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BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Joint Application of SOUTHERN CALIFORNIA GAS COMPANY and PACIFIC LIGHTING GAS SUPPLY COMPANY for authority to increase rates charged for gas service based on test year 1983; to include an attrition allowance for 1984; to include in rates a reward for conservation achievements; and to include in rate base held for future use the expenditures associated with a major gas supply project.

Application 61081
(Filed November 30, 1981)

(Appearances are listed in Appendix A.)

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OPINION

Southern California Gas Company (SoCal) and Pacific Lighting Gas Supply Company (PLGS) request general rate relief amounting to $567 million in additional annual revenues beginning January 1, 1983, and a step rate earnings attrition adjustment of approximately $207 million, to be effective January 1, 1984.

During the pendency of the case certain events occurred which had the effect of reducing the $567 million increase originally requested to $414 million. Likewise, the 1984 requested attrition allowance was reduced from $207 million to $163 million. These changes are discussed in the procedural summary section.

I. Summary of Decision

This decision authorizes an increase of $279,798,700 in gross revenues for 1983 and establishes the terms for an additional increase in 1984.

SoCal's base rates were set two years ago in its last general rate case proceeding. The increase authorized today offsets increases in SoCal's costs of doing business which have occurred since then. The principal items which have contributed to the increases are: inflation which affects costs of operating and maintaining SoCal, escalation in the cost of capital which SoCal must borrow to expand and replace its facilities, and increases in wages and benefits of SoCal employees. Not included is the cost of gas.

One of the major items in this proceeding is the return on equity which is the profit left to common shareholders after all expenses, interest costs, and preferred stock dividends are paid. SoCal requested a return on equity of 20% and argued that such a return is necessary in order to compete in the financial markets.

For reasons discussed below, we grant SoCal a 15.75% return on equity.

During the proceeding SoCal informed the Commission that it had discontinued development of its Ten Section underground gas storage project. SoCal cited substantial increase in costs and a more favorable gas supply outlook than when the project was initiated. SoCal stated that the final decision whether or not to proceed with the project will be made later. In the meantime, SoCal's rate request was modified to reflect the changed plans for Ten Section, which will be limited to removal of cushion gas now stored in the field.

We denied SoCal's request to consider expenditures related to the Point Conception Liquefied Natural Gas (LNG) Project. All LNG project costs will be considered in a separate proceeding.

Rate design is considered in the decision issued today covering SoCal's October Consolidated Adjustment Mechanism (CAM) application.

As a result of this general rate increase, for example, an average residential customer's heating season gas bill of 100 therms will increase from $46.78 to $48.94. An average summer bill of 50 therms will increase from $27.38 to $28.66.

III. SoCal's Present Operations

SoCal is a public utility engaged in purchasing, distributing, and selling natural gas to customers in the Counties of Los Angeles, Fresno, Imperial, Kern, Kings, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara, Tulare, and Ventura. SoCal also sells gas at wholesale to the Municipal Gas Department of the City of Long Beach and to San Diego Gas & Electric Company (SDG&E).

SoCal owns underground storage fields at Playa del Rey and Honor Rancho in the Los Angeles area. SoCal, under its contract with PLGS, operates storage reservoirs owned by PLGS at Goleta, Montebello, East Whittier, Aliso Canyon, and Ten Section.

As of December 31, 1980, SoCal's transmission system consisted of 2,270 miles of pipelines. Its distribution system contained 34,412 miles of various size mains and its 3,036,480 gas services supplied 3,793,062 active meters.

The capital stock of SoCal is 93% owned by Pacific Lighting Corporation (PLC), a holding company which also owns all of the outstanding capital stock of PLGS. PLC also owns 28 nonregulated subsidiaries engaged in utility-related enterprises such as the exploration, development, transportation, and sale of natural gas, coal gasification companies, and equipment leasing, and in nonutility enterprises such as mortgage loan servicing, building construction, real estate development, furniture sales, and agricultural growing.

PLGS is a public utility engaged in acquiring, transporting, storing, and selling natural gas for resale exclusively to SoCal, the distributing affiliate. PLGS sells gas to SoCal under a cost of service tariff authorized by Decision (D.) 76598 dated

December 23, 1969, and subsequently modified from time to time. Included in the cost of service is the rate of return found reasonable by the Commission for SoCal.

As of December 31, 1980, PLGS owned 915 miles of natural gas transmission pipelines, including 19 miles owned jointly with SoCal. PLGS also owns the Ten Section underground storage field in Kern County.

SoCal and PLGS purchased gas in 1979 from various California sources, including Pacific Gas and Electric Company (PG&E), and from out-of-state sources such as El Paso Natural Gas Company (El Paso), Transwestern Pipeline Company (Transwestern), Federal Offshore, and Pacific Interstate Transmission Company.

III. Procedural Summary

Under the "Regulatory Lag Plan for Major Utility General Rate Cases" adopted by the Commission, SoCal tendered its Notice of Intention (NOI) on September 1, 1981, informing this Commission that it intended to file a general rate increase application based on the results of operations for test year 1983. The NOI was accepted for filing effective October 1, 1981, and docketed as NOI 59. The application which was designated as Application (A.) 61081 was filed on November 30, 1981. It requested general rate relief amounting to $567 million in additional annual revenues beginning January 1, 1983, and a step rate earnings attrition adjustment of approximately $207 million, to be effective January 1, 1984.

During the evidentiary hearings certain events occurred which caused SoCal to reduce its request.

The administrative law judge (ALJ) granted a staff motion against taking evidence on SoCal's proposal regarding its LNG Project. Also, the ALJ deferred any determination of SoCal's conservation reward until after a decision was issued by the Commission in its rehearing of the reward/penalty conservation incentive concept in the PG&E 1981 general rate case A.60153.

In addition, SoCal revised its plans regarding the development of the Ten Section underground storage project and presented evidence on the impact of the revision.

Also, SoCal introduced evidence showing the impact of its April 1, 1982 wage settlement for the years 1982 and 1983. Further evidence was introduced by SoCal to show the impact of lower inflation estimates for 1982 and 1983.

SoCal stipulated to certain adjustments. The details of all the adjustments are set forth in the comparative exhibit (Exhibit 141). The net impact of all these changes was to reduce SoCal's requested revenue increase in this proceeding from $567 million to $414 million. The requested 1984 attrition allowance changed from $207 million to $163 million.

Public witness hearings were held on March 1, 2, and 3, July 7, and August 12, 1982, in Los Angeles. Evening sessions were conducted at the March 1, July 7, and August 12 hearings. A prehearing conference, with Commissioners Calvo and Grew in attendance, was convened on March 4, 1982. Evidence was taken in Los Angeles and San Francisco during 38 days of hearings commencing March 8, 1982, and concluding July 7, 1982. This matter was submitted subject to the filing of opening and reply briefs on August 3, 1982, and August 20, 1982, respectively, and pending oral argument set for August 13, 1982, before the Commission en banc.

Opening and/or reply briefs were received from SoCal, the Commission staff (staff), City of San Diego (San Diego), City of Long Beach (Long Beach), City of Los Angeles (LA), Executive Agencies of the United States Government (Federal Agencies), SDG&E, California Manufacturers Association (CMA), Tehachapi-Cummings County Water District (Tehachapi), and California Association of Utility Shareholders (CAUS).

Transcript corrections were received from SoCal, the staff, and Toward Utility Rate Normalization (TURN). These corrections are incorporated in the record.

IV. Public Witness Statements

During the public witness hearings, 62 persons made statements. All but one public witness opposed granting the requested rate increase. The public witnesses explained the economic hardships they have suffered as a result of the 1981-1982 recession and the recent spate of dramatic utility rate increases. An oft-repeated theme was that it seemed incongruous that during a time of such economic calamity SoCal would request such a large rate hike.

Most ratepayers complained bitterly about the number of rate increases permitted every year. They were particularly concerned with the inability of senior citizens or those on low or fixed incomes to pay continued utility increases.

Some witnesses expressed strong sentiments concerning SoCal's requested conservation reward which was later withdrawn from this proceeding. Conservation, they explained, has little to do with SoCal's market services. Rather, they contended, conservation was the product of their inability to afford the energy to warm their homes, cook their food, or heat their water. If there should be a

reward for conservation, the public witnesses suggested it should be in the form of lower rates for the consumers who have previously suffered the discomfort of higher billings despite their lower consumption. Some testified that they had heeded SoCal's insulation recommendations only to discover that, in addition to now having to pay for insulation loans, their bills were still climbing faster than their paychecks.

Other concerns noted by the public witnesses are:

- Public witness hearings should be held in every location in the service territory, not just in Los Angeles.
- Hearings affecting southern California customers should not be held in San Francisco because the ratepayer pays the cost of travel to San Francisco of both company and staff personnel and is deprived of the opportunity to attend the hearings.
- Utility employees, like employees in other industries, should limit or forgo wage increases because of the hard economic times.
- Higher gas bills would result in an unending inflationary cycle.
- Conservation advertising is unnecessary and a waste of money.
- People's ability to pay has reached its limits and consideration should be given to human needs.
- SoCal was seeking too high a return on its investments.
- Rate increases should be limited to increases in the Consumer Price Index (CPI).
- SoCal crews could operate in a more efficient manner and SoCal should tighten its belt.
- Excessive research and development expenditures often duplicative of research undertaken elsewhere should be eliminated.

- The inclusion in revenue requirement for ratemaking purposes of federal and state income taxes which are not in fact paid is not appropriate.
- Test year 1983 is so far in the future that anticipated inflation in the estimates may not occur.

State Senator Alan Robbins also spoke in opposition to the rate increase. He requested that the Commission require SoCal to find efficiencies within its current budget to continue operations rather than grant the rate increase. State Assemblyman Richard Katz expressed his concerns regarding federal policy related to the decontrol of natural gas prices at the wellhead and the Economic Recovery Tax Act of 1981 (ERTA) which enables the utility to avoid flowing through tax benefits to the ratepayer.

Ronald O. Snyder, general manager of the Public Services Department of the City of Burbank (BPSD) also testified. The BPSD is a municipal utility providing electric and water service within the City of Burbank. BPSD receives gas service from SoCal under the electric generation schedules. Snyder stated that the City Council has voted to protest the requested rate hike since it would lead to an increase in local electric rates. He also stated that in the event the Commission were to grant it a reduced rate for GN-5 gas, the City of Burbank would pass the reduction on to its electric customers in the form of lower rates.

Despite the vigorous opposition to the proposed rate increase, all those who addressed the issue agreed that SoCal provides good service.

Approximately 600 letters and several petitions were received by the Commission and are a part of the formal file in this proceeding. The letters and petitions addressed the same concerns to which the public witnesses spoke. We will consider all of these concerns in our disposition of this matter.

V. Rate of Return

The United States Supreme Court has established guidelines for ratemaking bodies in their determination of the just and reasonable rate of return for regulated utilities. Broadly defined, the revenue requirement of utility companies is the minimum amount which will enable the company to operate successfully, to maintain its financial integrity, and to compensate its investors for the risks they assume (Federal Power Commission v Hope Natural Gas Company (1944) 320 US 591, 88 L ed 333, 64 S Ct 281), and which will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties (Bluefield Waterworks & Improvement Company v West Virginia Public Service Commission (1923) 262 US 679, 67 L ed 1176, 43 S Ct 675).

The court has also made it clear that the fixing of just and reasonable rates involves a balancing of the investor and consumer interests (Hope, supra, at 603).

We will follow the above guidelines in determining a reasonable rate of return for SoCal.

SoCal and PLGS are treated in portions of this decision as though they were a single entity because they essentially operate as a single unit. This Commission has for a number of years considered their capital structure and financial requirements on a consolidated basis for determining rate of return. The following discussion continues that treatment, including both under the single designation SoCal.

Showings on rate of return were presented by SoCal, staff, LA, Federal Agencies, and CAUS. The rate of return studies received in evidence in this proceeding recommend:

Return on Equity Recommendation	
Ernst & Whinney (SoCal Consultant)	21.00%
SoCal	20.00
CAUSE	20.00
Staff	16-3/4 - 17-1/4
LA	16.00
Federal Agencies	15.90

In its last general rate case, based on a 1981 test year, SoCal was authorized a 14.6% return on equity.

SoCal's financing plans, after the reduction due to discontinued development of Ten Section, call for the issue of $90 million in debt and $70 million in equity in 1983 with $170 million of debt and $150 million of equity in 1984 (Exhibit 81, Table 5-Alt.). Both SoCal and staff used an average year capital structure. Except for the minor differences discussed below, SoCal and staff used the same financing plan and in general agree on the proportions of capital. The following table summarizes the capital structures and rates of return recommended by SoCal and staff for test year 1983 and for 1984.

Embedded Cost of Long-Term Debt

SoCal and staff assumed different long-term debt coupon rates for future issues. This resulted in different estimates of embedded interest costs. SoCal assumed a 15% interest rate for long-term debt for years 1982-1984. This rate represented the bond market conditions for long-term debt issues of gas utilities at the time SoCal prepared its case. Staff assumed coupon rates of 15%, 14%, and 13% for 1982 through 1984, respectively. These rates were based on a review of historical data and a Data Resources, Inc. (DRI) interest rate forecast.

The 1982 debt financings estimated by SoCal and agreed upon by the staff have since been issued. Accordingly, we will reflect the actual coupon rates of 15-3/4% for the $60 million Series P issue and 14-3/4% for the $50 million Eurodollar financing in our calculation of SoCal's embedded cost of debt.

SoCal's assumption that long-term debt will remain at a constant 15% through the 1983 and 1984 period as well as staff's estimate of 14% for 1983 is not supported by recent published financial forecasts. Interest rates have declined since the submission of this proceeding and recent financial forecasts indicate that rates for 1983 will not approach the levels forecasted by both SoCal and staff. For 1983 we will adopt a 13% rate for long-term financing. For 1984 we will adopt staff's estimate of 13%.

Test Year 1983

	SoCal			Staff		
	Percent	Cost %	Weighted Cost %	Percent	Cost %	Weighted Cost %
Long-Term Debt	45.70	11.60	5.30	46.50	11.19	5.20
Commercial Bank Loan	3.80	14.00	.53	3.25	14.00	.46
Banker's Acceptances	2.20	17.00	.37	2.00	15.00	.30
Preferred Stock	7.10	5.47	.39	6.25	5.47	.34
Common Stock Equity	41.20	20.00	8.25	42.00	17.00	7.14
Total Capital	100.00		14.84	100.00		13.44
Times Interest Earned (After Tax)			2.39x			2.26x
1984						
Long-Term Debt	47.10	12.17	5.73	46.50	11.50	5.35
Commercial Bank Loan	3.50	14.00	.49	3.25	14.00	.46
Banker's Acceptances	2.00	17.00	.34	2.00	14.00	.28
Preferred Stock	6.60	5.47	.36	6.25	5.47	.34
Common Stock Equity	40.80	20.00	8.16	42.00	17.00	7.14
Total Capital	100.00		15.08	100.00		13.57
Times Interest Earned (After Tax)			2.30x			2.23x

Note

Table reflects:

1. Discontinued development of Ten Section.
2. Actual cost of SoCal's Series "P" First Mortgage Bonds issued April 1, 1982. Also, $50 million of Eurodollar financing issued September 1, 1982 is included.
3. Staff's recommendation is based on the midpoint of its recommended return on equity.

Commercial Bank Loan

This item in SoCal's capital structure refers to a $70 million bank note for an eight year term. The interest rate is based on the prime rate plus a variable premium. Both SoCal and staff used a 14% rate for 1983 and 1984. Recent financial forecasts indicate that interest rates will not approach the levels forecasted by SoCal and staff. We will adopt a rate of 13% for both 1983 and 1984.

Banker's Acceptances Interest Rate

Staff assumed banker's acceptances interest rates of 15% and 14% for 1983 and 1984, respectively, after a net downward adjustment of DRI's projected prime rate for the respective periods. SoCal assumed a banker's acceptances interest cost of 17%. According to SoCal, banker's acceptances are sold on a discounted basis and after consideration of this discount and commission, the cost to SoCal has approximated the prime rate.

We note there has been a drop in the prime rate since SoCal and staff prepared their estimates. Recent financial forecasts predict lower prime rates. Therefore, we will adopt a banker's acceptance rate of 12% for 1983 and 1984.

Position of SoCal

SoCal's rate of return testimony was presented by John C. Abram, Chairman of the Board and chief executive officer, and George L. Jahelka, financial analysis manager in the Regulatory Affairs Department.

SoCal stated its primary objective in these hearings is to be granted a rate of return that will allow it to maintain its credit rating and to attract capital on reasonable terms. SoCal contends that in order to achieve these objectives, reduction of interest coverages must be avoided. SoCal further contends a 20% return on equity is required to maintain the coverage ratios found reasonable in its last general rate case.

SoCal argued that the current state of the economy warrants a 20% return on equity and that it would fairly balance the interests of ratepayers and shareholders. SoCal emphasized that a market-to-book ratio of one is a true indication that it is earning at its cost of capital. According to its analysis, SoCal's stock can only be expected to sell at or above book value if it is authorized a 20% return on equity.

SoCal stressed the changed risk situation it now faces. SoCal stated its risks have increased as a result of the Commission's imposition of a $35 million penalty, uncertainty with respect to future discretionary gas purchases, rapidly escalating price conditions, increasing undercollection in its CAM and Conservation Cost Adjustment (CCA) balancing accounts, the high level of legislative activities, potential load loss as a result of rate design, delays in CAM adjustments that result in net operating losses for income tax purposes, and the company's cash flow problems and short-term debt.

SoCal agreed that certain risk-reducing factors have occurred, such as the reduced financing requirements for Ten Section, allowance for recovery of increased carrying charges for gas in inventory, and the recent balancing account treatment of franchise fees. SoCal contended the additional risks far outweigh the risk reduction attributable to these factors. SoCal's chairman stated he perceived the company is now facing more uncertainty than it has in the last 50 years in the utility business.

Position of Ernst & Whinney

SoCal hired a consultant, R. Bruce McGregor of Ernst & Whinney, to present testimony on the cost of capital. Ernst & Whinney provides specialized consulting and tax service to electric, gas, sewer, and water utilities. McGregor's testimony included four

methods of estimating the cost of capital, including risk premiums derived from PLC returns and median gas utility returns and two debt structures, three-month T-bills, and AA utility bonds, as well as a discounted cash flow analysis and a return premium based on allowed rates of return in previous SoCal rate cases. McGregor recommended a 21% return on equity based on the results of his analysis.

Position of the Staff

Staff, through its rate of return witness Edwin Quan, recommended between 16.75 and 17.25% for test year return on equity.

Quan noted that he considered the standards set by the Hope and Bluefield decisions. He further noted that he examined the financial history of SoCal and its standing relative to other comparable utilities, both gas and electric. According to Quan, the analysis showed that SoCal's performance is generally within the average range of the utility industry, lagging in some categories such as the trend of earnings on total capital and slightly ahead in other categories such as the net operating ratio.

Quan further testified that he evaluated his return on equity proposal in four ways. First, he examined the interest coverage derived from the recommendation, which is 2.24 times for 1983. According to Quan, this ratio is average for the utility industry, slightly below the gas utility group and slightly above the electric and combination utility groups.

The second method Quan used to determine the reasonableness of his recommendation was a risk-premium test. He examined the risk premium required for investors in PLC common stock versus the return for AA utility bonds over the last 10 years. He noted that risk premiums fluctuated significantly over the years. To be conservative, he chose to use a range of premiums from 300 to 600

basis points, which when added to his estimate of long-term debt for the utility in the test period, provided a range of 16.50 to 19.5%. This result, according to Quan, supports his 16.75 to 17.25% return on equity recommendation.

The third method Quan used was a risk-premium analysis using the returns authorized by the Commission in the last five SoCal rate cases to establish a risk premium over embedded cost of debt. He stated that his analysis shows the Commission has been fairly consistent in its allowed returns, permitting approximately 5.61% higher return on equity than the embedded cost of debt. When applied to the current staff forecast of embedded cost of debt for 1983, this results in a return of 17.26%.

The fourth method Quan used to check the reasonableness of his recommendation was a discounted cash flow (DCF) analysis. Quan forecasted the expected growth rate in dividends for a period in the future and added his estimate to the current expected dividend yield. The historical patterns of dividend growth were tracked and growth in earnings and book value were compared. Quan's analysis showed that recent five-year growth in all categories was much higher than growth over the last 10 years. Based on this result, Quan assumed a growth rate somewhat higher than the 10-year average but not as high as the very high five-year growth in order to approximate an investor's realistic expectations. Quan determined that the current expected dividend yield was a rough average of the last two years' recorded yield. These two sets of information were combined and, according to Quan, the results of this analysis further confirms his return on equity recommendation.

Position of Federal Agencies

Philip R. Winter of the General Services Administration testified on behalf of the consumer interest of the Federal Agencies. Winter recommended 15.90% return on equity.

Winter used a DCF analysis. To check the reasonableness of his result, he used a risk-premium approach and a market-to-book ratio method.

According to Winter the most commonly presented DCF model is the simple "yield plus growth" form. In this model the analyst determines an appropriate current yield for the company's stock to which is added the figure determined to be the reasonable anticipation of the future growth in dividends. The resulting sum is the investor discount rate or cost of capital.

Winter stated that the simple form of the DCF model is inappropriate in that it assumes a single rate of growth to infinity. He stated that investors are aware of historical swings in the rate of dividend growth, expecting neither high nor low rates of growth to continue without interruption. In place of the simple formula, Winter used a model which incorporates both near-term and long-term expectations for the rate of dividend growth. Winter used the most recent 16-week period preceding the preparation of the evidence to determine the yield portion of the equation and arrived at a 10.96% yield. For the near-term growth rate Winter selected a range of 6.2 to 6.7%. This was based upon analysis of recent short-term growth rates for SoCal and upon forecasts by recognized and widely read investment analysts. For the second stage of the formula Winter selected a range of 3 to 4.5%, representing consideration of both the long-term historical growth rate of SoCal and the long-term performance of Moody's utilities. Accordingly, the indicated investor requirement found by Winter from this two-stage analysis is the range of 15.6 to 16.8%.

As a first check upon the reasonableness of this range, Winter conducted a risk-premium analysis. The elements used in this analysis were a large portfolio of diverse common stocks (the S & P Composite Index), a representative portfolio of utility stocks (Moody's 24 utilities), and long-term government bonds. The period of analysis was 1929 to 1979. The first series of calculations assumed the investor purchased stock in each year between 1929 and 1978 and sold the stock in 1979. The average premiums from this approach were 340 basis points for the utilities over government bonds and 610 basis points for the S & P Composite Index. The average spread for all possible whole-year holding periods was also calculated and the results were 417 basis points and 696 basis points, respectively. Winter argued that the risks of stocks or bonds do not remain constant over time, and that the relative risks do not remain the same. He found that although both stocks and bonds are interest-sensitive, the recent and current interest rate volatility has had a greater effect on the bond market. According to Winter, his statistical analyses demonstrated a greater increase in the volatility of seasoned bond prices than in utility stocks indicating a lowering of the required risk premium from historical levels. Winter also considered the favorable tax treatment accorded dividends from qualifying utility companies. His conclusion was that the minimal spread required by investors in SoCal's stock is 150 to 250 basis points. Since the average yield on long-term treasury securities during the period December 4, 1981 to March 19, 1982 was 13.7%, Winter estimates that the required return on equity would be in the range of 15.2 to 16.2%. He further estimated this range would provide corresponding market-to-book ratios of 1.04 to 1.26, respectively. Winter's recommendation of 15.9% is based upon his opinion that inflation and interest rates will continue to decline in the test year.

Position of CAUS

CAUS is a corporation composed of those who hold common stock in the utilities regulated by this Commission. One of its goals is the effective representation of stockholder interests. CAUS was represented by Philip C. Presber.

Presber testified that the dilution of shareholders' equity is one of the key problems to be resolved by the Commission. He asserted this dilution is caused by returns on equity insufficient to permit the utility stock to sell at or above book value. Presber further asserts that a one-to-one market-to-book ratio is a measure of the adequacy of the utility's ability to attract capital.

Presber set forth two risk-premium analyses based upon the differential between SoCal's earnings/price ratio and Aa debt and the price-to-book ratio versus Aa debt. Presber recommended a 20% return on equity based on the results of his analysis.

CAUS agreed that this is a difficult time for the Commission to make a decision on the appropriate return on equity because of the pressures pushing up gas prices and because of public pressure "to do something" to stabilize utility bills. However, CAUS argues that the Commission should not bow to these pressures by ignoring the full cost of capital.

Position of LA

Manuel Kroman, a consulting engineer in the field of public utility regulation, represented LA. Kroman recommended a 16% return on equity.

Kroman developed his recommended return on equity by making an analysis of SoCal's showing and that of its consultants. He argued that the DCF method is unreliable. He pointed to the wide range of results derived from this method: SoCal, 9.20 to 31.88%; Federal

Agencies, 15.6 to 16.8%; and staff, 13.24 to 24.34% return on equity. According to Kroman, the "merit" of the DCF method lies in the fact that it can be manipulated to support any result that the practitioner attempts to advocate.

Kroman took issue with the risk-premium approach used by SoCal and its consultant. He contended that McGregor's assumption that the earnings price ratio is the investor's required return on common equity is fallacious. He also disputed Jahelka's assumption that there is a one-to-one relationship between return on equity and market-to-book ratios.

Kroman argued that SoCal cannot reasonably assert that the appropriate return on equity is that which could be expected to produce a market-to-book ratio of more than one. According to Kroman, high interest rates have depressed the stock prices of all industry groups so that most market-to-book ratios are below one.

Kroman disputed SoCal's claim that it has not performed well as a utility and that it is in danger of a downgrading of credit ratings. As evidence he cited the fact that SoCal's earnings per share have been higher and more stable than all of the electric utilities compared and all but two of the gas distribution utilities compared by SoCal. In support of his argument, he cited comments of various financial news reports. Kroman's 16% return on equity recommendation is based primarily on his judgment after consideration of a number of factors affecting the financial condition of the utility. He stated his recommendation is not unfair in view of the return of comparable utilities.

Position of San Diego

San Diego did not present independent testimony on the issue of rate of return; however, it joins in the argument of LA on this issue.

Position of Tehachapi

Tehachapi did not present independent testimony on the issue of rate of return; however, it did address the issue in its brief.

Tehachapi argued that an unduly high rate of return will further feed the inflationary fires as will any understatement of expected revenues or overstatement of costs. Tehachapi argued that interest rates are headed down and the Commission should wait as long as feasible to determine rate of return for 1983 and defer the determination of the 1984 return toward the end of 1983. Tehachapi stated this procedure will protect both SoCal and the public.

Tehachapi generally agreed with the analysis prepared by Kroman on behalf of LA with the exception that SoCal should receive the same return last authorized since, according to Tehachapi, SoCal is virtually guaranteed its rate of return by reason of the numerous offset proceedings and balancing accounts now available.

Discussion

The parties who participated in this proceeding came to very different conclusions regarding the appropriate return on equity. Recommendations range from 15.9% to 21%. The difference in revenue requirement between staff's recommended 17% return and SoCal's requested 20% is approximately $50 million.

To put our discussion in perspective, we take note of the economic climate that has prevailed in recent years, and how it influences our decision today. Most significantly, that climate can be described as volatile. Since the onset of these proceedings, interest rates have fallen dramatically and inflation rates have declined. Businesses are facing continuing declines in sales, and unemployment levels are the highest they have been since the Great Depression.

For several reasons, we believe our adopted level of 15.75%, which is below the lowest recommended return, is the proper and appropriate return on equity.

First, applicant always has the burden of proof of showing that its rate request is justified by the facts. SoCal argued during the proceeding that its risk has increased during the last two years. On balance we do not find a net increase in risk.

1. SoCal cites the $35 million disallowance of gas costs in a proceeding which is now the subject of rehearing. We remind SoCal that it is nothing new for the Commission to disallow expenses that a utility imprudently incurred.

2. SoCal cites as a risk the percentage of expenses required for gas purchases. However, SoCal acknowledges that 85% of its expenses are recoverable through balancing accounts. A number of regulatory mechanisms facilitate the timely recovery of prudently incurred expenses.

3. SoCal cites Commission requests concerning the renegotiation of oil contracts. It is the Commission's responsibility to respond to utility actions when they may be costly to the ratepayers or appear to jeopardize a utility's financial health. This type of "risk" is an accepted facet of regulation and one that SoCal is familiar with.

4. SoCal cites increased legislative activity as a risk. In 1982 the State Legislature proposed numerous bills concerning the regulation or provision of energy utility services. SoCal offers no evidence that it was harmed by this activity, or that it is likely to be harmed by upcoming legislation. We will not consider this factor in setting return on equity.

5. SoCal cites risk due to a customer base that is over 50% nonresidential. SoCal has previously called attention to this factor, but provided no evidence of a significant shift in its customer makeup. The industrial fuels market may be tenuous because of the potential for fuel switching. However, this factor would not lead to increased utility risk unless we abandoned our policy of setting industrial rates so as to discourage fuel switching.

Thus, we do not agree that these considerations proposed by SoCal have increased its risk since its last general rate case.

Second, we have always relied more on judgment than any single methodology, such as DCF, risk premium, or capital assets pricing models, to establish the appropriate level of return on equity. The exercise of judgment necessarily involves forecasts of what the utility will require during the test year period to attract investors and retain a sound financial footing, as well as forecasts of how the economy will perform, where interest rates will go, and what inflation will be. Such forecasts will always be imprecise. Moreover, the testimony of witness Winter clearly demonstrated the role which judgment and forecasting play in using the DCF methodology. Depending on the assumptions used, Winter developed an initial range of appropriate equity return levels of 15.6 to 16.8%. By means of a risk premium analysis, Winter then developed a range of 15.2 to 16.2%. In short, there is evidence in the record that would support an adopted level of return as low as 15.2%.

A third reason relates to the financial environment in which our forecasts are made. Interest rates on government and utility debt instruments have significantly declined since the time this case went to hearing. Our forecasts on appropriate utility return levels therefore should not accord, down to the last basis

point, with any one witness's recommended return on equity. We stress that our judgment cannot be tied directly to any one witness's testimony, especially given the changed economic circumstances since the time the testimony was presented.

Fourth, the financial community's perception of the investment potential of public utilities affects SoCal because it influences the utility's ability to attract capital. In SoCal's last rate case, we noted the investment community's increasing confidence in public utilities. Since that time, the situation has actually improved for SoCal. The record in this proceeding includes Standard and Poor's flattering assessment of SoCal financial situation:

> ". . . (T)he markets of this utility, the largest natural gas distributor in the United States, are exceptionally healthly and well-diversified with regard to customer base. Moreover, the operating costs are well controlled and customer rates are relatively low, enhancing a strong competitive position. Gas supply is satisfactory, and the long term outlook is bolstered by affiliates' programs to add supplemental sources.
>
> "Aided by rate relief, pretax coverage of interest charges has rebounded to cover 3X, and a maintenance of satisfactory levels is likely in the period ahead. Projected capital outlays for the utility are relatively heavy through 1983. Nevertheless, continued timely and constructive regulation by the California Public Utilities Commission should make external funding needs fully manageable. Moreover, business risks are very low relative to others in the industry and continued use of regulatory adjustment procedures established by the CPUC place the company in a position to maintain consistent respectable measures of credit strength over the long term."

In March of this year, Moody's cited SoCal's attrition allowance and CAM as "the best regulation for a natural gas distributor in the country."

In addition, we have assessed SoCal's performance since its last general rate case. By almost any measure, SoCal's financial health appears to have improved, even under its presently authorized return on equity of 14.6%.

Even assuming SoCal's risks have increased in some areas, they have been reduced in others. In SoCal's last general rate case, this Commission cited elements of risk which it considered when it set SoCal's return on equity. A number of those risks have been reduced.

1. The risks of seeking new gas supplies. As a result of federal deregulation, natural gas is in abundant supply, as SoCal witness Abram testified in this proceeding.

2. The level of conservation programs we expected SoCal to undertake in the test year 1981. We note that SoCal's conservation programs are relatively well-established since its last rate case. The level of funding SoCal requires for its upcoming conservation efforts, and which is not included in balancing accounts, has decreased markedly since its last general rate case. Further, SoCal is no longer at risk for its conservation incentive.

A final factor to consider is our adopted level of return in comparison to the level adopted for more risky utility investments. We consider an electric utility to be an enterprise facing more risks than SoCal and have made our determination with that in mind. For all these reasons we think 15.75% is appropriate for SoCal's return on equity.

The return on equity we adopt today should provide SoCal with an opportunity to attract capital at reasonable rates and should compare with return on investments having similar risks. In making our determination, we have also considered the cost of debt. We also recognize that the interests of ratepayers and shareholders alike are served if SoCal is able to maintain its financial integrity. SoCal's authorized return on equity should allow it to maintain adequate times interest coverage, and its favorable bond rating.

Our conclusion on this matter considers not only the financial position of SoCal's shareholders, but that of its ratepayers who must bear the dramatically higher costs of energy resulting from inflation, high capital costs, and federal deregulation.

Based on our review of the record and our consideration of these arguments, we find the recommendations for return on equity by all of the parties to this proceeding to be too high. Accordingly, we adopt a return on equity of 15.75% for 1983, providing a 12.9% return on rate base. This level is reasonable and will enable SoCal to attract the necessary capital to provide reasonable service at reasonable rates.

SOUTHERN CALIFORNIA GAS COMPANY

Adopted Rate of Return
Test Year 1983
Attrition Year 1984

	Test Year 1983		
	Percent	Cost %	Weighted Cost %
Long-Term Debt	46.50	11.14	5.18
Commercial Bank Loan	3.25	13.00	.42
Banker's Acceptances	2.00	12.00	.24
Preferred Stock	6.25	5.47	.34
Common Stock Equity	42.00	15.75	6.62
Total Capital	100.00		12.80
Times Interest Earned (After-Tax)			2.19x
		1984	
Long-Term Debt	46.50	11.40	5.30
Commercial Bank Loan	3.25	13.00	.42
Banker's Acceptances	2.00	12.00	.24
Preferred Stock	6.25	5.47	.34
Common Stock Equity	42.00	15.75	6.62
Total Capital	100.00		12.92
Times Interest Earned (After-Tax)			2.17x

VI. LNG Facility

In its application, SoCal proposed to include in rate base approximately $140 million for expenditures associated with its Point Conception LNG facility.

On February 4, 1982, staff moved to exclude testimony concerning LNG expenditures. Staff noted that considerable uncertainties surround the certification of the proposed facility and that an extensive review of LNG expenditures in this general rate case proceeding would be too time-consuming. SoCal filed its opposition to staff's motion on February 19, 1982. The ALJ granted staff's motion.

We concur with the ALJ's ruling and note that we ordered SoCal in D.82-10-022 to inform this Commission of its plans for the Point Conception project.

VII. Ten Section

Willis B. Wood, Jr., president and chief executive officer of PLGS, testified that PLGS has decided to discontinue development of the Ten Section underground gas storage project. SoCal made this decision because its partner in the project, PG&E, had decided to withdraw, because cost estimates had increased substantially, and because the outlook for future gas supplies is more optimistic than it was when the project was initiated. SoCal believes it can increase peak-day deliverability from existing storage fields at a lower cost.

Wood further testified that a final decision on whether PLGS proceeds with the project will be made prior to SoCal's next general rate case. He noted that in the interim, SoCal will withdraw cushion gas already injected into the field. Representatives from PG&E and PLGS will meet to resolve the outstanding issues between them, including the status of the Ten Section certificate from this Commission, the retention or disposition of rights jointly acquired, and the resolution of financial claims between PG&E and PLGS.

Wood noted that facilities required to withdraw the cushion gas from the Ten Section field have been included in PLGS' rate base and should remain in rate base because they are required to make the gas in storage available to customers. He stated that the costs associated with the uncompleted portions of the project will remain in the construction work in progress (CWIP) account until a final decision is made regarding the project. SoCal Exhibit 111 reflects this accounting treatment.

Staff generally agreed with the SoCal proposal and recommended that all revenues and expenses should be the subject of a separate accounting since there was inadequate time during the course of this proceeding to properly examine costs related to the proposed new operation of the Ten Section field.

As recommended by staff, we will authorize a balancing account procedure effective January 1, 1983, to track actual costs associated with the withdrawal of the cushion gas. We will allow a revenue requirement to reflect the $43,713 operation and maintenance cost (Exhibit 114) related to withdrawal of the cushion gas. An adjustment to future revenues will be made for over- or undercollected revenues once a final determination regarding the reasonableness of these Ten Section operating expenses is made. SoCal will have the burden of proving the reasonableness of all 1983 and 1984 Ten Section operating expenses when this final accounting is undertaken. Plant and acquisition costs will not be included in test year rate base. These costs will be held in a separate memorandum account, and will accrue interest, until such time as a final determination is made regarding the whole project. Cushion gas will be treated as gas in storage, since according to the testimony, this gas will be available for use by SoCal's customers.

VIII. Conservation

Overview

In general, staff was complimentary of the progress SoCal has made toward meeting its conservation goals, and we commend SoCal for its vigorous approach in promoting conservation.

However, we find that SoCal's proposed 1983 conservation budget contains several inappropriate programs which we have deleted. The adopted programs for 1983 are set forth below:

Program	SoCal	Adopted
	(Thousands of Dollars)	
Manufactured Housing	720.3	720.3
Solar/Gas	1,997.5	-
Weatherization Training	788.0	788.0
Residential Cogeneration	23.3	23.3
Appliance Efficiency	6,480.6	-
Conservation Education	1,505.2	752.6
Energy Efficiency Audits	9,180.8	7,356.8
New Customer Conservation	606.0	-
Food Industry	212.1	212.1
Cogeneration	3,384.2	-
Accelerated Equipment Modernization	15.2	15.2
Commercial/Industrial Heat Recovery	1,016.6	1,016.6
Pilot Light Program	571.8	571.8
Cold Weather	766.2	766.2
Residential New Construction	1,936.8	-
Other Items	2,291.1	2,291.1
Subtotal	31,495.7	14,514.0
Overheads (Included elsewhere)	7,500.0	3,517.0
	38,995.7	18,031.0

While the adopted level of expenditure appears to reduce SoCal's conservation spending from the levels authorized in the last general rate case decision, it must be considered in the context of the company's other conservation efforts. SoCal also funds several other programs through its CCA rates.

These CCA rates cover the Solar Water Heater Demonstration and Financing Program, the Weatherization Financing and Credits Program (WFCP), and the Residential Conservation Service (RCS). We note that SoCal's most recent CCA filings for Solar, RCS, and WFCP show a 1983 projected revenue requirement of $76.3 million.

Policy

In the last PG&E general rate case, D.93887, page 114, we concluded as follows:

> "We now believe that to create the proper environment for management to maximize the cost-effectiveness and efficiency of conservation programs in the future, we should depart from our past practice of establishing binding budget levels for each specific program. We shall in this decision comment on many of the specific programs proposed by PG&E for the test year. We shall also discuss those program areas like general conservation advertising and information which should not receive any ratepayer support.
>
> "Beyond that, however, we shall establish certain general conservation policy guidelines and adopt an overall conservation budget for PG&E. Within the boundaries of these guidelines and budget, PG&E's management will have discretion to establish priorities and allocate resources to maximize energy savings.
>
> "We shall give management discretion to reallocate funds among individual programs in amounts up to $2,500,000 provided that no funds are reallocated among the four major categories of Residential, C-I-A, Conservation Evaluation, and Load Management. Budget adjustments in excess of $2,500,000 shall be made the subject of an advice letter filing.

"Funds allocated under this budget shall only be spent on conservation and load management programs. Any funds not spent during a year shall be carried forward for future use in conservation and load management activities. We shall expect PG&E to explain in a future rate proceeding its inability to use any of these funds."

Although the funding level approved for SoCal in this decision is considerably lower than that authorized PG&E, we recognize the importance of allowing SoCal's management similar discretion in managing its conservation efforts. We also appreciate that there are interactions between various programs, and energy savings are not directly proportional to the dollar amounts allowed for individual programs. Accordingly, SoCal will have discretion to allocate up to $1 million among individual programs provided that funds allocated under this budget shall only be spent on conservation programs. Any funds not spent during a year shall be carried forward for future use in conservation activities. We will expect SoCal to keep staff informed of progress in its various programs and advise staff of all changes to program budgets.

We do reiterate our objection to increased expenditures for general advertising programs. We do not wish to discourage utility efforts to inform ratepayers of specific means by which they may achieve greater conservation.

<u>Cost-Effectiveness Evaluation</u>

SoCal evaluated the cost-effectiveness of its overall 1983 conservation program by using three tests of cost-effectiveness. They are:

a. Participant Test: Compares (x) gas savings at average rates plus tax credits to (y) the cost of the measures installed;

b. Nonparticipant Test: Compares (x) the difference between marginal cost of gas and the average cost of gas saved to (y) the cost of the program; and

c. All-Ratepayer Test: Compares (x) the marginal cost of gas saved to (y) the cost of the program plus the costs of measures installed.

A program is considered to be cost-effective under these tests when the x-component is greater than the y-component. The methodologies by which cost-effectiveness is measured became a point of controversy in this proceeding. We now turn to a discussion of the issues raised.

A. The Nonparticipant Test: A Question of Equity

The nonparticipant test, as SoCal pointed out, is essentially a test of equity. The nonparticipant class includes ratepayers who previously participated in a program, ratepayers who practice conservation outside of programs, and ratepayers who cannot afford to participate.

According to staff, it makes little sense to impose upon nonparticipants a program which is not cost-effective. Staff cited, as examples, the Conservation Education Program, which fails the nonparticipant test and the New Commercial Customer Conservation Program, which is marginally cost-effective to nonparticipants.

Generally, we hesitate to require nonparticipants to fund conservation programs which increase rates to a greater extent than would incremental supply. Recently, in D.82-11-086 we restated our principles as to the proper application of the nonparticipant test as first set forth in D.92653, which authorized PG&E's weatherization financing program.

Staff also objected to the fact that SoCal did not provide the annual savings-to-costs analysis for the nonparticipant test. Staff points out that without such analysis the Commission cannot adequately evaluate the reasonableness of the time lag which might exist between costs and savings. Staff notes this evaluation is particularly important for programs dependent upon extended life cycles for cost-effectiveness and recommends that this material be provided in future rate proceedings. We expect SoCal and our staff to use the nonparticipant test in SoCal's next general rate case.

B. Discount Rates:

Nonanalytical Approach

SoCal estimated all present value savings and costs by using a uniform 10% discount rate. That rate was developed using judgment rather than detailed analytical methods. Staff, on the other hand, urged that a different rate be applied to each customer class, based on the decision-making criteria of each class. Staff cited the example of industrial customers who expect three-year paybacks suggesting a 30% discount rate. SoCal and staff, in SoCal's next rate case proceeding, should more fully analyze the appropriateness of their positions. We hesitate at this time to test the expenditure of money collected from all ratepayers under discount rates attributable to only a portion of those ratepayers.

<u>Staff Position</u>

Staff recommended deletion of the Solar/Gas program, the Conservation Education program, and the New Customer program. Additionally, staff recommended a reduction in the Appliance Efficiency program. Staff generally recommended approval of all other programs as proposed by SoCal but recommended that several of these programs be closely evaluated as candidates for deletion. The result of staff's recommendations was reduction of SoCal's $39.0 million budget by $6.0 million.

In the discussion which follows, we will consider each of the programs for which authorized funding levels differ from those requested by SoCal.

<u>Solar/Gas Program</u>

The objective of this program is to retrofit 2,350 spa heaters, 4,650 pool heaters, and 175 space heaters. SoCal estimates a savings of 1,849 Mtherms in the first year and a savings of 36,980 Mtherms over a 20-year period.

Staff witness Knolle recommended against funding this program. He stated that the costs have increased too much over a three-year period. In 1980 SoCal's recorded expenses for its Solar/Gas program were $191,000. It has requested $1,997,000 for test year 1983. He found the activities to be unnecessary in 1983 because SoCal has a CCA-funded Solar Water Heater Demonstration and Financing Program.

Staff stated that over one-half of this program's costs are for advertising and promotion. According to staff, this level of promotion should be disallowed because, as SoCal witness Neiggemann agreed, the solar industry is one considered to have bright growth potential.

Staff pointed out that SoCal's program has no goals for retrofitting multifamily residences and contended that this program primarily benefits SoCal's more affluent customers.

SoCal argued that the program is an industry-support effort designed to reach contractors, manufacturers, distributors, retailers, and customers. It pointed out that its experience in solar marketing can benefit the solar industry. SoCal acknowledged that the costs of its efforts have increased over the last few years.

SoCal agreed that although the program is cost-effective under two methods of evaluation, it does not meet the "all-ratepayer" test. SoCal argued that the all-ratepayer test ignores tax benefits and urged that cost-effectiveness not be the sole criterion in evaluating conservation programs which offer intangible benefits.

The Solar Water Heater Demonstration and Financing Program, in which SoCal is an active participant, represents a substantial commitment of ratepayer support to accelerate realization of the high potential of solar energy to reduce fossil fuel demand in southern California. We will await, with great interest, the results of that program which is scheduled to conclude in September 1983. In the meantime, it does not appear prudent to allocate SoCal conservation funds to a program which would be largely an advertising effort and which would focus on solar energy uses which are not applicable to most of SoCal's ratepayers.

We will adopt staff's recommendation. We reiterate our policy of discouraging conservation programs such as this one which relies primarily on advertising. The program is duplicative of SoCal's other solar programs and may redistribute the costs of energy from affluent customers to other customers.

The Appliance Efficiency Program

SoCal included $6,480,600 in test year 1983 expenses for this program. Staff witness Knolle proposed cutting this amount by $1,913,600, a 29.5% reduction. He recommended that both the advertising budget and the incentives associated with the programs be cut 50% due to a deterioration in cost-effectiveness.

We note that SoCal included in this program $938,000 for advertising and $2,889,000 for incentives.

The program is designed to support the marketing efforts of gas appliance manufacturers. By aiding retailers, distributors, and manufacturers to reach the residential appliance retrofit market, SoCal hopes to increase sales of newer, more energy-efficient appliances.

Also, as a part of this program, SoCal sells gas appliances to its employees. The employee purchase program is self-supporting since prices of the appliances to employees cover all program costs.

According to SoCal, the Appliance Efficiency Program satisfies both the participating ratepayer and the nonparticipating ratepayer tests (Exhibit 32, page 24). SoCal agrees it fails the all-ratepayer test.

Staff argues that program savings realistically attributable to SoCal are overstated. According to staff, SoCal is accelerating the replacement of older, less efficient appliances in some cases for a mere one, two, or three years. Yet, SoCal takes credit for energy savings generated over the entire life of the new appliance, a period of 11 to 22 years.

SoCal witness Neiggemann testified that California's tough emission and efficiency standards would have caused gas manufacturers to abandon manufacturing of gas appliances for the California market and to opt for manufacturing electric appliances. However, SoCal

intervened to convince manufacturers that gas appliances would continue to constitute a lucrative market in California. SoCal concluded that by virtue of this intervention, Californians are assured of a supply of gas appliances which meet the standards.

Neiggemann also testified that the southern California market generates tremendous sales from a potential three million appliance retrofits, irrespective of SoCal's programs. Staff expressed doubts concerning the plausibility of the SoCal argument and pointed out that despite the allegedly oppressive burdens of California emissions and efficiency standards, the gas appliance industry has not only met those standards but exceeded them.

We now turn to staff's disallowance of $1.4 million associated with incentives and $469,000 for advertising expenses.

Neiggemann explained the nature of the incentives included in this program. Basically, SoCal would share the costs of a rebate with manufacturers during campaign periods. SoCal's share of the rebate costs would range from $12.50 for dryers to $50 for heat pump water heaters.

Neiggemann also explained the advertising budget. $50,000 is targeted for a portion of the expense associated with SoCal's sponsorship of the Evening Concert Program, a classical concert radio series which, according to SoCal, appeals to a varied audience. Together with other radio and television advertising, SoCal's objective is to get the appliance efficiency conservation message to customers at a frequency of at least three times. According to SoCal, that is the frequency level at which it has been able to discern a change in customers' behavior.

Neiggemann further testified that since southern California is home to a large Hispanic population, $83,700 of the advertising budget is to be used to reach this audience.

Staff counsel questioned Neiggemann regarding $388,700 included in this program for American Gas Association (AGA) advertising. According to Neiggemann, AGA advertising is, in part, designed to reach an audience outside California where initial fuel decisions are made by major firms that may have plants in southern California or that may plan to locate here. Neiggemann noted that the AGA, because of its national buying pattern, is able to advertise at the local level on television at half the cost to SoCal. Consequently, this advertising service is used in conjunction with SoCal's own efforts to communicate with customers explaining the efficiencies of gas appliances and equipment and the need to continue conservation. Neiggemann further noted that there is an effort to coordinate AGA advertising with SoCal's own efforts and SoCal has seen to it that AGA advertising complements its own actions and programs.

We note this program fails the all-ratepayer cost-effectiveness test. Also, the savings analysis provided by SoCal is flawed. SoCal cannot take credit for energy savings over the life of an appliance which would have been installed anyway within a few years. Neither can SoCal take credit for the decisions of southern California firms which produce gas appliances.

In general, the main effect of this program does not appear to be conservation, but expansion of SoCal's gas market. We are not convinced that $388,000 for out-of-state advertising provides commensurate benefits to Californians. We will not allow SoCal to pass on to ratepayers the costs of marketing its service under the guise of conservation when the costs of proposed programs are not demonstrated to be cost-effective. Accordingly, funding for this entire program will be disallowed.

Conservation Education

Staff recommended deletion of this program for which SoCal included $1,505,200 in its test year 1983 market services estimate. The staff recommendation is based on the program's lacking cost-effectiveness.

One part of this program consists of SoCal's efforts to reach elementary and secondary school students. Through participation in classroom instruction, seminars, and youth organizations, SoCal argued it will reach an important part of its consuming population. SoCal believes that by communicating to students while their energy habits are still developing, a large potential exists to save significant amounts of energy in the future.

SoCal has targeted 400,000 students as its projected audience for this program. It will offer cash refunds to the families of students who purchase water-flow control devices. In addition, 48,500 students in each of the 2nd and 5th grades will be part of a special program designed to influence their families' energy practices. They will receive instructions on how to conduct a personal home energy audit.

SoCal emphasized that the calculated savings associated with these efforts were made on a very conservative basis. Only 15,000 water control devices are assumed to be installed through SoCal's education efforts although refund offers will be made to a total audience of 400,000 students. With regard to the special programs, SoCal estimated initial savings for each of the two different grade levels, recognizing that 2nd grade students will probably be somewhat less responsive than the 5th grade students. The resulting calculations were then discounted twice, once by 25% and then again by 50%. SoCal noted that life-cycle savings were determined by looking only at first-year savings.

Under the second part of this program, SoCal plans to reach 2,400 real estate agents in southern California. It intends to hold 80 class sessions to train and advise realtors on energy conservation. SoCal estimated 1,008 Mtherms of savings resulting from this program. SoCal stated the program is conservative because only first-year savings were included in its cost-effectiveness calculation.

SoCal noted that in spite of the discounting and assumed limited life cycle savings, its education program still meets the participating ratepayer and all ratepayers' cost-effective analyses. SoCal agreed it does not satisfy the nonparticipant test.

We agree with SoCal that children should learn energy conservation at an early age and will allow reduced funding for this part of the program. However, we fail to see how the real estate component of this program will benefit SoCal's ratepayers. If the real estate industry has interest in becoming familiar with energy conservation, it should undertake the type of program SoCal is proposing. Accordingly, we will allow half the requested amount in order that SoCal may continue its efforts in the schools.

Energy Efficiency Audits

SoCal proposed a funding level of $9,180,800 for its Energy Efficiency program. This program provides a variety of auditing services for commercial and industrial customers.

Legal staff recommended deleting certain activities within the program which had low cost-effectiveness results. Omission of those activities, staff argued, would enhance the program's cost-effectiveness. The program elements legal staff would disallow are: Professional Communications, Deliming Services, Energy Management Analyses, Merit Awards and Seminars, and Gas Conservation Analyses.

We will adopt Legal Division staff's recommendation, with the exception of the proposed Gas Conservation Analyses. We consider that this program element fulfills an important function, and will therefore retain roughly two-thirds of its budget, reducing it by $600,000. The total disallowance from the budget of the Energy Efficiency Audits program is $1,568,000.

New Commercial
Customer Conservation Program

Staff recommended deletion of this program's funding, for which SoCal included $606,000 in its 1983 market services estimate.

Staff argued that the program has decreasing benefits, and the cost-effectiveness calculation assumes extremely long life-cycle projections. The high cost of this program is therefore unjustified. Staff's recommendation is largely based on first-year energy savings.

The objective of this program is to convince owners and builders of new nonresidential construction projects and occupants in existing nonresidential facilities to incorporate energy-efficient equipment and designs in their buildings (Exhibit 31, pages 33-34). Where Title 24 building standards apply, the program focuses upon conservation efforts which exceed the State's standard.

Neiggemann explained the proposed budget, how the money would be spent, and described the manner in which savings were calculated. He acknowledged the relatively high initial annual unit cost but explained that the appropriate measure for cost-effectiveness was the life-cycle calculation rather than first-year savings as argued by staff.

Neiggemann testified that the only advertising expense in this program is an allocation of $55,500 for a portion of the AGA advertising budget. SoCal reaches customers when they apply for service or contact SoCal regarding planning of new service.

We agree with staff. The benefits ratepayers derive from this program are too uncertain to justify funding this program.

Cogeneration Program

SoCal proposed spending $3,384,200 in 1983 on cogeneration, including $2,718,000 for incentives.

SoCal has been incurring expenditures for this program since 1979. So far the program has resulted in the signing of 12 contracts for feasibility studies. However, no cogeneration plant has yet been constructed.

So far there is no evidence of savings from this program. In addition, the provisions of OIR 2, if properly implemented, offer adequate market incentives for development of cogeneration projects.

Therefore, we will not provide for ratepayer funding of this program in 1983.

Residential New Construction
Service to Customers

SoCal requested $1,936,800 to fund its Residential New Construction Service to Customer Program. The program is listed as part of SoCal's "Conservation Support Activities." The stated objective of the program is to encourage the local building community to provide new homes which are more energy-efficient.

In SoCal's last general rate case, this Commission questioned the value of the New Construction program and stated that SoCal must be able to demonstrate that "savings can be directly attributable to its efforts." Nonetheless, SoCal projects no energy savings as a direct result of this program. Further, the program description offered in Exhibit 31 reveals that SoCal seeks to use these program funds to encourage the installation of gas, rather than electric, home appliances. While the choice of gas, as opposed to

electric appliances may be a prudent end-use decision, we do not agree with SoCal that its ratepayers should underwrite an effort to influence that choice. We will disallow SoCal's funding in this category because of the program's uncertain benefits to its own ratepayers.

Overheads

SoCal included $7.5 million in other accounts to cover support and overhead for its main programs. We will reduce this amount in direct proportion to the other reductions adopted.

Conservation Reward

In its last general rate proceeding (A.59316), SoCal was authorized to file for and receive up to $5 million as a "conservation reward" if it achieved a specified level of reduced consumption in high priority classes. On April 16, 1982, SoCal filed Advice Letter 1310 for the $5 million reward. Following hearing, we issued D.82-10-021 dated October 6, 1982. We determined that SoCal had achieved the required level of savings and authorized SoCal to recover the $5 million reward by filing tariffs consistent with the rate design described in that decision along with the tariffs reflecting the revenue increase granted in this proceeding.

In this proceeding, A.61081, SoCal proposed a similar reward for test year 1983 of $7.5 million. In D.82-08-014 dated August 4, 1982, we considered conservation incentives as part of PG&E's general rate case proceeding and concluded that (1) the proposed conservation proposals are neither necessary nor appropriate at this time and (2) no conservation plan, beyond that already in place, should be implemented for PG&E. Thereafter, SoCal formally withdrew its proposal for a $7.5 million "conservation reward" in test year 1983.

IX. Research, Development, and Demonstration

Overview

SoCal requested $9,885,000 in test year 1983 to support its research, development, and demonstration (RD&D) program. Staff recommended a reduction of $1,243,000 in SoCal's request.

SoCal proposed funding 49 research projects for the test year 1983. Staff recommended that funding be reduced for seven projects, eliminated for two, and added for two projects. SoCal Exhibits 33, 34, and 35 provide a description of the projects and explain the process by which projects are selected for funding. SoCal's RD&D program was presented by Samuel J. Cunningham, manager of Research. Staff's position was presented by Ramesh Joshi, senior utilities engineer.

Position of Staff

Staff argued that SoCal's request for RD&D funds should be reduced to eliminate projects that duplicate the efforts of other institutions or which are otherwise imprudent. Also, staff pointed out that expenses for RD&D have increased at a rapid pace. Staff asked that we consider SoCal's 1983 request in terms of prior year expenditure levels which are:

1979	$5,187,000
1980	$6,569,000
1981	$7,588,000
1982	Not available
Request for 1983	$9,885,000

Staff argued that SoCal's RD&D program is generally directed at end-uses, e.g. improvements in appliance efficiency, development of gas counterparts to electric devices, etc. Staff argued that the ratepayer should not be forced to fund projects which

are intended to improve SoCal's market share vis-a-vis electric utilities. Staff noted that RD&D in appliance effiency is, as SoCal witness Cunningham testified, being conducted by a number of gas appliance manufacturers who have a more vital interest in the subject. Additionally, staff stated research groups funded by SoCal and other gas utilities conduct similar RD&D projects in gas supply and use technology. Those groups include the Gas Research Institute (GRI), the AGA, the Institute of Gas Technology, and the Pacific Gas Association.

Staff witness Joshi testified that he examined SoCal's 49 project proposals. He determined that seven of these projects warranted budget reductions and two should be eliminated, viz., the Phase Change Energy Storage Project and the Hydrogen Generation Techniques Project. The staff reductions were partially offset by the addition of two projects recommended by the staff witness. They are (1) a commercial laundry study costing $50,000 and (2) a nonelectric ignition project costing $140,000. Also, SoCal and staff stipulated to a $150,000 reduction for the Feedlot Gasification Project.

Position of SoCal

SoCal argued that its test year RD&D program conforms with the guidelines set forth in D.86595 and affirmed in D.92497. According to SoCal, the following criteria from D.86595 are an integral part of its project evaluation and selection process: Research projects should promote demand reduction and energy savings, protection of the environment, safety, improved supply technology, and increased company operating efficiency.

SoCal pointed out that staff, in its evaluation of SoCal's annual RD&D reports to the Commission, stated that SoCal's RD&D programs are satisfactory. SoCal took exception to the inconsistencies in staff's position.

SoCal noted that the staff witness agreed in his testimony that all seven projects recommended for partial disallowance, as well as the two projects recommended for total disallowance, would have passed the staff's own method of ranking projects.

SoCal also noted that the staff witness testified that he would have recommended full funding for the seven projects but for his belief that those projects overlapped with GRI research. According to SoCal witness Cunningham, there is no duplication between any of the seven projects and GRI research efforts. In addition, he contends, the seven projects are aimed at specific technological requirements of SoCal and its customers.

We will now turn to a discussion of the specific project differences.

A. Coordination With GRI

The seven projects for which staff witness Joshi reduced expenses due to duplication with GRI are as follows:

Project	SoCal Request
Improved Glass Melter	$ 300,000
Industrial Cogeneration	200,000
ASED Heat Pump	200,000
Leak Detection Technology	250,000
Heat-Fused Plastic Repairs	100,000
Agricultural Waste Gasification	150,000
Land-Based Biomass	50,000
Total	$1,250,000

Staff did not recommend complete elimination of funding for these projects. Rather, staff proposed to eliminate two-thirds of the proposed amounts recommending that the remaining one-third (or $416,667) be provided to GRI to permit GRI to expand the scope of its

research to accommodate SoCal's parochial interests. Given the importance and significance of California's interests, staff believes that GRI will expand its research to the extent necessary to meet SoCal's objectives.

1. Improved Glass Melter

SoCal witness Cunningham testified that this project was California-specific in that it is designed to produce a glass melter which will meet strict California nitrogen oxide (Nox) emission standards. He testified that GRI had no similar project yet in place but would, in the future, undertake such a project. Staff witness Joshi testified that the materials provided by SoCal failed to indicate that NOx emission reduction was a key element of this project. Staff argued that nothing in the record sustains a contrary conclusion. SoCal witness Cunningham's rebuttal, while mentioning NOx emissions, did not sufficiently describe the manner in which the research will involve emission reduction to warrant the rejection of staff's evaluation.

2. Industrial Cogeneration

Cunningham testified that, once again, NOx emission control was a fundamental aspect of this project and not within the scope of GRI's otherwise similar project. Staff argued that SoCal's support papers failed to indicate that NOx emission abatement was an important part of this project or that it might be beyond the ability of GRI to accommodate. Staff submitted that the record does not reflect SoCal's contention that NOx abatement is fundamental to this project.

3. ASED Heat Pump Project

Staff argued that Cunningham relied upon environmental impact objectives to distinguish this project from GRI's heat pump research, adding that SoCal intended to emphasize the use of heat pumps for cooling while GRI was studying heating applications.

However, according to staff witness Joshi, heat pump emissions were not a "problem to be solved" given that no gas heat pumps were presently marketed. Staff contended that this research is being done to develop a market for gas heat pumps.

4. Leak Detection Project

SoCal intimated that because of the unique nature of California soils a substantial contribution to GRI's project is required. However, according to staff, there is no evidence on the record to show that California soils require the size of the contribution, some $250,000, planned by SoCal. Consequently, staff recommends the reduction of the requested amount by two-thirds.

5. Heat-Fused Plastic Repair Project

Cunningham testified that about 80% of SoCal's new mains and services are constructed with polyethylene pipe. For this reason, SoCal should know all the ramifications of installing and repairing polyethylene pipe. He also testified that the AGA does substantial research in this area. Staff is convinced that SoCal-directed research would be duplicative of the efforts of both GRI and AGA and is unnecessary in the amount requested.

6. Agricultural Waste Gasification Project

Cunningham testified that given the size of California's agricultural industry and the amount of waste generated in its service territory, SoCal should be researching agricultural waste gasification. However, Joshi pointed out that GRI is conducting research on this subject. Staff asserted SoCal need not duplicate the efforts of GRI.

7. Land-Based Biomass Project

Cunningham testified that this project is California-specific, whereas the comparable GRI project is national in scope.

Staff argued that site-specific technology is beyond the proper confines of research. Staff recommends that SoCal contribute to GRI's project for the study of land-based biomass technology.

B. Phase Change Energy Storage Project

Staff deleted this project since it was not within the scope of gas distribution operations, SoCal's public utility function. Staff argued that the benefits to SoCal's ratepayers of the phase change energy storage process are so attentuated that they fail to justify funding by ratepayers.

SoCal's RD&D witness Cunningham testified that the phase change energy storage project is a solar energy research project. He also testified that this project is aimed at developing a more efficient system for storing energy, and that since the project is directly related to heating water with solar energy, it has a direct bearing on SoCal's role as a gas distributor. Cunningham noted that GRI does not have any projects of this nature either planned for the near future or in its current program.

C. Hydrogen Generation Techniques Project

Cunningham defended this project on the ground that it might provide SoCal with a supplemental source "if and when we actually need it." Staff recommended that this project be deleted from SoCal's 1983 RD&D budget since the benefits to the ratepayer resulting from this project are uncertain. Staff witness Joshi testified that GRI had discontinued a similar project due to the ready availability of gas supply both for the present day and the foreseeable future.

Cunningham testified that this project is aimed both at short-term technological needs and long-term supply requirements. He pointed out that hydrogen technology does have a short-term application because hydrogen fuel can be used for fuel cells.

D. Discussion

Of the 49, staff recommends deletion of only two projects: the Phase Change Energy Storage Project and the Hydrogen Generation Techniques Project. We agree with staff that benefits to ratepayers from these two programs are too remote.

Staff recommended that funding for seven of the 49 projects be reduced by two-thirds and that SoCal should use the remaining one-third to coordinate its efforts with GRI. We disagree. Staff's own testimony points out weaknesses in these seven projects which undercut justification for funding at any level. Further, the evidence does not support staff's recommendation to cut funding by two-thirds "across-the-board". We also note that GRI's budget has increased substantially in recent years. The cost of gas to SoCal, and all other gas distributors that are members of GRI, includes a share for GRI. Taking all these factors into consideration, it is reasonable to reduce SoCal's requested 1983 RD&D budget from $9,885,000 to $8,225,000, including overheads. The adopted RD&D budget represents an increase of 8.4% from SoCal's adopted 1981 budget. Much of the decrease in SoCal's constant dollar RD&D budget results from the elimination of programs which would more appropriately be conducted by GRI. We feel this strikes an appropriate balance between utility-specific and industry-wide RD&D. We invite SoCal to propose reasonable RD&D increases in its next rate case proceeding, consistent with the RD&D guidelines we adopted on December 1, 1982 in D.82-12-005 in OII 82-08-01. These guidelines include consideration of whether an individual utility is the most appropriate institution to perform a proposed RD&D project.

X. Results of Operations

A. Adopted Results

The following table sets forth a summary of the final position of SoCal and staff. Also included are our adopted test year results of operations and the adopted 1984 attrition allowance calculation. The discussion following the table covers the areas of difference between the parties.

Southern California Gas Company
Results of Operations
Test Year 1983

	PLGS Adopted	PLGS Authorized	SoCalGas Adopted	SoCalGas Authorized
Revenue	808,407.7	822,065.5	3,232,827.0	3,452,625.7
Expense				
Production	730,378.0	730,378.0	2,510,077.3	2,523,735.1
Storage			30,046.0	30,046.0
Transmission			20,791.0	20,791.0
Distribution			87,812.0	87,812.0
Customer Service			73,336.0	73,336.0
Customer Accounts			85,720.4	86,190.4
Market Service			18,031.0	18,031.0
Admin. & Gen.	321.7	327.2	189,398.8	192,423.8
10 Sect. Adj.			795.0	795.0
Subtotal	730,699.7	730,705.2	3,016,007.5	3,033,160.3
Book Depreciation	17,799.0	17,799.0	89,825.0	89,825.0
Taxes Other	3,292.0	3,292.0	32,827.9	32,827.9
CA. Corp. Fran. Tax	4,205.7	5,516.3	2,513.6	21,967.6
Fed. Income Tax	16,729.1	22,406.3	5,415.8	89,684.0
Total Expense	772,725.5	779,718.8	3,146,589.8	3,267,464.8
Net Revenue	35,682.2	42,346.7	86,237.2	185,160.9
Rate Base	331,927.0	330,833.6	1,451,990.5	1,446,569.3
Rate of Return	10.75	12.80	5.94	12.80

B. Operating Revenues and Cost of Gas

With respect to operating revenues and cost of gas, there were no significant differences between SoCal and the staff. In its opening brief, SoCal stipulated to the staff showing. We will adopt staff's estimates for these items.

C. Wages and Inflation

1. Overview

SoCal and the union signed a two-year collective bargaining agreement which resulted in a 9.5% wage increase effective April 1, 1982. Wages will be further increased by 7% to 10% effective April 1, 1983. The 1983 wage adjustment is dependent upon the increase in the Los Angeles - Long Beach, Anaheim Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI) between September 1981 and September 1982. If the Index rises more than 7%, the wage increase will be an additional .5% for each .5% increase (or fraction) in that index, subject to a maximum wage increase of 10%.

SoCal modified its showing based on this latest agreement. The amount of labor finally included in SoCal's results of operations reflects a 9.5% wage increase for 1982 and 8.5% for 1983. SoCal annualized the increase and staff disagrees with this approach.

Staff included an increase of 9.5% for 1982 and 8.5% for 1983. However, to account for the April 1st wage increase date, staff used wage increases of 10.375% (13% for three months and 9.5% for nine months) for 1982 and 8.75% (9.5% for three months and 8.5% for nine months) for 1983. Also, staff limited all nonunion employees to a 5% wage increase in 1983. SoCal took exception to staff's 5% wage limitation proposal.

2. Annualization of Wages

Since the actual wage increase granted by SoCal is in effect for only nine months of the year, staff took exception to SoCal's annualizing the increase. According to staff, SoCal's approach assumes the increase will be in effect for 12 months of the test year instead of nine months. The difference is approximately $4 million.

SoCal argued that staff's recommendation which inflates 1981 data to 1983 and uses an April 1, 1983, wage revision date incorrectly assumes that 1981 recorded data include the full annual effect of step increases in 1981. In addition, SoCal pointed out that staff estimates made no provision for future step or merit increases.

SoCal argued that it did not calculate the impact of merit adjustments for management personnel and movement within automatic progression salary ranges for nonmanagement employees. Accordingly, SoCal maintained that annualization is therefore a conservative method of partially compensating for these factors. On the other hand, SoCal did not include in its analysis the effects of employees who retire or resign and are replaced by employees with lower salary levels.

In prior SoCal general rate case proceedings we did allow annualization because SoCal incurred the expense prior to the effective date of the rate relief. The Rate Case Processing Plan does provide rate relief at the onset of the test year, eliminating the need to annualize wages. We will adopt the staff approach.

3. Five Percent Wage Limitation

Staff proposed a 5% wage limitation during the course of the hearing. SoCal objected to its late introduction on procedural grounds and cited the Regulatory Lag Plan. The ALJ ruled that the proposal would be heard in this proceeding and provided SoCal with additional time to prepare its case. Since SoCal had ample time to prepare it case, we affirm the ALJ's rulings.

A. V. Garde, principal utilities engineer and project manager, presented the staff proposal. He recommended that test year revenue requirements reflect a 5% wage increase for nonunion personnel in year 1982 and 1983. No limitation was placed upon wage increases for attrition year 1984; however, that year would be affected by the staff proposal by virtue of the carry-forward of the 1982 and 1983 effects. According to staff this recommendation would reduce SoCal's revenue requirement by $7,214,000 in 1983. Of that amount, $5,998,000 represents its ratemaking treatment for salaries to management employees. According to staff, the total reduction of $7,214,000 represents less than 2.5% of total wages paid by SoCal.

SoCal argued that the 5% limitation amount was incorrectly calculated. According to SoCal, the figure should be $3.9 million instead of $7.2 million. SoCal points out that staff's figure does not recognize the April 1, 1982, 9.5% wage increase.

Staff noted that at end-of-year 1981, SoCal had 8,872 full-time employees, 6,405 were union-represented, 1,904 were nonunion management employees, and the remainder were nonunion nonmanagement. SoCal stated that it expects the total number of employees to grow to 10,510 during test year 1983. Staff noted that in prior SoCal rate proceedings identical wage escalation rates were applied to all three categories of personnel.

Staff stated that it proposed this unusual treatment of wages because a full flow-through of a 9.5% wage increase would constitute an undue hardship upon ratepayers, many of whom have already faced the brutal effects of layoffs and/or wage concessions of the 1981-1982 recession. According to staff, the present economic climate requires the abandonment of a regulatory attitude of "business as usual" and pointed to the fact that the Commission itself in the last SoCal general rate case decision warned the utility that it would not automatically approve wage increases. Staff cited D.92497, page 96, where we stated:

> "While we cannot ignore valid costs that a utility is incurring in providing service to its customers, we must examine closely costs (sic) such as labor for reasonableness for the simple fact that the utility is incurring them may not of itself be sufficient justification of reasonableness. . . ."

Staff pointed out that as a general matter, SoCal adjusts its management salaries according to its union wage settlement. Therefore, management may have some conflict of interest in the outcome of labor negotiations.

Staff noted that nonunion nonmanagement personnel receive wage increases comparable to union-represented employees.

Staff did not propose any limitation be placed upon the recovery of wages paid by SoCal to union-represented employees. The staff witness explained that he did not do so because he believed that such a limitation might constitute an unlawful intrusion into the good faith collective bargaining process. In addition, he stated that he had no reason to believe that the contract had not been negotiated in good faith.

The staff witness testified that the Legal Division advised him there is no legal impediment to the adoption of a wage limitation for ratemaking purposes. The basis for that appraisal is provided in the Legal Division brief. Legal Division pointed out that staff's proposal does not contemplate that the Commission or its staff would in any way dictate to management the actual negotiating position since that may constitute an unlawful intrusion into the collective bargaining process. Rather, staff urges that the Commission scrutinize wages in the manner of any other expense, disallowing the recoupment of unreasonable costs. According to Legal Division, SoCal may pay any level of wages it feels is reasonable and bear the risk that the Commission might find that level to be imprudent. While this may pose some indirect pressures on negotiations, Legal Division stated such pressures are not likely to be precluded by federal labor law.

Regulatory law is well-settled that the Commission may disallow for ratemaking purposes any unreasonable expense if it is supported by findings of fact and conclusions of law. If the Commission disallowed an expense it found to be reasonable, that action would be a confiscation of stockholder property. Such a disallowance would simply not meet the Hope and Bluefield standards.

SoCal argued that staff's proposal is highly unusual. SoCal pointed out that staff witness Garde acknowledged that the full union-negotiated settlement of a 9.5% wage increase is reasonable (RT 18/1706), that the nonunion employees should receive the same 9.5% increase, but that only 5% of the increase should be passed on to ratepayers. SoCal claimed staff proposed that the Commission disallow reasonable expenses for test year 1983.

SoCal acknowledged that some manufacturing industries are experiencing layoffs and/or lesser wage increases. SoCal asserted, however, that by their nature these industries face a more volatile business climate than the utility industry. According to SoCal, the utility worker accepts a lower pay schedule than employees of many other industries for the stability of his or her employment.

SoCal noted that its cost-of-living adjustment is retrospective rather than prospective and that at the time the wage increase was proposed, the CPI for the year ending in January 1982 was at 10.3%. The company claimed that cumulative wage increases for all employees were 10.5% below the increase in the CPI for the past five years. Its 1983 union wage increase is tied to the Los Angeles-Long Beach CPI and will rise above 7% only if justified by the 1982 increase in the cost-of-living. Therefore, SoCal stated that even though cost-of-living indicators are currently rising at annual rates lower than 9.5%, they do not reflect the 1981 events upon which the 1982 increase was based and are not a valid basis for limiting the 1982 wage increase to 5%. Rather, SoCal points out the 1982 cost-of-living increase will be reflected in the 1983 wage increase. (Southern California Edison Company bases its wage adjustments on forecasted changes in the economy.)

4. Discussion

We have considered staff's recommendation to allow a 5% wage increase for nonunion employees, and have decided not to adopt it. We agree with staff that the contracted union wage increase was reasonable at the time it was negotiated. But we must also find that the same increase for nonunion employees is similarly reasonable since there is nothing in the record to support a contrary finding.

Ratepayers must bear the reasonable and prudent costs of SoCal's union contract. We find that a 9.5% increase for 1982, and an increase tied to the rate of inflation for 1983, was reasonable at the time union negotiations took place in early 1982. These increases are also reasonable for nonunion employees.

It does not follow from our decision today on this matter that this Commission must always treat union increases and nonunion increases alike. For example, we might reach a different conclusion on this matter if the evidence demonstrated that SoCal's nonunion salaries were significantly higher than those paid to workers in comparable positions in other industries.

We also agree with staff that if we consistently grant SoCal identical increases in both the nonunion and union categories, a conflict of interest might arise. If management expects the Commission to grant a nonunion increase equal to the one negotiated with the union, management may have inadequate incentives to bargain in good faith.

On the other hand, wage increases granted by SoCal to its nonunion employees vary: some employees receive larger increases than others. The increase we grant today is for ratemaking purposes only and will be applied to actual wage increases as SoCal sees fit.

We remind SoCal that staff does not determine "reasonableness". This Commission does. Thus, SoCal cannot argue that certain of its labor-related expenses are patently reasonable because staff so states. This Commission may come to different conclusions than staff and disallow any expenses it finds unreasonable based upon its assessment of evidence in the proceeding.

We agree with staff that the state of the economy and the increased burdens on utility ratepayers require that this Commission reassess many of its regulatory policies. We put SoCal on notice that its labor expenses will receive increased scrutiny. We expect SoCal to take all reasonable measures to keep these and other costs down.

5. Adopted Escalation Rate - Nonlabor

Escalation rates are used to estimate future utility costs. In this proceeding, staff recommended 9.3% for 1981, 7% for 1982, and 9.4% for 1983. SoCal recommended 15% for all three years.

Since the time staff and SoCal presented their testimony on this matter, estimated inflation rates for 1982 and 1983 have declined significantly. The recommendation of the parties, therefore, should not be adopted.

During the proceedings, the parties expressed their common view that adopted escalation rates should reflect most current expectations (see, for instance, Tr. Vol. 4, page 216). We agree and, accordingly, will adopt escalation rates of 2.7% and 5.3% for 1982 and 1983, respectively. These estimates are based on the November DRI CONTROL forcast. We believe the use of this forecast is reasonable for purposes of setting escalation rates, since the use of that forecast is what SoCal recommended, and what we have adopted, for establishing the attrition year adjustment.

6. Adopted Escalation Rate - Labor

As discussed previously, the ~~1983 union wage increase is tied to the Los Angeles-Long Beach CPI and will rise above 7%~~ only if the CPI rises over 7%. CPI is not expected to rise above 7%. Because of the retrospective rather than prospective nature of

SoCal's negotiated wage increase, we will adopt a 7% labor increase effective April 1, 1983. We will also adopt the 9.5% increase effective April 1, 1982. Accordingly, the adopted labor inflation rate for test year 1983 is three months at 9.5% and nine at 7% or an effective rate of 7.625%.

7. Adopted Attrition Year Indices

Both SoCal and staff recommended a step-rate adjustment based on appropriate indices for certain expenses and capital costs for the attrition year 1984. We will provide that adjustment in a specific preliminary amount subject only to changes in the level of the selected indices. On or about November 1, 1983, SoCal shall file an advice letter amending the attrition allowance specified in this order to reflect the then most current forecasts for the selected indices and debt costs.

Staff recommended that attrition year indices should be based on a weighted average of a number of DRI scenarios, according to their probability of occurrence as projected by DRI. SoCal recommended using the DRI "CONTROL" scenario without modification. We will adopt SoCal's recommendation because we are not convinced that weighting provides any additional accuracy.

For purposes of setting the 1984 attrition allowance, we will use the latest available DRI CONTROL forecasts for 1983 and 1984 for the CPI and the PPI as of the time SoCal files its advice letter on or about November 1, 1983.

D. Storage and Transmission Expense

1. Supervision and Engineering

Accounts 814, 830, 850, and 861 are supervision and engineering (S&E) accounts for storage and transmission activities. The total difference in these S&E accounts between SoCal and staff is $741,000.

Staff proposed to reduce SoCal's S&E funding to reflect the adjustments staff made to the non-S&E accounts. SoCal witness Brady agreed there is some correlation between the two categories but not necessarily a direct relationship.

The total difference between SoCal and staff for non-S&E storage and transmission expense is approximately $5.7 million. About half this $5.7 million difference is due to: (1) the number of wells to be repaired and (2) gas losses. Since well repairs are contracted out, this difference (31-24) should not affect S&E expense. Likewise, gas losses should not affect S&E expense. This leaves a net reduction of less than 5% in storage and transmission expense, which arguably could impact S&E expense. We are not convinced this change is sufficient to cause reduction in S&E expense and we will adopt SoCal's estimates for these S&E accounts.

2. Account 816 - Wells Operations

The staff estimate is $98,000 lower than SoCal's. Staff disagreed with SoCal's estimate of wastewater haulage expenses at the Honor Rancho Storage Field. Production and withdrawal operations at that field generate wastewater which must be removed to a dump site. Staff adopted the SoCal methodology and removal cost of $6 per barrel. However, staff used 1981 recorded data to estimate wastewater volumes.

We will adopt the staff's estimate since it is based on the most recent data.

3. Account 818 - Compressor Station Expense

The staff estimate is $193,000 lower than SoCal's. This difference includes SoCal's stipulation to reduce its original estimate by $38,000 for expenses related to additional guard services at the East Whittier Storage Field.

Staff used recorded 1981 data to project 1983 expenses. SoCal argued that the use of 1981 recorded data does not make staff's estimate more reliable than its own. SoCal further argued that its 1983 estimates are grass roots estimates developed by each division and department. SoCal pointed out that in the cost planning process, SoCal's projections are made for two future years by those people directly responsible for the work to be done. Therefore, SoCal argued its estimates better reflect expected 1983 operations.

We believe the staff's estimating approach is reasonable. A grass roots estimate is not necessarily more reasonable than any other. Moreover, it is very difficult to evaluate on a hearing record which does not include testimony by those who developed the estimates. We will adopt staff's estimate.

4. Account 821 - Purification Expense

The staff estimate is $231,000 lower than SoCal's. Of this amount, $36,000 is attributable to staff's proposed amortization over a two-year period of expenses associated with 1983 glycol purchases. No glycol is to be purchased in 1984.

The amount in question is relatively insignificant for ratemaking purposes but the issue was presented in several instances besides the glycol purchase.

The glycol purchase is a nonrecurring expense, which is not of a substantial or extraordinary nature. Under the Regulatory Lag Plan, the utility may submit only one test showing. SoCal argued that it cannot submit a list of nonrecurring miscellaneous items which will occur in the second year, and that it is reasonable to conclude that there will be such items which will occur in the second year and not in the first.

We note that we establish SoCal's revenue requirement based upon those costs SoCal can demonstrate are reasonably foreseeable, not those that are not. We will adopt staff's amortization proposal.

The remaining $195,000 difference between SoCal's and staff's recommendations results from differences in estimating techniques. SoCal used a grass roots estimate, derived by field personnel responsible for the account. Staff used 1981 recorded data inflated to develop a 1983 estimate. SoCal argued that staff did not adjust 1981 to fully reflect 1983 planned operations. We agree that staff should consider proposed changes between the one recorded year used as the basis of its estimates and the company's operation plans for the test year and will adopt the SoCal estimate for this portion of Account 821.

5. Account 823 - Gas Losses

SoCal included an expense of $2,056,000 in test year 1983 for gas losses occurring at certain storage fields. This includes a two-year amortization of pre-1983 gas losses net of income taxes and a gross loss in 1983 of $984,000. These losses can be divided into four categories:

(1) Surface Leakage - losses from the well head and field pipe fittings (normal operation);

(2) Incidents - losses from leaks in well casings and related assembly;

(3) Plant Blowdowns - the evacuation of gas from the storage field piping for maintenance activities; and

(4) Migration - the subsurface movement of gas outside the storage field.

Staff allowed for estimated 1983 gas losses in all of the above categories. Staff also allowed pre-1983 migration gas losses in the amount of $796,000 at the East Whittier Storage Field. However, because SoCal filed workpapers on La Goleta Field migration losses late, staff recommended the deferral of the consideration of such losses, approximately 2 Bcf, to SoCal's next general rate case.

Staff's treatment of pre-1983 gas losses was explained by staff witness Ferrazo. He argued that SoCal was aware that losses due to surfact leakage, incidents, and plant blowdowns were occurring but made no effort to estimate these losses. As a result, staff urges, SoCal should bear the consequences of its lack of diligence. Staff made an exception for migration losses because these losses are often caused by uncontrollable events, hence, are not foreseeable and not subject to reasonable estimation.

The City of San Diego took the position that only gross gas losses occurring in 1983 should be allowed. Counsel for San Diego argued that inclusion of pre-1983 losses in test year 1983 rates would breach the rule against retroactive ratemaking. Neither SoCal nor staff addressed this isue in their briefs.

We will adopt SoCal's estimate for 1983 gas losses totaling $984,000. We will not, however, allow rate relief for estimated pre-1983 losses. SoCal acknowledges that it was not until the late 1970's that it undertook a study to determine the extent of its operational gas losses and that the results of that study were only recently available. We will not take steps now to make the company whole for losses it failed to discover at an earlier date. We agree with staff that while SoCal should rely on prospective estimates for surface leakage, incidents and plant blowdowns for ratesetting purposes, migration losses are not as predictable. For the future, SoCal will be permitted to accrue expenses, net of income taxes, for migration gas losses in a deferred account designated as "Account 823.1 Migration Gas Losses". These expenses should be included in the next general rate case following their accrual.

Staff witness Ferraro also recommended that because of the large gas losses at the East Whittier Storage Field, SoCal should undertake a study to determine whether that field should be removed from operation. SoCal witness Brady agreed to expand SoCal's current study of that facility. Staff recommended that SoCal be required to report its findings in its test year 1985 rate filing. We agree.

6. Account 824 - Other Operations Expenses

Exhibit 141 reflects a difference of $219,000 in Account 824. This amount is related to the amortization of certain cancellation fees resulting from the revised plan of operations at Ten Section. The appropriateness of this expenditure will be considered along with all other Ten Section expenses. It is, therefore, not included in test year 1983.

7. Account 831 - Structures and Improvements

The staff estimate is $42,000 lower than SoCal's. The difference is due to the difference in estimating techniques previously discussed.

SoCal reduced its estimate between the NOI and the application from $499,000 to $376,000. SoCal witness Brady explained that the adjustment recognized some paving and roadwork moved forward from 1983 to 1981. We will adopt SoCal's estimate.

8. Account 832 - Wells

This account involves the largest dollar difference between staff and SoCal related to storage expense. Staff's estimate is $2,651,000 lower. The controversy surrounds the number of wells to be repaired in 1983. Well repairs for purposes of this discussion are divided into two categories, major and other.

Both SoCal and staff contemplate essentially the same unit cost by type of well repair; the difference in estimates is due to a disagreement over the estimated number of well repairs. Staff estimated 19 major and 5 other well repairs. SoCal projects 26 major and 5 other well repairs in test year 1983 at a cost of $10,208,068.

SoCal used a least squares trending method. According to SoCal this analysis produced a correlation coefficient (R) between time and the number of repairs of .75 which SoCal considers reasonable.

Staff witness Ferraro asserted that SoCal's R-squared value (.56) is not acceptable, therefore, he used a four-year average. SoCal, on the other hand, contends a four-year average ignores time (age of well casings) as a factor and it ignores the increasing trend in the number of well repairs. Both approaches seem to have shortcomings.

We note there are numerous factors which affect the number of wells repaired each year, e.g. availability of drill rigs and complexity of job, etc. We also note that the number of repairs for the last nine years has increased each year over the preceding year with only two exceptions. Thus, from 1973 through 1981 SoCal's major well repairs totaled 4, 5, 11, 19, 13, 21, 14, 17, and 24. Ferraro took the average of the last four years of major well repairs, which is 19, and to this figure added 5 other repairs to obtain his estimate of 24 well repairs for the test year.

We note that the last recorded number for major well repairs is 24. It is reasonable to assume that there will be little decrease in the number of major well repairs. Based on the last two years' recorded data we will adopt 21 major well repairs as reasonable for the test year. To this we will add 5 other repairs which staff and SoCal agree is reasonable, for a total of 26 well repairs.

9. Account 834 - Compressor Station Equipment

The staff estimate is $351,000 lower than SoCal's because staff proposes to amortize nonrecurring expenses over two years. SoCal witness Brady identified the projects which would be undertaken in 1983 but which would not require any additional funds or work commitments in 1984. Brady could not identify any projects in 1984, the expenses of which would arise to replace the unusual 1983 proposed projects. Accordingly, staff argued that these 1983 expenses should be amortized over two years to prevent double collection.

For the reasons previously discussed, with regard to the glycol purchase, we will adopt staff's amortization proposal.

10. Account 853 - Compressor Station Labor and Expense

The staff estimate is $90,000 lower than SoCal's. As with glycol expenses reflected in Account 821, SoCal intends in 1983 to replenish stocks of lubrication oils depleted during 1982. There is no plan to replenish lubrication oil during 1984. Staff argued this expense should be amortized over two years. For the reasons stated previously, we will adopt the staff proposal.

11. Account 856 - Mains Expense - Operations

The staff's estimate is $352,000 lower than SoCal's. Staff's estimate is based on recorded data with specific increases for retesting of pipe due to class changes and additional costs associated with the implementation of the Underground Service Alert program, whereby one call notifies all parties of a scheduled excavation. SoCal used a grass roots estimate generated by field personnel. We will adopt staff's estimate since staff's estimating approach is more reasonable.

12. Account 857 - Measuring and Regulating Stations

The staff's estimate for this account is $91,000 lower than SoCal's. Staff generally agreed with SoCal's estimate but argued the increase in automotive expenses is inconsistent with the increase in employees. We will adopt staff's estimate.

13. Account 858 - Compression of Gas by Others

SoCal withdrew all expenses recorded in Account 858 from this proceeding under the assumption that all Account 858 gas was properly included in CAM proceedings. However, it was later determined that compressor fuel gas not burned under a specific SoCal-PG&E contract is not reflected in CAM rates. Consequently, SoCal should receive $6,000 for this item.

14. Account 859 - Other Expenses

Staff determined that SoCal's 1983 test year estimate does not adequately consider recent increased costs for gas odorant, a petroleum-based product. Accordingly, SoCal should receive $79,000 to cover increases for this item.

15. Account 860 - Rents

This account records rents related to transmission lines. The majority of these rents are paid to railroad companies for transmission pipelines which cross their property under agreements which are negotiated for each pipe crossing.

The staff estimate for Account 860 is $184,000 lower than SoCal's. At the time staff prepared its estimate, SoCal was still negotiating some of the contracts. Therefore, staff used recorded 1981 expense with no allowance for inflation in its estimate for 1983. Subsequently, SoCal concluded its negotiations and submitted late-filed Exhibit 55 reflecting the results of these negotiations. Accordingly, we will adopt the amounts shown in Exhibit 55, less $19,850, which is the amount for 1981 and 1982 rent payable on South Basin Division #2269 right-of-way. We see no reason for this amount to be included in 1983 expenses.

16. Account 863 - Mains Maintenance

The staff estimate is $127,000 lower than SoCal's. Staff generally agrees with SoCal's estimates but amortized unusual expenses which will not occur in 1984. We will adopt the staff estimate.

17. Account 864 - Compressor Station Equipment - Maintenance

The staff estimate is $410,000 lower than SoCal's. The difference is due to staff amortizing unusual 1983 expenses which will not occur in 1984. We will adopt the staff estimate.

18. Account 865 - Measuring and Regulating Station Equipment - Maintenance

The staff estimate is $50,000 lower than SoCal's. Staff noted a disproportionate increase in this account compared to the operations account for this equipment. SoCal witness Brady indicated that equipment age is the cause of the disproportionate increase. We will adopt SoCal's estimate.

E. Distribution Expenses

Eugene L. O'Rourke, vice president, Distribution and Measurement, presented SoCal's proposals concerning distribution expenses (exclusive of customer services expenses). Staff presented its case through Francis S. Ferraro, supervising utilities engineer.

O'Rourke estimated expenses for his department totaling $114,038,000 in test year 1983. Staff's estimate totals $98,737,000. As a consequence, there remains a difference between staff and SoCal of $15,301,000.

1. Accounts 870 and 885 -
Supervision and Engineering

The staff estimate is $691,000 lower than SoCal's. This amount is proportionate to adjustments staff made in other non-S&E accounts. The relationship between S&E expense and non-S&E expense was debated at great length. O'Rourke agreed that there was such a relationship between specifically identified items. Based on this discussion, we will adopt the staff adjustment.

2. Accounts 875 and 889 - Measuring and
Regulating Station Equipment

The staff estimate is $183,000 lower than SoCal's. The staff adjustment was based on customer growth. We agree with SoCal that these accounts are not sensitive to customer growth. Accordingly, we will adopt SoCal's estimate.

3. Account 878 - Meters and House Regulators

Staff's estimate is $9,000 lower than SoCal's. The staff increased 1981 expenses by growth in planned meter repairs. SoCal based its projections on its meter performance control program, which is a statistical analysis filed annually with the Commission. We will adopt SoCal's estimate.

4. Account 880 - Other Expenses

The staff estimate is lower than SoCal's by $1,385,000. This is generally due to excluding amortization of 1982 Polychlorinated Biphenyls (PCB) expenses. We will not amortize the prior year's expense in test year 1983. The staff adjustment is adopted.

PCB estimated expenses included in Account 880 for test year 1983 are $3,000,000. There is no disagreement between the parties regarding the need to deal with the PCB problem and SoCal's proposed solution. Since the problem is relatively new and it is not possible, at this time, to reasonably estimate test year costs, staff recommended that $3,000,000 in expenses for each year be included in rates. Adjustments, if necessary, would be made in SoCal's next general rate case. We will authorize SoCal to establish a deferred account for this item commencing January 1, 1983. SoCal will provide staff with a summary of this account every six months. Any over or under expenditure will be accounted for in SoCal's next general rate case.

5. Account 887 - Mains

The staff estimate is $7,574,000 lower than SoCal's. $6,633,000 of this amount is related to the new leak survey program discussed below, $915,000 is due to SoCal's request to amortize 1982 leak repair costs and the remainder, $26,000, is due to staff's adjustment based on customer growth.

a. The 1-2-4 Program

We refer to the $6,633,000 difference between SoCal and staff in Account 887.

SoCal plans to implement a 1-2-4 leak survey frequency program in 1983. According to SoCal, an undisputed need exists to increase the frequency of surveys. The costs associated with this program total $8,926,000 in the test year and affect Accounts 887 and 892.

Staff concluded the 1-2-4 program and projected expense levels are reasonable but is concerned that concentrated program implementation would cause too great a rate impact. Ferraro recommended phasing the program into two parts, one now and the other in 1985. SoCal disagreed and pointed out that phasing the program would extend the time to complete a full cycle and the higher expense level called for by the 1-2-4 program would likewise be extended. Furthermore, SoCal noted that considering inflation rates, ratepayers may ultimately pay more if one-half of the program is deferred until 1985.

We agree with staff that this program should not have high front end costs. We will adopt staff's recommendation to implement the program in two parts.

b. Leak Repair Backlog

We refer to the difference of $915,000 between SoCal and staff in Account 887.

SoCal stated that it proposed to spend $3,000,000 in 1982 to reduce a backlog in unrepaired leaks (Exhibit 12, pages 6-7). SoCal proposed to recover one-half of these expenses in each of the years covered by this proceeding. SoCal's proposal to reduce the leak backlog affects Accounts 880 ($180,000), 887 ($915,000), and 892 ($405,000) (Exhibit 56).

O'Rourke indicated that if the amortization request was not allowed, the work itself would be deferred until 1983 and 1984.

Staff opposed recovery of these proposed 1982 expenditures. In addition, staff concluded a "catch-up" leak repair program in 1982 is unnecessary, although there is no opposition by staff to a catch-up program in later years. Staff agreed with SoCal's goals in 1984 of a backlog between 5,000 and 7,000 leaks.

We will adopt the staff recommendation.

c. Other Items

Regarding staff's $26,000 adjustment based on growth, we will not adopt staff's recommendation since we are not convinced this account is directly affected by customer growth.

In summary, SoCal's estimate for Account 887 should be reduced by $7,548,000.

6. Account 892 - Services

The staff estimate is $5,832,000 lower than SoCal's. $2,557,000 of this amount is due to proposed Federal Leak Survey Regulations, $1,343,000 is due to the 1-2-4 leak survey program, $405,000 is due to amortization of 1982 leak repair costs, and $1,527,000 is due to difference in the number of leaks to be repaired in the test year.

a. Proposed Federal Survey Regulations

SoCal included $9,190,000 in its test year estimate to cover costs associated with new requirements under proposed federal leak survey regulations (Exhibit 56). This expense item affects Accounts 887 and 892. These regulations, if adopted, would require a substantial expansion of those types of surveys presently required to be made on an annual basis and would be additional to SoCal's proposed expenditures under its 1-2-4 program.

Staff recommended no allowance for those projected expenses in this proceeding on the grounds that the proposed rule is likely to be withdrawn. Staff agreed that if the rule is not withdrawn, SoCal's estimate of the cost of compliance is reasonable.

We agree with staff. However, SoCal should be made whole for expenses that might be incurred for complying with new federal regulations. We will authorize SoCal to establish a deferred account to recover these expenditures in its next general rate case proceeding. SoCal should notify the Commission by letter if and when these federal regulations are implemented. If they are, SoCal should furnish staff with a summary of this account every six months. No allowance for these expenditures will be made for test year 1983.

b. Other Items

As discussed above, we will adopt staff's recommendation regarding phasing the 1-2-4 program.

We will not grant SoCal's request to amortize $405,000 in 1982 leak repair costs in the test year.

Staff and SoCal are generally in agreement regarding the cost of compliance with proposed Federal Damage Regulations. SoCal accepted staff's estimate of $1,447,000 for this item. We note that funding requests by the company and by staff for implementing additional federal regulations should be considered in light of the federal administration's stated goal of reducing such regulation. Although regulation may be increasing in some areas, it may be decreasing in others. If it is, ratepayers should benefit from a reduced regulatory burden. We expect staff and SoCal to address this matter in SoCal's next general rate case.

Regarding the $1,527,000, which is due to different estimates of the number of leaks to be repaired, SoCal states that the significant increase in leaks is due to use of new leak detection equipment which is more sensitive. According to SoCal, the backlog in 1980 of Code III nonhazardous leaks increased to 17,840. Now SoCal wants to decrease the backlog to between 5,000 to 7,000. We will adopt SoCal's estimate for this item.

In summary, SoCal's estimate for Account 892 should be reduced by $4,305,000.

7. <u>Account 894 - Other Equipment</u>

Maintenance costs of compressors at natural gas vehicle refueling stations account for a $110,000 difference between staff and SoCal estimates. Staff's lower estimate is based on its proposed reduction in employee levels. O'Rourke testified that the higher expense level was appropriate due to: (a) the addition of one or two refueling bases between now and 1983 and (b) the higher percentage of SoCal fleet being equipped with natural gas.

We will adopt SoCal's estimate.

F. <u>Customer Services Expenses</u>

Radcliffe testified for SoCal and Ferraro presented the position of staff. SoCal's estimates totaled $85,688,000 and the staff's estimate was $78,815,000, a difference of $6,573,000.

1. <u>Account 870 - Supervision and Engineering Expense</u>

The differences in this account are:

S&E Expenses	$ 538,000
Level of Service Studies	200,000
Correction	669,000
	$1,407,000

Staff witness Ferraro adjusted SoCal's estimates for S&E expenses downward $538,000 to reflect staff's adjustment to non-S&E accounts.

SoCal witness Radcliffe testified that the higher projected S&E expenses in 1983 were not related to the projected increase in non-S&E activities. SoCal also argued that 1981 recorded data should not be blindly used in developing 1983 expenses. SoCal argued that its grass roots estimates better reflect anticipated operations for the test year.

We are not convinced that the magnitude of reductions in non-S&E expense proposed by staff will be sufficient to trigger a significant reduction in staffing levels. Accordingly, we will adopt SoCal's estimate for S&E expense.

The second item of disagreement between staff and SoCal centers on the cost for two Level of Service studies, which SoCal originally estimated at $700,000 and later reduced to $4,400,000. Staff would allow only $200,000. Staff's estimate for these Level of Service studies is based on a PG&E study which staff contended was similar to the studies proposed by SoCal. We will adopt the staff estimate as reasonable for the test year.

Finally, there is a difference of $669,000 between SoCal and staff because SoCal initially included this amount in the wrong table. SoCal later made the correction but staff had not included the $669,000 in its estimate of Account 870. Conversely, staff's evaluation of Account 901 is overstated by $669,000.

We will make this correction and reflect the $669,000 in Account 870.

2. Account 878 - Meter and House Regulator Expenses

The differences between SoCal and staff are:

1982 overpressure protection (OPP) costs	$ 642,000
Appliance survey	366,000
Adjustments due to estimating technique	2,393,000
	$3,401,000

For reasons previously discussed, SoCal cannot include $642,000 in estimated 1983 expenses for amortization of 1982 OPP expenditures.

Regarding the second item, SoCal argued that staff did not specifically allow the cost of an Appliance Data Survey projected to cost $1.3 million in test year 1983, portions of the dollars for which are included in Accounts 878, 879, and 903. We agree with SoCal that these costs should be reflected in 1983 estimates. Accordingly, we will allow SoCal $366,000 for this item in this account.

Turning to the third item, the $2,393,000 adjustment is due to difference in estimating techniques. We agree with staff that SoCal's estimate reflects an unreasonable percentage increase. We will adopt staff's estimate for this item.

3. Account 879 - Customer Installation Expenses

The staff estimate for this account is lower than SoCal's by $1,531,000. Of this amount $417,000 is due to staff's exclusion of the appliance survey and $1,114,000 is due to staff using 1981 recorded and expected customer growth as the basis for its 1983 estimate.

As discussed previously, we will allow $417,000 for this appliance survey.

Turning to the $1,114,000 amount, staff points out there is no discernible reason for this level of increase. We will adopt staff's estimate.

4. Account 880 - Other Expenses

The staff estimate is lower than SoCal's by $534,000. Staff argues there is no discernible reason for SoCal's level of expense for this account. We will adopt staff's estimate.

G. Customer Accounts Expenses

Radcliffe developed Customer Accounts Expenses, exclusive of EDP-Billing Operation for SoCal. Robert L. Ballew, manager of Budgets and Financial Planning presented EDP-Billing. The staff witness covering both areas was Thomas T. Hamamoto, senior utilities engineer.

SoCal estimated Customer Accounts Expenses to be $103,971,000 for test year 1983. Staff forecasted expenses totaling $96,072,000. The dollar difference is $7,899,000.

Hamamoto would allow $2,084,000 less than SoCal in uncollectible expenses at present rates. Also, he recommended $4,000,000 less than SoCal's request based on staff's proposed reduction in manpower. Finally, a disagreement exists of approximately $2.5 million concerning projected postal rate increases.

1. Uncollectible Expense

Hamamoto proposed reducing SoCal's estimate of its uncollectible expenses from $7,117,000 to $5,032,800. His uncollectible estimate is premised on taking SoCal's average systemwide uncollectible rate for 1980 and 1981 and applying that average rate to projected 1983 estimated systemwide sales.

SoCal argued that 99% of the total uncollectible expense is due to residential and commercial customers, therefore, it is incorrect to use systemwide figures which include steam-electric plant sales.

Also, SoCal pointed out that the 1981 figures used by Hamamoto did not reflect a pass-through of $335,000,000 in supplier refunds. We agree with SoCal that recognition of these refunds is appropriate and should be included in the calculation.

SoCal's uncollectible rate based on 1980 high priority temperature adjusted sales is .480. SoCal used .490 in this proceeding to recognize the effect of higher bills.

SoCal further notes its uncollectible current write-off percentage, .4870, closely approximates the .4900 rate included in this proceeding. Accordingly, we will adopt the SoCal figure.

2. Employee Additions

Staff witness Hamamoto proposed a total adjustment of $4,000,000 to the expense estimates of both Radcliffe and Ballew related to employee additions in the Customer Account area. Staff argued that employee growth should basically track customer growth (estimated to be 1.8% per year). In addition, staff assumed an increase in employees in 1982 substantially greater than customer growth (approximately 8.6% employee growth).

Also, staff developed a per-employee dollar amount by dividing SoCal's projected 1983 expenses for electronic data processing (EDP) and non-EDP operations by the projected number of employees in each of those categories. Staff then subtracted the appropriate amount for each employee dropped. EDP expenses were reduced $80,503 each for 19 employees, or a total of $1,529,500. Non-EDP expenses were reduced by $40,763 for each of 61 employees, a total of $2,486,500.

SoCal argued that the methodology used by Hamamoto excludes consideration of new employee requirements which are not directly related to customer growth. Thus, according to SoCal, on the non-EDP side Hamamoto had excluded expenses needed by SoCal in 1983 for its Appliance Data Survey, Level Pay Plan, Energy Assistance Program, and Expanded Telephone Services. SoCal further noted that Hamamoto ignored requirements of $500,000 to test hand-held meter devices and

$250,000 for a customer relations training program. Finally, on the non-EDP side, SoCal submits Hamamoto has failed to recognize a several hundred thousand dollar requirement for brochures and bill inserts needed to implement (a) the termination of service requirements of OII 49 and (b) a third-party notification procedure as specified in OII 49.

With regard to EDP expenses, SoCal argued that Hamamoto ignored the $2,788,000 in Account 903 for expansion of existing programs and with implementation of new programs. According to SoCal, the extraordinary items unrelated to customer growth are: added requirements attributable to the increased complexity of rate design, increased requirements in handling supplier refunds, report card billings, payment assistance programs, requirements under OII 49, and lifeline allowance audits. SoCal argued that Hamamoto ignored the increased employees needed to handle added emergency and safety matters, improvements in operating efficiencies, and increased requirements in historical data file maintenance.

We agree with staff that the growth in the work force needed to perform Customer Account functions should be related to customer growth. While SoCal has correctly pointed out that program work related to new accounts must also be added, it is also reasonable to expect that the company will adapt efficiently to new programs. Furthermore, the staff has provided a reasonable additional cushion by assuming a level of 1982 employee growth which substantially exceeds that which would be projected solely in terms of the assumed rate of customer growth. Accordingly, we will adopt the reduction proposed by staff.

3. Postage

SoCal included a projected increase of $2,461,000 in postage rates in its estimate of postage expenses. The staff estimate is based on existing rates.

SoCal argued that such an approach is unjustified and unreasonable. SoCal notes it lost nearly $1,000,000 in 1981 because in its last general rate case the Commission would not recognize the probability of a postage increase. SoCal submitted that such a situation should not be allowed to occur again and requested that a deferred or balancing account mechanism be authorized for postage increases.

We are generally opposed to a balancing account for postage because it would remove an incentive for SoCal to control this expenditure. There is no indication of any postal rate increase in 1983. The attrition allowance for 1984 should provide relief to SoCal if there is a postal rate increase. Accordingly, SoCal's request for a balancing account to accommodate postal rate increases is denied.

E. Administrative and General Expenses

Four SoCal witnesses covered Administrative and General (A&G) Expenses. J. Arthur Johnson, vice president, Industrial Relations, sponsored employee pensions and benefits. Samuel J. Cunningham, manager of Research, covered Research and Development expenses. John Patrick Garner, vice president, Public Affairs, testified on SoCal's Public Affairs activities. Robert L. Ballew, manager of Budgets and Financial Planning, had responsibility for all other items in this broad expense category.

Maurice F. Crommie, Research Analyst, sponsored Employee Pensions and Benefits for the staff and R. Donald McCrea, Associate Utilities Engineer, was the staff representative for all other A&G matters.

The staff and SoCal are $8.0 million apart in their respective estimates of total A&G expenses, $5.1 million of which is attributable to Employee Pensions and Benefits.

1. Account 920 - A&G Salaries

Staff noted that SoCal's estimate of total A&G expenses doubled between 1979 and 1983 with individual accounts increasing in some cases as much as four times their 1979 level. Staff argued that SoCal provided insufficient justification to adopt the SoCal estimate for certain categories. Staff found an unreasonable rate of increase in Account 920. Staff argued that this account formerly included expenses associated with SoCal's internal audit functions; that function is now performed by PLC with those expenses now included in Account 923. Staff witness McCrea testified that with the transfer of this major expense item he would have expected a sizable decline in Account 920 or at least escalation in this account at a rate less than inflation. Since no such decline was perceptible, McCrea concluded that the SoCal estimate was unreasonably inflated. Accordingly, he reduced SoCal's estimate by $900,000 to reflect this shift of internal audit functions.

SoCal argued that McCrea made no specific inquiry into the components of Account 920. SoCal witness Ballew testified that due to a transfer of functions, expenses associated with internal auditing were now estimaed in Account 923 (Outside Services) and not included in Account 920 as was the case in prior years.

SoCal argued that Account 920 contained these auditing expenses only through 1980. SoCal submits that inspection of the 1980 and 1981 numbers supports its position. Recorded numbers in Account 920 are $6,120,000 in 1979 and $6,669,000 in 1980. Expenses estimated for years 1981, 1982, and 1983 are $6,741,000, $7,657,000, and $9,671,000, respectively.

In its comments, SoCal failed to address adequately the point raised by the staff: namely, that the company is requesting a budget level which would reflect a better than 45% increase from 1980 to 1983 in an account which now supports fewer activities that it did in 1980. Under the circumstances, staff found this level of budget growth peculiar. SoCal's only explanation for the surprisingly large increase is that the growth level was inordinately low in 1981 (the first year in which internal auditing expenses were no longer reflected in this account). It does appear that the small 1981 expense increase is a product of the accounting shift. However, such a shift would not appear to require an "overcorrection" by assuming a much larger expense increase in 1982 and 1983. In fact, if the transitional year of 1981 was imputed to be a year of expense growth similar to 1980, the staff disallowance would still provide for over 9% annual expense growth from 1980 to 1983. Therefore, we find the staff disallowance to be reasonable.

2. Account 921 - Office Supplies and Expenses

The staff eliminated $3,100 for donations provided to Town Hall and the American Association of Blacks in Energy. Our treatment of dues, donations, and contributions is discussed under the Account 930 arguments. We will delete this amount from Account 921.

3. Account 922 - Administrative Expense Transfer

Account 922 is a credit account where a percentage of the expenses included in Accounts 920 and 921 are transferred to construction costs or to nonutility accounts. Thus, under normal conditions, the credit figure in Account 922 will increase or decrease in direct relation to increases or decreases to the sum of Accounts 920 and 921.

The adopted results for Account 922 will reflect the ratio used by SoCal, a credit equal to 3.43% of Accounts 920 and 921.

4. Account 924 - Property Insurance

The staff estimate is $22,800 lower than SoCal's. The difference is due to staff using SoCal's general guideline inflation rate in SoCal's Functional Account 9934.4. SoCal introduced Exhibit 71 to further explain the methodology used. However, the exhibit does not demonstrate why the guideline inflation rate was not used in Functional Account 9934.4. Accordingly, we will adopt the staff estimate adjusted to reflect the plant-in-service.

5. Account 925 - Injuries and Damages

The staff estimate is $161,000 lower than SoCal's. Staff made an adjustment in this account similar to the adjustment made in Account 924. According to staff, SoCal used unexplained escalation rates in estimating its subaccount, SoCal Functional Account 9934.4.

For the reasons discussed in Account 924, we will adopt the staff estimate.

6. Account 926 - Pensions and Benefits

The staff estimate is $5,073,000 lower than SoCal's due to the following adjustments:

5% Wage Limitation	$ 936,000
Benefits Elimination	1,268,000
5% Fewer Employees	2,869,000
	$5,073,000

As discussed above, we will not adopt staff's proposal for a 5% wage limitation on nonunion employee wages. Accordingly, we will not adopt the $936,000 adjustment related to this item.

Turning to the second item, staff proposed to reduce employee newsletter expense by over one-half and eliminate allowances for canteen operations, Disneyland and division picnics, Christmas turkey checks, management medical examinations, and employee clubs and activities.

SoCal argued that staff's rationale for disallowing such benefits is inadequate. SoCal witness Johnson indicated that a survey of benefits shows SoCal's employee benefits compare to those offered by comparable companies. While the type of benefits offered varies somewhat among companies, SoCal asserted its benefits are not excessive.

SoCal emphasized that it does not have an employee discount for gas service such as offered by other California utilities. SoCal estimated such a benefit would cost approximately $1 million if SoCal offered its employees a 25% discount on current gas rates. This amount approximates the costs of the benefits eliminated by staff. Given that, and in consideration of staff's agreement that it is appropriate for employees of the various utilities to receive somewhat equal employee benefits, SoCal argued its benefits package is reasonable.

Finally, SoCal argued that most of the programs recommended for elimination are benefits which accrue to union-represented employees. Even though they are not included in the collective bargaining agreements, such benefits, according to National Labor Relations Board (NLRB) rulings, may not, once granted be unilaterally withdrawn by management. Ford Motor Co. v NLRB (1979) 441 US 448 at 497.

We note the issue of employee discounts is being considered in a separate proceeding. However, it is not appropriate for SoCal to compare that benefit with the ones questioned by staff. In view of the hardships SoCal's ratepayers are experiencing from the dramatically increased costs of energy, it would be unfair for this Commission to pass through to them the costs of employees' Disneyland and division picnics, Christmas turkey checks, management medical examinations, and employee clubs and activities. Accordingly, expenses for these items will not be allowed for ratemaking purposes.

With regard to canteen operations, we will allow the amount of $121,115 which is the cost of providing facilities for employee lunch rooms and eating areas. The ratepayer should not have to subsidize the cost of food served in employee lunch rooms. Therefore, the amount of $164,260 for food subsidies will not be allowed.

Finally, with regard to employee communications, we recognize that some expenditures are necessary in order to promote employee efficiency and morale. The amount requested by SoCal is reasonable and will be adopted.

The policy covering the above adjustment is discussed in SDG&E D.93892 dated December 30, 1981, page 124. In sum, we will reduce SoCal's requested funding for employee benefits by $856,260.

The third item in dispute relates to pensions and benefits for the 502 employees staff deleted from SoCal's estimates. The adopted dollar amount for this item reflects the final results and related manpower levels adopted in the various estimates which affect this account.

7. Account 930 - Miscellaneous

The staff's estimate is lower than SoCal's due to the following differences:

AGA Dues	$ 260,000
Other Dues	114,000
RD&D	1,243,000
Miscellaneous	(40)
	$1,616,960

a. AGA Dues

Staff proposed a disallowance of AGA dues amounting to $260,000. The basis for the exclusion is stated in D.93887, where the Commission disallowed AGA dues in PG&E's last general rate case. We note the Commission issued a subsequent order on March 2, 1982, in which it added a finding of fact to support its disallowance of AGA dues. This finding of fact provided that "[t]he record does not support a conclusion that the dues PGandE pays to AGA... are of benefit to its ratepayers" (D.82-03-047, mimeo p. 7, Finding of Fact 107). Therefore, the issue in this proceeding is whether the dues SoCal pays to AGA provide a benefit to the ratepayer.

According to SoCal witness Garner the AGA provides a forum for SoCal and its employees to keep abreast of the latest thinking by the foremost industrial, professional, and technical experts involved in the natural gas industry. This relationship, Garner notes, led to an untold number of economies. Appendix 1 to Exhibit 140 lists some of the benefits SoCal believes have accrued to its ratepayers through AGA membership.

SoCal argued that if it were to discontinue its participation in this association, there would be substantial additional expense requirements to fill the void. The services and benefits flowing from AGA, Garner submitted, could not possibly be duplicated for the same cost. These benefits, Garner concluded, ultimately flow through to the ratepayer.

We are not convinced by SoCal's argument. As we see it, AGA is an association whose primary purpose is to promote the gas industry and the interests of its stockholders. Benefit flow-through to the ratepayer is incidental. Accordingly, we will adopt staff's recommendation.

b. Other Dues

The staff estimate is $114,000 lower than SoCal's. Staff stated that no dues and donations excluded in prior rate cases were included in this test year estimate. According to staff, SoCal has increased the number of organizations to which it contributes since the last rate case. Also, staff argued that donations to some of these organizations, such as ethnic, taxpayer, and environmental balance organizations, should not be billed to the ratepayers.

Staff referred to Pacific Telephone and Telegraph Co. v Public Util. Comm'n., 62 Cal 2d 634, in which the California Supreme Court upheld disallowances of dues to charitable and cultural organizations. Staff generated an internal position paper drawing the same conclusion (Exhibit 99). That paper recommends that dues and fees to trade, technical, and professional associations are appropriately included in rates.

SoCal argued that staff based its recommendation for disallowance merely on the name of the organization and made no separate investigation regarding the entities disallowed. SoCal argued that evidence it provided shows that the organizations are not in the categories deemed by the Supreme Court and the staff to be inappropriate.

We are concerned about the proliferation of the number of organizations which the ratepayer is being asked to support. Therefore, we will only allow a portion of SoCal's request at a level which should be adequate to reimburse SoCal for dues paid to the technical and professional organizations that will keep SoCal informed on topics directly related to its business. We note that in the last general rate case proceeding, we allowed SoCal $109,000 exclusive of AGA dues. We will allow SoCal the same level of expenditure last found reasonable. We note that SoCal did not provide enough evidence in this proceeding to justify its requested funding level for dues and donations. Further, SoCal, not staff, bears the responsibility to demonstrate that its proposed expenses are reasonable. We urge SoCal to make a more complete showing on this matter if it wishes to receive increased funding for these accounts in the future.

c. RD&D

This item was discussed previously.

I. Rate Base and Depreciation Expense

1. Overview

SoCal and staff agree on the gas plant in service amounts except for the difference related to inflation assumptions. SoCal's estimated weighted average gas plant in service amounts to $2,161,603,000 for SoCal and $389,735,000 for PLGS. The corresponding staff estimates are $2,148,394,000 and $391,745,000 for SoCal and PLGS, respectively.

The difference between SoCal's and staff's depreciation reserve amount is related to estimated gross salvage and removal costs and the level of depreciation expense. The company estimated weighted average reserves for SoCal and PLGS, respectively, amount to $817,400,000 and $101,755,000. Staff's estimates amount to $816,669,000 for SoCal and $101,767,000 for PLGS. Staff's gross salvage and removal cost estimates were based on more current data than SoCal's (Exhibit 40, page 16-6). Staff's depreciation expense of $89,825,000 for SoCal and $18,581,000 for PLGS differs from that of SoCal ($91,961,000 and $17,605,000 for SoCal and PLGS, respectively) for two reasons: (1) staff used different depreciable plant balances and (2) staff used different estimated future net salvage assumptions (Exhibit 40, pages 16-1, 16-2, and 16-8).

Staff and SoCal are in agreement with respect to average service life and mortality dispersion assumptions, including the changes proposed by SoCal (Exhibit 40, pages 13 and 15, Tables 1 and 2; Exhibit 19, pages 6-8).

In a letter to the Commission dated January 25, 1982, SoCal requested that it be allowed to revise the filing date for its annual submission of proposed depreciation accrual rates from on or before December 1 of the year prior to use, to on or before May 1 of the year the rates are to be effective. SoCal also requested a change in the procedure SoCal uses to record monthly depreciation accrual amounts to that used by PLGS. SoCal claimed the requested change will improve accuracy, increase productivity, and provide more time to review the impact on SoCal of Commission general rate case decisions prior to the preparation of depreciation accrual rates. Both changes would be effective beginning with test year 1983. Staff reviewed SoCal's request and recommended that the proposed changes be allowed (Exhibit 40, page 16-4). We will adopt staff's recommendations including the salvage assumptions.

2. The Effect of Removing LNG From Consideration in this Case

The application, as originally filed, included a request to place $141,687,000 of costs for the LNG project in PLGS' rate base as plant held for future use (Exhibit 2, Table 17-A).

Removal of the LNG request from this case, as discussed previously, reduces SoCal's test year 1983 revenue requirement by $32,690,000.

3. Effect of Commission Decision Modifying Main and Service Extension Allowances

In Exhibit 119, SoCal presented the effects resulting from D.82-04-068, changing the distribution main and service extension allowance rules. SoCal showed that during the first year the new extension allowance rules are in effect, its revenue requirement will increase $248,000 and in the next year the revenue requirement will decrease $2,772,000. SoCal witness Sanladerer explained that the first year the decrease in revenues related to a lower weighted average rate base, an amount which will be more than offset by an increase in income tax expense due to an increase in taxable income from new business service extension contributions, reduced investment tax credit, and lower tax depreciation (Exhibit 118). SoCal noted that while service extension contributions will continue to be taxable in the second year and thereafter, SoCal's revenue requirement will be lower because the cumulative reduction in the weighted average rate base will more than offset the increased income taxes.

There was no disagreement between SoCal and staff on this item. The attrition year adjustment would reflect this reduction in revenue requirement, except that D.82-04-068 has been stayed.

4. Working Cash Allowance

Both SoCal and staff used Standard Practice U-16 to estimate working cash allowance.

Legal Division argued that it might be less expensive to ratepayers to incur and expense transactional fees rather than capitalize the deposits necessary to avoid them.

The record in this proceeding is insufficient to decide this issue. We expect staff and SoCal to address this issue in SoCal's next general rate case proceeding.

J. Taxes

1. Ad Valorem Tax Expense

SoCal's test year estimate exceeds staff's by $224,000. This is primarily due to the estimated market value for the fiscal year 1982-1983. SoCal's estimated 1982-1983 market value after excluding a portion of the Ten Section project was $1.42 billion. SoCal later agreed that the market value would be $1.412 billion. The State Board of Equalization has determined the 1982-1983 market value for SoCal to be $1.4 billion (Exhibit 61). We will adopt the State Board of Equalization's figure for calculating ad valorem taxes and will also include the adopted plant additions in the allowance for those taxes.

2. Payroll Tax Expense

Staff recommended that payroll tax expense of $17,715,000 be allowed in test year 1983, $1,042,000 less than the final SoCal amount of $18,757,000. The major difference results from other staff witness' work force disallowances. Payroll tax expense will be adjusted to reflect the work force levels adopted in this opinion.

Part of staff's recommended reduction in payroll taxes is related to staff's proposal to limit the wage increase for nonunion employees. Since we do not adopt staff's wage limitation proposal, we need not address this issue further. We will allow recovery of payroll taxes based on total estimated wages.

3. Income Tax Expense

a. Recovery of Investment Tax Credit (ITC) Disallowed

This issue was raised in SoCal's previous general rate case where the Commission addressed the subject in D.92497 dated December 5, 1980:

> "SoCal has not yet been assessed any tax deficiency, nor has the ITC in question actually been disallowed by the IRS."

The Internal Revenue Service (IRS) has disallowed the 6% increment of ITC on distribution property in its audit of the years 1975 and 1976 (Exhibit 18, page 7). The appeals process from this disallowance is continuing. SoCal requested that the Commission state its position regarding any ITC disallowance by the IRS.

SoCal noted that its annual report contains the following statement:

> "'The additional investment tax credits allowed pursuant to the Tax Reduction Act of 1975 for distribution property placed in service from 1975 through 1980 are being accounted for on the basis that due to certain PUC orders the utility subsidiaries are probably not eligible for the credits. The balance of such credits of $24,155,000 at December 31, 1980 has been reclassified to deferred income taxes to reflect the probability that they will become payable to the Internal Revenue Service.'" (Pacific Lighting Corporation Annual Report for 1981).

Consistent with the holding of the California Supreme Court in Southern California Gas Co. v Public Util. Comm'n, (1979) 23 Cal 3d 470, 486 n.18, if the credit is eventually disallowed, thus increasing SoCal's tax liability, SoCal may petition the Commission for appropriate relief.

b. Normalization Required by the ERTA

Both SoCal and staff made their calculations according to the normalization requirements of the ERTA. In D.93848 dated December 15, 1981, we concluded that, subject to a transition rule, a normalization method of accounting must be used to maintain eligibility for accelerated cost recovery and ITC. Of the revenue increase authorized in this decision, staff estimates that approximately $22 million is attributable to ERTA.

4. Tax Equity and Fiscal Responsibility Act of 1982

On August 19, 1982, Congress passed the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA). The effect of TEFRA is to increase the utility's revenue requirement. For instance, the Federal Unemployment Tax base and rate have been increased and the act requires taxpayers using the ACRS method of depreciation to reduce the basis of the asset being depreciated by one-half of the ITC generated by the property being depreciated. There are also additional administrative and other costs associated with TEFRA.

We will incorporate the effects of TEFRA in the adopted results of operations.

K. Attrition Allowance

SoCal requested an allowance be made for financial and operational attrition in the year following the test year. Attrition occurs when there are insufficient increases in revenues and

productivity to offset increases in expenses, including the cost of capital and rate base occurring after the test year, thus causing a decline in rate of return in the year following the test year. Since the Rate Case Processing Plan allows the utilities to file for general rate relief every other year, the Commission has previously provided an allowance for attrition experienced by the utilities between the rate cases.

Both SoCal and staff agree that the most appropriate way to mitigate the impact of increased costs in the nontest year 1984, due to operational and financial attrition is to provide for a step rate attrition allowance to be effective January 1, 1984.

SoCal calculated 1984 attrition at $163.3 million to reflect increases in labor, nonlabor costs, rate base and related items, and for financial attrition (Exhibit 100). Staff reflected the same factors and calculated an allowance of $96.8 million for 1984 attrition (Exhibit 115). SoCal and staff assumed different test year expenses, plant levels, and general economic assumptions.

As discussed previously, the adopted indices for calculating the 1984 attrition allowance are: the current latest-available DRI CONTROL forecast, the CPI index, and the PPI index - Industrial Commodities without modification. On or about November 1 of test year 1983, SoCal shall file an advice letter amending upward or downward the attrition allowance specified in this order. At that time, the Commission may adjust the base to reflect changes in the DRI CONTROL forecast for 1982 and 1983.

Another area of disagreement between staff and SoCal is the rate base amount for the attrition year. SoCal used a least-squares trend to arrive at its rate base component. Staff used a five-year average of plant additions inclusive of 1979, 1980, and 1981 recorded and 1982 and 1983 projected additions. Staff figures reflect inflation. The staff approach is reasonable and we will adopt staff's estimate of rate base for the attrition year.

The adopted attrition allowance calculation is shown in the following table.

Southern California Gas Company

Attrition Allowance for 1984

Operational Attrition

1.	O&M Component			
2.	Labor	(343,947)* x CPI***	=	–
3.	Nonlabor	(109,783)**x PPI****	=	–
4.	Payroll Tax Component		=	[illegible],288
5.	Ad Valorem Tax Component		=	1,164
6.	Depreciation Expense Component		=	21,442
7.	Rate Base Component		=	28,377
8.	Income Tax Component		=	(20,475)
9.	Total Operational Attrition			–
10.	Financial Attrition		=	4,440
11.	Total Attrition			–

(Red Figure)

* (319,574) x (1983 escalation factor 7.625%) = 343,947
** (104,257) x (1983 escalation factor 5.3%) = 109,783
*** 1984 inflation factor based on the latest DRI forecast
**** 1984 inflation factor based on the latest DRI forecast.

XI. Rate Design

A. SoCal's Proposal for Wholesale Customers

On April 30, 1982, the ALJ ruled that the scope of the rate design issues in the case would be limited to receiving evidence on the wholesale customers' capacity charges. Under this ruling, SoCal's witness Scalf prepared a Base Supply and Load Equation (BS&LE) cost allocation study (Exhibit 102) which was then used by SoCal witness Benz to calculate the "percent of margin" figures for the two wholesale customers, SDG&E and Long Beach (Exhibit 107). We will use these "percent of margin" figures to compute the wholesale customers' capacity charges based on the margin to be authorized in the decision in this case (Exhibit 103, pages 8-9).

In adopting SoCal's BS&LE cost study for this proceeding, we note that in D.92497 in SoCal's 1981 general rate case, we stated:

> "[W]e are attracted by the simplicity of SoCal's proposal to use the percentage relationship between the wholesale share of the margin based on the BS&LE cost allocation methodology and the total proposed margin applied to our adopted margin." (D.92497, mimeo page 142).

SoCal's wholesale customers generally accepted the BS&LE study prepared by Scalf. Both SDG&E and Long Beach cross-examined SoCal's witnesses to make sure that they were not charged twice for certain costs they incur in their operations. The costs that concerned SDG&E and Long Beach were, for example, conservation costs, overpressure protection costs, PCB costs, distribution costs, and uncollectible costs. Cross-examination of Scalf showed that none of these costs were allocated to the wholesale customers.

SDG&E pointed out that SoCal witness Brady revised his projection of well repairs resulting in a reduction of $11,986,400 to $10,208,000. SDG&E requests that this reduction be recognized in the final figure.

SoCal argued that by conveniently choosing a single item to revise the BS&LE results, SDG&E ignored other adjustments which, if reflected in a completely revised BS&LE study, would increase the figure otherwise developed for SDG&E. SoCal noted that a complete revised BS&LE study to reflect its final revenue requirement was not prepared because of its time-consuming nature. We agree with SoCal. The BS&LE study, as submitted, is reasonable for this proceeding. Accordingly, we will adopt SoCal's percent of margin figures as discussed below.

The derivation of the percentage relationships between SDG&E's and Long Beach's share of margin and the total proposed margin is shown in Exhibit 107. The percentages of margin derived in

that exhibit (excluding LNG and Ten Section costs) of 2.2155% and .4596% for SDG&E and Long Beach, respectively, are similar to percentages of margin developed in SoCal's 1981 general rate case of 2.2269% and .4581% (D.92497, mimeo page 143).

The figures of 2.2155% and .4596% should be used to derive the wholesale customers' capacity charges for test year 1983. For example, if the total authorized margin were to be, say, $1,000,000,000 (consisting of the currently authorized margin of $725 million plus the margin increase adopted in the test year 1983 decision), then SDG&E's capacity charge would be $22,155,000 annually, and on a monthly basis $1,846,250.

B. Further Rate Design Considerations

The Commission will examine existing rate design in SoCal's October 1982 CAM proceeding. The revenue requirement adopted in this proceeding will be combined with the revenue requirement adopted in the CAM proceeding and the total will be spread in accordance with our findings in the CAM proceeding.

XII. Findings and Conclusions

A. Findings of Fact

1. SoCal is in need of additional revenues but SoCal's amended request of $414 million is excessive.

2. The recommendations of the parties to this proceeding for return on equity are too high. The evidence in this proceeding supports a lower return on equity.

3. A rate of return of 12.80% on the combined adopted rate base is reasonable. Such a rate of return will provide a return on equity of approximately 15.75% and a times-interest coverage (after tax) of 2.19. This return on capital is the minimum needed to attract capital at a reasonable cost and not impair SoCal's credit.

4. To earn a 12.80% rate of return on the adopted rate base, SoCal's base rates need to be increased effective January 1, 1983 by $219,798,700.

5. An allowance for operational and financial attrition is necessary for SoCal to offset increased costs in the second year during which the new rates will remain in effect. Providing a step-rate increase effective January 1, 1984 is a reasonable means to properly reflect these increases in cost.

6. It is difficult to estimate the appropriate escalation factors for labor and nonlabor expenses for the attrition year. Therefore, the adoption of an indexing procedure for determining the 1984 attrition allowance is reasonable to protect SoCal as well as the ratepayer, from over or underestimates of the labor and nonlabor escalation factors.

7. The DRI CONTROL forecast is a published index and is reasonable for use in calculating SoCal's attrition allowance for 1984.

8. The actual amount of SoCal's attrition allowance for 1984 is best determined following the filing of an advice letter by SoCal on or before November 1, 1982, based on the attrition allowance calculation adopted in this decision, adjusted to reflect the latest available DRI CONTROL forecast for the CPI-All Urban Consumers index and the PPI - Industrial Commodities index for 1984. The base may also be adjusted to reflect changes in those indices for 1982 and 1983.

9. It is reasonable to adopt the staff methodology for estimating rate base increase in the attrition year.

10. SoCal's request totaling $39 million for 1983 conservation program expenditures is excessive in view of a projected 1983 revenue requirement of $76.3 million for CCA funded conservation programs. It is therefore reasonable to make a significant reduction to SoCal's request in this proceeding.

11. The amount authorized in this proceeding for conservation programs, together with the amounts funded through CCA rates will enable SoCal to continue an effective conservation program in 1983.

12. It is reasonable to allow SoCal discretion to allocate up to $1.0 million among adopted individual conservation programs. Any funds not spent during the year shall be carried forward for future use in conservation activities.

13. The solar/gas conservation program should be discontinued because the program is largely an advertising effort, and is not cost-effective to all ratepayers. Ratepayers already have a substantial commitment to solar energy use in the Solar Water Heater Demonstration Financing program.

14. The appliance efficiency program should be discontinued because the program relies heavily on advertizing and is not cost-effective to all ratepayers.

15. SoCal's request for the Conservation Education program is excessive. However, some funding to develop the energy habits of elementary and secondary school students is needed.

16. SoCal's funding request for the Energy Efficiency Audits program is excessive. The cost effectiveness of this program will be improved by eliminating certain activities within the program.

17. The New Commercial Customer Conservation Program should not be funded because of its high cost and the questionable cost-effectiveness.

18. The cogeneration program which has been funded since 1979 has provided no results so far and the prospects for the future indicate no change. There is no justification to continue funding.

19. The benefits to the ratepayer from the Residential New Construction Service to Customers program are very uncertain. There is no justification to have the ratepayer fund this program.

20. The RD&D expenditure level adopted is reasonable and will allow SoCal to continue its programs at about the same level as in the past.

21. The expenditure levels adopted in the results of operations are reasonable and will permit SoCal to earn its authorized rate of return in the test year if SoCal prudently manages its operations.

22. The wage increase negotiated by SoCal for 1983 and 1984 is reasonable for use in calculating expenditure levels for the test year and attrition year.

23. SoCal's request to annualize wages should be rejected since rate relief is granted at the onset of the test year.

24. Based on the November DRI CONTROL forecast, it is reasonable to adopt a nonlabor escalation rate of 2.7% for 1982 and 5.3% for 1983.

25. The use of the November DRI CONTROL forecast to establish nonlabor escalation rates is reasonable.

26. SoCal could have estimated gas losses from surface leakage incidents and plant blowdowns. It is not reasonable for the ratepayer to bear the consequences of SoCal's lack of diligence in pursuing recovery of these expenses which occurred prior to the test year.

27. SoCal should not receive funding for pre-1983 losses due to migration of gas outside its storage fields. It is, however, reasonable to allow recovery for these types of losses in the future by means of a deferred account.

28. The ratepayer should not have to fund AGA dues since the primary purpose of the AGA is to promote the gas industry and the interests of its stockholders. The benefit flowed through to the ratepayer is incidental.

29. SoCal did not demonstrate the reasonableness of its funding request for dues and donations. It is reasonable to allow SoCal no more than the amount authorized in SoCal's last general rate case for expenses related to Other Dues. That amount is $109,000.

30. Since the reasonableness of all Ten Section expenses will be the subject of a separate proceeding, it is reasonable to allow SoCal a balancing account procedure to reflect operating expenses for withdrawal of the cushion gas.

31. It is reasonable to treat Ten Section cushion gas as gas in storage since this gas will be available for use by SoCal's ratepayers in the test year.

32. The adopted treatment of Ten Section expenses in the test year should not in any way constitute a prior approval of the reasonableness of any of the expenditures.

33. Because of the uncertainty of the date of implementing the proposed Federal Survey Regulations for gas leaks, it is reasonable to allow SoCal to establish a deferred account so that any expenses incurred in the test year could be recovered in SoCal's next general rate case proceeding.

34. Because of the difficulty in estimating PCB related expenses in the test year, it is reasonable to allow SoCal $3.0 million in expenses at this time and this amount will be adjusted for over or under expenditure in SoCal's next general rate case proceeding.

35. The percentage of margin figures of 2.2155% and 0.4596% should be used to derive the test year 1983 wholesale customer capacity charges for SDG&E and Long Beach respectively. These percentages do not include LNG and Ten Section costs.

B. Conclusions of Law

1. When SoCal is authorized to file revised gas rates pursuant to its CAM filing, it should be further authorized to file gas rates designed to generate the $219,798,700 in additional 1983 test year gross revenues based on our adopted results of operation in this proceeding.

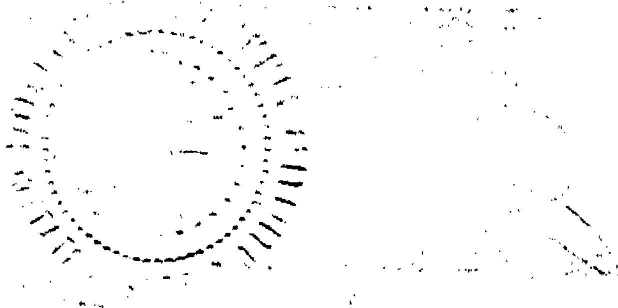
2. The effective date of this order should be the date it is signed because there is immediate need for rate relief concurrently with the commencement of the 1983 test year under to the Commission's Rate Case Processing Plan.

3. SoCal should be authorized to file revised gas rates to be effective January 1, 1984 to generate additional revenues based on our calculation for attrition as set forth in this opinion, adjusted to reflect the latest available DRI Control forecast for the CPI - All Urban Consumers index and the PPI - Industrial Commodities index for 1984.

O R D E R

IT IS ORDERED that:

1. Southern California Gas Company (SoCal) is authorized an annual increase in gross revenues in the amount of $219,798,700. This increase in gross revenues will be deferred to SoCal's CAM A.82-09-12 for inclusion with the rate relief authorized in that decision.



2. SoCal is authorized to file an advice letter on or before November 1, 1983 for increased rates to offset financial and operational attrition consistent with the discussion set forth in this opinion. Such rates shall not be effective before January 1, 1984.

This order is effective today.

Dated December 8, 1982, at San Francisco, California.

JOHN E. BRYSON
President
RICHARD D. GRAVELLE
LEONARD M. GRIMES, JR.
VICTOR CALVO
PRISCILLA C. GREW
Commissioners

I concur and dissent in part.

/s/ RICHARD D. GRAVELLE
Commissioner

I CERTIFY THAT THIS DECISION WAS APPROVED BY THE ABOVE COMMISSIONERS TODAY.

Joseph E. Bodovitz, Executive Director

APPENDIX A

LIST OF APPEARANCES

Applicants: David B. Follett, John S. Fick, Robert B. Keeler, Jeffrey E. Jackson, and Robert M. Loch, Attorneys at Law, for Southern California Gas Company and Pacific Lighting Gas Supply Company.

Protestants: Herman Mulman, for Seniors for Political Action; and James Dycus and Virgil Ed Duncan, for themselves.

Interested Parties: Michel Peter Florio, Sylvia M. Siegel, Robert Spertus, Attorneys at Law, for Toward Utility Rate Normalization: Kenneth A. Strassner, Attorney at Law, for Kimberley Clark Corporation; J. Marc McGinnes, Attorney at Law, for Santa Barbara Indian Center; Mike Papazian, for Sierra Club; William L. Knecht, Attorney at Law, by Philip C. Presber, for California Association of Utility Shareholders; Graham & James, by Thomas J. MacBride, Jr., Attorney at Law, for Simcal Chemical Company and Union Chemical Division of Union Oil; Antone S. Bulich, Jr., Attorney at Law, for California Farm Bureau Federation; Richard L. Hamilton, Attorney at Law, for Western Mobilehome Association; Halina F.Osinski, Attorney at Law, for California Community & Junior College Association; Harry K. Winters, for University of California; Henry F. Lippitt, 2nd, Attorney at Law, for California Gas Producers Association; Martin E. Whelan, Jr., Attorney at Law, for Tehachapi-Cummings County Water District; Brobeck, Phleger & Harrison, by Gordon E. Davis, William H. Booth, and Richard C. Harper, Attorneys at Law, for California Manufacturers Association; John W. Witt, City Attorney, by William S. Shaffran, Deputy City Attorney, for City of San Diego; Robert W. Parkin, City Attorney, by Richard A. Alesso, Deputy City Attorney, for City of Long Beach; John R. Bury, H. Robert Barnes, Larry R. Cope, Susan Magid Beale, and Susan L. Stewhauser, Attorneys at Law, for Southern California Edison Company; Gregg Wheatland, Attorney at Law, for California Energy Commission: Randall W. Childress, Jeffrey L. Guttero, and William Reed, Attorneys at Law, for San Diego Gas & Electric Company; Downey, Brand, Seymour & Rohwer, by Philip A. Stohr, Attorney at Law, for General Motors Corporation, Otis M. Smith, General Counsel, and Julius Jay Hollis, Esq.; John L. Mathews, Attorney at Law, for Federal Executive Agencies; Manuel Kroman, for himself; Ira Reiner, City Attorney, by Ed Perez, Deputy City Attorney, for City of Los Angeles; and Stephen P. Crouch, for Los Angeles Department of Water and Power.

Commission Staff: Michael B. Day and Alvin S. Pak, Attorneys at Law, and A. V. Garde.

(END OF APPENDIX A)

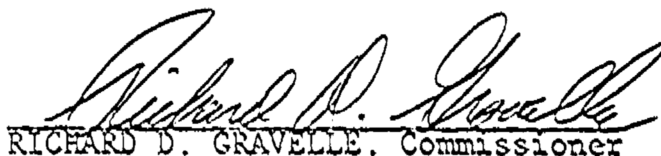
RICHARD D. GRAVELLE, Commissioner, Concurring and Dissenting:

I concur in today's decision, except for two items, on which I respectfully dissent.

First, despite the very small amount of money involved, I cannot accept the decision to allow SoCal $109,000 for "Other Dues." The actual record in this case does not disclose the organizations for which dues are allowed. However, staff's work papers - admittedly outside the official record - show that SoCal and staff both would have the Commission approve in rates donations to such organizations as: California Taxpayers Association, Capital Legal Foundation, Conference Board, Inc., National Business Aircraft Association, Inc., Pacific Legal Foundation, San Bernardino County Taxpayers' Association (as well as Kern, Santa Barbara and Ventura County Taxpayers' Associations), and World Affairs Council, to name but a few. However worthy these and other organizations may be, I cannot find a link which relates their purposes to ratepayer interests. In my view SoCal did not meet its burden on these matters. Rather than consume valuable hearing time on such trivial expenses, I would simply disallow such dues as a general rule. Shareholders can direct management regarding the extent to which they wish their money spent for such dues.

Second, before approving $8,225,000 for SoCal's RD&D program, I would apply the majority's "invitation" (ante, p.49) to staff and SoCal to apply the guidelines we recently approved in D.82-12-005 in OII 82-08-01 to the specific RD&D projects for which SoCal requests ratepayer support. The main thrust of those guidelines is to force the utility to prioritize its RD&D projects in terms of their benefit to ratepayers and their relationship to the utility's resource plan. After reviewing SoCal's workpapers for the 42 RD&D projects which the majority approve, I cannot discern a sound basis

for allowing or disallowing any RD&D expense. Absent the justification which D.82-12-005 requires, I would apply the staff's proposed across-the-board cuts to insure that SoCal pursued only the most beneficial RD&D projects.



RICHARD D. GRAVELLE, Commissioner

San Francisco, California
December 8, 1982

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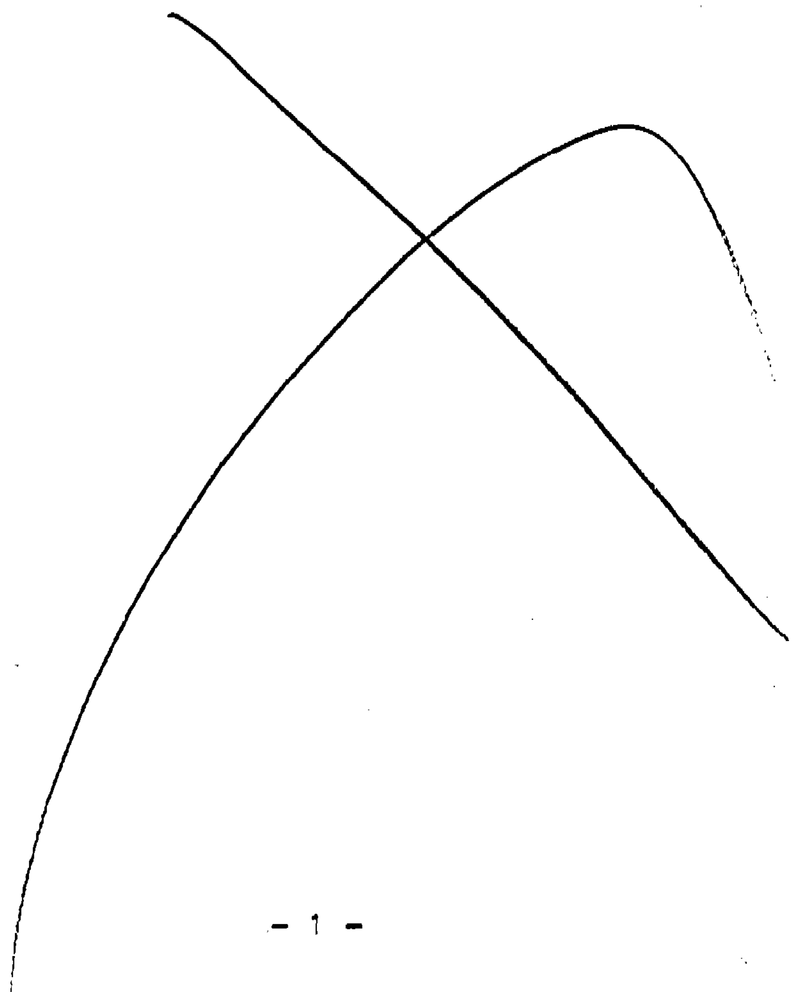
Decision 82 12 054 DEC 8 1982

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Joint Application of SOUTHERN CALIFORNIA GAS COMPANY and PACIFIC LIGHTING GAS SUPPLY COMPANY for authority to increase rates charged for gas service based on test year 1983; to include an attrition allowance for 1984; to include in rates a reward for conservation achievements; and to include in rate base held for future use the expenditures associated with a major gas supply project.	Application 61081 (Filed November 30, 1981)

(Appearances are listed in Appendix A.)



O P I N I O N

Southern California Gas Company (SoCal) and Pacific Lighting Gas Supply Company (PLGS) request general rate relief amounting to $567 million in additional annual revenues beginning January 1, 1983, and a step rate earnings attrition adjustment of approximately $207 million, to be effective January 1, 1984.

During the pendency of the case certain events occurred which had the effect of reducing the $567 million increase originally requested to $414 million. Likewise, the 1984 requested attrition allowance was reduced from $207 million to $163 million. These changes are discussed in the procedural summary section.

I. Summary of Decision

This decision authorizes an increase of $____________ in gross revenues for 1983 and an additional increase of $____________ in 1984.

SoCal's base rates were set two years ago in its last general rate case proceeding. The increase authorized today offsets increases in SoCal's costs of doing business which have occurred since then. The principal items which have contributed to the increases are: inflation which affects costs of operating and maintaining SoCal, escalation in the cost of capital which SoCal must borrow to expand and replace its facilities, and increases in wages and benefits of SoCal employees. Not included is the cost of gas.

One of the major items in this proceeding is the return on equity which is the profit left to common shareholders after all expenses, interest costs, and preferred stock dividends are paid. SoCal requested a return on equity of 20% and argued that such a return is necessary in order to compete in the financial markets.

Equity is a riskier investment than utility long-term debt and, therefore, requires a somewhat higher return. While there has been significant reduction in short-term interest rates at this time, the same cannot be said for long-term rates. Long-term A-rated utility debt has recently been commanding interest rates of 14% to 15%. We recognize that SoCal must turn to these same financial markets to raise funds. Accordingly, we grant SoCal a _____% return on equity.

During the proceeding SoCal informed the Commission that it had discontinued development of its Ten Section underground gas storage project. SoCal cited substantial increase in costs and a more favorable gas supply outlook than when the project was initiated. SoCal stated that the final decision whether or not to proceed with the project will be made later. In the meantime, SoCal's rate request was modified to reflect the changed plans for Ten Section, which will be limited to removal of cushion gas now stored in the field.

We denied SoCal's request to consider expenditures related to the Point Conception Liquefied Natural Gas (LNG) Project. All LNG project costs will be considered in a separate proceeding.

Rate design is considered in the decision issued today covering SoCal's October Consolidated Adjustment Mechanism (CAM) application.

As a result of this general rate increase, an average residential customer's heating season gas bill of _______ therms will increase from $_______ to $_______. An average summer bill of _____ therms will increase from $_______ to $_______.

II. SoCal's Present Operations

SoCal is a public utility engaged in purchasing, distributing, and selling natural gas to customers in the Counties of Los Angeles, Fresno, Imperial, Kern, Kings, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara, Tulare, and Ventura. SoCal also sells gas at wholesale to the Municipal Gas Department of the City of Long Beach and to San Diego Gas & Electric Company (SDG&E).

SoCal owns underground storage fields at Playa del Rey and Honor Rancho in the Los Angeles area. SoCal, under its contract with PLGS, operates storage reservoirs owned by PLGS at Goleta, Montebello, East Whittier, Aliso Canyon, and Ten Section.

As of December 31, 1980, SoCal's transmission system consisted of 2,270 miles of pipelines. Its distribution system contained 34,412 miles of various size mains and its 3,036,480 gas services supplied 3,793,062 active meters.

The capital stock of SoCal is 93% owned by Pacific Lighting Corporation (PLC), a holding company which also owns all of the outstanding capital stock of PLGS. PLC also owns 28 nonregulated subsidiaries engaged in utility-related enterprises such as the exploration, development, transportation, and sale of natural gas, coal gasification companies, and equipment leasing, and in nonutility enterprises such as mortgage loan servicing, building construction, real estate development, furniture sales, and agricultural growing.

PLGS is a public utility engaged in acquiring, transporting, storing, and selling natural gas for resale exclusively to SoCal, the distributing affiliate. PLGS sells gas to SoCal under a cost of service tariff authorized by Decision (D.) 76598 dated December 23, 1969, and subsequently modified from time to time. Included in the cost of service is the rate of return found reasonable by the Commission for SoCal.

As of December 31, 1980, PLGS owned 915 miles of natural gas transmission pipelines, including 19 miles owned jointly with SoCal. PLGS also owns the Ten Section underground storage field in Kern County.

SoCal and PLGS purchased gas in 1979 from various California sources, including Pacific Gas and Electric Company (PG&E), and from out-of-state sources such as El Paso Natural Gas Company (El Paso), Transwestern Pipeline Company (Transwestern), Federal Offshore, and Pacific Interstate Transmission Company.

III. Procedural Summary

Under the "Regulatory Lag Plan for Major Utility General Rate Cases" adopted by the Commission, SoCal tendered its Notice of Intention (NOI) on September 1, 1981, informing this Commission that it intended to file a general rate increase application based on the results of operations for test year 1983. The NOI was accepted for filing effective October 1, 1981, and docketed as NOI 59. The application which was designated as Application (A.) 61081 was filed on November 30, 1981. It requested general rate relief amounting to $567 million in additional annual revenues beginning January 1, 1983, and a step rate earnings attrition adjustment of approximately $207 million, to be effective January 1, 1984.

During the evidentiary hearings certain events occurred which caused SoCal to reduce its request.

The administrative law judge (ALJ) granted a staff motion against taking evidence on SoCal's proposal regarding its LNG Project. Also, the ALJ deferred any determination of SoCal's conservation reward until after a decision was issued by the Commission in its rehearing of the reward/penalty conservation incentive concept in the PG&E 1981 general rate case A.60153.

In addition, SoCal revised its plans regarding the development of the Ten Section underground storage project and presented evidence on the impact of the revision.

Also, SoCal introduced evidence showing the impact of its April 1, 1982 wage settlement for the years 1982 and 1983. Further evidence was introduced by SoCal to show the impact of lower inflation estimates for 1982 and 1983.

SoCal stipulated to certain adjustments. The details of all the adjustments are set forth in the comparative exhibit (Exhibit 141). The net impact of all these changes was to reduce SoCal's requested revenue increase in this proceeding from $567 million to $414 million. The requested 1984 attrition allowance changed from $207 million to $163 million.

Public witness hearings were held on March 1, 2, and 3, July 7, and August 12, 1982, in Los Angeles. Evening sessions were conducted at the March 1, July 7, and August 12 hearings. A prehearing conference, with Commissioners Calvo and Grew in attendance, was convened on March 4, 1982. Evidence was taken in Los Angeles and San Francisco during 38 days of hearings commencing March 8, 1982, and concluding July 7, 1982. This matter was submitted subject to the filing of opening and reply briefs on August 3, 1982, and August 20, 1982, respectively, and pending oral argument set for August 13, 1982, before the Commission en banc.

Opening and/or reply briefs were received from SoCal, the Commission staff (staff), City of San Diego (San Diego), City of Long Beach (Long Beach), City of Los Angeles (LA), Executive Agencies of the United States Government (Federal Agencies), SDG&E, California Manufacturers Association (CMA), Tehachapi-Cummings County Water District (Tehachapi), and California Association of Utility Shareholders (CAUS).

Transcript corrections were received from SoCal, the staff, and Toward Utility Rate Normalization (TURN). These corrections are incorporated in the record.

IV. Public Witness Statements

During the public witness hearings, 62 persons made statements. All but one public witness opposed granting the requested rate increase. The public witnesses explained the economic hardships they have suffered as a result of the 1981-1982 recession and the recent spate of dramatic utility rate increases. An oft-repeated theme was that it seemed incongruous that during a time of such economic calamity SoCal would request such a large rate hike.

Most ratepayers complained bitterly about the number of rate increases permitted every year. They were particularly concerned with the inability of senior citizens or those on low or fixed incomes to pay continued utility increases.

Some witnesses expressed strong sentiments concerning SoCal's requested conservation reward which was later withdrawn from this proceeding. Conservation, they explained, has little to do with SoCal's market services. Rather, they contended, conservation was the product of their inability to afford the energy to warm their homes, cook their food, or heat their water. If there should be a reward for conservation, the public witnesses suggested it should be in the form of lower rates for the consumers who have previously suffered the discomfort of higher billings despite their lower consumption. Some testified that they had heeded SoCal's insulation recommendations only to discover that, in addition to now having to pay for insulation loans, their bills were still climbing faster than their paychecks.

Other concerns noted by the public witnesses are:

- Public witness hearings should be held in every location in the service territory, not just in Los Angeles.

- Hearings affecting southern California customers should not be held in San Francisco because the ratepayer pays the cost of travel to San Francisco of both company and staff personnel and is deprived of the opportunity to attend the hearings.
- Utility employees, like employees in other industries, should limit or forgo wage increases because of the hard economic times.
- Higher gas bills would result in an unending inflationary cycle.
- Conservation advertising is unnecessary and a waste of money.
- People's ability to pay has reached its limits and consideration should be given to human needs.
- SoCal was seeking too high a return on its investments.
- Rate increases should be limited to increases in the Consumer Price Index (CPI).
- SoCal crews could operate in a more efficient manner and SoCal should tighten its belt.
- Excessive research and development expenditures often duplicative of research undertaken elsewhere should be eliminated.
- The inclusion in revenue requirement for ratemaking purposes of federal and state income taxes which are not in fact paid is not appropriate.
- Test year 1983 is so far in the future that anticipated inflation in the estimates may not occur.

State Senator Alan Robbins also spoke in opposition to the rate increase. He requested that the Commission require SoCal to find efficiencies within its current budget to continue operations rather than grant the rate increase. State Assemblyman Richard Katz expressed his concerns regarding both the Washington Administration's policy related to the decontrol of natural gas prices at the wellhead and the Economic Recovery Tax Act of 1981 (ERTA) which enables the utility to avoid flowing through tax benefits to the ratepayer.

Ronald O. Snyder, general manager of the Public Services Department of the City of Burbank (BPSD) also testified. The BPSD is a municipal utility providing electric and water service within the City of Burbank. BPSD receives gas service from SoCal under the electric generation schedules. Snyder stated that the City Council has voted to protest the requested rate hike since it would lead to an increase in local electric rates. He also stated that in the event the Commission were to grant it a reduced rate for GN-5 gas, the City of Burbank would pass the reduction on to its electric customers in the form of lower rates.

Despite the vigorous opposition to the proposed rate increase, the general consensus is that SoCal provides good service.

Approximately 600 letters and several petitions were received by the Commission and are a part of the formal file in this proceeding. The letters and petitions addressed the same concerns to which the public witnesses spoke. We will consider all of these concerns in our disposition of this matter.

V. Rate of Return

The determination of a fair and reasonable rate of return by this Commission is not the result of a rigid technical formula but rather a judgmental decision reached after evaluating the evidence.

The United States Supreme Court has established guidelines for ratemaking bodies in their determination of the just and reasonable rate of return for regulated utilities. Broadly defined, the revenue requirement of utility companies is the minimum amount which will enable the company to operate successfully, to maintain its financial integrity, and to compensate its investors for the risks they assume (Federal Power Commission v Hope Natural Gas Company (1944) 320 US 591, 88 L ed 333, 64 S.Ct. 281), and which will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally

being made at the time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties (Bluefield Waterworks & Improvement Company v West Virginia Public Service Commission (1923) 262 US 679, 67 L ed 1176, 43 S.Ct. 675).

The court has also made it clear that the fixing of just and reasonable rates involves a balancing of the investor and consumer interests (Hope, supra, at 603).

We will follow the above guidelines in determining a reasonable rate of return for SoCal.

SoCal and PLGS are treated in portions of this decision as though they were a single entity because they essentially operate as a single unit. This Commission has for a number of years considered their capital structure and financial requirements on a consolidated basis for determining rate of return. The following discussion continues that treatment, including both under the single designation SoCal.

Showings on rate of return were presented by SoCal, staff, LA, Federal Agencies, and CAUS. The rate of return studies received in evidence in this proceeding recommend:

	Return on Equity Recommendation
Ernst & Whinney (SoCal Consultant)	21.00%
SoCal	20.00
CAUS	20.00
Staff	16-3/4 - 17-1/4
LA	16.00
Federal Agencies	15.90

In its last general rate case, based on a 1981 test year, SoCal was authorized a 14.6% return on equity.

SoCal's financing plans, after the reduction due to discontinued development of Ten Section, call for the issue of $90 million in debt and $70 million in equity in 1983 with $170 million of debt and $150 million of equity in 1984 (Exhibit 81, Table 5-Alt.). Both SoCal and staff used an average year capital structure. Except for the minor differences discussed below, SoCal and staff used the same financing plan and in general agree on the proportions of capital. The following table summarizes the capital structures and rates of return recommended by SoCal and staff for test year 1983 and for 1984.

Embedded Cost of Long-Term Debt

SoCal and staff assumed different long-term debt coupon rates for future issues. This resulted in different estimates of embedded interest costs. SoCal assumed a 15% interest rate for long-term debt for years 1982-1984. This rate represented the bond market conditions for long-term debt issues of gas utilities at the time SoCal prepared its case. Staff assumed coupon rates of 15%, 14%, and 13% for 1982 through 1984, respectively. These rates were based on a review of historical data and a Data Resources, Inc. (DRI) interest rate forecast.

The 1982 debt financings estimated by SoCal and agreed upon by the staff have since been issued. Accordingly, we will reflect the actual coupon rates of 15-3/4% for the $60 million Series P issue and 14-3/4% for the $50 million Eurodollar financing in our calculation of SoCal's embedded cost of debt.

SoCal's assumption that long-term debt will remain at a constant 15% through the 1983 and 1984 period as well as staff's estimate of 14% for 1983 is not supported by recent published financial forecasts. Interest rates have declined since the submission of this proceeding and recent financial forecasts indicate that rates for 1983 will not approach the levels forecasted by both SoCal and staff. For 1983 we will adopt a 13% rate for long-term financing. For 1984 we will adopt staff's estimate of 13%.

Test Year 1983

	SoCal			Staff		
	Percent	Cost %	Weighted Cost %	Percent	Cost %	Weighted Cost %
Long-Term Debt	45.70	11.60	5.30	46.50	11.19	5.20
Commercial Bank Loan	3.80	14.00	.53	3.25	14.00	.46
Banker's Acceptances	2.20	17.00	.37	2.00	14.00	.28
Preferred Stock	7.10	5.47	.39	6.25	5.47	.34
Common Stock Equity	41.20	20.00	8.25	42.00	17.00	7.14
Total Capital	100.00		14.84	100.00		13.42
Times Interest Earned (After Tax)			2.39x			2.26x
1984						
Long-Term Debt	47.10	12.17	5.73	46.50	11.50	5.35
Commercial Bank Loan	3.50	14.00	.49	3.25	14.00	.46
Banker's Acceptances	2.00	17.00	.34	2.00	14.00	.28
Preferred Stock	6.60	5.47	.36	6.25	5.47	.34
Common Stock Equity	40.80	20.00	8.16	42.00	17.00	7.14
Total Capital	100.00		15.08	100.00		13.57
Times Interest Earned (After Tax)			2.30x			2.23x

Note

Table reflects:

1. Discontinued development of Ten Section.
2. Actual cost of SoCal's Series "P" First Mortgage Bonds issued April 1, 1982. Also, $50 million of Eurodollar financing issued September 1, 1982 is included.
3. Staff's recommendation is based on the midpoint of its recommended return on equity.

Commercial Bank Loan

This item in SoCal's capital structure refers to a $70 million bank note for an eight year term. The interest rate is based on the prime rate plus a variable premium. Both SoCal and staff used a 14% rate for 1983 and 1984. Recent financial forecasts indicate that interest rates will not approach the levels forecasted by SoCal and staff. We will adoopt a rate of 13% for 1983 and 12% for 1984.

Banker's Acceptances Interest Rate

Staff assumed banker's acceptances interest rates of 15% and 14% for 1983 and 1984, respectively, after a net downward adjustment of DRI's projected prime rate for the respective periods. SoCal assumed a banker's acceptances interest cost of 17%. According to SoCal, banker's acceptances are sold on a discounted basis and after consideration of this discount and commission, the cost to SoCal has approximated the prime rate.

We note there has been a drop in the prime rate since SoCal and staff prepared their estimates. Recent financial forecasts predict lower prime rates. Therefore, we will adopt a banker's acceptance rate of 12% for 1983 and 1984.

Position of SoCal

SoCal's rate of return testimony was presented by John C. Abram, Chairman of the Board and chief executive officer, and George L. Jahelka, financial analysis manager in the Regulatory Affairs Department.

SoCal stated its primary objective in these hearings is to be granted a rate of return that will allow it to maintain its credit rating and to attract capital on reasonable terms. SoCal contends that in order to achieve these objectives, reduction of interest coverages must be avoided. SoCal further contends a 20% return on equity is required to maintain the current indicated coverage ratios found reasonable in its last general rate case, given the increasing costs of senior debt.

SoCal argued that the current state of the economy warrants a 20% return on equity and that it would fairly balance the interests of ratepayers and shareholders. SoCal emphasized that a market-to-book ratio of one is a true indication that it is earning at its cost of capital. According to its analysis, SoCal's stock can only be expected to sell at or above book value if it is authorized a 20% return on equity.

SoCal stressed the changed risk situation it now faces. SoCal stated its risks have increased as a result of the Commission's imposition of a $35 million penalty, uncertainty with respect to future discretionary gas purchases, rapidly escalating price conditions, increasing undercollection in its CAM and Conservation Cost Adjustment (CCA) balancing accounts, the high level of legislative activities, potential load loss as a result of rate design, delays in CAM adjustments that result in net operating losses for income tax purposes, and the company's cash flow problems and short-term debt.

SoCal agreed that certain risk-reducing factors have occurred, such as the reduced financing requirements for Ten Section, allowance for recovery of increased carrying charges for gas in inventory, and the recent balancing account treatment of franchise fees. SoCal contended the additional risks far outweigh the risk reduction attributable to these factors. SoCal's chairman stated he perceived the company is now facing more uncertainty than it has in the last 50 years in the utility business.

Position of Ernst & Whinney

SoCal hired a consultant, R. Bruce McGregor of Ernst & Whinney, to present testimony on the cost of capital. Ernst & Whinney provides specialized consulting and tax service to electric, gas, sewer, and water utilities. McGregor's testimony included four methods of estimating the cost of capital, including risk premiums derived from PLC returns and median gas utility returns and two debt structures, three-month T-bills, and AA utility bonds, as well as a discounted cash flow analysis and a return premium based on allowed rates of return in previous SoCal rate cases. McGregor recommended a 21% return on equity based on the results of his analysis.

Position of the Staff

Staff, through its rate of return witness Edwin Quan, recommended between 16.75 and 17.25% for test year return on equity.

Quan noted that he considered the standards set by the Hope and Bluefield decisions. He further noted that he examined the financial history of SoCal and its standing relative to other comparable utilities, both gas and electric. According to Quan, the analysis showed that SoCal's performance is generally within the average range of the utility industry, lagging in some categories such as the trend of earnings on total capital and slightly ahead in other categories such as the net operating ratio.

Quan further testified that he evaluated his return on equity proposal in four ways. First, he examined the interest coverage derived from the recommendation, which is 2.24 times for 1983. According to Quan, this ratio is average for the utility industry, slightly below the gas utility group and slightly above the electric and combination utility groups.

The second method Quan used to determine the reasonableness of his recommendation was a risk-premium test. He examined the risk premium required for investors in PLC common stock versus the return for AA utility bonds over the last 10 years. He noted that risk premiums fluctuated significantly over the years. To be conservative, he chose to use a range of premiums from 300 to 600 basis points, which when added to his estimate of long-term debt for the utility in the test period, provided a range of 16.50 to 19.5%. This result, according to Quan, supports his 16.75 to 17.25% return on equity recommendation.

The third method Quan used was a risk-premium analysis using the returns authorized by the Commission in the last five SoCal rate cases to establish a risk premium over embedded cost of debt. He stated that his analysis shows the Commission has been fairly consistent in its allowed returns, permitting approximately 5.61% higher return on equity than the embedded cost of debt. When applied to the current staff forecast of embedded cost of debt for 1983, this results in a return of 17.26%.

The fourth method Quan used to check the reasonableness of his recommendation was a discounted cash flow (DCF) analysis. Quan forecasted the expected growth rate in dividends for a period in the future and added his estimate to the current expected dividend yield. The historical patterns of dividend growth were tracked and growth in earnings and book value were compared. Quan's analysis showed that recent five-year growth in all categories was much higher than growth over the last 10 years. Based on this result, Quan

assumed a growth rate somewhat higher than the 10-year average but not as high as the very high five-year growth in order to approximate an investor's realistic expectations. Quan determined that the current expected dividend yield was a rough average of the last two years' recorded yield. These two sets of information were combined and, according to Quan, the results of this analysis further confirms his return on equity recommendation.

<u>Position of Federal Agencies</u>

Philip R. Winter of the General Services Administration testified on behalf of the consumer interest of the Federal Agencies. Winter recommended 15.90% return on equity.

Winter used a DCF analysis. To check the reasonableness of his result, he used a risk-premium approach and a market-to-book ratio method.

According to Winter the most commonly presented DCF model is the simple "yield plus growth" form. In this model the analyst determines an appropriate current yield for the company's stock to which is added the figure determined to be the reasonable anticipation of the future growth in dividends. The resulting sum is the investor discount rate or cost of capital.

Winter stated that the simple form of the DCF model is inappropriate in that it assumes a single rate of growth to infinity. He stated that investors are aware of historical swings in the rate of dividend growth, expecting neither high nor low rates of growth to continue without interruption. In place of the simple formula, Winter used a model which incorporates both near-term and long-term expectations for the rate of dividend growth. Winter used the most recent 16-week period preceding the preparation of the evidence to determine the yield portion of the equation and arrived at a 10.96% yield. For the near-term growth rate Winter selected a range of 6.2 to 6.7%. This was based upon analysis of recent short-

term growth rates for SoCal and upon forecasts by recognized and widely read investment analysts. For the second stage of the formula Winter selected a range of 3 to 4.5%, representing consideration of both the long-term historical growth rate of SoCal and the long-term performance of Moody's utilities. Accordingly, the indicated investor requirement found by Winter from this two-stage analysis is the range of 15.6 to 16.8%.

As a first check upon the reasonableness of this range, Winter conducted a risk-premium analysis. The elements used in this analysis were a large portfolio of diverse common stocks (the S & P Composite Index), a representative portfolio of utility stocks (Moody's 24 utilities), and long-term government bonds. The period of analysis was 1929 to 1979. The first series of calculations assumed the investor purchased stock in each year between 1929 and 1978 and sold the stock in 1979. The average premiums from this approach were 340 basis points for the utilities over government bonds and 610 basis points for the S & P Composite Index. The average spread for all possible whole-year holding periods was also calculated and the results were 417 basis points and 696 basis points, respectively. Winter argued that the risks of stocks or bonds do not remain constant over time, and that the relative risks do not remain the same. He found that although both stocks and bonds are interest-sensitive, the recent and current interest rate volatility has had a greater effect on the bond market. According to Winter, his statistical analyses demonstrated a greater increase in the volatility of seasoned bond prices than in utility stocks indicating a lowering of the required risk premium from historical levels. Winter also considered the favorable tax treatment accorded dividends from qualifying utility companies. His conclusion was that the minimal spread required by investors in SoCal's stock is 150 to 250 basis points. Since the average yield on long-term treasury

securities during the period December 4, 1981 to March 19, 1982 was 13.7%, Winter estimates that the required return on equity would be in the range of 15.2 to 16.2%. He further estimated this range would provide corresponding market-to-book ratios of 1.04 to 1.26, respectively. Winter's recommendation of 15.9% is based upon his opinion that inflation and interest rates will continue to decline in the test year.

Position of CAUS

CAUS is a corporation composed of those who hold common stock in the utilities regulated by this Commission. One of its goals is the effective representation of stockholder interests. CAUS was represented by Philip C. Presber.

Presber testified that the dilution of shareholders' equity is one of the key problems to be resolved by the Commission. He asserted this dilution is caused by returns on equity insufficient to permit the utility stock to sell at or above book value. Presber further asserts that a one-to-one market-to-book ratio is a measure of the adequacy of the utility's ability to attract capital.

Presber set forth two risk-premium analyses based upon the differential between SoCal's earnings/price ratio and Aa debt and the price-to-book ratio versus Aa debt. Presber recommended a 20% return on equity based on the results of his analysis.

CAUS agreed that this is a difficult time for the Commission to make a decision on the appropriate return on equity because of the pressures pushing up gas prices and because of public pressure "to do something" to stabilize utility bills. However, CAUS argues that the Commission should not bow to these pressures by ignoring the full cost of capital.

Position of LA

Manuel Kroman, a consulting engineer in the field of public utility regulation, represented LA. Kroman recommended a 16% return on equity.

Kroman developed his recommended return on equity by making an analysis of SoCal's showing and that of its consultant. He argued that the DCF method is unreliable. He pointed to the wide range of results derived from this method: SoCal, 9.20 to 31.88%; Federal Agencies, 15.6 to 16.8%; and staff, 13.24 to 24.34% return on equity. According to Kroman, the "merit" of the DCF method lies in the fact that it can be manipulated to support any result that the practitioner attempts to advocate.

Kroman took issue with the risk-premium approach used by SoCal and its consultant. He contended that McGregor's assumption that the earnings price ratio is the investor's required return on common equity is fallacious. He also disputed Jahelka's assumption that there is a one-to-one relationship between return on equity and market-to-book ratios.

Kroman argued that SoCal cannot reasonably assert that the appropriate return on equity is that which could be expected to produce a market-to-book ratio of more than one. According to Kroman, high interest rates have depressed the stock prices of all industry groups so that most market-to-book ratios are below one.

Kroman disputed SoCal's claim that it has not performed well as a utility and that it is in danger of a downgrading of credit ratings. As evidence he cited the fact that SoCal's earnings per share have been higher and more stable than all of the electric utilities compared and all but two of the gas distribution utilities compared by SoCal. In support of his argument, he cited comments of various financial news reports. Kroman's 16% return on equity

recommendation is based primarily on his judgment after consideration of a number of factors affecting the financial condition of the utility. He stated his recommendation is not unfair in view of the return of comparable utilities.

Position of San Diego

San Diego did not present independent testimony on the issue of rate of return; however, it joins in the argument of LA on this issue.

Position of Tehachapi

Tehachapi did not present independent testimony on the issue of rate of return; however, it did address the issue in its brief.

Tehachapi argued that an unduly high rate of return will further feed the inflationary fires as will any understatement of expected revenues or overstatement of costs. Tehachapi argued that interest rates are headed down and the Commission should wait as long as feasible to determine rate of return for 1983 and defer the determination of the 1984 return toward the end of 1983. Tehachapi stated this procedure will protect both SoCal and the public.

Tehachapi generally agreed with the analysis prepared by Kroman on behalf of LA with the exception that SoCal should receive the same return last authorized since, according to Tehachapi, SoCal is virtually guaranteed its rate of return by reason of the numerous offset proceedings and balancing accounts now available.

Discussion

The major area of difference in the rate of return recommendations of the parties is the appropriate return on common equity. The difference in revenue requirement between staff's midpoint recommendation of 17% and SoCal's recommendation of 20% return on equity is approximately $50 million.

During the proceeding several witnesses used formulas such as risk-premium analyses and DCF analyses to support their recommendations. Others used judgment, relying more on available information and recorded data.

As a general observation; although the use of formulas offers an image of objectivity, the assumptions underlying those formulas require the use of judgment. On the other hand, the results produced by mathematical calculations can vary significantly depending on the assumptions made by the analyst. We will not give special weight to one approach over the other, but will consider each analysis according to its particular strengths annd weaknesses.

Turning to SoCal's presentation, we note that in two of the tests in support of its recommendation SoCal assumed a 13% inflation rate and a 15% interest rate for long-term debt. Those rates were based on SoCal's experience at the time the rate case application was prepared. The latest available forecasts from DRI for 1983 indicate a lower AA bond interest rate and a lower Producers Price Index (PPI) of inflation. If factors reflecting current expectations are used, the result of SoCal's two tests should therefore be lower.

SoCal emphasized the need for the Commission to recognize the changed risk situation in setting return on common equity. We agree with SoCal that risk is a major element in the setting of return on common equity.

As risk increasing factors, SoCal cited: the recent $35 million disallowance of purchased gas cost, the percentage of expenses required for gas purchases, the Commission's request to PG&E to renegotiate oil contracts, the increase in legislative activity, and the impact due to fuel switching on its customer base that is over 50% nonresidential.

Some comment on SoCal's contentions is appropriate. We note SoCal agreed that 85% of all its expenses are recoverable in full through balancing accounts. It is standard regulatory practice to disallow any expense found to be imprudently incurred. Regarding PG&E's oil contracts, it is the Commission's responsibility to respond in situations which may be contrary to the ratepayer's interests. Increased legislative activity is not something new and SoCal offered no evidence it is likely to be harmed by upcoming legislation. Finally, we agree the industrial fuels market may be tenuous because of the potential for fuel switching. We will keep this in mind when we establish rate design in SoCal's CAM proceeding. Generally, we fail to see any significant increase in the risk factor particularly in view of the numerous balancing accounts available to SoCal.

The proponents of higher return on equity all supported the position that stock should be selling at or above book value. While it is possible to make projections, it is not possible to develop a return on equity that will guarantee a market-to-book ratio of one. We agree that a market-to-book ratio of one is a reasonable goal if it can be achieved by balancing all other interests.

We also agree with SoCal that times-interest coverage is an important criterion for determining bond ratings and that bond ratings are correlated with yields.

We will not, however, err on the generous side to secure a market-to-book ratio of one and an optimum times-interest coverage. This Commission must balance the interests of shareholders and ratepayers. In making our determination, we must not only consider SoCal's financial condition, but also the needs of its customers who must bear the costs of inflation and federal deregulation of natural gas producer prices.

We find SoCal's request too high and will adopt a return on equity which compares with returns on investments having similar risks and which is sufficient to enable SoCal to attract capital at reasonable rates.

Adopted Rate of Return

After weighing the evidence in the proceeding, we are of the opinion that a rate of return on rate base of ________ for 1983 and ________ for attrition year 1984, providing a ____% return on common equity, is reasonable and will enable SoCal to attract the necessary capital to provide reasonable service at reasonable rates to its customers. Such rate of return will provide a times interest coverage after taxes of approximately ________ times, which we believe should enable SoCal to maintain its current rating. The following table sets forth the adopted rate of return which assumes that all new long-term debt for 1983 will sell at an interest cost of ________.

SOUTHERN CALIFORNIA GAS COMPANY

Adopted Rate of Return
Test Year 1983
Attrition Year 1984

		Test Year 1983	
	Percent	Cost %	Weighted Cost %
Long-Term Debt	46.50	11.14	5.18
Commercial Bank Loan	3.25	13.00	.42
Banker's Acceptances	2.00	12.00	.24
Preferred Stock	6.25	5.47	.34
Common Stock Equity	42.00	17.00	7.14
Total Capital	100.00		13.32
Times Interest Earned (After Tax)			2.28x
		1984	
Long-Term Debt	46.50	11.40	5.30
Commercial Bank Loan	3.25	13.00	.42
Banker's Acceptances	2.00	12.00	.24
Preferred Stock	6.25	5.47	.34
Common Stock Equity	42.00	17.00	7.14
Total Capital	100.00		13.44
Times Interest Earned (After-Tax)			2.26x

VI. LNG Facility

SoCal's application proposed the inclusion of approximately $140 million in rate base associated with expenditures for its Point Conception LNG facility.

On February 4, 1982, staff moved to exclude testimony concerning LNG expenditures. Staff noted that considerable uncertainties surround the certification of the proposed facility and that an extensive review of LNG expenditures in this general rate case proceeding would be too time-consuming. SoCal filed its opposition to staff's motion on February 19, 1982. The ALJ granted staff's motion.

We concur with the ALJ's ruling.

VII. Ten Section

Willis B. Wood, Jr., president and chief executive officer of PLGS, testified that PLGS has decided to discontinue development of the Ten Section underground gas storage project. SoCal made this decision because its partner in the project, PG&E, had decided to withdraw, because cost estimates had increased substantially, and because the outlook for future gas supplies is more optimistic than it was when the project was initiated. SoCal believes it can increase peak-day deliverability from existing storage fields at a lower cost.

Wood further testified that a final decision on whether PLGS proceeds with the project will be made prior to SoCal's next general rate case. He noted that in the interim, SoCal will withdraw cushion gas already injected into the field. Representatives from PG&E and PLGS will meet to resolve the outstanding issues between them, including the status of the Ten Section certificate from this Commission, the retention or disposition of rights jointly acquired, and the resolution of financial claims between PG&E and PLGS.

Wood noted that facilities required to withdraw the cushion gas from the Ten Section field have been included in PLGS' rate base and should remain in rate base because they are required to make the gas in storage available to customers. He stated that the costs associated with the uncompleted portions of the project will remain in the construction work in progress (CWIP) account until a final decision is made regarding the project. SoCal Exhibit 111 reflects this accounting treatment.

Staff generally agreed with the SoCal proposal and recommended that all revenues and expenses should be the subject of a separate accounting since there was inadequate time during the course of this proceeding to properly examine costs related to the proposed new operation of the Ten Section field.

As recommended by staff, we will authorize a balancing account procedure effective January 1, 1983, to track actual costs associated with the withdrawal of the cushion gas. We will allow a revenue requirement to reflect the $43,713 operation and maintenance cost (Exhibit 114) related to withdrawal of the cushion gas. An adjustment to future revenues will be made for over- or undercollected revenues once a final determination regarding the reasonableness of these Ten Section operating expenses is made. SoCal will have the burden of proving the reasonableness of all 1983 and 1984 Ten Section operating expenses when this final accounting is undertaken. Plant and acquisition costs will not be included in test year rate base. These costs will be held in a separate memorandum account, and will accrue interest, until such time as a final determination is made regarding the whole project. Cushion gas will be treated as gas in storage, since according to the testimony, this gas will be available for use by SoCal's customers.

VIII. Conservation

Overview

In general, staff was complimentary of the progress SoCal has made toward meeting its conservation goals, and we commend SoCal for its vigorous approach in promoting conservation.

However, we find SoCal's proposed 1983 conservation budget excessive and have deleted several proposed programs. The adopted programs for 1983 are set forth below:

Program	SoCal	Adopted
	(Thousands of Dollars)	
Manufactured Housing	720.3	720.3
Solar/Gas	1,997.5	-
Weatherization Training	788.0	788.0
Residential Cogeneration	23.3	23.3
Appliance Efficiency	6,480.6	-
Conservation Education	1,505.2	752.6
Energy Efficiency Audits	9,180.8	6,350.8
New Customer Conservation	606.0	-
Food Industry	212.1	212.1
Cogeneration	3,384.2	-
Accelerated Equipment Modernization	15.2	15.2
Commercial/Industrial Heat Recovery	1,016.6	1,016.6
Pilot Light Program	571.8	571.8
Cold Weather	766.2	766.2
Other Items	4,227.9	2,291.1
Subtotal	31,495.7	13,508.0
Overheads (included elsewhere)	7,500.0	3,216.6
	38,995.7	16,724.6

While the adopted level of expenditure appears to reduce SoCal's conservation spending from the levels authorized in the last general rate case decision, it must be considered in the context of the company's other conservation efforts. SoCal also funds several other programs through its CCA rates.

These CCA rates cover the Solar Water Heater Demonstration and Financing Program, the Weatherization Financing and Credits Program (WFCP), and the Residential Conservation Service (RCS). We note that SoCal's most recent CCA filings for Solar, RCS, and WFCP show a 1983 projected revenue requirement of $76.3 million.

Policy

In the last PG&E general rate case, D.93887, page 114, we concluded as follows:

> "We now believe that to create the proper environment for management to maximize the cost-effectiveness and efficiency of conservation programs in the future, we should depart from our past practice of establishing binding budget levels for each specific program. We shall in this decision comment on many of the specific programs proposed by PG&E for the test year. We shall also discuss those program areas like general conservation advertising and information which should not receive any ratepayer support.
>
> "Beyond that, however, we shall establish certain general conservation policy guidelines and adopt an overall conservation budget for PG&E. Within the boundaries of these guidelines and budget, PG&E's management will have discretion to establish priorities and allocate resources to maximize energy savings.
>
> "We shall give management discretion to reallocate funds among individual programs in amounts up to $2,500,000 provided that no funds are reallocated among the four major categories of Residential, C-I-A, Conservation Evaluation, and Load Management. Budget adjustments in excess of $2,500,000 shall be made the subject of an advice letter filing.
>
> "Funds allocated under this budget shall only be spent on conservation and load management programs. Any funds not spent during a year shall be carried forward for future use in conservation and load management activities. We shall expect PG&E to explain in a future rate proceeding its inability to use any of these funds."

Although the funding level approved for SoCal in this decision is considerably lower than that authorized PG&E, we recognize the importance of allowing SoCal's management similar discretion in managing its conservation efforts. We also appreciate that there are interactions between various programs, and energy savings are not directly proportional to the dollar amounts allowed for individual programs. Accordingly, SoCal will have discretion to allocate up to $1 million among individual programs provided that funds allocated under this budget shall only be spent on conservation and load management programs. Any funds not spent during a year shall be carried forward for future use in conservation activities. We will expect SoCal to keep staff informed of progress in its various programs and advise staff of all changes to program budgets.

We do reiterate our objection to increased expenditures for general advertising and information programs.

Cost-Effectiveness Evaluation

SoCal evaluated the cost-effectiveness of its overall 1983 conservation program by using three tests of cost-effectiveness. They are:

a. Participant Test: Compares (x) gas savings at average rates plus tax credits to (y) the cost of the measures installed;

b. Nonparticipant Test: Compares (x) the difference between marginal cost of gas and the average cost of gas saved to (y) the cost of the program; and

c. All-Ratepayer Test: Compares (x) the marginal cost of gas saved to (y) the cost of the programs plus the costs of measures installed.

A program is considered to be cost-effective under these tests when the x-component is greater than the y-component. The methodologies by which cost-effectiveness is measured became a point of controversy in this proceeding. We now turn to a discussion of the issues raised.

A. The Nonparticipant Test:
<u>A Question of Equity</u>

The nonparticipant test, as SoCal pointed out, is essentially a test of equity. The nonparticipant class includes ratepayers who previously participated in a program, ratepayers who practice conservation outside of programs, and ratepayers who cannot afford to participate.

According to staff, it makes little sense to impose upon nonparticipants a program which is not cost-effective. Staff cited, as examples, the Conservation Education Program, which fails the nonparticipant test and the New Commercial Customer Conservation Program, which is marginally cost-effective to nonparticipants.

Generally, we agree nonparticipants should not be required to fund conservation programs which increase rates to a greater extent than would incremental supply. However, we believe cost-effectiveness is not the only test by which a program should be judged. It is an important tool and it must be considered along with other effects that are difficult to measure.

Staff also objected to the fact that SoCal did not provide the annual savings-to-costs analysis for the nonparticipant test. Staff points out that this does not allow the Commission to evaluate the reasonableness of the time lag which might exist between costs and savings. Staff notes this evaluation is particularly important for programs dependent upon extended life cycles for cost-effectiveness and recommends that this material be provided in future rate proceedings. We expect SoCal to provide this in its next general rate case.

B. Discount Rates:
Nonanalytical Approach

SoCal estimated present value savings and costs by using a 10% discount rate. That rate was developed using judgment. Staff points out that SoCal's use of this same rate for all classes of customers is a flaw in SoCal's analysis. Staff cited the example of industrial customers who expect three-year paybacks suggesting a 30% discount rate. SoCal used the 10% rate for these customers. We agree staff has a valid point. SoCal, in its next proceeding, should consider using different discount rates, where appropriate, to better reflect the characteristics of the customer class eligible to participate in a particular program.

Staff Position

Staff recommended deletion of the Solar/Gas program, the Conservation Education program, and the New Customer program. Additionally, staff recommended a reduction in the Appliance Efficiency program. Staff generally recommended approval of all other programs as proposed by SoCal but recommended that several of these programs be closely evaluated as candidates for deletion. The result of staff's recommendations was reduction of SoCal's $39.0 million budget by $6.0 million.

In the discussion which follows, we will consider each of the programs for which authorized funding levels differ from those requested by SoCal.

Solar/Gas Program

The objective of this program is to retrofit 2,350 spa heaters, 4,650 pool heaters, and 175 space heaters. SoCal estimates a savings of 1,849 Mtherms in the first year and a savings of 36,980 Mtherms over a 20-year period.

Staff witness Knolle recommended against funding this program. He stated that the costs have increased too much over a three-year period. In 1980 SoCal's recorded expenses for its Solar/Gas program were $191,000. It has requested $1,997,000 for test year 1983. He found the activities to be unnecessary in 1983 because SoCal has a CCA-funded Solar Water Heater Demonstration and Financial Program.

Staff argued that over one-half of this program's costs are for advertising and promotion. According to staff, this level of promotion should be disallowed because, as SoCal witness Neiggemann agreed, the solar industry is one considered to have bright growth potential.

Staff pointed out that SoCal's program has no goals for retrofitting multifamily residences and contended that this program primarily benefits SoCal's more affluent customers.

SoCal argued that the program is an industry-support effort designed to reach contractors, manufacturers, distributors, retailers, and customers. It pointed out that its experience in solar marketing can benefit the solar industry. SoCal acknowledged that the costs of its efforts have increased over the last few years.

SoCal agreed that although the program is cost-effective under two methods of evaluation, it does not meet the "all-ratepayer" test. SoCal argued that the all-ratepayer test ignores tax benefits and urged that cost-effectiveness not be the sole criterion in evaluating conservation programs which offer intangible benefits.

We agree with SoCal that the solar industry is still developing and still needs support. Such support should serve to accelerate the high potential of solar energy to reduce fossil fuel demand in southern California. The Solar Water Heater Demonstration Financing Program, in which SoCal is an active participant, represents a substantial commitment of such ratepayer support. We

will await, with great interest, the results of that program which is scheduled to conclude in September 1983. In the meantime, it does not appear prudent to allocate SoCal conservation funds to a program which would be largely an advertising effort and which would focus on solar energy uses which are not applicable to most of SoCal's ratepayers.

We will adopt staff's recommendation because the program is not cost-effective for all ratepayers and may redistribute the costs of energy from affluent customers to other customers. Also, we reiterate our policy of discouraging conservation programs such as this one which relies primarily on advertising.

The Appliance Efficiency Program

SoCal included $6,480,600 in test year 1983 expenses for this program. Staff witness Knolle proposed cutting this amount by $1,913,600, a 29.5% reduction. He recommended that both the advertising budget and the incentives associated with the programs be cut 50% due to a deterioration in cost-effectiveness.

We note that SoCal included in this program $938,000 for advertising and $2,889,000 for incentives.

The program is designed to support the marketing efforts of gas appliance manufacturers. By aiding retailers, distributors, and manufacturers to reach the residential appliance retrofit market, SoCal hopes to increase sales of newer, more energy-efficient appliances.

Also, as a part of this program, SoCal sells gas appliances to its employees. The employee purchase program is self-supporting since prices of the appliances to employees cover all program costs.

According to SoCal, the Appliance Efficiency Program satisfies both the participating ratepayer and the nonparticipating ratepayer tests (Exhibit 32, page 24). SoCal agrees it fails the all-ratepayer test.

Staff argues that program savings realistically attributable to SoCal are overstated. According to staff, SoCal is accelerating the replacement of older, less efficient appliances in some cases for a mere one, two, or three years. Yet, SoCal takes credit for energy savings generated over the entire life of the new appliance, a period of 11 to 22 years.

SoCal witness Neiggemann testified that California's tough emission and efficiency standards would have caused gas manufacturers to abandon manufacturing of gas appliances for the California market and to opt for manufacturing electric appliances. However, SoCal intervened to convince manufacturers that gas appliances would continue to constitute a lucrative market in California. By virtue of this intervention, SoCal concluded that Californians are assured of a supply of gas appliances which meet the standards.

Neiggemann also testified that the southern California market generates tremendous sales from a potential three million appliance retrofits, irrespective of SoCal's programs. Staff expressed doubts concerning the plausibility of the SoCal argument and pointed out that despite the allegedly oppressive burdens of California emissions and efficiency standards, the gas appliance industry has not only met those standards but exceeded them.

We now turn to staff's disallowance of $1.4 million associated with incentives and $469,000 for advertising expenses.

Neiggemann explained the nature of the incentives included in this program. Basically, SoCal would share the costs of a rebate with manufacturers during campaign periods. SoCal's share of the rebate costs would range from $12.50 for dryers to $50 for heat pipe water heaters.

Neiggemann also explained the advertising budget. $50,000 is targeted for a portion of the expense associated with SoCal's sponsorship of the Evening Concert Program, a classical concert radio series which, according to SoCal, appeals to a varied audience. Together with other radio and television advertising, SoCal's objective is to get the appliance efficiency conservation message to customers at a frequency of at least three times. According to SoCal, that is the frequency level at which it has been able to discern a change in customers' behavior.

Neiggemann further testified that since southern California is home to a large Hispanic population, $83,700 of the advertising budget is to be used to reach this audience.

Staff counsel questioned Neiggemann regarding $388,700 included in this program for American Gas Association (AGA) advertising. According to Neiggemann, AGA advertising is, in part, designed to reach an audience outside California where initial fuel decisions are made by major firms that may have plants in southern California or that may plan to locate here. Neiggemann noted that the AGA, because of its national buying pattern, is able to advertise at the local level on television at half the cost to SoCal. Consequently, this advertising service is used in conjunction with SoCal's own efforts to communicate with customers explaining the efficiencies of gas appliances and equipment and the need to continue conservation. Neiggemann further noted that there is an effort to coordinate AGA advertising with SoCal's own efforts and SoCal has seen to it that AGA advertising is complementary to its own actions and programs.

We note this program fails the all-ratepayer cost-effectiveness test. Also, the savings analysis provided by SoCal is flawed. SoCal cannot take credit for energy savings over the life of an appliance which would have been installed anyway within a few years. Neither can SoCal take credit for the decisions of southern California firms which produce gas appliances. Thus, the cost-effectiveness of this program is seriously in question.

Further, the justification for advertising expenses SoCal offers is surely tongue-in-cheek. SoCal cannot automatically assume that the audience for a classical radio concert is "varied." $388,000 for out-of-state advertising can be of little value to Californians.

In general, the main effect of this program does not appear to be conservation, but expansion of SoCal's gas market. We will not allow SoCal to pass on to ratepayers the costs of marketing its service under the guise of conservation when the costs of proposed programs are not demonstrated to be cost-effective. Accordingly, this entire program will be deleted from test year 1983.

Conservation Education

Staff recommended deletion of this program for which SoCal included $1,505,200 in its test year 1983 market services estimate. The staff recommendation is based on the program's lacking cost-effectiveness.

One part of this program consists of SoCal's efforts to reach elementary and secondary school students. Through participation in classroom instruction, seminars, and youth organizations, SoCal argued it will reach an important part of its consuming population. SoCal believes that by communicating to students while their energy habits are still developing, a large potential exists to save significant amounts of energy in the future.

SoCal has targeted 400,000 students as its projected audience for this program. It will offer cash refunds to the families of students who purchase water-flow control devices. In addition, 48,500 students in each of the 2nd and 5th grades will be part of a special program designed to influence their families' energy practices. They will receive instructions on how to conduct a personal home energy audit.

SoCal emphasized that the calculated savings associated with these efforts were made on a very conservative basis. Only 15,000 water control devices are assumed to be installed through SoCal's education efforts although refund offers will be made to a total audience of 400,000 students. With regard to the special programs, SoCal estimated initial savings for each of the two different grade levels, recognizing that 2nd grade students will probably be somewhat less responsive than the 5th grade students. The resulting calculations were then discounted twice, once by 25% and then again by 50%. SoCal noted that life-cycle savings were determined by looking only at first-year savings.

Under the second part of this program, SoCal plans to reach 2,400 real estate agents in southern California. It intends to hold 80 class sessions to train and advise realtors on energy conservation. SoCal estimated 1,008 Mtherms of savings resulting from this program. SoCal stated the program is conservative because only first-year savings were included in its cost-effectiveness calculation.

SoCal noted that in spite of the discounting and assumed limited life cycle savings, its education program still meets the participating ratepayer and all ratepayers' cost-effective analyses. SoCal agreed it does not satisfy the nonparticipant test.

We agree with SoCal that children should learn energy conservation at an early age and will allow reduced funding for this part of the program. However, we fail to see how the real estate component of this program will benefit SoCal's ratepayers. If the real estate industry has interest in becoming familiar with energy conservation, it should undertake the type of program SoCal is proposing. Accordingly, we will allow half the amount requested.

Energy Efficiency Audits

SoCal proposed a funding level of $9,180,800 for its Energy Efficiency program. This program provides a variety of auditing services for commercial and industrial customers.

Legal staff recommended deleting certain activities within the program which had low cost-effectiveness results. Omission of those activities, staff argued, would enhance the program's cost-effectiveness. The questioned program elements leading to this reduction are: Professional Communications, Deliming Services, Energy Management Analysis, Merit Awards and Seminars, and Gas Conservation Analyses.

We will adopt Legal Division staff's recommendation, which lowers total program costs by approximately $2.83 million.

New Commercial
Customer Conservation Program

Staff recommended deletion of this program's funding, for which SoCal included $606,000 in its 1983 market services estimate.

Staff argued that the program has decreasing benefits, and the cost-effectiveness calculation assumes extremely long life-cycle projections. The high cost of this program is therefore unjustified. Staff's recommendation is largely based on first-year energy savings.

The objective of this program is to convince owners and builders of new nonresidential construction projects and occupants in existing nonresidential facilities to incorporate energy-efficient equipment and designs in their buildings (Exhibit 31, pages 33-34). Where Title 24 building standards apply, the program focuses upon conservation efforts which exceed the State's standard.

Neiggemann explained the proposed budget, how the money would be spent, and described the manner in which savings were calculated. He acknowledged the relatively high initial annual unit cost but explained that the appropriate measure for cost-effectiveness was the life-cycle calculation rather than first-year savings as argued by staff.

Neiggemann testified that the only advertising expense in this program is an allocation of $55,500 for a portion of the AGA advertising budget. SoCal reaches customers when they apply for service or contact SoCal regarding planning of new service.

We agree with staff. The benefits ratepayers derive from this program are too uncertain to justify funding this program.

Cogeneration Program

SoCal proposed spending $3,384,200 in 1983 on cogeneration, including $2,718,000 for incentives.

SoCal has been incurring expenditures for this program since 1979. So far the program has resulted in the signing of 12 contracts for feasibility studies. However, no cogeneration plant has yet been constructed. Apparently, due to complexity and cost, cogeneration plants take several years to complete.

So far there is no evidence of savings from this program. In addition, the provisions of OIR 2, if properly implemented, offer adequate market incentives for development of cogeneration projects.

Therefore, we will not provide for ratepayer funding of this program in 1983.

Residential New Construction
Service to Customers

SoCal requested $1,936,800 to fund its Residential New Construction Service to Customer Program. The program is listed as part of SoCal's "Conservation Support Activities." The stated objective of the program is to encourage the local building community to provide new homes which are more energy-efficient.

In SoCal's last general rate case, this Commission questioned the value of the New Construction program and stated that SoCal must be able to demonstrate that "savings can be directly attributable to its efforts." Nonetheless, SoCal projects no energy savings as a direct result of this program. Further, the program description offered in Exhibit 31 reveals that SoCal seeks to use these program funds to encourage the installation of gas, rather than electric, home appliances. While the choice of gas, as opposed to electric, appliances may be the most prudent end-use decision, we do not agree with SoCal that its ratepayers should underwrite an effort to influence that choice. While improving overall energy efficiency, the choice of natural gas appliances, as opposed to electric, may lead to increased gas supply requirements. The most direct benefits would flow to electricity customers. We will disallow SoCal's funding in this category because of the program's uncertain benefits to its own ratepayers.

Overheads

SoCal included $7.5 million in other accounts to cover support and overhead for its main programs. We will reduce this amount in proportion to the other reductions adopted.

Conservation Reward

In its last general rate proceeding (A.59316), SoCal was authorized to file for and receive up to $5 million as a "conservation reward" if it achieved a specified level of reduced

consumption in high priority classes. On April 16, 1982, SoCal filed Advice Letter 1310 for the $5 million reward. Following hearing, we issued D.82-10-021 dated October 6, 1982. We determined that SoCal had achieved the required level of savings and authorized SoCal to recover the $5 million reward along with any revenue increase granted in this proceeding.

In this proceeding, A.61081, SoCal proposed a similar reward for test year 1983 of $7.5 million. In D.82-08-014 dated August 4, 1982, we considered conservation incentives as part of PG&E's general rate case proceeding and concluded that: (1) the proposed conservation proposals are neither necessary nor appropriate at this time and (2) no conservation plan, beyond that already in place, should be implemented for PG&E. Thereafter, SoCal formally withdrew its proposal for a $7.5 million "conservation reward" in test year 1983.

IX. Research and Development

Overview

SoCal requested $9,885,000 in test year 1983 to support its research, development, and demonstration (RD&D) program. Staff recommended a reduction of $1,243,000 in SoCal's request.

SoCal proposed funding 49 research projects for the test year 1983. Staff recommended that funding be reduced for seven projects, eliminated for two, and that funding for two projects be added. SoCal Exhibits 33, 34, and 35 provide a description of the projects and explain the process by which projects are selected for funding. SoCal's RD&D program was presented by Samuel J. Cunningham, manager of Research. Staff's position was presented by Ramesh Joshi, senior utilities engineer.

Position of Staff

Staff argued that SoCal's request for RD&D funds should be reduced to eliminate projects that duplicate the efforts of other institutions or which are otherwise imprudent. Also, staff pointed out that expenses for RD&D have increased at a rapid pace. Staff asked that we consider SoCal's 1983 request in terms of prior year expenditure levels which are:

1979	$5,187,000
1980	$6,569,000
1981	$7,588,000
1982	Not available
Request for 1983	$9,885,000

Staff argued that SoCal's RD&D program is generally directed at end-uses, e.g. improvements in appliance efficiency, development of gas counterparts to electric devices, etc. Staff argued that the ratepayer should not be forced to fund projects which are intended to improve SoCal's market share vis-a-vis electric utilities. Staff noted that RD&D in appliance effiency is, as SoCal witness Cunningham testified, being conducted by a number of gas appliance manufacturers who have a more vital interest in the subject. Additionally, staff stated research groups funded by SoCal and other gas utilities conduct similar RD&D projects in gas supply and use technology. Those groups include the Gas Research Institute (GRI), the AGA, the Institute of Gas Technology, and the Pacific Gas Association.

Staff witness Joshi testified that he examined SoCal's 49 project proposals. He determined that seven of these projects warranted budget reductions and two should be eliminated, viz., the Phase Change Energy Storage Project and the Hydrogen Generation

Techniques Project. The staff reductions were partially offset by the addition of two projects recommended by the staff witness. They are (1) a commercial laundry study costing $50,000 and (2) a nonelectric ignition project costing $140,000. Also, SoCal and staff stipulated to a $150,000 reduction for the Feedlot Gasification Project.

Position of SoCal

SoCal argued that its test year RD&D program conforms with the guidelines set forth in D.86595 and affirmed in D.92497. According to SoCal, the following criteria from D.86595 are an integral part of its project evaluation and selection process: Research projects should promote demand reduction and energy savings, protection of the environment, safety, improved supply technology, and increased company operating efficiency.

SoCal pointed out that staff, in its evaluation of SoCal's annual RD&D reports to the Commission, stated that SoCal's RD&D programs are satisfactory. SoCal took exception to the inconsistencies in staff's position.

SoCal noted that the staff witness agreed in his testimony that all seven projects recommended for partial disallowance, as well as the two projects recommended for total disallowance, would have passed the staff's own method of ranking projects.

SoCal also noted that the staff witness testified that he would have recommended full funding for the seven projects but for his belief that those projects overlapped with GRI research. According to SoCal witness Cunningham, there is no duplication between any of the seven projects and GRI research efforts. In addition, he contends, the seven projects are aimed at specific technological requirements of SoCal and its customers.

We will now turn to a discussion of the specific project differences.

A. Coordination With GRI

The seven projects for which staff witness Joshi reduced expenses due to duplication with GRI are as follows:

Project	SoCal Request	Staff Recommendation
Improved Glass Melter	$ 300,000	$
Industrial Cogeneration	200,000	
ASED Heat Pump	200,000	
Leak Detection Technology	250,000	
Heat-Fused Plastic Repairs	100,000	
Agricultural Waste Gasification	150,000	
Land-Based Biomass	50,000	
Total	$1,250,000	$416,667

Staff did not recommend complete elimination of funding for these projects. Rather, staff proposed to eliminate two-thirds of the proposed amounts recommending that the remaining one-third be provided to GRI to permit GRI to expand the scope of its research to accommodate SoCal's parochial interests. Given the importance and significance of California's interests, staff believes that GRI will expand its research to the extent necessary to meet SoCal's objectives.

1. Improved Glass Melter

SoCal witness Cunningham testified that this project was California-specific in that it is designed to produce a glass melter which will meet strict California nitrogen oxide (Nox) emission standards. He testified that GRI had no similar project yet in place but would, in the future, undertake such a project. Staff witness Joshi testified that the materials provided by SoCal failed to indicate that NOx emission reduction was a key element of this project. Staff argued that nothing in the record sustains a contrary

conclusion. SoCal witness Cunningham's rebuttal, while mentioning NOx emissions, did not sufficiently describe the manner in which the research will involve emission reduction to warrant the rejection of staff's evaluation.

2. Industrial Cogeneration

Cunningham testified that, once again, NOx emission control was a fundamental aspect of this project and not within the scope of GRI's otherwise similar project. Staff argued that SoCal's support papers failed to indicate that NOx emission abatement was at all an important part of this project or that it might be beyond the ability of GRI to accommodate. Staff submitted that the record does not reflect SoCal's contention that NOx abatement is fundamental to this project.

3. ASED Heat Pump Project

Staff argued that Cunningham relied upon environmental impact objectives to distinguish this project from GRI's heat pump research, adding that SoCal intended to emphasize the use of heat pumps for cooling while GRI was studying heating applications. However, according to staff witness Joshi, heat pump emissions were not a "problem to be solved" given that no gas heat pumps were presently marketed. Staff contended that this research is being done to develop a market for gas heat pumps.

4. Leak Detection Project

SoCal intimated that because of the unique nature of California soils a substantial contribution to GRI's project is required. However, according to staff, there is no evidence on the record to show that California soils require the size of the contribution, some $250,000, planned by SoCal. Consequently, staff recommends the reduction of the requested amount by two-thirds.

5. <u>Heat-Fused Plastic Repair Project</u>

Cunningham testified that about 80% of SoCal's new mains and services are constructed with polyethylene pipe. For this reason, SoCal should know all the ramifications of installing and repairing polyethylene pipe. He also testified that the AGA does substantial research in this area. Staff is convinced that SoCal-directed research would be duplicative of the efforts of both GRI and AGA and is unnecessary in the amount requested.

6. <u>Agricultural Waste Gasification Project</u>

Cunningham testified that given the size of California's agricultural industry and the amount of waste generated in its service territory, SoCal should be researching agricultural waste gasification. However, Joshi pointed out that GRI is conducting research on this subject. Staff asserted SoCal need not duplicate the efforts of GRI.

7. <u>Land-Based Biomass Project</u>

Cunningham testified that this project is California-specific, whereas the comparable GRI project is national in scope.

Staff argued that site-specific technology is beyond the proper confines of research. Staff recommends that SoCal contribute to GRI's project for the study of land-based biomass technology.

B. <u>Phase Change Energy Storage Project</u>

Staff deleted this project since it was not within the scope of gas distribution operations, SoCal's public utility function. Staff argued that the benefits to SoCal's ratepayers of the phase change energy storage process are so attentuated that they fail to justify funding by ratepayers.

SoCal's RD&D witness Cunningham testified that the phase change energy storage project is a solar energy research project. He also testified that this project is aimed at developing a more efficient system for storing energy, and that since the project is directly related to heating water with solar energy, it has a direct bearing on SoCal's role as a gas distributor. Cunningham noted that GRI does not have any projects of this nature either planned for the near future or in its current program.

C. Hydrogen Generation Techniques Project

Cunningham defended this project on the ground that it might provide SoCal with a supplemental source "if and when we actually need it." Staff recommended that this project be deleted from SoCal's 1983 RD&D budget since the benefits to the ratepayer resulting from this project are uncertain. Staff witness Joshi testified that GRI had discontinued a similar project due to the ready availability of gas supply both for the present day and the foreseeable future.

Cunningham testified that this project is aimed both at short-term technological needs and long-term supply requirements. He pointed out that hydrogen technology does have a short-term application because hydrogen fuel can be used for fuel cells.

Discussion

Of the 49, staff recommends deletion of only two projects: the Phase Change Energy Storage Project and the Hydrogen Generation Techniques Project. We agree with staff that benefits to ratepayers from these two programs are too remote.

Staff recommended that funding for seven of the 49 projects be reduced by two-thirds and that SoCal should use the remaining one-third to coordinate its efforts with GRI. We disagree. Staff's own testimony points out weaknesses in these seven projects which

undercut justification for funding at any level. Further, staff's recommendation to cut funding by two-thirds "across-the-board" is arbitrary. We also note that GRI has a substantial budget for 1983. The cost of gas to SoCal, and all other gas distributors, includes a percentage share for GRI. Taking all these factors into consideration, it is reasonable to reduce SoCal's requested 1983 budget from $9,885,000 to $8,225,000. This amount includes overheads.

X. Results of Operations

A. Adopted Results

The following table sets forth a summary of the final position of SoCal and staff. Also included are our adopted test year results of operations and the adopted 1984 attrition allowance calculation. The following discussion covers the areas of difference between the parties.

17%ROE

Southern California Gas Company
Results of Operations
Test Year 1983

	PLGS		SoCalGas	
	Adopted	Authorized	Adopted	Authorized
Revenue	810,601.2	827,688.3	3,232,827.0	3,485,910.7
Expense				
Production	730,378.0	730,378.0	2,511,970.8	2,529,057.9
Storage			31,155.0	31,155.0
Transmission			20,955.0	20,955.0
Distribution			87,774.0	87,774.0
Customer Service			74,074.0	74,074.0
Customer Accounts			88,031.1	88,572.3
Market Service			16,724.6	16,724.6
AEG	322.6	329.4	193,285.1	196,768.2
10 Sect. Adj.			795.0	795.0
Subtotal	730,700.6	730,707.4	3,024,764.6	3,045,876.0
Book Depreciation	17,799.0	17,799.0	89,825.0	89,825.0
Taxes Other	3,292.0	3,292.0	32,899.1	32,899.1
CCFT	4,624.1	6,263.8	2,126.5	24,395.9
FIT	18,541.6	25,644.3	3,739.0	100,202.3
Total Expense	774,957.3	783,706.5	3,153,354.2	3,293,198.3
Net Revenue	35,643.9	43,981.8	79,472.8	192,712.4
Rate Base	331,571.3	330,192.5	1,453,618.1	1,446,789.6
Rate of Return	10.75	13.32	5.47	13.32

B. Operating Revenues and Cost of Gas

With respect to operating revenues and cost of gas, there were no significant differences between SoCal and the staff. In its opening brief, SoCal stipulated to the staff showing. We will adopt staff's estimates for these items.

C. Wages and Inflation

1. Overview

SoCal and the union signed a two-year collective bargaining agreement which resulted in a 9.5% wage increase effective April 1, 1982. Wages will be further increased by 7% to 10% effective April 1, 1983. The 1983 wage adjustment is dependent upon the increase in the Los Angeles - Long Beach, Anaheim Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI) between September 1981 and September 1982. If the Index rises more than 7%, the wage increase will be an additional .5% for each .5% increase (or fraction) in that index, subject to a maximum wage increase of 10%.

SoCal modified its showing based on this latest agreement. The amount of labor finally included in SoCal's results of operations reflects a 9.5% wage increase for 1982 and 8.5% for 1983. SoCal annualized the increase and staff disagrees with this approach.

Staff included an increase of 9.5% for 1982 and 8.5% for 1983. However, to account for the April 1st wage increase date, staff used wage increases of 10.375% (13% for three months and 9.5% for nine months) for 1982 and 8.75% (9.5% for three months and 8.5% for nine months) for 1983. Also, staff limited all nonunion employees to a 5% wage increase in 1983. SoCal took exception to staff's 5% wage limitation proposal.

2. Annualization of Wages

Since the actual wage increase granted by SoCal is in effect for only nine months of the year, staff took exception to SoCal's annualizing the increase. According to staff, SoCal's approach assumes the increase will be in effect for 12 months of the test year instead of nine months. The difference is approximately $4 million.

SoCal argued that staff's recommendation which inflates 1981 data to 1983 and uses an April 1, 1983, wage revision date incorrectly assumes that 1981 recorded data include the full annual effect of step increases in 1981. In addition, SoCal pointed out that staff estimates made no provision for future step or merit increases.

SoCal argued that it did not calculate the impact of merit adjustments for management personnel and movement within automatic progression salary ranges for nonmanagement employees. Accordingly, SoCal maintained that annualization is therefore a conservative method of partially compensating for these factors. On the other hand, SoCal did not include in its analysis the effects of employees who retire or resign and are replaced by employees with lower salary levels.

In prior SoCal general rate case proceedings we did allow annualization because SoCal incurred the expense prior to the effective date of the rate relief. The Rate Case Processing Plan does provide rate relief at the onset of the test year, eliminating the need to annualize wages. We will adopt the staff approach.

3. <u>Five Percent Wage Limitation</u>

Staff proposed a 5% wage limitation during the course of the hearing. SoCal objected to its late introduction on procedural grounds and cited the Regulatory Lag Plan. The ALJ ruled that the proposal would be heard in this proceeding and provided SoCal with additional time to prepare its case. Since SoCal had ample time to prepare it case, we affirm the ALJ's rulings.

A. V. Garde, principal utilities engineer and project manager, presented the staff proposal. He recommended that test year revenue requirements reflect a 5% wage increase for nonunion personnel in year 1982 and 1983. No limitation was placed upon wage increases for attrition year 1984; however, that year would be affected by the staff proposal by virtue of the carry-forward of the 1982 and 1983 effects. According to staff this recommendation would reduce SoCal's revenue requirement by $7,214,000 in 1983. Of that amount, $5,998,000 represents its ratemaking treatment for salaries to management employees. According to staff, the total reduction of $7,214,000 represents less than 2.5% of total wages paid by SoCal.

SoCal argued that the 5% limitation amount was incorrectly calculated. According to SoCal, the figure should be $3.9 million instead of $7.2 million. SoCal points out that staff's figure does not recognize the April 1, 1982, 9.5% wage increase.

Staff noted that at end-of-year 1981, SoCal had 8,872 full-time employees, 6,405 were union-represented, 1,904 were nonunion management employees, and the remainder were nonunion nonmanagement. SoCal stated that it expects the total number of employees to grow to 10,510 during test year 1983. Staff noted that in prior SoCal rate proceedings identical wage escalation rates were applied to all three categories of personnel.

Staff acknowledged this extraordinary wage limitation was proposed for one reason. Staff argued that a full flow-through of a 9.5% wage increase would constitute an undue hardship upon ratepayers, many of whom have already faced the brutal effects of layoffs and/or wage concessions of the 1981-1982 recession. According to staff, the present economic climate requires the abandonment of a regulatory attitude of "business as usual" and pointed to the fact that the Commission itself in the last SoCal general rate case decision warned the utility that it would not automatically approve wage increases. Staff cited D.92497, page 96, where we stated:

> "While we cannot ignore valid costs that a utility is incurring in providing service to its customers, we must examine closely costs (sic) such as labor for reasonableness for the simple fact that the utility is incurring them may not of itself be sufficient justification of reasonableness. . . ."

Staff pointed out that as a general matter, SoCal adjusts its management salaries according to its union wage settlement. Therefore, management may have some conflict of interest in the outcome of labor negotiations.

Staff noted that nonunion nonmanagement personnel receive wage increases comparable to union-represented employees.

Staff did not propose any limitation be placed upon the recovery of wages paid by SoCal to union-represented employees. The staff witness explained that he did not do so because he believed that such a limitation might constitute an unlawful intrusion into the good faith collective bargaining process. Had staff indeed extended its proposal to union employee wages, its test year 1983 revenue requirement would have been reduced by an additional $24,413,000.

The staff witness testified that the Legal Division advised him there is no legal impediment to the adoption of a wage limitation for ratemaking purposes. The basis for that appraisal is provided in the Legal Division brief. Legal Division pointed out that what is contemplated here is not that the Commission or its staff would in any way dictate to management the actual negotiating position since that may constitute an unlawful intrusion into the collective bargaining process. What is contemplated is that the Commission scrutinize wages in the manner of any other expense, disallowing the recoupment of unreasonable costs. According to Legal Division, SoCal may pay any level of wages it feels is reasonable and bear the risk that the Commission might find that level to be imprudent. While this may pose some indirect pressures on negotiations, Legal Division stated such pressures are not likely to be precluded by federal labor law.

Regulatory law is well-settled that the Commission may disallow for ratemaking purposes any unreasonable expense if it is supported by findings of fact and conclusions of law. If the Commission disallowed an expense it found to be reasonable, that action would be a confiscation of stockholder property. Such a disallowance would simply not meet the Hope and Bluefield standards.

SoCal argued that staff's proposal is highly unusual. SoCal pointed out that staff witness Garde acknowledged that the full union-negotiated settlement of a 9.5% wage increase is reasonable (RT 18/1706), that the nonunion employees should receive the same 9.5% increase, but that only 5% of the increase should be passed on to ratepayers. SoCal claimed staff proposed that the Commission disallow reasonable expenses for test year 1983.

SoCal acknowledged that some manufacturing industries are experiencing layoffs and/or lesser wage increases. SoCal asserted, however, that by their nature these industries face a more volatile business climate than the utility industry. According to SoCal, the utility worker accepts a lower pay schedule than employees of many other industries for the stability of his or her employment.

SoCal noted that its cost-of-living adjustment is retrospective rather than prospective and that at the time the wage increase was proposed, the CPI for the year ending in January 1982 was at 10.3%. The company claimed that cumulative wage increases for all employees were 10.5% below the increase in the CPI for the past five years. Its 1983 union wage increase is tied to the Los Angeles-Long Beach CPI and will rise above 7% only if justified by the 1982 increase in the cost-of-living. Therefore, SoCal stated that even though cost-of-living indicators are currently rising at annual rates lower than 9.5%, they do not reflect the 1981 events upon which the 1982 increase was based and are not a valid basis for limiting the 1982 wage increase to 5%. Rather, SoCal points out the 1982 cost-of-living increase will be reflected in the 1983 wage increase. (Southern California Edison Company bases its wage adjustments on forecasted changes in the economy.)

4. Discussion

We have considered staff's recommendation to allow a 5% wage increase for nonunion employees. While staff's proposal is well-intentioned, we cannot adopt it. We agree with staff that the contracted union wage increase was reasonable at the time it was negotiated. But we must also find that the same increase for nonunion employees is similarly reasonable since there is nothing in the record to support a contrary finding.

We do not reach this conclusion on the premise that what is good for the goose must be good for the gander. Ratepayers must bear the reasonable and prudent costs of SoCal's union contract. We find that a 9.5% increase for 1982, and an increase tied to the rate of inflation for 1983, was reasonable at the time union negotiations took place in early 1982. These increases are also reasonable for nonunion employees.

It does not follow, however, that this Commission must always treat union increases and nonunion increases alike. For example, we might reach a different conclusion on this matter if the evidence demonstrated that SoCal's nonunion salaries were significantly higher than those paid to workers in comparable positions in other industries.

We also agree with staff that if we consistently grant SoCal identical increases in both the nonunion and union categories, a conflict of interest might arise. If management expects the Commission to grant a nonunion increase equal to the one negotiated with the union, management may have inadequate incentives to bargain in good faith.

On the other hand, wage increases granted by SoCal to its nonunion employees vary: some employees receive larger increases than others. The increase we grant today is for ratemaking purposes only and will be applied to actual wage increases as SoCal sees fit.

We remind SoCal that staff does not determine "reasonableness". This Commission does. Thus, SoCal cannot argue that certain of its labor-related expenses are patently reasonable because staff so states. This Commission may come to different conclusions than staff and disallow any expenses it finds unreasonable based upon its assessment of evidence in the proceeding.

We agree with staff that the state of the economy and the increased burdens on utility ratepayers require that this Commission reassess many of its regulatory policies. We put SoCal on notice that its labor expenses will receive increased scrutiny. We expect SoCal to take all reasonable measures to keep these and other costs down.

5. Adopted Escalation Rate - Nonlabor

Escalation rates are used to estimate future utility costs. In this proceeding, staff recommended 9.3% for 1981, 7% for 1982, and 9.4% for 1983. SoCal recommended 15% for all three years.

Since the hearings were held on this matter, more recent data are available and should be used. We will adopt 4.7% for 1982 and 6.7% for 1983 and will adopt staff's estimate of 9.3% for 1981.

6. Adopted Escalation Rate - Labor

As discussed previously, the 1983 union wage increase is tied to the Los Angeles-Long Beach CPI and will rise above 7% only if the CPI rises over 7%. CPI is not expected to rise above 7%. Because of the retrospective rather than prospective nature of SoCal's negotiated wage increase, we will adopt a 7% labor increase effective April 1, 1983. We will also adopt the 9.5% increase effective April 1, 1982. Accordingly, the adopted labor inflation rate for test year 1983 is three months at 9.5% and nine at 7% or an effective rate of 7.625%.

7. Adopted Attrition Year Indices

Both SoCal and staff recommended a step-rate adjustment based on appropriate indices for certain expenses and capital costs for the attrition year 1984. We will provide that adjustment in a specific preliminary amount subject only to changes in the level of the selected indices. On or about November 1, 1983, SoCal shall file an advice letter amending the attrition allowance specified in this order to reflect the then most current forecasts for the selected indices and debt costs.

Staff recommended that attrition year indices should be based on a weighted average of a number of DRI scenarios, according to their probability of occurrence as projected by DRI. SoCal recommended using the DRI "CONTROL" scenario without modification. We will adopt SoCal's recommendation because we are not convinced that weighting provides any additional accuracy.

At this time, for purposes of estimating the 1984 attrition allowance, we will use the latest available DRI control estimate for 1984 of an increase of 5.7% for the CPI and 8% for the PPI. These percentages will be revised to reflect the latest available forecast at the time SoCal files its advice letter on or about November 1, 1983.

D. Storage and Transmission Expense

1. Supervision and Engineering

Accounts 814, 830, 850, and 861 are supervision and engineering (S&E) accounts for storage and transmission activities. The total difference in these S&E accounts between SoCal and staff is $741,000.

Staff proposed to reduce SoCal's S&E funding to reflect the adjustments staff made to the non-S&E accounts. SoCal witness Brady agreed there is some correlation between the two categories but not necessarily a direct relationship.

The total difference between SoCal and staff for non-S&E storage and transmission expense is approximately $5.7 million. About half this $5.7 million difference is due to: (1) the number of wells to be repaired and (2) gas losses. Since well repairs are contracted out, this difference (31-24) should not affect S&E expense. Likewise, gas losses should not affect S&E expense. This leaves a net reduction of less than 5% in storage and transmission expense, which arguably could impact S&E expense. We are not convinced this change is sufficient to cause reduction in S&E expense and we will adopt SoCal's estimates for these S&E accounts.

2. Account 816 - Wells Operations

The staff estimate is $98,000 lower than SoCal's. Staff disagreed with SoCal's estimate of wastewater haulage expenses at the Honor Rancho Storage Field. Production and withdrawal operations at that field generate wastewater which must be removed to a dump site. Staff adopted the SoCal methodology and removal cost of $6 per barrel. However, staff used 1981 recorded data to estimate wastewater volumes.

We will adopt the staff's estimate since it is based on the most recent data.

3. Account 818 - Compressor Station Expense

The staff estimate is $193,000 lower than SoCal's. This difference includes SoCal's stipulation to reduce its original estimate by $38,000 for expenses related to additional guard services at the East Whittier Storage Field.

Staff used recorded 1981 data to project 1983 expenses. SoCal argued that the use of 1981 recorded data does not make staff's estimate more reliable than its own. SoCal further argued that its 1983 estimates are grass roots estimates developed by each division and department. SoCal pointed out that in the cost planning process, SoCal's projections are made for two future years by those people directly responsible for the work to be done. Therefore, SoCal argued its estimates better reflect expected 1983 operations.

We believe the staff's estimating approach is reasonable. A grass roots estimate is not necessarily more reasonable than any other. Moreover, it is very difficult to evaluate on a hearing record which does not include testimony by those who developed the estimates. We will adopt staff's estimate.

4. Account 821 - Purification Expense

The staff estimate is $231,000 lower than SoCal's. Of this amount, $36,000 is attributable to staff's proposed amortization over a two-year period of expenses associated with 1983 glycol purchases. No glycol is to be purchased in 1984.

The amount in question is relatively insignificant for ratemaking purposes but the issue was presented in several instances besides the glycol purchase.

The glycol purchase is a nonrecurring expense, which is not of a substantial or extraordinary nature. Under the Regulatory Lag Plan, the utility may submit only one test showing. SoCal argued that it cannot submit a list of nonrecurring miscellaneous items which will occur in the second year, and that it is reasonable to conclude that there will be such items which will occur in the second year and not in the first.

We note that we establish SoCal's revenue requirement based upon those costs SoCal can demonstrate are reasonably foreseeable, not those that are not. We will adopt staff's amortization proposal.

The remaining $195,000 difference between SoCal's and staff's recommendations results from differences in estimating techniques. SoCal used a grass roots estimate, derived by field personnel responsible for the account. Staff used 1981 recorded data inflated to develop a 1983 estimate. SoCal argued that staff did not adjust 1981 to fully reflect 1983 planned operations. If staff wishes to use this same approach in SoCal's next rate case, staffshould consider proposed changes between the one recorded year used as the basis of its estimates and the company's operation plans for the test year. Since staff does not specifically pinpoint where SoCal's estimate is excessive, we will adopt the SoCal estimate for this portion of Account 821.

5. Account 823 - Gas Losses

The staff estimate is $704,000 lower than SoCal's because staff would disallow the amortization of certain storage field gas losses incurred prior to 1983. These losses can be divided into four categories.

(1) Surface Leakage - losses from the well head and field pipe fittings (normal operation);

(2) Incidents - losses from leaks in well casings and related assembly;

(3) Plant Blowdowns - the evacuation of gas from the storage field piping for maintenance activities; and

(4) Migration - the subsurface movement of gas outside the storage field.

SoCal proposes recovery of $1,822,000 for expenses associated with pre-1983 losses (Exhibit 40).

Staff allowed for pre-1983 migration losses, since staff agreed these could not have been estimated. Staff also allowed for estimated 1983 gas losses for all the above categories. Therefore, the issue is whether SoCal could have reasonably estimated pre-1983 losses in question for categories (1) through (3).

SoCal argued that it could not estimate these losses prior to the availability of a study undertaken for SoCal by Dr. Katz. The results of this study, according to SoCal, were not available until this rate case.

Staff argued that SoCal was aware that the losses were occurring yet made no effort to estimate them until the present rate case. Staff stated that SoCal should bear the consequences of its lack of diligence in pursuing the recovery of this expense. We agree with staff.

SoCal filed workpapers on La Goleta field losses late. Staff recommended that the amount involved, approximately 2 Bcf, be deferred to the next rate case because it did not have time for review. The staff witness has conceptually allowed for recovery of migration losses prior to 1983 and SoCal's rebuttal testimony establishes the volumes. We will allow SoCal's request for 1,421.9 M2CF migration losses at La Goleta. However, staff should review this item in the next proceeding where we will reflect any adjustment required.

Staff witness Ferraro also recommended that because of the large gas losses at the East Whittier Storage Field, SoCal should undertake a study to determine whether that field should be removed from operation. SoCal witness Brady agreed to expand SoCal's current study of that facility. Staff recommended that SoCal be required to report its findings in its test year 1985 rate filing. We agree.

6. <u>Account 824 - Other Operations Expenses</u>

Exhibit 141 reflects a difference of $219,000 in Account 824. This amount is related to the amortization of certain cancellation fees resulting from the revised plan of operations at Ten Section. The appropriateness of this expenditure will be considered along with all other Ten Section expenses. It is, therefore, not included in test year 1983.

7. <u>Account 831 - Structures and Improvements</u>

The staff estimate is $42,000 lower than SoCal's. The difference is due to the difference in estimating techniques previously discussed.

SoCal reduced its estimate between the NOI and the application from $499,000 to $376,000. SoCal witness Brady explained that the adjustment recognized some paving and roadwork moved forward from 1983 to 1981. We will adopt SoCal's estimate.

8. Account 832 - Wells

This account involves the largest dollar difference between staff and SoCal related to storage expense. Staff's estimate is $2,651,000 lower. The controversy surrounds the number of wells to be repaired in 1983. Well repairs for purposes of this discussion are divided into two categories, major and other.

Both SoCal and staff contemplate essentially the same unit cost by type of well repair; the difference in estimates is due to a disagreement over the estimated number of well repairs. Staff estimated 19 and 5 other well repairs. SoCal projects 26 major and 5 other well repairs in test year 1983 at a cost of $10,208,068.

SoCal used a least squares trending method. According to SoCal this analysis produced a correlation coefficient (R) between time and the number of repairs of .75 which SoCal considers reasonable.

Staff witness Ferraro asserted that SoCal's R-squared value (.56) is not acceptable, therefore, he used a four-year average. SoCal, on the other hand, contends a four-year average ignores time (age of well casings) as a factor and it ignores the increasing trend in the number of well repairs. Both approaches seem to have shortcomings.

We note there are numerous factors which affect the number of wells repaired each year, e.g. availability of drill rigs and complexity of job, etc. We also note that the number of repairs for the last nine years has increased each year over the preceding year

with only two exceptions. Thus, from 1973 through 1981 SoCal's major well repairs totaled 4, 5, 11, 19, 13, 21, 14, 17, and 24. Ferraro took the average of the last four years of major well repairs, which is 19, and to this figure added 5 other repairs to obtain his estimate of 24 well repairs for the test year.

We note that the last recorded number for major well repairs is 24. Because of increasing age it is reasonable to assume that there will be little decrease in the number of major well repairs. We will therefore adopt 23 major well repairs as reasonable for the test year. To this we will add 5 other repairs, which staff and SoCal agree is reasonable, for a total of 28 well repairs.

9. Account 834 - Compressor Station Equipment

The staff estimate is $351,000 lower than SoCal's because staff proposes to amortize nonrecurring expenses over two years. SoCal witness Brady identified the projects which would be undertaken in 1983 but which would not require any additional funds or work commitments in 1984. Brady could not identify any projects in 1984, the expenses of which would arise to replace the unusual 1983 proposed projects. Accordingly, staff argued that these 1983 expenses should be amortized over two years to prevent double collection.

For the reasons previously discussed, with regard to the glycol purchase, we will adopt staff's amortization proposal.

10. Account 853 - Compressor
Station Labor and Expense

The staff estimate is $90,000 lower than SoCal's. As with glycol expenses reflected in Account 821, SoCal intends in 1983 to replenish stocks of lubrication oils depleted during 1982. There is no plan to replenish lubrication oil during 1984. Staff argued this expense should be amortized over two years. For the reasons stated previously, we will adopt the staff proposal.

11. Account 856 - Mains Expense - Operations

The staff's estimate is $352,000 lower than SoCal's. Staff's estimate is based on recorded data with specific increases for retesting of pipe due to class changes and additional costs associated with the implementation of the Underground Service Alert program, whereby one call notifies all parties of a scheduled excavation. SoCal used a grass roots estimate generated by field personnel. We will adopt staff's estimate since staff's estimating approach is more reasonable.

12. Account 857 - Measuring and
Regulating Stations

The staff's estimate for this account is $91,000 lower than SoCal's. Staff generally agreed with SoCal's estimate but argued the increase in automotive expenses is inconsistent with the increase in employees. We will adopt staff's estimate.

13. Account 858 - Compression of Gas by Others

SoCal withdrew all expenses recorded in Account 858 from this proceeding under the assumption that all Account 858 gas was properly included in CAM proceedings. However, it was later determined that compressor fuel gas not burned under a specific SoCal-PG&E contract is not reflected in CAM rates. Consequently, SoCal should receive $6,000 for this item.

14. <u>Account 859 - Other Expenses</u>

Staff determined that SoCal's 1983 test year estimate does not adequately consider recent increased costs for gas odorant, a petroleum-based product. Accordingly, SoCal should receive $79,000 to cover increases for this item.

15. <u>Account 860 - Rents</u>

This account records rents related to transmission lines. The majority of these rents are paid to railroad companies for transmission pipelines which cross their property under agreements which are negotiated for each pipe crossing.

The staff estimate for Account 860 is $184,000 lower than SoCal's. At the time staff prepared its estimate, SoCal was still negotiating some of the contracts. Therefore, staff used recorded 1981 expense with no allowance for inflation in its estimate for 1983. Subsequently, SoCal concluded its negotiations and submitted late-filed Exhibit 55 reflecting the results of these negotiations. Accordingly, we will adopt the amounts shown in Exhibit 55, less $19,850, which is the amount for 1981 and 1982 rent payable on South Basin Division #2269 right-of-way. We see no reason for this amount to be included in 1983 expenses.

16. Account 863 - Mains Maintenance

The staff estimate is $127,000 lower than SoCal's. Staff generally agrees with SoCal's estimates but amortized unusual expenses which will not occur in 1984. We will adopt the staff estimate.

17. Account 864 - Compressor Station Equipment - Maintenance

The staff estimate is $410,000 lower than SoCal's. The difference is due to staff amortizing unusual 1983 expenses which will not occur in 1984. We will adopt the staff estimate.

18. Account 865 - Measuring and Regulating Station Equipment - Maintenance

The staff estimate is $50,000 lower than SoCal's. Staff noted a disproportionate increase in this account compared to the operations account for this equipment. SoCal witness Brady indicated that equipment age is the cause of the disproportionate increase. We will adopt SoCal's estimate.

E. Distribution Expenses

Eugene L. O'Rourke, vice president, Distribution and Measurement, presented SoCal's proposals concerning distribution expenses (exclusive of customer services expenses). Staff presented its case through Francis S. Ferraro, supervising utilities engineer.

O'Rourke estimated expenses for his department totaling $114,038,000 in test year 1983. Staff's estimate totals $98,737,000. As a consequence, there remains a difference between staff and SoCal of $15,301,000.

1. Accounts 870 and 885 - Supervision and Engineering

The staff estimate is $691,000 lower than SoCal's. This amount is proportionate to adjustments staff made in other non-S&E accounts. The relationship between S&E expense and non-S&E expense was debated at great length. O'Rourke agreed that there was such a relationship between specifically identified items. Based on this discussion, we will adopt 10% of the staff adjustment. Accordingly, SoCal's estimate will be reduced by $69,000.

2. Accounts 875 and 889 - Measuring and Regulating Station Equipment

The staff estimate is $183,000 lower than SoCal's. The staff adjustment was based on customer growth. We agree with SoCal that these accounts are not sensitive to customer growth. Accordingly, we will adopt SoCal's estimate.

3. Account 878 - Meters and House Regulators

Staff's estimate is $9,000 lower than SoCal's. The staff increased 1981 expenses by growth in planned meter repairs. SoCal based its projections on its meter performance control program, which is a statistical analysis filed annually with the Commission. We will adopt SoCal's estimate.

4. Account 880 - Other Expenses

The staff estimate is lower than SoCal's by $1,385,000. This is generally due to excluding amortization of 1982 Polychlorinated Biphenyls (PCB) expenses. We will not amortize the prior year's expense in test year 1983. The staff adjustment is adopted.

PCB estimated expenses included in Account 880 for test year 1983 are $3,000,000. There is no disagreement between the parties regarding the need to deal with the PCB problem and SoCal's proposed solution. Since the problem is relatively new and it is not possible, at this time, to reasonably estimate test year costs, staff recommended that $3,000,000 in expenses for each year be included in rates. Adjustments, if necessary, would be made in SoCal's next general rate case. We will authorize SoCal to establish a deferred account for this item commencing January 1, 1983. SoCal will provide staff with a summary of this account every six months. Any over or under expenditure will be accounted for in SoCal's next general rate case.

5. Account 887 - Mains

The staff estimate is $7,574,000 lower than SoCal's. $6,633,000 of this amount is related to the new leak survey program discussed below, $915,000 is due to SoCal's request to amortize 1982 leak repair costs and the remainder, $26,000, is due to staff's adjustment based on customer growth.

a. The 1-2-4 Program

We refer to the $6,633,000 difference between SoCal and staff in Account 887.

SoCal plans to implement a 1-2-4 leak survey frequencyprogram in 1983. According to SoCal, an undisputed need exists to increase the frequency of surveys. The costs associated with this program total $8,926,000 in the test year and affect Accounts 887 and 892.

Staff concluded the 1-2-4 program and projected expense levels are reasonable but is concerned that concentrated program implementation would cause too great a rate impact. Ferraro recommended phasing the program into two parts; one now and the other in 1985. SoCal disagreed and pointed out that phasing the program would extend the time to complete a full cycle and the higher expense level called for by the 1-2-4 program would likewise be extended. Furthermore, SoCal noted that considering inflation rates, ratepayers may ultimately pay more if one-half of the program is deferred until 1985.

We are concerned about the impact on the ratepayer and will adopt staff's recommendation with regard to phasing the 1-2-4 program.

b. Leak Repair Backlog

We refer to the difference of $915,000 between SoCal and staff in Account 887.

SoCal stated that it proposed to spend $3,000,000 in 1982 to reduce a backlog in unrepaired leaks (Exhibit 12, pages 6-7). SoCal proposed to recover one-half of these expenses in each of the years covered by this proceeding. SoCal's proposal to reduce the leak backlog affects Accounts 880 ($180,000), 887 ($915,000), and 892 ($405,000) (Exhibit 56).

O'Rourke indicated that if the amortization request was not allowed, the work itself would be deferred until 1983 and 1984.

Staff opposed recovery of these proposed 1982 expenditures. In addition, staff concluded a "catch-up" leak repair program in 1982 is unnecessary, although there is no opposition by staff to a catch-up program in later years. Staff agreed with SoCal's goals in 1984 of a backlog between 5,000 and 7,000 leaks.

We will adopt the staff recommendation.

c. Other Items

Regarding staff's $26,000 adjustment based on growth, we will not adopt staff's recommendation since we are not convinced this account is directly affected by customer growth.

In summary, SoCal's estimate for Account 887 should be reduced by $7,548,000.

6. Account 892 - Services

The staff estimate is $5,349,000 lower than SoCal's. $2,557,000 of this amount is due to proposed Federal Leak Survey Regulations, $1,343,000 is due to the 1-2-4 leak survey program, $405,000 is due to amortization of 1982 leak repair costs, and $1,044,000 is due to difference in the number of leaks to be repaired in the test year.

a. Proposed Federal Survey Regulations

SoCal included $9,190,000 in its test year estimate to cover costs associated with new requirements under proposed federal leak survey regulations (Exhibit 56). This expense item affects Accounts 887 and 892. These regulations, if adopted, would require a substantial expansion of those types of surveys presently required to be made on an annual basis and would be additional to SoCal's proposed expenditures under its 1-2-4 program.

Staff recommended no allowance for those projected expenses in this proceeding on the grounds that the proposed rule is likely to be withdrawn. Staff agreed that if the rule is not withdrawn, SoCal's estimate of the cost of compliance is reasonable.

We agree with staff. However, SoCal should be made whole for expenses that might be incurred for complying with new federal regulations. We will authorize SoCal to establish a deferred account to recover these expenditures in its next general rate case proceeding. SoCal should notify the Commission by letter if and when

these federal regulations are implemented. If they are, SoCal should furnish staff with a summary of this account every six months. No allowance for these expenditures will be made for test year 1983.

b. Other Items

As discussed above, we will adopt staff's recommendation regarding phasing the 1-2-4 program.

We will not grant SoCal's request to amortize $405,000 in 1982 leak repair costs in the test year.

Staff and SoCal are generally in agreement regarding the cost of compliance with proposed Federal Damage Regulations. SoCal accepted staff's estimate of $1,930,000 for this item.

Regarding the $1,044,000, which is due to difference in the number of leaks to be repaired, SoCal states that the significant increase in leaks is due to use of new leak detection equipment which is more sensitive. According to SoCal, the backlog in 1980 of Code III nonhazardous leaks increased to 17,840. Now SoCal wants to decrease the backlog to between 5,000 to 7,000. We will adopt SoCal's estimate for this item.

In summary, SoCal's estimate for Account 892 should be reduced by $4,305,000.

7. Account 894 - Other Equipment

Maintenance costs of compressors at natural gas vehicle refueling stations account for a $110,000 difference between staff and SoCal estimates. Staff's lower estimate is based on its proposed reduction in employee levels. O'Rourke testified that the higher expense level was appropriate due to: (a) the addition of one or two refueling bases between now and 1983 and (b) the higher percentage of SoCal fleet being equipped with natural gas.

We will adopt SoCal's estimate.

F. Customer Services Expenses

Radcliffe testified for SoCal and Ferraro presented the position of staff. SoCal's estimates totaled $85,388,000 and the staff's estimate was $78,815,000, a difference of $6,573,000.

1. Account 870 - Supervision and Engineering Expense

The differences in this account are:

S&E Expenses	$ 238,000
Level of Service Studies	200,000
Correction	669,000
	$1,107,000

Staff witness Ferraro adjusted SoCal's estimates for S&E expenses downward $238,000 to reflect staff's adjustment to non-S&E accounts.

SoCal witness Radcliffe testified that the higher projected S&E expenses in 1983 were not related to the projected increase in non-S&E activities. SoCal also argued that 1981 recorded data should not be blindly used in developing 1983 expenses. SoCal argued that its grass roots estimates better reflect anticipated operations for the test year.

We are not convinced that the magnitude of reductions in non-S&E expense proposed by staff will be sufficient to trigger a significant reduction in staffing levels. Accordingly, we will adopt SoCal's estimate for S&E expense.

The second item of disagreement between staff and SoCal centers on the cost for two Level of Service studies, which SoCal originally estimated at $700,000. Staff would allow only $200,000. Staff's estimate for these Level of Service studies is based on a PG&E study which staff contended was similar to the studies proposed by SoCal. We will adopt the staff estimate as reasonable for the test year.

Finally, there is a difference of $669,000 between SoCal and staff which is attributable to SoCal initially including this amount in the wrong table. SoCal later made the correction but staff had not included the $669,000 in its estimate of Account 870. Conversely, staff's evaluation of Account 901 is overstated by $669,000.

We will make this correction and reflect the $669,000 in Account 870.

2. Account 878 - Meter and <u>House Regulator Expenses</u>

The differences between SoCal and staff are:

1982 overpressure protection costs	$ 642,000
Appliance survey	366,000
Adjustments due to estimating technique	2,393,000
	$3,401,000

For reasons previously discussed, SoCal cannot include $642,000 in estimated 1983 expenses for amortization of 1982 OPP expenditures.

Regarding the second item, SoCal argued that staff did not specifically allow the cost of an Appliance Data Survey projected to cost $1.3 million in test year 1983, portions of the dollars for which are included in Accounts 878, 879, and 903. We agree with SoCal that these costs should be reflected in 1983 estimates. Accordingly, we will allow SoCal $366,000 for this item in this account.

Turning to the third item, the $2,393,000 adjustment is due to difference in estimating techniques. We agree with staff that SoCal's estimate reflects an unreasonable percentage increase. We will adopt staff's estimate for this item.

3. Account 879 - Customer Installation Expenses

The staff estimate for this account is lower than SoCal's by $1,531,000. Of this amount $417,000 is due to staff's exclusion of the appliance survey and $1,114,000 is due to staff using 1981 recorded and expected customer growth as the basis for its 1983 estimate.

As discussed previously, we will allow $417,000 for this appliance survey.

Turning to the $1,114,000 amount, staff points out there is no discernible reason for this level of increase. We will adopt staff's estimate.

4. Account 880 - Other Expenses

The staff estimate is lower than SoCal's by $534,000. Staff argues there is no discernible reason for SoCal's level of expense for this account. We will adopt staff's estimate.

G. Customer Accounts Expenses

Radcliffe developed Customer Accounts Expenses, exclusive of EDP-Billing Operation for SoCal. Robert L. Ballew, manager of Budgets and Financial Planning presented EDP-Billing. The staff witness covering both areas was Thomas T. Hamamoto, senior utilities engineer.

SoCal estimated Customer Accounts Expenses to be $103,971,000 for test year 1983. Staff forecasted expenses totaling $96,072,000. The dollar difference is $7,899,000.

Hamamoto would allow $2,084,000 less than SoCal in uncollectible expenses at present rates. Also, he recommended $4,000,000 less than SoCal's request based on staff's proposed reduction in manpower. Finally, a disagreement exists of approximately $2.5 million concerning projected postal rate increases.

1. Uncollectible Expense

Hamamoto proposed reducing SoCal's estimate of its uncollectible expenses from $7,117,000 to $5,032,800. His uncollectible estimate is premised on taking SoCal's average systemwide uncollectible rate for 1980 and 1981 and applying that average rate to projected 1983 estimated systemwide sales.

SoCal argued that 99% of the total uncollectible expense is due to residential and commercial customers; therefore, it is incorrect to use systemwide figures which include steam-electric plants sales.

Also, SoCal pointed out that the 1981 figures used by Hamamoto did not reflect a pass-through of $335,000,000 in supplier refunds. We agree with SoCal that recognition of these refunds is appropriate and should be included in the calculation.

SoCal's uncollectible rate based on 1980 high priority temperature adjusted sales is .480. SoCal used .490 in this proceeding to recognize the effect of higher bills.

SoCal further notes its uncollectible current write-off percentage, .4870, closely approximates the .4900 rate included in this proceeding. Accordingly, we will adopt the SoCal figure.

2. Manpower Reductions

Staff witness Hamamoto made substantial adjustments to both the expenses estimated by Radcliffe and Ballew based on a reduction in employees. These adjustments total $4,000,000. Staff assumed that employee requirements track customer growth and thus adjusted out all employees estimated by SoCal in excess of the staff's 1.8% customer growth rate.

Also, staff developed a per-employee dollar amount by dividing SoCal's projected 1983 expenses for EDP and non-EDP operations by the projected number of employees in each of those

categories. Staff then subtracted the appropriate amount for each employee dropped. EDP expenses were reduced $80,503 each for 19 employees, or a total of $1,529,500. Non-EDP expenses were reduced by $40,763 for each of 61 employees, a total of $2,486,500.

SoCal argued that the methodology used by Hamamoto excludes consideration of new employee requirements which are not directly related to customer growth. Thus, according to SoCal, on the non-EDP side Hamamoto had excluded expenses needed by SoCal in 1983 for its Appliance Data Survey, Level Pay Plan, Energy Assistance Program, and Expanded Telephone Services. SoCal further noted that Hamamoto ignored requirements of $500,000 to test hand-held meter devices and $250,000 for a customer relations training program. Finally, on the non-EDP side, SoCal submits Hamamoto has failed to recognize a several hundred thousand dollar requirement for brochures and bill inserts needed to (a) implement the termination of service requirements of OII 49 and (b) a third-party notification procedure as specified in OII 49.

With regard to EDP expenses, SoCal argued that Hamamoto ignored the $2,788,000 in Account 903 for expansion of existing programs and addition of new programs. According to SoCal, the extraordinary items unrelated to customer growth are: added requirements attributable to the increased complexity of rate design, increased requirements in handling supplier refunds, report card billings, payment assistance programs, requirements under OII 49, and lifeline allowance audits. SoCal noted Hamamoto ignored the increased employees needed to handle added emergency and safety matters, improvements in operating efficiencies, and increased requirements in historical data file maintenance.

According to SoCal Hamamoto assumed, with one exception, that the existing work force is adequate to handle all of SoCal's new needs.

We agree with SoCal that there will be extraordinary items, over and above those required to offset normal customer growth, and if found necessary such extraordinary items should be allowed in rates. However, SoCal is seeking an inordinately large increase in this area. We believe SoCal should make do with less. Accordingly, we will adopt half the $4,000,000 reduction proposed by staff. This should provide SoCal with funding to implement the new programs on a somewhat smaller scale.

3. Postage

SoCal included a projected increase of $2,461,000 in postage rates in its estimate of postage expenses. The staff estimate is based on existing rates.

SoCal argued that such an approach is unjustified and unreasonable. SoCal notes it lost nearly $1,000,000 in 1981 because in its last general rate case the Commission would not recognize the probability of a postage increase. SoCal submitted that such a situation should not be allowed to occur again and requested that a deferred or balancing account mechanism be authorized for postage increases.

We are generally opposed to a balancing account for postage because it would remove an incentive for SoCal to control this expenditure. There is no indication of any postal rate increase in the offing. The attrition allowance for 1984 should provide relief to SoCal if there is a postal rate increase. Accordingly, SoCal's request for a balancing account to accommodate postal rate increases is denied.

E. Administrative and General Expenses

Four SoCal witnesses covered Administrative and General (A&G) Expenses. J. Arthur Johnson, vice president, Industrial Relations, sponsored employee pensions an benefits. Samuel J. Cunningham, manager of Research, covered Research and Development

expenses. John Patrick Garner, vice president, Public Affairs, testified on SoCal's Public Affairs activities. Robert L. Ballew, manager of Budgets and Financial Planning, had responsibility for all other items in this broad expense category.

Maurice F. Crommie, Research Analyst, sponsored Employee Pensions and Benefits for the staff and R. Donald McCrea, Associate Utilities Engineer, was the staff representative for all other A&G matters.

The staff and SoCal are $8.0 million apart in their respective estimates of total A&G expenses, $5.1 million of which is attributable to Employee Pensions and Benefits.

1. Account 920 - A&G Salaries

Staff noted that SoCal's estimate of total A&G expenses doubled between 1979 and 1983 with individual accounts increasing in some cases as much as four times their 1979 level. In many instances, staff was satisfied by SoCal's explanation of this high level of escalation. In others, staff argued that SoCal provided insufficient justification to adopt the SoCal estimate. Staff found an unreasonable rate of increase in Account 920. Staff argued that this account formerly included expenses associated with SoCal's internal audit functions; that function is now performed by PLC with those expenses now included in Account 923. Staff witness McCrea testified that with the transfer of this major expense item he would have expected a sizable decline in Account 920 or at least escalation in this account at a rate less than inflation. Since no such decline was perceptible, McCrea concluded that the SoCal estimate was unreasonably inflated. Accordingly, he reduced SoCal's estimate by $900,000 to reflect this shift of internal audit functions.

SoCal argued that McCrea made no specific inquiry into the components of Account 920. SoCal witness Ballew testified that due to a transfer of functions, expenses associated with internal auditing were now estimaed in Account 923 (Outside Services) and not included in Account 920 as was the case in prior years.

SoCal argued that Account 920 contained these auditing expenses only through 1980. SoCal submits that inspection of the 1980 and 1981 numbers supports its position. Recorded numbers in Account 920 are $6,120,000 in 1979 and $6,669,000 in 1980. Expenses estimated for years 1981, 1982, and 1983 are $6,741,000, $7,657,000, and $9,671,000, respectively. Bearing in mind the effects of wage inflation, we agree with SoCal that the 1980-1981 increase is substantially less than for other periods. Accordingly, we will not adopt the staff recommendation.

2. Account 921 - Office Supplies and Expenses

The staff eliminated $3,100 for donations provided to Town Hall and the American Association of Blacks in Energy. Our treatment of dues, donations, and contributions is discussed under the Account 930 arguments. We will delete this amount from Account 921.

3. Account 922 - Administrative Expense Transfer

Account 922 is a credit account where a percentage of the expenses included in Accounts 920 and 921 are transferred to construction costs or to nonutility accounts. Thus, under normal conditions, the credit figure in Account 922 will increase or decrease in direct relation to increases or decreases to the sum of Accounts 920 and 921.

The adopted results for Account 922 will reflect the ratio used by SoCal, a credit equal to 3.43% of Accounts 920 and 921.

4. Account 924 - Property Insurance

The staff estimate is $22,800 lower than SoCal's. The difference is due to staff using SoCal's general guideline inflation rate in SoCal's Functional Account 9934.4. SoCal introduced Exhibit 71 to further explain the methodology used. However, the exhibit does not demonstrate why the guideline inflation rate was not used in Functional Account 9934.4. Accordingly, we will adopt the staff estimate adjusted to reflect the plant-in-service.

5. Account 925 - Injuries and Damages

The staff estimate is $161,000 lower than SoCal's. Staff made an adjustment in this account similar to the adjustment made in Account 924. According to staff, SoCal used unexplained escalation rates in estimating its subaccount, SoCal Functional Account 9934.4. Additional differences are attributable to differences in test year manpower estimates.

For the reasons discussed in Account 924, we will adopt the staff estimate.

6. Account 926 - Pensions and Benefits

The staff estimate is $5,073,000 lower than SoCal's due to the following adjustments.

5% Wage Limitation	$ 936,000
Benefits Elimination	1,268,000
5% Fewer Employees	2,869,000
	$5,073,000

As discussed above, we will not adopt staff's proposal for a 5% wage limitation on nonunion employee wages. Accordingly, we will not adopt the $936,000 adjustment related to this item.

Turning to the second item, staff proposed to reduce employee newsletter expense by over one-half and eliminate allowances for canteen operations, Disneyland and division picnics, Christmas turkey checks, management medical examinations, and employee clubs and activities.

SoCal argued that staff's rationale for disallowing such benefits is inadequate. SoCal witness Johnson indicated that a survey of benefits shows SoCal's employee benefits compare to those offered by comparable companies. While the type of benefits offered varies somewhat among companies, SoCal asserted its benefits are not excessive.

SoCal emphasized that it does not have an employee discount for gas service such as offered by other California utilities. SoCal estimated such a benefit would cost approximately $1 million if SoCal offered its employees a 25% discount on current gas rates. This amount approximates the costs of the benefits eliminated by staff. Given that, and in consideration of staff's agreement that it is appropriate for employees of the various utilities to receive somewhat equal employee benefits, SoCal argued its benefits package is reasonable.

Finally, SoCal argued that most of the programs recommended for elimination are benefits which accrue to union-represented employees. Even though they are not included in the collective bargaining agreements, such benefits, according to National Labor Relations Board (NLRB) rulings, may not, once granted be unilaterally withdrawn by management. Ford Motor Co. v NLRB (1979) 441 US 448 at 497.

We note the issue of employee discounts is being considered in a separate proceeding. However, it is not appropriate for SoCal to compare that benefit with the ones questioned by staff. In view of the hardships SoCal's ratepayers are experiencing from the dramatically increased costs of energy, it would be unfair for this Commission to pass through to them the costs of employees' Disneyland and division picnics, Christmas turkey checks, management medical examinations, and employee clubs and activities. Accordingly, expenses for these items will not be allowed for ratemaking purposes.

With regard to canteen operations, we will allow the amount of $121,115 which is the cost of providing facilities for employee lunch rooms and eating areas. The ratepayer should not have to subsidize the cost of foot served in employee lunch rooms. Therefore, the amount of $164,260 for food subsidies will not be allowed.

Finally, with regard to employee communications, we recognize that some expenditures are necessary in order to promote employee efficiency and morale. The amount requested by SoCal is reasonable and we will not adopt the staff adjustment for this item.

The policy covering the above adjustment is discussed in SDG&E D.93892 dated December 30, 1981, page 124. Based on the above, we will reduce SoCal's request by $856,260.

The third item in dispute relates to pensions and benefits for the 502 employees staff deleted from SoCal's estimates. The adopted dollar amount for this item reflects the final results and related manpower levels adopted in the various estimates which affect this account.

7. Account 930 - Miscellaneous

The staff's estimate is lower than SoCal's due to the following differences:

AGA Dues	$ 260,000
Other Dues	140,000
RD&D	1,243,000
Miscellaneous	(40)
	$1,642,960

a. AGA Dues

Staff proposed a disallowance of AGA dues amounting to $260,000. The basis for the exclusion is stated in D.93887, an order issued in A.60153, where the Commission disallowed AGA dues in PG&E's last general rate case. We note the Commission issued a subsequent order on March 2, 1982, in which it added a finding of fact to support its disallowance of AGA dues. This finding of fact provided that "[t]he record does not support a conclusion that the dues PGandE pays to AGA...are of benefit to its ratepayers" (D.82-03-047, mimeo p. 7, Finding of Fact 107). Therefore, the issue here is whether the dues SoCal pays to AGA provide a benefit to the ratepayer.

According to SoCal witness Garner the AGA provides a forum for SoCal and its employees to keep abreast of the latest thinking by the foremost industrial, professional, and technical experts involved in the natural gas industry. This relationship, Garner notes, led to an untold number of economies. Appendix 1 to Exhibit 140 lists some of the benefits SoCal believes have accrued to its ratepayers through AGA membership.

SoCal argued that if it were to discontinue its participation in this association, there would be substantial additional expense requirements to fill the void. The services and benefits flowing from AGA, Garner submitted, could not possibly be duplicated for the same cost. These benefits, Garner concluded, ultimately flow through to the ratepayer.

We are not convinced by SoCal's argument. As we see it, AGA is an association whose primary purpose is to promote the gas industry and the interests of its stockholders. Benefit flow-through to the ratepayer is incidental. Accordingly, we will adopt staff's recommendation.

b. Other Dues

The staff estimate is $114,000 lower than SoCal's. Staff stated that virtually all dues and donations excluded in prior rate cases were not included in this test year estimate. According to staff, SoCal has increased the number of organizations to which it contributes since the last rate case. Also, staff argued that donations to some of these organizations, such as ethnic, taxpayer, and environmental balance organizations, should not be billed to the ratepayers.

We note that the general rule governing the inclusion or exclusion of dues in utility rates focuses on the type of organization involved. Thus, in Pacific Telephone and Telegraph

Co. v Public Util. Comm'n 62 Cal 2d 634, the California Supreme Court upheld disallowances of dues to charitable and cultural organizations. Staff generated an internal position paper drawing the same conclusion (Exhibit 99). That paper recognizes that dues and fees to trade, technical, and professional associations are appropriate.

SoCal argued that staff based its recommendation for disallowance merely on the name of the organization and made no separate investigation regarding the entities disallowed. SoCal argued that evidence it provided shows that the organizations are not in the categories deemed by the Supreme Court and the staff to be inappropriate.

We are concerned about the proliferation of the number of organizations which the ratepayer is being asked to support. Therefore, we will only allow a portion of SoCal's request at a level which should be adequate to reimburse SoCal for dues paid to the technical and professional organizations that will keep SoCal informed on topics directly related to its business. We note that in the last general rate case proceeding, we allowed SoCal $497,500 for this item. We will allow SoCal the same level of expenditure last found reasonable.

c. RD&D

This item was discussed previously.

I. Rate Base and Depreciation Expense

1. Overview

SoCal and staff agree on the gas plant in service amounts except for the difference related to inflation assumptions. SoCal's estimated weighted average gas plant in service amounts to $2,161,603,000 for SoCal and $389,735,000 for PLGS. The corresponding staff estimtes are $2,148,394,000 and $391,745,000 for SoCal and PLGS, respectively.

The difference between SoCal's and staff's depreciation reserve amount is related to estimated gross salvage and removal costs and the level of depreciation expense. The company estimated weighted average reserves for SoCal and PLGS, respectively, amount to $817,400,000 and $101,755,000. Staff's estimates amount to $816,669,000 for SoCal and $101,767,000 for PLGS. Staff's gross salvage and removal cost estimates were based on more current data than SoCal's (Exhibit 40, page 16-6). Staff's depreciation expense of $89,825,000 for SoCal and $18,581,000 for PLGS differs from that of SoCal ($91,961,000 and $17,605,000 for SoCal and PLGS, respectively) for two reasons: (1) staff used different depreciable plant balances and (2) staff used different estimated future net salvage assumptions (Exhibit 40, pages 16-1, 16-2, and 16-8).

Staff and SoCal are in agreement with respect to average service life and mortality dispersion assumptions, including the changes proposed by SoCal (Exhibit 40, pages 13 and 15, Tables 1 and 2; Exhibit 19, pages 6-8).

In a letter to the Commission dated January 25, 1982, SoCal requested that it be allowed to revise the filing date for its annual submission of proposed depreciation accrual rates from on or before December 1 of the year prior to use, to on or before May 1 of the year the rates are to be effective. SoCal also requested a change in the procedure SoCal uses to record monthly depreciation accrual amounts to that used by PLGS. SoCal claimed the requested change will improve accuracy, increase productivity, and provide more time to review the impact on SoCal of Commission general rate case decisions prior to the preparation of depreciation accrual rates. Both changes would be effective beginning with test year 1983. Staff reviewed SoCal's request and recommended that the proposed changes be allowed (Exhibit 40, page 16-4). We will adopt staff's recommendations including the salvage assumptions.

2. The Effect of Removing LNG From Consideration in this Case

The application, as originally filed, included a request to place $141,687,000 of costs for the LNG project in PLGS' rate base as plant held for future use (Exhibit 2, Table 17-A).

Removal of the LNG request from this case, as discussed previously, reduces SoCal's test year 1983 revenue requirement by $32,690,000.

3. Effect of Commission Decision Modifying Main and Service Extension Allowances

In Exhibit 119, SoCal presented the effects resulting from D.82-04-068, changing the distribution main and service extension allowance rules. SoCal showed that during the first year the new extension allowance rules are in effect, its revenue requirement will increase $248,000 and in the next year the revenue requirement will decrease $2,772,000. SoCal witness Sanladerer explained that the first year the decrease in revenues related to a lower weighted average rate base, an amount which will be more than offset by an increase in income tax expense due to an increase in taxable income from new business service extension contributions, reduced investment tax credit, and lower tax depreciation (Exhibit 118). SoCal noted that while service extension contributions will continue to be taxable in the second year and thereafter, SoCal's revenue requirement will be lower because the cumulative reduction in the weighted average rate base will more than offset the increased income taxes.

There was no disagreement between SoCal and staff on this item.

4. Working Cash Allowance

Both SoCal and staff used Standard Practice U-16 to estimate working cash allowance.

Legal Division argued that it might be less expensive to ratepayers to incur and expense transactional fees rather than capitalize the deposits necessary to avoid them.

The record in this proceeding is insufficient to decide this issue. We expect staff and SoCal to address this issue in SoCal's next general rate case proceeding.

J. Taxes

1. Ad Valorem Tax Expense

SoCal's test year estimate exceeds staff's by $224,000. This is primarily due to the estimated market value for the fiscal year 1982-1983. SoCal's estimated 1982-1983 market value after excluding a portion of the Ten Section project was $1.42 billion. SoCal later agreed that the market value would be $1.412 billion. The State Board of Equalization has determined the 1982-1983 market value for SoCal to be $1.4 billion (Exhibit 61). We will adopt the latter figure for calculating ad valorem taxes and will also reflect the adopted plant additions.

2. Payroll Tax Expense

Staff recommended that payroll tax expense of $17,715,000 be allowed in test year 1983, $1,042,000 less than the final SoCal amount of $18,757,000. The major difference results from other staff witness' work force disallowances. Payroll tax expense will be adjusted to reflect the work force levels adopted in this opinion.

Staff recommended a reduction of $125,000 of payroll taxes which are related to staff's proposal to limit the wage increase for nonunion employees. As previously discussed, the staff witness testified that the wages are reasonable and should be paid whether or

not there is an adjustment for ratemaking purposes. We agree with SoCal that making such a wage payment would result in a legal obligation for SoCal to pay the associated payroll taxes. Accordingly, payroll taxes on total wages estimated to be paid will be allowed regardless of our disposition of the 5% wage limitation issue.

3. Income Tax Expense

a. Recovery of Investment Tax Credit (ITC) Disallowed

This issue was raised in SoCal's previous general rate case where the Commission addressed the subject in D.92497 dated December 5, 1980:

> "SoCal has not yet been assessed any tax deficiency, nor has the ITC in question actually been disallowed by the IRS."

The Internal Revenue Service (IRS) has disallowed the 6% increment of ITC on distribution property in their audit of the years 1975 and 1976 (Exhibit 18, page 7). The appeals process from this disallowance is continuing. SoCal requested that the Commission state its position regarding any ITC disallowance by the IRS.

SoCal noted that its annual report contains the following statement:

> "'The additional investment tax credits allowed pursuant to the Tax Reduction Act of 1975 for distribution property placed in service from 1975 through 1980 are being accounted for on the basis that due to certain PUC orders the utility subsidiaries are probably not eligible for the credits. The balance of such credits of $24,155,000 at December 31, 1980

> has been reclassified to deferred income taxes to reflect the probability that they will become payable to the Internal Revenue Service.'" (Pacific Lighting Corporation Annual Report for 1981).

Consistent with the holding of the California Supreme Court in Southern California Gas Co. v Public Util. Comm'n, (1979) 23 Cal 3d 470, 486 n.18, if the credit is eventually disallowed, thus increasing SoCal's tax liability, SoCal may petition the Commission for appropriate relief.

b. Normalization Required by the ERTA

Both SoCal and staff attempted to comply with the normalization requirements of the ERTA. This is in keeping with D.93848 dated December 15, 1981, which concluded that, subject to a transition rule, a normalization method of accounting must be used to maintain eligibility for accelerated cost recovery and ITC.

4. Tax Equity and Fiscal Responsibility Act of 1982

On August 19, 1982, Congress passed the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA). TEFRA has a substantial impact on the ratepayer. For instance, the Federal Unemployment Tax base and rate have been increased and the act requires taxpayers using the ACRS method of depreciation to reduce the basis of the asset being depreciated by one-half of the ITC generated by the property being depreciated. There are also additional administrative and other costs associated with TEFRA.

We will incorporate the effects of TEFRA in the adopted results of operations.

K. Attrition Allowance

SoCal requested an allowance be made for financial and operational attrition in the year following the test year. Attrition occurs when there are insufficient increases in revenues and productivity to offset increases in expenses, including the cost of capital and rate base occurring after the test year, thus causing a decline in rate of return in the year following the test year. Since the Rate Case Processing Plan allows the utilities to file for general rate relief every other year, the Commission has previously provided an allowance for attrition experienced by the utilities between the rate cases.

Both SoCal and staff agree that the most appropriate way to mitigate the impact of increased costs in the nontest year 1984, due to operational and financial attrition is to provide for a step rate attrition allowance to be effective January 1, 1984.

SoCal calculated 1984 attrition at $163.3 million to reflect increases in labor, nonlabor costs, rate base and related items, and for financial attrition (Exhibit 100). Staff reflected the same factors and calculated an allowance of $96.8 million for 1984 attrition (Exhibit 115). SoCal and staff assumed different test year expenses, plant levels, and general economic assumptions.

As discussed previously, the adopted indices for calculating the 1984 attrition allowance are: the current latest-available DRI CONTROL forecast, the CPI index, and the PPI index - Industrial Commodities without modification. On or about November 1 of test year 1983, SoCal shall file an advice letter amending upward or downward the attrition allowance specified in this order.

Another area of disagreement between staff and SoCal is the rate base amount for the attrition year. SoCal used a least-squares trend to arrive at its rate base component. Staff used a

five-year average of plant additions inclusive of 1979, 1980, and 1981 recorded and 1982 and 1983 projected additions. Staff figures reflect inflation. The staff approach is reasonable and we will adopt staff's estimate of rate base for the attrition year.

The adopted attrition allowance calculation is shown in the following table. Based on current DRI forecasts, the 1984 attrition allowance is calculated at $________ million. As discussed above, this amount would be modified when SoCal makes its advice letter filing.

17% ROE

Southern California Gas Company
Attrition Allowance for 1984

Operational Attrition

1.	ORM Component			
2.	Labor	(349,495)* x CPT*** (5.7%)	=	19,921
3.	Nonlabor	(110,218)**x PPI**** (8.0%)	=	8,817
4.	Payroll Tax Component		=	1,421
5.	Ad Valorem Tax Component		=	2,372
6.	Depreciation Expense Component		=	23,174
7.	Rate Base Component		=	32,047
8.	Income Tax Component		=	(7,624)
9.	Total Operational Attrition			80,128
10.	Financial Attrition		=	5,280
11.	Total Attrition			85,408

(Red Figure)

* (324,734) x (1983 escalation factor 7.625%) = 349,495
** (103,297) x (1983 escalation factor 6.7%) = 110,218
*** 1984 inflation factor based on Nov. 1982 DRI forecast
**** 1984 inflation factor based on Nov. 1982 DRI forecast.

XI. Rate Design

A. SoCal's Proposal for Wholesale Customers

On April 30, 1982, the ALJ ruled that the scope of the rate design issues in the case would be limited to receiving evidence on the wholesale customers' capacity charges. Under this ruling, SoCal's witness Scalf prepared a Base Supply and Load Equation (BS&LE) cost allocation study (Exhibit 102) which was then used by SoCal witness Benz to calculate the "percent of margin" figures for the two wholesale customers, SDG&E and Long Beach (Exhibit 107). We will use these "percent of margin" figures to compute the wholesale customers' capacity charges based on the margin to be authorized in the decision in this case (Exhibit 103, pages 8-9).

In adopting SoCal's BS&LE cost study for this proceeding, we note that in D.92497 in SoCal's 1981 general rate case, we stated:

> "'[W]e are attracted by the simplicity of SoCal's proposal to use the percentage relationship between the wholesale share of the margin based on the BS&LE cost allocation methodology and the total proposed margin applied to our adopted margin.'" (D.92497, mimeo page 142).

SoCal's wholesale customers generally accepted the BS&LE study prepared by Scalf. Both SDG&E and Long Beach cross-examined SoCal's witnesses to make sure that they were not charged twice for certain costs they incur in their operations. The costs that concerned SDG&E and Long Beach were, for example, conservation costs, overpressure protection costs, PCB costs, distribution costs, and uncollectible costs. Cross-examination of Scalf showed that none of these costs were allocated to the wholesale customers.

SDG&E pointed out that SoCal witness Brady revised his projection of well repairs resulting in a reduction of $11,986,400 to $10,208,000. SDG&E requests that this reduction be recognized in the final figure.

SoCal argued that by conveniently choosing a single item to revise the BS&LE results, SDG&E ignored other adjustments which, if reflected in a completely revised BS&LE study, would increase the figure otherwise developed for SDG&E. SoCal noted that a complete revised BS&LE study to reflect its final revenue requirement was not prepared because of its time-consuming nature. We agree with SoCal. The BS&LE study, as submitted, is reasonable for this proceeding. Accordingly, we will adopt SoCal's percent of margin figures as discussed below.

The derivation of the percentage relationships between SDG&E's and Long Beach's share of margin and the total proposed margin is shown in Exhibit 107. The percentages of margin derived in that exhibit (excluding LNG and Ten Section costs) of 2.2155% and .4596% for SDG&E and Long Beach, respectively, are similar to percentages of margin developed in SoCal's 1981 general rate case of 2.2269% and .4581% (D.92497, mimeo page 143).

The figures of 2.2155% and .4596% should be used to derive the wholesale customers' capacity charges for test year 1983. For example, if the total authorized margin were to be, say, $1,000,000,000 (consisting of the currently authorized margin of $725 million plus the margin increase adopted in the test year 1983 decision), then SDG&E's capacity charge would be $22,155,000 annually, and on a monthly basis $1,846,250.

B. Further Rate Design Considerations

The Commission will, in SoCal's October 1982 CAM proceeding, review existing rate design guidelines in SoCal's October 1982 CAM proceeding. The revenue requirement adopted in this proceeding will be combined with the revenue requirement adopted in the CAM proceeding and the total will be spread in accordance with our findings in the CAM proceeding.

Findings of Fact

1. SoCal is in need of additional revenues but SoCal's amended request of $414 million is excessive.

2. A rate of return of _____ percent on the combined adopted rate base is reasonable. Such a rate of return will provide a return on equity of approximately ______ percent and a times-interest coverage (after tax) of _____. This return on capital is the minimum needed to attract capital at a reasonable cost and not impair SoCal's credit.

3. To earn a _____percent rate of return on the adopted rate base, SoCal's base rates need to be increased effective January 1, 1983 by $_________ million.

4. An allowance for operational and financial attrition is necessary for SoCal to offset increased costs in the second year during which the new rates will remain in effect. Providing a step-rate increase effective January 1, 1984 is a reasonable means to properly reflect these increases in cost.

5. It is difficult to estimate the appropriate escalation factors for labor and nonlabor expenses for the attrition year. Therefore, the adoption of an indexing procedure for determining the 1984 attrition allowance is reasonable to protect SoCal as well as the ratepayer, from over or underestimates of the labor and nonlabor escalation factors.

6. The DRI CONTROL forecast is a published index and it is reasonable to use this in calculating SoCal's attrition allowance for 1984.

7. The actual amount of SoCal's attrition allowance for 1984 is best determined following the filing of an advice letter by SoCal on or before November 1, 1982, based on the attrition allowance calculation adopted herein, adjusted to reflect the latest available DRI CONTROL forecast for the CPI-All Urban Consumers index and the PPI - Industrial Commodities index for 1984.

8. It is reasonable to adopt the staff methodology for estimating rate base increase in the attrition year.

9. SoCal's request totaling $39 million for 1983 conservation program expenditures is excessive in view of a projected 1983 revenue requirement of $76.3 million for CCA funded conservation programs. It is therefore reasonable to make a significant reduction to SoCal's request in this proceeding.

10. The amount authorized in this proceeding for conservation programs, together with the amounts funded through CCA rates will enable SoCal to continue an effective conservation program in 1983.

11. It is reasonable to allow SoCal discretion to allocate up to $1.0 million among adopted individual conservation programs. Any funds not spent during the year shall be carrried forward for future use in conservation activities.

12. The solar/gas conservation program should be discontinued because the program is largely an advertising effort, it is not cost effective to all ratepayers and the ratepayers already have a substantial commitement to solar energy use in the Solar Water Heater Demonstration Financing program.

13. The appliance efficiency program should be discontinued because the program relies heavily on advertizing and incentives, and it is not cost effective to all ratepayers.

14. SoCal's request for the Conservtion Education program is excessive, however, some funding to develop the energy habits of elementary and secondary school students is needed.

15. SoCal's funding request for the Energy Efficiency Audits program is excessive. The cost effectiveness of this program will be improved by eliminating the activities within the program which have low cost-effectiveness results.

16. The high cost and the questionable cost-effectiveness of the New Commercial Customer Conservation Program do not justify funding.

17. The cogeneration program which has been funded since 1979 has provided no results so far due to complexity and cost of such projects. The prospects for the future indicate no change. There is no justification to continue funding.

18. The benefits to the ratepayer from the Residential New Construction Service to Customers program are very uncertain. There is no justification to have the ratepayer fund this program.

19. The RD&E expenditure level adopted is reaonable and will allow SoCal to continue its programs at about the same level as in the past.

20. The expenditure levels adopted in the results of operations are reasonable and should permit SoCal to operate effectively in the test year.

21. The wage increase negotiated by SoCal for 1983 and 1984 is reasonable for use in calculating expenditure levels for the test year and attrition year.

22. SoCal's request to annualize wages should be rejected since rate relief is granted at the onset of the test year.

23. Based on recent forecasts it is reasonable to adopt a nonlabor escalation rate of 4.7% for 1982 and 6.7% for 1983.

24. SoCal could have estimated gas losses from surface leakage, incidents and plant blowdowns. Therefore it is not reasonable for the ratepayer to bear the consequences of SoCal's lack of diligence in pursuing recovery of these expenses which occurred prior to the test year.

25. SoCal could not have reasonably estimated losses due to migration of gas outside its storage fields prior to engaging the service of its consultant Dr. Katz. It is therefore reasonable to allow recovery for these losses in the test year.

26. The ratepayer should not have to fund AGA dues since the primary purpose of the AGA is to promote the gas industry and the interests of its stockholders. The benefit flowed through to the ratepayer is incidental.

27. There is a proliferation in the number of organizations the ratepayer is being asked to support and it is reasonable to allow SoCal no more than was found reasonable in SoCal's last general rate case for expenses related to Other Dues.

28. Since the reasonableness of all Ten Section expenses will be the subject of a separate proceeding, it is reasonable to allow SoCal a balancing account procedure to reflect operating expenses for withdrawal of the cushion gas.

29. It is reasonable to treat Ten Section cushion gas as gas in storage since this gas will be available for use by the ratepayer as part of SoCal's gas supply for the test year.

30. The adopted treatment of Ten Section expenses in the test year should not in any way constitute a prior approval of the reasonableness of any of the expenditures.

31. Because of the uncertainty of the date of implementing the proposed Federal Survey Regulations for gas leaks, it is reasonable to allow SoCal to establish a deferred account so that any expenses incurred in the test year could be recovered in SoCal's next general rate case proceeding.

32. Because of the difficulty in estimating PCB related expenses in the test year, it is reasonable to allow SoCal $3.0 million in expenses at this time and this amount will be adjusted for over or under expenditure in SoCal's next general rate case proceeding.

33. The percentage of margin figures of 2.2155% and 0.4596% should be used to derive the test year 1983 wholesale customer capacity charges for SDG&E and Long Beach respectively. These percentages do not include LNG and Ten Section costs.

Conclusions of Law

1. When SoCal is authorized to file revised gas rates pursuant to its CAM filing now pending before the Commission, it should be further adduthorized to file gas rates designed to generate the S___,___,___ in additional 1983 test year gross revenues based on our adopted results of operation in this proceeding.

2. The effective date of the ensuing order should be the date hereof because there is immediate need for rate relief concurrently with the commencement of the 1983 test year pursuant to the Commission's Rate Case Processing Plan.

3. SoCal should be authorized to file revised gas rates to be effective January 1, 1984 to generate additional revenues based on our calculation for attrition as set forth in this opinion, adjusted to reflect the latest available DRI Control forecast for the CPI - All Urban Consumers index and the PPI - Industrial Commodities index for 1984.

O R D E R

IT IS ORDERED that:

1. Southern California Gas Company (SoCal) is authorized an annual increase in gross revenues in the amount of ____________. This increase in gross revenues will be deferred to SoCal's CAM A.82-09-12 now pending before the Commission for subsequent inclusion with whatever other rate relief may be authorized in that decision.

2. SoCal is authorized to file an advice letter on or before November 1, 1982 for increased rates to offset financial and operational attrition consistent with the discussion set forth in this opinion. Such rates shall no be effective before January 1, 1984.

This order is effective today.

Dated December 8, 1982, at San Francisco, California.

I concur and dissent in part.
/s/ RICHARD D. GRAVELLE
Commissioner

JOHN E. BRYSON
President
RICHARD D. GRAVELLE
LEONARD M. GRIMES, JR.
VICTOR CALVO
PRISCILLA C. GREW
Commissioners

recommendation is based primarily on gis judgment after consideration of a number of factors affecting the financial condition of the utility. He stated his recommendation is not unfair in view of the return of comparable utilities.

Position of San Diego

San Diego did not present independent testimony on the issue of rate of return: however, it joins in the argument of LA on this issue.

Position of Tehachapi

Tehachapi did not present independent testimony on the issue of rate of return; however, it did address the issue in its brief.

Tehachapi argued that an unduly high rate of return will further feed the inflationary fires as will any understatement of expected revenues or overstatement of costs. Tehachapi argued that interest rates are headed down and the Commission should wait as long as feasible to determine rate of return for 1983 and defer the determination of the 1984 return toward the end of of 1983. Tehachapi stated this procedure will protect both SoCal and the public.

Tehachapi generally agreed with the analysis prepared by Kroman on behalf of LA with the exception that SoCal should receive the same return last authorized since, according to Tehachapi, SoCal is virtually guaranteed its rate of return by reason of the numerous offset proceedings and balancing accounts now available.

Discussion

The parties who participated in this proceeding came to very different cocnclusions regarding the appropriate return on equity. Recommendations range from 15.9% to 21%. The difference in revenue requirement between staff's recommended 17% return and SoCal's requested 20% is approximately $50 million.

To put our discussion in perspective, we take note of the economic climate that has prevailed in recent years, and how it influences our decision today. Most significantly, that climate can be described as volatile. Since the onset of these proceedings,

interest rates have fallen dramatically and inflation rates have declined. Businesses are facing continuing declines in sales, and unemployment levels are the highest they have been since the Great Depression.

We would not be realistic if we regarded today's economic conditions as permanent or as indicators of a new economic stability. Because of such economic volatility, forecasts of various economic indicators must be viewed critically. Methods used by the parties in this proceeding, while sophisticated, require the use of such forecasts. Further, all of the methods used by the participants in this proceeding require the use of judgment. As Mr. Kroman correctly pointed out, the results of mathematical calculations can vary dramatically depending on the assumptions made by the analyst. We cannot rely solely on those analyses in setting SoCal's return on equity.

Instead, we have considered the changes which have taken place since SoCal's last general rate case, in which we authorized a 14.6% return on equity. We have examined the factors which parties argue might justify a higher return on equity.

SoCal emphasized during the proceedings that its risk has increased during the last two years. We first address the elements of risk that SoCal offers as justification for its requested return on equity:

1. SoCal cites the $35 million disallowance for gas costs in a proceeding which is now the subject of rehearing. We remind SoCal that it is nothing new for the Commission to disallow expenses that a utility imprudently incurred. Further, the risk asssociated with such disallowances is one which should be borne by the stockholders, not by ratepayers.

2. SoCal cites as a risk the percentage of expenses required for gas purchases. However, SoCal acknowledges that 85% of its expenses are recoverable in full through balancing accounts. A number of regulatory mechanisms facilitate the timely recovery of prudently incurred expenses.

3. SoCal cites Commission requests concerning the renegotiation of oil contracts. It is the Commission's responsibility to respond to utility actions when they may be costly to ratepayers or appear to jeopardize a utility's financial health. This type of "risk" is an accepted facet of regulation and one that SoCal is familiar with.

4. SoCal cites increased legislative activity as a risk. In 1982, the State Legislature proposed numerous bills concerning the regulation or provision of energy utility services. SoCal offers no evidence that it was harmed by this activity, or that it is likely to be harmed by upcoming legislation. We will not consider this factor in setting return on equity.

5. SoCal cites risk due to a customer base that is over 50% nonresidential. SoCal has previously called attention to this factor, but provided no evidence of a significant shift in its customer makeup. The industrial fuels market may be tenuous because of the potential for fuel switching. However, this factor would not lead to increased utility risk unless we abandoned our policy of setting industrial rates so as to discourage fuel switching. We have made no such change.

Thus, we do not agree that these considerations proposed by SoCal have increased its risk since its last general rate case. However, other factors deserve discussion here.

First, we note that the general state of the economy affects SoCal's financial position because it partly determines SoCal's cost of debt, its ability to attract capital, and its risk related to inflation. As we discussed earlier, we have no reason to believe that the nation's economy will produce more uncertainty for SoCal in 1983 than it did in 1981 and 1982.

Second, the financial community's perception of the investment potential of public utilities affects SoCal because it influences the utility's ability to attract capital. In SoCal's last rate case, we noted the investment community's increasing confidence in public utilities. Since that time, the situation has

actually improved for SoCal. The record in this proceeding includes Standard and Poor's flattering assessment of SoCal's financial situation:

> "... (T)he markets of this utility, the largest natural gas distributor in the United States, are exceptionally healthy and well-diversified with regard to customer base. Moreover, the operating costs are well controlled and customer rates are relatively low, enhancing a strong competitive position. Gas supply is satisfactory, and the long term outlook is bolstered by affiliates' programs to add supplemental sources.
>
> "Aided by rate relief, pretax coverage of interest charges has rebounded to cover 3X, and a maintenance of satisfactory levels is likely in the period ahead, projected capital outlays for the utility are relatively heavy through 1983. Nevertheless, continued timely and constructive regulation by the California Public Utilities Commission should make external funding needs fully manageable. Moreover, business risks are very low relative to others in the industry and continued use of regulatory adjustment procedures established by the CPUC place the company in a position to maintain consistent respectable measures of credit strength over the long term."

In March of this year, Moody's cited SoCal's attrition allowance and CAM as "the best regulation for a natural gas distributor in the country."

In addition, we have assessed SoCal's performance since its last general rate case, and conclude that SoCal is a very healthy utility. We note that Standard and Poor's has increased SoCal's bond rating two steps, from A to AA-. In 1981, the company's recorded after tax times interest coverage was 2.62, significantly higher than the 2.41 authorized by its last rate case. Earnings per share have increased 13.59% in the past five years. These examples point to the utility's overall condition of health under its presently authorized return on equity of 14.6%.

Even assuming SoCal's risks have increased in some areas, they have been reduced in others. In SoCal's last general rate case, this Commission cited elements of risk which it considered when it set SoCal's return on equity. A number of those risks have been reduced:

1. The risks of seeking new gas supplies. As a result of federal deregulation, natural gas is in abundant supply, as SoCal witness Abram testified in this proceeding.

2. The level of conservation programs we expected SoCal to undertake in the test year 1981. We note that SoCal's conservation programs are relatively well-established since its last rate case. The level of funding SoCal requires for its upcoming conservation efforts, and which is not included in balancing accounts, has decreased markedly since its last general rate case. Further, SoCal is no longer at risk for its conservation incentive.

3. The bond rating of SoCal. As discussed above, SoCal's bond rating has improved since its last general rate case.

These elements of risk which led us to adopt a 14.6% return on equity two years ago have been reduced.

The return on equity we adopt today should provide SoCal with an opportunity to attract capital at reasonable rates and should compare with return on investments having similar risks. In making our determination, we have also considered the increased cost of embedded debt. We also recognize that the interests of ratepayers and shareholders alike are served if SoCal is able to maintain its financial integrity. SoCal's authorized return on equity should allow it to maintain adequate times interest coverage, and its favorable bond rating which reduces financing costs.

Our conclusion on this matter considers not only the financial position of SoCal's shareholders, but that of its ratepayers who must bear the dramatically higher costs of energy resulting from inflation, high capital costs, and federal deregulation.

Based on our review of the record and our consideration of these arguments, we find the recommendations for return on equity by all of the parties to this proceeding to be too high. Accordingly, we adopt a return on equity of 15.75% for 1983, providing a 12.9% return on rate base. This level is reasonable and will enable SoCal to attract the necessary capital to provide reasonable service at reasonable rates.

1. Uncollectible Expense

Hamamoto proposed reducing SoCal's estimate of its uncollectible expenses from $7,117,000 to $5,032,800. His uncollectible estimate is premised on taking SoCal's average systemwide uncollectible rate for 1980 and 1981 and applying that average rate to projected 1983 estimated systemwide sales.

SoCal argued that 99% of the total uncollectible expense is due to residential and commercial customers, therefore, it is incorrect to use systemwide figures which include steam-electric plants sales.

Also, SoCal pointed out that the 1981 figures used by Hamamoto did not reflect a pass through of $335,000,000 in supplier refunds. We agree with SoCal that recognition of these refunds is appropriate and should be included in the calculation.

SoCal's uncollectible rate based on 1980 high priority temperature adjusted sales is .480. SoCal used .490 in this proceeding to recognize the effect of higher bills.

SoCal further notes its uncollectible current write-off percentage, .4870, closely approximates the .4900 rate included in this proceeding. Accordingly, we will adopt the SoCal figure.

2. Employee Additions

Staff witness Hamamoto proposed a total adjustment of $4,000,000 to the expense estimates of Radcliffe and Ballew related to employee additions in the Customer Account area. Staff argued that employee growth should basically track customer growth (estimated to be 1.8% per year). In addition, staff assumed an increase in employees in 1982 substantially greater than customer growth (approximately 8.6% employee growth).

Also, staff developed a per-employee dollar amount by dividing SoCal's projected 1983 expenses for EDP and non-EDP operations by the projected number of employees in each of those categories. Staff then subtracted the appropriate amount for each employee dropped. EDP expenses were reduced $80,503 each for 19 employees, or a total of $1,529,500. Hamamoto reduced non-EDP expenses by $40,763 for each of 61 employees, a total of $2,486,500.

SoCal argued that the methodology used by Hamamoto excludes consideration of new employee requirements which are not directly related to customer growth. Thus, according to SoCal, on the non-EDP side Hamamoto had excluded expenses needed by SoCal in 1983 for its Appliance Data Survey, Level Pay Plan, Energy Assistance Program, and Expanded Telephone Services. SoCal further claims that Hamamoto ignored requirements of $500,000 to test hand-held meter devices and $250,000 for a customer relations training program. Finally, on the non-EDP side, SoCal submits Hamamoto has failed to recognize a several hundred thousand dollar requirement for (a) brochures and bill inserts needed to implement the termination of service requirements of OII 49 and (b) a third-party notification procedure as specified in OII 49.

With regard to EDP expenses, SoCal argued that Hamamoto ignored the $2,788,000 in Account 903 for expansion of existing programs and with new programs. According to SoCal, the extraordinary items unrelated to customer growth are: added requirements attributable to the increased complexity of rate design, increased requirements in handling supplier refunds, report card billings, payment assistance programs, requirements under OII 49, and lifeline allowance audits. SoCal noted Hamamoto ignored the increased employees needed to handle added emergency and safety matters, improvements in operating efficiencies, and increased requirements in historical data file maintenance.

We agree with staff that the growth in the work force needed to perform Customer Account functions should be related to customer growth. While SoCal has correctly pointed out that program work related to new accounts must also be added, it is also reasonable to expect that the company will adapt efficiently to new programs. Furthermore, the staff has provided a reasonable additional cushion by assuming a level of 1982 employee growth which substantially exceeds that which would be projected solely in terms of the assumed rate of customer growth. Accordingly, we will adopt the reduction proposed by staff.

3. Postage

SoCal included a projected increase of $2,461,000 in postage rates in its estimate of postage expenses. The staff estimate is based on existing rates.

SoCal argued that such an approach is unjustified and unreasonable. SoCal notes it lost nearly $1,000,000 in 1981 because in its last general rate case the Commission would not recognize the probability of a postage increase. SoCal submitted that such a situation should not be allowed to occur again and requested that a deferred or balancing account mechanism be authorized for postage increases.

We are generally opposed to a balancing account for postage because it would remove an incentive for SoCal to control this expenditure. There is no indication of any postal rate increase in the offing. The attrition allowance for 1984 should provide relief to SoCal if there is a postal rate increase. Accordingly, SoCal's request for a balancing account to accommodate postal rate increases is denied.

SoCal argued that Account 920 contained these auditing expenses only through 1980. SoCal submits that inspection of the 1980 and 1981 numbers supports its position. Recorded numbers in Account 920 are $6,120,000 in 1979 and $6,669,000 in 1980. Expenses estimated for years 1981, 1982, and 1983 are $6,741,000, $7,657,000, and $9,671,000, respectively.

In its comments, SoCal failed to address adequately the point raised by the staff: namely, that the company is requesting a budget level which would reflect a better than 45% increase from 1980 to 1983 in an account which now supports fewer activities than it did in 1980. Under the circumstances, staff found this level of budget growth peculiar. SoCal's only explanation for the surprisingly large increase is that the growth level was inordinately low in 1981 (the first year in which internal auditing expenses were no longer reflected in this account). It does appear that the small 1981 expense increase is a product of the accounting shift. However, such a shift would not appear to require an "overcorrection" by assuming a much larger expense increase in 1982 and 1983. In fact, if the transitional year of 1981 was imputed to be a year of expense growth similar to 1980, the staff disallowance would still provide for over 9% annual expense growth from 1980 to 1983. Therefore, we find the staff disallowance to be reasonable.

2. Account 921 - Office Supplies and Expenses

The staff eliminated $3,100 for donations provided to Town Hall and the American Association of Blacks in Energy. Our treatment of dues, donations, and contributions is discussed under the Account 930 arguments. We will delete this amount from Account 921.

3. Account 922 - Administrative Expense Transfer

Account 922 is a credit account where a percentage of the expenses included in Accounts 920 and 921 are transferred to construction costs or to nonutility accounts. Thus, under normal conditions, the credit figure in Account 922 will increase or decrease in direction relation to increases or decreases to the sum of Accounts 920 and 921.

The adopted results for Account 922 will reflect the ratio used by SoCal, a credit equal to 3.43% of Accounts 920 and 921.

4. Account 924 - Property Insurance

The staff estimate is $22,800 lower than SoCal's. The difference is due to staff using SoCal's general guideline inflation rate in SoCal's Functional Account 9934.4. SoCal introduced Exhibit 71 to further explain the methodology used. However, the exhibit does not demonstrate why the guideline inflation rate was not used in Functional Account 9934.4. Accordingly, we will adopt the staff estimate adjusted to reflect the plant-in-service.

According to SoCal witness Garner, the AGA provides a forum for SoCal and its employees to keep abreast of the latest thinking by the foremost industrial, professional, and technical experts involved in the natural gas industry. This relationship, Garner notes, led to an untold number of economies. Appendix 1 to Exhibit 140 lists some of the benefits SoCal believes have accrued to its ratepayers through AGA membership.

SoCal argued that if it were to discontinue its participation in this association, there would be substantial additional expense requirements to fill the void. The services and benefits flowing from AGA, Garner submitted, could not possibly be duplicated for the same cost. These benefits, Garner concluded, ultimately flow through to the ratepayer.

We are not convinced by SoCal's argument. As we see it, AGA is an association whose primary purpose is to promote the gas industry and the interests of its stockholders. Benefit flow-through to the ratepayer is incidental. Accordingly, we will adopt staff's recommendation.

b. Other Dues

The staff estimate is $114,000 lower than SoCal's. Staff stated that virtually all dues and donations excluded in prior rate cases were not included in this test year estimate. According to staff, SoCal has increased the number of organizations to which it contributes since the last rate case. Also, staff argued that donations to some of these organizations, such as ethnic, taxpayer, and environmental balance organizations, should not be billed to the ratepayers.

Staff cited Pacific Telephone and Telegraph Co. v Public Util. Comm'n 62 Cal 2d 634, in which the California Supreme Court upheld disallowances of dues to charitable and cultural organizations. Staff generated an internal position paper drawing the same conclusion (Exhibit 99). That paper recognizes that dues and fees to trade, technical, and professional associations are appropriate.

SoCal argued that staff based its recommendation for disallowance merely on the name of the organization and made no separate investigation regarding the entities disallowed. SoCal argued that evidence it provided shows that the organizations are not in the categories deemed by the Supreme Court and the staff to be inappropriate.

We recognize that ratepayers may derive some indirect benefit from SoCal's contributions to professional and technical associations which are directly related to SoCal's utility business. Such contributions would be reasonable for ratesetting purposes. However, ratepayers should not be charged for SoCal's contributions to organizations serving purposes only remotely related to SoCal's business. Nor should ratepayers be asked to pay through rates for contributions which would be within the discretion of private individuals.

The record in this proceeding does not allow us to make a determination of the potential ratepayer benefits to be derived from various proposed dues and donations. SoCal, not the staff, bears the responsibility to demonstrate that its proposed expenses are reasonable. SoCal failed to demonstrate that the expenses associated with Accounts 920 and 930 were reasonable. Therefore, we will not allow them to be reflected in rates.

I. Rate Base and Depreciation Expense

1. Overview

SoCal and staff agree on the gas plant in service amounts except for the difference related to inflation assumptions. SoCal's estimated weighted average gas plant in service amounts to $2,161,603,000 for SoCal and $389,735,000 for PLGS. The corresponding staff estimates are $2,148,394,000 and $391,745,000 for SoCal and PLGS, respectively.

B. Discount Rates:
Nonanalytical Approach

SoCal estimated all present value savings and costs by using a uniform 10% discount rate. That rate was developed using judgment rather than detailed analytical methods. Staff, on the other hand, urged that a different rate be applied to each customer class, based on the decision making criteria of each class. Staff cited the example of industrial customers who expect three-year paybacks suggesting a 30% discount rate. SoCal and staff, in SoCal's next rate case proceeding. should more carefully analyze the appropriateness of their positions. We hesitate, at this time, to test the expenditure of money collected from all ratepayers under discount rates attributable to only a portion of those ratepayers.

Energy Efficiency Audits

SoCal proposed a funding level of $9,180,800 for its Energy Efficiency program. This program provides a variety of auditing services for commercial and industrial customers.

Legal staff recommended deleting certain activities within the program which had low cost-effectiveness results. Omission of those activities, staff argued, would enhance the program's cost-effectiveness. The program elements legal staff would disallow are: Professional Communications, Deliming Services, Energy Management Analyses, Merit Awards and Seminars, and Gas Conservation Analyses.

We will adopt Legal Division staff's recommendations with the exception of the proposed Gas COnservation Analyses. We consider that this program element fulfills an important function, and will therefore retain roughly two-thirds of its budget, reducing it by $600,000. The total disallowance from the budget of the Energy Efficiency Audits program is $1,568,000.

D. Discussion

Of the 49, staff recommends deletion of only two projects: the Phase Change Energy Storage Project and the Hydrogen Generation Techniques Project. We agree with staff that benefits to ratepayers from these two programs are too remote.

Staff recommended that funding for seven of the 49 projects be reduced by two-thirds and that SoCal should use the remaining one-third to coordinate its efforts with GRI. We disagree. Staff's own testimony points out weaknesses in these seven projects which undercut justification for funding at any level.

Further, the evidence does not support staff's recommendation to cut funding by two-thirds "across-the-board". We also note that GRI's budget has increased substantially in recent years. The cost of gas to SoCal, and all other gas distributors that are members of GRI includes a share for GRI. Taking all these factors into consideration, it is reasonable to reduce SoCal's requested 1983 RD&D budget from $9,885,000 to $8,225,000, including overheads. The adopted RD&D budget represents an increase of 8.4% from SoCal's adopted 1981 budget. Much of the decrease in SoCal's constant dollar RD&D budget results from the elimination of programs which would more appropriately be conducted by GRI. We feel this strikes an appropriate balance between utility-specific and industry-wide RD&D. We invite SoCal to propose reasonable RD&D increases in its next rate case proceeding, consistent with the RD&D guidelines we adopted on December 1, 1982 in D-82-12-005, in OII 82-08-01. These guidelines include consideration of whether an individual utility is the most appropriate institution to perform a proposed RD&D project.

5. Adopted Escalation Rate - Nonlabor

Escalation rates are used to estimate future utility costs. In this proceeding, staff recommended 9.3% for 1981, 7% for 1982, and 9.4% for 1983. SoCal recommended 15% for all three years.

Since the time staff and SoCal presented their testimony on this matter, estimated inflation rates for 1982 and 1983 have declined significantly. The recommendations of the parties, therefore, should not be adopted.

During the proceedings, the parties expressed their common view that adopted escalation rates should reflect most current expectations (see, for instance, Tr., Vol. 4, page 216). We agree, and, accordingly, will adopt escalation rates of 2.7% and 5.30% for 1982 and 1983, respectively. These estimates are based on the November DRI CONTROL forecast. We believe the use of this forecast is reasonable for purposes of setting escalation rates, since the use of that forecast is what SoCal recommended, and what we have adopted for establishing the attrition year adjustment.

SoCal

5. Account 823 - Gas Losses

SoCal included an expense of $2,056,000 in test year 1983 for gas losses occurring at certain storage fields. This includes a two-year amortization of pre-1983 gas losses net of income taxes and a gross loss in 1983 of $984,000. These losses can be divided into four categories:

(1) Surface Leakage - losses from the well head and field pipe fittings (normal operation);

(2) Incidents - losses from leaks in well casings and related assembly;

(3) Plant Blowdowns - the evacuation of gas from the storage field piping for maintenance activities; and

(4) Migration - the subsurface movement of gas outside the storage field.

Staff allowed for estimated 1983 gas losses in all of the above categories. Staff also allowed pre-1983 migration gas losses in the amount of $796,000 at the East Whittier Storage Field. However, because SoCal filed workpapers on La Goleta Field migration losses late, Staff recommended the deferral of the consideration of such losses, approximately 2 Bcf, to SoCal's next general rate case.

Staff's treatment of pre-1983 gas losses was explained by Staff witness Ferraro. He argued that SoCal was aware that losses due to surface leakage, incidents and plant blowdowns were occurring but made no effort to estimate these losses. As a result, Staff urges, SoCal should bear the consequences of its lack of diligence. Staff made an exception for migration losses because these losses are often caused by catastrophic or uncontrollable events, hence, are not foreseeable and not subject to reasonable estimation.

The City of San Diego took the position that only gross gas losses occurring in 1983 should be allowed. Counsel for San Diego argued that inclusion of pre-1983 losses in test year 1983 rates would breach the rule against retroactive ratemaking.

We will adopt SoCal's estimate for 1983 gas losses totalling $984,000. We will not, however allow rate relief for estimated pre-1983 losses. SoCal acknowledges that it was not until the late 1970's that it undertook a study to determine the extent of its operational gas losses and that the results of that study were only recently available. We will not take steps now to make the company whole for losses it failed to discover at an earlier date. We agree with Staff that while SoCal should rely on prospective estimates for surface leakage, incidents and plant blowdowns for ratesetting purposes, migration losses are not as predictable. For the future, SoCal will be permitted to accrue expenses, net of income taxes, for migration gas losses in a deferred account designated as "Account 823.1 Migration Gas Losses". These expenses should be included in the next general rate case following their accrual.

Staff witness Ferraro also recommended that because of the large gas losses at the East Whittier Storage Field, SoCal should undertake a study to determine whether that field should be removed from operation. SoCal witness Brady agreed to expand SoCal's current study of that facility. Staff recommended that SoCal be required to report its findings in its test year 1985 rate filing. We agree.

b. Other Items

As discussed above, we will adopt staff's recommendation regarding phasing the 1-2-4 program.

We will not grant SoCal's request to amortize $405,000 in 1982 leak repair costs in the test year.

Staff and SoCal are generally in agreement regarding the costs of compliance with proposed Federal Damage Regulations. SoCal accepted staff's estimate of $1,930,000 for this item.

We note that funding requests by the company and by staff for implementing additional federal regulations should be considered in light of the federal administration's stated goal of reducing such regulation. Although regulation may be increasing in some areas, it may be decreasing in others. If it is, ratepayers should benefit from a reduced regulatory burden. We expect staff and SoCal to address this matter in SoCal's next general rate case.

Regarding the $1,044,000, which is due to different estimates of the number of leaks to be repaired, SoCal states that the significant increase in leaks is due to use of new leak detection equipment which is more sensitive. According, to SoCal, the backlog in 1980 of Code III nonhazardous leaks increased to 17,840. Now SoCal wants to decrease the backlog to between 5,000 to 7,000. We will adopt SoCal's estimate for this item.

In summary, SoCal's estimate for Account 892 should be reduced by $4,305,000.