

**ORIGINAL**

Decision No. 88697 APR 11 1978

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA**

In the Matter of the Application of San Diego Gas & Electric Company for authority, among other things, to increase its rates and charges for electric service.

In the Matter of the Application of San Diego Gas & Electric Company for authority, among other things, to increase its rates and charges for gas service.

In the Matter of the Application of San Diego Gas & Electric Company for authority, among other things, to increase its rates and charges for steam service.

Application No. 555628  
(Filed April 16, 1975)

Application No. 555629  
(Filed April 16, 1975)

Attorneys for the above-named parties are as follows: John W. Witt, for the City of San Diego; John H. Woy, for San Diego Gas & Electric Company, applicant.

Attorneys for the above-named parties are as follows: William S. Shaffran, Deputy City Attorney, for the City of San Diego; Etta Gail Herbach and Charles J. Mackres, Attorneys at Law, for the Department of Defense, on behalf of the consumer interests of all Federal Executive Agencies; Allen B. Wagner, Attorney at Law, for University of California; Glen J. Sullivan, Attorney at Law, for California Farm Bureau Federation; David X. Durkin and Eric Stern, for California Public Interest Research Group of San Diego County; George Gilmour and Jonathan Blees, by Cynthia Melandy, for the California Energy Resources Conservation and Development Commission; and Morrison & Foerster, by F. Bruce Dodge, Attorney at Law, for Keith Feibusch Associates, Engineers, interested parties.

Rufus J. Thayer and Walter H. Kessenick, Attorneys at Law, for the Commission staff.

OCT 1978

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(for 4)

**LAW OFFICES****O P I N I O N** : RA 58288Nature of Proceeding

Decision No. 87639 dated July 19, 1977 in these proceedings authorized San Diego Gas & Electric Company (SDG&E) to increase its electric and steam rates by \$9,410,000 and \$27,700 annually, respectively.<sup>1/</sup> That decision found, among other things, that a reasonable rate of return to be applied to SDG&E's jurisdictional rate base for the test year 1976 was 9.50 percent. That rate of return appears to provide assumed earnings on common equity of 13.0 percent.

That decision established a rate for interdepartmental sales of gas to the electric department on the approximate level of SDG&E's fuel oil cost, and found that the deferred revenue collected by the gas department for prior sales to the electric department should be credited to the gas department.

Decision No. 87639 also pointed out that construction expenditures for new plant to serve anticipated customer growth, particularly in its electric department, had caused financial problems. The decision stated that it was assumed that financial problems similar to those outlined therein would need to be faced in the future, and that alternatives other than those specifically considered in the decision must be pursued, including alternative financing, leasing, and employee stock option plans.

Order Reopening Proceeding

Decision No. 88101 dated November 8, 1977 reopened the proceeding to consider SDG&E's allegations that the rate increases granted by Decision No. 87639 would, in the immediate future, prove to be inadequate to maintain interest coverage at a level which will permit the company to issue bonds in 1978 to meet its current

<sup>1/</sup> No increase was authorized in gas rates in Decision No. 87639.

financial needs. The order stated that the Commission also wished to review SDG&E's present and proposed construction budget, financing requirements and resulting revenue requirement; and that it would analyze the relationship between gas supply forecasts and sales.

OII No. 4, an investigation into the future resource plans of SDG&E, was issued concurrently with the order reopening Applications Nos. 55627 et al. OII No. 4 was heard on a common record with the reopened application proceeding.

A public hearing in the consolidated proceedings was held before Administrative Law Judge Mallory in San Diego on January 24, 25, 26, and 27, February 15, 16, and 28, and March 1, 6, and 7, 1978. The application proceeding was submitted upon the receipt of concurrent closing statements of position on March 13, 1978. Closing position statements were filed by SDG&E, the city of San Diego (San Diego), the U.S. Department of General Services (General Services), and the Commission staff. OII No. 4 was temporarily removed from the calendar.

#### Applicant's Proposals

SDG&E asks that the Commission authorize rate increases sufficient to provide the debenture indenture coverage necessary to permit the issuance of additional indebtedness on October 31, 1978.

SDG&E urges that further immediate relief is required because the relief afforded in Decision No. 87639 is inadequate to support the 1978 financing requirements of the company in that its present earnings are and will be insufficient to provide the interest coverage legally required before it may issue additional bonds. It further asserts that unless those coverages are restored by October 31, 1978 it will not have the two times interest coverage necessary to float the next planned bond issue, and would not earn the 13 percent return on common equity assertedly authorized in the last general rate proceeding. SDG&E's separate request for a general rate proceeding (NOI 3) was accepted for filing on March 8, 1978.

Evidence Adduced

SDG&E and the Commission staff presented estimated results of operations for a 1978 test year on an "as expected" basis. SDG&E also presented results of operations for 1977 based on actual data for the first 11 months and estimated data for December, and estimated results of operations for a 1979 test year.

SDG&E and the Commission staff presented data concerning SDG&E's current construction expenditures. A consulting firm and SDG&E offered evaluations of proposed resource plans covering the ten-year period 1977 through 1986.

SDG&E presented analyses designed to show indenture debenture coverages for 1978 and 1979 under present and proposed rates. A similar analysis by a staff financial examiner was presented for 1978.

Inasmuch as it appeared that greater than expected interdepartmental sales of natural gas for boiler fuel resulted in higher than estimated earnings in 1977, evidence was adduced concerning the expected amounts of gas available to SDG&E for boiler fuel in 1978 and the possible methods of stabilizing the earnings from interdepartmental natural gas sales. SDG&E and the staff proposed "banking" plans. The staff proposed specific rates to implement its banking plan. San Diego and General Services oppose the staff's banking plan.

Proposed Ceiling on Earnings

SDG&E's president proposed, in Exhibit 203, that to protect the public against unanticipated higher earnings than contemplated under the sought increase that a ceiling be placed on earnings. Specifically, he proposed that rate relief granted herein be subject to the condition that should SDG&E earn a return on total equity (i.e., the balance available for common stock divided by the average common stock equity) exceeding 13 percent during the period between the granting of rate relief herein and the effective date of the rate revisions granted under NOE 33, the earnings in excess of 13 percent be put in a balancing account. The president also proposed that when the return on total equity drops below 13 percent in that period, the balancing account would be commensurably reduced. On the effective date of the new rates, the account would be closed and the remaining amount disposed of by Commission order.

It should be pointed out that return on total equity as used above is determined in a different manner than the estimated return on equity used in the staff rate-of-return exhibit introduced in the initial phase of this proceeding and adopted in Decision No. 87639. According to SDG&E's witness, a return on total equity of 13 percent is equivalent to a return on equity under the staff method of 14 percent.

#### Current Construction Expenditures

SDG&E serves one of the fastest growing areas in California. In order to meet its customers' needs for electricity, it has had to plan for large increases in generating capacity and related transmission and distribution facilities.

Evidence was presented by SDG&E concerning its projected cash-based construction expenditures for the near-term (1978-1981) in Exhibits 219 and 220. The annual totals approximate the annual financing requirement for the years shown. In each year some of the financing will be generated internally, and the balance will be financed by the sale of debt and common and preferred stock. The major electric generation facilities on which expenditures are planned in the 1978-1981 period are the completion of Units 2 and 3 of the San Onofre nuclear power plant (SONGS 2 and 3); the completion of Unit 5 of its Encina power plant (a fossil fuel plant); the repowering of Unit 2 of its Silver Gate fossil fuel plant; and the initial construction of Sundesert nuclear power plant.<sup>2/</sup> The capacity additions are all on schedule except for the possibility that SDG&E may be legally blocked from proceeding with the Sundesert project if that project is not exempted from state statutes which prevent nuclear plant construction until it has deemed that adequate programs exist for disposal of spent nuclear fuel.

2/ San Onofre is jointly owned by SDG&E and Southern California Edison Company. Sundesert would be jointly owned by SDG&E, Los Angeles Department of Water & Power, and certain small cities in southern California.

est years. Based on current construction backlog as of June 30, 1978, projected cash requirements will be approximately \$1.2 billion by December 31, 1981. This estimate includes the cost of new construction, replacement of existing equipment, and the cost of maintaining existing facilities.

**TABLE 1**  
**SAN DIEGO GAS & ELECTRIC COMPANY**  
**1977-1981 PROJECTED CASH CONSTRUCTION EXPENDITURES**  
**(Millions of Dollars)**

	1978	1979	1980	1981
Major Projects	\$101.6	\$100.0	\$101.3	\$100.6
San Onofre 2 & 3	62.3	30.8	58.3	20.4
Encina 5	28.2	14.0	4.0	1.4
Sundesert	(1.5)	(0.8)	73.1	25.6
Repower Silver Gate 2	5.4	2.7	16.6	5.8
<b>Total Major Projects</b>	<b>94.3</b>	<b>46.7</b>	<b>152.0</b>	<b>53.2</b>
Other Generation	16.5	18.2	22.9	8.0
Transmission	19.6	9.7	28.6	10.0
Distribution	55.0	27.2	67.0	23.5
Ras, Steam & Common	16.7	8.2	15.0	5.3
<b>Total Cash Construction Expenditures</b>	<b>202.1</b>	<b>100.0</b>	<b>285.5</b>	<b>100.0</b>

A Commission staff engineer evaluated SDG&E's current construction budget in Exhibit 239. That exhibit states that for 1978, 53 percent of the expenditures are for construction of electric production units and related projects. An additional 25.0 percent of the expenditures is for electric blanket projects.

The major units, Encina Unit 5, San Onofre 2 and 3, and the repowering of Silver Gate Unit 2, are needed to meet current customer demand for electricity inasmuch as San Diego has the fourth fastest electric customer growth rate in the United States. Also, some of the new electric production units are needed to replace older, less efficient units.

Exhibit 239 contains an analysis of the financial effects of a one-year delay in the completion of Encina Unit 5 starting in May, June, July, or August of 1978. The analysis reveals that even considering the reduced financing costs, the cost of the delay is between \$19 and \$20 million. The exhibit states that additional effects of delay which were not quantified therein are possible adverse reaction from the financial community and potential adverse effects on licenses and permits. The witness concluded that delay of major electrical projects would not materially benefit ratepayers or SDG&E.

The evidence presented clearly showed that any postponement or major delay in the completion of on-going projects such as San Onofre 2 and 3, Encina 5, and the repowering of Silver Gate 2 would increase the ultimate cost of those projects without materially reducing SDG&E's need to acquire additional debt and equity financing. All parties are in agreement that satisfactory resolution of SDG&E's short-run financing needs will not be met by the postponement or delay of projects now in the construction stage. We find that postponement or delay of on-going projects would adversely affect SDG&E and its ratepayers and such methods will not provide reasonable means of mitigating SDG&E's current financial problems.

Cancellation of Sundesert

Sundesert is in the planning stage. Several hurdles must be completed before construction on that project may begin. The immediate hurdle is exemption from the nuclear fuel cycle laws.<sup>3</sup> Inasmuch as the California Energy Resources Conservation and Development Commission (Energy Commission or CERCDC) has recommended to the State Legislature that such exemption not be granted, data was presented to show the effect on current financing needs if the Sundesert project was discontinued. Cancellation of the Sundesert project would not reduce SDG&E's need for additional debt and equity financing in 1978. Sundesert actually has a negative net cash requirement for 1978 because of the "catchup" contributions to SDG&E from the other participants in that project.

Sundesert is 25.6 percent of 1979 projected cash construction expenditures. If that project is canceled, expenditures on that order will be needed to compress the time in which replacement projects will be available.

Cancellation costs of Sundesert are estimated at about \$20 million. If Sundesert is canceled, one 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 proceeding.

<sup>3</sup>/ Pursuant to Assembly Bill 1852 (Public Resources Code Section 25524.25), the Energy Commission on January 25, 1978 recommended that the Sundesert Nuclear Project not be exempted from California's 1976 nuclear fuel cycle statutes. AB 1852 was enacted on September 28, 1977. That law required the Energy Commission to transmit to the Legislature its determination as to whether all of the findings required by the nuclear fuel cycle statutes (Sections 25524.1 and 25524.2 of the Public Resources Code) could be made in January 1978. If the facts did not allow the nuclear fuel cycle findings to be made as of that date, the Energy Commission was to recommend whether all or a portion of the Sundesert Nuclear Project should be exempted from the requirements of the nuclear fuel cycle laws. Proposed legislation to exempt Sundesert from nuclear cycle statutes is before the State Legislature. At the close of the hearing, final passage of that legislation had not been made.

SDG&E's Exhibits 250 through 253 clearly indicate that discontinuance of the Sundesert project would not materially affect the SDG&E's need for additional financing in 1978.

Sale and Leaseback of Encina 5

During the course of the hearing, SDG&E announced that it was nearing agreement with a financial institution for the sale and leaseback of its Encina 5 power plant. If the negotiations are satisfactorily completed, SDG&E will generate sufficient cash flow so that its proposed debt financing planned for November 1978 will not be necessary. SDG&E and our staff agree that the current SDG&E general rate increase proceeding (NOI 3) will be completed about the end of the year. Although the sale and leaseback of Encina 5 would eliminate the need for debt financing in late 1978, SDG&E will need to issue additional debt in early 1979. SDG&E contends that rate relief originally requested in the reopened proceeding is necessary to provide the necessary indenture debenture coverage to issue the proposed early 1979 debt financing.

While it cannot be determined conclusively that the Encina 5 sale and leaseback will be satisfactorily concluded, we believe that the negotiations have reached the stage where final approval appears reasonably certain. Therefore, we are basing our analyses of the need for further rate relief in the reopened proceeding on the financial conditions resulting upon completion of the Encina 5 sale and lease transaction. The record indicates that formal Commission approval of the Encina 5 financial transactions will be sought by SDG&E.

The staff financial witness testified in connection with his Exhibit 240 that SDG&E will be required to pay interim rent from the time it receives the proceeds from the sale of Encina 5 until the company begins making annual lease payments. Those additional rent and lease expenses will reduce SDG&E's return in 1978 and in 1979 until a determination is made by the Commission in SDG&E's currently filed general rate application (NOI 3). Therefore, the witness recommended that SDG&E be allowed to file an offset rate increase by advice letter.

filling or any other appropriate method to offset the lease payment expenses. The witness assumed that the annual lease payment would fall between \$9.4 and \$9.8 million annually and that a corresponding annual increase in electric revenues would be in order.

#### Ten-Year Electric Resource Plans

Keith, Feibusch Associates, Engineers (KFAE), acting as consultants to SDG&E, presented evidence with respect to their review of the four alternative resource plans prepared by SDG&E.<sup>4/</sup> The purpose of the review was to determine the technical and financial feasibility of each plan and to attempt to validate the financial models used by SDG&E in determining financial feasibility.

This review process led to the identification of impediments to the four plans, clarification of the criteria, and the recognition that additional alternatives might better fit the criteria than the four SDG&E cases. KFAE proposed two additional alternatives. The KFAE proposed alternatives were then put through the same evaluation process as the four SDG&E cases.

The four cases developed by SDG&E, all of which include geothermal plants in the late 1980s, and the major new resources for each are as follows:

Plan F - Two nuclear units at Sundesert

Plan G - Delete Sundesert; add two combined cycle

units to replace the deleted Sundesert

loss of capacity and energy

Plan M - Same as Plan F, but sell San Onofre nuclear generation plants (SONGS) and purchase part of capacity and energy from buyer.

Plan N - Delete Sundesert, sell SONGS, purchase part

loss of capacity and energy from buyer, add three combined cycle units.

<sup>4/</sup> No attempt is made herein to evaluate the merits of the several resource plans for the purpose of determining and/or adopting the most reasonable resource plan for the future.

<sup>5/</sup> The letters have no significance other than as an index to filing of documentation and the order in which the alternatives were analyzed.

The two alternate cases developed by KFAE, both of which include geothermal in the late 1980s, and the major new resources for each are as follows:

Plan R - Eight-hundred megawatts of firm purchase power from Mexico.

Plan S - One nuclear unit at Sundesert. KFAE decided that in order to limit the study to a reasonable scope which could be completed in the allowed time, the following ground rules were established:

- (1) Only resource plans to meet the "optimistic conservation" peak demand forecast were studied.
- (2) The study excludes evaluating the probability that the conservation necessary to reduce demand from the CFM-I forecast to the optimistic conservation peak demand can be achieved.

The primary results of the KFAE evaluation of alternative resource plans, insofar as they are pertinent herein, are:

- (1) Given the limitations imposed by the ground rules previously set forth, either Plan R or S appears to better fit the technical and financial criteria used in the evaluation than any of the proposed SDG&E plans, provided the conditions following each case can be achieved.
- (2) All proposed resource plans (both KFAE and SDG&E) have significant uncertainties associated with them and therefore any adopted plans should be reviewed on a periodic basis— at least every six months.
- (3) Although no case fully meets the technical criteria, Plans F, R, and S are the best fits to the technical criteria. Plan G is the next best fit, and Plans M and N have the worst fits.
- (4) Contingency plans should be developed to assure that alternative resources are available should any adopted resource components prove unfeasible or uneconomic.
- (5) Plan F, the current SDG&E plan, should go forward until an alternative plan with equivalent probability of success is adopted.

Plans F, R, and S were analyzed in detail in the KFAE studies in Exhibit 232. Included as part of that study is the analysis of their financial viability. The financial viability analysis concludes that each of the three resource plans requires increases in rates in order to meet the increases in operating expenses resulting from the implementation of the plans. Exhibit 232 states that the impact on the ratepayers of each of the plans over the 10-year period 1977-1986 ranges from about 2 to 3 percent per year above the assumed inflation rate of 6 percent. The revised data in Exhibit 268 shows that the rate increases necessary to implement each plan (over-and-above inflationary increases) are as follows:

Annual Compound Increase in Electricity Rates per KW (%)	Plan R	Plan S	Plan F
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- 1977/1986	8.5%	7.9%	7.7%
- 1977/1979	14.2%	13.3%	13.8%
- 1980/1984	6.0%	5.4%	6.2%
- 1985/1986	7.9%	6.3%	2.5%

The study comments as follows with respect to ratemaking environment:

"Clearly, an implied assumption in the conclusion of financial viability of these three plans is that SDG&E will receive the rate relief indicated in a timely way so that the public debt and equity markets are able to have confidence in the continuing availability of the indicated operations' generation of cash."

Exhibit 263, presented as part of SDG&E's rebuttal evidence, contains an alternative resource plan (for convenience designated as Plan W), which incorporates features of Plans F and R. The purpose of the alternate Plan W is to provide greater reserve margins than either Plans F, R, or S. The record does not contain an analysis of the rate increases required to prove the financial viability of Plan W. Inasmuch as Plan W contains two units of Sundesert and 300 MW of Mexican capacity, it appears no less costly to finance than any other plan.

An additional resource plan is contained in the Energy Commission's report to the Legislature in connection with its AB 1852 report. Detailed analysis of that plan was not presented in evidence. The main components of that plan is a coal-fire 475 Megawatts (MW) plant at the present Sundesert site and 600 MW of geothermal power. The financing required to implement that plan is not of record. Because of the nature of the facilities incorporated in that plan, we can assume that electric rate increases will be required to provide financial viability.

All parties participating in this phase of the proceeding concur in the conclusion that SDG&E will need more than 4,000 MW of electrical generating capacity by 1990. SDG&E's Plan F provides 4,124 MW and KFAE's Plan R provides 4,350 MW, and its Plan S provides 4,037 MW; SDG&E's alternate Plan W contains approximately 4,500 MW. SDG&E's present generating capacity is 2,200 MW. Under any proposed resource plan, a minimum of 1,924 MW will be added in the 1977-1990 period. Such plant expansion cannot be accomplished without annual issuance of new long-term debt and new equity financing.)

Alternative Financing Methods

Decision No. 87639 indicated the need to pursue alternative financing methods for future plant expansion. As discussed in more detail elsewhere, SDG&E is nearing completion of the sale and lease-back of the newest unit of its Encina power plant. Unit 5 is expected to come in stream in October 1978. This alternative financing method, if successful, will reduce SDG&E's need to issue new debt in October 1978. Exhibit 204 states that SDG&E has been successful in the sale and lease-back of its corporate headquarters, approved by the Commission in June 1975. Other alternative financing methods pursued by the company include the use of bankers' acceptances for fuel oil financing, the initiation of a dividend reinvestment plan, an employees' saving plan, nuclear fuel financing, foreign financing of turbines, pollution control bonds, and an intermediate bank loan.

Exhibit 204 comments that a sound financial basis for SDG&E is required before advantageous alternative financing can be enhanced consummated, because lessors and other lenders require security for protection of their investment dollars in the same manner as purchasers of the applicant company's bonds.

We commend SDG&E in its efforts to implement alternative financing methods, particularly with respect to the sale and/or the right to leaseback of Encina 5-A at sometime in the near future or otherwise than Interdepartmental Gas Sales.

The Commission's order granting rehearing stated that it would analyze the relationships between gas supplies forecasts and sales, for the reason that greater than expected sales from SDG&E's utility gas department to its electric department under its G-54 gas rate schedule had created larger than expected earnings in recent periods.<sup>6/</sup> Applicant's witness testified that \$18 million in revenues from sales of G-54 gas was included in its 1977 operating results, of which \$3 million was from 1976 sales. Assertedly, SDG&E is unable to determine in advance the amount of Priority 5 (P-5) gas it will receive from its utility supplier, Southern California Gas Company (SoCal), nor can SDG&E control the supply, resulting in great instability in earnings.

SDG&E proposes that G-54 gas be priced at SoCal's commodity rate plus a reasonable handling charge; or that a reserve account be created for the difference between G-54 revenues and costs, including bad losses on fuel oil sales attributable to unexpected G-54 gas, and that of this reserve be used at some future date for purposes designated by the Commission. SDG&E prefers the first alternative, but proposed the second alternative because of its belief that recent Commission decisions have ruled out the first alternative prior to bond issues.

<sup>6/</sup> Under Schedule G-54 the SDG&E gas department charges the electric department approximately 25.8 cents per therm, the approximate cost of alternate fuel. The company pays SoCal about 11 cents per therm less. During periods of unexpected substantial gas supply shortfalls for boiler fuel purposes, the 11 cents differential generates substantial profits to the company, which flow to net earnings.

The Commission staff supported the second alternative, a gas banking plan. A staff economic analyst pointed out that Decision No. 87639 adopted estimated interdepartmental revenues based on G-54 sales of 90 million therms. The staff estimates G-54 sales of 75 million therms. The witness proposed that a net revenue deduction \$1,600,000 resulting from the deficiency between 75 and 90 million therms be shifted to other gas customers to keep net income constant. For determining the base for this banking plan, the staff proposed that a limit of 40 million therms be placed on gas used as boiler fuel, and that the profits on sales of G-54 gas in excess of that amount be banked, the deferred profit to be used to offset future expected gas prices. Exhibit 241 contains the specific recommendations of the staff with respect to implementing the banking plan.

San Diego (Exhibit 242) and the Department of the Navy (Exhibit 243) oppose the staff gas banking plan on the ground that it creates a subsidy by electric customers of gas customers and that it provides interest free money to the company and does not encourage conservation by not giving the appropriate cost signal to the gas user. Both parties urged that the gas be charged the commodity rate with a reasonable handling charge and that the increased revenue requirements be spread to gas customers who would then receive the appropriate price signal to effect conservation.

The implementation of the gas banking plan proposed by the staff is unnecessarily cumbersome and it requires immediate increases in gas rates to other gas customers. That plan will not be adopted herein.

We are preparing a proposed decision in Case No. 10261 -  
Investigation Into A Natural Gas Supply Adjustment Mechanism For Major Gas Utilities. That decision should adopt a uniform natural gas supply adjustment mechanism (SAM) applicable to the major gas utilities including SDG&E. That decision will determine the appropriate treatment of overcollection or undercollection of gas revenues resulting from the burning of gas as boiler fuel.

Historical Results of Operations (1977)

Exhibit 228 contains SDG&E's recorded results of operations for the year 1977. That exhibit shows total operating income of \$83.1 million, a rate base of \$833.5 million, a rate of return of 9.97 percent, and a financial return on equity of 12.99 percent. The exhibit shows interdepartmental sales of natural gas for boiler fuel (G-54 gas revenues) of \$3.1 million (approximately \$2.0 million after taxes). The adjusted rate of return after removal of G-54 gas revenues is 9.73 percent, and the corresponding financial return on equity is 12.43 percent. The gas department rate of return is 11.99 percent before adjustment, and 10.75 percent after adjustment for G-54 gas sales.

Estimated Results of Operations (1978)

Exhibit 215 sets forth SDG&E's revised estimate of 1978 operating results at present rates on an "as expected" basis. Exhibit 224 contains applicant's revised estimate of 1978 operating results under proposed rates. Both estimates exclude revenues from the inter-departmental sales of natural gas and ECAC revenues and expenses. Corresponding estimates prepared by the Commission staff are set forth in Exhibit 238. The data in company and staff exhibits were recast to place them on a comparable basis. The utility results of operation are those set forth in its Exhibit 215 adjusted to place the data on a zero fuel (non-ECAC) base.

- ✓ There is some question in the record as to the meaning of "financial return on equity". Apparently, such calculation is the determination of the return on total equity, including equity for plant not yet included in rate-base. Such calculation differs from the return on equity referred to in Decision No. 37639 in that the latter is determined from the capitalization used in staff rate of return exhibits which include only that part of total capitalization which is applicable to plant actually used and useful in the test period.

✓ There is also question as to the meaning of "financial return on equity".

✓ Last called as per to continue

## SACRED

The following tables compare the adjusted applicant and staff estimates of 1978 results of operations on an as expected basis under present rates. The data do not include ECAC revenues and expenses.

Category	Current	1978		Comments
		Applicant Estimate	Staff Estimate	
<i>Transportation</i>				
Fuel	\$52,846	\$80,808		
Passenger fares	(\$32,122)	(\$32,311)		
Freight fares	(\$10,948)	(\$10,725)		
Airline costs	(\$2,951)	(\$2,682)		
Total	(\$67,023)	(\$65,726)		
<i>Accommodation</i>				
Passenger膳宿	\$28,442	\$32,823		
Passenger meals	\$2,901	\$3,211		
Passenger laundry	(\$2,311)	(\$2,232)		
Passenger porterage	\$1,228	\$1,332		
Passenger car rental	\$1,228	\$1,228		
Passenger transfers	\$2,161	\$2,431		
Passenger tickets	\$2,382	\$2,592		
Passenger ground transportation	\$2,083	\$2,363		
Passenger baggage handling	\$2,141	\$2,331		
Passenger baggage storage	\$2,161	\$2,361		
Passenger passenger information	\$2,161	\$2,361		
Total	\$122,891	\$138,882		
<i>Food</i>				
Passenger food	\$24,221	\$26,011		
Passenger meals	\$2,342	\$2,343		
(Passenger food)	(\$24,563)	(\$26,354)		
Total	\$26,563	\$28,354		
<i>Passenger services</i>				
Passenger telephone calls	\$14,332	\$14,332		
Total	\$14,332	\$14,332		
<i>Administrative</i>				
Passenger travel	\$2,632	\$2,632		
Passenger information	\$1,152	\$1,152		
Passenger other	\$1,024	\$1,024		
Total	\$4,808	\$4,808		
<i>Passenger other</i>				
Passenger luggage	\$3,506	\$3,506		
Total	\$3,506	\$3,506		
<i>Total Transportation</i>				
Total	\$230,354	\$255,662		

(FEBRUARY 2007)

TABLE 2

SAN DIEGO GAS & ELECTRIC CO. - ALL DEPARTMENTS, COMMERCIAL &  
INDUSTRIAL DEPARTMENT  
Year 1978 Estimated At Present Rates - As Expected Basis

<u>Item</u>	<u>Staff</u>	<u>Utility</u>	<u>Amount</u>	<u>Pct.</u>
			(Dollars in Thousands)	
<u>Operating Revenues</u>				
Sales to Customers	\$308,076	\$308,300	\$ 224	.1
Interdepartmental	18,950	500	(18,450)	(97.4)
Miscellaneous	7,844	7,800	(44)	(.5)
Total Oper. Rev.	<u>334,870</u>	<u>316,600</u>	<u>(18,270)</u>	<u>(5.5)</u>
<u>Operating Expenses</u>				
Gas Supply	85,652	74,700	(10,952)	(12.8)
Gas Storage	798	900	102	12.8
Production	24,550	24,200	(350)	(1.4)
Transmission	6,276	6,300	24	.4
Distribution	21,582	23,300	1,718	8.0
Cust. Acct. & Collection	13,412	13,700	288	2.1
Marketing	1,979	2,000	21	1.1
Admin. & General	<u>37,947</u>	<u>38,400</u>	<u>453</u>	<u>1.2</u>
Subtotal	<u>192,196</u>	<u>183,500</u>	<u>(8,696)</u>	<u>(4.5)</u>
Depr. & Amort.	40,200	40,100	(100)	(.2)
Taxes Other Than Income	23,532	24,400	888	3.8
CCFT	1,642	0	(1,642)	(100.0)
FIT	<u>1,066</u>	<u>3,600</u>	<u>2,534</u>	<u>237.7</u>
Total Oper. Exp.	<u>258,616</u>	<u>251,600</u>	<u>(7,016)</u>	<u>(2.7)</u>
Net Oper. Rev. Adjusted	<u>76,254</u>	<u>65,000</u>	<u>(11,254)</u>	<u>(14.8)</u>
Rate Base	<u>911,184</u>	<u>944,400</u>	<u>33,216</u>	<u>3.6</u>
Rate Of Return	8.37%	6.88%	(1.49)%	
	(Red Figure)			

TABLE 3

## SAN DIEGO GAS &amp; ELECTRIC CO. - ELECTRIC DEPARTMENT

Summary Of Earnings  
Year 1978-Estimated-At-Present-Rates—As-Expected-Basis

<u>Item</u>	<u>Staff</u>	<u>Utility</u>	<u>Amount</u> (Dollars in Thousands)	<u>Util. Exceeds Staff</u>	<u>Pct.</u>
<b>Operating Revenues</b>					
Sales To Customers	\$192,400	\$191,400	\$(1,000)	(5)	0.0%
Miscellaneous	7,200	7,200	0	0	0.0%
Total Oper. Rev.	<u>199,600</u>	<u>198,600</u>	<u>(1,000)</u>	<u>(5)</u>	<u>0.0%</u>
<b>Operating Expenses</b>					
Production	28,350	23,300	\$(5,050)	(17.8)	0.0%
Transmission	5,469	5,500	31	0.6	0.0%
Distribution	13,316	14,700	1,384	10.4	0.0%
Cust. Acct. & Collection	8,517	8,700	183	2.1	0.0%
Marketing	1,187	1,200	13	1.1	0.0%
Admin. & General	27,129	27,600	471	1.7	0.0%
Subtotal	<u>83,968</u>	<u>81,000</u>	<u>(2,968)</u>	<u>(3.5)</u>	<u>0.0%</u>
Depr. & Amort.	31,332	33,100	1,768	5.6	0.0%
Taxes Other Than Income	18,488	19,200	712	3.9	0.0%
CCFT	1,372	0	(1,372)	(100.0)	0.0%
FIT	941	5,700	4,759	505.7	0.0%
Total Oper. Exp.	<u>136,101</u>	<u>139,000</u>	<u>2,899</u>	<u>2.1</u>	<u>0.0%</u>
Net Oper. Rev. Adjusted	<u>63,499</u>	<u>59,600</u>	<u>(3,899)</u>	<u>(6.1)</u>	<u>0.0%</u>
Rate Base	754,623	807,700	53,077	7.0	0.0%
Rate Of Return	8.41%	7.38%	(1.03)%	(1.3)	0.0%

(Red Figure)

Note: Staff figures treat Encina 5 sale and leaseback by removing Encina 5 from rate base and substituting lease expense for last quarter of 1978.

TABLE 4

## SAN DIEGO GAS &amp; ELECTRIC CO. - GAS DEPARTMENT

Summary Of Earnings  
Year 1978 Estimated At Present Rates - As Expected Basis

Item	Staff	Utility	Amount (Dollars in Thousands)	Util. Exceeds Staff	Pct.
<u>Operating Revenues</u>					
Sales To Customers	\$114,776	\$116,000	\$ 1,224	1.1%	
Interdepartmental	18,950	500	(18,450)	(97.4)	
Miscellaneous	644	600	(44)	(6.8)	
Total Oper. Rev.	<u>134,370</u>	<u>117,100</u>	<u>(17,270)</u>	<u>(12.9)</u>	
<u>Operating Expenses</u>					
Gas Supply	85,652	74,700	(10,952)	(12.8)	
Gas Storage	798	900	102	12.6	
Transmission	807	800	(7)	(.9)	
Distribution	8,166	8,500	334	4.1	
Cust.-Acct. & Collection	4,895	5,000	105	2.1	
Marketing	792	800	8	1.0	
Admin. & General	<u>10,718</u>	<u>10,700</u>	<u>(18)</u>	<u>(.2)</u>	
Subtotal	<u>111,828</u>	<u>101,400</u>	<u>(10,428)</u>	<u>(9.3)</u>	
Deprl. & Amort.	7,089	7,000	(89)	(1.3)	
Taxes-Other Than Income	5,024	5,200	176	3.5	
CCFT	190	0	(190)	(100.0)	
FIT	<u>137</u>	<u>(2,100)</u>	<u>(2,237)</u>	<u>(1,632.8)</u>	
Total Oper. Expenses	<u>124,268</u>	<u>111,500</u>	<u>(12,768)</u>	<u>(10.3)</u>	
Net Oper. Rev. Adjusted	<u>10,102</u>	<u>5,600</u>	<u>(4,502)</u>	<u>(44.6)</u>	
Rate Base	<u>133,423</u>	<u>136,300</u>	<u>2,877</u>	<u>2.2</u>	
Rate Of Return	<u>7.57%</u>	<u>4.11%</u>	<u>(3.46)%</u>		

(Red Figure)

A detailed breakdown of Net oper. rev. shows a large segment of 22,652 which  
pertains to current cost rate methods used in the rate base.

Debenture Indenture Requirements

SDG&E's debenture indenture coverage requirements prohibit the issuance of additional long-term debt unless a two-times interest coverage test is met including interest for the proposed new debt issue on a pro forma basis. Issuance of additional first mortgage bonds is subject to a similar but slightly less stringent commitment to existing bond holders. In order to legally issue new debentures or first mortgage bonds SDG&E must meet the interest coverage tests based on recorded earnings. Those earnings can be taken from any twelve consecutive months in the fifteen months immediately preceding the issuance of the bonds.

Need for Immediate Rate Increase

SDG&E presented a series of exhibits which show by months proposed financings and the debenture indenture coverages for 1978 and 1979 under a variety of assumed conditions (Exhibits 216, 223, and 246 through 257). Exhibit 216 shows 1978 proposed financing and indenture debenture coverage at present rates, and Exhibit 223 shows similar data at proposed rates. In addition, separate exhibits indicate financing and coverages for 1978 and 1979 at present and proposed rates assuming (1) Encina 5 sale and leaseback (Exhibits 246 through 249), (2) cancellation of Sundesert (Exhibits 250 through 253), and (3) cancellation of Sundesert and Encina 5 sale and leaseback (Exhibits 254 through 257).

SDG&E exhibits show that it has adequate interest coverage to issue \$30 million worth of preferred stock in February of 1978 and approximately \$50 million of debt together with a \$30 million sale of common stock in April of 1978. Its interest coverage will be adequate into mid-year.

Exhibit 247 shows that the \$50 million of first mortgage bonds proposed to be issued October 31, 1978 will not be required because of the cash flow generated by the Encina 5 sale and leaseback. We have indicated heretofore that we will base our estimates on the assumption that the current negotiations for the Encina 5 sale and leaseback will be successfully concluded. Thus, the proposed October 31, 1978 debt financing for which the rate increase herein is sought will not be necessary.

SDG&E, however, asks that the rate increase be granted in order to provide the indenture debenture coverages needed for its proposed \$50 million issue of first mortgage bonds in April 1979. Exhibit 246 shows that at present rates non pro-forma interest coverage will fall below two-times beginning in June 1978, the end of the year the coverage will be 1.60 times and Exhibit 247 shows coverage will be 1.35 times in April 1979 when the next debt issue will be made. On the other hand, Exhibits 248 and 249 show that the proposed rate increase will provide better than two-times interest coverage for the balance of 1978 to August 1979.

It is applicant's contention that although the interim increase may not be necessary for its October 1978 financing inasmuch as the need for that debt issuance is eliminated through the Encina 5 sale and leaseback, the rate increase is necessary to ensure adequate interest coverage for its April 1979 debt issue. The financial community assertedly looks at levered leases (such as Encina 5) as financial commitments on the same order as a debt issue. SDG&E contends that failure to maintain minimum debt coverages on a continuous basis may adversely affect its negotiations with Bank of America, Merrill Lynch

and others, for construction by the Mexican government of an electric generation plant in Ensenada, Baja California.

Staff Analyses The staff recommended the following:

The Commission's financial witness recommended that the sought interim rate increase not be granted based on his analysis of SDG&E's available cash flow in 1978. Staff Exhibit 240 analyses SDG&E's net internal cash generation (Table I), capital requirements and capital sources (Table II), and returns on rate base, common equity, and interest coverage (Table III), for the year ending December 31, 1978. These tables are based on the staff's results of operations study for 1978 in Exhibit 238 prepared on an as-expected basis.<sup>8/</sup>

The staff analysis of SDG&E's ability to meet its 1978 financing needs begins with a determination of internal cash generation. Net internal cash flow is used to fund the company's 1978 capital requirements. Therefore, the level of internal cash flow in 1978 directly affects the amount of external financing required. Table I shows that SDG&E will have approximately \$63 million in internal cash

<sup>8/</sup> Each of the three tables presents a Case I and Case II analysis. The only difference between the two cases is that Case II assumes that the staff's "gas banking plan" is in effect during 1978. The "gas banking plan" is expected to add approximately \$1.2 million to net operating revenues during 1978. Inasmuch as we conclude not to adopt the staff gas banking plan and the revenue increase associated therewith, the discussion is confined to Case I analyses.

generation available for the funding of its 1978 capital budget. The assumptions made in Table I are (1) that there was an ECAC undercollection of \$25 million existing as of December 31, 1977 and the full amount will be collected in 1978, and (2) that \$20 million in cash will be available to SDG&E through reduction of its December 31, 1977 fuel oil inventory from \$70 million to \$50 million during 1978 to offset the \$20 million.

Table II of Exhibit 240 shows SDG&E's estimated total 1978 capital requirements of \$196,575,000. Internal cash generation from Table I is deducted from total capital requirements to yield \$134,500,000 million which is the balance of SDG&E's capital requirements that will be financed externally. The company has planned issues of common and preferred stock in 1978 which will net SDG&E \$102 million. The witness concluded that SDG&E will meet the debenture interest coverage test at present rates so that it can issue Series R first mortgage bonds of \$50 million and \$5 million of pollution control bonds financing in early 1978. SDG&E's planned external financing in 1978 without consideration of the issuance of an additional \$50 million of first and second mortgage bonds October 1978 totals \$157 million. According to the staff analysis, SDG&E will be able to finance its 1978 capital budget and reduce its short-term debt to approximately \$44 million without emergency rate relief in 1978.

1978 Table II also has Line 9 a separate column added to reflect the portion of each total cash flow provided by the utility and the other utility companies to the "total utility and cog" column and would reflect \$134 million in revenues from the utility and "total utility and cog" companies over the course of 1978. This covers utility companies other than the regional companies and the sales obtained by the utility and cog companies from their own powerplants or other sources of generation.

Table III of Exhibit 240 is reproduced below.

TABLE 5

110-20-1982-A

SAN DIEGO GAS & ELECTRIC COMPANY  
and San Diego Gas & Electric Company  
Return on Rate Base, Return on Common Equity,  
and Debenture Indenture Coverage  
For the Year Ending December 31, 1978  
At Present Rates

	Net Operating Income Rate Base (Dollars in Thousands)	Return on Rate Base (Lines 1 & 2) Return on Common Equity - Year End Rate Base Adjusted for Sales Return on Rate Base (Lines 1 & 5) Return on Common Equity Calculation of Debenture Interest Coverage as of December 31, 1978
A. Net Operating Income	\$76,254	8.37%
B. Add: Income Taxes	2,708	
C. Amortization of 10 year bond awards	2,525	
D. Subtotal	\$81,487	
E. Other Income of \$8,650		
F. Earnings Available for Interest	\$72,837	
G. Annualized Long-Term as of December 31, 1978	\$49,020	
H. Times Interest Coverage	1.48	

Revised as of 1978, all from new office, the old one from 1978  
to 1982 to reflect a taxable year 1978 to 1982 to reflect base period  
1978 to reflect old tax filing position 1978-1982, reflected  
in revised as of 1978, all from new office, the old one from 1978

Involved Headquarters of CIS and CSC LLC 11/2 2007

Fuel Oil Sales

Rebuttal testimony was presented in Exhibit 244 with respect to SDG&E's ability to generate \$20 million in cash flow from the reduction of its year-end fuel oil inventory. Based on its last major sale of fuel oil, SDG&E contends that fuel oil sales in 1978 will be at a loss, and that the loss can be as much as \$5 per barrel.<sup>9/</sup> The testimony indicates that the current spot market for fuel oil is \$10-\$11 per barrel; and that in order to reduce fuel oil inventories by \$20 million, SDG&E would have to sell about 2 million barrels of oil, for which the current inventory cost is about \$30 million. Thus, the sales of 2 million barrels would cost SDG&E about \$10 million. SDG&E considers it an untenable economic proposal to sell oil for which it paid in excess of \$30 million at the current market price, in order to obtain \$20 million in short-term funds. SDG&E contends that it would be "borrowing" \$20 million from the company's existing assets at a financing cost in excess of \$10 million. This difference between the price paid and the price for which the oil can be sold assertedly would be charged against the ratepayer which, it asserts, does not appear to be a very attractive economic bargain.

Testimony shows that as of the date of hearing, fuel oil inventories were piling up because of the inability to sell fuel oil even at distressed prices and because of the use of unforeseen amounts of G-54 gas available for boiler fuel. Because of these factors, SDG&E began rejecting G-54 gas as of March 1, 1978 as a means of reducing its fuel oil inventories. According to the witness the amount

<sup>9/</sup> The most recent sale was made in January 1978. One hundred thousand barrels of fuel oil were sold at a price of \$10.75 per barrel. The long-term contract price for the purchase of fuel is over \$15 per barrel.

of fuel oil required to be accepted by SDG&E under its fuel oil contracts was reduced by 1.2 million barrels late in 1977. Further negotiations are in progress. Should fuel oil be rejected at the refinery, it would be sold at the world market price and difference between that price and the contract price would be assessed to SDG&E.

SDG&E's rebuttal testimony also points out that the bulk of its fuel oil inventory is financed by bankers' acceptances, currently totaling \$53.4 million. Within the next month bankers' acceptances will be at the authorized limit of \$60 million. When that limit is reached, it would be possible to sell 2 million barrels of oil only by retiring an equivalent amount of bankers' acceptances. The proceeds of the fuel oil sales would produce no cash flow available for SDG&E's construction program because the entire amount of such sales would be used to retire bankers' acceptances until the \$60 million ceiling is reached.

Based on its rebuttal testimony, SDG&E contends that the sale of fuel oil at a loss would likely fail to accomplish the goal of increased cash flow expected by the staff witness.

#### Undercollection of ECAC Revenues

SDG&E agreed with the staff witness that an ECAC undercollection existed as of December 31, 1977, but the company disputed the amount of the undercollection that can be recovered in 1978. The undercollected amount as of November 30, 1977 set forth in SDG&E's current ECAC application is \$22.6 million. Inasmuch as hearings in Application No. 57780 were concluded on March 10, 1978, the rate changes resulting therefrom could not be effective before April 1, 1978. Recoupment of such undercollection is spread over a 12-month period. Thus, only 9/12 of the undercollection or about \$17 million are available to SDG&E in 1978.

and whether Debenture Indenture Coverage in Staff Exhibit 240 is sufficient to

protect SDG&E rebuttal testimony pointed out that under the proposed new circumstances assumed in staff Exhibit 240 debenture indenture coverage on December 31, 1978 is 1.84 times. SDG&E contends that as prior and subsequent months also would fail to provide two times coverage, SDG&E also could not legally issue new bonds or long-term debt in early 1979.

The staff witness proposed that if rate relief is needed after December 31, 1978, interim rate relief could be granted in SDG&E's Section NOI 3 proceeding. SDG&E contends that massive short-term relief would then be necessary because of the compression effect resulting from the need to raise earnings substantially in a very short period. SDG&E believes that a smaller increase over a longer time frame is preferable to a single large increase over a shorter time frame. The proposed margin of no substance

Return on Equity and Return on Assets

SDG&E contends that return on equity is an important consideration in determining the reasonableness of earnings under present rates. SDG&E compared the return on equity utilized in Decision No. 87639 of approximately 13 percent with the corresponding return set forth in staff Exhibit 240 of 10.11 percent (after adjustment for sale and leaseback of Encina 5). (The corresponding rate of return in the staff exhibit is 8.65 percent.) SDG&E urges that return on equity be maintained at or near the 13 percent utilized in the earlier decision phase of this proceeding.

At question in document A.55627 is the following CACI memo dated 1/30/79:

ccm and SPERI, CO. DATES NO. 3781-01 HENRY CO. 03872 .0% notes called 3781 .1 which stated evidence of 100 plus monitored grants under program that rec. Regon-2 is a new source of information down to the maximum and will be 100% used to collect more than 100% of the funds. SPERI in excess of old debts

Discussion

It is clear that although SDG&E had a record earnings year in 1977, it will achieve a substantially lower level of earnings in 1978. SDG&E will need to finance about \$200 million of new construction in 1978.

The major financing that will take place in 1978 is the issuance of a total of \$93 million in new equity capital. The issuance of additional equity at favorable prices is predicated, in part, upon the maintenance of an adequate return on common equity. We believe that the staff's expected return on common equity of 10.41 percent is inadequate to provide the proper climate for the proposed 1978 equity offerings.

The Encina 5 transaction is considered by the financial community in the same light as a conventionally financed plant addition, and the prospective purchasers require the utility to maintain the same standards of financial integrity as is required by its bond holders. In order to conclude the sale and leaseback under terms most favorable to the utility and its ratepayers, the 1978 rate of return and return on equity should be raised to the former authorized level. The sought rate increase of \$37.5 million, designed to meet the interest coverage requirements of the now unnecessary October 1978 bond issue, provides revenues in excess of those required to produce a reasonable rate of return and return on equity. The order which follows will authorize increases in gas and electric rates sufficient to raise SDG&E's electric and gas departments' rates of return to 9.67 percent. That increase should produce a return on equity of about 13.0 percent. Because of the costs of debt capital acquired since the initial phase of this proceeding, a rate of return higher than the 9.50 percent adopted as reasonable in the initial phase is required to produce a return on equity (staff basis) of 13 percent.

Set forth below are the staff results of operations for the electric and gas departments in Tables 3 and 4 revised to provide a 9.67 percent rate of return. The taxes other than income are calculated on an interim basis. Such taxes will be considered further in NOI 3.

not applicable

The electric gross revenue base, \$8500, represents rates which  
are subject to level power regulation based on previous year's rates.  
The increase in electric gross revenues over present rates, GPR,  
is approximately \$11,764,000 based on staff estimates. The increase in  
gas gross revenues over present rates, using interdepartmental gas  
sales of 75,000M therms, is approximately \$3,467,000 based on staff  
estimates. Adjustments in rate base and in operating expenses (lease to  
costs) have been made for the Encina 5 sale and leaseback. Gross margin  
available for new generation is \$11,764,000.

Electricity rates will be established at no less than 20% above  
interior electric utility rates and will be determined  
by the commission on a timely and orderly procedure involving participation by all  
interested parties.

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interested parties.

TABLE 6

## SAN DIEGO GAS &amp; ELECTRIC COMPANY - ELECTRIC DEPARTMENT

Summary of Earnings  
Year 1978 Estimated At 9.67 Percent Rate Of Return  
(Dollars in Thousands)

<u>Operating Revenues</u>	
Sales To Customers	\$204,164
Miscellaneous	17,200
Total Oper. Revenues	221,364
<u>Operating Expenses</u>	
Production	28,350
Transmission	5,469
Distribution	13,316
Cust. Accts. & Collection	8,535
Marketing	1,187
Admin. & General	27,360
Subtotal	84,217
Depr. & Amort.	1,500
Taxes Other Than Income	31,332
CCFT	18,488
PIT	2,409
	1,947
Total Oper. Exp.	138,393
Net Oper. Rev. Adjusted	72,971
Rate Base \$00,000	754,623
Rate Of Return	9.67%

(Total revenue includes franchise fees to the city of San Diego.)

TABLE 7  
EARNINGS

## SAN DIEGO GAS &amp; ELECTRIC COMPANY - GAS DEPARTMENT

YANKEE PLANTATION - YANKEE PLANTATION &amp; CO. INC.

## Summary Of Earnings

Year 1978 Estimated at 9.67 Percent Rate Of Return

(Dollars in Thousands)

(continued on next page)

Operating Revenues

Sales To Customers	\$117,296
Interdepartmental	18,950
Miscellaneous	1,591
Total Oper. Revenues	<u>137,837</u>

Operating Expenses

Gas Supply	85,652
Gas Storage	798
Transmission	807
Distribution	8,166
Cust. Accts. & Collection	4,899
Marketing	792
Admin. & General	10,778

Subtotal

Depr. & Amort.	7,089
Taxes Other Than Income	5,024
CCFT	496
FIT	434

Total Oper. Exp.

Net Oper. Rev. Adjusted

Rate Base

Rate Of Return

Gas Supply	85,652
Gas Storage	798
Transmission	807
Distribution	8,166
Cust. Accts. & Collection	4,899
Marketing	792
Admin. & General	10,778

Subtotal

Depr. &amp; Amort.

Taxes Other Than Income

CCFT

FIT

Total Oper. Exp.

Net Oper. Rev. Adjusted

Rate Base

Rate Of Return

(Total revenue includes franchise fees to the city of San Diego (1% surcharge).)

Rate Design

Exhibit 204 contains SDG&E's proposal concerning the manner in which rates should be increased to achieve the \$37.5 million annual revenue increase sought herein. SDG&E requests that \$13.8 million be recovered in increased gas department rates other than Schedule G-54, and that \$23.7 million be added to electric department rates. SDG&E asks that uniform increases be made in all rates, except gas department Schedule G-54 sales; and electric department lifeline usages. The SDG&E witness proposed no increase in lifeline rates for electricity, because the statutory 25 percent differential between lifeline and other rates has not yet been reached.

The Commission staff witness recommended that, if any portion of applicant's request is approved, electric rates should be spread on an equal cents-per-kilowatt-hour basis to all sales except lifeline quantities. In its rate design, Exhibit 241 dealing with the proposed G-54 banking plan, the staff proposed that the gas service establishment charge be raised from \$1.15 to \$6.50. That increase would generate \$947,000 annually. The staff also recommended that the balance of the gas revenue adjustment be spread uniformly to all other customers, including lifeline. The staff exhibit states that on January 1, 1976, the system average gas rate was 15.6 cents per therm and that the current system average gas rate is 21.84 cents per therm. In that period, the average system rate was increased 40 percent, which exceeds the statutory 25 percent increase that must occur before lifeline rates can be raised.

San Diego and Department of the Navy also recommended that gas rate increases be spread uniformly to all schedules except G-54, and that electric rate increases be spread uniformly to all customers except lifeline.

None of the parties recommended increases in steam rates.

We adopt as reasonable the following method of spreading the further increases in gas rates:

and considered standard gas rates effective 1/1/76  
are below (gasoline \$1) one 15 cent to each of  
the gas departments.

TABLE 8

## SAN DIEGO GAS &amp; ELECTRIC COMPANY

Adopted Gas Department Rates

(Based On Operations Division Staff Estimated Sales for Test Year 1978)

Category	M Th	Present		Proposed		Increase
		Vol.	Rate	Revenue	Rate	
Cust. Months (1,000s)						
Sch GS	2,211	1.22	2,683	1.26	3,013	.24
Other	5,598.5	1.35	7,558	1.40	7,838	.280
Subtotal				7,561	7,841	280
Borrego-Alpine						
Residential						
Tier I R (L.L.)						
Sch GS	10,951	.1632	1,787	.1674	1,833	.46
Sch GR, CM	227,597	.1813	41,263	.1860	42,333	1,070
Tier II R	43,365	.2053	8,903	.2146	9,306	.403
Tier III R	50,982	.2203	11,231	.2302	11,736	.505
Tier IV R	13,953	.2353	3,281	.2500	3,486	.205
Subtotal	346,838	.1916	66,465	.1981	68,694	2,229
Nonresidential						
P1, P2						
Sch GC	111,713	26,286	10,2353	26,286	10,2353	0.00
Sch G40 & 50	32,673	.2353	7,688	.2353	7,688	0.00
P3, P4						
Sch G50 & 51	25,494	.2453	6,254	.2453	6,254	0.00
Subtotal	169,880	.2368	40,228	.2368	40,228	0.00
Total Retail	716,718	.2213	114,325		116,834	2,509
Interdepartmental						
P-2, Sch GS	21,944	2,500	54,486	2,500	54,486	0.00
P-5, Sch GS	72,854	.2500	18,464	.2500	18,464	0.00
Subtotal	75,798	.2500	18,950	.2500	18,950	0.00
Total Sales	592,516	.2249	133,275		135,784	2,509
Other Revenue						
Service Est.	177	1.15	204	6.50	1,151	947
Misc.					440	440
Total Revenue					133,919	137,375
					23,456	2.6

Method of Spreading: System average to Lifeline and 90% of uniform cents per therm to other residential and 75% to residential.

Note: Total revenue does not include franchise fees to city of San Diego (1% surcharge) which are included in summary of earnings in Tables 4 and 7.

We adopt the following method of spreading the authorized increase in revenues for electric service.

Table 9

## SAN DIEGO GAS &amp; ELECTRIC CO. - ELECTRIC DEPARTMENT

## Year 1978 Estimated Revenue Increase by Class

Class of Service	10 <sup>6</sup> Kwhr	Base Revenue	Revenue Increase	% Increase
Residential				
Lifeline	2,171.0	53,000	2,475	0.0
Non-Lifeline	1,541.0	31,000	2,475	8.0
Subtotal	3,712.0	84,000	2,475	2.9
General Service	2,806.0	66,200	4,508	6.8
General Power	181.3	4,300	291	6.7
Industrial	2,222.0	31,700	3,567	11.3
Agricultural	145.0	3,000	233	7.8
Street Lighting	77.9	3,200	125	3.9%
Resale	0.4	18	1	5.6
Public Authorities	43.6	1	-	-
Total From Sale	9,188.2	192,418	11,200	5.8
Miscellaneous Revenues	-	7,200	546	7.6
Total Elec. Dept.	9,188.2	199,618	11,746	5.9

The service establishment charge is raised from \$5.00 to \$6.50 for electrical customers in order to keep the service charge in parity with gas customers. The remaining increase is spread uniformly on a cents per Kwh basis by raising the base energy charges by 0.160 cents per Kwh to all sales excluding lifeline and the State Department of Water Resources (DWR) sales. The rate applicable to DWR sales are based on long-term contractual agreement.

Findings

below, SDG&E is operating in a geographic area of continuous and rapid population growth.

2. Its current construction program is needed to meet its customers' requirements for more electricity in 1978, and postponement or delay of any of the construction programs that are in progress would be more costly to the ratepayers and to the company than prompt conclusion of those projects. Such postponement would not necessarily result in a reduction in the need for additional capital additions in the near term.

3. Substantial additional new electrical generation facilities are required to meet any of the demand curves considered in this proceeding.

4. Under any of the resource plans evaluated in OII No. 4, SDG&E's present electrical generation capacity will be approximately doubled by 1990.

5. Evaluation of the economic and financial viability of the long-range resource plans by an independent consulting firm indicates that such plans are financially viable only if annual rate increases in excess of inflationary rate increases are granted.

6. The negotiations for the sale and leaseback of Encina 5 are in progress and indications point to their successful completion, with the sale concluding on or about November 1, 1978. The sale and initial leaseback of Encina 5 will result in additional cash flow of about \$120 million.

7. This proceeding was reopened to consider the need for additional revenues to provide the required two-times interest coverage precedent to the issuance of \$50 million of first mortgage bonds in October 1978. SDG&E agrees that if the sale and leaseback of Encina 5 is successfully concluded and that the transfer takes place on or about November 1, 1978, the proposed issuance of \$50 million first mortgage bonds in October 1978 will not be necessary.

9. SDG&E will be required to finance \$200 million of construction in 1978. In order to accomplish this, it has issued \$30 million of preferred stock in March, and will issue \$31 million of common stock and \$50 million of first mortgage bonds in April, and \$33 million of common stock in November (exclusive of \$50 million first mortgage bonds issue which would not be required if Encina 5 sale and leaseback is accomplished).

10. The purchasers in the Encina 5 sale and leaseback transaction are concerned with the credit worthiness of SDG&E and the consummation of that transaction depends, in part, on the maintenance of adequate credit by SDG&E over the intervening months until that transaction is closed.

11. The staff's estimates of operating revenues, expenses, including taxes and depreciation, and the rate base for 1978 as expected at present rates (Tables 2 through 5) are reasonable and are adopted for the purposes of this proceeding.

12. Table 3 indicates that for the year ending December 31, 1978 at present rates, SDG&E's rate of return would be 8.65 percent, its return on common equity would be 10.11 percent, and its times interest coverage at year-end would be 1.84 percent. That rate of return, return on common equity, and times interest coverage will be insufficient to support the planned level of equity financing in 1978 of \$93 million and may result in higher costs of capital in the Encina 5 sale and leaseback transaction.

13. Even though the \$50 million bond issue scheduled for October 1978 probably will not be required, SDG&E asks that the proposed rate increase be granted in order to permit it to complete its proposed 1978 equity financing and to maintain the financial integrity required for successful conclusion of its Encina 5 sale and leaseback transaction.

14. While SDG&E will not need the proposed rate increase for the reason for which it originally was requested, an increase is needed in 1978. The increase granted herein of \$15.231 million should be sufficient to raise SDG&E's 1978 overall rate of return to about 9.64 percent and to raise SDG&E's return on common equity to about 13.0 percent. The rate of return for gas and electric departments should be raised to 9.67 percent and no change should be made in the steam department rate of return.

15. SDG&E has filed a Notice of Intent (NOI 3) with respect to a proposed general rate increase based on a 1979 test year. Under the sequences for a requested general increase of a major utility recently adopted by the Commission, the earliest effective date of increased rates resulting from the NOI proceeding would appear to be January 1, 1979.

16. A revenue increase of \$15.2 million is proper as a temporary means of improving earnings until the next general rate increase. The record shows that because of the large regular annual increase in rate base resulting from new plant investments there is an annual attrition in rate of return and return on common equity. That is demonstrated by the fact that the rate of return for 1977 recorded was 9.97 percent (Exhibit 228) while the most favorable estimate of rate of return for 1978 is 8.65 percent (staff Exhibit 240).

17. Increases in gas and electric rates resulting in an annual increase in total revenues of \$15.231 will be reasonable and is justified. Of that total annual revenue increase, \$3.467 million should be recovered in increased gas rates and \$11.764 million in increased electric rates. No increase should be made in steam rates. The service charge for gas should be raised from \$1.15 to \$6.50. Natural gas rates under all schedules including lifeline, but excluding Schedules G-40, G-50, G-51, and G-54 should be increased as set forth in Appendix A. Electric rates schedules, except lifeline, should be raised by a uniform increase of 0.160 cents per Kwh to all sales except lifeline and DWR. The electric service charge should also be raised to \$6.50.

18. SDG&E proposes a ceiling on earnings if the proposed rate increase is granted. Under its proposal, earnings in excess of a 13 percent return on total common equity would be placed in a separate balancing account to be disposed in a manner to be determined after issuance of an order in NOI 3. Inasmuch as a lesser rate increase than sought is granted herein, the proposed earnings ceiling does not appear necessary and should not be adopted.

19. Exhibit 209 shows that 26 percent of SDG&E's 1977 earnings resulted from profit on interdepartmental gas sales. The interdepartmental sales of gas for boiler fuel are set forth in SDG&E Schedule G-54, under which gas is priced at or near the corresponding cost of fuel oil. Because of this method of pricing, the sale of boiler gas produces higher earnings than other gas sales. Natural gas is purchased by SDG&E from SoCal. Gas for boiler fuel usage carries the lowest priority (P-5) and is available to SDG&E for that usage only when all higher priority gas to customers' needs have been met. The supply of boiler fuel gas to SDG&E from SoCal has been unpredictable and sporadic. More boiler fuel gas was made available to SDG&E in 1977 than was expected, thus providing the higher than expected 1977 earnings. G-54 gas was also available and used by SDG&E during January and February of 1978.

20. Except for the first two months of 1978, profits from interdepartmental sales of natural gas may not be available because of the discontinuance of the use of natural gas as boiler fuel.

21. SDG&E began refusing additional P-5 gas for boiler fuel in early March 1978, in order to burn oil. Fuel oil is burned to the exclusion of natural gas to permit SDG&E to maintain a workable level of fuel oil inventories. Although SDG&E had added new fuel oil storage facilities in 1977 and had negotiated a reduction in mandatory purchases, the amount of fuel oil required to be purchased under its long-term contracts with its two fuel oil suppliers, coupled with the

burning of natural gas instead of fuel oil during late 1977 and the first two months of 1978, resulted in fuel oil inventories that approach SDG&E's maximum fuel oil storage capacity. There is no market demand for

22. SDG&E's cost of fuel oil under its long-term contracts is still excess of \$15 per barrel. The current spot market price for low-sulphur fuel oil is in the range of \$10 to \$11 per barrel. Sales of the fuel oil in late 1977 and early 1978 were made at or near the spot price. Because of the large amount of low-sulphur fuel oil available in the world market, SDG&E estimates that any 1978 sales of its excess fuel oil would result in losses of about \$5 per barrel. No action is recommended.

23. In order to avoid the wide swings in net profits resulting from the burning of gas as boiler fuel, SDG&E proposed that the rates for G-54 gas be reduced to the commodity cost plus a handling charge, or in the alternative, that profits be banked and disposed of in a major rate proceeding. A specific gas banking plan was proposed by the staff in Exhibits 236 and 241. Neither of those recommendations should be adopted. The overcollection or undercollection of gas cost revenues will be treated by a supply adjustment mechanism (SAM) rate adjustment procedure. This is based on the issuance of a decision in Case No. 10261 no later than January 1, 1979. See visual exhibit 3303 v3

24. In this proceeding and in A-57780, the current ECAC proceeding, SDG&E asks that the Commission determine a policy with respect to offsetting losses from fuel oil sales. The interim decision in A-57780 deferred consideration of whether the November 1977 fuel oil sale loss of \$914,023 should be included in the ECAC and also the question of the income tax treatment that should be accorded 1976 and 1977 fuel oil sale losses. In view of the treatment accorded G-54 profits (see prior finding), we will not adopt SDG&E's proposal herein that fuel oil losses be offset against G-54 gas profits, nor do we consider that the new policy should affect fuel oil sales at this time.

Conclusions

1. SDG&E should be authorized to increase its gas and electric rates as provided in the order which follows.
2. In the event that the final rate adjustments resulting from the proceeding in NOI 3 are not effective on or before January 1, 1979, partial relief will be considered in that proceeding.
3. Because of the urgent need for additional revenues, the effective date of this order should be the date hereof.

O R D E R

IT IS ORDERED that:

1. After the effective date of this order, San Diego Gas & Electric Company (SDG&E) is authorized to file the revised gas rate schedules attached to this order as Appendix A.
2. After the effective date of this order, SDG&E is authorized to file revised electric rate schedules as follows:
  1. Increase the service establishment charge from \$5.00 to \$6.50.
  2. Raise the base energy charges by 0.160 cents per kilowatt-hour to all sales except lifeline sales to the State Department of Water Resources.

3. Such filings shall comply with General Order No. 96-A.

The effective date of the revised schedules shall be five days after the date of filing. The revised schedules shall apply only to service rendered on and after the effective date of the revised schedules.

The effective date of this order is the date hereof.

Dated at San Francisco, California, this 11<sup>th</sup> day of APRIL, 1978.

Robert Baumard

President

William J. Murphy Jr.

Simon L. Shugerman

Commissioners

I dissent;  
See separate opinion.  
Richard D. Mackle

I dissent  
Plain T. Dabrell

## APPENDIX A

RATES - SAN DIEGO GAS & ELECTRIC COMPANY  
GAS DEPARTMENT

Applicant's rates and charges are changed to the level or extent set forth in this appendix and are based on rates in effect on March 24, 1978.

	Per Meter	Per Month
Lifeline Rates	Non-Lifeline Rates	

Schedule GR

Customer Charge .....	\$1.40	\$1.40
<u>Commodity Charge:</u>		
First 81 therms, per therm .....	\$0.1860	\$0.2146
Next 81 therms, per therm .....	-	.2302
Over 162 therms, per therm .....	-	.2500

Schedule GM

Customer Charge .....	\$1.40	\$1.40
<u>Commodity Charge:</u>		
First 81 therms per dwelling unit, per therm..	\$0.1860	\$0.2146
Next 81 therms per dwelling unit, per therm..	-	.2302
Excess, per therm .....	-	.2500

Schedule GS

Customer Charge .....	\$1.26	\$1.40
<u>Commodity Charge:</u>		
First 81 therms per dwelling unit, per therm..	\$0.1674	\$0.2146
Next 81 therms per dwelling unit, per therm..	-	.2302
Excess, per therm .....	-	.2500

Schedule GC

Customer Charge .....	-	\$1.40
Commodity charge, per therm (no change) .....	-	0.2353

Schedule G-91

Each establishment, supersedure, or re-establishment of gas service .....	\$6.50
--	--------

ALL OTHER SCHEDULES UNCHANGED.

A-55627  
D-88697

ROBERT BATINOVICH, Concurring Opinion:

I sign this order reluctantly because I feel strongly that the attached companion order should have been signed as well. In any event, SDG&E must still come back to this Commission with its future plans, and I would hope that they would comment on the alternative plan presented in the proposed companion order.

Robert Batinovich  
ROBERT BATINOVICH, President

Attachment

San Francisco, California,  
April 11, 1978

**Decision No:**

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA**

Investigation on the Commission's own motion into the rates, practices, financial condition, construction expenditures, and facilities of the San Diego Gas & Electric Company.

(Appearances are listed in Appendix A)

**INTERIM OPINION**

The Commission's OII No. 4 is an investigation into the rates, practices, financial condition, construction expenditures, and facilities of the San Diego Gas & Electric Company (SDG&E). This has been consolidated with Application Nos. 55627, 55628 and 55629, the Commission's rehearing of SDG&E's request for emergency rate relief for 1978. The latter case which was Phase 1 of the consolidated proceeding was submitted on February 17, 1978.

CABP/CB

President Robert Batinovich, being the assigned Commissioner in this case, requested that several hearing days in Phase 1 be devoted to the review and cross-examination of an analysis performed by Keith, Feibusch, Associates Engineers (KFAE) of SDG&E's resource plans and their financial viability. President Batinovich had requested that SDG&E retain an independent consultant to assess the company's resource plans and their ability to finance them. KFAE was retained and their analysis was completed on February 10, 1978. It was suggested that their analysis, including as it did a year-by-year financial planning study for SDG&E through 1986, might impact both the rate rehearing and the resource plan phases of this case. KFAE was, therefore, requested to appear before the Commission in Phase 1 of this proceeding, pursuant to a letter from President Batinovich (Ex. 230), and did so appear on February 15 and 16 and March 6 and 7, 1978. KFAE retained its own counsel and was not sponsored by any of the parties. SDG&E testified on March 6, 1978 in response to certain points raised by KFAE. The Commission staff put on one witness to clarify one point in the KFAE testimony. Witnesses were cross-examined by counsel for SDG&E, the Commission, the City of San Diego, the Federal Executive Agencies, and California Public Interest Research Group (CALPIRG).

KFAE Testimony

The central exhibit sponsored by KFAE was its report performed by SDG&E entitled "Validation of SDG&E Resource Plans" (Ex. 232), dated February 10, 1978. KFAE presented three witnesses, Edward J. Keith, Frank Dougherty, and Jerry de St. Paer, who testified as to the contents of the Executive Summary, Technical Evaluation, and Financial Evaluation chapters respectively. In this report, KFAE assessed the technical and financial viability through 1986 of several resource plans for SDG&E, four prepared by the company and two developed by KFAE. In order to perform this assessment KFAE first developed technical and financial criteria against which to judge the plans. (These criteria are listed on page 8 and pages 38 and 39 of Ex. 232, respectively.)

SDG&E's financial models, which were used to assess financial viability, were validated by KFAE as part of this process, subject to certain qualifications to be addressed subsequently.

KFAE analyzed four resource plans identified by SDG&E which are briefly distinguished as follows:

**Plan F** Two nuclear units at Sundersert

**Plan G** No Sundersert; two combined cycle plants to substitute

**Plan M** Same as Plan F but SDG&E's 20% share of San Onofre (SONGS) sold and 10% owned plus credit participation of SONGS' output and capacity purchased from buyer

**Plan N** No Sundersert; same treatment of SONGS as in M; three combined cycle plants added

OII-4 - ga

KFAE's technical feasibility criteria are summarized as follows (see p. 8, Ex. 232):

KFAE "no infeasibility" decisions include the following:

1) peak demand met

2) minimum of 10% resource margin

3) system energy requirements met

4) no physical barriers to meeting schedule dates

5) technological barriers capable of being overcome in available time

6) institutional and licensing barriers have reasonable likelihood of being overcome by within schedule dates

It was asserted both in Ex. 232 (p. 8) and by KFAE witnesses Watkins and Dougherty that SDG&E believed

itself capable of meeting its 10% reserve margin target but an absolute minimum. KFAE further presented two demand forecasts for SDG&E in their analysis, the ERCDC Adopted Forecast and the California Energy Resources Conservation Forecast for peak demand developed under Common Forecasting Methodology-I (CFM-I) and what is called the Optimistic Conservation Forecast (AB 1852). The derivation of the latter curve was not clear in the KFAE testimony (Tr. 5706-5710, 5738-39, 5749), other than that it was developed for ERCDC's AB 1852 hearings and was discussed in related workshops and

was not developed by KFAE. Subsequent clarifying testimony from witness Watkins (Ex. 6208) indicated that this curve was developed by SDG&E for the ERCDC's AB 1852 hearings and was the company's estimate of the maximum additional conservation achievable over the ERCDC Adopted Forecast (CFM-I) under

\*California Energy Resources Conservation & Development Commission (ERC

optimistic assumptions. This point will be developed further in discussion of SDG&E testimony. KFAE's reserve margins were calculated from the Optimistic Conservation Forecast (AB 1852) curve. (Tr. 5706) KFAE witness Keith further testified (Tr. 5738) that his company did not attempt to validate this demand projection. Keith testified that the curve was chosen because it was available, had been developed on the basis of inputs from several parties, and, while a lower curve, allowed for some flexibility should demand be higher. (Tr. 5709-5710) He also testified that a semi-annual review of SDG&E's resource plans should be performed by this Commission to ensure that changes in the demand curve could be accommodated by the resource plan. (Tr. 5710)

As a result of its analysis of Plans F, G, M, and N, KFAE concluded that Plans M and N encounter serious problems due to low reserve margins in the mid-1980's with little hope of faster implementation and that Plan G has problems due to air quality and National Energy Act restrictions associated with expanded use of oil and reserve margin problems if its optimistic schedule is not met.

KFAE concluded that out of all of SDG&E's proposed resource plans, Plan F (SDG&E's current adopted plan) is most technically viable. Its technical problems are largely due to scheduling and licensing and relate to the following:

1. The site selected as well as mitigation below plant and 4 miles upstream and downstream of the plant according to successive

- whether Sundesert will be exempted from the 1976 "nuclear bills". (P.R.C. Secs. 25524.1 and 25524.2)

- timing of the ERCDC Application for Certificate of Construction (AFC) process and percent ownership of Sundesert that SDG&E will be permitted to build additional units under the ERCDC's Notice of Intent (NOI)

(See testimony of Dennis C. Gossman and Staff (SIE 2, p.7) both

- whether Unit 2 will be licensed before San Onofre

KFAE considers the 1984 commercial date for Sundesert Unit 1 to stand out as being very unlikely. A one year delay could lead to reserve margin problems in 1985.

(See testimony of Dennis C. Gossman and Staff (SIE 2, p.7) both

Plans R and S

(See testimony of Dennis C. Gossman and Staff (SIE 2, p.7) both

As a result of perceived difficulties with the four resource plans proposed by SDG&E, KFAE developed two additional resource plans:

(SIE 2, p.7)

Plan R No Sundesert; 800 MW of capacity purchased from Mexico starting with 300 MW late in 1982; 300 MW in early 1985, and 200 MW in 1986. A 15% reserve margin is assumed for Plan R. (Appendix C) of the

Plan S One unit at Sundesert, not on-line until December 1985. (Appendix D)

Both Plan R and Plan S include 20% ownership in San Onofre Nuclear Generating Station (SONGS) 2 and 3, Encina 5 on-line in late 1978, repowering of Silver Gate Unit 2 by late 1980, and 600 MW of geothermal in 1988-1990. (See testimony of Dennis C. Gossman and Staff (SIE 2, p.7))

In addition, Plan R includes the construction of transmission lines East from San Diego through the Imperial Valley geothermal areas to the Arizona border. Under Plans S and F this line would be built as far as Blythe to tie into Sundesert. Witness Keith testified that these transmission

lines would permit SDG&E to tie into possible future sources of power like those in Arizona Public Service Company's or Southern California Edison Company's territory, expand SDG&E's pooling capability and increase the reliability of SDG&E's system and that of all of Southern California. (Tr. 5732-33)

Mr. Dougherty subsequently testified that the costs of this transmission facility had only been included up to the Heber or Holtville areas. (Tr. 5757) He also stated the possibility of purchasing surplus energy or capacity from the East would be small in the early years of the Mexican plant's operation as opposed to later years. (Tr. 5791)

Witness Keith stated that the repowering of SDG&E's Station B facility could be utilized as a back-up contingency plan. (Tr. 5730-31)

The Mexico Project

The purchase of power from Mexico is the central feature of KFAE's Plan R, which includes 300 MW from Mexico in December 1982, an additional 300 MW in January 1985 and an additional 200 MW in October 1986. There was considerable discussion in the hearings, therefore, as to the nature and viability of such a project.

Witness Keith testified as to the following points regarding the proposed purchase of power from Mexico under Plan R:

- 1) SDG&E would neither own or operate the plant (Tr. 5684).

- 2) CFE, the national electric utility of Mexico, would own and operate the plant. (Tr. 5684)
- 3) C.F.E. has a great deal of experience running power plants, both fossil and coal, in this size range. (Tr. 5726, 5727)
- 4) SDG&E would have no direct financing involvement in the Mexico plant. (Tr. 5685)
- 5) The contract purchase of capacity, not just energy, is the basis of Plan R. (Tr. 5687)
- 6) Should one or more power plants be built in Mexico to supply capacity to SDG&E, it is unlikely that demand for power in Baja California Norte, or even (the proposed location for the facilities) would grow to the point where Mexico would want the capacity for its own uses. (Tr. 5690-91)

"...it appears that they have more capacity than they need, and we think that a majority of the capability would be available to surplus capacity." (Tr. 5691)

"It's my understanding that the power produced by the first unit by agreement with the Mexican government is to be a minimum committed to export to the border and through and thereby into San Diego Gas and Electric.

"Q. Is that also your understanding with respect to the second unit?

"A. That is my understanding, yes." (Tr. 5703)

"The first 300 MW Mexican plant should be built if possible by December 1982 in order to have it inaugurated by President Lopez Portillo in whose administration it will be initiated." (Tr. 5719)

8) The Mexican plants will be financed one 300 MW unit at a time.

\*Comisión Federal de Electricidad (CFE)

"The discussions with potential funders of this plan, that is banks and mortgage investment bankers, have indicated that they are only willing to commit themselves to the first 300 megawatt unit; --

"The intent is that if the first 300 megawatts of financing is successful that it would be the basis for financing another 300 megawatt unit, and so on ad infinitum as required because by then the syndicate will be formed and the relationships with Mexico will be established and people will have a degree of comfort as to whether or not this is a safe investment from the investment community standpoint.

"So, they want to limit it to the first only at this time and then look at the second one as the first one develops.

"Q. As the first one develops, do you mean after it's on-line?

"A. No, ...during the negotiations and the procedure by which funds are transferred from the lending institutions to CFE and the confidence that the lending institutions have that the money is being properly expended, that will take place during the construction of the first unit." (Tr. 5724-5725)

- 9) A 15% reserve margin was chosen to evaluate the technical feasibility of Plan R out of concern that the California Power Pool might prefer it since the power would come from outside the U.S.; there was no discussion of this by KPAE with the California Power Pool. (Tr. 5739-5740).
- 10) The syndicate of banks financing the Mexico project would include Bank of America as lead bank and possibly Merrill, Lynch, Pierce, Fenner and Smith (Merrill, Lynch). (Tr. 5740-41).
- 11) An American company entitled IEA (Inter-American Energy Alliance) would contract with the seller of the power, SDG&E as buyer, and would negotiate with banks, CFE, and the Mexican government (Tr. 5817).
- 12) It is desirable for SDG&E to receive a return on power purchased from Mexico; the probability that SDG&E would pursue the Mexico project is less if no return is provided. (Tr. 5743).

OII-4 - ga

to natural gas at 45 kw equivalent off  
natural gas has been done on paper and also

- 13) There are advantages in Plan R, including more capacity to meet higher margins, more flexibility with capacity coming on line earlier and in smaller increments. (Tr. 5695-96)

Q. Witness Frank Dougherty testified to the following points regarding the Mexico project:

- 1) As a basis for evaluation, the plant(s) to be built in Mexico would be functionally equivalent to the Encina 5G (Ex. 232, p. 23).
- 2) It is possible to build the first 300 MW facility in Mexico by December, 1982 if the Mexican government is supportive. (Ex. 232, p. 23).
- 3) The source of oil for the Mexican plant was assumed to be oil from Mexico's state-owned oil company. (Tr. 5777).
- 4) The capital cost of the first Mexican unit was estimated at \$800/kW, the second unit at \$703/kW and the third unit at \$803/kW, the dollars being valued in the year of first operation. (Ex. 275). Unit 2 would be cheaper as it would not include costs associated with Unit 1 for land, some engineering, etc. (Tr. 6345); inflation and the effect of interest during construction would result in higher costs for Unit 3. (Tr. 6345).
- 5) The \$800/kW cost of the first Mexican unit was based on very conservative assumptions.

"We selected conservative values for capital cost and for the operating cost, the fuel, and O&M; and any changes that, such as you're alluding to, that the high sulfur oil ought to be priced lower would tend to make Plan R more attractive."

"But we purposely tried to make use of very conservative or at least conservative assumptions in Plan R."

There is no record of SIECA not objecting at all to the EDCB's analysis leading up to the final report on the natural gas project and its findings.

"So that the direction of change would be toward lowering the price of electricity."

"Q. The conservative approach that you just described for Plan R did you also apply that approach developing the capital cost for the unit?"

"A. Yes, yes we did." (Tr. 5779-5780)

- 6) Time is available under Plan R to get regulatory approvals for transmission lines to tie in with SDG&E's system. (Tr. 5809)
- 7) Combined cycle plants were not considered for Mexico because Mexico is not familiar with this type of plant (Tr. 5769-70), and because combined cycle plants tend to be package deals and Mexican equipment (e.g. pipe) could not be used. (Tr. 5774)
- 8) It was assumed that the Mexican oil price would be escalated at 10% per year from a base price of \$19.92 per barrel in 1980, which represents a 10% premium for the Mexican oil. (Tr. 5776-77); this was done despite the high (2-3%) sulfur content of Mexican oil (Tr. 5778-79).
- 9) Contacts were made with U.S. boiler and turbine vendors to verify the feasibility of having the first Mexican power plant on line by December 1982. (Ex. 232, p. 23, Tr. 5785)
- 10) Although the first Mexican plant is assumed to come on line in December 1982, the approximate latest allowable date where reserve margin criteria would still be met is late 1985. (Tr. 5801)
- 11) An expression of interest from Mexico was required in February but could slip until March in order to allow time for site selection and choice of an architect-engineer to meet the December 1982 date; this "expression of interest" was defined as "a letter from an appropriate government official in Mexico stating that they were interested in pursuing the project and wanted, would want to start negotiations on all the necessary terms and conditions to make the project go forward." (Tr. 5802-03)

Witness Jerry de St. Paer testified "as to certain financial aspects of the Mexican project as follows:

- 1) over a 17 year amortization period to pay off the loan for the first Mexican plant (Tr. 5831, Ex. 267, Table III-1, Tr. 6320-21); the amortization schedule is based on several potential types of financing including suppliers credits and was developed in discussions with Bank of America; payments in the schedule shown in Ex. 267, Table III-1 are skewed toward the early years, but may be more evenly distributed in the final plan (Tr. 6305); this would make the present value of revenues required lower.
  - 2) No difference in risk exists between SDG&E's buying power from Mexico or building a plant themselves (Tr. 5858).
  - 3) 100% debt financing is assumed.
  - 4) IEA is working to arrange funding for the project and to establish a financial syndicate which will raise the money (Tr. 5859).
  - 5) The Mexican government will put up no funds (Tr. 5861).
  - 6) The term of the loan will be directly tied to the term of the purchase power contract since ultimately the suppliers of the financing will look to SDG&E's credit (Tr. 6306).
- A table of milestones for the Mexican project was

provided in Exhibit 275, Table II-14. (See Appendix B) The time of the letter of interest from Mexico was shifted to March under cross-examination but Mr. Dougherty stated that this should not have an effect on the rest of the table (Tr. 6350). Mr. Colston from SDG&E also verified these milestones (Tr. 6284).

KFAE Financial Analysis. After its technical analysis of the various resource plans, KFAE performed its financial analysis. This financial analysis was preceded by a validation of SDG&E's Financial Planning Model as described on page 44 of Exhibit 232. The conclusions are also stated there. KFAE concluded that the model was valid for long-term financial planning, subject to the concern that the long-term model does not consider working capital or use of short-term debt lines nor deferred taxes as a source of funds. (Ex. 232, p. 45). The treatment of working capital in the short-term model was not yet completely validated when Ex. 232 was prepared, but witness de St. Paer in his additional testimony dated February 27, 1978 (Ex. 267) indicated that the short-term model had been reconstructed and reconciled.

Witness de St. Paer stated under cross-examination that the figures in the financial tables prepared in Ex. 232 and subsequent exhibits should not be taken out of context and used in a particular rate-setting hearing and that they were not prepared for such a purpose. (Tr. 15851). He further stated that the working capital assumptions were prepared by Mr. Nesbitt and Mr. Meyer of SDG&E and were not critiqued by KFAE. (Tr. 6308).

A detailed financial analysis was then prepared of the three most viable resource plans - R, E, and S. Criteria were established against which financial feasibility was to be measured.

evaluated and these are listed on pages 38 and 39 of Exhibit 232. As opposed to the technical criteria, some flexibility was permitted here. (See Introduction and Summary SAVX, same.) On the basis of its analysis, KFAE concluded that Plans R, S, and F were all reasonably finançiable resource plans. (Ex. 232, p. 46) This analysis assumed that SDG&E would receive its requested rate increases in its current emergency rate relief application by May 1, 1978 and in its new rate case (now in the NOI stage) on January 1, 1979 and annual rate increases thereafter. (See LMS) (See also section on tables.) Tables are presented on pages 46 and 47 of Exhibit 232 suggesting that annual compound electric rate increases and annual compound increases in operating expenses per kilowatt hour are lower for Plan F and Plan S than for Plan R. However, Mr. de St. Paer, both in testimony (Tr. 5822-23) and subsequently in Exhibit 269 performed a present value analysis at a 10% discount rate for revenues required under all three plans. He concluded that while there were differences in certain financial parameters among the cases in dollar numbers, these differences were small in percentage terms. He further stated that the planning assumptions used themselves had uncertainties which were at least as great. (Tr. 5838) Mr. de St. Paer then concluded that, in looking at the present value of revenues required from ratepayers, the cost to the ratepayer is likely to be very close with all three plans. (Tr. 5840)

he relationship to the proposed rate structure. Mr. de St. Paer also stated that debt coverage ratios are higher under Plan R than Plan S but that both represent significant improvements over the present situation.

Page 47 of Exhibit 232 shows substantially lower requirements for external financing exclusive of short-term debt under Plan R as opposed to Plan S or F. Under cross-examination Mr. de St. Paer stated that this did make Plan R easier to finance.

The financial tables in Exhibit 232 show that 14.4 million shares of common stock must be issued between 1978 and 1986 under Plan R while 24.4 million shares would be required under Plan S. Mr. de St. Paer stated on the record that it would thus be easier to sell stock from Plan R especially under tight market conditions.

Mr. de St. Paer sponsored several other exhibits during his testimony as follows:

Ex. 262 SDG&E Proposed Plan (R.W. Watkins)

Ex. 267 Prepared Testimony of Jerry M. de St. Paer

Ex. 269 Electric Revenue Comparison Analysis Between Cases R, S, and F (1977-86)

Ex. 270 Sensitivity Analysis - Mexico Project

Ex. 271 Effects of Rate-making Return on Equity of 3, 5, and 10% Return on Mexican Cost of Power

Ex. 272 Impact on Ratepayers of Inclusion of Mexican Plant in Rate Base

Ex. 273 Financial Cushion Analysis Case F

Ex. 274 Financial Cushion Analysis Case S

Exhibit 269 contains the present value analysis discussed supra.

Exhibit 270 tests the sensitivity of the present value of revenues required from Plan R to the following assumptions:

25 year rather than 17 year financing at 10% interest, lower oil prices, and a lower capital cost for the Mexican plant (\$680/KW v. \$800/KW). These changed assumptions were suggested by the Commission staff to provide a more optimistic counterpart to the admittedly conservative assumptions used by KFAE. The results do indeed lower the present value of revenues required under Plan R, in one case to below that of Plan S.

#### Necessary Conditions for Plans R and S

As part of their analysis of Plans R and S, KFAE presented on pages 3, 4 and 5 of Exhibit 232 a list of conditions necessary for these plans to be implemented. These are summarized here:

#### Plans R and S - Necessary Conditions

- 1) Silver Gate 2 repowering project requires Small Power Plant Exemption from ERCDC, rapid

resolution of any environmental concerns, and timely PUC certification.

- 2) SDG&E's retention of 20% ownership of San Onofre Units 2 and 3, and the review of the following options introduced by OUE:
- 3) SDG&E's active conduct of preliminary work on repowering Station Brasilia contingency
- 4) Joint review by SDG&E and this Commission of SDG&E's financial and resource plans every six months to allow for responsiveness to changing conditions.

We note here that the ERCDC did grant SDG&E a Small Power Plant Exemption for Silver Gate Unit 2 on March 1, 1978 subject to the conditions that all appropriate environmental standards be met and that a study be performed to assure that the repowering of Unit 2 would not impair the possible future repowering of Units 3 and 4. It should be noted that KFAE indicated under cross-examination that the repowering of Units 3 and 4 was not a subject of their study and the issue was not addressed in these proceedings. SDG&E's certificate application for Silver Gate Unit 2 is now before this Commission.

Regarding the six-month review process, Mr. Keith testified that this was desirable because of continuing uncertainties regarding both the financing and resource plans (Tr. 5734) and the choice of a demand forecast (Tr. 5709-10).

There were no reasons offered as to why SDG&E would not retain 20% ownership of SONGS 2 and 3.

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made to the California Power Pool but that he believed that if this Commission ordered SDG&E to proceed with the Mexico project then this would become part of the Pool Agreement. (Tr. 6284-85)

Regarding U.S. Federal Government support, Mr. Colston of SDG&E indicated that he had discussed the Mexico project with various members of the Federal Government and had received a favorable response. (Tr. 6285)

The December 1, 1982 operational date was discussed on the record. KFAE witness Keith indicated that it is important for projects begun in the Administration of a Mexican President to be completed in that Administration because there can be continuity problems (Tr. 5719).

Witness Dougherty stated that he believed this was feasible with Mexican government support (Ex. 232, p. 23, Tr. 5685, 5802-03) but that SDG&E could sustain a delay of until 1985 if necessary. (Tr. 5801). Mr. Keith testified that he was not sure that a PUC certificate would be required for

a Mexican plant but that this should be looked into as it might cause delay if required. (Tr. 5720-21).

We now come to KFAE's recommendation that SDG&E earn a "reasonable profit" on the sale of Mexican power. KFAE did not include any such profit in performing its financial analysis. (Tr. 5722). Mr. Keith testified that under Plan R a substantial amount of SDG&E's capacity would be associated with purchased

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TO ASSURE LEGIBILITY**

resolution of any environmental concerns, and a timely PUC certification.

- 2) SDG&E's retention of 20% ownership of San Onofre Units 2 and 3.
  - 3) SDG&E's active conduct of preliminary work on repowering Station Bmas as a contingency.
  - 4) Joint review by SDG&E and this Commission of SDG&E's financial and resource plans every six months to allow for responsiveness to changing conditions.
- We note here that the ERCDC did grant SDG&E a Small Power Plant Exemption for Silver Gate Unit 2 on March 1, 1978 subject to the conditions that all appropriate environmental standards be met and that a study be performed to assure that the repowering of Unit 2 would not impair the possible future repowering of Units 3 and 4. It should be noted that KFAE indicated under cross-examination that the repowering of Units 3 and 4 was not a subject of their study and the issue was not addressed in these proceedings. SDG&E's certificate application for Silver Gate Unit 2 is now before this Commission.

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There were no reasons offered as to why SDG&E would not retain 20% ownership of SONGS 2 and 3.

Plan R - Necessary Conditions to Mexican Power Pooling

- 1) Power purchased from Mexico must be considered "firm" power for California power pooling arrangements.
- 2) U.S. Federal Government support must be obtained due to national energy policy.
- 3) The first Mexican unit must be on-line by December 1, 1982. SDG&E must expedite negotiations with the Government of Mexico and SDG&E should not be required to obtain a Certificate of Public Convenience and Necessity for this project.
- 4) SDG&E should be permitted to make a "reasonable profit" on the sale of Mexican power.
- 5) SDG&E must assume foreign exchange risk and the Commission must accept this.
- 6) SDG&E should obtain permits necessary to build a transmission line system to the East to increase pooling capability, reliability, and flexibility, in future planning.
- 7) SDG&E's total sunk costs for Sundesert should be placed in plant held for future use to the extent allowable and the rest amortized over a period of five to ten years.

Regarding the "firm" power issue, witness Keith Colston testified that he believed that there was a requirement in the California Power Pool Agreement that certain power be available to the Pool and be considered "firm", and that consultation with the Federal Government would be necessary to determine this. He also indicated that KFAE had not discussed the matter with members of the pool or with the Federal Government (Tr. 5717). SDG&E witness Colston subsequently testified that no presentation of the Mexican project had been

made to the California Power Pool but that he believed that if this Commission ordered SDG&E to proceed with the Mexico project then this would become part of the Pool Agreement. (Tr. 6284-85)

Regarding U.S. Federal Government support, Mr. Colston of SDG&E indicated that he had discussed the Mexico project with various members of the Federal Government and had received a favorable response. (Tr. 6285)

The December 1, 1982 operational date was discussed on the record. KFAE witness Keith indicated that it is important for projects begun in the Administration of a Mexican President to be completed in that Administration because there can be continuity problems. (Tr. 5719)

Witness Dougherty stated that he believed this was feasible with Mexican government support (Ex. 232, p. 23, Tr. 5685, 5802-03) but that SDG&E could sustain a delay of no until 1985 if necessary. (Tr. 5801). Mr. Keith testified that he was not sure that a PUC certificate would be required for a Mexican plant but that this should be looked into as it might cause delay if required. (Tr. 5720-21).

We now come to KFAE's recommendation that SDG&E earn a "reasonable profit" on the sale of Mexican power. KFAE did not include any such profit in performing its financial analysis. (Tr. 5722). Mr. Keith testified that under Plan R a substantial amount of SDG&E's capacity would be associated with purchases

power which does not provide earnings and that SDG&E's return is calculated on the basis of owned assets, not purchase power. (Tr. 5621-22, 5743). He argued that a return on purchase power would provide an incentive to undertake the purchase power arrangement and that while he had no reason to believe SDG&E needed an incentive, he felt its investors did. (Tr. 5742). He said he felt it was less likely that SDG&E would go forward with the Mexico project without such a profit incentive. (Tr. 5743). Mr. Colston from SDG&E subsequently testified that he would hope that SDG&E would earn some profit on the sale of electric energy through the Mexico project but he did not know how this would be proposed for rate-making purposes and that SDG&E had not pursued the matter that far at present. (Tr. 7286).

The transmission system to the East was discussed on the record by Mr. Keith of KFAE (Tr. 5731-5732) and by Mr. Watkins of SDG&E (Tr. 6239). Mr. Keith argued that this would provide SDG&E with flexibility for future resource planning, greater pooling capability, and greater reliability. Mr. Watkins indicated that SDG&E would view such an extension favorably. (Tr. 6239).

Regarding "sunk costs for Sundesert," witness Keith testified that these were included in KFAE's study. (Tr. 5733). Witness de St. Paer subsequently developed how these costs had been treated. (Tr. 5829-31).

Plan S - Necessary Conditions

- 1) Sundesert must be exempted from the 1976 "nuclear bills." (Pub. Res. Code Secs. 25524.1 and 25524.2)
- 2) SDG&E must file and proceed with an Application for Certificate (AFC) in a timely manner before the ERCDC.
- 3) The ERCDC must accept the AFC for review and complete the certification process in 18 months.
- 4) SDG&E must apply for a Certificate of Public Convenience and Necessity from this Commission such that this is obtained at the same time the ERCDC AFC process is completed.
- 5) The PUC must issue such a certificate at the same time that the ERCDC approves the AFC.

There was little discussion of these conditions in this proceeding. It should be noted that the ERCDC recommended against exemption of the Sundesert nuclear facility from the nuclear bills in its March 15, 1978 decision under Public Resources Code Section 25524.25 (AB 1852). Subsequently, the California State Senate passed SB 1015 exempting the plant from that earlier legislation. The State Assembly began hearings on the matter on March 15, 1978. KFAE did not develop a detailed list of ORE conditions for the implementation of Plan F; there is a discussion of this matter in Exhibit 232. Here KFAE notes that the schedule for Sundesert under Plan F includes Unit 1 coming on-line in October, 1984 and Unit 2 in January, 1986, with ORE ERCDC Site Certification by April, 1979, and a 66-month construction and start-up schedule. (Ex. 232, Pg. 11) KFAE states

that this Site Certification date is "extremely optimistic"

because "SDG&E would have to submit its AFC (I)

(Article 1, Subpart 1, section 3003, AB 1852) "as soon as

likely being the first AFC submitted to

the ERCDC, and schedule expedited by 6 months

the site startup date as proposed here is highly unlikely.

- In the ERCDC decided not to recommend exemption  
of Sundesert from the 1976 nuclear bills in  
its AB 1852 decision

since, ERCDC regulations and the Warren-Alquist  
Regulation Act do not provide for early site work it is  
unlikely that any site work would occur before  
Site Certification, leading to another 6 month  
slippage in the Sundesert schedule.

KFAE concluded that more reasonable commercial opera-

tion dates for Sundesert Units 1 and 2 are October, 1985 and  
January, 1987 respectively. They further concluded that reserve  
margin problems in 1985 could result. (Exhibit 232, p. 12)

Finally, as noted by KFAE on pages 16 and 17 of their

Exhibit 232 and in testimony, without exemption from the 1976

nuclear bills, it is highly improbable that the ERCDC

will permit Sundesert a Site Certificate. Furthermore, KFAE

notes that there are at present no AFC guidelines from the

ERCDC for SDG&E to follow in its filing. Lastly, as noted by

KFAE on page 20 of Exhibit 232, the ERCDC in its Sundesert NOI

decision only approved the building of one unit at

Sundesert and Plan F contains two units, but not subbed off

SDG&E Testimony (including C-340, D-341, E-340 and G-340)

SDG&E sponsored Ronald W. Watkins and Bill W. Colston  
as witnesses in these proceedings. Mr. Watkins testified as to

Mr. Colston (Exhibit 261) reported his evidence concerning SDG&E's resource planning criteria and preferences. Mr. Colston subsequently addressed himself particularly to the Mexican project. Mr. Watkins presented Exhibit 261. He testified that he believed that most utilities have reserve margins of 15 to 20% and that these are reasonable. He further testified that SDG&E has temporarily abandoned its criteria for establishing reserve margins and is using a 10% requirement as a minimum which is required of members of the California Power Pool. He stated that this did not imply that this was an adequate reserve margin. (Tr. 6237-38). He added that he would quantify uncertainty as to implementation of energy conservation in the range of 5 to 10% and that this should be considered in determining reserve margins (Ex. 261, Tr. 6240).

The Judge Witness, Watkins, indicated that SDG&E supplied the Optimistic Conservation Forecast (AB 1852), used by KFAE in its analysis. He further indicated that the ERCDC had developed two additional demand forecasts for SDG&E, both of which are lower than the Optimistic Conservation Forecast (AB 1852). These were present in Exhibit 262 which was subsequently sponsored by KFAE. Mr. Watkins sponsored Exhibit 263 which presents a resource plan for SDG&E, including one unit of Sundesert, 300 MW of power from Mexico, and some additional power from the Pacific Northwest in 1988. This results in a 20% reserve margin over

the Optimistic Conservation Forecast (AB 1852). Mr. Watkins stated that traditionally 15% is considered a low reserve margin and that uncertainty associated with conservation made him add another 5%, resulting in a reserve margin of 20%. (Tr. 6254-55). He later stated that he had a preference for no forecast but that if reserve margins were to be established based on one of the presented forecasts, that he suggested basing one on the Optimistic Conservation Forecast with a 20% reserve margin including 5% to reflect uncertainty regarding conservation. (Tr. V6263).

Witness Watkins expressed a preference for Plan FWW (SDG&E's current resource plan) because he felt it was most advantageous for the ratepayer. His next choice was the plan presented in Ex. 263, (Tr. 7248), discussed supra. He added that no full financial analysis had been made of the plan proposed in Ex. 263.

Mr. Watkins also favored the building by SDG&E of a transmission line to the East as recommended by KFAE. (Tr. 6239).

Employee Bill W. Colston, Vice President of SDG&E's Project Management Division, then testified regarding SDG&E's interest and involvement in the Mexican project presented first by KFAE. He indicated that he was responsible for all phases of SDG&E's involvement in the Mexico project. Colston dated SDG&E's interest in buying power from Mexico from April, 1976 and indicated that SDG&E has conducted several independent studies of the possibility (Tr. 6276). Advantages to Mexico are expected to be a steady market for their oil, support of a desalinization plant with 100 MW of the third 300 MW plant, and ultimate ownership of the

facilities. Colston said that SDG&E has a contract for \$5 million with Bank of America and Merrill Lynch pending, contingent on receipt of a favorable expression of interest from Mexico. (Tr. 6276, 6283) and approval by SDG&E's Board of Directors.

SDG&E first formally suggested joint studies with Mexico in a letter from Robert Morris, SDG&E's president, of April 15, 1977 to Mexico's President Lopez Portillo. This was followed on March 4, 1978 by a telegram from Morris to Jose M. Andres Orteyza, Minister of Patrimonio y Fomento Industrial, requesting a response to the first letter, suggesting joint studies of the export of energy and capacity from new power plants in Baja California (Ex. 265). A response was received on March 9, 1978 and was marked Exhibit 266.

Mr. Colston then testified regarding Inter-American Energy Alliance which, once incorporated, he said would be the organization with which SDG&E contracts for Mexican power on a take or pay basis and with which the Mexican Government would contract to sell the power. He also indicated that IEA might be totally or partially responsible for the engineering construction of the plant or its supervision. (Tr. 6281)

Witness Colston then stated that SDG&E would prefer to buy only energy from Mexico but would buy energy and capacity if denied the ability to build its own generation plant (Tr. 6282, 6293, 6294). Mr. Colston also stated, however, that even if Plan F or Plan S (e.g. Sundesert) came into being:

and Colston's stand would make little difference. He further stated "We'll pursue the Mexico project with full vigor regardless of which plan is adopted." (Tr. 6283) The old proposal to support no acquisition

was dropped. He indicated that SDG&E's timetable for pursuing the Mexican project was the same as in Table II-14 of KFAE's Ex. 1275 (Tr. 6284), which may be found in Appendix B.

Mr. Colston was then asked if the Mexican project had been presented to the California Power Pool. He replied that it had not, but that he felt that if the CPUC directed SDG&E to pursue the Mexican project it would "by definition" become part of the pooling agreement. (Tr. 6285)

Mr. Colston was then asked whether the Federal Energy Regulatory Commission had been asked for its reaction to the Mexican project. He responded that discussions had been held with Mr. O'Leary, some of Mr. Schlesinger's staff, and with the Department of Energy and that they indicated they would look favorably upon the project if it did not exceed 1200 MW. (Tr. 6285, 6288)

When asked if SDG&E would have any control over the availability of capacity or energy and maintenance schedules, Mr. Colston said these were points of contractual negotiations but that SDG&E's intention was to include incentives for keeping fuel costs low, availability high and maintenance properly performed. (Tr. 6287)

The witness said that the amortization period for the project was likely to be 12 years (Tr. 6287) although a

longer period would be preferable, which Mr. de St. Paer of KFAE later said was the same as his 17 years, the difference simply reflecting weighted averaging. (Tr. 6302). Mr. Colston also said, however, that if Mexico withdrew the first plant after it was amortized, another could be built. He also stated that he expected capacity from the first plant to be available under an initial contract for approximately 15 years. (Tr. 6294).

When asked whether purchase power from another source like Southern California Edison Company might be cheaper than from Mexico, Mr. Colston replied that Mexican power would be cheaper because: 1) the facility can be built faster in Mexico with less inflation impact, 2) Mexico has flexibility in the price at which oil is delivered to the plant and 3) SDG&E will only buy power from Mexico if the energy is cheaper than that which SDG&E could produce at a new generation plant. (Tr. 6291) He added that he saw Sundersert as SDG&E's only viable alternative to the Mexican plant in the same time frame. (Tr. 6292).

Mr. Colston was finally asked by counsel for the Commission how realistic he felt it was to proceed with the Mexican project. He replied:

"The project schedule that we have identified, is a very real project and it will, definitely will happen if the President of Mexico wants it to happen." (Tr. 6289)

Commission Staff

The Commission staff sponsored only one witness, William R. Stalder. Mr. Stalder presented one exhibit (Ex. 260). This exhibit presents criteria for the development of the costs of Mexican power which are optimistic in contrast to the admittedly pessimistic assumptions used by KFAE. It includes lower capital costs for the Mexican power plant(s) (\$680/kw), a longer amortization period (25 years), and a lower cost of residual fuel oil (\$16.40/bbl in 1982, escalating at 10% per year thereafter). Mr. Stalder subsequently reviewed his exhibit and made certain changes which are developed in the hearing transcript (Tr. 6354-56). These changes result in a cost of \$700/kw for the first Mexican plant under Mr. Stalder's exhibit. Mr. Stalder then testified that he also performed a calculation of the capital costs of the Mexican power plant using the low end of the range of data presented by Mr. Dougherty of KFAE in his Exhibit 275, Table II-13. This latter calculation resulted in a capital cost of \$657/kw. Both of these are below Mr. Dougherty's own estimate of \$800/kw which he stated on the record was conservative (Tr. 5779-80).

DISCUSSION

As noted supra, there have been 4 days of hearings in OII 4. These days have focused largely on 1) the presentation of findings made by Keith, Feibusch, Associates, Engineers (KFAE) in their analysis and validation of resource plans for SDG&E, and 2) SDG&E's response to KFAE's Plans R and S and a discussion of SDG&E's involvement in negotiations with Mexico to purchase power.

There have been certain central themes upon which attention has been directed:

- the possibility and feasibility of SDG&E purchasing significant amounts of capacity and energy from Mexico beginning in late 1982
- the viability of SDG&E resource plans which include one or two units of Sundesert
- the relative and absolute financial viability of resource plans for SDG&E based upon power from Mexico or Sundesert
- the flexibility and security in terms of reserve margins and planning options provided under resource plans including Mexican power and Sundesert

We will address these issues here on the basis of the record to date. Action by the California Legislature not to exempt the Sundesert facility from the 1976 "nuclear bills" (P.R.C. Sections 25524.1 and 25524.2), or lack of positive action by the Government of Mexico could have a substantial impact on the viability of the various options.

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Plan R

The proposed purchase of capacity from Mexico by SDG&E as in KFAE's Plan R appears to have the following desirable attributes:

- 1) Even with some slippage in the schedule it will provide SDG&E with power earlier and in smaller increments than the most-discussed alternative source - Sundesert. It appears that a two-year delay for the first unit could be accommodated if necessary. This flexibility seems important given all the uncertainties associated with present utility planning.
- 2) According to the KFAE financial analysis the Mexico option requires substantially less external financing and sale of common stock in the 1978-86 time frame than Plan S or F.
- 3) When coupled with the recommended transmission linkage to the East, this plan offers diversity and greater reliability of supply for SDG&E.
- 4) The proposed Plan R will meet a 15% reserve margin requirement through 1990 if implemented as proposed, which all parties seem to consider preferable to a 10% margin if the added cost burden is not too great. KFAE did not perform an analysis of the cost of the additional 5% reserve margin in Plan R, but a brief review of their present value analysis suggests that it is not prohibitive.
- 5) SDG&E's Vice President Colston has indicated on the record a strong commitment on the part of SDG&E to pursue a contract to purchase Mexican capacity and/or energy.

6) The nature of the financing plan for the Mexican project plus evidence regarding demand growth projections for Baja California (the proposed site) provide an indication that, at least for the period over which the debt is amortized, the power would be committed to SDG&E. Furthermore, we trust that SDG&E, Bank of America, Merrill, Lynch, et al would not enter into such a venture without confidence and substantive assurances that the power will be provided to SDG&E who will pay off the debt by purchasing it.

At the same time, we still have a variety of concerns regarding the viability of the purchase of capacity from Mexico.

1) The purchase must be of capacity, not just energy, to make Mexican power a viable element of a resource plan.

2) SDG&E must have assurances or preferably a substantial measure of control spelled out in the purchase contract it negotiates that the Mexican plant(s) will be operated reliably and with an adequate capacity factor, and that maintenance will be scheduled at times which do not coincide with times of peak demand by SDG&E customers.

3) Power from Mexico must not cost more than the price at which SDG&E could produce it itself, taking into account the problems of SDG&E bringing its own plant on line during the same time frame. Substantial incentives must be provided in the purchase contract to keep prices down.

4) The letter from the Mexican Government (Ex. 266), while expressing interest at the level of the President of Mexico, is not a statement of intent to proceed with the project. It rather initiates "a series of

and will make available to the owner of the plant "studies and analyses" and says that upon their completion SDG&E's proposed project will be considered.

block 5) The milestones proposed by KFAE and subsequently seconded by SDG&E's witness Colston include an agreement in principle by April 1, 1978, and the actual signing of a contract by August 1, 1978, with financing commitments beginning on September 1, 1978. It is our understanding that this schedule must be followed fairly closely in order to increase assurance that it will be completed and brought on-line with all due speed. It therefore appears that considerable and immediate progress must be made in further negotiations among the parties (SDG&E, IEA, the financial syndicate, the Government of Mexico) in order to have construction begin by January 1, 1979.

We are further concerned about receiving assurances that the second two Mexican units will be built as they would be agreed to after the first plant is underway.

block 6) If capacity from Mexico is only available during the amortization period of the loan and if this is only in the range of 15-17 years, SDG&E must begin planning early for new power to be available in the time frame following termination of the Mexican contracts that SDG&E can finance without requiring extraordinary rate relief from this Commission.

The building of the second unit will proceed and the third and fourth units will probably be completed in two or three years. It is anticipated that the third and fourth units will be built using the same technology as the first two units.

There are no indications that the third and fourth units will be built prior to 1982, and it is not clear if the third and fourth units will be built prior to 1984. The only likely scenario is that the third and fourth units will be built prior to 1984.

Plans S and F will represent SDG&E's second

We now turn to Plans S and F, both of which include the Sundesert facility. Plan F, while preferred by SDG&E, includes 2 units at Sundesert while the ERCDC's December 21, 1977 NOI decision only approved the first unit. This NOI decision also only approved a one-third share in the project for SDG&E unless the company could demonstrate that it could finance its one-half share without extraordinary rate relief from this Commission. We will discuss this financial viability issue below.

Plans S and F also require an exemption by the California State Legislature from the 1976 "nuclear bills". The ERCDC recommended against such an exemption in its AB 1852 decision. The State Senate subsequently approved an exemption for Sundesert under SB 1015, but the State Assembly has not yet acted. Failure to receive such an exemption would appear to severely hamper SDG&E's plans to proceed with the Sundesert project. Of course, receipt of such an exemption would not assure the viability of these plans as they face major financial and other obstacles.

Timing is an issue with Plan F if, as KFAE deems likely, Sundesert Unit 1 is delayed by a year or more. It does

becomes a problem in Plan S if Sundesert Unit 1 is delayed by more than a year and, indeed, Plan S meets its 10% reserve margin minimum with little ease thereafter. Furthermore, the financial viability of both Plans S and F depends on SONGS 2 and 3 coming on-line on time to expand SDG&E's rate base by one-half billion dollars. Slippage in the SONGS schedule will result in demands upon ratepayers for additional revenue requirements.

Lastly, both Plans S and F only provide for a 10% reserve margin and thus are somewhat inflexible as regards scheduling slippages, changes in demand, etc.

Mr. Watkins of SDG&E proposed a hybrid plan consisting of one unit at Sundesert and 300 MW in Mexico that would provide for a higher (20%) reserve margin (Exhibit 263). However, no financial analysis was available to determine whether this plan was financially viable for SDG&E.

#### Financing and Costs to Ratepayers

There was considerable discussion of the relative and absolute financial viability of Plans R, F, and S. KFAE asserted that all three plans were financially viable within their new evaluation criteria. While these criteria generally appeared to be reasonable, KFAE's financial analysis did assume SDG&E would receive by May 1, 1978 all its requested rate relief in the emergency rate request (Application Nos. 55627-9) with which this OII has been consolidated, and the full request in SDG&E's new general rate case (NOI 3) by January 1, 1979. It

is uncertain whether the Commission will issue a decision by January 1, 1979 in NOI 3. The Commission has not yet issued a decision on the rehearing of Application Nos. 55627, 55628, and 55629. It should be noted that SDG&E earned its authorized rate of return in 1976 and exceeded its authorized return in 1977.

Furthermore, KFAE has made two important assumptions regarding future regulation and future capital markets for each plan: of course, the year-to-year conduct of business

1. that there will be no delay between the time SDG&E incurs increased rate base and operating costs and rate relief, i.e., instantaneous ratemaking.

2. that SDG&E's common stock will sell at or above book value and the effective yield on interest cost of bonds will be 9% during the period 1979-1986, based upon the S&P 30 year

Implied in the Commission's recently adopted regulatory lag program is that each utility is expected to file applications for general rate relief with no greater frequency than every two years. Due to their capital intensive natures, however, Plans S and F would require the Commission to grant substantial general rate relief to San Diego in each and

every forecasted year. Based on this fact alone, Plans F and S are infeasible from a ratemaking standpoint. The utility would be compelled to make frequent rate increases, obviously at the expense of stockholders and customers. Furthermore, the utility's financial position would be considerably less favorable than its competitors' because of the uncertainty of the availability of capital.

OII-4-9a, a general letter from the Office of Nuclear Regulation dated August 10, 1977, advised:

In Interim Decision No. 85018 dated October 15, 1975 in Application No. 55627, et al., (SDG&E's last General Rate proceeding), we granted an emergency increase in rates to meet the then current financing problems of SDG&E. Further increases were granted in Decision No. 87639 dated July 19, 1977, in that proceeding. Concurrently with this order we are considering a further emergency rate increase to permit SDG&E to issue additional equity capital under favorable terms during the balance of 1978. We indicated in prior decisions our concern about the ability of SDG&E to finance any new electrical generating capacity consisting of a single large unit and cautioned SDG&E that it may not be provided with rate increases solely for that purpose.<sup>1/</sup>

Plan R is the least capital intensive plan because the capital costs of construction are borne by IEA, evaluated independent of SDG&E's own year-end financial position as reflected in the operating block 2 bids & annual reviewed consensus.

<sup>1/</sup> Decision No. 85018 stated as follows:

"In view of both the economic advantage of maintaining reasonable rate levels and financial constraints on raising capital for construction, it is essential that SDG&E restricts new facilities to the minimum necessary to provide adequate service. Reduction in reserve margins can prudently be made if SDG&E and the other California electric utilities will expand onmutual assistance arrangements and further utilize interties to maximize the efficiency of the combined systems."

ORI-4 - PB/ga\*

When SDG&E has completed its Mexican power plant and it is not SDG&E. When the Mexican power plant becomes operational there will be no separate accounting system. At that time operational the costs will be the subject of ECAC proceedings. The proceedings of ECAC procedures provide for recovery of purchased power costs on a semi-annual basis and utilize a balancing account which allows SDG&E to recover dollar for dollar its costs. Therefore, the risks of time delays in recognizing increased costs would be minimized under Plan R.

The ability of SDG&E to sell its stock at or above book value is influenced by many factors beyond the control of

both SDG&E and the Commission. Under Resource Plans F and S, SDG&E would be required to more than double its currently outstanding common stock. Plan R calls for a 64% increase in

common stock vs. approximately 110% increases for Plans S and F.

Valuation data from Standard & Poor's Stock Business Review of

SDG&E's common stock currently sells for approximately

90% of its book value. This is the highest market-to-book

ratio for SDG&E's common stock since 1972. If in the future the

market substantially discounts SDG&E's stock as it has over the past

five years, SDG&E would be forced to sell an even greater

number of shares than that forecasted. This would result in

dilution of stockholders' investment and earnings per share as

well as increasing SDG&E's dividend requirements. This would impact on the company's already tenuous forecasted cash flow position. Plan R offers less risk of dilution and reduction in cash flow simply because the number of shares to be issued is substantially less.

KFAE also assumes that the effective cost of bonds to SDG&E will remain at 9% throughout the entire forecast period (1979-86).

If the cost of debt rises significantly above this level, SDG&E would have greater difficulty in both placing the bonds and meeting forecasted interest coverage requirements.

Plan R would provide greater margin of coverage than either Plan S or F, and would be able to better weather any increases in debt costs.

This Commission has traditionally authorized prospective rates which allow, but do not guarantee, the utility an opportunity to earn its authorized rate of return. A real possibility exists under the capital intensive Plans S and F that the Commission's regulatory latitude will cease to exist. Plan R provides the greatest degree of flexibility for both the Commission and SDG&E. Plan R, based strictly on financial and ratemaking considerations, offers the best assurance that SDG&E will be able to meet its financial obligations and that the Commission will not have to deviate from its long established regulatory practices.

The initial KFAE study (Exhibit 232) suggested that it might be necessary to postpone a modified SDG&E rate. Certain financial variables like annual compound electric rate increases and annual compound increases in operating expenses per kilowatt hour are lower for Plan F and Plan S than for Plan R. However, as described in supra, Mr. de St. Paer presented a present value analysis at a 10 percent discount rate for revenues required under all 3 plans. He concluded that while there were differences in certain financial parameters among the 3 cases in dollar amounts, these differences were small in percentage terms, smaller than the uncertainty in the planning assumptions. He concluded that the costs to the ratepayer were likely to be very close with regard to the proposed SDG&E rates for all 3 plans.

The financial analysis of Plan F did not take into account a one year delay in the operating dates for Sundesert Units 1 and 2. In pages 11 and 12 of Exhibit 232, KFAE provides the following comments on SDG&E's estimated commercial operating dates for Sundesert:

"On the other hand our evaluation of Sundesert Units 1 and 2 concludes that the indicated commercial operation dates are highly unlikely.

"This results in a total slippage of one year for Sundesert Unit 1 and similarly for Unit 2."

OII-4 - hs

stado de Coahuila (SEC) elidido?) whose SONGS facilities cost KFAE did not perform a financial analysis of Plan F.   
KFAE's financial analysis will include the impact associated with a one year delay in Sundesert Units 1 and 2.

Furthermore, as discussed supra, slippage in the

operation date of SONGS 2 and 3 would have a major impact on SDG&E's rate base and on its ability to finance Plan F or S.

Planning of a two year extension of the construction period This is also not analyzed by KFAE.

Mr. De St. Leger & his team however took over responsibility. Since KFAE witness Dougherty stated that the capital budgeting and financial credit risk factors used by KFAE and fuel cost assumptions for the Mexico project were conservative, staff recommended more optimistic assumptions as discussed infra. Some of which were incorporated by Mr. de St.

Plan R, in one case to below that of Plan S. Higher nuclear plant price from SEC, if held to five year lifespan of capital cost assumptions, discussed infra, would make Plan R even more financially attractive than Plan S.

KFAE's recommendation that SDG&E earn a return on its sale of Mexican power was not incorporated into their

proceedings nor was it part of the

recommendation of the Mexican government that KFAE's

newly established operating license be granted after

original financial analysis. There is some analysis presented in Exhibits 270, 271, and 272. However, the granting of such a return by this Commission would be an extraordinary measure with no precedent and must be analyzed in great detail for its legal and financial ramifications as well as its impact. SDG&E was not prepared to suggest an actual implementation plan for this recommendation on ratepayers and the Commission is not prepared in this interim decision to address the matter.

Another subject having a substantial potential impact on financial viability of Plans F and S is the capital cost assumption used for nuclear power plants. We note here that the past twenty years have seen rapid growth both in the real and estimated costs of nuclear plants, and in the magnitude of uncertainty associated with these estimates. Many factors have contributed to this growth, including rapidly rising costs of labor, materials and equipment, as well as unanticipated additions and schedule slippages. It is not possible on the basis of this hearing record to determine in the case of the planned Sundesert facility the extent to which contributing factors have been adequately accounted for in SDG&E's cost estimate.

OIR-4 - hs

Besides the above, one of our objectives is to make sure that KFAE has accepted all capital cost figures for new power plants prepared by SDG&E. Whereas it has not been practical to develop a comprehensive record here regarding the cost of new reactors at San Onofre and the cost of firm nuclear plant capital costs, we note that the SDG&E/KFAE costs are considerably below alternative data prepared by the ERCDC and other organizations. In fact, the figures of both are in its AB 1852 Report to the Legislature. It is not possible here to determine what a reasonable higher range might be, but either way, if the cost of new reactors at San Onofre is substantially higher than the financial viability of Plans R, F, and S.

#### Additional Plan Elements

The repowering of Silver Gate Unit 2 is common to Plans R, F, and S. The limited record developed here supports the argument that this is an important element of SDG&E's ultimate resource plan and argues for timely Commission action.

The argument for the development by SDG&E of a transmission line system to the East for the purpose of flexibility, increased pooling capability, and greater reliability was put forward by KFAE and supported by SDG&E. The record suggests that such planning should be pursued subject to performance and review of future cost studies.

Lastly, all three resource plans, R, F, and S, are based upon a minimum reserve margin calculated on the basis

of the so-called Optimistic Conservation Forecast (AB 1852).

KPAE says it did not validate this forecast. There is not a sufficient record here to make a definitive statement regarding the choice of this demand forecast as a basis for resource planning, and we will not do so. We will simply note that the Optimistic Demand Forecast is lower than the ERCDC Adopted Forecast (CFM-I), and higher than the forecasts used by the ERCDC in its AB 1852 Report to the Legislature.\* It therefore appears to be within the range of the planning assumptions.

Exhibit 262 (see page 262 of the AB 1852 exhibit D-2, S)

is the so-called "Adopted" curve for

Electric generation at 13,101 MMW by 1980.

Establishment of nuclear generation by 1980

and all available coal is exhausted

by 1980.

Electric generation costs reflect at \$1.30/MMBtu

allowing for minimum 3% annual real rate of growth.

Electricity prices are projected to increase

at 3% annually after 1980.

All projections assume no change in

population levels, and no change in

electric power consumption per capita.

The curve represents a projection of electric power generation to 1980 based on current energy consumption patterns and projected economic growth rates. The curve is not intended to represent actual future conditions.

\* Commission staff has found an error in the "ERCDC AB 1852 Forecast Final Report 3/78" in Exhibit 262 and notes that the curve in the exhibit is considerably lower than it should be.

(RPSI 48) SUBJECT TO MODIFICATION **FINDINGS** (RPSI 48) SUBJECT TO MODIFICATION

Based on the record in OII-4 to date, we find the following:

The viability of SDG&E's current resource plan, incorporating two units at Sundesert and referred to in this proceeding as "Plan F," is uncertain because:

- a. the availability of money to develop SONGS 2 and 3 is uncertain since the ERCDC has only approved a "Notice of Intent for one unit at Sundesert."
- b. the ERCDC has recommended against exempting Sundesert from the 1976 "nuclear bills" (P.R.C. Sections 25524.1 and 25524.2) and the State Assembly's decision on an exemption (in SB 1015) is pending; denial of an exemption appears to preclude the building of a nuclear facility in the time frame proposed.
- c. It is likely that Sundesert's operation dates will be delayed a minimum of one year, causing potential reserve margin problems in 1985 and possibly later.
- d. large amounts of external financing will be required to finance this plan, resulting in demands for substantial and continuous rate relief.
- e. slippage in the original operation date of SONGS 2 and 3 would have an impact on SDG&E's rate base and thus on its ability to finance Sundesert without additional revenue requirements from ratepayers.

2. The KFAE proposed Resource Plan S, containing one unit at Sundersert, suffers from all the uncertainties of Plan F except for the ERCDC NOI approval. Furthermore, this approval was only provided for 50% SDG&E ownership of one unit if SDG&E can demonstrate no need for extraordinary rate relief. Extraordinary rate relief would be required, based on our findings in Decision Nos. 85018 and 87639, *supra*, and our decision issued today in Application No. 55627, et al. Plan S also only provides for a 10% reserve margin against SDG&E's Optimistic Conservation Forecast.

3. Alternate Resource Plans G, M and N appear to have considerable and likely prohibitive technical problems on the basis of KFAE's analysis.

4. Resource Plan R, which includes the purchase of substantial amounts (800 MW in three stages) of electrical capacity from Mexico, compares favorably in several ways with Plans F and S. These include:

- a. added flexibility through earlier availability and smaller incremental units
- b. greater probability of meeting demand in the mid-1980's even with schedule slippage
- c. A higher (15%) reserve margin against SDG&E's Optimistic Conservation Forecast

d. one-third less external financing and roughly one-half less issuance of common stock required

e. roughly comparable revenue requirements, and performance from ratepayers in the 1978-86 time period based on SDG&E's nuclear capital costs; plan R would be somewhat higher but plausible nuclear capital costs would make Plan R look more attractive.

5. KFAE has concluded that Plans R, F, and S are still financeable. However, the KFAE analysis assumes that SDG&E will receive all the emergency rate relief it has requested in Applications Nos. 55627, 55628 and 55629, and its entire rate request under NOI 3. Furthermore, substantial annual rate relief thereafter is assumed for Plans S and F to meet SDG&E's allowed

returns. No party to date in this proceeding has performed a detailed financial analysis of the financial viability of the three plans under different assumptions regarding rate relief. However, our analysis of the record in this proceeding shows that:

a. Plan R requires one-third less external financing and only about 60% of the increase in common stock required by Plans S and F. These factors would always make Plan R favorable under normal capital market uncertainty.

b. Plans S and F, being very capital intensive, will require substantial annual rate relief to maintain desirable financial ratios, making them unfeasible under the Commission's proposed ratemaking practices.

c. Plan R provides far less risk to investors than Plans F and S. In Plans F and S investors have to put up large amounts of capital over the construction period for Sundesert which are not recoverable until the uncertain date when the plant is operational. With Plan R, SDG&E puts no capital at risk in advance of receipt of power from Mexico. Furthermore, once the Mexican facilities are operational, all costs would be recovered semi-annually through ECAC.

to bank and validating its own performance or placing  
with its balancing account, minimizing the risk of time delays and assuring dollar for dollar recovery.

6. If Sundesert is not built, or is not completed in the time frame contemplated, Plan R is the only resource plan presented in this OII to date that provides a technically viable alternative.

7. Even if one or both units of Sundesert could be built, timing problems suggest that SDG&E might need capacity prior to Sundesert's availability. Thus, immediate pursuit of Mexican capacity would still be desirable.

8. Comparison of the various estimates for the comparable costs for the construction of KFAE's Plan R, when contrasted with comparable cost estimates for Plans F and S, lead to the conclusion that if the proposed Mexican plant were constructed within the range of costs in the record to date, such costs would be reasonable. Clearly more detailed estimates must await the outcome of joint studies between SDG&E and the Government of Mexico as noted in the letter of March 9, 1978 (Exhibit 266).

9. SDG&E is committed to pursuit of Mexican purchase power options for capacity and energy.

10. The Government of Mexico has expressed interest in pursuing the Mexico project but has made no formal commitment.

11. The possibility of SDG&E's purchase of Mexican electric capacity would be greatly increased if the first unit at least

could be completed and operational by the end of 1982. The remaining 1,500 megawatts will be delivered in two phases, but subject to finalization of the power purchase agreement.

12. Negotiations among SDG&E, IEA, financial parties, and the Government of Mexico must be immediately accelerated and solidified if the first proposed Mexican unit is to be on-line by the end of 1982. This appears to require an agreement in principle within two to eight weeks from the date of this order and commencement of construction by January, 1979.

13. The actual price per kilowatt hour purchased from Mexico is still under negotiation and this Commission would still have to approve a final contract, after deliberate consideration of price and conditions.

14. Whereas it is recommended by KFAE and endorsed by SDG&E that the latter be allowed by this Commission to earn a return on the sale of power purchased from Mexico, this is an extraordinary and unprecedented request and must be given all due analysis and deliberation. No findings can be made upon it at this time.

15. There are advantages to SDG&E's pursuit of the option of building a transmission line system to the Arizona border as proposed by KFAE, including improved reliability, access to new generation sources, and increased pooling capability.

16. Rapid action is desirable on the part of this Commission in SDG&E's Application for a Certificate of Public Convenience and Necessity for the repowering of Silver Gate Unit 2 and by parties providing the appropriate environmental permits for this project.

17. All three proposed resource plans require considerable geothermal power from the Imperial Valley in the late 1980's. SDG&E must therefore aggressively pursue this option.

18. The following resources may provide contingency options to augment or substitute for elements of Plans R, S and F:

1. repowering Silver Gate Units 3 and 4

2. repowering Station B

3. pooling or purchase options made available by the proposed transmission line to Arizona

Furthermore, we expect the record to be expanded in Phase II to consider possibilities like repowering South Bay, small coal plants, Intermountain Power Project (IPP), Palo Verde, among others.

19. The semi-annual review of SDG&E's resource and financial plans seems reasonable given the uncertainty surrounding these plans and should be considered by this Commission for SDG&E.

20. In view of the above findings, the Commission would be acting imprudently on behalf of the ratepayers if it did not advise the company that continued expenditures on the Sundesert facility other than those consistent with termination clauses in contracts and those required by law from the date of this order forward can only be recaptured by the company if Sundesert is ultimately operational. Disposition of sunk costs associated with the Sundesert project resulting from this order will be considered in SDG&E's next general rate case (NOI 3).

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**O R D E R**

Le'ccer'ndi ods ni willy' tsincoem ods mork nwoq tsincoem

**IT IS ORDERED** that Devicorps protocols your SDG&E  
 sagage 1. San Diego Gas and Electric Company shall pursue with  
 increased effort its negotiations for the purchase of Mexican  
 capacity subject to the following conditions:

a) that the purchase power contract contain  
 the following in order to achieve an accept-  
 able capacity factor:

i) provisions for an acceptable main-  
 tenance schedule and for auditing  
 the maintenance to establish conformance  
 with the schedule.

ii) provisions for design and operation  
 of the facility in order to achieve  
 acceptable reliability.

b) that the cost of Mexican power be reasonable  
 and that the contract contain incentives

to maintain a reasonable price. In this  
 respect SDG&E would have to receive ultimate  
 approval from this Commission as to the just-  
 ness and reasonableness of the cost of power  
 purchased from Mexico under the final contract.

c) that every effort be made to have at least

the first Mexican unit on-line and working  
 by the end of 1982. This will  
 require considerable and immediate progress  
 in further negotiations among the parties  
 resulting in an agreement in principle within  
 two to eight weeks from the date of signing of  
 this order and the commencement of construction  
 by January 1, 1979.

2. SDG&E shall keep the Commission regularly informed of  
 the progress of its negotiations, including all milestones listed  
 in Exhibit 275, Table II-14.

3. SDG&E shall commence discussions with the members of the California Power Pool to determine the acceptability of capacity purchased from Mexico as "firm" power.
4. SDG&E shall continue discussions with the Federal Energy Regulatory Commission (FERC), the Economic Regulatory Administration, and other appropriate agencies regarding additional permits required for implementation of the Mexican project.
5. SDG&E shall continue to analyze and pursue the concept of building a transmission line system to the Arizona border as proposed by KFAE and apply to the appropriate agencies for permits.
6. SDG&E shall continue to aggressively pursue its geothermal development plans. In accordance with this, SDG&E shall file semi-annual reports with this Commission commencing June 30, 1978 as to its geothermal development efforts.
7. SDG&E shall submit to the Commission staff a proposed procedure for the review of its resource and financial plan semi-annually or on some other periodic basis within 45 days of the date of this order.
8. SDG&E shall present to the Commission an updated analysis of the advantages, disadvantages, costs, and status of progress regarding the repowering of Silver Gate Units 3 and 4, South Bay, and Station B within 90 days of the date of this decision. The Commission will look into these alternatives.

OII-4 - ga \*\*

SP - 0110

without impeding the progress of Application No. 57000.

9. SDG&E shall file any necessary supplemental data for the consideration of sunk costs related to Sundesert resulting from this order in its new General rate case (NOI 3).

10. NOI 4 is continued.

RECORDED ON THE EXECUTIVE DIRECTOR SHALL PROVIDE COPIES OF THIS ORDER TO THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION, TO THE RESOURCES AGENCY, TO THE AIR RESOURCES BOARD, AND TO ALL APPEARANCES IN THE PROCEEDING.

The effective date of this order is the date hereof.

Dated at \_\_\_\_\_, California, this \_\_\_\_\_ day of \_\_\_\_\_, 1978.

SDG&E shall deliver supplemental data regarding Sundesert to the Commission no later than January 15, 1979. This order shall remain in effect until the Commission has received and reviewed the supplemental data. If the Commission has not received the supplemental data by January 15, 1979, the order shall remain in effect until the Commission has received and reviewed the supplemental data.

Any amendment to this order shall be waived out of compliance with this order if it is made in accordance with the provisions of this order.

This order is contained in the following file: NOI 4. It is the responsibility of the parties involved to maintain and update this order. Any changes or additions to this order shall be made in accordance with the provisions of this order.

## APPENDIX A

## ADMITTED AND NOT ADMITTED

Chickering & Gregory, by C. Hayden Ames and  
Allan J. Thompson, Attorneys at Law, and  
John H. Woy, for San Diego Gas & Electric  
Company.

John W. Witt, City Attorney, by William S.  
Shaffran, Deputy City Attorney, for the  
City of San Diego; Etta Gail Herbach and  
Charles J. Mackres, Attorneys at Law, for  
the Department of Defense, on behalf of the  
consumer interests of all Federal Executive  
Agencies; Allen B. Wagner, Attorney at Law,  
for University of California; Glen J.  
Sullivan, Attorney at Law, for California  
Farm Bureau Federation; David X. Durkin  
and Eric Stern, for California Public  
Interest Research Group of San Diego  
County; George Gilmour and Johnathon  
Blces, by Cynthia Melandy, for the  
California Energy Resources Conservation  
and Development Commission; and Morrison &  
Foerster, by T. Bruce Dodge, Attorney  
at Law, for Keith Feibusch Associates  
Engineers, interested parties.

Rufus J. Thayer and Walter H. Kessenick,  
Attorneys at Law, for the Commission staff.

RECEIVED . JUN 22 1968. DIRECTOR OF RECORDS, BUREAU

2001, BUREAU OF INVESTIGATION, FEDERAL BUREAU OF INVESTIGATION

2001, BUREAU OF INVESTIGATION

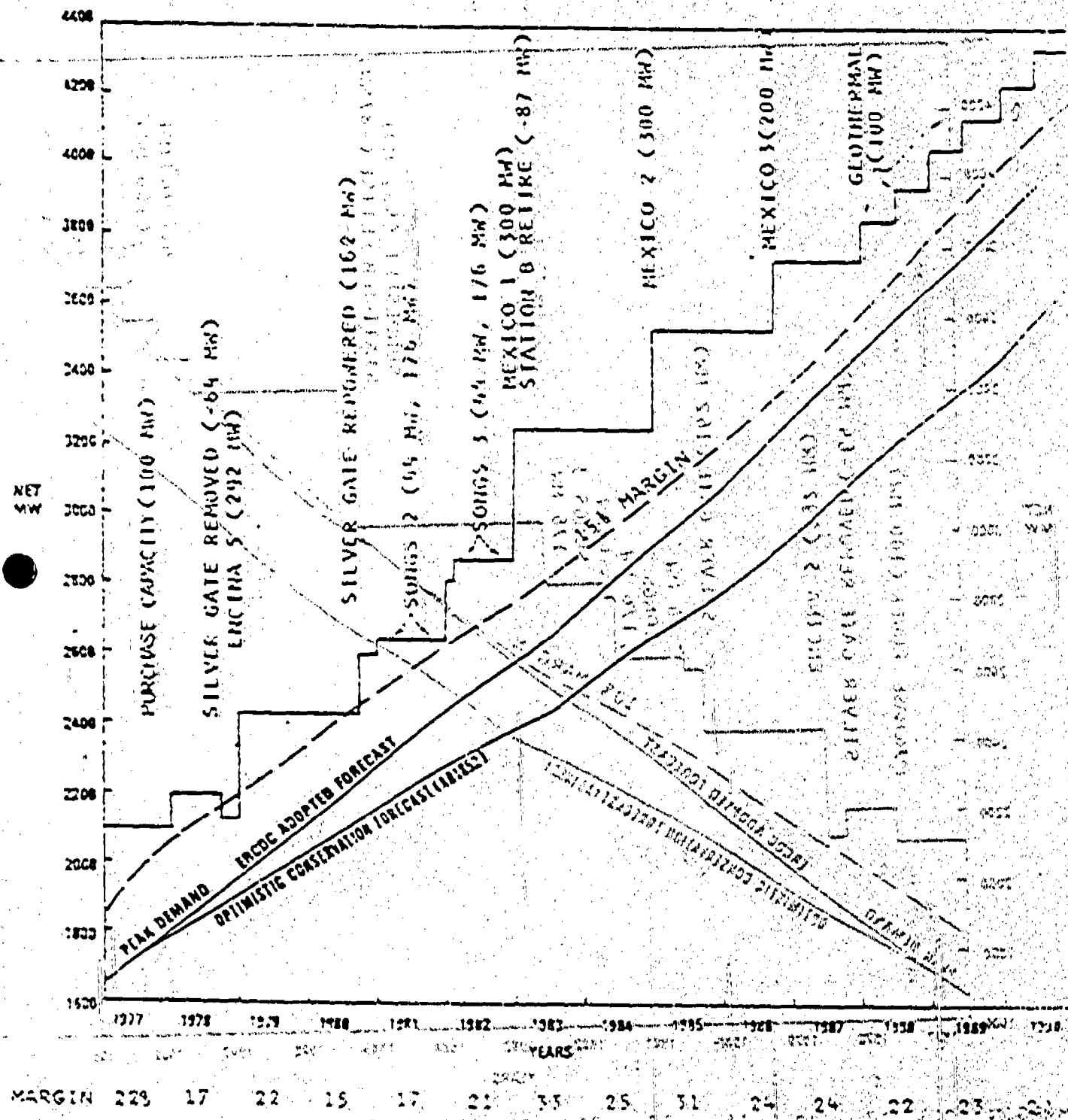
2001, BUREAU OF INVESTIGATION

TABLE II-14

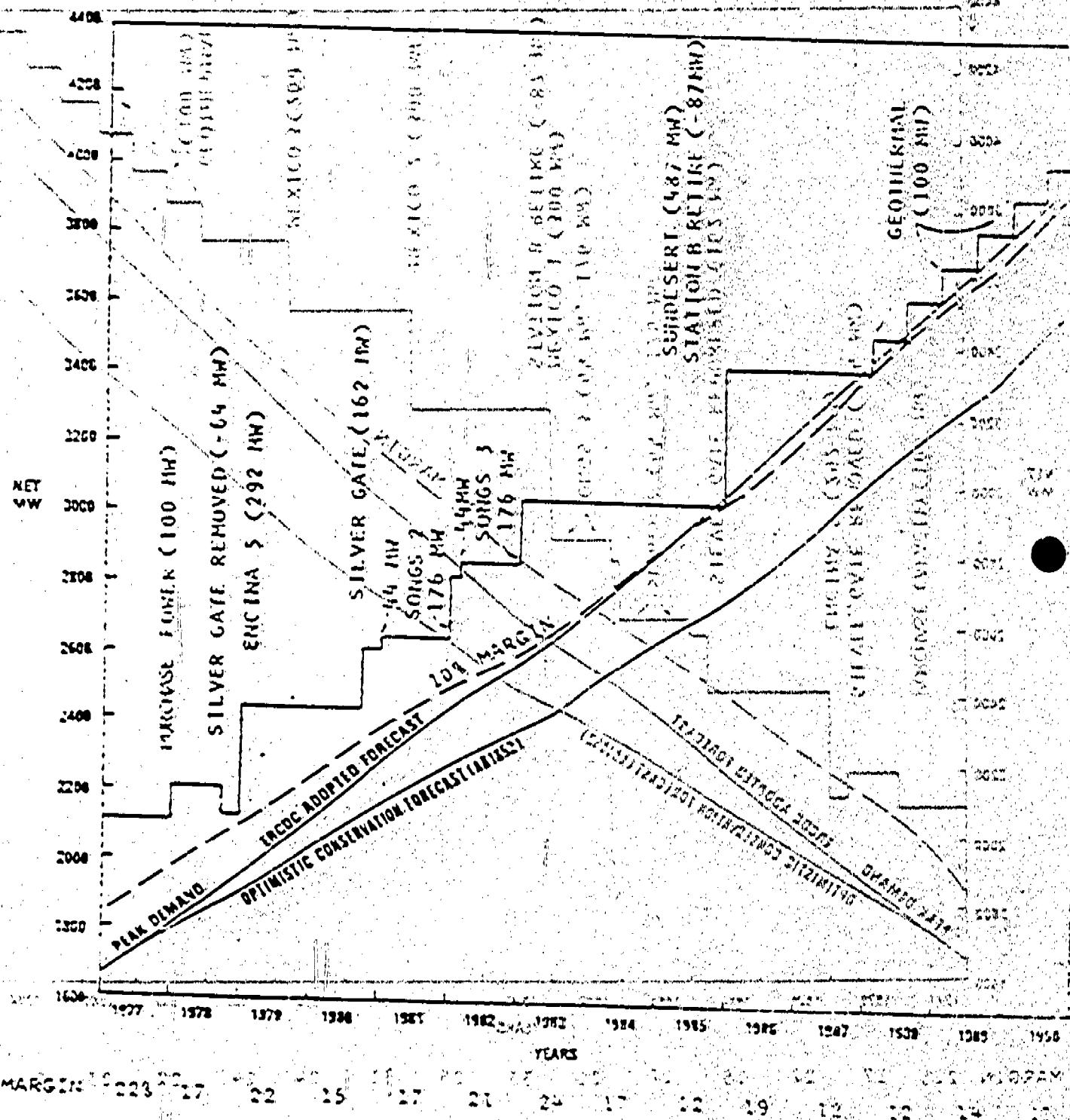
**PLAN R**  
**MEXICO PROJECT MILESTONES**

Letter of Interest	February, 1979
Site Selection Agreement	April 1, 1978
Agreement in Principle	April 1, 1978
Contract Proposal Submitted	May 1, 1978
Site Selection	June 1, 1978
Contract Signing	August 1, 1978
Financing Commitments	September 1, 1978
Initiate Design	September 1, 1978
Major Equipment Procurement	December 1, 1978
Commence Construction	January 1, 1979
Boiler Delivery	February 1, 1981
Turbine Generator Delivery	March 1, 1981
Initial Steam to Turbine	August 1, 1982
Commercial Operation, First Unit	December 1, 1982
Unit 2	January 1985
Unit 3	October 1986

## PROPOSED PLAN 2



## WATER PROPOSED PLAN S



YEAR	MARGIN
1977	223
1978	27
1979	22
1980	25
1981	27
1982	21
1983	24
1984	17
1985	12
1986	19
1987	12
1988	12
1989	14
1990	15

A. 55627; A. 55628; A. 55629  
D. 88697

Commissioner Richard D. Gravelle  
Commissioner Claire T. Dedrick

We dissent.

We quote from the majority opinion:

"Order Reopening Proceeding"

Decision No. 88101 dated November 8, 1977 reopened the proceeding to consider whether SDG&E's allegations that the rate increases granted by Decision No. 87639 would, in the immediate future, prove to be inadequate to maintain interest coverage at a level which will permit the company to issue bonds in 1978 to meet its current financial needs. The order stated that the Commission also wished to review SDG&E's present and proposed construction budget, financing requirements and resulting revenue requirement; and that it would analyze the relationship between gas supply forecasts and sales.

OII No. 4, an investigation into the future resource plans of SDG&E, was issued concurrently with the order reopening Applications Nos. 55627, et al. OII No. 4 was heard on a common record with the reopened application proceeding.

Public hearing in the consolidated proceedings was held before Administrative Law Judge Mallory in San Diego on January 24, 25, 26, and 27, February 15, 16 and 28, and March 1, 6, and 7, 1978."

(Mimeo pages 2 and 3.)

To claim that OII No. 4 and the reopened rate proceeding can, or should, be treated separately in the face of the above language is absurd.

A. 55627; A. 55628; A. 55629  
D. 88697

San Diego Gas and Electric Company (SDG&E) has pleaded that it will be unable to finance on October 31, 1978, absent additional rate relief. They do so in the face of a mid-1977 decision that allowed a 13 percent return on equity and has resulted to date in earnings above the level authorized. Its ability, per its own exhibit, to issue debt this month is unimpaired:

"SDG&E exhibits show that it has adequate interest coverage to issue \$30 million worth of preferred stock in February of 1978 and approximately \$50 million of debt, together with a \$30 million sale of common stock, in April of 1978. Its interest coverage will be adequate into mid-year" (Majority opinion, mimeo p. 21)

Findings 7 and 8 of the majority opinion state:

"7. This proceeding was reopened to consider the need for additional revenues to provide the required two-times interest coverage precedent to the issuance of \$50 million of first mortgage bonds in October 1978.

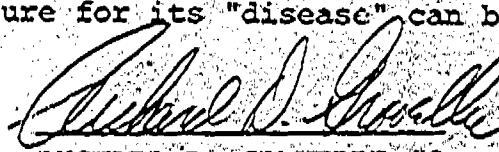
"8. SDG&E agrees that if the sale and leaseback of Encina 5 is successfully concluded and that the transfer takes place on or about November 1, 1978, the proposed issuance of \$50 million first mortgage bonds in October 1978 will not be necessary." (Majority opinion, mimeo p. 36)

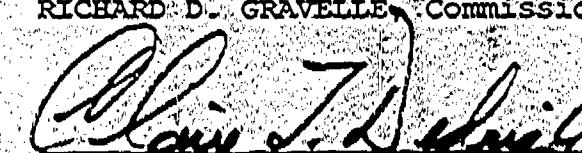
Despite the foregoing, today's decision finds that SDG&E at year-end 1978 would only be earning 8.65 percent rate of return and 10.11 percent return on common equity. This is the company whose management has some \$100 million invested in Sundesert

and which is a major participant in San Onofre Units 2 and 3 to the tune of approximately \$210 million. What the Commission has done today once more pulls SDG&E's chestnuts from the fire. We ask where the responsibility of management commences and ends? We, as a regulatory body, can only provide a beneficial atmosphere for the regulated utility. This we have certainly done for SDG&E on more than one occasion. Its shareholders and the financial community, in light of such a favorable atmosphere, must then look to management for proper action - we cannot continue to constitute a bottomless well fed by the springs of ratepayer funds for SDG&E, simply because the company is unable to visualize and carry out a financially viable solution to its growth requirements.

The abortive decision in OII No. 4, held today for another five weeks, while far from a perfect solution, at least directed SDG&E away from Sundesert, which constitutes one of the anchors around its corporate neck.

Based upon the record in this reopened proceeding, one cannot deny that rate relief for SDG&E is necessary, it is. However, the decision should reflect exactly what it is - a revenue stabilization order similar to that provided Pacific Gas and Electric Company in December 1977; one issued as part of an annual rate relief "band-aid" placed on SDG&E until a cure for its "disease" can be found.

  
RICHARD D. GRAVELLE, Commissioner

  
CLAI'RE T. DEDRICK, Commissioner

San Francisco, California  
April 11, 1978