $0.0187 per month for each dollar of investment by the utility in excess of the investment in the standard installation. This rate will also apply to installations made in accordance with Schedule LS-4B prior to (effective date of this schedule).

   d. Line Extensions (for wholly-owned utility service)

      (1) Overhead - one span of secondary conductor.
      (2) Underground - 120 feet of two #8 SIDA from the cable entrance of the electrolier.
      (3) Extensions in excess of the above will be made in accordance with the utility's Rules.

2. Type of Service. Multiple service hereunder shall be at the utility's option.

3. Hours of Burning. Service will be from dusk to daylight which, in accordance with the utility's switching schedule, results in approximately 4,165 burning hours per year.

4. Location of Facilities. Service will not be furnished under this schedule where, in the opinion of the utility, an undue hazard or

RATES - SAN DIEGO GAS & ELECTRIC COMPANY, ELECTRIC DEPARTMENT

LIGHTING - STREET AND HIGHWAY - UTILITY-OWNED INSTALLATIONS
(SCHEDULE LS-1)
(Continued)

SPECIAL CONDITIONS (Continued)

expense would result. The installation of street lights hereunder is contingent upon the utility's obtaining satisfactory rights of way and necessary highway permits.

5. Relocation of Facilities. Relocation of utility's facilities at the customer's request or because of governmental requirements will be made providing the customer pays the actual costs incurred by the utility for such relocation.

6. Non-Dedicated Streets. Lighting of non-dedicated streets may be supplied to corporations or unincorporated associations of land owners or others, organized as legal entities having a responsibility for street maintenance. This schedule is not applicable to service for the lighting of any other private property.

7. Service to Private Customers. With the utility's consent, a private individual or company may resume payment for any light under this schedule, other than mercury vapor lamps of 175 watts or 400 watts, when a governmental customer terminates service.

8. Contract. A contract for a period of not less than one year and not more than five years may be required for service under this schedule and will remain in effect from year to year thereafter until cancelled.

RATES - SAN DIEGO GAS & ELECTRIC COMPANY, ELECTRIC DEPARTMENT

LIGHTING - STREET AND HIGHWAY - CUSTOMER-OWNED INSTALLATIONS
(SCHEDULE LS-2)

APPLICABILITY

Applicable for service to governmental agencies and lighting districts for the lighting of streets, highways and other thoroughfares, and to other corporate agencies for the lighting of non-dedicated streets which are accessible to the public, where the customer owns the entire installation, including underground lines from a central point of connection with utility facilities.

TERRITORY

Within the entire territory served by the utility.

RATES

Lamp Watts	Approximate Lumens	Dollars Per Lamp Per Month: RATE A Energy Only	RATE B Energy and Limited Maintenance	Surcharge for Series Service
Incandescent Lamps				
	1,000	$ 1.92	-	
	2,500	3.79	$ 4.87	
	4,000	5.50	6.58	
	6,000	7.89	8.97	
	10,000	13.11	-	
Mercury Vapor Lamps				
175	7,000	4.37	5.01	$0.48
250	10,000	5.93	6.71	0.62
400	20,000	9.10	9.80	0.90
700	35,000	15.16	16.23	1.63
1,000	55,000	21.25	-	-
High Pressure Sodium Vapor Lamps				
70	5,800	1.95	2.86	
100	9,500	3.12	4.02	
150	16,000	4.26	5.17	
250	30,000	6.32	7.22	
400	50,000	9.52	10.43	
1,000	140,000	21.32	22.22	

Energy Cost Adjustment:

This schedule is subject to an Energy Cost Adjustment, as specified in Section 9. of the Preliminary Statement. The Energy Cost Adjustment amount included in the above rates for service shall be the product of the annual kilowatt-hours for the service rendered, divided by 12, multiplied by $0.03310 per kilowatt-hour.

RATES - SAN DIEGO GAS & ELECTRIC COMPANY, ELECTRIC DEPARTMENT

LIGHTING - STREET AND HIGHWAY - CUSTOMER-OWNED INSTALLATIONS
(SCHEDULE LS-2)
(Continued)

RATES (Continued)

Franchise Fee Differential:
A franchise fee differential as indicated below will be applied to the monthly billings calculated under this schedule for all customers within the corporate limits as follows:

City of San Diego 1.9%

Such franchise fee differential shall be so indicated and added as a separate item to bills rendered to such customers.

SPECIAL CONDITIONS

1. Limited Maintenance Service. Limited maintenance shall include the following:

(a) Renewal of lamps after original installation by customer.

(b) Replacement of glassware and luminaire equipment, which will be billed to the customer at the manufacturer's currently published suggested retail prices plus applicable taxes.

(c) Cleaning of glassware at the time of lamp replacement.

Incandescent lamp maintenance service is limited to those incandescent lamps maintained by the utility prior to (effective date of this schedule).

Maintenance service will not be furnished where, in the opinion of the utility, an undue hazard or expense would result because of location, mounting height, or other reasons.

Customer shall furnish, install, own and maintain all equipment beyond the central point of connection except for such limited maintenance as provided above.

2. Type of Service. Service to multiple lamps will be supplied at the available secondary voltage or, at the option of the utility, 480 volts. Service to series incandescent and mercury vapor lamps only will be supplied from existing series circuits. Series service at new lamp locations is prohibited.

RATES - SAN DIEGO GAS & ELECTRIC COMPANY, ELECTRIC DEPARTMENT

LIGHTING - STREET AND HIGHWAY - CUSTOMER-OWNED INSTALLATIONS
(SCHEDULE LS-2)
(Continued)

SPECIAL CONDITIONS (Continued)

3. Hours of Burning. Service will be from dusk to daylight which, in accordance with the utility's switching schedule, results in approximately 4,165 burning hours per year.

4. Relocation of Facilities. Relocation of utility's facilities at the customer's request or because of governmental requirements will be made providing the customer pays the actual costs incurred by the utility for such relocation.

5. Change in Rate. Where systems are taken over for service under this schedule, or changed from Rate A to Rate B hereunder, they must meet the approval of the utility as to construction and condition, and the utility may decline to grant these rates if the system is not up to the standard set for other systems operating under this schedule.

6. Contracts. A contract for a period of not less than one year and not more than five years may be required for service under this schedule and will remain in effect from year to year thereafter until terminated.

RATES - SAN DIEGO GAS & ELECTRIC COMPANY, ELECTRIC DEPARTMENT

LIGHTING - STREET AND HIGHWAY - CUSTOMER-OWNED INSTALLATIONS
(SCHEDULE LS-3)
(CLOSED SCHEDULE)

APPLICABILITY

Applicable to local, state or other governmental agencies for service for the lighting of streets, highways, and other public thoroughfares, and to corporate or governmental agencies for the lighting of non-dedicated streets, alone or in conjunction with illuminated highway directional signs or aircraft warning obstruction lights, where the customer owns the entire installation, including underground lines from a central point of connection with utility facilities. This schedule is closed to new installations as of the effective date of this schedule.

RATES	Per Meter Per Month
First 150 kwhr per kw of billing demand, per kwhr.............	$0.04473
All excess kwhr, per kwhr....................................	$0.01376

Minimum Charge:

For each point of delivery the monthly minimum charge shall be $8.23.

LIGHTING - STREET AND HIGHWAY - UTILITY-OWNED ORNAMENTAL INSTALLATIONS
(SCHEDULE LS-4)

Schedule LS-4 is to be deleted; rates and terms of service for the current Schedule LS-4 customers incorporated into Schedule LS-1.

RATES - SAN DIEGO GAS & ELECTRIC COMPANY, ELECTRIC DEPARTMENT

OUTDOOR AREA LIGHTING SERVICE
(SCHEDULE OL-1)

RATES	Per Lamp Per Month
Lamp - (Installation on existing support)	
175-watt mercury-vapor lamp	$ 8.74
400-watt mercury-vapor lamp	14.53

	Per Pole Per Month
Pole - (New utility-owned wood pole installation)	
30 foot wood pole	$ 2.95
35 foot wood pole	3.25

RESIDENTIAL WALKWAY LIGHTING (SCHEDULE DWL)

RATES	Per Month
Facilities Charge: Per dollar of utility investment in walkway lighting facilities	$0.021
Energy and Lamp Maintenance Charge (to be added to the facilities charge): 100 watt mercury-vapor lamp, per lamp	$2.76
Minimum Charge: Per customer	$105.34

RATES - SAN DIEGO GAS & ELECTRIC COMPANY, ELECTRIC DEPARTMENT

POWER - GENERAL (SCHEDULE P)

APPLICABILITY

Applicable to general power service.

TERRITORY

Within the entire territory served by the utility.

RATES

	Per Meter Per Month
Customer Charge:	
0 - 500 kwhr	$ 5.00
501 - 2,500 kwhr	10.00
2,501 - 10,000 kwhr	15.00
Over 10,000 kwhr	30.00
Energy Charge (to be added to Customer Charge)	
0 - 10,000 kwhr, per kwhr	$0.0294
All excess kwhr, per kwhr	$0.0275

Minimum Charge:
The minimum charge will be the customer charge but not less than 80% of the highest customer charge billed during the preceding eleven months.

Energy Cost Adjustment:
An Energy Cost Adjustment, as specified in Section 9, of the Preliminary Statement, will be included in each bill for service. The Energy Cost Adjustment amount shall be the product of the total kilowatt-hours for which the bill is rendered multiplied by $0.03310 per kilowatt-hour.

Franchise Fee Differential:
A franchise fee differential as indicated below will be applied to the monthly billings calculated under this schedule for all customers within the corporate limits as follows:

City of San Diego 1.9%

Such franchise fee differential shall be so indicated and added as a separate item to bills rendered to such customers.

RATES - SAN DIEGO GAS & ELECTRIC COMPANY, ELECTRIC DEPARTMENT

POWER - GENERAL (SCHEDULE P)
(Continued)

SPECIAL CONDITIONS

1. Voltage. Service under this schedule will be supplied at one standard voltage.

2. Phase. Loads of five horsepower or over will normally be served at three-phase. Loads of less than three horsepower shall be served at single-phase.

3. Standby Service. This schedule is not applicable to standby, auxiliary service, or service operated in parallel with a customer's generating plant.

POWER - AGRICULTURAL (SCHEDULE PA)

APPLICABILITY

Applicable to agricultural power service.

TERRITORY

Within the entire territory served by the utility.

RATES

	Per Meter Per Month
Customer Charge:	
0 - 500 kwhr	$ 4.00
501 - 2,500 kwhr	7.00
2,501 - 10,000 kwhr	11.00
Over 10,000 kwhr	20.00
Energy Charge (to be added to Customer Charge)	
All kwhr, per kwhr	$0.0250

Minimum Charge:
The minimum charge will be the customer charge but not less than 80% of the highest customer charge billed during the preceding eleven months.

RATES - SAN DIEGO GAS & ELECTRIC COMPANY, ELECTRIC DEPARTMENT

POWER - AGRICULTURAL (SCHEDULE PA)
(Continued)

Energy Cost Adjustment:

An Energy Cost Adjustment, as specified in Section 9. of the Preliminary Statement, will be included in each bill for service. The Energy Cost Adjustment amount shall be the product of the total kilowatt-hours for which the bill is rendered multiplied by $0.03310 per kilowatt-hour.

Franchise Fee Differential

A franchise fee differential as indicated below will be applied to the monthly billings calculated under this schedule for all customers within the corporate limits as follows:

City of San Diego 1.9%

Such franchise fee differential shall be so indicated and added as a separate item to bills rendered to such customers.

SPECIAL CONDITIONS

1. Voltage. Service under this schedule will be supplied at one standard voltage.

2. Wind Machine Installations. Thermostatically controlled wind machines with automatic reclosing switches must be equipped at the customer's expense with suitable time-delay devices, as hereinafter specified, to permit the required adjustment of the time of reclosure after interruption of service.

A time-delay device is a relay or other type of equipment that can be preset to delay with various time intervals the reclosing of the automatic switches in order to stagger the reconnection of the load on the utility's system. Such device must be constructed so as to effectively permit a variable over-all time interval of not less than five minutes with adjustable time increments of not greater than ten seconds. The particular setting to be utilized for such separate installation is to be determined by the utility from time to time in accordance with its operating requirements.

3. Standby Service. This schedule is not applicable to standby, auxiliary service, or service operated in parallel with a customer's generating plant.

RATES - SAN DIEGO GAS & ELECTRIC COMPANY, ELECTRIC DEPARTMENT

POWER - AGRICULTURAL - PARALLEL GENERATION
(EXPERIMENTAL SCHEDULE PA-PG)

APPLICABILITY

Applicable to agricultural power service. This schedule is only applicable where a part or all of the electrical requirements of the customer can be supplied from a source or sources other than the utility and where such sources are connected for parallel operation of the customer's operation with the service of the utility. Customer sources may include, but are not limited to, windmills, waterwheels, solar conversions, tidal action, and geothermal devices.

This schedule is experimental, and the utility reserves the right to limit the number and size of customers receiving service under the terms of this schedule.

TERRITORY

Within the entire territory served by the utility.

RATES	Per Meter Per Month
Customer Charge:	
0 - 500 kwhr	$ 6.50
501 - 2,500 kwhr	9.50
2,501 -10,000 kwhr	13.50
Over 10,000 kwhr	22.50
Energy Charge (to be added to Customer Charge)	
First 100 kwhr, per kwhr	No Additional Charge
All excess kwhr, per kwhr	$ 0.0250

Minimum Charge:
The minimum charge will be the customer charge but not less than 80% of the highest customer charge billed during the preceding eleven months.

RATES - SAN DIEGO GAS & ELECTRIC COMPANY, ELECTRIC DEPARTMENT

POWER - AGRICULTURAL - PARALLEL GENERATION
(EXPERIMENTAL SCHEDULE PA-PG)
(Continued)

Energy Cost Adjustment:

An Energy Cost Adjustment, as specified in Section 9. of the Preliminary Statement, will be included in each bill for service. The Energy Cost Adjustment amount shall be the product of the total kilowatt-hours for which the bill is rendered multiplied by $0.03310 per kilowatt-hour.

Franchise Fee Differential:

A franchise fee differential as indicated below will be applied to the monthly billings calculated under this schedule for all customers within the corporate limits as follows:

City of San Diego 1.9%

Such franchise fee differential shall be so indicated and added as a separate item to bills rendered to such customers.

SPECIAL CONDITIONS

1. Voltage. Service under this schedule will be supplied at one standard voltage.

2. Net Energy. Net energy is energy supplied by the utility minus energy generated by the customer and fed back into the utility's system at such time as customer generation exceeds customer requirements. Net energy for any month cannot, however, have a negative value for purposes of determining charges under this schedule.

3. Metering. The utility will supply, own and maintain all necessary meters and associated equipment utilized for billing. In addition, and for purposes of monitoring customer generation and load, the utility may install, at its expense, load research metering. The customer shall supply, at no expense to the utility, a suitable location for meters and associated equipment used for billing and for load research.

4. Operation. The utility shall have the right to require the customer, at certain times and as electrical operating conditions warrant, to limit the production of electrical energy from the generating facility to an amount no greater than the load at the customer's facility of which the generating facility is a part.

5. Interconnection Facilities. The customer shall furnish, install, operate and maintain in good order and repair and without cost to the utility, such relays, locks and seals, breakers, automatic synchronizer, and other control and protective apparatus as shall be designated by the utility as being required as suitable for the operation of the generator in parallel with the utility's system. In addition, the utility will install, own and maintain a disconnection device located near the electric meter or meters. The utility shall have the right to disconnect the customer's generating facility at the disconnection.

RATES - SAN DIEGO GAS & ELECTRIC COMPANY, ELECTRIC DEPARTMENT

POWER - AGRICULTURAL - PARALLEL GENERATION
(EXPERIMENTAL SCHEDULE PA-PG)
(Continued)

SPECIAL CONDITIONS (Continued)

5. Interconnection Facilities. (Continued)
device when necessary to maintain safe electrical operating conditions. Interconnection facilities shall be accessible at all times to utility personnel.

The customer may be required to reimburse the utility for any equipment or facilities required as a result of the installation by the customer of generation in parallel with the utility's service.

The customer shall notify the utility prior to the initial energizing and start-up testing of the customer-owned generator, and the utility shall have the right to have a representative present at such test.

6. Terms of Service. A customer receiving service under this schedule may elect to change to another applicable rate schedule at any time but may not thereafter receive service under this schedule for a period of one year.

7. Review of Service. This rate schedule is temporary and will terminate three years after the effective date. If review of results of service under this schedule indicates that continuation of such service would be appropriate, the utility will file a new schedule prior to the termination date of this schedule to provide for the same or similar service.

8. Wind Machine Installations. Thermostatically controlled wind machines with automatic reclosing switches must be equipped at the customer's expense with suitable time-delay devices, as hereinafter specified, to permit the required adjustment of the time of reclosure after interruption of service.

A time-delay device is a relay or other type of equipment that can be preset to delay with various time intervals the reclosing of the automatic switches in order to stagger the reconnection of the load on the utility's system. Such device must be constructed so as to effectively permit a variable over-all time interval of not less than five minutes with adjustable time increments of not greater than ten seconds. The particular setting to be utilized for each separate installation is to be determined by the utility from time to time in accordance with its operating requirements.

RATES - SAN DIEGO GAS & ELECTRIC COMPANY, ELECTRIC DEPARTMENT

POWER - DIRECT CURRENT
(SCHEDULE P-DC)
(Closed Schedule)

	Per Meter Per Month
RATES	
Energy Charge:	
First 500 kwhr, per kwhr	$0.119
All excess kwhr, per kwhr	$0.066

Minimum Charge:
The monthly minimum charge shall be $1.91 per horsepower per month.

STANDBY SERVICE (SCHEDULE S)

	Per Meter Per Month
RATES	
Standby Charge:	
First 20 kw or less of contracted demand	$87.55
All excess kw of contracted demand, per kw	3.50

SERVICE ESTABLISHMENT CHARGE (SCHEDULE SE)

	Per Meter Per Month
RATE	
For each establishment, supersedure, or re-establishment of electric service	$ 8.30

SPECIAL CONDITION 2.
In case the customer requests that electric service be turned on or reconnected outside of regular business hours, or within four hours after his request, an additional charge of $8.30 will be made.

RATES - SAN DIEGO GAS & ELECTRIC COMPANY, ELECTRIC DEPARTMENT

I.1.b.(1) (Special Facilities.)

Revise Section I.1.b.(1), Special Facilities, of Rule 2 to increase the monthly facility charge percentage for use of special facilities from 1.62% to 2.07%.

SPECIAL CONTRACTS 103, 104, 105, 106, 107, 108, 109, 110, 113, 116, 118, 119, 130, 131, 138, 139, 140, 145, 147, 154, 162, 188, AND 199.

Increase the annual additional charge percentage for use of alternate service facilities from 19.44% to 24.84%.

SPECIAL CONTRACTS 124, 125, 126, 135, 141, 142, 143, 144, 156, 177, 180, AND 201

Increase the annual additional charge percentage for use of special facilities from 19.44% to 24.84%.

SPECIAL CONTRACT 175

Increase the monthly charge from $360.19 to $362.10.

RATES - SAN DIEGO GAS & ELECTRIC COMPANY, ELECTRIC DEPARTMENT

SPECIAL CONTRACT 209

Increase the monthly charge for each lamp from $19.95 to $23.31.

SPECIAL CONTRACT 211

Increase the monthly charge for each lamp from $4.09 to $4.42.

SPECIAL CONTRACT 215

Increase the monthly facility charge from $775.33 to $990.70.

SPECIAL CONTRACT 216

Increase the monthly charge for each illuminated street name sign from $2.08 to $2.25.

SPECIAL CONTRACT 217

Increase the monthly charge for each lamp from $6.66 to $7.08.

SPECIAL CONTRACT 218

Increase the monthly charge for each 150 watt lamp from $4.09 to $4.42 and for each 250 watt lamp from $6.66 to $7.08.

SPECIAL CONTRACT 219

Increase the monthly charge for each lamp from $6.66 to $7.08.

A. 58067 et al. -

PRESIDENT JOHN E. BRYSON, Concurring

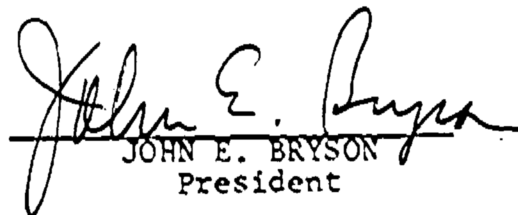
It is with great reluctance that I concur in today's decision granting general rate relief to San Diego Gas & Electric Company. My concern centers upon the treatment of Sundesert project costs and the allowance of a rate of return on equity investment in excess of 14 percent.

The Sundesert project has been an unfortunate and monumental failure. The Commission recognizes that the company's conduct of the project was not so misguided as to be found legally imprudent and that the Sundesert site remains a valuable and, in fact, unique asset -- an excellent and fully approved location for a future electric generating facility. The California Energy Commission approved a Notice of Intent for use of the site for a generating facility in December of 1977. Nevertheless, it would be completely inappropriate for this Commission to shield the company from bearing any portion of the $90 million in Sundesert costs, to the burden of its ratepayers. I strongly support the Commission's disallowance of approximately $6 million of these costs -- primarily the $5.1 million allowance for funds used during construction (AFDC) on a project which has not been constructed, as well as the $500,000 spent for public relations and the $360,000 in political lobbying costs.

The rate of return authorized for San Diego is, if anything, even more troubling to me, because it appears to reward a company which has made mistakes. In fact, however, San Diego now has new management and the company's special circumstances justify an abnormally high rate of return. San Diego has the most rapidly growing service area of any major utility in California. To provide adequate service to its present and future customers, the company must remain able to finance its construction program by raising capital. Its interest coverage is now dangerously low, barely above the 2.0 times coverage legally required to be able to make additional debt offerings. Without an increase in rate of return,

the company would likely be unable by the end of this year to meet its service obligations. The continued impact of inflation upon financing costs and the fact that the company is already nearly halfway through its test year further justify allowance of a high rate of return at this time.

I wish to state clearly that my concurrence is based on the company's critical current status, and should not be taken to indicate either a guarantee as to future rates to be allowed this company or any sort of "trend" in this Commission's regulatory policy.



JOHN E. BRYSON
President

San Francisco, California
June 5, 1979

LEONARD M. GRIMES JR., Concurring

It is with some reluctance that I concur in today's decision granting rate relief to San Diego Gas and Electric. While I have no doubt that SDG&E requires rate relief, I am fearful that our decision today will be widely misinterpreted.

A very compelling argument has been made that none of SDG&E's expenses for Sundesert incurred after enactment of the California Nuclear Safeguards Law in June, 1976, should be allowed. Those who make this argument contend that the likelihood of meeting the requirements of the law were at best speculative and that it was imprudent to speculate in the hopes that ratepayers would later bail out the company. It is also argued that SDG&E knew it would require CWIP to build Sundesert--something which this Commission has consistently rejected.

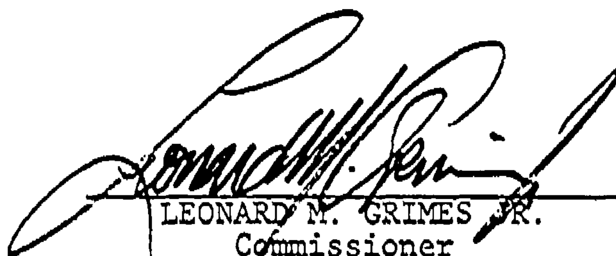
While this argument has great merit, the financial condition of SDG&E is such that I could not support such a severe result. This Commission must ensure SDG&E's future viability as well as protect the ratepayer.

We have decided to disallow nearly $6 million in Sundesert costs. Many San Diego ratepayers no doubt feel we should disallow more. While they may very well be correct, I feel a very strong responsibility to ensure the continued economic strength of SDG&E as an independent utility among giants in California

My fear is that in making this decision we will cause investors across the country to feel that we in California are adopting a widely held notion that virtually any cost incurred by a utility should be passed on to the ratepayer. I want to emphasize that my vote is limited to the specific problems we face today regarding the financial status of SDG&E.

We invite abdication of responsibility by investors when we permit investors to assume we will "pass through" any expense to the ratepayers. We create no incentive to ensure prudent management. We, in turn, must then exert even more control over the affairs of the company.

I believe that regulatory commissions and investors must work together to reduce rather than expand our involvement in the day-to-day affairs of regulated utilities. To this end, I want it known that in the future I will vigorously oppose any effort to "pass through" to the ratepayers any expenses incurred as a result of either "rank" speculation or negligence of utility mangement. I expect investors to require their managers to adhere to high standards in both regards.



LEONARD M. GRIMES JR.
Commissioner

San Francisco, California
June 5, 1979